BOOK 1

PROFESSIONAL SERVICES AGREEMENT – PS1913
BETWEEN
PUBLIC BUILDING COMMISSION OF CHICAGO
AND
NATURAL RESOURCE TECHNOLOGY, INC.
FOR

IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES
415 – 423 EAST 79TH STREET
PROJECT #08070

PUBLIC BUILDING COMMISSION OF CHICAGO

Mayor Rahm Emanuel
Chairman

Erin Lavin Cabonargi
Executive Director

Room 200
Richard J. Daley Center
50 West Washington Street
Chicago, Illinois 60602
312-744-3090
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CNL PBC ROC PS1913 20130213

REC'D APR 05 2013

Public Building Commission of Chicago
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01 PBC:
02 PMO:
03 UAP:
04 PROJECT No: 08070
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Controls 02-
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Construct 05-
FFE 06-
CloseOut 07-

PUBLIC BUILDING COMMISSION OF CHICAGO
Professional Services Agreement No.PS1913
IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES

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EXECUTION PAGE

THIS AGREEMENT effective as of February 13, 2013, but actually executed on the date witnessed, is entered into by and between the Public Building Commission of Chicago, a municipal corporation of the State of Illinois, having its principal office at Room 200, Richard J. Daley Center, 50 West Washington Street, Chicago, Illinois 60602, (the **"Commission"**), and Natural Resource Technology with offices at 300 South Wacker Drive, Suite 2050, Chicago, Illinois 60606 (the **"Contractor"**).

Background Information – Recitals:

WHEREAS, **The Commission** on behalf of the City of Chicago (referred to in this Agreement as the **"User Agency"**), intends to undertake the in-situ chemical oxidation and soil remediation services of 415 - 423 East 79th Street in Chicago, Illinois based on the scope in Schedule A attached to this Agreement (the **"Project"**).

WHEREAS, the Commission requires certain professional services described in the Agreement, in connection with the Project and desires to retain the Contractor on the terms and conditions set forth in the Agreement to perform such Services. The Contractor desires to be so retained by the Commission and has represented to the Commission that the Contractor has the knowledge, skill, experience and other resources necessary to perform the Services in the manner provided by the Agreement.

WHEREAS, the Contractor has consulted with the Commission and the User Agency, made site inspections, and taken such other actions as the Contractor deemed necessary or advisable to make itself fully acquainted with the scope and requirements of the Project and the Services. The Contractor represents that it is qualified and competent by education, training and experience necessary to complete the Project in accordance with standards of reasonable professional skill and diligence.

WHEREAS, the Commission has relied upon the Contractor's representations in selecting the Contractor.

WHEREAS, the Commission desires to incorporate the Exhibits, which are attached hereto, into this Agreement:

NOW THEREFORE, in consideration of the agreements, covenants, representations, warranties, obligations and privileges set forth in the Contract, and intending to be legally bound thereby, Commission and the Contractor, agree as follows:

(Signature Page Follows)

NOW THEREFORE, the duly authorized representatives of the parties have executed this Agreement

PUBLIC BUILDING COMMISSION OF CHICAGO

Rahm Emanuel
Chairman

Date: _____

ATTEST:

_____
Secretary

Date: 4/4/13

Contractor: NATURAL RESOURCE TECHNOLOGY, INC.

Laurie J. Parsons

Date: 2/28/2013

AFFIX CORPORATE
SEAL, IF ANY, HERE

County of: Waukesha

State of: Wisconsin

Subscribed and sworn to before me by Laurie J. Parsons and _____

on behalf of Contractor this 28 day of 2, 20 13.

_____
Notary Public

Commission expires 1/24/2014

My Commission expires:

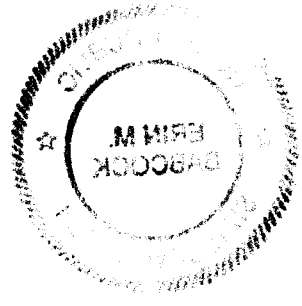
(SEAL OF NOTARY)

NOTARY PUBLIC ERIN M. BABCOCK STATE OF WISCONSIN

Approved as to form and legality:

Jeanette Lubett
Neal & Leroy, LLC

Date: 3/13/13


BRIN M.
BABCOCK

FORM OF AGREEMENT - STANDARD TERMS AND CONDITIONS

(1) DEFINITIONS AND USAGE

1. **Recitals.** The Recitals set forth on the Execution Page of this Agreement are hereby incorporated herein by reference.

2. **Definitions**. The herein words and phrases have the following meanings for purposes of this Agreement.

a. **Agreement** means this Professional Services Agreement for In-Situ Chemical Oxidation and Soil Remediation Services, including all schedules, exhibits or documents attached hereto and/or incorporated by reference herein, and all amendments made in accordance with the terms hereof.

b. **Commission** means the Public Building Commission of Chicago, a municipal corporation organized under the Public Building Commission Act of the State of Illinois, as amended, or its duly authorized officers or employees.

c. **Contractor** means the company or other entity identified in this Agreement, and such successors or assigns, if any, as may be authorized to perform the Services required by the terms and conditions of this Agreement.

d. **CW System** or **CW** means the on-line collaboration workspace and document management system established and maintained by the Commission for electronic submission and receipt of documents and reports.

e. **Deliverables** means the documents, in any format (electronic or hard copy) requested by the Commission, including without limitation drawings, plans, reports, forms, recommendations, and analyses, that the Contractor is required under this Agreement to provide to the Commission.

f. **Executive Director** means the person employed by the Commission as its Executive Director or the duly authorized representative thereof.

g. **Key Personnel** means those job titles and persons as identified in such positions in Schedule E of this Agreement.

h. **Services or Work** means collectively, the duties, responsibilities and tasks that are necessary in order for the Contractor to provide the Scope of Services required by the Commission under Schedule B of this Agreement.

i. **Sub-Contractor or Subcontractor** means a partnership, firm, corporation or entity other than the Contractor that furnishes labor, materials and/or equipment to the Contractor related to the performance of the Work, Services and/or improvement of the Project.

(2) Incorporation of Documents.

1. **MBE/WBE Ordinance.** The United States Department of Environmental Protection Agency (USEPA) has negotiated with the Illinois Environmental Protection Agency and established fair share objectives/goals, which provide the 5% of the total USEPA financial assistance is awarded to minority business enterprises ("MBE") and 12% of the total USEPS financial assistance is awarded to women business enterprises ("WBE"). The Contractor shall award 5% of all Commission Contracts to MBEs and 25% of all Commission Contracts to WBEs. By executing this Agreement, Contractor acknowledges and agrees that Contractor is familiar with the contents of Attachment E – Special Conditions Regarding the

Environmental Disadvantaged Business Program for Professional Service Contract and will comply fully with all applicable portions thereof in performing the Services.

2. **Ethics Resolution.** The Contractor has read and agrees to comply with all provisions of the Code of Ethics Resolution passed by the Commission on October 3, 2011, which is available on the Commission's website at http://www.pbcchicago.com/pdf/RES_PBC_ECR_CodeofEthicsAmendOct32011_20110920.pdf, and is incorporated into this Agreement by reference.

3. **PBC Inspector General.** The Contractor agrees to cooperate fully and expeditiously with the PBC's Inspector General in all investigations and audits. The Contractor agrees to provide all documents, data, files and other information and access to all witnesses specified by the PBC Inspector General. This obligation applies to all officers, directors, agents, partners, and employees of the Contractor. The Contractor agrees to insert this provision in any subcontracts that it awards.

(3) **Engagement and Standards for Performing Services.**

1. **Engagement**. The Commission hereby engages the Contractor, and the Contractor hereby accepts such engagement, to provide the Services described in this Agreement, as the same may be amended, in writing, from time to time by mutual agreement of the Commission and the Contractor.

2. **Performance Standard**. The Contractor represents and agrees that the Services performed under this Agreement will proceed with efficiency, promptness and diligence and will be executed in a competent and thorough manner, in accordance with reasonable professional standards in the field consistent with that degree of skill and care ordinarily exercised by practicing consulting professionals performing services of a scope, purpose, and magnitude comparable with the Services to be provided under this Agreement. If in the course of performing the Services, Contractor identifies any condition, situation, issue or problem that may impact the performance of the Services or the Project, Contractor shall promptly provide notice to the Commission.

3. **Contractor's Personnel**. The Contractor agrees that it will assign at all times during the term of the Agreement the number of experienced, appropriately trained employees necessary for the Contractor to perform the Services in the manner required by this Agreement. Contractor must not reassign or replace Key Personnel without the written consent of the Commission. Contractor must ensure that all Services and Deliverables that require the exercise of professional skills or judgment are accomplished by professionals qualified and competent in the applicable discipline and appropriately licensed, if required by law. Contractor must maintain current copies of any such licenses and provide such copies, upon request, to the Commission. Contractor remains responsible for the professional and technical accuracy of all Services and Deliverables furnished, whether by the Contractor or others on its behalf. Contractor must at all times use it best efforts on behalf of the Commission to assure timely and satisfactory rendering and completion of the Services. Contractor must perform all Services in accordance with the terms and conditions of this Agreement, to the reasonable satisfaction of the Commission. All Deliverables must be prepared in a format satisfactory to the Commission and delivered in a timely manner consistent with the requirements of this Agreement.

4. **Independent Contractor**. In performing the Services under this Agreement, Contractor shall at all times be an independent contractor, and does not and must not act or represent itself as an agent or employee of the Commission or the User Agency. As an independent contractor, Contractor is solely and wholly responsible for determining the means and methods for performing the Services. The Agreement will not be construed as an agreement of partnership, joint venture, or agency.

5. **Limitations on Sub-Contractors and Subcontractors**. Contractor must not use any business or individual who is disqualified by the Commission or debarred under any other governmental agency's procedures to provide the Services under the Agreement.

6. **Failure to Meet Performance Standard**. If the Contractor fails to comply with its obligations under the standards of the Agreement, the Contractor must perform again, at its own expense, all Services required to be re-performed as a direct or indirect result of that failure. Any review, approval, acceptance or payment for any of the Services by the Commission does not relieve Contractor of its responsibility to render the Services and Deliverables with the professional skill and care and technical accuracy required by the Agreement. This provision in no way limits the Commission's rights against the Contractor, either under the Agreement, at law or in equity.

7. **Changes to the Services**. The Commission may from time to time, request changes to the terms of the Agreement or the Services of the Contractor to be performed hereunder. Such changes, including any increase or decrease in the amount of compensation and revisions to the duration of the Services or timetable for Deliverables, which are mutually agreed upon by and between the Commission and Contractor, shall be incorporated in a written amendment to this Agreement or an approved change order. The Commission shall not be liable for any changes absent such written amendment or approved change order.

(4) Change Orders. The Commission reserves the right to order, in writing, changes in the Work or the schedule without prior notice to the Contractor's surety. The Contractor is obligated to perform the change Work included in the written notice from the Commission in a timely manner. The Contractor must begin the changed Work upon receipt of a Field Order signed by the Commission Representative unilaterally directing changes in the Work or schedule.

(5) Duties and Obligations of Contractor.

1. **Nondiscrimination**. The Contractor agrees that in performing this Agreement it shall not discriminate against any worker, employee or applicant for employment, or any member of the public, because of race, creed, gender, color, national origin or disability, or otherwise commit an unfair labor practice. Attention is called to applicable provisions of the Civil Rights Act of 1964, 88-352, July 2, 1964, 78 Stat. 241 et. Seq. the Americans with Disabilities Act of 1990, 42 U.S.C. 12010 et. Seq., the Age Discrimination Act, 43 U.S.C. Sec. 6101-6106 (1981); Illinois Human Rights Act 775 ILCS 5/1-101 et. Seq. and the Public Works Employment Discrimination Act 775 ILCS 10/0.0 1 through 10/20, the Chicago Human Rights Ordinance, Chapter 2-160, Section 2-160-010 et seq. of the Municipal Code (1990), as amended, and the United States Environmental Protection Agency fair share objectives/goals concerning the participation of Minority Business Enterprises and Women Business Enterprises on contracts awarded by the Commission. The Contractor will furnish such reports and information as requested by the Commission or the Illinois Department of Human Relations or any other administrative or governmental entity overseeing the enforcement, administration or compliance with the above referenced laws and regulations.

2. **Employment Procedures, Preferences and Compliances**. Salaries of employees of Contractor performing work under this Agreement shall be paid unconditionally and not less often than once a month without deduction or rebate on any account except only such payroll deductions as are mandatory or permitted by the applicable law or regulations. Attention is called to [Illinois Compiled Statutes, 1992 relating to Wages and Hours including 820 ILCS 130/0.01 through 130/12 thereof (Prevailing Wage Act), 30 ILCS 570/1 through 570/7 (Employment of Illinois Workers on Public Works Act) and 30 ILCS 560/0.01 through 560/7 (Public Works Preference Act).] The Contractor shall comply with all applicable "Anti-Kickback" laws and regulations, including the "Anti-Kickback" Act of June 13, 1934 (48 Stat. 948; 62 Stat.

740; 63 Stat. 108; 18 U.S.C. § 874; 40 U.S.C. § 276c) and the Illinois Criminal Code of 1961 720 ILCS 5/33E-1 et. seq. If, in the performance of this Agreement, there is any direct or indirect kickback, the Commission shall withhold from the Contractor, out of payments due to it, an amount sufficient to pay employees underpaid the difference between the salaries required hereby to be paid and the salaries actually paid such employees for the total number of hours worked. The amounts withheld shall be disbursed by the Commission for and on account of the Contractor to the respective employees to whom they are due.

3. **Compliance with Policies Concerning MBE and WBE.*** Without limiting the generality of the requirements of the policies of the Commission referred to in paragraph 2 above, the Contractor agrees to use best efforts to utilize minority business enterprises for not less than five percent (5%) and women business enterprises for not less than twelve percent (25%) of the value of the Services, in accordance with the Special Conditions Regarding Environmental Disadvantaged Business Program for Professional Service Contract on contracts awarded by the Commission. Contractor agrees to furnish to the Commission, reports and other information concerning compliance as may be requested by the Commission from time to time.

4. **Delays.** The Contractor agrees that no charges for damages or claims for damages shall be asserted by it against the Commission for any delays or hindrances from any cause whatsoever during the progress of any portion of the Services. Such delays or hindrances, if any, shall be compensated for by an extension of time to complete the Services, for such reasonable period as may be mutually agreed upon between the parties, it being understood, however, that the agreement of the Commission to allow the Contractor to complete the Services or any part of them after the time provided for the completion thereof herein shall in no way operate as a waiver on the part of the Commission of any of its rights hereunder.

5. **Records.** The Contractor shall maintain accurate and complete records of expenditures, costs and time incurred by Contractor in connection with the Project and the Services. Such records shall be maintained in accordance with recognized commercial accounting practices. The Commission may examine such records at Contractor's offices upon reasonable notice during normal business hours. Contractor shall retain all such records for a period of not less than five calendar years after the termination of this Agreement.

6. **CW System.** The Commission may require the Contractor to use the Commission's electronic document management system in performing the Services. At the direction of the Commission, the Contractor must follow the CW procedures and submit progress reports and other Deliverables through the CW System. The Contractor must attend courses and receive training on the CW System provided by or on behalf of the Commission. Any costs incurred by Contractor as a result of the attendance of Contractor's personnel at CW System courses are not compensable by the Commission.

7. **Time of Essence.** The Contractor acknowledges and agrees that time is of the essence in the performance of this Agreement and that timely completion of the Services is vital to the completion of the Project by the Commission. Contractor agrees to use its best efforts to expedite performance of the Services and performance of all other obligations of the Contractor under this Agreement and any other agreement entered into by the Commission which are managed or administered by the Contractor as a result of the Contractor's engagement hereunder.

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8. **Compliance with Laws.** In performing its engagement under this Agreement, the Contractor shall comply with all applicable federal, state and local laws, rules and regulations including but not limited to, those referenced in subparagraphs (a) and (b) above.

9. **Progress Meetings.** Meetings to discuss the progress of the Project and/or to review the performance of the Contractor may be scheduled upon the Commission's request, at mutually agreeable times and locations, and the Contractor agrees to cause such meetings to be attended by appropriate personnel of the Contractor engaged in performing or knowledgeable of the Services.

(6) **Term.**

1. Commencement Date of Services are subject to the provisions in this section, expires upon completion of the Services and acceptance of the Deliverables by the Commission.

2. The Commission shall have the right, at any time, to terminate the term of this Agreement, with or without cause, by written notice given to the Contractor at least thirty (30) days prior to the effective date of termination. In addition, the Commission shall have the right, at any time and from time to time, with or without cause, to suspend the performance of the Contractor hereunder with respect to all or any part of the Services, by written notice given to the Contractor at least five (5) days prior to the effective date of suspension. Termination or suspension of this Agreement shall not relieve the Contractor from liability for the performance of any obligation of the Contractor under this Agreement performed or to have been performed by the Contractor on or before the effective date of termination or suspension. Provided the Contractor is not in default under this Agreement at the time of termination or suspension, the Commission agrees to pay to the Contractor, in accordance with the terms of this Agreement, all compensation and reimbursements due to the Contractor for periods up to the effective date of termination or suspension. In no event shall the Commission be liable to the Contractor for any loss, cost or damage which the Contractor or any other party may sustain by reason of the Commission terminating or suspending this Agreement as provided herein; provided, however, that the Commission may, in its sole discretion, reimburse the Contractor for actual expenses approved by the Commission.

3. If the Project, in whole or substantial part, is stopped for a period longer than thirty (30) days under an order of any court or other governmental authority having jurisdiction of the Project, or as a result of an act of government, such as a declaration of national emergency making materials unavailable, through no act or fault of the Contractor, or if the Commission fails to make any payment or perform any other obligation hereunder, the Contractor shall have the right to terminate this Agreement, by written notice given to the Commission at least seven (7) days prior to the effective date of termination, and shall have the right to recover from the Commission all compensation and reimbursements due to the Contractor for periods up to the effective date of termination.

(7) **Compensation of Contractor; Submission of Invoices through CW.** The total amount of fees and costs to be paid by the Commission during the term of this Agreement, excluding any renewal option periods are a lump sum amount of $1,223,200.00. The Commission shall compensate the Contractor for the Services in the manner set forth in Schedule D of this Agreement. The Contractor shall submit all invoices, no more frequently than once every thirty (30) days, in electronic format using the CW System. All submitted invoices shall include a cover page as provided by the Commission. Failure to submit invoices through CW will result in delayed or non-payment to the Contractor.

(8) **Rights and Obligations of Commission.** In connection with the administration of the Project by the Commission and the performance of this Agreement by the Contractor, the Commission shall have the following rights and obligations, in addition to those provided elsewhere in this Agreement:

1. **Information**. The Commission shall provide the Contractor all reasonably requested information concerning the Commission's requirements for the Project and the Services.

2. **Review of Documents**. Subject to the provisions of subparagraph 5(d) above, the Commission agrees to make a reasonable effort to examine documents submitted by the Contractor and render decisions pertaining thereto with reasonable promptness.

3. **Site Data**. To the extent the Commission determines to be necessary for the Contractor to perform the Services, the Commission may furnish to the Contractor information concerning the nature of the Project, existing conditions and other data or reports pertaining to the site and the proposed development thereof.

4. **Tests and Reports**. The Commission may also furnish structural, civil, chemical, mechanical, soil mechanical and/or other tests and reports if determined by the Commission in its sole discretion to be necessary in order for the Contractor to perform the Services.

5. **Legal, Auditing and other Services**. The Commission shall arrange and pay for such legal, auditing, insurance counseling and other services as the Commission, in its sole discretion, may determine to be required for the Contractor to perform the Services. Such payments shall not include legal or auditing expenses arising out of or relating to any errors or omissions, or claimed errors or omissions, of Contractor.

6. **Designated Representatives**. The Commission may designate, at its sole discretion, one or more representatives authorized to act in its behalf.

7. **Ownership of Documents**. All documents, data, studies and reports prepared by the Contractor or any party engaged by the Contractor, pertaining to the Services shall be the property of the Commission, including copyrights.

8. **Audits**. The Commission shall have the right to audit the books and records of the Contractor on all subjects relating to the Services.

(9) Indemnification of Commission.

1. Professional Indemnity. For claims alleging professional negligence, the Contractor must defend, indemnify and hold the Commission and the User Agency and their respective commissioners, board members, officers, officials and employees (hereafter the Indemnified Parties) free and harmless from and against all claims, demands, suits, losses, costs and expenses, including the fees and expenses of attorneys, court costs and expert's fees, that may arise out of the Contractor's negligent acts, errors and omissions and misconduct in the Contractor's performance under this agreement or the performance of any Subcontractor retained by the Contractor in connection with this agreement.

2. General Indemnity. For all other claims, the Contractor must protect, defend, indemnify, hold the Commission and the User Agency and their respective commissioners, board members, officers, officials and employees (hereafter the Indemnified Parties) free and harmless from and against all claims, demands, suits, losses, costs and expenses, including the fees and expenses of attorneys, court costs and expert's fees, that may arise out of or be based on any injury to persons or property that is, or is claimed to be, the result of the Contractor's performance under this agreement or any Subcontractor retained by the Contractor in connection with this agreement.

3. The indemnification obligations provided in this Article IX will be effective to the maximum extent permitted by law. This indemnity extends to all legal costs, including, without limitation: attorney fees, costs, liens, judgments, settlements, penalties, professional fees or other expenses incurred by the Indemnified Party(ies), including but not limited to reasonable settlement of such claims. This indemnification is not limited by any amount of insurance required under this Contract. Further, the indemnity contained in this section will survive the expiration or termination of this Contract. For claims subject to the general indemnity, the Contractor shall be solely responsible for the defense of any and all claims, demands, or suits against the Indemnified Parties, including without limitation, claims by an employee, subcontractor, agents or servants of the Contractor even though the claimant may allege that the Indemnified Parties were in charge of the Services or allege negligence on the part of the Indemnified Parties. The Indemnified Party/Parties will have the right, at its sole option, to participate in the defense of any such suit, without relieving the Contractor of its obligations hereunder.

4. To the extent permissible by law, the Contractor waives any limits to the amount of its obligations to indemnify or contribute to any sums due pursuant to Contractor's obligations. Notwithstanding the forgoing, nothing in this Article IX obligates the Contractor to indemnify an Indemnified Party for the Indemnified Party's own negligence or willful misconduct. Defense costs shall be allocated on a comparable fault basis.

(10) Insurance to be Maintained by Contractor. The Contractor shall purchase and maintain at all times during the performance of Services hereunder, for the benefit of the Commission, the User Agency and the Contractor, insurance coverage as set forth in Exhibit 4.

(11) Default.

1. **Events of Default**. Any one or more of the following occurrences shall constitute an Event of Default under this Agreement:

i. Failure or refusal on the part of the Contractor duly to observe or perform any obligation or Agreement on the part of the Contractor contained in this Agreement, which failure or refusal continues for a period of ten (10) days (or such longer period as the Commission, in its sole discretion, may determine if such failure is not capable of being cured within such ten (10) day period) after the date on which written notice thereof shall have been give to the Contractor by the Commission;

ii. Failure of Contractor to perform the Services to the standard of performance set forth in this Agreement;

iii. Any representation or warranty of the Contractor set forth herein or otherwise delivered pursuant to this Agreement shall have been false in any material respect when so made or furnished;

iv. The Contractor becomes insolvent or ceases doing business as a going concern, or makes an assignment for the benefit of creditors, or generally fails to pay, or admits in writing its inability to pay, its debts as they become due, or files a voluntary petition in bankruptcy, or is adjudicated a bankrupt or an insolvent, or files a petition seeking for itself any reorganization, arrangement, composition, readjustment, liquidation, dissolution, or similar arrangement under any present or future statute, law or regulation relating to bankruptcy or insolvency, or files an answer admitting the material allegations of a petition filed against it in any such proceeding, or applies for, consents to or acquiesces in the appointment of a trustee, receiver, liquidator or other custodian of

it or of all or any substantial part of its assets or properties, or if it or its principals shall take any action in furtherance of any of the foregoing; or

v. There shall be commenced any proceeding against the Contractor seeking reorganization, arrangement, readjustment, liquidation, dissolution or similar relief under any present or future statute, law or regulation relating to bankruptcy which is not vacated, stayed, discharged, bonded or dismissed within sixty (60) days thereof, or there shall be appointed, without the Contractor's consent or acquiescence, any trustee, receiver, liquidator or other custodian of Custodian or of all or any substantial part of the Contractor's assets and properties, and such appointment shall not have been vacated, stayed, discharged, bonded or otherwise dismissed within sixty (60) days thereof.

2. **Remedies**. If an Event of Default shall occur and be continuing, then the Commission may exercise any right, power or remedy permitted to it by law or in equity and shall have, in particular, without limiting the generality of the foregoing, the right to terminate this Agreement upon written notice to the Contractor, in which event the Commission shall have no further obligations hereunder or liability to the Contractor except as to payment for Services actually received and accepted by the Commission through the effective date of termination. No course of dealing on the part of the Commission or delay or failure on the part of the Commission to exercise any right shall operate as a waiver of such right or otherwise prejudice the Commission's rights, powers or remedies.

3. **Remedies not Exclusive**. No right or remedy herein conferred upon or reserved to the Commission is exclusive of any right or remedy herein or by law or equity provided or permitted, but each shall be cumulative of every other right or remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise, and may be enforced concurrently therewith or from time to time.

(12) Confidentiality. All of the reports, information, or data prepared or assembled by the Contractor under this Agreement are confidential, and the Contractor agrees that such reports, information or data shall not be made available to any party without the prior written approval of the Commission. In addition, the Contractor shall not, without the prior written consent of the Commission, prepare or distribute any news releases, articles, brochures, advertisements or other materials concerning this Agreement, the Project or any of the Services. Contractor acknowledges that it is entrusted with or has access to valuable and confidential information and records of the Commission and User Agency. Contractor must at all times act in the best interests of the Commission and User Agency consistent with the professional obligations assumed by Contractor in entering into this Agreement. Contractor promises to cooperate with the officials, employees and agents of the Commission and User Agency in furthering the Commission's and User Agency's interests.

(13) Assignment. The Contractor acknowledges that the Commission is induced to enter into this Agreement by the personal qualifications of the principals, staff and employees of the Contractor and agrees, therefore, that neither this Agreement nor any right or obligation hereunder may be assigned by the Contractor, in whole or in part, without the prior written approval of the Commission. The Commission expressly reserves the right to assign or otherwise transfer all or any part of its interests hereunder without the consent or approval of the Contractor.

(14) Personnel. The Contractor further acknowledges that the Contractor has represented to the Commission the availability of certain members of the Contractor's staff who will be assigned to the Project, and agrees, therefore, that in the event of the unavailability of such members, the Contractor shall so notify the Commission in writing, and, upon the approval of the Executive Director, shall assign other qualified members of the Contractor's staff, to the Project.

(15) **Relationship of Parties.** The relationship of the Contractor to the Commission hereunder is that of an independent contractor, and the Contractor, except to the extent expressly provided to the contrary in this Agreement, shall have no right or authority to make contracts or commitments for or on behalf of the Commission, to sign or endorse on behalf of the Commission any instruments of any nature or to enter into any obligation binding upon the Commission. This Agreement shall not be construed as an Agreement of partnership, joint venture, or agency.

(16) **Miscellaneous.**

1. **Counterparts**. This Agreement may be executed in any number of counterparts, any of which shall be deemed an original.

2. **Entire Agreement**. This Agreement constitutes the entire understanding and Agreement between the parties hereto and supersedes any and all prior or contemporaneous oral or written representations or communications with respect to the subject matter hereof, all of which communications are merged herein. This Agreement shall not be modified, amended or in any way altered except by an instrument in writing signed by both of the parties hereto.

3. **Force Majeure**. Neither of the parties shall be liable to the other for any delay or failure in performance hereunder due to causes which are beyond the control of the party unable to perform. If a force majeure occurs, the party delayed or unable to perform shall give prompt notice to the other party, and the Commission may, at any time during the continuation of the force majeure event, elect to suspend the performance of the Contractor under this Agreement for the duration of the force majeure. The Commission shall not be obligated to pay for Services to the extent and for the duration that performance thereof is delayed or prevented by force majeure, but, provided the Contractor is not in default of any obligation of the Contractor hereunder, the Commission shall pay to the Contractor, according to the terms hereof, all compensation and reimbursements due to the Contractor for periods up to the effective date of suspension.

4. **Governing Law**. This Agreement has been negotiated and executed in the State of Illinois and shall be construed under and in accordance with the internal laws of the State of Illinois.

5. **No Waiver**. The waiver by either party of any breach of this Agreement shall not constitute a waiver as to any succeeding breach.

6. **Notices**. All notices required to be given hereunder shall be given in writing and shall be hand delivered or sent by United States certified or registered mail, postage prepaid, addressed to Commission and to the Contractor at their respective addresses set forth above. If given as herein provided, such notice shall be deemed to have been given on the date of delivery, if delivered by hand, and on the second business day after mailing, if given by mail. The Commission or the Contractor may, from time to time, change the address to which notices hereunder shall be sent by giving notice to the other party in the manner provided in this subparagraph.

7. **Severability**. In the event that any provisions of this Agreement shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

8. **Successors and Assigns**. Except as otherwise provided herein, this Agreement shall be binding upon and inure to the benefit of each of the parties hereto and their respective successors and assigns.

9. **Contractor's Authority.** Execution of this Agreement by the Contractor is authorized by a resolution of its Board of Directors, if a corporation, or similar governing document if a partnership or a joint venture, and the signatures(s) of each person signing on behalf of the Contractor have been made with complete and full authority to commit the Contractor to all terms and conditions of this Agreement, including each and every representation, certification and warranty contained or incorporated by reference in it.

Section II. Project Information

1. General Scope of Services

The Contractor's Services shall include, but are not limited to, the following categories of work:

Task 1 – Site-Specific Plans

The Contractor shall submit to the PBC, twenty (20) days prior to the start of work, three (3) copies of the following plans:

A. Site Specific Health and Safety Plan

The Contractor shall review the environmental reports completed to date (to be provided by PBC) and prepare a Site-Specific Health and Safety Plan (HASP) for the work. The HASP shall comply with Occupational Safety and Health Administration (OSHA) requirements. The work shall be performed under the direct supervision of a trained experienced site supervisor. The HASP shall include, at a minimum, the following:

a. Name and contact information of key personnel and alternates responsible for site safety;

b. A description of the risks associated with each operation conducted;

c. Type of personnel training and responsibilities to handle the specific hazardous situations they may encounter;

d. A description of the protective clothing and equipment to be worn by personnel during various site operations;

e. A description of any site specific medical surveillance requirements;

f. A description of the program that the Contractor shall utilize for the periodic air monitoring, personnel monitoring, environmental sampling (if needed), and the name of the Contractor that shall perform this activity;

g. A description of the actions to be taken to mitigate existing and potential hazards in order to make the work environment less hazardous and safe;

h. A description of site control measures, including a site map;

i. Procedures for personnel and equipment (including transporting trucks) to ensure that impacted soils are not tracked off-site or on to non-impacted areas of the site. A trucking ingress and egress drawing needs to be provided;

j. Site Standard Operating Procedures (SOPs) – for those activities that can be standardized (*i.e.*, decontamination procedures and respirator fit testing); and

k. A Site Contingency Plan for the safe and effective response to emergencies.

The remedial activities shall be performed in accordance with the provisions of the IEPA, Title 35: Environmental Protection, Subtitle G: Waste Disposal, Chapter I: Pollution Control Boards, Part 740, SRP; and in accordance with the IEPA approved ROR/RAP Addendum.

B. Site Logistics Plan

The Contractor shall prepare a site logistics plan that includes, at a minimum, the following: site entrances and exits; truck staging area; truck loading area; sidewalk or parking restrictions that may be

needed; temporary installation or relocation of utilities; stockpile locations; dust control and street sweeping measures and frequency of use; flagger location; employee parking; emergency entrance/exit; etc.

C. Chemical Storage Plan

The Contractor shall prepare a chemical storage plan that identifies the types/quantities of chemicals that shall utilized for this project; type of storage unit to be utilized; storage unit security; length of time the materials shall be stored on-site; material safety data sheets; and identify any special handling/hazardous that may be required with each chemical.

D. Site Maintenance Plan

The Respondent shall prepare a site maintenance plan that describes the maintenance activities, schedule and the frequency that they shall perform during the completion of the work.

E. Site Security Plan

The Respondent shall prepare a site security plan that describes the security measures to be implement during and after work hours including on-site security; locks; lighting; and the name and contact number for access to the site during non-work hours.

Task 2 – Waste Management and Reduction Plans

A. Waste Management Plan, the Respondent shall prepare a waste management plan that describes the methods to be used by the Contractor for waste management, including, but not limited to: handling, containers, storage, signage and transportation.

B. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in Subtitle D landfill. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.
   i. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
   ii. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each Subtitle D landfill and incinerator facility.
   iii. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location on Project site where materials separation will be located.

Task 3 – Foundation/Slab Removal and Disposal

The Contractor shall contact DIGGER, the Chicago Utility Network, a minimum of 72 hours prior to beginning the fieldwork in order to mark the locations of underground utilities. Additionally, the Contractor shall also obtain the services of a utility locator to identify all utilities on-site. The services shall be completed prior to the start of work.

The Contractor shall include for the excavation, loading, transportation and disposal of the existing remnant concrete/brick building foundations and surface slabs. All concrete materials shall be transported to an approved recycling facility. Materials that cannot be recycled shall be disposed at an IEPA permitted Subtitle D facility that is permitted to accept both non-hazardous non-special waste soils and non-hazardous special waste soils.

Task 4 – Soil Removal and Disposal

The Selected Respondent shall include for the excavation, loading, transportation and disposal of polynuclear aromatics (PNAs) and volatile organic compounds (VOCs) across the entire site from existing grade to depths as identified on plans and soils necessary for the completion of Task 10 –Installation of a Clay Cap/HDPE Liner. The soils shall be removed to the property lines and in accordance with the depths and limits stated in Drawing C2.0 All soils shall be disposed at an IEPA permitted Subtitle D facility that is permitted to accept both non-hazardous non-special waste soils and non-hazardous special waste soils. The work shall include, but is not limited to, the following:

1. Excavation of soils (including non-special waste soils and non-hazardous special waste soils), fill, backfill, top soil and general construction and demolition debris materials to the depth required to complete work activities as specified in the drawings and specifications;
2. Obtain authorization from an IEPA permitted Subtitle D facility indicating acceptance of materials at the facility. The Authorization must be signed by the owner of the permitted Subtitle D facility; state that the facility complies with all local zoning codes and all local, State, and Federal rules and regulations; that all required laboratory analyses has been received and evaluated by the facility; that the facility has agreed to accept the soils (including non-hazardous non-special waste soils and non-hazardous special waste soils), fill, backfill, top soil, and general construction and demolition debris waste from the site; and that the facility can accept both non-hazardous non-special waste soils and non-hazardous special waste soils for disposal. The Authorization shall further state that the soils (including non-hazardous non-special waste soils and non-hazardous special waste soils, fill, backfill, top soil, and general construction and demolition debris waste are being accepted for permanent placement on site, and that the materials will not be removed from the site unless required by a local, State or Federal Authority;
3. Perform analytical testing for waste stream authorizations, as necessary, to secure all required disposal permits for all materials;
4. Prepare waste disposal documentation for owner's signature;
5. Excavate, load and transport all materials leaving the property to an IEPA permitted Subtitle D facility as directed by the PBC Project Manager and MEC;
6. Prepare daily reports, transport manifests, weight tickets and receipts (as applicable) on a daily basis during soil removal activities;
7. Develop timely responses to PBC, subcontractors and the Chicago Public Library, as requested.
8. Provide immediate notification (within 1 hour) of unexpected site conditions such as the discovery of underground storage tanks (USTs), petroleum containing soils, soils containing unusual odors or stains, free product or accidental spills to the PBC Project Manager and Managing Environmental Consultant;
9. Provide copies of all daily reports, transport/waste manifests, weight tickets, and disposal receipts (as applicable) to the PBC Project Manager and Managing Environmental Consultant (MEC) on a daily basis documenting proper disposal of soils (including non-hazardous non-special waste soils and non-hazardous special waste soils), fill, backfill, top soil and general construction and demolition debris waste.

Task 5 - In-Situ Soil Mixing/Oxidation

Based on previous site assessments, three (3) areas have been identified with PCE concentrations exceeding the soil saturation limit (C_{sat}) for PCE of 240 milligrams per kilogram (mg/kg) and three (3) areas that exceed Land Disposal Restriction criteria. The remedial approach to address the impacted soil shall be soil mixing and chemical oxidation (ISCO) of tetrachloroethylene (PCE) impacted soil with sodium

permanganate (Contractor is authorized to use RegenOx™ as an approved equal). Achieving the remediation objectives through soil mixing/ISCO shall be verified through confirmation sampling (confirmation soil sampling and analysis shall be provided by the MEC at the PBC expense).

The Contractor may, at their own expense, collect pre-treatment samples to verify existing conditions and refine ISCO treatment parameters.

At each in-situ soil mixing location, soil shall be excavated in an area of approximately 16 feet wide by 16 feet long (or to the boundary of the remediation site), respectively. Please refer to Drawing R2.0 for the locations of the remediation areas. The total depth of remediation shall vary based for each area and shall generally extend to at least two feet below the base of the identified C_{sat} exceedance (please refer to Table 1 below). Within each of the three remediation areas, surficial soils shall be excavated and stock-piled on clean plastic sheeting on-site. A chemical oxidant shall then be applied to the base of the excavation and the soil mechanically mixed to the deepest extent of C_{sat} exceedance.

Care shall be taken to ensure that equipment used to mix contaminated soils is properly decontaminated with an Alconox® wash and potable water rinse prior to backfilling the excavation with surficial soils that were removed and staged onsite. Decontamination fluids will be containerized and properly disposed of.

The areas requiring remediation are listed below in Table 1 and shown in Exhibit 2:

Table 1
Remediation Areas

Location/Depth	Minimum Depth (feet bgs)	Purpose
Soil Saturation Treatment		
SB-8 (8-10)/TB-8B(8-10)	10	Soil Saturation Limit
SB-10 (10-12)	12	Soil Saturation Limit
SB-17 (12-14)	14	Soil Saturation Limit
LDR Treatment	ISCO Treatment Depth Range (ft bgs)	
SB-6 (0-4)	0 - 4	Land Disposal Restriction criteria
D-3 (4-8)	4-8	Land Disposal Restriction criteria
C-2/D-2 (8-10)	8-10	Land Disposal Restriction criteria

These areas shall be treated *In-situ* and shall consist of the application of oxidant directly onto the exposed soils, treating at different intervals depending upon the area and depth of treatment. Actual excavation depth may vary depending on the confirmatory analytical results.

The Contractor shall provide as much ISCO treatment needed to meet the objectives of the specifications and remediation drawings. This treatment is based on the existing conditions that have been identified in the previous soil analysis reports. No soils shall be re-used on-site. The Contractor shall utilize aggregate (or equivalent) to stabilize the treatment areas after soil mixing.

Samples will be collected by MEC and analyzed by MEC's Illinois-accredited laboratory at PBC expense.

Task 6 – Underground Storage Tank Removal and Disposal

The Contractor shall perform removal, decommissioning, and destruction of potentially two (2) - 5,000 gallon petroleum underground storage tanks (USTs) from the site (if present) and associated piping. This work shall be completed in accordance with all Federal, State, County, and Local Rules and Regulations including, but not limited to, the IEPA, USEPA, Illinois OSFM, and OSHA regulations.

The Contractor shall provide the following UST removal services and shall include, at a minimum, the following:

A. Complete and submit the UST Removal Application to the City of Chicago Department of Public Health (CDPH);

B. Coordinate and pay all permitting fees associated with as well as the UST removal schedule with the CDPH;

C. Provide analytical testing necessary to secure waste profiles for soil, product, sludge and contaminated water as necessary. The samples shall be analyzed for the parameters required by the disposal/recycling facilities. All soil removed shall be disposed at an IEPA permitted Subtitle D facility site within ten (10) calendar days of the UST removal;

D. Pump-out and dispose of product and sludge prior to removal of the UST from the site;

E. Pump-out contaminated water and other miscellaneous liquids that may be present in the UST basin;

F. Remove and dispose of all of the UST piping, equipment, electric conduit, and accessories related to the UST;

G. Clean tank interior and dispose of tank wash water appropriately;

H. Excavate and stockpile materials that may be present around the UST. The Contractor may temporarily store excavated materials at the site. Such material may not be stored on site for more than 30 days (unless directed otherwise by the PBC). Regardless of the duration that excavated materials are stockpiled, excavated materials shall be placed on and covered by 6-mil polyethylene plastic sheeting;

I. Prepare waste manifests for signature prior to loading excavated materials and soils into hauling trucks. The Contractor shall provide copies of all daily reports, weight tickets, receipts, and waste manifests (as applicable) to the PBC within ten (10) days of removing materials/soils from the site; and

J. The Contractor shall record the basin excavation dimensions, depth and locations on a site map.

The Contractor shall utilize pricing from the allowance table for the removal and disposal of petroleum underground storage tanks and is not to include this amount in their base bid.

Task 7 – Storm Water Management

The Contractor shall provide for site the following: sample analytical; dewatering; storm water and groundwater management, removal and disposal; and obtaining storm water discharge permits from the City of Chicago and the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC). Prior to commencing work, the contractor shall provide a liquid materials handling plan. This plan shall stipulate provisions for dewatering, pumping, collection, temporary storage, and discharge or disposal of storm water,

perched water and other liquids, contaminated and/or uncontaminated, at the site so as to facilitate soil removal and minimize disposal costs for contaminated fluids. The Contractor shall be responsible for the collection and analysis of all water samples; preparation of associated paperwork to obtain a MWRDGC Wastewater Discharge Permit(s) for the site; and all associated fees for permits/discharge. The Contractor shall ensure that adequate time is provided to obtain applicable permits prior to the commencement of excavation activities.

The Contractor may collect impacted water and store in on-site water tanks for transportation and disposal at an off-site permitted treatment plant. After the clay cap is installed and the tanks cleaned, rainwater may be stored on-site and discharged thru the installed catch basin (The Contractor is responsible for all permits necessary for discharging water).

Task 8 – Earth Retention Services

The Contractor shall furnish earth retention services as required per the applicable City of Chicago - Department of Buildings ordinance.

At ISCO treatment areas immediately adjacent to the property boundary, the treatment excavation depth will be at greater depth than the soil removal excavation limits. These two areas will have a greater potential of soil subsidence and impact to the sidewalk. To reduce the potential of side wall soil subsidence, the Contractor will utilize a pre-engineered trench-box to provide temporary support of the excavation sidewall. The trench box section will be approximately 24 feet in length to span the 16 foot wide excavation width needed for the treatment areas. The top of the trench-box section will be near the existing grade (sidewalk level).

The Contractor will implement a site monitoring program using a control survey to monitor and document that the location and elevation of the surrounding area and the site work. The control survey and measurements will be performed by a licensed surveyor. If the monitoring indicates impacts to the adjacent south alleyway, or other structures within 20 feet of the excavation boundaries, including the adjacent library building, utility poles, catch basins, sidewalks, curbs structures, the Contractor will notify PBC and take mitigation measures to protect and/or restore such features.

Along the alleyway to the south of the excavation area, the Contractor will utilize an electric utility truck to secure the utility pole using a boom and pole clamp to provide temporary support while excavation work occurs in the vicinity. Utility pole support will be coordinated with ComEd.

Task 9 – Site Grading and Drainage Services

The Contractor shall furnish site grading and drainage services as required per the drawings, specifications, and all applicable City of Chicago ordinances.

Task 10 – Installation of Clay Cap

The Contractor shall furnish all labor, materials, tools, supervision, transportation, testing and equipment necessary for the construction of a cohesive soil layer consisting of a three foot thick clay cap pursuant to the project specifications and drawings, which in general will consist of the following:

1. The cohesive soil layer shall consist of relatively homogeneous, natural or amended soils which are free of gypsum, ferrous, calcareous concretions, roots, debris, foreign objects,

excess silt, and organics. No particles larger than 0.75 inches shall be allowed in lifts contacting a geomembrane. Particles able to pass a 3-inch sieve shall be allowed in other lifts. The soil shall be classified according to the Unified Soil Classification System (USCS) as CL or CH material or shall be other natural or amended material capable of meeting hydraulic conductivity requirements. The cohesive soil layer shall have an in situ (i.e., after compaction) hydraulic conductivity less than or equal to 1.0×10^{-7} cm/sec as measured in accordance with ASTM D5084;

2. The cohesive soil layer material shall have a minimum liquid limit of 25;
3. The cohesive soil layer material shall have a minimum plasticity index of 1;
4. That backfill analysis meets the provisions of Task 11.
5. For construction quality assurance (CQA) purposes, the Company shall provide soil testing in accordance with the CQA plan.
6. Contractor shall provide an Illinois-licensed surveyor to conduct a survey before clay cap liner is installed to ensure proper excavation depth, and after liner install to ensure proper thickness.

The Contractor shall submit to the PBC, ten (10) days prior to the start of work, three (3) copies of the proposed Liner specifications and analytical results (environmental and geotechnical) for the clay, for review and approval.

The Contractor shall be responsible for preventing excavated impacted soil from contacting the clean clay (it is understood that the clay materials will be in direct contact with potentially impacted soil that is either underlying or adjacent to the clay cap). After placement and compaction of the clay cap materials, the site groundwater will potentially contact the clay as groundwater levels vary. The Contractor shall make reasonable efforts to prevent groundwater from ponding on the surface of the clay layer.

Task 11 – Backfilling

The backfilling/compaction of excavated areas shall include, at a minimum, the following services:

1. The contractor shall supply only backfill, including clay, aggregate and top soil that does not exceed APPENDIX B, SECTION 742, TABLE A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from virgin sources, one representative sample must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from recycled sources, one sample per 1,000 tons of material must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. The date of the environmental analysis of any backfill, top soil or CU Structural Soil shall be within 60 days of the MEC review. Compact backfill materials in accordance with the project specification.
2. The Contractor shall control dust by all necessary means, including, but not limited to the following: covering trucks, stockpiles and open materials, watering haul roads, sweeping paved roads, and limiting the speed of all on-site vehicles.
3. The Contractor shall provide 6 inches of topsoil meeting TACO parameters outlined above, and provide all labor and material necessary to ensure that the site is covered by grass within three months of completion of backfilling activities.
4. The Contractor is responsible for waste profile sampling and analysis, and backfill testing as required in Section 02318.

5. All backfill compaction testing shall be performed by the MEC at the owner's expense.

6. The Contractor shall meet the compaction requirements for the clay as provided for in Specification Section 02300, 3.5 B 1 that states "95% maximum density for cohesive soil (ASTM D 1557)." at no additional cost to the owner.

Task 12 – Meetings

The Contractor shall attend, at a minimum, the following meetings:

Office of Underground Coordination (OUC) Permit Meeting
Pre-Award Meeting
Environmental Kick-Off Meeting
Pre-Remediation Meeting
Weekly Meetings

Task 13 – Preparation of Reports and Associated Grant Recordkeeping

The Contractor shall provide monthly reports to the PBC that documents the performance of the Contractor's scope of services referenced herein sufficient to satisfy the PBCs reporting requirements on said activities with respect to the IEPA and USEPA grant funding requirements.

Task 14 – Site Maintenance and Protection

The Contractor shall perform the site maintenance and protection services for the site in accordance with all applicable City building codes and ordinances. Basic requirements for site maintenance that the Contractor shall perform include, but are not limited to:

1. Fencing, fence repair and sidewalk protection;
2. Snow Removal and application of a melting solution as required by the Chicago Municipal Code;
3. Debris removal, clean-up, grass and weed cutting, and tree trimming;
4. Pest Management and Rodent Control; and
5. Provide access to the site as requested by Commission Authorized Representative.

Due to the need for the soil excavation to the property lines, the Contractor may utilize temporary fence during remediation and close the sidewalks on South Vernon Avenue and East 79th Street (the Contractor is responsible for all fees assonated with the sidewalk closures). The Contractor will be required to install a permanent fence in accordance with the project specifications. Dust screening will be provided on construction fence during construction period, but not on permanent fence at end of project..

Project Schedule

The Respondent shall provide a schedule of activities, in the order they shall be completed, for the remediation and oxidation services. The schedule shall include an estimated number of days needed for reaction of the oxidant, estimated number of applications and an estimated number of days needed for the turn-around time for analytical results.

Performance and Payment Bond and Insurance

1. The insurance requirements for this project are as follows: The Contractor must provide and maintain at Contractor's own expense, the minimum insurance coverage and requirements specified below, insuring all operations related to the Contract. The insurance must remain in effect from: the date of the notice to proceed until Substantial Completion of the project, during completion of Punch List, as well as any time Contractor returns to perform additional work regarding warranties or for any other purpose

a) *Insurance To Be Provided By the Contractor*
The insurance requirements are attached as Exhibit 5.

3. Upon approval by the Commission to award, and within five (5) days after being given notice, the successful Respondent must execute and deliver to the Commission the Performance and Payment Bond in the form included in the Contract Documents, and evidence of the required insurance coverage.

4. The Performance and Payment Bond shall be in the form provided herein, in the full amount of the Base Contract Price and shall be security for the faithful performance of the Contract and payment of all persons, firms, or corporations to whom the Contractor may become legally indebted for labor, material, facilities or services of any nature, employed or used by it in performing the Work. The current power of attorney for the persons who sign for any surety company shall be attached to such bond. Such power of attorney shall be sealed and certified with a "first hand signature" by an officer of the surety. A facsimile signature will not be accepted by the Commission. The Commission reserves the right to approve the surety company.

5. The failure of the successful Respondent to supply the required Performance and Payment Bond or evidence of the required insurance coverage within five (5) days of notice, or within such extended period as the Commission may grant based upon reasons determined sufficient by the Commission, shall constitute a default and the Commission may either award the Contract to the next highest qualified Respondent or re-advertise. The difference between the amount of its proposal and the amount for which a contract for the work is subsequently executed may be charged against the Respondent. The election by the Commission to grant an extension to the period allowed for the Respondent to provide an acceptable performance and payment bond and/or evidence of insurance coverage shall not entitle the Respondent to an extension of time required to complete the Work.

III. PROPOSAL AND EXECUTION DOCUMENTS

1. Contractor's Agreement

The Contractor hereby acknowledges receipt of the Contract Documents for Professional Services Agreement No. PS1913, including, but not limited to, (a) Professional Services Agreement (Book 1), (b) Supplemental Standard Terms and Conditions (Book 2), (c), Technical Specifications (Book 3) , (d) Plans and Drawings and (e) Addendum Numbers1 and 2.

Laura J. Parsons 2/28/2013

Further, the Contractor, having inspected the Site and become familiar with the conditions affecting the cost of the Work and with the requirements of the Contract, hereby proposes to furnish all labor, necessary tools, materials and other work necessary to perform and complete in a workmanlike manner the In-Situ Oxidation and Soil Remediation Services for 415 – 423 East 79th Street Site designated as required by and in strict accordance with the Contract Documents for Total Project Cost indicated on the next page. The Total Lump Sum amount as accepted by the Commission and awarded to the Contractor shall be the Contract Price listed on the next page.

The agreement between the parties includes not only this instrument, but also the remaining Contract Documents as described in the Standard Terms and Conditions and Supplemental Terms and Conditions, and all of which shall be binding on the parties hereto.

Time is of the essence of this Contract. The Contractor agrees that it will commence the performance of the Work on the date set forth in the Notice to Proceed issued by the Commission and that it will complete the Work within the time set forth in Respondent's Project Schedule.

The Contract Price, as adjusted from time to time pursuant to the Contract Documents, shall be full compensation to the Contractor for having well and faithfully completed the Work, free and clear of all claims, liens, and charges whatsoever, of any kind or nature, and in full compliance with the Contract.

Payment for the Work will be made in the manner set forth in Book 2 the Supplemental Standard Terms and Conditions.

The Contractor warrants that it has not employed any person to solicit or secure this Contract upon any agreement for a commission, percentage, brokerage, or contingent fee. Breach of this warranty shall give the Commission the right to terminate the Contract, or, at its discretion, to deduct from the Contract Price or consideration the amount of such commission, percentage, brokerage, or contingent fees. This warranty shall not apply to any commission payable by the Contractor upon contracts or sales secured or made through bona fide established commercial or selling agencies maintained by the Contractor for the purpose of securing business.

The Contractor, being duly sworn, deposes and says on oath that no disclosures of ownership interests have been withheld; the information provided therein to the best of its knowledge is current; and the undersigned proposes to furnish the insurance and the Performance and Payment Bond required by the Contract Documents.

IV. PROPOSAL AND EXECUTION DOCUMENTS

PROJECT COST PROPOSAL

(Project Cost Proposal Follows This Page)

PUBLIC BUILDING COMMISSION OF CHICAGO
Professional Services Agreement No. PS1913
IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES

COST PROPOSAL FORM - Amended 2/11/13

ITEM	AMOUNT
WORK	$ $ 998,200
SITE WORK ALLOWANCE	$ **100,000.00**
COMMISSION'S CONTINGENCY FUND	$ **125,000.00**
TOTAL LUMP SUM AMOUNT	$ $ 1,223,200

ADD / DEDUCT - REMEDIAL OPTION 2	$ Not selected by PBC

SURETY: Please specify full legal name and address of Surety:
American Safety Casualty Insurance Company
100 Galleria Pkwy SE, Suite 700
Atlanta GA 30339

Notes:

1. **Work shall include all labor, equipment, permits and fees as described in Section IV, Nature of Services, Remedial Option 1, of the Request for Proposals, as well as the associated plans and specifications.**
Work shall additionally meet requirements outlined in the Remedial Action Plan Addendum for the site, dated 8/3/2012.
Work bid shall include all costs for ISCO treatment of Cost hot spot areas as shown in Contract Plans such that all basin, sidewall, and treatment area samples collected and analyzed by MEC identify no remaining PCE concentrations above remedial objectives as described in Remedial Action Plan Addendum for the site, dated 8/3/2012.
Work bid shall include all costs for ISCO Treatment of Shallow ISCO areas (as identified on Contract Plans), associated sidewalls, and floor areas to reduce soil below hazardous/Land Disposal Restriction concentrations, which shall be included in costs as a part of Work on Cost Proposal Form. Work may require multiple rounds of treatment to meet objectives, which shall be included in Work costs.
Work costs shall not include costs described in Task 6 of the RFP, UST Removal, which shall be paid as applicable from the Work Allowance costs, which are detailed as an attachment to this form.

2. **Remedial Option 1: Three feet of compacted clay material, as described in RFP, specifications and drawings. Base "Work" bid shall be based on this option.**

3. **Remedial Option 2: Two feet of compacted clay and a 60-mil, High-Density Polyethylene (HDPE) liner, as described in the RFP, specifications and drawings. An "Add/Deduct" price shall be submitted for this option, clearly indicating the additional cost or deduction to the base "Work" bid should the PBC choose this option.**

Natural Resource Technology, Inc.
Submittal 2/11/2013

SITE WORK ALLOWANCE

(Site Work Allowance Table Follows This Page)

PUBLIC BUILDING COMMISSION OF CHICAGO
Professional Services Agreement No. PS1913
IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES

SITE WORK ALLOWANCE - Amended 1-15-13

Item No.	Description of Work	Unit(s)	Unit Price
1	Loading, transportation, and disposal of stockpiled contaminated soil	Tons	$ 35.00
2	Excavation, loading, transportation and disposal of contaminated soil	Tons	$ 45.00
3	Loading, transportation and disposal of clean construction or demolition debris and uncontaminated soil	Tons	$ 25.00
4	Excavation, loading, transportation and disposal of in-place clean construction or demolition debris and uncontaminated soil	Tons	$ 35.00
5	Load, place and compact on-site fill material from stockpile	Cubic Yards	$ 7.00
6	Excavate, load, place and compact on-site fill material	Cubic Yards	$ 11.00
7	Demolition, removal, transportation, and disposal of underground concrete footings and remnants	Cubic Yards	$ 30.00
8	UST Removal (Tank <2,000 gal capacity)	Each	$ 3,000.00
9	UST Removal (Tank 3,000-5,500 gal capacity)	Each	$ 5,000.00
10	UST Removal (Tank 6,000-10,000 gal capacity)	Each	$ 8,000.00
11	UST Removal (Tank 10,000-15,000 gal capacity)	Each	$ 9,000.00
12	UST Removal (Tank > 15,000 gal capacity)	Each	$ 12,000.00
13	UST tank sludge removal and disposal (55-gallon drum)	Drums	$ 300.00
14	Bulk UST pump out (Liquids), including transportation	Gallons	$ 0.60
15	Waste characterization sample analysis for disposal authorization for soils removed under allowance schedule	Sample	$ 1,500.00
16	Water analysis for full MWRDGC contaminants list	Each	$ 750.00
17	Obtain MWRDGC discharge permit for Bulk disposal of contaminated liquid	Each	$ 1,200.00
18	Contaminated water-hauling and disposal drums	Drums	$ 200.00
19	Pumping, transportation, and disposal of contaminated water - bulk disposal	Gallons	$ 0.60
20	Pumping, storage, and disposal of contaminated water - bulk disposal by MWRDGC Permit	Gallons	$ 0.10
21	Furnish, place, and compact base material CA-1 stone	Tons	$ 16.00
22	Load on-site base materials, place and compact CA-1 stone	Cubic Yards	$ 8.00
23	Furnish, place, and compact clay cap barrier per specifications	Cubic Yards	$ 60.00
24	Furnish, place, and compact aggregate material CA-6	Tons	$ 20.00
25	Excavate, place, and compact on-site aggregate material CA-6	Cubic Yards	$ 12.00
26	Furnish, place, and compact drainage material CA-7	Tons	$ 16.00
27	Excavate, place and compact on-site drainage material CA-7	Cubic Yards	$ 12.00
28	Furnish and place geotextile filter fabric	Square Yard	$ 7.00
29	Site Survey - Licensed survey crew for verification of excavation and backfill quantities	Each	$ 1,500.00
30	Street restoration per CDOT - 1-1/2 inch Asphalt Binder Coarse and 1-1/2 inch Asphalt Surface Course. Less than 100 Square Yards.	Square Yard	$ 165.00
31	Street restoration per CDOT - 9-inch PCC Base Course, 1-1/2 inch Asphalt Binder Coarse and 1-1/2 inch Asphalt Surface Coarse. Less then 100 Square Yards.	Square Yard	$ 220.00
32	Additional In-Situ Chemical Oxidation Mobilization for treatment outside of Hot Spot areas. *	Each	$ 13,500.00
33	Additional In-Situ Chemical Oxidation Mixing outside of Hot Spot areas. *	Cubic Yard	$ 116.00
34	Excavation, transport and disposal of soil at a Subtitle C landfill.	Ton	$ 180.00
35	Loading, transportation, offsite RCRA-permitted mixing, and Subtitle C disposal of soil with PCE concentrations > 60 mg/kg.	Ton	$ 465.00
	Total Allowance Fund =		**$ 100,000.00**

NOTES:

1. All Work associated with the above allowance schedule shall be approved in writing by the Commission Representative prior to proceeding.
2. Authorized additional excavation and replacement material will be paid for in accordance with the above allowance schedule.
3. Authorized additional excavation means excavation below subgrade elevations as shown in the Plans and Specifications due to the presence of unsuitable soil materials as determined by the Commission's Representative.
4. The unit prices in this allowance schedule include all overhead and profit.
5. All unused portions of the allowance funds must be returned to the Commission in the form of a deductive change order prior to Final Completion and Acceptance of the Work.
6. * Allowance does not include ISCO Treatment of Csat Hot Spot areas (as identified on Contract Plans), associated sidewalls, and floor areas to reduce soil below CSAT concentrations, which shall be included in costs as a part of Work on Cost Proposal Form. Allowance does not include ISCO Treatment of Shallow ISCO areas (as identified on Contract Plans), associated sidewalls, and floor areas to reduce soil below Hazardous/Land Disposal Restriction concentrations, which shall be included in costs as a part of Work on Cost Proposal Form.

Duplicate Original (3)

PUBLIC BUILDING COMMISSION OF CHICAGO
Contract No. PS1913
In-Situ Chemical Oxidation and Soil Remediation Services for 415 – 423 East 79th Street

Performance and Payment Bond **Contract No. PS1913**
Bond No. OKC623235

KNOW ALL MEN BY THESE PRESENTS, that we Natural Resource Technology, Inc., N27 W23713 Paul Road, with offices in the Pewaukee, State of Wisconsin 53072, as Corporate Principal, and American Safety Casualty Insurance Company, 100 Galleria Pkwy SE, Ste 700, Atlanta, GA 30339, a corporation organized and existing under the laws of the State of Oklahoma , with offices in the State of Illinois as Surety, are held and firmly bound unto the Public Building Commission of Chicago, hereinafter called "Commission", in the penal sum of Nine Hundred Ninety Eight Thousand Two Hundred & No/100 Dollars ($998,200.00) for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

The condition of this obligation is such, that whereas the Principal entered into a certain Contract, hereto attached, with the Commission, dated February 13 ,2013, for the furnishing, fabrication, delivery and installation of the

IN-SITU Chemical Oxidation and Soil Remediation Services at 415-423 E 79th Street, Chicago, IL – Project No. 08070

in the referenced project area and other miscellaneous work collateral thereto.

NOW, THEREFORE, if the Principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said Contract during the original term of said Contract and any extension thereof that may be granted by the Commission, with or without notice to the Surety, and during the life of any guarantee required under the Contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of any and all authorized modifications of said Contract that may be made; and also if the Principal shall promptly pay all persons, firms, and corporations supplying labor, materials, facilities, or services in the prosecution of the work provided for in the Contract, and any and all duly authorized modifications of said Contract that may be made, notice of which modifications being hereby waived; and also, if the Principal shall fully secure and protect the said Commission, its legal successor and representative, from all liability in the premises and from all loss or expense of any kind, including all costs of court and attorney's fees, made necessary or arising from the failure, refusal, or neglect of the aforesaid Principal to comply with all the obligations assumed by said Principal or any subcontractors in connection with the performance of said Contract and all such modifications thereof; and also, if the Principal shall deliver all Work called for by said Contract of the Principal with the Commission, free and clear of any and all claims, liens and expenses of any kind or nature whatsoever, and in accordance with the terms and provisions of said Contract, and any and all modifications of said Contract; then, this said Bond shall become null and void; otherwise it shall remain in full force and effect.

The Surety does further hereby consent and yield to the jurisdiction of the State Civil Courts of the County of Cook, City of Chicago, and State of Illinois, and does hereby formally waive any plea of jurisdiction on account of the residence elsewhere of the Surety. The Principal and Surety severally and jointly agree that this Bond, and the undertakings contained herein, are also for the benefit of any and all subcontractors and other persons furnishing materials, labor, facilities, or services to the Principal or for the performance by the Principal of said Contract with the Commission as originally executed by said Principal and the Commission or as thereafter modified, and that any such subcontractor or persons furnishing labor, materials, facilities, or services may bring suit on this Bond, or any undertaking herein contained, in the name of the Commission against the said Principal and Surety or either of them.

It is expressly understood and agreed that this Bond, in the penal sum of Nine Hundred Ninety Eight Thousand Two Hundred & No/100 dollars ($998,200.00), shall secure the payment of all sums due of and by the Principal under the Contract, and guarantee the faithful performance of the Contract.

No modifications, omissions, or additions, in or to the terms of said Contract, the plans or specifications, or in the manner and mode of payment shall in any manner affect the obligations of the Surety in connection with aforesaid Contract. Notice to the Surety of any and all modifications in said Contract of the Principal with the Commission and of any additions or omissions to or from said Contract are hereby expressly waived by the Surety.

PUBLIC BUILDING COMMISSION OF CHICAGO
Contract No. PS1913
In-Situ Chemical Oxidation and Soil Remediation Services for 415 – 423 East 79th Street

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their several seals this 5th day of March, 2013 the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

WITNESS:

_____
Name

_____
Business Address

_____
City State

CORPORATE SEAL

ATTEST:

BY _____

Secretary
Title

Natural Resource Tech., Inc.
23713 W. Paul Road
Pewaukee, WI 53072
(262) 523-9000 • Fax: (262) 523-9001

BY _____(Seal)
Individual Principal

_____(Seal)
Individual Principal

_____
Partner

NATURAL RESOURCE TECHNOLOGY, INC.
Corporate Principal

BY _____

President
Title

AMERICAN SAFETY CASUALTY INSURANCE COMPANY
Corporate Surety

_____
Title Ron Kaihoi, Attorney-in-Fact

BY _____
Brenda Risa, Witness
3246 E Hwy 7, Suite 150
Montevideo, MN 56265
Business Address

CORPORATE SEAL

The rate of premium of this Bond is $30.00 per thousand.**
Total amount of premium charged is $29,946.00**

* The current power of attorney for the persons who sign for any surety company shall be attached to this Bond. Such power of attorney shall be sealed and certified with a "first-hand signature" by an officer of the surety. A facsimile signature will not be accepted by the Commission.

** Must be filled in by the Corporate Surety.

AGENT:
ACORA Surety & Insurance Services, LLC
PO Box 506
Montevideo, MN 56265
Ph: 320-269-8546

PUBLIC BUILDING COMMISSION OF CHICAGO
Contract No. PS1913
In-Situ Chemical Oxidation and Soil Remediation Services for 415 – 423 East 79th Street

Bond Approval

BY

Secretary,
Public Building Commission of Chicago

CERTIFICATE AS TO CORPORATE SEAL

I, RICHARD H. WEBER, certify that I am the _____ Secretary of the Natural Resource Technology, Inc., corporation named as Principal in the within bond, that LAURIE L. PARSONS who signed on behalf of the Principal was then President of said corporation; that I know this person's signature, and the signature hereto is genuine; and that said Bond was duly signed, sealed, and attested for and in behalf of said corporation by authority of its governing body.

Dated this 5th day of MARCH 2013.

CORPORATE SEAL

ENVIRONMENTAL, HAZARDOUS & TOXIC MATERIALS RIDER

To be attached to and form a part of Performance Bond and/or Labor and Material Payment Bond and/or Bid Bond, numbered OKC623235 dated the 5th day of March, 2013 issued by **American Safety Casualty Insurance Company** as Surety on behalf of Natural Resource Technology, Inc. in favor of the Public Building Commission of Chicago. This bond is executed on the following express conditions, which are precedent to any recovery hereunder:

I. That no claim, suit or other legal action can be brought against this bond because of any insurance or worker's compensation requirements contained in the related contract or any changes thereto. This includes, but is not limited to, lack of any insurance or worker's compensation or inadequate insurance coverage limits carried by the Principal, its Agents, servants employees or any contractor employed by the Principal.

II. No claim, suit or other legal action can be brought against this bond for any release, escape, migration, dispersal or seepage of any hazardous waste or substance, pollutant, asbestos, lead, mold, mildew, fungus or other microbiological contaminant or other toxic or hazardous material, gas or liquid or for any recurrence of any hazardous condition.

III. That no claim, suit, or other legal action can be brought against this bond by anyone other than the obligee and those parties expressly permitted by the statutes applicable to this bond.

IV. No claim, suit, or other legal action shall be commenced against the Principal or Surety for any default in performance, labor performed, or materials supplied after one (1) year after substantial completion.

Signed & sealed this 5th day of March, 2013 at Montevideo, MN.

American Safety Casualty Insurance Company

By: Ron Kaihoi

Ron Kaihoi, Attorney-in-Fact

Number OKC62321

POWER OF ATTORNEY

AMERICAN SAFETY INSURANCE

NOW ALL MEN BY THESE PRESENTS, that American Safety Casualty Insurance Company has made, constituted and appointed, and by thes
esents does make, constitute and appoints

Ron Kaihoi & Jack Anderson of Montevideo, MN

true and lawful attorney-in-fact, for it and its name, place, and stead to execute on behalf of the said Company, as surety, bonds, undertaking an
ntracts of suretyship to be given to

ALL OBLIGEES

provided that no bond or undertaking or contract of suretyship executed under this authority shall exceed in amount the sum of

THREE MILLION ($3,000,000.00) DOLLARS***

is Power of Attorney is granted and is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board
rectors of the Company of the 25th day of April, 2012.

SOLVED, that the President in conjunction with the Secretary or any Assistant Secretary may appoint attorneys-in-fact or agents with authority a
fined or limited in the instrument evidencing the appointment in each case, for and on behalf of the Company, to execute and deliver and affix th
al of the Company to bands, undertakings, recognizances, and suretyship obligations of all kinds; and said officers may remove any such attorney-i
t or agent and revoke any power of attorney previously granted to such persons.

SOLVED FURTHER, that any bond, undertaking, recognizance, or suretyship obligation shall be valid and binding upon the Company: (i) whe
gned by the President or any Vice-President and attested and sealed (if a seal is required) by any Secretary or Assistant Secretary or (ii) when signe
the President or any Vice-President or Secretary or Assistant Secretary, and counter-signed and sealed (if a seal is required) by a duly authorize
orney-in-fact or agent; or (iii) when duly executed and sealed (if a seal is required) by one or more attorney-in-fact or agents pursuant to and with
limits of the authority evidenced by the power of attorney issued by the Company to such person or persons.

SOLVED FURTHER, that the signature of any authorized officer and the seal of the Company may be affixed by facsimile to any power of attorne
certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the Compan
d such signature and seal when so used shall have the same force and effects as though manually affixed.

**I WITNESS WHEREOF, American Safety Casualty Insurance Company has caused its official seal to be hereunto affixed, and these presents to be
gned by its President and attested by its Secretary this 25th day of April, 2012.**

Attest:

Ambuj Jain

Joseph D. Scollo, Jr.

STATE OF GEORGIA)
)
COUNTY OF COBB)

On this 25th day of April, 2012, before me personally came Joseph D. Scollo, Jr. to me known, who, being by me duly sworn, did depose and say that
he is the President of American Safety Casualty Insurance Company, the corporation described in and which executed the above instrument; that he
knows the seal of the said corporation; that the seal affixed to the said instrument is such corporate seal; that is was so affixed by order of the Board of
Directors of said corporation and that he signed his name thereto by like order.

Benson Lee Jeffress, Notary Public

I, the undersigned, Secretary of American Safety Casualty Insurance Company, an Oklahoma corporation, DO HEREBY CERTIFY, that the foregoing
and attached Power of Attorney remains in full force and has not been revoked; and furthermore that the Resolution of the Board of Directors, set forth
in the said Power of Attorney, is now in force.

Signed and sealed in the City of Atlanta, in the State of Georgia

Dated this 5th day of March, 2013

Ambuj Jain

ORIGINALS OF THIS POWER OF ATTORNEY ARE PRINTED WITH RED NUMERICAL NUMBERS
DUPLICATES SHALL HAVE THE SAME FORCE AND EFFECT AS AN ORIGINAL ONLY WHEN ISSUED IN CONJUCTION WITH THE ORIGINA

ACKNOWLEDGEMENT OF SURETY

STATE OF MINNESOTA

COUNTY OF CHIPPEWA

On this 5th day of March , 2013 , before me, a Notary Public within and for said County, personally appeared **Ronald Kaihoi** to me personally known, who being by me duly sworn he/she did say that he/she is the attorney-in-fact of **American Safety Casualty Insurance Company** , the corporation named in the foregoing instrument, and the seal affixed to said instrument is the corporation seal of said corporation, and sealed on behalf of said corporation by authority of its Board of Directors and said **Ronald Kaihoi** acknowledged said instrument to be the free act and deed of said corporation.

Rebecca J Risa

NOTARY PUBLIC

My Commission Expires 1/31/2015

REBECCA J. RISA
Notary Public-Minnesota
My Commission Expires Jan 31, 2015

PERFORMANCE AND PAYMENT BOND

(Performance and Payment Bond Follows This Page)

CERTIFICATE OF INSURANCE

(Certificate of Insurance Follows This Page)

WALI

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 02/19/2013

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Associated Financial Group P.O. Box 1630 Waukesha, WI 53187-1630 (262) 542-8822	CONTACT NAME: PHONE (A/C, No, Ext): FAX (A/C, No): E-MAIL ADDRESS: PRODUCER CUSTOMER ID #: NATURES-01
INSURED Natural Resource Technology 23713 W. Paul Road Pewaukee, WI 53072-	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A : Chartis Specialty Insurance Co INSURER B : QBE Insurance Corporation INSURER C : INSURER D : INSURER E : INSURER F :

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR X Pollution Liab Included GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT LOC	X	X	PROP15893210	01/01/2013	01/01/2014	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 300,000 $ 10,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
B	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS HIRED AUTOS NON-OWNED AUTOS	X		CBA0636657	01/01/2013	01/01/2014	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
A	UMBRELLA LIAB X OCCUR X EXCESS LIAB CLAIMS-MADE DEDUCTIBLE X RETENTION $ 10,000			PROU15894215	01/01/2013	01/01/2014	EACH OCCURRENCE AGGREGATE	$ 9,000,000 $ 9,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	X	CWC0636657	01/01/2013	01/01/2014	X WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
A	Professional Liability			PROP15893210	01/01/2013	01/01/2014	Claims Made	$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

See attached page.

CERTIFICATE HOLDER

Public Building Commission of Chicago
Procurement Department Richard J Daley Center
Room 200
Chicago, IL 60602-

ok eryn 2/21/13

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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001_NRT_ecr - 1913 WYL InSitu - 20130219
080 70 - 03-09-02

DESCRIPTION OF OPERATIONS -

Natural Resource Technology 23713 W. Paul Road Pewaukee, WI 53072-	Public Building Commission of Chicago Procurement Department Richard J Daley Center Room 200 Chicago, IL 60602-

Agreement No PS1913 / In-Situ Chemical Oxidation and Soil Remediation Services
Public Building Commission of Chicago and City of Chicago are listed as additional insureds on a primary and non contributory basis in regards to liability coverage. A Waiver of Subrogation applies in favor of Public Building Commission of Chicago, City of Chicago, their respective Board members, employees, elected and appointed officials, and representatives and any owner as required by Agreement in regards to the General Liability and Employers Liability. A 30 day notice of cancellation in favor of Public Building Commission of Chicago and City of Chicago applies.

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

This agreement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

Schedule

Public Building Commission of Chicago
City of Chicago

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement
Natural Resource Technology

Insurance Company
QBE Insurance Corporation

Effective Policy No.
CWC 0636657

Endorsement No.
Premium

Countersigned by _____
Lisa M Wasley

WC 00 03 13
(Ed. 4-84)

© 1983 National Council on Compensation Insurance.

ENDORSEMENT NO. 22

This endorsement, effective 12:01 AM, January 1, 2013

Forms a part of Policy No: PROP 15893210

Issued to: NATURAL RESOURCE TECHNOLOGY

By: CHARTIS SPECIALTY INSURANCE COMPANY

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

WAIVER OF SUBROGATION - SPECIFIC PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY AND PROFESSIONAL LIABILITY POLICY

SCHEDULE

Name of Person or Organization:
BLANKET WHERE REQUIRED BY WRITTEN CONTRACT OR WRITTEN AGREEMENT

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement)

It is hereby agreed that **SECTION IV, Conditions,** paragraph **9. Subrogation** is amended to include the following:

We agree to waive this right of subrogation against the person or organization shown in the Schedule above to the extent that you had, prior to an **occurrence** or **claim,** a written agreement to waive such rights.

All other terms, conditions, and exclusions shall remain the same.

AUTHORIZED REPRESENTATIVE
or countersignature (in states where applicable)

Includes copyrighted material of Insurance Services Offices, Inc., with its permission.
Insurance Services Office, Inc., 1992

EXHIBITS

1. **Terms and Conditions for U.S. EPA and Illinois EPS Funded Contracts**
2. **Book 2**
3. **Book 3 and Drawings**
4. **Insurance Requirements**
5. **Special Conditions Regarding the Environmental Disadvantaged Business Program For Professional Services Contracts**
6. **Executive Order 11246**
7. **Davis-Bacon Requirements**
8. **Illinois Department of Labor Prevailing Rates of Hourly Wages For Cook County**
9. **Community Area Map**
10. **Disclosure of Retained Parties**
11. **Disclosure Affidavit**
12. **Certification For Contracts, Grants, Loans, and Cooperative Agreements – Lobbying Certification**
13. **Certification Regarding a Drug Free Workplace**
14. **Certification of Primary Participant Regarding Debarment, Suspension, and Other Responsibility Matters**
15. **Certification of Lower-Tier Participant Regarding Debarment, Suspension, Ineligibility, Voluntary Exclusion and Other Responsibility Matters**

EXHIBIT 1

Terms and Conditions for U.S. EPA and Illinois EPS Funded Contracts

PUBLIC BUILDING COMMISSION OF CHICAGO
INSITU CHEMICAL OXIDATION REMEDIATION SERVICES AT 415-423 EAST 79TH STREET – PS1913

ATTACHMENT I
TERMS AND CONDITIONS FOR U.S. EPA AND ILLINOIS EPA FUNDED CONTRACTS
PROFESSIONAL SERVICE

1. Duty to Cooperate. The Environmental Protection Agency (the "USEPA") and the Illinois Environmental Protection Agency (the "Illinois EPA") has provided financial assistance for the Project and Scope of Services set forth in this Agreement, which requires that the Commission submit and file various reports and documents with the USEPA and the Illinois EPA. The Contractor shall cooperate with the Commission and timely submit, file and provide documents, reports and information within the time-periods specified by the Commission.

2. Clean Air. The Contractor agrees to comply with Section 306 of the Clean Air Act, as amended, 42 U.S.C. §7606 and all applicable standards, orders or regulations issued pursuant to the Clean Air Act. The Contractor agrees to report each violation to the Commission and understands and agrees that the Commission will in turn report each violation as required to the appropriate USEPA Regional Office. The Contractor also agrees to include these requirements in each subcontract exceeding $100,000 financed in whole or in part with Federal assistance provided by the USEPA.

3. Federal Water Pollution Control Act. The Contractor agrees to comply with Section 508 of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §1368 and all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act. The Contractor agrees to report each violation to the Commission and understands and agrees that the Commission will in turn report each violation as required to the appropriate USEPA Regional Office. The Contractor also agrees to include these requirements in each subcontract exceeding $100,000 financed in whole or in part with Federal assistance provided by the USEPA.

4. Safe Drinking Water Act. The Contractor agrees to comply with Section 1424(e) of the Safe Drinking Water Act, as amended, 42 U.S.C. §300h-300(e) and all applicable standards, orders or regulations issued pursuant to the Safe Drinking Water Act. The Contractor agrees to report each violation to the Commission and understands and agrees that the Commission will in turn report each violation as required to the appropriate USEPA Regional Office. The Contractor also agrees to include these requirements in each subcontract exceeding $100,000 financed in whole or in part with Federal assistance provided by the USEPA.

5. State Energy Conservation. The Contractor must comply with all current standards and policies relating to energy efficiency, which are contained in the State of Illinois Energy conservation plan issued in compliance with the Energy Policy and Conservation Act, which are incorporated in this Agreement by reference.

6. Civil Rights.

   a. Nondiscrimination - In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, 40 CFR Part 7, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, the Contractor agrees to comply with applicable Federal implementing

regulations and other implementing requirements the USEPA may issue. Failure by the Contractor to carry out these requirements is a material breach of this Agreement, which may result in the termination of this Agreement or such other remedy as the Commission deems appropriate. The Contractor agrees to include these assurances in all subcontracts.

b. Equal Employment Opportunity - The following equal employment opportunity requirements apply to the underlying contract:

i. Race, Color, Creed, National Origin, Sex - In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, Title VI of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000d, 40 CFR Part 7, Section 901 of Title IX of the Education Amendments of 1972, 20 U.S.C. § 1681, and 40 CFR Part 5, the Contractor agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Parts 60 et seq., (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of the Project. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, the Contractor agrees to comply with any implementing requirements the USEPA may issue.

ii. Age - In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. § § 623 and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. The Contractor shall comply with Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination based on disability. In addition, the Contractor agrees to comply with any implementing requirements USEPA may issue.

iii. Disabilities - In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, the Contractor agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, the Contractor agrees to comply with any implementing requirements USEPA may issue.

c. The Contractor also agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by the USEPA, modified only if necessary to identify the affected parties.

7. Illinois Human Rights Act. During the term of this Agreement, the Contractor must:

a. Refrain from unlawful discrimination and discrimination based on citizenship status in employment and undertake affirmative action to assure equality of employment opportunity and eliminate the effects of past discrimination.

b. Comply with the procedures and requirements of the Illinois Department of Human Rights' regulations concerning equal employment opportunities and affirmative action.

c. Provide such information, with respect to its employees and applicants for employment, and assistance as the Department may reasonably request from time to time.

d. Have written sexual harassment policies that must include, at a minimum, the following information: (i) the illegality of sexual harassment; (ii) the definition of sexual harassment under State law; (iii) a description of sexual harassment, utilizing examples; (iv) Contractor's internal complaint process including penalties; (v) the legal recourse, investigative and complaint process available through the Illinois Department of Human Rights and the Illinois Human Rights Commission; (vi) directions on how to contact the Illinois Department of Human Rights and the Illinois Human Rights Commission; and (vii) protection against retaliation as provided in Section 6-101 of the Illinois Human Rights Act (775 ILCS 5/2-105). A copy of the policies must be provided to the Illinois Department of Human Rights upon request.

e. The Contractor must include verbatim or by reference, the provisions of this Section 20 in every subcontract it awards under which any portion of its obligations under this Agreement are undertaken or assumed, so that such provisions will be binding upon such Subcontractor. In the same manner as with other provisions of this Agreement, Contractor will be liable for such Subcontractor's compliance with applicable provisions of this clause; and further it will promptly notify the Commission and the Illinois Department of Human Rights in the event that any Subcontractor fails or refuses to comply therewith. In addition, the Contractor must not utilize any Subcontractor declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

8. USEPA Disadvantaged Business Program. The Contractor agrees to comply with the Special Conditions Regarding the Environmental Protection Agency Disadvantaged Business Program for Professional Service Contracts, attached hereto as Attachment E. The Contractor shall use its best efforts to utilize minority business enterprises for not less than five percent (5%) and women business enterprises for not less than twelve percent (12%) of the value of the Services.

9. Davis Bacon and Copeland Anti-Kickback Acts. If applicable according to their terms, the Contractor shall comply with the provisions of the Davis-Bacon Act, 40 U.S.C. §3141 et seq., and its related regulations which apply to all construction contracts in excess of $2000. The Davis-Bacon Act provides that all laborers and mechanics employed by it or any sub-contractors on projects funded directly by or assisted in whole or in part by and through the Federal Government shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code. Prevailing rate of wages as determined by the Illinois Department of Labor shall be paid to all laborers, workers and mechanics performing under this Agreement. Prevailing wage rates in effect at the time of issuance of this Agreement are attached as Exhibit G. One resource for determining the current prevailing wage rate is the website www.state.il.us/agency/idol/CM/countym.htm. The Contractor certifies that any Subcontractors shall comply with all requirements of the Davis-Bacon Act, specifically including, but not limited to, the provisions set forth in 29 CFR 5.5 which are set forth in Exhibit E.

The Contractor certifies that it and any subcontractors shall comply with the Copeland "Anti-Kickback" Act, 18 USC 874, and its related regulation at 29 CFR 3, which are incorporated herein by reference, and prohibits intimidating, forcing or otherwise inducing any person employed in the construction, prosecution, completion or repair of any public building, public work, or building or work financed in whole or in part by loans or grants from the United States, to give up any part of the compensation to which he is entitled under his contract of employment, shall be fined under this title or imprisoned not more than five years, or both.

10. Contract Work Hours and Safety Act. If applicable according to their terms, the Contractor must comply and assure compliance with the Contract Work Hours and Safety Standards Act, as amended, 40 USC §§ 3701 through 3708, and implementing U.S. DOL regulations, "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction (also Labor Standards Provisions Applicable Act)," 29 CFR Part 5; and U.S. DOL regulations, "Safety and Health Regulations for Construction," 29 CFR Part 1926. In addition to other requirements that may apply:

    a. In accordance with sections of the Contract Work Hours and Safety Standards Act, the Contractor must assure that, for the Contract, the wages of every mechanic and laborer will be computed on the basis of a standard work week of 40 hours, and that each worker will be compensated for Work exceeding the standard work week at a rate of not less than 1.5 times the basic rate of pay for all hours worked in excess of 40 hours in the work week. Determinations pertaining to these requirements will be made in accordance with applicable U.S. DOL regulations, "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction (also Labor Standards Provisions Applicable to Non-Construction Contracts Subject to the Contract Work Hours and Safety Standards Act)," 29 CFR Part 5.

    b. In accordance with the Contract Work Hours and Safety Standards Act, the Contractor must assure that no laborer or mechanic working on a construction contract is required to work in surroundings or under working conditions that are unsanitary, hazardous, or dangerous to his or her health and safety, as determined in accordance with US DOL regulations "Safety and Health Regulations for Construction" 29 CFR Part 1926.

11. Executive Order 11246. If applicable according to its terms, the Contractor, and its Subcontractors and Subcontractors shall comply with Executive Order 11246 of September 25, 1965, entitled "Equal Employment Opportunity" and as its related regulations, which applies to all construction contracts awarded in excess of $10,000. The requirements of Executive Order 11246 are attached hereto as Exhibit F.

12. Procurement Method. The Commission shall comply with all local procurement laws and regulations use an open competitive procurement method to select the Contractor. The Contractor agrees that it shall comply with all local procurement laws and regulations and issue bids to select any Subcontractor(s) to perform services.

13. Buy America. In accordance with section 215 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) and implementing USEPA regulations, the Contractor agrees that preference will be given to domestic construction materials by the Contractor, Subcontractors, materialmen and suppliers in the performance of this Agreement.

14. No Exclusionary or Discriminatory Specifications. Apart from inconsistent requirements imposed by Federal statute or regulations, the Contractor agrees to comply with the requirements of 40 CFR 31.36 (c)(vi) by refraining from using any Federal assistance awarded by USEPA to support procurements using exclusionary or discriminatory specifications.

15. Compliance with Federal Laws. The Contractor shall at all times observe and comply with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 104(k) [42 U.S.C. § 9604(k)]; OSHA Worker Health & Safety Standard 29 CFR 1910.120, the Uniform Relocation Act, National Historic Preservation Act, Endangered Species Act, and permits required by Section 404 of the Clean Water Act.

16. Compliance with Laws. The Contractor shall at all times observe and comply with all applicable laws, ordinances, rules, regulations and executive orders of the federal, state, and local government, now existing or hereinafter in effect, which may in any manner affect the performance of the Agreement. Provision(s) required by law, ordinance, rules, regulations or executive orders to be inserted shall be deemed inserted whether or not they appear in this Agreement or, upon application by either party, this Agreement shall forthwith be physically amended to make such insertion; however, in no event shall the failure to insert such provision(s) prevent the enforcement of this Agreement.

17. State Procurement Laws. The Contractor acknowledges that it and the PBC are bound by and shall comply with the Environmental Protection Act 415 ILCS 5/1 et seq., the Local Governmental Professional Services Act, 510 ILCS 510 et seq., and the Construction Contract Indemnification Act, 740 ILCS 35/1 et seq.,

18. Financial Management. The Contractor agrees to implement appropriate fiscal controls, internal controls and accounting procedures that are sufficient for the Commission to prepare reports required by the USEPA and permit the tracing of funds to a level of expenditures adequate to establish that such funds have not been used in violation of restrictions and prohibitions of applicable statutes. The Contractor shall keep all accounting records related to the Agreement. The Commission may review the adequacy of any financial management system of the Contractor. The Contractor also agrees to include these requirements in each subcontract.

19. Confidentiality. The Contractor certifies that any reports, information, data, documents, given to, prepared or assembled by the Contractor under this Agreement, which the Illinois Environmental Protection Agency ("Illinois EPA") requests to be confidential as required by the Illinois Environmental Protection Act (415 ILCS 5/7 and 415 ILCS 5/7.1) shall not be made available to any individual or organization by Contractor without prior written approval of the Commission.

20. Access to the Site. The Contractor acknowledges that the authorized representatives of the Illinois EPA shall have unrestricted access to the Project Site.

21. Access to Records and Reports.

    a. The Contractor agrees to provide the Commission, the USEPA, the Illinois EPA, the State of Illinois, the Comptroller General of the United States or any of their authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to this Agreement for the purposes of making audits, examinations, excerpts and transcriptions.

    b. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

    c. The Contractor agrees to maintain all books, records, accounts and reports required under this Agreement for a period of not less than five years after the date of termination or expiration of this Agreement, except in the event of litigation or settlement of claims arising from the performance of this Agreement, in which case Contractor agrees to maintain same until the Commission, the USEPA, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto.

22. Contracts Involving Experimental, Developmental, Or Research Work

A. Rights in Data - This following requirements apply to each contract involving experimental, developmental or research work:

(1) The term "subject data" used in this clause means recorded information, whether or not copyrighted, that is delivered or specified to be delivered under the contract. The term includes graphic or pictorial delineation in media such as drawings or photographs; text in specifications or related performance or design-type documents; machine forms such as punched cards, magnetic tape, or computer memory printouts; and information retained in computer memory. Examples include, but are not limited to: computer software, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identifications, and related information. The term "subject data" does not include financial reports, cost analyses, and similar information incidental to contract administration.

(2) The following restrictions apply to all subject data first produced in the performance of the Contract:

(a) Except for its own internal use, the Commission or Contractor may not publish or reproduce subject data in whole or in part, or in any manner or form, nor may the Commission or Contractor authorize others to do so, without the written consent of the Federal Government, until such time as the Federal Government may have either released or approved the release of such data to the public; this restriction on publication, however, does not apply to any contract with an academic institution.

(b) The Federal Government reserves a royalty-free, non-exclusive and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use, for "Federal Government purposes," any subject data or copyright described in subsections (2)(b)1 and (2)(b)2 of this clause below. As used in the previous sentence, "for Federal Government purposes," means use only for the direct purposes of the Federal Government. Without the copyright owner's consent, the Federal Government may not extend its Federal license to any other party.

1. Any subject data developed under that contract, whether or not a copyright has been obtained; and

2. Any rights of copyright purchased by the Commission or Contractor using Federal assistance in whole or in part provided by the USEPA

(c) Unless the USEPA determines otherwise, the Commission and the Contractor performing experimental, developmental, or research work required by the underlying contract agrees to permit the USEPA to make available to the public, either the USEPA's license in the copyright to any subject data developed in the course of that contract, or a copy of the subject data first produced under the contract for which a copyright has not been obtained. If the experimental, developmental, or research work, which is the subject of the underlying contract, is not completed for any reason whatsoever, all data developed under that contract shall become subject data as defined in subsection (a) of this clause and shall be delivered as the Federal Government may direct.

(d) Unless prohibited by state law, upon request by the Federal Government, the Commission and the Contractor agree to indemnify, save, and hold harmless the Federal Government, its officers, agents, and employees acting within the scope of their official duties against any liability, including costs and expenses, resulting from any willful or intentional violation by the Commission or Contractor of proprietary rights, copyrights, or right of privacy, arising out of the publication, translation, reproduction, delivery, use, or disposition of any data furnished under that contract. Neither the Commission nor the Contractor shall be required to indemnify the Federal Government for any such liability arising out of the wrongful act of any employee, official, or agents of the Federal Government.

(e) Nothing contained in this clause on rights in data shall imply a license to the Federal Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Federal Government under any patent.

(f) Data developed by the Commission or Contractor and financed entirely without using Federal assistance provided by the Federal Government that has been incorporated into work required by the underlying contract is exempt from the requirements of subsections (b), (c), and (d) of this clause, provided that the Commission or Contractor identifies that data in writing at the time of delivery of the contract work.

(g) Unless the USEPA determines otherwise, the Contractor agrees to include these requirements in each subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by the USEPA.

(3) Unless the Federal Government later makes a contrary determination in writing, irrespective of the Contractor's status (i.e., a large business, small business, state government or state instrumentality, local government, nonprofit organization, institution of higher education, individual, etc.), the Commission and the Contractor agree to take the necessary actions to provide, through the USEPA, those rights in that invention due the Federal Government as described in

U.S. Department of Commerce regulations, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," 37 C.F.R. Part 401.

(4) The Contractor also agrees to include these requirements in each subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by the USEPA.

B. Patent Rights - The following requirements apply to each contract involving experimental, developmental, or research work:

(1) General - If any invention, improvement, or discovery is conceived or first actually reduced to practice in the course of or under the contract, and that invention, improvement, or discovery is patentable under the laws of the United States of America or any foreign country, the Commission and Contractor agree to take actions necessary to provide immediate notice and a detailed report to the party at a higher tier until the USEPA is ultimately notified.

(2) Unless the Federal Government later makes a contrary determination in writing, irrespective of the Contractor's status (a large business, small business, state government or state instrumentality, local government, nonprofit organization, institution of higher education, individual), the Commission and the Contractor agree to take the necessary actions to provide, through the USEPA, those rights in that

invention due the Federal Government as described in U.S. Department of Commerce regulations, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," 37 C.F.R. Part 401.

(3) The Contractor also agrees to include the requirements of this clause in each subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by the USEPA.

23. Termination for Convenience. The Commission may terminate this Agreement, in whole or in part, at any time by written notice to the Contractor when it is in the USEPA, the Illinois EPA's or Commission's best interest. The Contractor shall be paid its costs, including contract close-out costs, and profit on work performed up to the time of termination. The Contractor shall promptly submit its termination claim to the Commission. If the Contractor has any property in its possession belonging to the Commission, the Contractor will account for the same, and dispose of it in the manner the Commission directs.

24. Suspension and Debarment. The Contractor is required to verify that none of the Contractors, its principals, affiliates, subcontractors or subconsultants are debarred or suspended or otherwise excluded from or ineligible for participation in Federal Assistance Programs Under Executive order 12549 "Debarment and Suspension" and 40 CFR Part 32. The Contractor may access the Excluded Parties List System at www.epls.gov to verify whether its affiliates, subcontractors or subconsultants are debarred or suspended. The Contractor must include this requirement in any lower tier covered transaction it enters into.

25. Cooperation with the PBC Inspector General. The Contractor agrees to cooperate fully and expeditiously with the PBC's Inspector General in all investigations or audits. The Contractor agrees to provide all documents, date, files and other information and access to all witnesses specified by the PBC's Inspector General. This obligation applies to all officers, directors, agents, partners, and employees of the Contractor. The Contractor agrees to insert this provision in any subcontracts that it awards:

26. Ethics Resolution. The Contractor has read and agrees to comply with all provisions of the Code of Ethics Resolution passed by the Commission on October 3, 2011, which is available on the Commission's website at http://www.pbcchicago.com/pdf/RES_PBC_ECR_Code_of_EthicsAmendOct32011_20110920.pdf, and is incorporated into this Agreement by reference.

27. Conflict of Interest.

    a. No Board member, officer or employee of the Commission, who exercises any functions or responsibilities in connection with the carrying out of the Scope of Services or the carrying out of the Scope of Services to which this Agreement pertains, may have any financial or personal interest, direct or indirect, in this Agreement or the proceeds thereof.

    b. No immediate family member, partner, or organization which employs, or is about to employ any immediate family member or partner of any Board member, officer, or employee of the Commission, shall have any financial interest in the Contractor.

    c. The Contractor covenants that it, its officers, directors and employees, and the officers, directors, and employees of such of its members if a joint venture, and Subcontractors presently have no interest and will not acquire any interest, direct or indirect, in the Scope of Services to which this Agreement pertains, which would conflict in any manner or degree with the performance of the

Services hereunder. The Contractor further covenants that, in the performance of this Agreement, no person having any such interest will be employed by the Contractor.

d. The Commissions, Board members, officers, employees or agents will not solicit nor accept gratuities, favors or anything of monetary value from Contractors, potential Contractors or parties to this Agreement or subcontracts.

28. No Obligations. The Commission and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government, the USEPA, the Illinois EPA, or State of Illinois in or approval of the solicitation or award of the underlying contract, absent the express written consent by the previously-mentioned governmental entities, they are not a party to this Agreement and shall not be subject to any obligations or liabilities to the Commission, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract. The Contractor agrees to include the above clause into each subcontract.

29. Allowable Costs. Notwithstanding any compensation provision to the contrary, the Contractor's compensation under this Contract is limited to those amounts that are allowable and allocable to the Contract in accordance with OMB Circular A-87. To the extent that an audit reveals that the Contractor has received payment in excess of such amounts, the Commission may offset such excess payments against any future payments due to the Contractor and, if no future payments are due or if future payments are less than such excess, the Contractor must promptly refund the amount of the excess payments to the Commission.

30. ACORN. None of the funds provided under this Agreement may be used for sub-awards/sub-grants or contracts to ACORN or its subsidiaries.

31. Recycled Paper. Contractor agrees, in accordance with USEPA Order 1000.25 and Executive Order 13423, Strengthening the Federal Environmental, Energy, and Transportation Management to use recycled paper and double sided printing for all reports which are prepared as a part of this agreement and delivered to USEPA. This requirement does not apply to reports prepared on forms supplied by USEPA, or to Standard Forms, which are printed on recycled paper and are available through the General Services Administration.

32. Signage. The Contractor agrees to erect a sign on the Site, approved by the USEPA and the USEPA stating that work funded by this Agreement is being financed in part by the U.S. EPA CERCLA Funds and providing the appropriate contacts for obtaining information on activities being conducted at the Project Site and for reporting suspected criminal activities. The sign erected on the Project Site shall comply with 40 CFR Part 35, Subpart O (Section 36.6105 (a)(2)(ii)).

33. Subcontracts. The Contractor acknowledges that any subcontracts with Subcontractors or subconsultants may require the approval of the Illinois EPA. The Contractor shall submit the names, addresses and contract price of each proposed Subcontractor or subconsultant to the Commission. If approved, the Contractor shall submit a copy of the subcontract to the Commission within seven (7) days of the date on which

34. Applicability to Subcontractors. The Contractor shall incorporate the terms and conditions set forth in this Attachment into any subcontracts it enters into with a Subcontractor. The Contractor acknowledges that the Commission shall hold the Contractor responsible for any Subcontractor's failure to comply with these terms and conditions, and to the extent it is damaged, may seek to recover from the Contractor all remedies available in equity and law.

EXHIBIT 2

Book 2 – SUPPLEMENTAL TERMS AND CONDITIONS FOR CONSTRUCTION CONTRACTS

BOOK 2
SUPPLEMENTAL TERMS AND CONDITIONS FOR CONSTRUCTION

FOR

IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES

PS1913

PUBLIC BUILDING COMMISSION OF CHICAGO

Mayor Rahm Emanuel
Chairman

Erin Lavin Cabonargi
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TERMS AND CONDITIONS

ARTICLE 1. GENERAL CONDITIONS

SECTION 1.01 Definitions

Wherever used in any of the Contract Documents, the following meanings are given to the terms herein defined:

1. "Change Order" is the document signed by the Contractor and the Commission which authorized either an adjustment in the Contract sum and / or Contract time or a change in the Work that may not result in such an adjustment.
2. "Commission" means the Public Building Commission of Chicago, a municipal corporation organized under the Public Building Commission Act of the State of Illinois, as amended, or its duly authorized officers or employees.
3. "Commission Representative" means the person assigned, in writing, by the Executive Director to be the Commission's Representative for the project.
4. "Contract" or "Contract Documents" means all of the following component parts, including exhibits attached thereto and/or incorporated therein by reference, and all amendments, modifications and revisions made from time to time in accordance with the provisions hereof:
   a. Book 1 – Professional Services Agreement for In-Situ Chemical Oxidation and Soil Remediation Services
   b. Book 2 – Supplemental Terms and Conditions for Construction
   c. Terms and Conditions for U.S. EPA and Illinois EPA Funded Contracts Professional Services
   d. Book 3 – Technical Specifications and Drawings
5. "Contract Completion Date" is the date on which the Contractor completes the Services and has obtained acceptance of Deliverables by the Commission.
6. "Contract Price" means the full amount of compensation to be paid for the Work to be performed by the Contractor as adjusted from time to time by Change Order.
7. "Contractor" means the partnership, firm, corporation, joint venture or entity entering into the Contract with the Commission to perform the Work required by the Contract Documents.
8. "Day" or "Days" means calendar day(s) unless otherwise specified.
9. "Drawings" are those enumerated in the in the Schedule of Drawings, and additional drawings and sketches, if any, incorporated into the Contract by a bulletin issued by the MEC or Change Order as the Work progresses.
10. "MEC" or "Managing Environmental Consultant" means the environmental consultant, retained by the PBC, to perform environmental oversight for the project.
11. "Environmental Law(s)" means all applicable Federal, State, and local laws, ordinances, rules, regulations, and executive orders pertaining to environmental matters.
12. "Executive Director" means the person employed by the Commission as its Executive Director or the duly authorized representative thereof.
13. "Field Order" means a written order to the Contractor, signed by the Commission Representative unilaterally directing changes in the Work.
14. "Final Completion and Acceptance of the Work" means the last date on which all of the following events have occurred: the Commission has determined that all Punch List Work and any other remaining Work have been completed in accordance with the Contract Documents; final inspections have been completed and operating systems and equipment testing have been completed; final occupancy certifications have been issued; Contractor's LEED Commissioning responsibilities required by the Contract Documents have been completed; all deliverables have been provided to the Commission; and all contractual requirements for final payment have been completed.
15. "First-tier Subcontractor" means any Subcontractor that has a contract with the General Contractor.
16. "Hazardous Materials" means asbestos and asbestos-containing materials, polychlorinated biphenyls (PCBs), oil or any other petroleum products, natural gas, special nuclear materials, and by-product materials regulated under the Atomic Energy Act (42 U.S.C. Sec. 2014, et seq.), pesticides under the Federal Insecticide, Fungicide and Rodenticide Act

(7U.S.C. Sec. 136, et seq.) and any hazardous waste, toxic substance or related material, including any substance defined or treated as "hazardous waste," "special waste," "toxic substance," or a comparable term in any Environmental Law.

17. "Notice to Proceed" refers to the written notice issued by the Executive Director and directed to the Contractor, which states the date for the Contractor to begin performance of the Work.

18. "Program Safety Manager" means the person assigned, in writing, by the Executive Director to be the Commission's Safety Manager for all Commission projects.

19. "Punch List" is the list of Punch List Work, and "Punch List Work" means minor adjustments, repairs or deficiencies in the Work as determined at the sole discretion of the Commission. Items of incomplete Work that preclude full or beneficial use of any portion of the Work or that preclude the Commission from full operation, maintenance, or security of the facility are not considered Punch List Work.

20. "Record Documents" are all documents required under the terms of the Contract to be provided to the Commission by the Contractor, including, but not limited to, shop drawings, as-built drawings, blue line drawings, parts manuals, operation and maintenance manuals, and Project manuals or specifications.

21. "Request for Information" or "RFI" means the document transmitted by the Contractor to the Architect via the Commission Representative seeking clarification or direction with respect to ambiguity, contradictions, errors or omissions in the Project Manual or Drawings.

22. "Residents of the Project Community" means persons domiciled within the project area as designated by the Community as shown in Exhibit A.

23. "Schedule" means the critical path method (CPM) schedule submitted by the Contractor establishing time frames for the performance of components of the Work.

24. "Schedule of Values" means the detailed list of the value of each construction activity included in the Contract Price broken down by labor and materials that is submitted by the Contractor and approved by the Commission, as amended.

25. "Site" means the location(s) shown on the Drawings or described in Book 3 – Technical Specifications – Section 01010 – Summary of Work of the Technical Specifications, within which the Work will be performed under the Contract Documents.

26. "Special Waste" means those substances as defined in the Illinois Environmental Protection Act, 415 ILCS 5/3.45, and further defined in Section 809.103 or 35 Illinois Administrative Code, Subtitle G, Ch.1.

27. "Subcontractor" means any partnership, firm, corporation or entity other than an employee of the Contractor, that furnishes labor and/or materials to the Contractor, whether or not the Subcontractor is in privity with the Contractor.

28. "Submittal" means a schedule, shop drawings, video tape, product data, samples, or other items as may be required by the Contract for review and/or approval prior to prosecution of a portion of the Work.

29. "Technical Specifications" means the detailed requirements for the Work furnished by the MEC and set forth in Book 3 of the Contract Documents.

30. "User" or "User Agency" means the entity for which or on whose behalf the Commission has undertaken to cause the Work to be performed.

31. "Work" means the obligations of the Contractor under the Contract Documents. Work includes, unless specifically excepted by the Contract Documents, the furnishing of all materials, labor, equipment, supplies, plant, tools, scaffolding, transportation, superintendence, permits, inspections, occupancy approvals, insurance, taxes, and all other services, facilities and expenses necessary for the full performance and completion of the requirements of the Contract Documents. Work also means that which is furnished, produced, constructed, or built pursuant to the Contract Documents.

SECTION 1.02 Interpretation / Rules

1. Intent of Contract Documents:

   a. The intent of the Contract Documents is to describe the Work that the Contractor will undertake to fulfill the requirements of the Contract. The Contractor must perform all Work as provided in the Contract Documents as

required and necessary to complete the Work in accordance with the Contract Documents. The Contractor must furnish all required materials, equipment, tools, labor, temporary light and power, shop drawings, installation drawings, working drawings, and incidentals, unless otherwise provided in the Contract, and will include the cost of all such items in the Contract Base Bid, unit prices or any lump sum item. The Base Bid includes all costs relating to, or associated with, the foregoing including, but not limited to, all direct costs, indirect costs, overhead, and profit.

b. Wherever the imperative form of address is used, such as "perform the excavating", "provide equipment required", "remove obstructions encountered", "furnish and install reinforcing steel bars", it is understood and agreed that such imperative is directed to the Contractor.

c. "Provide" as used in these specifications means furnish and install.

d. Unless a contrary meaning is specifically noted elsewhere, words "as required," "as directed", "as permitted", and similar words mean that requirements, directions of, and permission of the Commission are intended; similarly the words "approved", "acceptable", "satisfactory", or words of like import, mean "approved by", "acceptable to", or "satisfactory to" the Commission. Words "necessary", "proper", or words of like import as used with respect to extent, conduct, or character of Work specified shall mean that Work must be conducted in a manner, or be of character which is "necessary" or "proper" in the opinion of the Commission.

e. The Work under this Contract has not been completely segregated into divisions of Work to be performed by any trade or Subcontractor. The Contractor shall be responsible for all segregation of Work between the trade or craft jurisdictional limits.

f. Before the Contractor physically begins the Work, the Contractor must check the Commission's Technical Specifications and Drawings. Should any errors, discrepancies or omissions be found in these plans and specifications or any discrepancy found between the Contract Documents and the physical conditions at the Site or in any subsequent Drawings that may be provided thereafter, the Contractor must notify the Commission Representative, in writing, immediately.

SECTION 1.03 [NOT USED]

SECTION 1.04 Severability

If any provision of this Contract is inoperative or unenforceable as applied in any particular case because it conflicts with any other provision of this Contract, or of any constitution, statute, ordinance, rule of law, or public policy, or for any other reason, such circumstances will not render the provision in question inoperative or unenforceable in any other case or circumstance, or render other provision or provisions of this Contract invalid, inoperative, or unenforceable to any extent whatever. The invalidity of any phrases, sentences, clauses, or sections contained in this Contract do not affect the remaining portions of this Contract or any part thereof.

SECTION 1.05 Entire Agreement

The Contract, including all Contract Documents and the exhibits attached to them and incorporated, constitutes the entire agreement between the parties with respect to the subject matter hereof, and no other oral or written understandings, representations, inducements, considerations, promises, or interpretations are implied or impressed upon this Contract that are not expressly addressed herein.

ARTICLE 2. [NOT USED]

ARTICLE 3. CONTRACTOR'S OBLIGATIONS

SECTION 3.01 Contractor

1. The Contractor must perform everything required to be performed and provide all of the labor, necessary tools, machinery, materials, schedules and other documents and all facilities for the construction of the Project as described herein and other work necessary to perform and complete in a workmanlike manner, and within the specified time, all of the Work in strict accordance with the Contract Documents. Contractor is solely responsible for selecting the means, methods, techniques, sequences, and procedures used in performing the Work.

2. The Contractor must begin the Work on the date specified in the Notice to Proceed. In addition, upon receipt of Notice to

Proceed, the Contractor must assign and maintain during the term of the Contract and any extension of it, an adequate staff of competent personnel who are fully equipped, licensed as appropriate, available as needed, and qualified to perform the Work. The Contractor must include among the staff such personnel and positions as may be required by the Contract Documents.

3. The Contractor is solely responsible for properly laying out the Work, and for all lines, elevations and measurements for all of the Work executed under the Contract Documents. The Contractor must verify the figures shown on the Drawings before laying out the Work and will be held responsible for any errors or inaccuracies resulting from the failure to do so. Neither the MEC nor the Commission Representative will be responsible for laying out the Work.

4. The Contractor is responsible for the coordination of the various parts of the Work so that no part is left in an unfinished or incomplete condition owing to any disagreement between the various Subcontractors or any of the Subcontractors and the Contractor.

5. The Contractor must require each Subcontractor to become familiar with all provisions of the Contract Documents that may affect Subcontractor's work.

6. The Contractor shall at all times be responsible for the performance of the Work by its Subcontractors. The Contractor will manage and coordinate the Work of Subcontractors such that the Work progresses in an efficient, orderly and timely manner. In the event of any claim or dispute between Subcontractors, or any Subcontractor and Contractor, Contractor shall manage the resolution of any such claim or dispute. The Contractor shall at all times deal with its Subcontractors in good faith, and use all reasonable efforts to resolve claims or disputes in a prompt, cost-effective manner.

7. In the event that, in the reasonable opinion of the Commission Representative, the performance of personnel of the Contractor assigned to the Work is at an unacceptable level, or does not comply with Section 9.01 "Competency of Workers" of the Contract, the Commission Representative may provide a written notice to the Contractor. Upon receipt of the notice, such personnel must cease to be assigned to this Work and must return to the Contractor. The Contractor must then furnish to the Commission Representative the name of a proposed substitute person or persons, in accordance with paragraph 2 of this section for approval by the Commission Representative. Absence of sufficient qualified personnel for the Work constitutes an event of default.

8. The Work will not be considered complete and accepted until the Contractor receives written notice from the Commission confirming the Final Completion and Acceptance of the Work.

SECTION 3.02 Contract Documents

1. The Contractor must carefully review the Contract Documents.

2. The Contract Documents are complementary and intended to include all items required for the proper execution and completion of the Work. Generally, the Project Manual describe Work which cannot be readily indicated on the Drawings, and indicate types, qualities, and methods of installation of the various materials and equipment required. The Project Manual and Drawings are to be read and interpreted as a whole. If there are contradictions or ambiguities between the Contract Documents, the Contractor must submit a request for information (RFI) to the Commission Representative.

3. Materials which are shown on the Drawings and which may not be specifically described in the Project Manual or Drawings will be furnished by the Contractor, suitable for the intended use, compatible with adjacent materials, and subject to review for conformance with the intent of the Contract Documents. If installation techniques are not specified, installation will be in accordance with manufacturer's currently published instructions and industry standards.

4. Dimensions of Work will not be determined by scale or rule. Figured dimensions must be followed at all times. If figured dimensions are lacking and cannot be calculated from other dimensions on Drawings, the Contractor must submit an RFI to the Commission Representative for resolution by the MEC.

5. The Contractor must keep at the Site, for reference, a complete set of documents pertaining to the Project, including, but not limited to, the complete Contract Documents, copies of all drawings and plans furnished by the MEC, all additional and revised drawings and plans furnished by the Commission Representative, all orders issued to the Contractor by the Commission that relate to the Work, and all submittals, including shop drawings, meeting minutes, reports, payment applications, and correspondence relating to the Work, and a set of updated as-built drawings.

SECTION 3.03 Document Control

1. The PBC has an on-line collaboration and document management system, OCDM (the "System"). Contractor shall use the System to: track the Work, manage the Project, and follow the Commission's procedures for electronic submission and receipt of documents as directed by the Commission Representative. The System shall be the mode of conveyance and repository for all Project Record Documents. Contractor shall post all Project-related documents, including all Record Documents, on the System. By executing its Contract, Contractor agrees to comply with all terms and conditions required by the Commission for the use of the System.

2. Within 15 calendar days of the Notice to Proceed, Contractor shall designate an employee that will serve as its System Coordinator. Contractor's System Coordinator will be the point of contact for the Commission for implementation and support for Contractor's use of the System.

3. Employees of Contractor, its Subcontractors and Suppliers who will use the System must complete the training provided by the Commission. Each such employee must furnish a valid e-mail address to the Authorized Commission Representative prior to the training.

4. The System requires a broadband connection with the Internet (e.g., at a minimum, T1, cable modem, or DSL) for effective use. Contractor must furnish its own hardware and software, including, but not limited to, personal computers, peripheral software, virus protection software and high-speed document scanners. All written communication and document transmittal from Contractor to the Commission will occur via the System. In the event that hand signatures and/or stamps are required for a document, unless otherwise directed by the Authorized Commission Representative, the transmittal of such document shall be made simultaneously via the System and hard copy; hard copy shall be transmitted as required by the Contract Documents. Signed and/or stamped documents must then be scanned and uploaded to the System.

5. Contractor shall be solely responsible for its use of the System, as well as use of the System by its Subcontractors and Suppliers.

SECTION 3.04 [NOT USED]

SECTION 3.05 Contractor's Warranties and Representations

Contractor warrants and represents that:

1. It has carefully examined and analyzed the provisions and requirements of this Contract; it has inspected the Site to the extent made available by the Commission; from its own analysis it has satisfied itself as to the nature and scope of Work, all conditions, any obstructions, and requirements needed for the preparation of its bid and the performance of its Contract, the general and local conditions, and all other matters which in any way may affect this Contract or its performance; and the time available for such examination, analysis, inspection, and investigation was adequate.

2. This Contract is feasible of performance in accordance with all of its provisions and requirements and that the Contractor can and must perform, or cause to be performed, the Work in strict accordance with the provisions and requirements of this Contract.

3. Except for the contents of this Contract, no representation, statement or promise, oral or written, or of any kind whatsoever, by the Commission, its officials, agents, representatives or employees, has induced the Contractor to submit a bid or has been relied upon by the Contractor, including any reference to (i) the meaning, correctness, suitability or completeness of any provisions or requirements of this Contract; (ii) the nature, existence, or location of materials, structures, obstructions, utilities or conditions, surface or subsurface, which may be encountered at or on the Site; (iii) the nature, quantity, quality or size of any materials, equipment, labor and other facilities needed for the performance of this Contract; (iv) the general conditions which may in any way affect this Contract or its performance; (v) the compensation provisions of the Contract; or (vi) any other matter.

4. [NOT USED]

5. The Contractor acknowledges and understands that the Commission materially relied upon the Contractors bid in its selection of the Contractor to perform the work.

6. Contractor's submittal of its bid establishes that the Contractor, in preparing and submitting its bid on which this Contract is based, has complied with and given full consideration to the following bidding requirements:

   a. The Contractor did obtain for bidding purposes copies of the complete Project Manual for Precast Panel Repairs (August 23, 2012), Contract Drawings (August 23, 2012) and Revised Bid Form (September 7, 2012).

   b. The Contractor has clarified to its satisfaction and complete understanding and acceptance any doubt as to the true meaning and intent of any part or parts of the specifications and plans or other portions of the Contract Documents.

   c. The Contractor waives any claim for relief because of alleged mistakes or omissions in its bid and that the Contractor will be held strictly to its bid as presented.

7. The Contractor has the capability and financial resources to perform all of the provisions and requirements of this Contract.

8. The Contractor must perform all of its obligations under this Contract in accordance with all of the Contract's provisions and requirements.

SECTION 3.06 [NOT USED]

ARTICLE 4. CONTRACTOR'S RIGHTS OF ASSIGNMENT AND SUBCONTRACTS

SECTION 4.01 No Assignment of Contract

The Contract must not be assigned or any part of the same subcontracted without the written consent of the Executive Director. If the Executive Director provides consent, such consent does not relieve the Contractor from any of its obligations under the terms of the Contract, and Contractor shall remain responsible for satisfactory performance of all Work undertaken by its Subcontractor(s).

SECTION 4.02 No Assignment of Contract Funds

The Contractor will not transfer or assign any Contract funds or claims due or to become due without the prior written consent of the Executive Director. The transfer or assignment of any Contract funds, either in whole or in part, or any interest therein, which will be due or to become due to the Contractor, without the prior written consent of the Executive Director, is void so far as the Commission is concerned.

ARTICLE 5. INDEMNIFICATION, PERFORMANCE & PAYMENT BOND, AND INSURANCE

SECTION 5.01 Indemnification

The Contractor agrees to protect, defend, indemnify, and hold the Commission, the User Agency and their respective officers, officials, representatives, and employees (hereafter "the Indemnified Parties"), free and harmless from and against any and all claims, damages, demands, injury or death, in consequence of granting this Contract or arising out of or being in any way connected with the Contractor's performance under this Contract except for matters shown by final judgment to have been caused by or attributable to the Indemnified Parties' negligence. The indemnification provided herein will be effective to the maximum extent permitted by applicable law. This indemnity extends to all legal costs, including, without limitation: attorney fees, costs, liens, judgments, settlements, penalties, professional fees, or other expenses incurred by the Commission, including but not limited to, fines and penalties imposed by public bodies and the reasonable settlement of such claims. This indemnification is not limited by any amount of insurance required under this Contract. Further, the indemnity contained in this section will survive the expiration or termination of this Contract.

The Contractor shall be solely responsible for the defense of any and all claims, demands, or suits against the Indemnified Parties, including without limitation, claims by an employee, subcontractors, agents, or servants of Contractor even though the claimant may allege that the Indemnified Parties were in charge of the Services or allege negligence on the part of the Indemnified Parties. The Commission will have the right, at its sole option, to participate in the defense of any such suit, without relieving the Contractor of its obligations hereunder.

"Injury" or "damage" as these words are used in this section will be construed to include, but shall not be limited to, injury or damage consequent upon the failure of or use or misuse by Contractor, its subcontractors, agents, servants, or employees, of any scaffolding, hoist cranes, stays, ladders, supports, rigging, blocking or any and all other kinds of items of equipment, whether or not the same be owned, furnished, or loaned by the Indemnified Parties.

The Contractor will promptly provide, or cause to be provided, to the Executive Director and the Commission's General Counsel copies of such notices as Contractor may receive of any claims, actions, or suits as may be given or filed in connection with the Contractor's performance or the performance of any Subcontractor and for which the Indemnified Parties are entitled to indemnification hereunder and to give the Indemnified Parties authority, information, and assistance for the defense of any claim or action."

SECTION 5.02 Performance and Payment Bond

1. Before award of the Contract, the Contractor will deliver to the Commission a Performance and Payment Bond. The surety or sureties issuing the bond must be acceptable to the Commission and the bond must be in the form provided by the Commission a specimen copy of which is attached hereto.

2. In case of neglect, failure, or refusal of Contractor to provide satisfactory sureties when so directed within seven (7) Days after such notification, the Commission may declare this Contract forfeit, but such forfeiture will not release Contractor or its surety or sureties from any liability which may have accrued prior to the date of such forfeiture.

3. If at any time the surety or sureties, or any one of them, upon such bond become insolvent, or are, in the sole opinion of the Commission, unsatisfactory, or unable to respond to damages in case of liability on such bond, the Commission will notify the Contractor and direct that a bond issued by a satisfactory surety or sureties be provided forthwith.

4. Surety for Bond. The Performance and Payment Bond required by the Contract must be secured by a guarantee or surety company listed in the latest issue of U.S. Treasury Circular 570.

SECTION 5.03 Insurance

The Contractor must provide and maintain at Contractor's own expense, until expiration or termination of the Agreement and during the time period following expiration if Contractor is required to return and perform any additional work, the minimum insurance coverage and requirements specified below, insuring all operations related to the Agreement.

1. INSURANCE TO BE PROVIDED

a. Workers' Compensation and Employers Liability

Workers' Compensation Insurance, as prescribed by applicable law covering all employees who are to provide a service under the Agreement and Employers Liability coverage with limits of not less than $1,000,000 each accident, illness or disease.

b. Commercial General Liability (Primary and Umbrella)

Commercial General Liability Insurance or equivalent with limits of not less than $5,000,000 per occurrence for bodily injury, personal injury, and property damage liability. Coverage must include the following: All premises and operations, products/completed operations, separation of insureds, defense, and contractual liability. Contractor and all subcontractors of every tier **will specifically name** the Public Building Commission of Chicago and the City of Chicago as Additional Insured using the ISO CG2010 and CG2037 or equivalents. The Public Building Commission of Chicago and the City of Chicago must be named as Additional Insured on a primary, non-contributory basis for any liability arising directly or indirectly from the work.

If tank removal or excavation is to be performed, the contractor must include the following additional coverage: All premises and operations, products/completed operations (for minimum of two (2) years following project completion), explosion, collapse, underground, separation of insureds, defense, and contractual liability.

Subcontractors performing work for Contractor must maintain limits of not less than $1,000,000 per occurrence with the same terms herein

c. Automobile Liability (Primary and Umbrella)

When any motor vehicles (owned, non-owned and hired) are used in connection with work to be performed, the Contractor must provide Automobile Liability Insurance, with limits of not less than $2,000,000 per occurrence for bodily injury and property

damage. The Public Building Commission of Chicago and the City of Chicago must be named as Additional Insured on a primary, non-contributory basis.

Subcontractors performing work for Contractor must maintain limits of not less than $1,000,000 per occurrence with the same terms herein

d. Professional Liability

When Contractor performs work in connection with the Agreement, Professional Liability Insurance must be maintained with limits of not less than $5,000,000 covering acts, errors, or omissions. The policy will include coverage for wrongful acts, including but not limited to errors, acts or omissions, in the rendering or failure to render professional services resulting in a pollution incident. When policies are renewed or replaced, the policy retroactive date must coincide with, or precede the, start of work on the Agreement. Coverage must be maintained for two years after substantial completion. A claims-made policy, which is not renewed or replaced, must have an extended reporting period of two (2) years.

Subcontractors performing work for Contractor must maintain limits of not less than $1,000,000 per occurrence with the same terms herein.

e. Property

The Contractor is responsible for all loss or damage to Public Building Commission and City of Chicago and/or property owner at full replacement or repair cost. The Contractor is responsible for all loss or damage to personal property (including but not limited to materials, equipment, tools, and supplies) owned, rented, or used by Contractor.

f. Valuable Papers

When any plans, designs, drawings, data, media, or other documents are produced or used under this Agreement, Valuable Papers Insurance shall be maintained in an amount to insure against any loss whatsoever, and shall have limits sufficient to pay for the re-creation and reconstruction of such records.

g. Contractors Pollution Liability

Contractors Pollution coverage is required with limits of not less than $5,000,000 per occurrence for any portion of the services, which may entail, exposure to any pollutants, whether in the course of sampling, remedial work or any other activity under this contract. The contractor pollution liability policy will provide coverage for sums that the insured become legally obligated to pay as loss as a result of claims for bodily injury, property damage and/or clean-up costs caused by any pollution incident arising out of the Work including remediation operations, transportation of pollutants, owned and non-owned disposal sites and any and all other activities of Contractor and its subcontractors. Pollution incidents will include, but not be limited to, the discharge, dispersal, release or escape of any solid, liquid, gaseous or thermal irritant or contaminant, including but not limited to smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, medical waste, waste materials, lead, asbestos, silica, hydrocarbons and microbial matter, including fungi, bacterial or viral matter which reproduces through release of spores or the splitting of cells or other means, including but not limited to, mold, mildew and viruses, whether or not such microbial matter is living.

The policy will be maintained for a period of three years after final completion and include completed operations coverage. The policy will include the Public Building Commission of Chicago and the City of Chicago as Additional Insured on a primary and non-contributory basis for on going and completed operations.

Subcontractors performing work for Contractor must maintain limits of not less than $1,000,000 per occurrence with the same terms herein.

h. Railroad Protective Liability

When work is to be performed within fifty (50) feet of the rail right-of-way, Contractor shall ensure that Railroad Protective Liability insurance in the name of the railroad or transit entity remains in force during the course of the project entity for losses arising out of injuries to or death of all persons, and for damage to or destruction of property, including the loss of use thereof.

Contractors and subcontractors are required to endorse their liability policies with form CG 24 17 to eliminate the exclusion for work within fifty (50) feet of the rail right-of-way. Contractors and subcontractors must provide copies of this endorsement with the certificate of insurance required below.

2. ADDITIONAL REQUIREMENTS

The Contractor must furnish the Public Building Commission Procurement Department, Richard J. Daley Center, Room 200, Chicago, IL 60602, original Certificates of Insurance, or such similar evidence, to be in force on the date of this Agreement, and Renewal Certificates of Insurance, or such similar evidence, if any insurance coverage has an expiration or renewal date occurring during the term of this Agreement. The Contractor must submit evidence of insurance to the Commission before award of Agreement. The receipt of any certificate does not constitute agreement by the Commission that the insurance requirements in the Agreement have been fully met or that the insurance policies indicated on the certificate are in compliance with all Agreement requirements. The failure of the Commission to obtain certificates or other insurance evidence from Contractor is not a waiver by the Commission of any requirements for the Contractor to obtain and maintain the specified coverage. The Contractor will advise all insurers of the Agreement provisions regarding insurance. Non-conforming insurance does not relieve Contractor of the obligation to provide insurance as specified in this Agreement. Non-fulfillment of the insurance conditions may constitute a breach of the Agreement, and the Commission retains the right to stop work until proper evidence of insurance is provided, or the Agreement may be terminated.

a. The Commission reserves the right to obtain copies of insurance policies and records from the Contractor and/or its subcontractors at any time upon written request.

b. The insurance must provide for 30 days prior written notice to be given to the Commission if any policies are canceled, substantially changed, or non-renewed.

c. Any deductibles or self-insured retentions on referenced insurance must be borne by Contractor.

d. The Contractor hereby waives and agrees to require their insurers to waive their rights of subrogation against the Public Building Commission of Chicago and the City of Chicago, their respective Board members, employees, elected and appointed officials, and representatives and any Owner or other entity listed on Contract. The Contractor must require each Subcontractor to include similar waivers of subrogation in favor of the Commission and the City of Chicago.

e. The insurance coverage and limits furnished by Contractor in no way limit the Contractor's liabilities and responsibilities specified within the Agreement or by law.

f. Any insurance or self-insurance programs maintained by the Public Building Commission of Chicago and the City of Chicago do not contribute with insurance provided by the Contractor under the Agreement.

g. The required insurance to be carried is not limited by any limitations expressed in the indemnification language in this Agreement or any limitation placed on the indemnity in the Agreement given as a matter of law.

h. If Contractor is a joint venture or limited liability company, the insurance policies must name the joint venture or limited liability company as a named insured

i. The Contractor must require all its subcontractors to provide the insurance required in this Agreement, or Contractor may provide the coverage for its subcontractors. All subcontractors are subject to the same insurance requirements of Contractor unless otherwise specified in this Agreement.

j. If Contractor or its subcontractors desire additional coverage, the party desiring the additional coverage is responsible for the acquisition and cost.

k. The Commission's Risk Management Department maintains the rights to modify, delete, alter or change these requirements.

l. Contractor must submit the following at the time of award:
   1. Standard ACORD form Certificate of Insurance issued to the Public Building Commission of Chicago as Certificate Holder including:
      a. All required entities as Additional Insured
      b. Evidence of waivers of subrogation
      c. Evidence of primary and non-contributory status
   2. All required endorsements including the CG2010 and CG2037

ARTICLE 6. PERMITS AND LICENSES

SECTION 6.01 Permits, Licenses, and Regulations

1. Permits

a. The Contractor is responsible for obtaining all permits, including but not limited to sewer, water, crane, fence, driveway, and building permits, as prescribed by the City of Chicago and public utilities, and any other permits that may be necessary. The Commission will be responsible for the City of Chicago building permit cost and the Department of Buildings Stormwater Review Fee. All other permit fees will be borne by the Contractor.

b. The Contractor will confer with the Commission Representative prior to applying for the City building permit, and the parties will agree on the process for obtaining the City building permit prior to Contractor's application for such permit. The Commission Representative will assist the Contractor in the building permit process, but the Contractor is solely responsible for obtaining all required permits in a timely fashion.

c. The nature of the foundation systems required on portions of this Project may be such that submittals, permits, and coordination will be required with the City of Chicago Bureau of Underground. If such systems are required by the Contract, the Contractor, representing its familiarity with these systems and permit processes, is responsible for any and all submittals, fees, coordination, and any other items required to secure approvals required by the authorities having jurisdiction for the installation of these systems.

2. Licenses and Regulations

a. The Contractor will include in the bid for the Project, obtain, and pay for all licenses and certificates of inspection required or necessary for the execution and completion of the Work.

b. The Contractor must give all notices and comply with all laws, ordinances, codes, rules and regulations bearing on the conduct of the Work.

c. The Contractor must also comply with the current regulations of the National Board of Fire Underwriters where applicable, and all other codes named in the specifications for the various divisions of the Work.

d. Regulations applicable to this Project include, but are not limited to the most current editions of, the following: City of Chicago Building Codes; NEC; NFPA; Illinois Plumbing Code; Illinois Accessibility Standards; Americans with Disabilities Act Guidelines (ADAG); and ASHRAE/IES, Standard Efficiency Guidelines.

ARTICLE 7. CONTRACTOR'S PRACTICES AT SITE

SECTION 7.01 Hours of Work

SECTION 2.1.1 The Contractor will furnish sufficient forces and work such shifts as may be required to ensure completion of the Work under the conditions and within the time stated in the Contract. If the nature of the Work requires that parts of it be performed outside of regular working hours, the cost of such Work including overtime wages for the User's Building Engineer, if applicable, is to be included in the Base Contract Price. If the Project falls behind schedule, the Contractor will be required to perform the Work by extra shifts or on overtime basis as may be necessary to complete the Work on time at no additional cost to the Commission.

SECTION 2.1.2 The Contractor will not be entitled to additional compensation for extra shifts or overtime work for any reason or claim of whatever nature except as otherwise expressly stated in writing by the Commission; and then only to the extent of the direct cost of the premium portion of the time involved and without any charge for mark up, insurance, or taxes, except as might otherwise be required by law.

SECTION 2.1.3 The Site may be occupied during construction. Contractor will cooperate fully with the Commission, Commission Representative, MEC, and the User during construction operations to minimize conflicts and interference and to facilitate occupant usage and operations.

During occupied hours, the Contractor will limit construction operations to methods and procedures which will not adversely and unduly affect the environment of occupied spaces. The Contractor must provide proper protection and procedures to ensure that noise, dust, odors, air pollution, ambient discomfort, or poor lighting do not endanger or disrupt the activities of the User. The Contractor must follow Federal, State and City safety procedures, and provide for the protection of the building occupants and

furniture, fixtures and equipment as required for execution of the work.

SECTION 2.1.4 Whenever the Contractor desires to perform Work outside the hours of 7:00 am through 3:30 P.M., Monday through Friday, the Contractor will request written authorization from the Commission not less than 48 hours in advance.

SECTION 7.02 Cleaning Up

1. During the Construction, the Contractor will keep the Site and adjacent premises as free from material, debris, and rubbish as is practicable and will remove the same entirely and at once, if in the opinion of the Commission, said material, debris, or rubbish constitutes a nuisance, a safety hazard, or is objectionable in any way to the public. Upon oral and/or written notification of unacceptable Site conditions by the Commission, the Contractor is responsible for immediate remediation within 48 hours of notification. The Contractor's failure to act accordingly will result in completion of remediation work by the Commission at the Contractor's expense.

2. As a condition of Final Completion and Acceptance of the Work, the Contractor must remove from the Site and adjacent premises all machinery, equipment, surplus materials, falsework, excavated and useless materials, rubbish, temporary buildings, barricades, and signs, and must restore the area surrounding the Site to the same general conditions that existed prior to the commencement of the Work.

SECTION 2.1.5 The Contractor will clean off all cement streaks or drippings, paint smears or drippings, rust stains, oil, grease, dirt, and any other foreign materials deposited or accumulated on any portion of the Work or existing facilities or infrastructure due to Contractor's operations.

SECTION 2.1.6 Contractor is solely responsible for and assumes all liability associated with off-Site disposal of any Hazardous Materials generated as a result of Contractor's construction activities.

SECTION 7.03 Project Health and Safety

The Contractor is responsible for project health and safety as of the date stated in the Note to Proceed.

1. Worker's Health and Safety

   a. Contractor has sole and complete responsibility for implementation of a safety program. The Contractor's safety program ("Safety Program") must include the Work of all the Contractor's Subcontractors. The Safety Program must be submitted to the Commissioner before the start of the Work. The Safety Program shall, at a minimum, set forth and maintain the standards stated in the Commission's Project Specific Safety Plans for the Contractor and for Subcontractors. In the event that Contractor elects to adopt the Commission's Safety Manual as a part of Contractor's Safety Program, Contractor acknowledges and agrees that adopting the Safety Manual does not in any way attenuate, limit, transfer or otherwise affect Contractor's sole and complete responsibility and liability for its Safety Program.

   b. The Contractor shall designate a safety representative for the project. This person shall be present whenever work is being performed at the site or whenever delivery of materials, products or equipment is being made at the site. The safety representative must have successfully completed the OSHA 30 hour course.

   c. Although the Commission Representative will observe construction and give the Contractor opinions and suggestions about safety defects and deficiencies, the Commission Representative's suggestions on safety will in no way relieve the Contractor of its responsibility for safety on the project. The Contractor has sole responsibility for safety.

   d. The Contractor must comply with the requirements of Regulations 29 CFR Part 1926 (originally CFR Part 1518) – Safety and Health Regulations for Construction of the Williams-Steiger Occupation Safety and Health Act of 1970 (Federal, OSHA). Copies may be obtained from the Regional Administrator of the Department of Labor, Federal Office Building, Chicago, Illinois.

   e. The Contractor's must also comply with the "Health and Safety Act" of the State of Illinois. The rules pursuant to this Act are on file with the Secretary of State of Illinois and identical in every respect with the standards in effect under the Federal, OSHA, and law, pursuant to orders of the Illinois Industrial Commission. The Federal and

State standards require that the Contractor provide reasonable protection to the lives, health and safety of all persons employed under the Contract. The State act, rules and the applicable parts thereof will be considered as part of these specifications.

f. The Contractor must comply with all local safety laws including, those set forth in Title 15 of the Municipal Code of Chicago, Ch. 15-4, Art. 5, and Ch. 15-20, Art. 1.

g. The Contractor must take any precautions that may be necessary to render all portions of the Work secure in every respect to decrease the possibility of accidents from any cause. The Contractor will furnish and install all necessary facilities to provide safe means of access to all points where Work is being performed and make all necessary provisions to insure the safety of workers and of consultants and inspectors during the performance of the Work.

h. The Contractor must keep on the site of the Work, completely equipped first aid kits readily accessible at all times. The Contractor will designate a person on each shift, acceptable to the Commission Representative, to be in charge of first aid and will cause such person to receive proper instructions therein.

i. Only such materials and equipment as are necessary for the construction of the Work under this Contract, as determined by the Commission Representative, will be placed, stored or allowed to occupy any such space of the site of the Work. If gasoline, flammable oils, or other highly combustible materials must be stored at the site, they will be stored in approved safety containers.

2. Hazardous Materials

a. If the Contractor encounters material on the Site reasonably believed to be hazardous which has not been identified in the Contract Documents or rendered harmless, the Contractor will immediately stop Work in the Area affected and report the condition to the Commission Representative in writing. The Work in the affected area will be resumed in the absence of Hazardous Materials, or when it has been rendered harmless, by written notification from the Commission Representative to the Contractor.

b. The Contractor will not be required to perform, without its consent, any Work in the presence of Hazardous Materials.

c. If reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from material or substance encountered on the Site by the Contractor, the Contractor, will, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the Commission Representative and MEC in writing.

3. Coordination With Other Contractors - Safety

In accordance with the provisions of Article 8. "Coordination With Others," the Contractor will cooperate with any other contractor that may be performing work on the Site in connection with the compliance with regulations of OSHA and all other federal, state, and municipal laws, rules and regulations relating to Site safety and practice including, as may be relevant, correcting Work within abatement periods, requesting extensions on abatement periods when work has been done by other contractors, and furnishing such supporting information or material as may be necessary to fully protect the rights of the Commission, its representatives, and other contractors on pending or prospective violation orders.

4. Public Health and Safety

a. The Contractor must prevent the public from gaining access to the Project Site.

b. The Contractor will take all necessary precautions to ensure the safety of the public and to prevent accidents or injury to persons or damage to property adjacent to the Site where the Work is being performed.

c. The Contractor will erect and properly maintain at all times, as required by laws and regulations and the conditions and progress of the Work, proper safeguards for the protection of the public and post signs warning against the dangers created by falling materials, open excavations, and all other hazardous conditions.

d. The Contractor must remove all snow and ice, and salt all sidewalks adjacent to the project site for the proper

protection of pedestrians pursuant to Section 10-8-180 of the Chicago Municipal Code.

e. If, in the prosecution of the Work, it is necessary to excavate or occupy any street, alley, or public grounds of the City of Chicago, the Contractor agrees to erect and maintain such barriers, and during the night, such lights as will effectively prevent the happening of any accidents or damage to life, limb, or property in consequence of such excavation or occupation of such street, alley, or public grounds. The Contractor is liable for all damage caused by the Contractor, its agents, employees, or Subcontractors of any tier in the excavation or occupation of any street, alley, or public grounds, and indemnifies the Commission pursuant to Section 5.01 "Indemnification."

5. Construction Site Cleanliness

a. The Contractor must comply with all requirements of Section 13-32-125 of the "Chicago Municipal Code entitled, "Construction site cleanliness."
b. The Contractor must mow all grass or weeds on the site as directed by the Commission Representative.

SECTION 7.04 Protection of Work and Property

1. The Contractor will continuously protect the Work and the Commission's property from damage, injury or loss arising in connection with operations under the Contract Documents. The Contractor will make good any such damage, injury or loss. Contractor is responsible Site security, including, but not limited to, watchmen and construction fencing. Dogs are not allowed on the Site at any time.

2. The Contractor will at all times provide and maintain adequate protection against weather (including, but not limited to rain, winds, storms, snow, sleet, frost, or heat) so as to preserve all Work, materials, equipment, apparatus, and fixtures free from injury or damage.

3. The construction period may span the winter season and other times in which cold or inclement weather may be anticipated. The Contractor must make all provisions required and necessary to work during inclement or winter conditions so as to complete all work in accordance with the approved schedule. The following actions necessary may include, but are not limited to, temporary protection and weatherproofing, temporary heat, temporary lighting, and any other measures necessary or prudent.

4. Adequate precautions will be taken against fire throughout all the Contractor's operations. Flammable material must be kept at an absolute minimum, and, will be properly handled and stored in accordance with all applicable codes and standards. Except as otherwise provided herein, the Contractor must not permit fires to be built or open salamanders to be used in any part of the Work. Except in designated areas, smoking is not permitted on the Site at any time.

5. In occupied or partially occupied buildings, the Contractor must provide all safeguards and protection necessary to protect the User from dust as may be created during any portion of the execution of the Work. The Contractor will provide dust-proof barriers to isolate areas of Work from all occupants of operations if dust, debris, or objectionable odors from the performance of the Work spreads beyond the isolated dust barrier to occupied portions of the Site. Following cleaning of the occupied portions of the Site, re-establishment of the dust barriers, and the dissipation of all objectionable odors, when authorized by the Commission Representative, the Contractor may resume operations. Any such disruption to the progress of the Work shall not be the basis for a claim by Contractor.

6. Unless otherwise noted, all existing fixtures, furniture, equipment, supplies, or similar items must be carefully removed by the Contractor and properly stored in a nearby area, protected from damage of any kind, prior to Work being performed in that area. The Contractor will return such items to their original place at the completion of construction. For electronic or utility hook-ups, the Commission will be notified in advance, and allowed sufficient time to disconnect items prior to removal. Hook-ups will be reconnected by the Commission after replacement of furniture and equipment by the Contractor.

7. The Contractor must provide and maintain adequate protection for all properties adjacent to the Site. When required by law or for the safety of the Work, the Contractor will shore up, brace, underpin and protect as necessary, adjacent pavements, foundations, and other portions of existing structures which are in any way affected by the operations under the Contract Documents. The costs of all such operations are part of the Base Contract Price. The Contractor, before commencement of any part of the Work, must give any notices required to be given to any adjoining landowner or other parties.

8. If, in the opinion of the Commission, the Contractor's Work endangers adjoining property, the Work will be stopped when directed in writing by the Commission Representative, and the method of operation changed in a manner acceptable to the Commission.

9. The Contractor must protect all streets, sidewalks, light poles, hydrants, and concealed or exposed utilities of every description affected by or adjacent to the Work. If such items are damaged by the Contractor, the Contractor will make all necessary repair thereof or replacements thereof at no cost to the Commission. It is the Contractor's responsibility to provide photographic evidence of the condition of the site as well as adjacent property, and submit such to the Commission Representative prior to commencement of the Work.

SECTION 7.05 Accidents

1. If death, serious injury, including any time an ambulance is called to the site, or serious damages are caused, the Contractor must notify the Commission Representative immediately via telephone or messenger.

2. The Contractor will promptly report in writing to the Commission Representative all accidents whatsoever arising out of, or in connection with, the performance of the Work, whether on or off the Site, which caused death, personal injury, or property damage, giving full details and statements of witnesses. It will be the responsibility of the Contractor to submit a written accident report, within 24 hours of the occurrence, containing the following:

   a. Name of Person or Persons involved and Home Address(es)
   b. Location of Occurrence
   c. Time of Day and Date
   d. Description of Occurrence
   e. Statements of Witnesses
   f. Signature of Contractor's Superintendent
   g. Any other documentation of the accident, if any (i.e. a police report, OSHA report, medical documentation, etc.)

3. The Contractor must send a copy of the accident report to the Commission Risk Manager, and to the Commission Representative.

4. If any claim is made by anyone against the Contractor or any Subcontractor on account of any accident, the Contractor will promptly report the facts and full details of the claim in writing to the Commission Representative.

ARTICLE 8. COORDINATION WITH OTHERS

SECTION 8.01 Other Contractors on the Site

1. The Commission reserves the right to let other contracts in connection with the Work. The Contractor will afford other contractors reasonable opportunity for the introduction and storage of their materials and for the performance of their work. Contractor will coordinate and tie-in, where appropriate, its Work with that of others in an acceptable manner and perform the Work in proper sequence to the work of others. Such work being performed by the Commission's separate contractors will not in any way constitute acceptance or partial acceptance of the Work by the Commission.

2. The Contractor must conduct the Work so as not to interfere with or hinder the progress or completion of the work being performed by other contractors within or adjacent to the Site.

3. If any part of the Contractor's Work depends, for proper performance or result, upon the work of any other contractor, the Contractor will inspect and measure the work of the other contractor and promptly report to the Commission Representative any defects or discrepancies in such work. The Contractor's failure to inspect and make such report will constitute an acceptance of the other contractor's work as fit and proper for the proper performance of the Work, except as to latent defects.

4. Wherever work being done by any such contractors or subcontractors is contiguous to Work covered by the Contract Documents, the respective rights of the parties will be established by the Commission Representative to secure the completion of the various portions of the Work in a coordinated manner.

SECTION 8.02 Mutual Responsibility of Contractors

1. The Contractor is responsible for Work not completed or accepted due to the presence and operations of other contractors.

2. The Contractor is liable, financially or otherwise, in connection with this Contract, and must protect and save harmless the Commission from any and all damages or claims that may arise because of inconvenience, delay, or loss experienced due to the presence and operations of other contractors working within the limits of the Work.

3. The Contractor, where separate contractors or their subcontractors are employed on the Site, will not make claims against the Commission for loss or damage or injury caused by any fault or negligence of such other contractor or subcontractor. The Contractor will look solely to such contractors or subcontractors for recovery for any such damage or injury.

4. If any separate contractor or its subcontractor suffers loss or damage through any acts or omission on the part of the Contractor, or any of its subcontractors, the Contractor will reimburse such other contractor or subcontractor. If such separate contractor or its subcontractor asserts any claim against the Commission on account of any damage or loss alleged to have been so sustained, the Commission will notify the Contractor, and the Contractor will save the Commission harmless against such claims as provided in Section 5.01 "Indemnification."

ARTICLE 9. PERSONNEL

SECTION 9.01 Competency of Workers

The Contractor must employ only competent and efficient laborers, mechanics or artisans. Whenever, in the opinion of the Commission or its representatives, any worker is careless, incompetent, violates safety or security rules, obstructs the progress of the Work, acts contrary to instructions, acts improperly, or fails to follow the safety requirements of this Contract, the Contractor must, upon request by the Commission Representative, remove such worker from the Work. The Contractor must not permit any person or worker to enter any part of the Work or any buildings connected therewith who is under the influence of intoxicating liquors or controlled substances.

SECTION 9.02 Administration and Supervision of the Work

1. The Contractor will furnish a competent and adequate staff as necessary for the proper administration, coordination, and supervision of the Work; organize the procurement of all materials and equipment so that they will be available at the time they are needed for the Work; and keep an adequate force of skilled workers on the Site to complete the Work in accordance with all requirements of the Contract Documents and to the entire satisfaction of the Commission. In the event the Executive Director determines, in his or her sole discretion, that additional supervision or administration is required, Contractor shall furnish sufficient personnel to perform such supervision or administration, all at Contractor's own expense.

2. Subsequent to notice of contract award, but prior to the Notice to Proceed, the Contractor will select a Project Manager and submit his/her résumé to the Commission Representative for the approval of the Commission. The Project Manager will have full responsibility for the prosecution of the Work with full authority to act in all matters as necessary for the proper coordination, direction, commitment of resources, and technical administration of the Work. The Project Manager will attend meetings at such places and times as will be decided by the Commission or MEC in order to render reports on the progress of the Work. The Contractor will not change Project Manager without the consent of the Commission, unless such staff member proves to be unsatisfactory to the Contractor and ceases to be in its employ.

SECTION 9.03 Superintendence

1. The Contractor must keep on the Project throughout its duration a competent, experienced and qualified Superintendent and any necessary assistants, all of whom must be satisfactory to the Commission. This Superintendent's résumé will be submitted to the Commission Representative for approval at the time the Performance and Payment Bond and certificate(s) of insurance are submitted, or sooner if so requested by the Commission. The Superintendent will be present at the Site when Contractor's personnel and/or Subcontractors are present.

2. The Superintendent will not be changed without the consent of the Commission, unless the Superintendent proves to be unsatisfactory to the Contractor or becomes unavailable due to reasons beyond the control of Contractor. In order to change the Superintendent, the Contractor will give the Commission Representative written notice and submit for approval the qualifications of the proposed replacement Superintendent at least 15 Days prior to the intended change.

3. The Superintendent will represent the Contractor in the absence of the Project Manager and all directions given to the Superintendent will be as binding as if given to the Project Manager.

SECTION 9.04 – 9.07 [NOT USED]

SECTION 9.08 Wage Rates

1. Not less than the prevailing rate of wages as determined by the Illinois Department of Labor must be paid to all laborers, mechanics, and other workers performing Work under this Contract.

4. Contractor's attention is called to the generally prevailing hourly rate of wages, as determined by the Illinois Department of Labor which are incorporated into the Contract Documents by reference.

5. The wage rates set forth in these Contract Documents were the rates in effect at the time these Contract Documents were issued. In the performance of the Work, however, the Contractor is fully responsible for paying the generally prevailing hourly rate of wages in effect, as determined by the Department of Labor, at the time the Work is performed. One resource for determining the current prevailing wage rate is the Internet site http://www.state.il.us/agency/idol/rates/rates.HTM maintained by the State of Illinois Department of Labor. If the Department of Labor revises the prevailing rate of hourly wages to be paid for the Work prior to completion of the Project, the revised rate will apply to the Contract from the effective date of such revision, provided, however that such revision will not entitle the Contractor to any increased compensation under the terms hereof.

6. As a condition of making payment to the Contract, the Commission may request the Contractor to submit an affidavit to the effect that not less than the prevailing hourly wage rate is being paid to laborers, mechanics, and other workers employed on this Contract in accordance with Illinois law.

7.

ARTICLE 10. SCHEDULE

Section 10.01 Time Is Of The Essence

TIME IS OF THE ESSENCE IN THIS CONTRACT. The Contractor agrees that it will commence the performance of the Work on the date set forth in the Notice to Proceed issued by the Commission and that it will complete the Work within the time set forth therein.

ARTICLE 11. [NOT USED]

ARTICLE 12. COMMISSION PROPERTY

Section 12.01 Ownership of Drawings, Specifications and Models

A. All copies of Drawings and Technical Specifications furnished by the MEC are the property of the Commission. Such copies are not to be used on any other work or project and, with the exception of the signed Contract set, are to be returned to the Commission with a copy of the transmittal letter to the Commission Representative at the completion of the Work. All models are the property of the Commission. During the performance of its Work, the Contractor shall be responsible for any loss or damage to documents while in the Contractor's possession or the possession of a Subcontractor and any such documents so lost or damaged shall be restored at the expense of the Contractor

B. The Contractor shall deliver, or cause to be delivered at any time during the term of this Contract, all documents, including but not limited to drawings, models, specifications, estimates, reports, studies, maps and computations, prepared by or for the Commission, to the Commission Representative promptly upon reasonable demand therefore or upon termination or completion of the Work hereunder. In the event of the failure by the Contractor to make such delivery, the Contractor shall pay to the Commission damages the Commission may sustain by reason thereof,

including consequential damages.

Section 12.02 Confidentiality

All of the reports information, or data, prepared or assembled by or provided to the Contractor under this Contract are confidential and the Contractor agrees that, except as specifically authorized herein or as may be required by law, it shall not make available said reports, information, or data, to any other individual or organization, without the prior approval of the Commission. In addition, the Contractor must not, without the prior written consent of the Commission, prepare or distribute any news releases, articles, brochures, advertisements or other materials concerning the project or Contractor's work.

Section 12.03 Right of Entry

1. The Contractor, and any of its officers, employees, agents, and Subcontractors, are permitted to enter upon any part of the Site owned by the Commission or User Agency in connection with the performance of the Work hereunder, subject to the terms and conditions contained herein and those rules that may be established by the Commission or User Agency. The Contractor must provide advance notice to the Commission Representative of Contractor's initial entry onto the Site. Consent to enter upon all or any part of the Site given by the Commission or User Agency will not create, nor be deemed to imply the creation of, any additional responsibilities on the part of the Commission or User Agency.

2. **Inspections.** The Contractor acknowledges that the Commission has the right of access to the Site at all times and the right to inspect all Work during the term of the Contract.

3. The Contractor must use, and must cause each of its officers, employees, agents, and Subcontractors to use, the highest degree of care when entering upon property owned by the Commission or User Agency in connection with the Work. In the case of any property owned by the Commission or User Agency, or property owned by and leased from the Commission or User Agency, Contractor must comply, and must cause each of its officers, employees, agents, and Subcontractors to comply, with any and all instructions and requirements for the use of such property, including any licenses for which requirement is being incorporated by reference. Any and all claims, suits, judgments, costs, or expenses, including reasonable attorneys' fees, arising from, by reason of, or in connection with any such entry is treated in accordance with the indemnification provisions contained in this Contract.

Section 12.04 Damage to Property

If the Contractor causes damage to Commission or User Agency property, the Contractor must, at the sole option of the Commission, either: 1) pay the cost of repair of the damage; or 2) repair or replace any property so damaged. The Commission has the right to a set-off against payments to the Contractor under this Contract for the cost of any such repairs.

ARTICLE 13. QUALITY OF WORKMANSHIP, MATERIALS, AND EQUIPMENT

Section 13.01 Standard of Performance

In addition to performing the Work in full compliance with the Contract Documents, the Contractor will perform, or cause to be performed, all Work required of it under the terms and conditions of this Contract with that degree of skill, care, and diligence normally exercised by qualified and experienced contractors in performing work in projects of a scope and magnitude comparable to the Project.

ARTICLE 14. TESTING AND INSPECTION

Section 14.01 Inspection of Work

1. The Commission, the MEC, the Commission Representative, and all consultants of the Commission retained to do testing, commissioning or inspection, will at all times have access to the Work wherever and whenever it is in process. The Contractor must provide proper and safe facilities for access and inspection.

2. The Contractor will cooperate with inspecting agencies and provide appropriate access. If the inspection is made by an authority other than the MEC or Commission, the Contractor will inform the MEC and Commission Representative in

writing of the date fixed for such inspection no less than 3 business days prior to such date.

3. If the specifications, the MEC's instructions, laws, ordinances or any public authority require any Work to be specifically tested or approved, the Contractor will give the Commission Representative no less than 3 business days written notice of the Work's readiness for inspection by the MEC. Required certificates of inspection must be secured by the Contractor. Inspections by the MEC will be promptly made, and where practicable, at the source of supply

4. Any Work covered up without approval, inspection, or consent of the MEC when such approval, inspection or consent is required by the Contract Documents, will be uncovered for examination as required by the MEC or Commission, and will be replaced and/or re-covered, all at the Contractor's expense. Examination of Work previously covered up with the approval or consent of the MEC may be ordered by the MEC to be uncovered, and if so ordered, such Work will be uncovered by the Contractor. If such Work is found to be in accordance with the Contract Documents, the Commission will reimburse the Contractor for such uncovering and re-covering. If such Work is found to be not in accordance with the Contract Documents, the Contractor will pay all costs of uncovering, replacement, and re-covering, as well as any corrections or repairs made to the Work.

5. The Contractor will place its field engineering force at the Commission Representative's disposal for field checking during any inspection period. When layouts of the Work are to be made, the Contractor will notify the Commission Representative in sufficient time that the MEC may be present.

6. The MEC is not authorized to make any changes or modifications in the Contract Documents, to direct the performance of additional Work, or to waive the performance by the Contractor of any requirements of the Contract Documents. Any changes to the Work will be in accordance with the provisions of Article 17. "Changes in the Work."

7.

ARTICLE 15. PROJECT ACCOUNT RECORDS

Section 15.01 – 15.07 [NOT USED]

Section 15.08 Project Account Records

1. Project data and records

   a. The Contractor and each Subcontractor must keep an accurate record showing the names, occupation, and the actual hourly wages paid to all laborers, workers, and mechanics employed by them in connection with the Work. Such record must be open at all reasonable hours to the inspection of the Commission and to the Director of Labor of the State of Illinois and his/her deputies and agents. The Contractor also must furnish the Commission with certified copies of its payrolls in accordance with Section 16.02 "Payment Applications."

   b. The Contractor and all Subcontractors must furnish the Commission with such information as the Commission may require relating to labor and materials, including all information necessary to determine the cost of the Work, such as the number of workers employed, their pay, the distribution of labor into Work items, equipment time distribution, and any other information which the Commission may require. The Contractor must, on request, furnish the Commission with copies of delivery tickets and invoices covering the expenditures on the Contract.

2. Audits

   a. The Contractor must furnish to the Commission Representative such information as may be requested relative to the progress, execution, and cost of the Work. The Contractor must maintain complete records showing actual time devoted and costs incurred. The Contractor must maintain its books, records, documents, and other evidence and adopt accounting procedures and practices sufficient to record properly all costs of whatever nature claimed to have been incurred and anticipated to be incurred for or in connection with the Work for 7 years after final payment. This system of accounting must be in accordance with generally accepted accounting principles and practices, consistently applied throughout.

   b. All books and accounts kept by the Contractor in connection with the Work, whether in hard copy, digital or other electronic form, must be open to inspection and audit by authorized representatives of the Commission. The Contractor must make these records available at reasonable times during the performance of the Work and must

retain them in a safe place and make them available for inspection and audit for at least 7 years after final payment. No provision in this Contract granting the Commission right of access to records documents is intended to impair, limit, or affect any right to access to such records and documents which the Commission would have had in the absence of such provisions.

c. The Contractor must reimburse the Commission for the costs of such audits if the audit demonstrates that the Contractor overstated the amount due on any invoice by 2% or more. This is in addition to the Contractor's obligation to reimburse the Commission for any overstated amount that might have been paid to Contractor.

3. Confidentiality

All of the reports, information, or data prepared or assembled by or provided to the Contractor under this Contract are confidential and the Contractor agrees that, except as specifically authorized herein or as may be required by law, it will not make available said reports, information, or data to any other individual or organization without the prior approval of the Commission. This requirement will survive expiration or termination of this Contract.

ARTICLE 16. PAYMENTS

Section 16.01 Contract Price

The Contract Price is the total dollar amount of the bid accepted by the Commission, including all Change Orders, and includes all labor, equipment, materials, permits, licenses, fees, and taxes necessary to perform the Work, except the cost of the City of Chicago building permit, which will be paid by the Commission.

Section 16.02 Payment Applications

It is the duty of the Contractor to effectively manage the payment application process and all related paperwork. The Contractor is responsible to the Commission for securing and delivering all paperwork required by the Contract to be submitted for payment, including Subcontractor, consultant and material supplier lien waivers, certified payrolls, and all other required documents.

Failure of the Contractor to promptly submit its payment applications to the Commission, in proper and complete form, will constitute a material breach of this Contract, and constitute cause for termination. No payment application will include payment for Work for which the Contractor has not been billed by the applicable subcontractor, material supplier, service provider or consultant.

Contractor will submit payment applications in such a manner so as not to delay payment to any Subcontractor, material supplier, consultant or service provider whose billing and lien waiver paperwork is complete.

1. Schedule of Values

No later than 15 days after the Notice to Proceed, the Contractor will submit to the Commission Representative a Schedule of Values, in triplicate, showing values of the Work to be performed by it and its Subcontractors containing such supporting details or other evidence as to its correctness as the MEC and Commission Representative may require. The Schedule of Values will list the value for each construction activity broken down by materials and labor to be included in the Schedule. When approved by the Commission Representative, the Schedule of Values will be used as a basis for certificates of payment unless it is found to be in error.

2. Payment Application Procedures

On the invoice target date of each month, the Contractor will submit to the Commission Representative, in triplicate, an application for partial payment including a notarized affidavit stating that it has complied with the requirements of the Contract. The submission shall be one (1) original hard copy to the Commission Representative and at the same time submission electronically through the Commission's designated web based system. The Contractor must also provide a Contractor's Sworn Statement and Affidavit for Partial Payment. The affidavit must be supported by receipts or receipted vouchers, and lien waivers, evidencing payments for such materials, services, labor, and payments to Subcontractors, together with a waiver of lien covering the amount for which the current payment is being requested and such other evidence of the Contractor's right to payment as the Commission Representative may direct. The application for partial payment will conform to approvals made by the Commission Representative at the payment review meeting.

3. Certified Payrolls

Three copies of certified payrolls for the payment period are to be submitted by the Contractor and all Subcontractors working on the Site to the Commission every week. All payrolls must be identified with Contractor or Subcontractor's name and Contract name and number, and must be sequentially numbered. The payroll will be submitted by the Contractor and Subcontractor until all Work by that Contractor or Subcontractor is completed. If there are periods of no Work by Contractor or a Subcontractor, a payroll labeled "NO WORK" will be submitted. The final payroll will be labeled "FINAL." Race, worker classification, and gender must be clearly marked for each employee on the certified payroll along with all additional information required by the Commission. An employee's address should appear every time his/her name appears on the payroll.

4. Documentation Supporting Monthly Payment Applications

For the first Payment Application, the Contractor must provide its own Contractor's Sworn Statement and Affidavit for Partial Payments (Contractor's Sworn Statement) and its Contractor's Waiver of Lien for Partial Payment (Contractor's Waiver of Lien) in support of the Payment Application.

For the second Payment Application, and all subsequent Payment Applications, except the final one, the Contractor must provide: its own Contractor's Sworn Statement, its own Contractor's Waiver of Lien for the current Payment Application and Waiver of Lien To Date and Contractor's Affidavit from all of its First-tier Subcontractors. In addition, the Contractor must provide Supplier's Waiver of Lien for Final Payment (Supplier's Partial Waiver) for its material suppliers from the prior Payment Application.

For the Final Payment Application, the Contractor must provide the Contractor's Sworn Statement and Affidavit for Final Payment and the Contractor's Final Release and Waiver of Lien. In addition, the Contractor must provide Final Waiver of Lien and Contractor's Affidavits for all its Subcontractors, and provide the Supplier Final Release and Waiver of Lien for all Suppliers that have not previously furnished a Final Release and Waiver of Lien.

Section 16.03 – 16.08 [NOT USED]

Section 16.10 Prompt Payment for Subcontractors

The Illinois Prompt Payment Act, 30 ILCS 540/1.01 *et. seq.* requires prompt payment to subcontractors and suppliers, by the General Contractor for work that has been satisfactorily completed.

Section 16.10 Subcontractor Claims

The Contractor must pay all lawful claims made against it by its Subcontractors and all lawful claims made against Contractor by other third persons arising out of, in connection with, or because of its performance of this Contract. The Contractor further will cause all of its Subcontractors to pay all lawful claims made against them. In the even such lawful claims are not satisfied, the Commission is hereby empowered to disburse such sums for and on account of the Contractor directly to the respective parties to which such sums are due and owed.

Section 16.11 Pay Applications and Payments Subject to Review

The Commission shall not be precluded or estopped by any measurement, estimate, or certificate made by Contractor or any Subcontractor either before or after the completion and acceptance of the Work and payment therefore, from showing the true amount and character of the Work performed and materials furnished by the Contractor, or from showing that any such measurement, estimate, or certificate is untrue or incorrectly made, or that the Work or materials do not conform in fact to the Contract. The Commission will not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate and payment in accordance therewith, from recovering from the Contractor and its sureties such damages as the Commission may sustain by reason of the Contractor's failure to comply with the terms of the Contract.

Section 16.12 No Waiver of Legal Rights

Neither the acceptance by the Commission nor any payment by the Commission will operate as a waiver of any portion of the Contract, or of any power herein reserved, or any right to damages herein provided. If the Commission elects to waive any breach of this Contract, that waiver will not be held to be a waiver of any other or subsequent breach.

The Commission will not be precluded or estopped from showing the true amount and character of the Work performed and materials furnished by Contractor, or from showing that any measurement, estimate, or certificate is untrue or incorrectly made,

or that the Work or materials do not conform to the Contract. The Commission will not be precluded or estopped from recovering from the Contractor and/or its sureties such damages as the Commission may sustain by reason of Contractor's failure to comply with the terms of the Contract.

Section 16.13 Liens

Whenever the Commission receives notice in writing of a lien or claim of money due from the Contractor to any Subcontractor, worker, or employee for Work performed or for materials or equipment furnished and used in or about the Work, the Commission may direct that the amount of such claim be deducted from payments due or to become due the Contractor and withheld by the Commission until such claim has been paid or otherwise discharged. This provision is to be construed as being solely for the benefit of the Commission, and will not require the Commission to determine or adjust any claims or disputes between the Contractor and its Subcontractors, workers, or employees, or to withhold any money for their protection, unless the Commission elects to do so. This provision is not to be construed as conferring any rights hereunder for the benefit of Subcontractors, workers or employees, or as enlarging or altering the application or effect of existing lien laws.

The final payment will not become due until the Contractor delivers to the Commission complete release of all liens, financial obligations or claims from the Contractor, Subcontractors, and other agents acting on its behalf in connection with the Work, arising out of the Work, and an affidavit that so far as it has knowledge or information, the releases include all the labor and material for which a claim could be made or a lien could be filed. If any lien remains unsatisfied after all payments have been made, the Contractor must refund to the Commission all moneys that the Commission may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

ARTICLE 17. CHANGES IN THE WORK

Section 17.01 Owner's Right to Change Work

The Commission reserves the right to order, in writing, changes in the Work or the Schedule without prior notice to the Contractor's surety. The Contractor is obligated to perform the changed Work included in the written notice from the Commission in a timely manner. The Contractor must begin the changed Work upon receipt of a Field Order signed by the Commission Representative.

Section 17.02 – 17.02 [NOT USED]

Section 17.04 Change Orders Finalize the Terms of Field Orders

The final terms and provisions of a Field Order, including any adjustment in the Contract Sum and/or the time for the performance of the Work, will be memorialized in a written Change Order signed first by the Contractor then by the Executive Director.

Section 17.05 Contractor's Release

Any and all Change Orders are a full release of the Commission from any liability for any additional compensation or extension of time arising or resulting from the circumstances that gave rise to, and the Work performed pursuant to, a Change Order. By acceptance of a Change Order, the Contractor accepts the compensation and/or time extension provided in full accord and satisfaction for that Change Order, and expressly waives, releases, and relinquishes any and all additional claims and demands relating to, or arising out of, the matters covered by that Change Order. The release that the Contractor must sign will state: "By executing this Change Order, Contractor certifies that it has reviewed and accepts the compensation and/or time extension provided in full accord and satisfaction for this Change Order and that it expressly waives and releases any and all additional claims and demands relating to, or arising out of, the matters covered by this Change Order as more fully described in the exhibit attached hereto including but not limited to: direct, indirect, overhead, home or field office costs; profits; damages; disruptions and impact."

Section 17.06 Performance of Changed Work

The Contractor will promptly proceed with any changes in the Work or Target Schedule as directed by a Field Order in accordance with Section 17.01 "Owner's Right to Change Work." The Contractor's refusal or failure to proceed promptly as directed with the changed Work or changes in the Target Schedule constitutes an event of default under the Contract. No change to the Work by the Contractor as directed by the Commission will invalidate the Contract or release the Contractor's surety.

ARTICLE 18. CLAIMS AND DISPUTES

This provision of the Contract applies to claims for time and/or money based on: differing site conditions; changes in the work (directed in writing by Commission Representative or identified by Contractor), and all other claims made under the Contract.

In the event of any disagreement between the Contractor and the Commission Representative which the Contractor and the Commission Representative have attempted, but been unable, to resolve, including, without limitation, changes, time extensions, claims, allowable costs or any other issues of fact or Contract interpretation based upon, relating to, or arising under the Contract, a request for resolution of the dispute must be submitted to the Executive Director by the Contractor for final determination. The Contractor may not file a dispute until there has been a denial of the claim, which was the basis for the dispute, by the Commission Representative.

Requests for resolution of disputes must be made by the Contractor in writing to the Executive Director, and copied to the Commission Representative. The Commission Representative shall have thirty (30) days to respond in writing to the Executive Director and Contractor. However, the Commission Representative may request, and the Executive Director may allow an additional period of time to respond. The Executive Director's decision may thereafter be reached in accordance with such other information or assistance as may be deemed reasonable, necessary or desirable by the Executive Director.

The Executive Director's final decision shall be rendered in writing no more than thirty-five (35) days after receipt of the response of the Commission Representative was filed or was due, unless the Executive Director notifies the Contractor and Commission Representative before the end of the thirty-five (35) day period that an additional period, not to exceed thirty (30) days, is needed for the Executive Director to respond. The Executive Director's decision shall be conclusive, final, and binding on all parties unless a judicial determination is sought in accordance with the provisions set forth below.

If either the Contractor or Commission does not agree with the decision of the Executive Director, the sole and exclusive remedy is judicial review by a common law writ of certiorari. Unless such review is sought within thirty-five (35) days of receipt of the Executive Director's decision, all right to seek judicial review is waived.

The Contractor may not withhold performance of and must prosecute any Work required by the Contract during the dispute resolution period, including judicial resolution. The Contractor must prosecute all of its Work, including any disputed Work, with the same diligence and effort as if no dispute existed. The Executive Director's written determination must be complied with pending final resolution, including judicial resolution of the Dispute. Neither the Executive Director's determination, nor the actions of the Contractor or the Commission Representative in connection therewith, nor the continued performance by either party, shall constitute an admission as to any factual and/or legal position in connection with the dispute or a waiver of any rights under the Contract.

Administrative Appeal of Dispute: The Contractor must follow the procedures set out in this Article 18, "Claims and Disputes", and receive the Executive Director's final decision as a condition precedent to filing a judicial review of the decision by common law writ of certiorari.

ARTICLE 19. EVENTS OF DEFAULT AND TERMINATION

Section 19.01 Events of Default

The Contractor's failure to perform any of its obligations under the Contract, including but not limited to the following, are events of default: failure to begin the Work at the time specified; failure to perform the Work in accordance with the Contract Documents; failure to perform the Work with sufficient workers, equipment, or materials to ensure the completion of the Work or any part of the Work within the time specified by the Contract; persistent or repeated refusal or failure (except in cases for which extension of time is provided) to supply adequate skilled workers or proper materials; unauthorized discontinuance of the Work; failure to promptly remove materials, or repair, or replace Work that was rejected as defective or unsuitable; failure to make prompt payment to Subcontractors, whether for material or labor; failure to submit all documents required by the Contract Documents or Commission, including but not limited to timely submission of payment applications; failure to prosecute the Work in a manner acceptable to the Commission or in a manner that does not comply with all laws applicable to the Work; persistently disregarding laws, ordinances, or instructions of the Commission, or Commission Representative; or, failure to comply with any other term of the Contract that states an event of default or otherwise engages in a substantial violation of any provision of the Contract Documents; interruption or delay of Work for reasons within the Contractor's control, including, but not limited to, labor interests or disputes; failure to comply with federal, state, or local safety requirements; the Contractor's default on a contract with the PBC, CHA, CTA, or City of Chicago; the Contractor's failure to be licensed as a "General Contractor" as required by Chapter 4-36 of

the Chicago Municipal Code, at all times throughout the term of the Contract or Contractor's loss of its general license; disqualification as an MBE or WBE of the Contractor or any joint venture partner, Subcontractor or supplier if its status as an MBE or WBE was a factor in the award of the Contract and such status was misrepresented by Contractor; Contractor becomes insolvent or bankrupt, attempts assignment of all or any part of the proceeds of this Contract, makes a general assignment for the benefit of creditors, or if a receiver is appointed on account of insolvency any of which negatively impacts Contractor's ability to pay Subcontractors or perform the work.

Section 19.02 Remedies

In the event of a default by Contractor, the Commission, in its sole discretion, may send the Contractor notice of the Commission's intent to exercise any or all of the remedies below.

1. **Termination.** The Commission may terminate the Contract. Written notification of the default and termination of the Contract will be provided to the Contractor and the surety by the Executive Director. The Executive Director's decision and declaration of termination is final and effective.

2. **Notice to Cure.** The Executive Director may provide the Contractor the opportunity to cure the default. The Contractor must cure the default within 10 Days of receipt of the notice from the Executive Director or such time period stated in the Notice to Cure. If the Executive Director does not receive written acknowledgement from the Contractor that it will cure the default within the stated cure period or if the Contractor does not act to cure the default, the Executive Director may terminate the Contact, in which event the termination of the Contract is final and effective.

3. In addition to the foregoing, upon an event of default in Section 19.01, "Events of Default," the Commission may invoke any or all of the following remedies:

    a. The right to take over and complete the Work, or any part thereof, either directly or through others, and to hold the Contractor liable for any amounts paid for such Work above those amounts the Commission would have paid the Contractor for that same Work

    b. The Commission may use the Contractor's Subcontractors, materials, and equipment to complete the Work. Upon the Commission's notification to the Contractor invoking this remedy, any and all rights the Contractor may have in or under its subcontracts are assigned to the Commission. The Contractor must promptly deliver such documents upon the Commission's request. In case of any subcontract so assigned and accepted by the Commission, the Contractor remains liable to the Subcontractor for any payment already invoiced to and paid by the Commission, and for any claim, suit, or cause of action based on or resulting from any error, omission, negligence, fraud, willful or intentionally tortious conduct, or any other act or omission, or breach of Contract, by the Contractor, its officers, employees, agents, and other Subcontractors, arising prior to the date of assignment to the Commission, when such claim, suit, or cause of action has not been discharged, disposed of, or otherwise resolved as of that date. The Contractor must notify its Subcontractors of these requirements.

    c. The right to terminate the Contract as to any or all of the Work yet to be performed.

    d. The right of money damages, including, but not limited to all expert witness or other consultant fees, court costs, and attorney's fees which the Commission may incur in connection with any claim, suit, or action based upon, related to, or arising from, directly or indirectly, an event of default hereunder.

    e. The right to withhold all or any part of the Contractor's compensation yet to be paid by the Commission.

    f. The right to terminate any or all other contracts that Contractor may have with the Commission.

    g. The right to deem the Contractor non-responsible in future contracts to be awarded by the Commission.

Section 19.03 Non-exclusivity of Remedies

The remedies under the terms of this Contract are not intended to be exclusive of any other remedies, but each and every remedy is cumulative and is in addition to any other remedies, existing now or hereafter, at law or in equity. No delay or omission to exercise any right or power accruing upon any event of default impairs any such right or power, nor do they waive any event of default or acquiesce thereto, and every such right and power may be exercised by the Commission from time to time and as often as may be deemed appropriate.

Section 19.04 Commission's Right to Terminate Contract

1. The Commission may, at its sole discretion, exercise the right to send the Contractor notice under Section 19.02.1 "Commission's Right To Terminate Contract," or 19.02.2 "Notice to Cure." Whether to declare the Contractor in default is within the sole discretion of the Executive Director and neither that decision nor the factual basis for it is subject to review or challenge under Article 18 "Claims and Disputes."

2. If termination of the Contract occurs by the Commission under Section 19.02.1 or 19.02.2, the Commission may use the material and equipment, whether owned or leased, which is within the scope of the Work or necessary for completion of the Work and paid for by the Commission (whether located on or off the Site) to complete the Work. The Contractor will receive no further payment until the Work is completed. However, if the cost of completion exceeds the unpaid balance of the Contract, the Contractor must pay the difference to the Commission immediately upon demand.

3. If termination occurs, all costs and changes incurred by the Commission, together with the cost of completing the Work, are deducted from any moneys due or which may become due to the Contractor. When the expense incurred by the Commission exceeds the sum which would have been payable under the Contract, the Contractor and the surety are liable and will pay the Commission the amount of such excess.

Section 19.05 Court Adjudication of Termination

If the Contract is terminated by the Commission for cause and it is subsequently determined by a court of competent jurisdiction that such termination, an early termination, was without cause, such termination will thereupon be deemed under Section 19.06 "Termination for Convenience," and the provisions of Section 19.06 "Termination for Convenience" apply.

Section 19.06 Termination for Convenience

1. The Commission reserves the right, for its convenience, to terminate the Work of the Contractor by written notice stating the effective date of such termination. In such case, the Contractor and Subcontractors will (except for services necessary for the orderly termination of the Work): stop all Work; place no further orders or subcontracts for materials, services, equipment, or supplies; assign to the Commission (in the manner and to the extent directed) all of the rights of the Subcontracts relating to the Work; take any action necessary to protect property of the Commission and property in the Contractor's possession in which the Commission has, or may acquire, an interest; and take any other action toward termination of the Work which the Commission may direct.

2. Contractor's compensation for all work provided prior to the effective date of the termination and costs of stopping the work shall be paid based on the Termination for Convenience provision of the Federal Acquisition Rules and all interpretations of those rules and all cases decided regarding the rules.

3. After receipt of a notice of termination pursuant to this Section 19.06 "Termination for Convenience," Contractor will submit to the Commission Representative its final invoice in the required form, with supporting documentation. The Commission may require certified payrolls, receipts, and other proof of expenditures. The final invoice must be submitted promptly, but in no event more than 60 Days after the effective date of termination.

Section 19.07 Suspension of Work

1. The Commission has authority to suspend the Work, wholly or in part, for such period of time as the Commission may deem necessary due to conditions unfavorable for the satisfactory prosecution of the Work, or conditions which, in the Commission's opinion, warrant such actions; or for such time as is necessary to carry out directions given by the Commission Representative; or to perform any or all provisions of the Contract. The Contractor will not receive compensation for suspension of part of the work. If the Commission suspends the entire project for a period exceeding seven (7) calendar days, the Contractor will be compensated for the following listed costs for each day thereafter. The costs to be paid are limited to: demobilization and remobilization, the Contractor's field supervision costs (based upon the approved staffing plan), and idle equipment costs as provided in Article 17, "Changes In The Work." This provision is not applicable if the suspension and/or costs were caused by any act or omission of the Contractor.

2. If it becomes necessary to stop Work for an indefinite period of time, the Contractor must store all materials in such manner that they will not become damaged in any way, take every precaution to prevent damage or deterioration of the Work performed and erect temporary structures where necessary. The Contractor must not suspend work without written consent from the Commission.

ARTICLE 19. [NOT USED]
ARTICLE 20. [NOT USED]

ARTICLE 21. COMPLIANCE WITH ALL LAWS

Section 21.01 Contractor Must Comply with All Laws

1. The Contractor must at all times observe and comply, and must cause its Subcontractors to observe and comply, with all applicable Federal, State and local laws, ordinances, codes, rules, regulations, and executive orders, now existing or hereinafter in effect, which may in any manner affect the performance of the Contract. Provision(s) required by law, ordinance, codes, rules, regulations, or executive orders to be inserted in this Contract are deemed inserted, whether or not they appear in this Contract. In no event does the failure to insert such provision(s) prevent the enforcement of such provision(s) of this Contract.

2. In performing the Work, the Contractor must follow the most stringent of the applicable agency and code requirements. The Contractor is fully responsible for ascertaining and complying with all agency and code requirements applicable to the Work.

Section 21.02 Equal Employment Opportunity

1. The Contractor will be required to comply with all laws with respect to the employment of labor and payment of local prevailing wage rates.

2. Non-Discrimination

   a. It is an unlawful employment practice for a Contractor to fail to hire, to refuse to hire, to discharge, or to discriminate against any individual with respect to compensation or the terms, conditions, or privileges of employment because of such individual's race, color, religion, sex, age, handicap, or national origin; or to limit, segregate, or classify employees or applicants for employment or otherwise; or to adversely affect such individual's status as an employee because of such individual's race, color, religion, sex, age, handicap, or national origin.

   b. Federal Requirements. Each Contractor will comply with the Civil Rights Act of 1964, 42, U.S.C. Sec. 2000 et seq. (1981), as amended. Each Contractor will further comply with all applicable provisions of the Civil Rights Act of 1964, 28 U.S.C. 1447, 42 U.S.C. 1971, 1975a-1975d, 2000a to 2000h-6 (1992); the Age Discrimination in Employment Act of 1967, 29 U.S.C. 623-634 (1992); the Americans with Disabilities Act of 1990, 29 U.S.C. 706, 42 U.S.C. 12101-12213, 47 U.S.C. 152, 221, 225, 611 (1992); 41 C.F.R. 60 (1992); reprinted in 42 U.S.C. 2000(e) note, as amended by Executive Order No. 11,375 32 Fed. Reg. 14,303 (1967) and by Executive Order No. 12,086, 43 Fed. Reg. 46,501 (1978)/; the Age Discrimination Act, 43 U.S.C. Sec. 6101-6106 (1981); P.L. 101-336; 41 C.F.R. part 60 et seq. (1990).

   c. State Requirements. Each Contractor must comply with the Illinois Human Rights Act, 775 ILCS 5/1-101 et seq. (1990), as amended, the Discrimination in Public Contracts Act, 775 ILCS 10/0.01 et seq. (1990), as amended, and the Environmental Barriers Act, 410 ILCS 25/1 et seq. The Contractor will furnish such reports and information as requested by the Commission and the Illinois Department of Human Relations.

   d. City Requirements. Each Contractor must comply with the Chicago Human Rights Ordinance, Chapter 2-160, Section 2-160-010 et seq. of the Municipal Code (1990), as amended. Further, each Contractor will furnish such reports and information as requested by the Chicago Commission of Human Relations.

   e. Subcontractors. Each Contractor agrees that all of the above provisions will be incorporated in all agreements entered into with any suppliers of materials, providers of services, subcontractors of any tier, and labor organizations which furnish skilled, unskilled, and craft union skilled labor, or which may provide any such materials, labor, or services in connection with this Contract.

3. Employment procedures: Preferences and Compliance

   a. Salaries of employees of Contractor, performing Work under this agreement, will be paid unconditionally, and not less often than once a month, without deduction or rebate on any account except such payroll deductions as are

mandatory or permitted by applicable law or regulations.

b. Contractor certifies that it is familiar with, and will comply with, all applicable provisions of 820 ILCS 130/0.01 through 130/12 thereof (Prevailing Wage Act), 30 ILCS 570/1 through 570/7 (Employment of Illinois Workers on Public Works Act) and 30 ILCS 560/0.01 through 560/7 (Public Works Preference Act).

c. The Contractor will also comply with all applicable Anti-Kickback laws and regulations, including the Anti-Kickback Act of June 13, 1934 (48 Stat. 948; 62 Stat. 740; 63 Stat. 108; 18 U.S.C. § 874; 40 U.S.C. § 276c) and the Illinois Criminal Code of 1961 720 ILCS 5/33E-1 *et. seq.* If, in the performance of this agreement, there is any direct or indirect kickback as defined in any of the above-mentioned laws and regulations, the Commission may withhold from the Contractor, out of payments due to the Contractor, an amount sufficient to pay any underpaid employees the difference between the salaries required to be paid and the salaries actually paid such employees for the total number of hours worked. The amounts withheld may be disbursed by the Commission for and on account of the Contractor to the respective employees to whom they are due, as determined by the Commission in its sole discretion.

4. The Contractor assumes all liability for the payment of any unemployment benefits payable under any federal or state law to individuals employed by it during the progress of the Work covered by this Contract.

5. A breach of any of the requirements of this Section 21.02 may be grounds for termination of the Contract.

Section 21.03 Project Community Residents As Employees

The Contractor agrees to ensure that the aggregated hours of Work to be performed under this Contract will be performed such that 7.5% of the aggregated hours of Work is performed by Project Community Residents. These minimal percentage levels of Project Community Residents are not to be understood as limiting or determining the fuller utilization of Project Community Residents beyond these numerical levels, but are intended instead as minimum requirements unless the Commission grants a waiver based upon demonstration by the Contractor of impracticability or excessive cost of complying with the specified percentages. A waiver or reduction will be considered if the Contractor has unsuccessfully solicited a sufficient number of Project Community Residents to perform the Work and has documented such effort to the satisfaction of the Commission. In addition, a Contractor seeking a waiver or reduction will provide timely notice of the need for qualified residents of the Project Community Residents to an appropriate source of referrals, in which the source is entitled to comment on any waiver or reduction application.

a. Community Hiring Requirements

(1) With respect to this construction contract, it is the policy of the Public Building Commission of Chicago to encourage creation of career opportunities for interested residents of the Project Community Residents.

(2) At least 7.5% of the project labor must be performed by residents of the Project Community Residents. The aggregate hours of Work to be performed by Contactor and Subcontractors under this Contract may be complied with through residents who are trade or non-trade workers. These positions may include, without limitation, trade workers, field engineers, superintendent, project manager, security, data entry clerks, traffic monitoring personnel and site administrative support staff. Contractor shall hold a minimum of two (2) application intake sessions and compile a database of interested Project Community Residents for potential employment on the Project.

b. Definitions

(1) "Project Community Residents" means persons domiciled with the "Project Community". The Greater Grand Crossing and Chatham Community Areas, see Exhibit A.

c. Compliance and Reporting

(1) The Contractor will provide for the maintenance of adequate employee residency records to document that actual Project Community Residents are employed on the Project. The Contractor (and Subcontractors) will maintain copies of personnel documents supportive of every Project Community Residents' record of actual residence.

(2) Weekly Certified Payroll reports (U.S. Department of Labor Form WH-347 or equivalent) submitted to the Commission will identify clearly the actual residence of every employee on each submitted certified

payroll. The first time that an employee's name appears on a payroll, the date that the company hired the employee should be written in after the employee's name.

(3) Full access to the Contractor's and Subcontractors' employment records will be granted to the Commission or any duly authorized representative thereof. The Contractor and Subcontractors will maintain all relevant personnel data for a period of at least 3 years after Final Completion and Acceptance of the Work.

(4) At the direction of the Commission, affidavits and other supporting documentation will be required of the Contractor to verify or clarify an employee's actual address or change of actual address when doubt or lack of clarity has arisen.

d. Non-compliance

(1) Good faith efforts on the part of the Contractor to provide utilization of Project Community Residents may be considered will not suffice to replace the actual, verified achievement of the requirement concerning the worker hours performed by actual Project Community Residents.

(2) For the purpose of adjusting the level of Retainage, the Commission will review compliance at 50%, 75%, and 90% completion of the Work. If the Commission has determined that the Contractor was not compliant in the fulfillment of the required percentages of aggregated worker hours by actual City of Project Community Residents, or has failed to report in the manner indicated above under "Compliance and Reporting," the Commission will be damaged in the failure to provide the benefit of demonstrable employment to Project Community Residents to the degree stipulated in this Section. Therefore, in such case of non-compliance it is agreed that 1/20 of 1 %, (0.0005), of the Contract Price, as adjusted by any Change Orders will be withheld by the Commission in payment for each percentage of shortfall toward the each stipulated residency requirement Project Community Residents. Failure to report the residency and hours of all employees entirely and correctly will result in the surrender of the entire liquidated damages as if no Project Community Residents were employed in either of the categories.

(3) The Executive Director, in his sole discretion, shall determine when to withhold such liquidated damages.

e. Nothing herein provided is to be construed to be a limitation upon the Notice of Requirements for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246) and Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246), or other affirmative action requirements under the regulations promulgated by applicable federal, state or local authorities.

Section 21.07 Inspector General

1. Contractor and its subcontractors, including all officers, directors, agents, partners and employees of such entities shall cooperate with the Inspector General of the Public Building Commission in any investigation or hearing undertaken pursuant to Public Building Commission Resolution 7576 adopted by the Board of Commissioners of the Public Building Commission of Chicago on October 1, 2010.

2. It is the duty of any bidder, proposer, On projects funded by the City of Chicago, Contractor and its, all subcontractors, including and all officers, directors, agents, partners and employees of any such entities, shall on City-funded contracts to cooperate with the Inspector General of the City in any investigation or hearing undertaken pursuant to Chapter 2-56 of the Chicago Municipal Code. Each Contractor understands and will abide by all provisions of Chapter 2-56 of the Municipal Code of Chicago.

3. All contractors will inform their respective subcontractors of this provision and require compliance herewith.

ARTICLE 22. MISCELLANEOUS

Section 22.01 Counterparts

This Contract may be comprised of several identical counterparts, each to be fully executed by the parties and each to be deemed and original having identical legal effect.

Section 22.02 Governing Law

This Contract is governed in accordance with the State of Illinois without regard to choice of law principles. The Contractor irrevocably submits and causes its Subcontractors to submit to the original jurisdiction of those State or Federal courts located within the County of Cook, State of Illinois, with regard to any controversy arising out of, relating to, or in any way concerning the execution or performance of this Contract. The Contractor agrees that service of process on the Contractor may be made, at the option of the Commission, either by registered or certified mail addressed to the applicable office as provided for in this Contract, by registered or certified mail addressed to the office actually maintained by the Contractor, or by personal delivery on any officer, director, or managing or general agent of the Contractor.

Section 22.03 Consent to Service of Process and Jurisdiction

All judicial proceedings brought against the Contractor with respect to this Contract may be brought in (1) any court of the State of Illinois of competent jurisdiction; and (2) any Federal court of competent jurisdiction having *situs* within the boundaries of the Federal court district of the Northern District of Illinois, and by execution and delivery of this Contract, the Contractor accepts, for itself and in connection with it properties, generally and unconditionally, the exclusive jurisdiction of the aforesaid courts, and irrevocably agrees to be bound by any final judgment rendered from which no appeal has been taken or is available. The Contractor will designate and appoint a representative as its agent in Chicago, Illinois to receive on its behalf service of all process in any such proceedings in such court (which representative will be available to receive such service at all times). Said agent may be changed only upon the giving of written notice by the Contractor to the Commission Representative of the name and address of a new Agent for Service of Process who works within the geographical boundaries of the City of Chicago and is retained or employed by the Contractor. The Contractor irrevocably waives any objection (including without limitation any objection of the laying of venue or based on the grounds of *forum non conveniens*) which it may now or hereafter have to bring any action or proceeding with respect to this Contract in the jurisdiction set forth above. Nothing herein will affect the right to serve process in any other manner permitted by law or will limit the right to the Commission to bring proceedings against the Contractor in the courts of any other jurisdiction.

Section 22.04 No Third Party Beneficiaries

Except as otherwise be provided herein, the parties agree that this Contract is solely for the benefit of the parties and nothing herein is intended to create any third party beneficiary rights for Subcontractors or any other third party.

Section 22.05 Notices

1. Notices, unless expressly provided for otherwise in this Contract, must be in writing and may be delivered personally or by placing in the United States mail, first class and certified, return receipt requested, with postage prepaid and addressed as indicated herein.

2. Notices delivered by mail are deemed effective 3 Days after mailing in accordance with this section. Notices delivered personally are deemed effective upon receipt. The addresses stated herein may be revised without need for modification or amendment of this Contract, provided written notification is given in accordance with this section.

Section 22.06 Authority

1. **Commission's Authority.** This Contract is entered into by virtue of the authority conferred on the Commission in accordance with 50 ILCS 20/21.

2. **Contractor's Authority.** Execution of this Contract by the Contractor is authorized and signature(s) of each person signing on behalf of the Contractor have been made with complete and full authority to commit the Contractor to all terms and conditions of this Contract, including each and every representation, certification, and warranty contained herein, attached hereto and collectively incorporated by reference herein, or as may be required by the terms and conditions hereof. If other than a sole proprietorship, Contractor must provide satisfactory evidence that the execution of the Contract is authorized in accordance with the business entity's rules and procedures.

EXHIBIT A
COMMUNITY AREA MAP

PUBLIC BUILDING COMMISSION OF CHICAGO
IN-SITU OXIDATION AND SOIL REMEDIATION SERVICES AT 415 – 423 EAST 79TH STREET
PS1913

(COMMUNITY AREA MAP FOLLOWS THIS PAGE)

IN-SITU Chemical Oxidation and Soil Remediation Services for 415-423 E. 79th St.

Community Hiring Areas

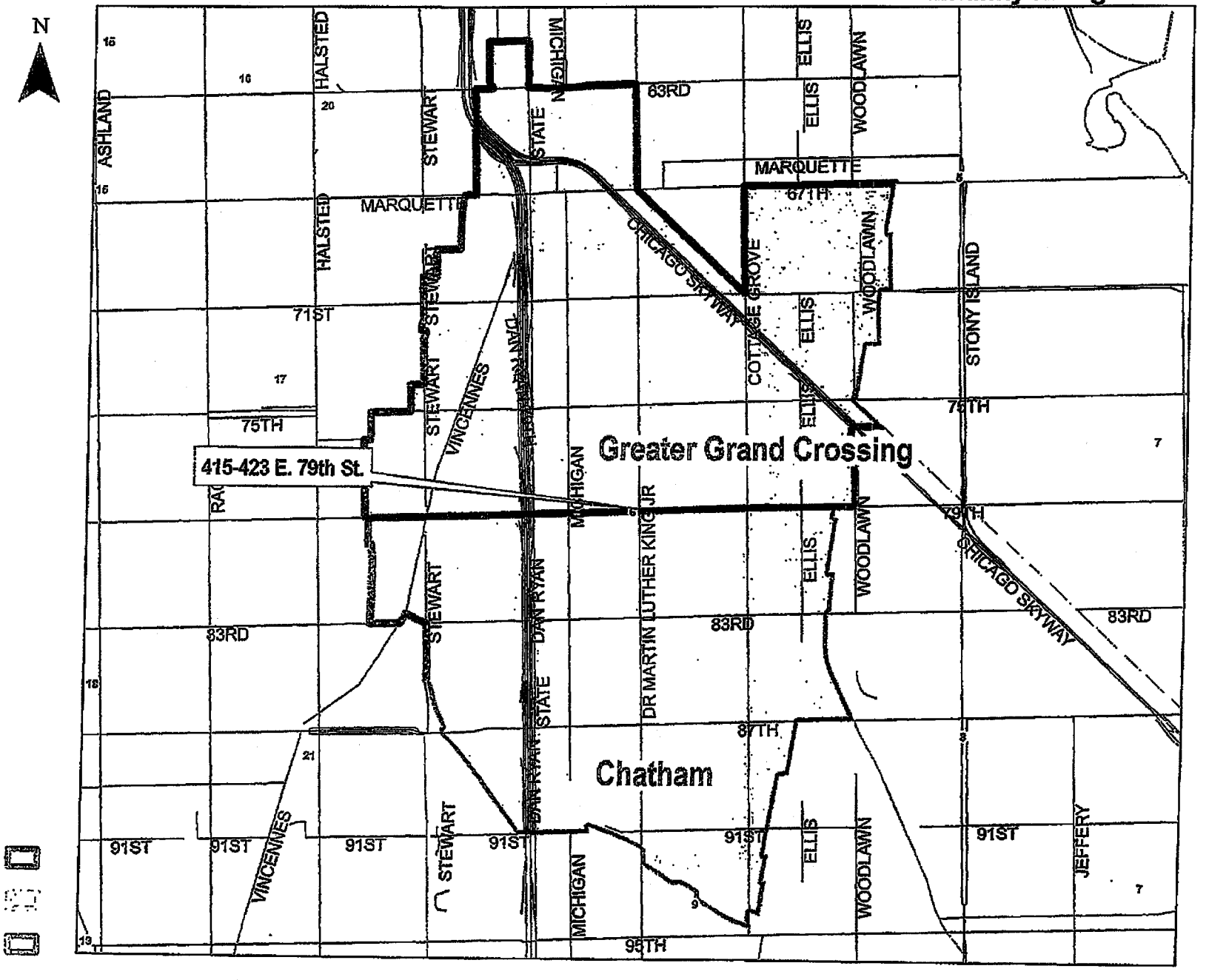

EXHIBIT 3

BOOK 3 – TECHNICAL SPECIFICATIONS AND DRAWINGS

PUBLIC BUILDING COMMISSION OF CHICAGO

BOOK 3
TECHNICAL SPECIFICATIONS

PROFESSIONAL SERVICES CONTRACT # PS1913

IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES
415 – 423 EAST 79TH STREET
ENVIRONMENTAL SERVICES
PROJECT #08070

Mayor Rahm Emanuel
Chairman

Erin Lavin Cabonargi
Executive Director

Room 200
Richard J. Daley Center
50 West Washington Street
Chicago, Illinois 60602
312-744-3090
www.pbcchicago.com

REQUEST FOR PROPOSAL
JANUARY 2, 2013

DOCUMENT 00010

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IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES
WHITNEY YOUNG LIBRARY EXPANSION
415 – 423 EAST 79TH STREET, CHICAGO, ILLINOIS

FOR

PUBLIC BUILDING COMMISSION OF CHICAGO
PROJECT # 08070

EXHIBIT 2 – BOOK 3

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DIVISION 1 – GENERAL REQUIREMENTS
01014 Erosion and Sedimentation Control
01524 Construction Waste Management and Disposal

DIVISION 2 – SITE WORK
02050 Demolition
02116 Underground Storage Tank Removal
02119 Special, Nonhazardous Special and Hazardous Waste Liquids Removal and Disposal
02136 General Dust, Fume and Odor Control
02201 Summary of Existing Conditions
02222 Excavating Backfilling Compacting for Utilities
02250 Cohesive Soil Layer
02300 Earthwork
02316 Soil, Fill, Backfill, CU Structural Soil & Construction & Demo Debris Removal
02317 Special, Nonhazardous Special and Hazardous Waste Soil Removal and Disposal
02318 Acceptance of Backfill, Top Soil & CU Structural Soil
02511 Hot Mix Asphalt Paving
02513 Portland Cement Concrete Paving
02700 Sewerage and Drainage
02777 HDPE Geomembrane

EXHIBIT 3 – DRAWINGS
C0.0 – General Notes
C1.0 – Site Demolition Plan
C2.0 – Site Grading and Drainage Plan
C3.0 – Site Erosion and Sedimentation Control Plan
C4.0 – Site Details

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R-2.0 – ISCO Treatment Areas

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R-4.2 – Remediation Strategies: Option 2

SECTION 01014

EROSION AND SEDIMENTATION CONTROL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings
B. Book 1: Project Information, Instructions to Bidders, and Execution Documents
C. Book 2: Standard Terms and Conditions for Construction Contracts
D. Book 2A: Standard Terms and Conditions Procedures Manual

1.2 SUMMARY

A. Section Includes: Erosion and Sedimentation Control Program for the Project.

1.3 SUBMITTALS

A. Erosion and Sediment Control Plan
   1. Submit erosion and sediment control drawings specific to the site as coordinated with project requirements. Show locations, types and details of erosion and sediment control features and construction.
   2. Show the schedule of implementation coordinated with the construction schedule.
   3. Include a narrative describing the program and maintenance.

B. Product Data
   1. Silt Fence Geotextile Filter Fabric
   2. Filter Basket
   3. Specialty Products Utilized

1.4 QUALITY ASSURANCE

A. Requirements: Create and implement an Erosion and Sedimentation Control Plan that conforms to the erosion and sedimentation requirements of the 2003 EPA Construction General Permit OR local erosion and sedimentation control standards and codes, whichever is more stringent. The Construction General Permit (CGP) outlines the provisions necessary to comply with Phase I and Phase II of the National Pollutant Discharge Elimination System (NPDES) program.

B. Objectives:
   1. Prevent loss of soil during construction by storm water runoff and/or wind erosion, including protecting stock pits for reuse.
   2. Prevent sedimentation of storm sewer or receiving streams.
   3. Prevent polluting the air with dust and particulate matter.

PART 2 - PRODUCTS

2.1 SILT FENCE

A. Geotextile Filter Fabric: A nonwoven fabric consisting of pervious sheets of propylene, nylon, polyester, or ethylene yarn. Certify material by manufacturer to meet the following requirements. Pre-assembled silt fencing may be substituted if it meets the above requirements.

Property	Test Method	Requirements
Minimum Tensile Strength	ASTM D4632	90 lb
Maximum Elongation at 45 lb	ASTM D4632	50% Max
Apparent Opening Size	ASTM D4751	AOS<60 mm
Minimum Permittivity	ASTM D4491	$1x10^{-2}$ SEC^{-1}
Ultraviolet Exposure Strength Retention	ASTM D4355	70% @ 500h

B. Posts: Wood or steel and a minimum 5 ft long. Wood posts shall be at least 4 in. dia. Or nominal 2 x 2 in. Steel posts shall be round or "U", "T", or "C" shaped with a minimum weight of 1.33 lb/ft and projections for fastening wire to fence.

C. Wire Staples: 9 gage and minimum 1 in. long.

2.2 FILTER BASKETS

A. Shall be installed at all open-grate drainage structures defined in the project drawings.

B. Manufacturers:

1. Catch - All
   Price and Company, Inc.
   29165 Wall Street
   Wixom, MI 48393-3525
   T: 866.960.4300
   F: 248.596.4301

2. Flexstorm
   Inlet and Pipe Protection, Inc
   24137 W. 111th Street Unit A
   Naperville, IL 60564
   T: 866.287.8655
   F: 630.355.3477

2.3 SPECIALTY PRODUCTS

A. Specialty products are available for protection of manholes.

2.4 CONSTRUCTION ENTRANCE

A. Aggregate size: CA-1 or CA-4.

B. Geotextile fabric: Shall meet the requirements specifications 592 Geotextile table 1 or 2, class I,II, or IV of the Illinois Urban Manual.

PART 3 - EXECUTION

3.1 GENERAL

A. Do not start operations until the erosion and sediment control plan has been submitted and features and in place.

B. Comply with "Quality Assurance" provisions of these specifications and the erosion and sediment control plan.

C. Schedule the Work in start to finish phases to minimize exposing the site to erosion.

D. Install erosion and sediment control features before site disturbance begins and immediately after new inlets are installed.

E. Do not allow storm water to flow into excavations and disturbed areas.

F. Do not discharge water into sanitary sewers, watercourses or offsite.

G. Do not discharge water-containing sediment in accordance with "Quality Assurance" requirements and as presented in the erosion and sediment control plan submittal or a maximum retained as 30 milligrams of sediment per liter of water. Conduct continuous monitoring of sediment.

H. Maintain sediment control features. Inspect weekly and after every rain. Repair damaged bales, end runs and undercutting beneath bales. Repair breaks in diversion dams and damage down streams of the break. Replace damaged and deteriorated filter fabric and fences. Remove sediment which deposits fill 1/3 of the fabric surface area.

I. Do not allow sediment to flow into vegetated areas.

J. Do not allow sediment to flow into future stormwater BMP aggregate areas noted on the plans.

K. Retain all sediment on the site. Provide temporary stone roadways at exits from the site to ensure mud run-off of tires before exiting.

L. Utilize the sizes of equipment appropriate to the task to minimize exhaust, noise and vibration.

M. Mist or provide other means to keep dust from being scattered to the air.

3.2 INSTALLATION/APPLICATION/ERECTION

A. General: Control surface water runoff on-site and provide temporary soil stabilization measures as required to prevent erosion of soil by action of water. Protect storm sewers adjacent to work site from sedimentation by installation of erosion and sediment control measures. Provide, as a first step in construction operations, barriers, and other measures intended to deter erosion and transport of sediment associated with construction activities before construction starts or as it progresses.

B. Silt Fences: Space posts 6 ft maximum for non-reinforced or 10 ft maximum for reinforced and securely install with at least 2 feet of post in the ground. Excavate trench approximately 4 in. wide and 4 in. deep along line of posts and upslope side of posts using wire staples, tie wires, or hog rings. Extend wire and fence into trench a minimum of 4 in. Attach geo-textile filter fabric directly to posts and wire reinforcement fence as required by wire, staples, or other means accepted by the CFR. Install filter fabric in a manner such that fabric height above grade is 2 to 3 ft. Do not staple fabric to trees. Do not use fabric with defects or other damage. For manholes, the filter fabric can be placed around the lid and secured by the lid weight.

END OF SECTION

SECTION 01524

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings

B. Book 1: Project Information, Instructions to Bidders, and Execution Documents

C. Book 2: Standard Terms and Conditions for Construction Contracts

D. Book 2a: Standard Terms and Conditions Procedures Manual

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for the following:

1. Salvaging nonhazardous demolition and construction material.
2. Recycling nonhazardous demolition and construction material.
3. Disposing of nonhazardous demolition and construction material.

1.3 DEFINITIONS

A. Construction material: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction material includes packaging.

B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.

C. Disposal: Removal off-site of demolition and construction material and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.

D. Downcycling: Creating less valuable products from waste materials. For example, turning nylon face fiber into car parts or carpet padding, including nylon face fiber in recycled backings, or using carpet for waste-to-energy.

E. Recycle: Recovery of demolition or construction material for subsequent processing in preparation for reuse.

F. Repurposing: Reusing the product in another application. Interface assists in facilitating the donation of used carpeting to charities and other nonprofit organizations.

G. Salvage: Recovery of demolition or construction material and subsequent sale or reuse in another facility.

H. Salvage and Reuse: Recovery of demolition or construction material and subsequent incorporation into the Work.

I. Upcycling: Turning waste materials into more valuable products. For example, using waste PET (plastic from soda bottles) to create Terratex panel fabric.

1.4 PERFORMANCE REQUIREMENTS

A. General: Develop waste management plan that results in end-of-Project rates for salvage/recycling of a minimum of 75 percent by weight of total waste generated by the Work.

1.5 SUBMITTALS

A. Waste Management Plan: Submit Plan within 15 days of date established for the Notice to Proceed.

B. Waste Reduction Progress Reports: Concurrent with each Application for Payment, or as directed by the Commission Representative, submit Progress Report. Include separate reports for demolition and construction material. Include the following information:

1. Material category.
2. Generation point of waste.
3. Total quantity of waste in tons
4. Quantity of waste salvaged, both estimated and actual in tons
5. Quantity of waste recycled, both estimated and actual in tons
6. Total quantity of waste recovered (salvaged plus recycled) in tons
7. Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste.
8. Receiving point for waste that is recycled or otherwise diverted from landfill.

C. Waste Reduction Calculations: Before request for Substantial Completion, submit three copies of calculated end-of-Project rates for salvage, recycling, and disposal as a percentage of total waste generated by the Work.

D. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.

E. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.

F. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices. Submit concurrently with waste reduction progress reports.

G. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts,

and invoices. Include manifest, weight tickets, receipts and invoices. Submit concurrently with waste reduction progress reports.

H. Qualification Data: For Waste Management Coordinator and refrigerant recovery technician.

I. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.

1.6 QUALITY ASSURANCE

A. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.

B. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.

C. Waste Management Conference: Conduct conference at Project site. Review methods and procedures related to waste management including, but not limited to, the following:

1. Review and discuss waste management plan including responsibilities of Waste Management Coordinator.
2. Review requirements for documenting quantities of each type of waste and its disposition.
3. Review and finalize procedures for materials separation and verify availability of containers and bins needed to avoid delays.
4. Review procedures for periodic waste collection and transportation to recycling and disposal facilities.
5. Review waste management requirements for each trade.

1.7 WASTE MANAGEMENT PLAN

A. General: Develop plan consisting of waste identification, waste reduction work plan, and cost/revenue analysis. Include separate sections in plan for demolition and construction material. Indicate quantities by weight or volume, but use same units of measure throughout waste management plan.

B. Waste Identification: Indicate anticipated types and quantities of demolition, site-clearing, and construction material generated by the Work. Include estimated quantities and assumptions for estimates.

C. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.

1. Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.
2. Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses, and telephone numbers.
3. Salvaged Materials for Donation: For materials that will be donated to individuals and organizations, include list of their names, addresses, and telephone numbers.

4. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
5. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.
6. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location on Project site where materials separation will be located.

D. Cost/Revenue Analysis: Indicate total cost of waste disposal as if there was no waste management plan and net additional cost or net savings resulting from implementing waste management plan. Include the following:

1. Total quantity of waste.
2. Estimated cost of disposal (cost per unit). Include hauling and tipping fees and cost of collection containers for each type of waste.
3. Total cost of disposal (with no waste management).
4. Revenue from salvaged materials.
5. Revenue from recycled materials.
6. Savings in hauling and tipping fees by donating materials.
7. Savings in hauling and tipping fees that are avoided.
8. Handling and transportation costs. Include cost of collection containers for each type of waste.
9. Net additional cost or net savings from waste management plan.

E. Forms: Prepare waste management plans and logs on forms similar to those included at end of Part 3. All information/content/categories in the sample forms included shall be in the final forms.
1. Contractor shall include all backup to information on forms.
2. Contractor to separate soils, landscape debris, environmentally impacted materials from total calculation.
3. Contractor shall define any and all materials marked as "inert".

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

A. General: Implement waste management plan as approved by Architect. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.

B. Waste Management Coordinator: Engage a waste management coordinator to be responsible for implementing, monitoring, and reporting status of waste management work plan. Coordinator shall be present at Project site full time for duration of Project.

C. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work occurring at Project site.

1. Distribute waste management plan to everyone concerned within three days of submittal return.
2. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.

D. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.
2. Comply with Division 02 requirements for controlling dust and dirt, environmental protection, and noise control.

3.2 SALVAGING DEMOLITION DEBRIS

A. Salvaged Items for Reuse in the Work:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until installation.
4. Protect items from damage during transport and storage.
5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.

B. Salvaged Items for Sale and Donation:
1. General: Salvaged items are to be handled on site and removed from the project site to destination or Contractor's storage facility by the Contractor. No direct salvage from site by other parties.

2. Salvage Incentives: Revenues, savings, rebates, tax credits, and other incentives received for salvaged waste materials not to be returned to the Owner shall accrue to the Contractor.

C. Salvaged Items for Owner's Use:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Transport items to Owner's storage area designated by Owner.
5. Protect items from damage during transport and storage.

3.3 RECYCLING DEMOLITION AND CONSTRUCTION MATERIAL, GENERAL

A. General: Recycle paper and beverage containers used by on-site workers.

B. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall accrue to the Contractor.

C. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical.

1. Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.

   a. Inspect containers and bins for contamination and remove contaminated materials if found.

2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
4. Store components off the ground and protect from the weather.
5. Remove recyclable waste off Owner's property and transport to recycling receiver or processor.

3.4 RECYCLING DEMOLITION WASTE

A. Asphaltic Concrete Paving: Transport paving to asphalt-recycling facility.

B. Concrete: Remove reinforcement and other metals from concrete and sort with other metals.

1. Pulverize concrete to maximum 1-1/2-inch (38-mm) size.
2. Crush concrete and screen to comply with requirements in Division 02 Sections for use as satisfactory soil for fill or subbase.
3. Remove as much soil from concrete as practicable prior to loading for reuse.

C. Masonry: Remove metal reinforcement, anchors, and ties from masonry and sort with other metals.

1. Pulverize masonry to maximum 1-1/2-inch (38-mm) size.

a. Crush concrete masonry and screen to comply with requirements in Division 02 Sections for use as satisfactory soil for fill or subbase.

2. Clean and stack undamaged, whole masonry units on wood pallets.

D. Wood Materials: Sort and stack members according to size, type, and length. Separate lumber, engineered wood products, panel products, and treated wood materials.

E. Metals: Separate metals by type.

1. Structural Steel: Stack members according to size, type of member, and length.
2. Remove and dispose of bolts, nuts, washers, and other rough hardware.

F. Equipment: Drain tanks, piping, and fixtures. Seal openings with caps or plugs. Protect equipment from exposure to weather.

G. Plumbing Fixtures: Separate by type and size.

H. Piping: Reduce piping to straight lengths and store by type and size. Separate supports, hangers, valves, sprinklers, and other components by type and size.

I. Lighting Fixtures: Separate lamps by type and protect from breakage.

J. Electrical Devices: Separate switches, receptacles, switchgear, transformers, meters, panelboards, circuit breakers, and other devices by type.

K. Conduit: Reduce conduit to straight lengths and store by type and size.

3.5 RECYCLING CONSTRUCTION MATERIAL

A. Packaging:

1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
2. Polystyrene Packaging: Separate and bag materials.
3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.

3.6 DISPOSAL OF WASTE

A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction in accordance with Section 02316 and 02317.

1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
3. Do not cross contaminate contaminated materials with clean construction materials.

B. Burning: Do not burn waste materials.

C. Disposal: Transport waste materials off Owner's property and legally dispose of them in accordance with Section 02316 and 02317.

END OF SECTION 01524

SECTION 02050

DEMOLITION

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

a. Drawings
b. Book 1: Project Information, Instructions to Bidders, and Execution Documents
c. Book 2: Standard Terms and Conditions for Construction Contracts
d. Book 2A: Standard Terms and Conditions Procedures Manual

1.2 SUMMARY

A. Section Includes demolition indicated and as specified and the removal and legal disposal of demolished materials.

1.3 SUBMITTALS

A. Inventory: After demolition is complete, submit a list of items that have been removed and salvaged for Owner.

B. Predemolition Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by building demolition operations. Submit before Work begins.

C. Landfill Records: Indicate receipt and acceptance of impacted soils and/or hazardous wastes if any.

D. Identify and accurately locate capped utilities and other subsurface structural, electrical, and mechanical conditions.

1.4 QUALITY ASSURANCE

A. Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.

B. Regulatory Requirements: Conform to the requirements of authorities having jurisdiction and the City of Chicago, including lead, asbestos, PCBs, environmental and health hazards, air, water, soil and ground quality, and the legal disposal of waste and in accordance with Sections 01524, 02116, 02316, 02317 and 02318.

C. Standards: Comply with ANSI A10.6 and NFPA 241.

D. Standards: Comply with ANSI A10.6 and NFPA 241.

1.5 PROJECT CONDITIONS

A. Occupancy: Verify that area to be demolished is vacated and use discontinued prior to the start of the Work.

B. Condition of Structures: The Owner and Architect assume no responsibility for the actual condition of structures to be demolished.

1. Conditions existing at the time of inspection for bidding purposes will be maintained by the Owner insofar as practicable. However, variations within the structure may occur by Owner's removal and salvage operations prior to the start of the demolition work.

C. Contractor's Salvage: Remove items of salvable value to the Contractor from the structure as the Work progresses. Salvaged items must be transported from the site as they are removed.

1. Storage or sale of removed items on the site will not be permitted.

D. Explosives: The use of explosives will not be permitted.

E. Traffic:

1. Conduct demolition operation and the removal of debris to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities.
2. Do not close or obstruct streets, walks or other occupied or used facilities without permission from authorities having jurisdiction.
3. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.

I. Protections:

1. Ensure the safe passage of persons around the area of demolition. Conduct operations to prevent injury to adjacent buildings, structures, other facilities and persons.
2. Erect temporary covered passageways as required by authorities having jurisdiction and the City of Chicago.
3. Provide shoring, bracing, or support to prevent movement or settlement or collapse of Work to be demolished and adjacent construction to remain.

J. Damages: Promptly repair damages to adjacent construction on or off the site caused by demolition operations at no cost to the Owner.

K. Notify utility locator service for area where Project is located before site clearing.

L. Utility Services:

1. Maintain existing utilities required to remain, keep in service, and protect against damage during demolition operations.
2. Do not interrupt existing utilities serving occupied or used facilities, except when authorized in writing by authorities having jurisdiction and Owner. Provide temporary services during interruptions to existing utilities, as acceptable to the governing authorities and Owner.
3. Disconnect, seal and remove utilities before starting demolition operations.

M. Do not start demolition until environmental hazards have been remedied in accordance with Sections 01524, 02116, 02316, 02317 and 02318 as applicable.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.1 INSPECTION

A. Make a thorough inspection and report suspicion of asbestos containing materials, or chemicals. Start of operations will be evidence of acceptance that environmental conditions have been remedied in accordance with Sections 01524, 02116, 02316, 02317 and 02318 as applicable.

B. Survey existing conditions and correlate with requirements indicated to determine extent of demolition required.

C. Verify that environmental conditions have been remedied in accordance with Sections 01524, 02116, 02316, 02317 and 02318 as applicable and have been remedied before proceeding with demolition operations.

3.2 PREPARATION

A. Protect and maintain benchmarks and survey control points from disturbance during construction.

B. Existing Utilities: Locate, identify, disconnect, and seal or cap off indicated utilities serving structures to be demolished.

1. Arrange to shut off indicated utilities with utility companies.
2. If utility services are required to be removed, relocated, or abandoned, before proceeding with building demolition provide temporary utilities that bypass buildings and structures to be demolished and that maintain continuity of service to other buildings and structures.
3. Cut off pipe or conduit a minimum of 24 inches (620 mm) below grade. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing.

3.3 DEMOLITION

A. Pollution Controls – as coordinate with Section 01014:

1. Use temporary enclosures and other suitable methods to limit the amount of dust and dirt rising and scattering in the air to the lowest practical level. Comply with governing state and local emissions standards/regulations.
2. Do not use water when it may create hazardous or objectionable conditions such as ice, or flooding.
3. Clean adjacent construction of dust, dirt, and debris caused by demolition operations, to the satisfaction of the Architect or governing authorities. Return adjacent areas to condition existing prior to the start of the Work.
4. Prior to commencing work, the Contractor shall provide a liquid materials handling plan. The plan shall stipulate provisions for dewatering, pumping, collection, temporary storage, and discharge or disposal of storm water, perched water and other liquids, contained and /or uncontained, at the site so as to facilitate removal of materials from the site and minimize disposal costs for contained materials. Refer to Section 02119, 02316 and 02317.

B. Operations:

1. Use such methods as required to complete the Work within the limitations of governing regulations.

2. Proceed with demolition in a systematic manner, from the top of the structure to the ground.
3. Break up and remove concrete slabs-on-grade.
4. Demolish concrete and masonry in small sections.

C. Below-Grade Construction: Demolish and remove construction below grade as indicated on the drawings.

3.4 DISPOSAL OF DEMOLISHED MATERIALS

A. Separate recyclable demolished materials from other demolished materials to the maximum extent possible. Separate recyclable materials by type.

1. Provide containers or other storage method for controlling recyclable materials until they are removed from Project site.
2. Stockpile processed material on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
3. Stockpile materials away from demolition area. Do not store within drip line of remaining trees.
4. Store components off the ground and protect from the weather.
5. Transport non-recyclable or unusable materials off Owner's property and legally dispose of all non-recyclable or unusable materials at a state permitted/licensed facility. Comply with the requirements of Section 02316 and 02317, as applicable.

B. Remove from the site and legally dispose of debris, rubbish, and other materials resulting from demolition operations at a state permitted/licensed facility in accordance with Section 02316 and 02317.

C. Comply with the requirements of Section 01524, "Construction Waste Management".

D. Burning of removed materials will not be permitted on the site.

3.5 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by building demolition operations. Return adjacent areas to condition existing before demolition operations began.

B. Remove from the site and legally dispose of dust, dirt, and debris caused by building demolition operations at a state permitted/licensed facility in accordance with Section 02316 and 02317.

END OF SECTION

SECTION 02116

UNDERGROUND STORAGE TANK REMOVAL

PART 1 - GENERAL

1.1 Related Documents:

A. All drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this Section.

B. Book 1: Project Information, Instructions to Bidders, and Executions Documents

C. Book 2: Standard Terms and Conditions for Construction Contracts

D. Book 2a: Standard Terms and Conditions Procedures Manual

E. Section 02317, which refers to specifications for Special, Non-hazardous Special, and Hazardous waste soil removal and disposal, and Section 02316 which refers to specifications for Soil, Fill, Backfill, Construction & Demolition Debris Removal apply to this Section.

1.2 SUMMARY

A. Work Summary: The work under this section consists of the removal, decommissioning, and destruction of underground storage tanks (USTs) discovered on PBC projects. The Contractor shall perform the work under this section in accordance with all Federal, State, County, and Local Rules and Regulations including but not limited to Illinois EPA, United States Environmental Protection Agency (USEPA), Illinois Office of the State Fire Marshal (OSFM), and Occupational Safety and Health Agency (OSHA) regulations. There are no suspected USTs at the site. If an underground storage tank is discovered during demolition/construction activities, the Contractor shall perform the following:

1. Submit the UST removal application to the City of Chicago Department of Public Health (CPH) within 48-hours of discovering the UST. The Boards Authorized Representative will provide the Contractor with all required information to secure the UST removal permit.
2. Coordinate the UST removal schedule with the CPH and the Chicago Fire Department (CFD).
3. Pump-out and dispose of product and sludge prior to removal of the UST from the site. Pump-out contaminated water and other miscellaneous liquids that may be present in the UST basin.
4. Remove and dispose of all of the UST piping, equipment, electric conduit, and accessories related to the UST.
5. Clean tank interior and dispose of tank washwater as special waste.
6. Excavate and stockpile materials that may be present around the UST. The Contractor may temporarily store excavated materials at the site. Such material may not be stored on site for more than 30 days unless directed otherwise by the Boards Authorized Representative. Regardless of the duration excavated materials are stockpiled, excavated materials shall be placed on and covered by 6-mil polyethylene visqueen. The Contractor shall also provide a 12" to 18" berm around the stockpile.

7. Backfill the UST excavation using approved backfill material in accordance with project specifications. Copies of environmental analytical results of all backfill material verifying that these materials were analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters, and do not exceed the parameter values as listed in APPENDIX B, SECTION 742, TABLE A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742. For samples from virgin sources, one representative sample must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from recycled sources, one sample per 1,000 tons of material must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. A copy of the analytical results shall be submitted the PBC Project Manager and the Managing Environmental Consultant (MEC) at least one week prior to depositing backfill or top soil on site. Written authorization from the MEC verifying the analytical results is required by the PBC Project Manager prior to backfilling. The date of the analysis shall be within 60 days of the MECs and PBC Project Managers review. Excavated materials determined to be suitable for backfill could be used as backfill in the vicinity of the UST basin excavation. The Contractor shall refer to the Architect/Engineer specifications for definition of suitable backfill materials.
8. If excavated material or soil requires off-site disposal, the Contractor shall collect and analyze representative soil sample for waste stream authorization. The sample shall be analyzed for the parameters required by the disposal facility. The Contractor shall secure all required permits for excavated material and soil disposal at a permitted Subtitle D Landfill site within 10 calendar days of the UST removal if necessary.
9. The Contractor shall prepare waste manifests for the Managing Environmental Consultant's (MEC) signature prior to loading excavated materials and soils into hauling trucks. The Contractor shall provide copies of all daily reports, weight tickets, receipts, and waste manifests for the contaminated soil removal to the Boards Authorized Representative and the MEC within 7 days of removing excavated materials and soils from the site.
10. Backfill and compact excavation areas using approved backfill materials that were analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters and do not exceed the parameter values as listed in do not exceed the parameter values as listed in Appendix B, Section 742. The Contractor shall provide documentation for each source of backfill materials certifying that backfill was analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters and that the backfill does not exceed parameter values as listed in Appendix B, Section 742, Table A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742. Written authorization from the MEC verifying the analytical results is required by the PBC Project Manager prior to backfilling.

1.3 DEFINITIONS

A. IEPA: Illinois Environmental Protection Agency.

B. Backfill: Granular or cohesive material that is utilized to backfill the UST excavation to grade prior to the replacement of the paved surface, and which were analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters and do not exceed the parameter values as listed in Appendix B, Section 742, Table A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742

C. PBC Project Manager: The person or entity designated as the official representative of the owner in connection with a project.

D. PBC: Public Building Commission

E. Connected Piping: All underground piping including valves, elbows, joints, flanges, and flexible connectors attached to the UST system through which regulated substances flow.

F. Excavation Zone: The volume containing the tank system and backfill material bounded by the ground surface, walls, and floor of the pit and trenches into which the UST system is placed at the time of removal.

G. Hazardous Substance UST System: An underground storage tank system that contains a hazardous substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (but not including any such substance regulated as a hazardous waste under subtitle C) or any mixture of such substances and petroleum, and which is not a petroleum UST system.

H. Hazardous Waste: as defined by:

1. 40 CFR Part 261;
2. Illinois Environmental Protection Act 415 ILCS 5/3.220; and Section 809.103 of Title 35: Environmental Protection; Subtitle G: Waste Disposal; Chapter I: Pollution Control Board.
3. Section 3001 of the Resource Conservation and Recovery Act of 1976, P.L. 94-580,

I. Heating Oil: Petroleum that is No. 1, No. 2, No. 4-light, No. 4-heavy, No. 5-light, No. 5-heavy, and No. 6 technical grades of fuel oil; other residual fuel oils (including Navy Special Fuel Oil and Bunker C); and other fuels when used as substitutes for one of these fuel oils. Heating oil is typically used in the operation of heating equipment, boilers, or furnaces.

J. IDOT: Illinois Department of Transportation.

K. Liquid Trap: Sumps, well cellars, and other traps used in association with oil and gas production, gathering, and extraction operations (including gas production plants), for the purpose of collecting oil, water, and other liquids. These liquid traps may temporarily collect liquids or subsequent disposition or re-injection into a production or pipeline stream, or may collect and separate liquids from a gas stream.

L. Managing Environmental Consultant (MEC): The entity that will perform environmental oversight on the behalf of the PBC. Terracon Consultants, Inc. is the MEC for this project.

M. Manifest: Manifest means the form provided or prescribed by IEPA and used for identifying name, quality, routing, and destination of special waste during its transportation from point of generation to the point of disposal, treatment, or storage.

N. Motor Fuel: Petroleum or a petroleum-based substance that is motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, or any grade of gasohol, and is typically used in the operation of a motor engine.

O. Noncommercial Purposes: With respect to motor fuel means not for resale.

P. Non-hazardous Special Waste: as defined in Title 35: Environmental Protection; Subtitle G: Waste Disposal; Chapter I: Pollution Control Board; Subchapter i: Solid Waste and Special Waste Hauling; Part 809: Non Hazardous Special Waste Classifications; Subpart A: General Provisions; Section 809.103.

Q. OSHA: Occupational Safety and Health Administration.

R. Operator: Any person in control of, or having responsibility for, the daily operation of the UST system.

S. Petroleum UST System: An underground storage tank system that contains petroleum or a mixture of petroleum with *de minimis* quantities of other regulated substances. Such systems include those containing heating oils, motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

T. Pipe or Piping: A hollow cylinder or tubular conduit that is constructed of non-earthen materials.

U. Pipeline Facilities (including Gathering Lines): New and exciting pipe rights-of-way and any associated equipment, facilities, or buildings.

V. Regulated Substance: includes but is not limited to petroleum and petroleum-based substances comprised of a complex blend of hydrocarbons derived from crude oil through processes of separation, conversion, upgrading, and finishing, such as motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils. This includes:

1. Any substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 (but not including any substance regulated as a hazardous waste under subtitle C), and
2. Petroleum, including crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

W. Remediation Area: Remediation Area means any area on site where underground storage tanks, or special waste and/or non-hazardous special waste or soils that were analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) and exceed the parameters listed in Appendix B, Section 742, Table A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742, are present.

X. Release: Any spilling, leaking, emitting, discharging, escaping, leaching or disposing from an UST into surface/subsurface soils, groundwater or the environment.

Y. Residential Tank: A heating oil tank located on residential property used primarily consumptive use.

1.4 SUBMITTALS

A. The Contractor shall submit copies of the following to the OR a minimum seven (7) calendar days prior to scheduling a UST removal:

1. Equipment and methods for adjacent structure protection and UST removal procedures prior to start of any Work.
2. Proof of OSHA training in compliance with the Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120) for workers who will be involved in the UST and contaminated soil removal.
3. Name and address of the Illinois Environmental Protection Agency certified laboratory which will be used by the Contractor to perform the analytical testing prior to starting work.
4. Contractor's Site-Specific Health and Safety Plan. The plan shall comply with all OSHA requirements. The plan must be submitted to the PBC Project Manager within 10 calendar days of issuance of the Notice-to-Proceed (NTP). The work shall be performed under the direct supervision of a trained experienced site supervisor. The plan should at a minimum include the following:

    a. Name key personnel and alternates responsible for site safety.
    b. Describe the risks associated with each operation conducted.
    c. Type of personnel training and responsibilities and to handle the specific hazardous situations they may encounter.
    d. Describe the protective clothing and equipment to be worn by personnel during various site operations.
    e. Describe any site specific medical surveillance requirements.
    f. Describe the program for the periodic air monitoring, personnel monitoring, and environmental sampling if needed.
    g. Describe the actions to be taken to mitigate existing hazards to make the work environment less hazardous.
    h. Define site control measures including a site map.
    i. Establish procedures for personnel and equipment and transporting trucks to ensure that impacted soils are not tracked off site on to non-impacted areas of the site.
    j. Set forth the site Standard Operating Procedures (SOPs). SOPs are those activities that can be standardized (i.e., decontamination procedures and respirator fit testing).
    k. Set forth a Contingency Plan for the safe and effective response to emergencies.

5. Operating licenses and permits for each special waste hauler and details of hauling routes from the site to the disposal facilities.
6. Copies of all daily reports, transport manifests, disposal receipts and treatment records. Copies will be required on a weekly basis.
7. Any air sampling data collected during the course of the Work, including OSHA compliance air monitoring.
8. Disposal information for any soil, product, sludge, tank washwater, and liquid removed from the site. This information should include, at a minimum, the following:

    a. Facility name, address, and telephone Number.
    b. Site Contact.
    c. Permit Number.

9. Copies of UST(s) removal permit.
10. Copies of waste characterization analytical results for disposal of contaminated soil, product, sludge, tank washwater, and contaminated groundwater within one calendar day.
11. Certificate of Destruction from a steel reclamation facility within seven (7) calendar days after the tank removal.

14. Prior to backfilling, provide copies of analytical results of backfill materials verifying that the backfill was analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters and that the backfill does not contain contaminant values that exceed the parameters listed in APPENDIX B, SECTION 742, TABLE A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742. Written authorization from the MEC verifying the analytical results is required by the PBC Project Manager prior to backfilling.

1.5 PROJECT CONDITIONS

A. Conditions of USTs: Public Building Commission assumes no responsibility for actual condition of the storage tank to be removed. Location and conditions of existing USTs are unknown at this time.

B. Condition of Piping and Conduit: Public Building Commission assumes no responsibility for actual condition of piping and conduit to be removed.

C. Contractor is totally responsible for handling and removal of all materials associated with UST(s) removal as required by Federal, State and local regulations.

D. Salvage Items: Reuse of items is not allowed unless specified otherwise. Storage tanks are to be rendered unusable before removing from job site.

E. Traffic: Conduct demolition operations and removal of debris to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities. Do not close or obstruct streets, walks, or other occupied or used facilities without permission from the applicable governing agency and the PBC Project Manager. Provide alternate routes around closed or obstructed traffic ways if required by the governing agency.

F. Damages: Promptly replace or repair any damage caused to adjacent pavement, utilities or facilities by removal operations at no additional cost. Work shall be performed to the satisfaction of PBC Project Manager and the MEC.

G. Utility Services: Maintain existing utilities and protect against damage during removal operations. Do not interrupt existing utilities serving occupied or used facilities, except when authorized in writing by the PBC Project Manager. Provide temporary services during interruptions to existing utilities, as acceptable to the Public Building Commission, and the PBC Project Manager.

1.6 QUALITY CONTROL

A. The removal of UST system(s) is governed by local, state and federal regulations and/or guidelines, which include, but are not necessarily limited to, the following:

1. City of Chicago Code and Regulations.
2. USEPA, 40 CFR Part 280, Vol.53 No. 185, dated September 23, 1988 or latest version.
3. Title 41: Fire Protection Chapter I: State Fire Marshal, Parts 160, 170 and 180, Subpart A, dated April 1990 or latest version
4. National Fire Protection Association Code.

5. All other USEPA, IEPA, City of Chicago, Illinois Department of Transportation (IDOT), and OSHA regulations.

1.7 RECORDKEEPING

A. The Contractor shall provide documentation of labor, equipment, materials, and laboratory analysis used for the removal and disposal of soils and liquids to the O R and MEC on a weekly basis.

1.8 COORDINATION OF WORK

A. The Contractor shall coordinate and schedule the performance of work with the least disruption as possible to the daily site activities.

B. The Contractor shall obtain a permit to remove the tank from the site from the City of Chicago Department of Public Health (CPH) and Chicago Fire Department (CFD) within 48-hours of the discovery of any UST(s). The Contractor shall also schedule and coordinate the presence of the CFD and CPH's representative on site the scheduled day of tank removal. The tank must not be removed from the ground without the CPH and CFD representatives being present on site.

C. The Contractor shall provide the PBC Project Manager and the MEC advance written notice (minimum 48-hours) of the anticipated removal date. The Contractor must coordinate all UST removal activities with the PBC Project Manager and the MEC.

D. The Contractor shall cooperate with and coordinate work progress with the PBC Project Manager, and the MEC. Soils excavated from the UST basin shall be stockpiled near the excavation or at an area deemed suitable by the PBC Project Manager and/or MEC. The PBC Project Manager and MEC will inspect the stockpile soil and determine if the soil will be removed from the site or used as backfill. The Contractor shall assist the MEC with the use of its machinery and operator to inspect and obtain soil samples from the open excavation beneath or adjacent to the former location of the underground tank. The Contractor shall also visually inspect the underground storage tank for their own records. The Contractor shall record or otherwise document the closure activities. The cavity will be backfilled with excavated soil and/or gravel (CA 6) the same day after removal and sampling activities unless directed by the PBC Project Manager or MEC to do otherwise. If gravel backfill is required it may be necessary to cover any returned soils with 6-mil polyethylene visqueen prior to backfilling with gravel. All backfill must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters and cannot exceed the parameters values listed in APPENDIX B, SECTION 742, TABLE A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742. Written authorization from the MEC verifying the analytical results is required by the PBC Project Manager prior to backfilling.

1.9 SPECIAL REQUIREMENTS

A. Qualifications

1. The UST Contractor(s) shall be fully experienced and knowledgeable in the safe work procedures and regulatory requirements for removing, cleaning and disposal of underground storage tanks in accordance with all applicable Federal, State, and Local regulations.
2. The UST Contractor(s) shall be capable of performing all work including providing necessary services, equipment, tools, labor and material for the removal, cleansing and disposal of underground storage tank and piping containing heating oil, and or petroleum, including the restoration of the site work area. The Contractor shall be capable of providing contingency services upon encountering soils or liquids that exceed APPENDIX B, SECTION 742, TABLE A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters when so directed by the PBC Project Manager and/or the MEC.
3. The UST Contractor(s), Subcontractor(s) and their employees shall be thoroughly trained in the safe work practices, procedures and regulatory requirements applicable to the removal, cleaning and disposal of underground storage tank systems containing heating oil and/or petroleum. The UST Contractor(s), Subcontractor(s) and their employees will be responsible for removal, cleaning and disposal of tanks and associated soils, liquids and piping shall be properly trained and hold current certifications. The UST Contractor(s), Subcontractor(s) and their employees on site shall have received a minimum of 40 hours of health and safety instruction in accordance with OSHA 29 CFR part 1910.120(e).
4. The UST Contractor(s) must be currently registered with the Office of the Illinois State Fire Marshal as a Remover of Underground Storage Tanks (Decommissioning) in accordance with Illinois Administrative Code, Title 41: Fire Protection, Chapter 1: Office of the State Fire Marshal, Part 170: Storage, Transportation, Sale and Use of Petroleum and Other Regulated Substances, as amended.

1.10 PROTECTION OF FACILITIES

1. The Contractor shall protect existing structures, services and utilities against damage. Exercise care to protect any and all of the Owner's, Property Owner's and adjacent property including equipment, buildings, landscaping and fencing. Any damage shall be repaired to the satisfaction of the Owner, Property Owner or the Owner of the adjacent property at the Contractor's expense.
2. The Contractor shall, in writing, bring to the attention of the PBC Project Manager and the MEC any obstacles, impairments or other items that may prohibit the performance of work at least 72-hours prior to the start of work,
3. The Contractor shall take all necessary precautions to protect structures, equipment, pavement, walks, utilities, etc. against movement or settlement during the course of work.

PART 2 - PRODUCTS

2.1 REMOVAL OF TANK CONTENTS

A. The Contractor shall furnish all necessary materials and equipment complying with Federal, State County, and Local Rules and Regulations to fulfill the scope of work described herein.

2.2 TANK REMOVAL

A. The Contractor shall furnish all necessary materials and equipment complying with Federal, State County, and Local Rules and Regulations to fulfill the scope of work described herein.

2.3 REMOVAL AND DISPOSAL OF CONTAMINATED SOILS AT A PERMITTED SUBTITLE D LANDFILL SITE

B. The Contractor shall furnish all necessary means, products, tools, and equipment required to fulfill the scope of work described in the Specifications 02316 and/or 02317 as applicable for this Project.

2.4 BACKFILL MATERIALS

A. The backfill material shall be consistent of the requirement of the Architect/Engineer specifications. The backfill material shall not exceed the parameter values as listed in Appendix B, Section 742, Table A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742 values for any 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters in accordance with Section 02318. Written authorization from the MEC verifying the analytical results is required by the PBC Project Manager prior to backfilling.

PART 3 - EXECUTION

3.1 UST CONTENTS REMOVAL PROCEDURES

A. Pump out tank contents:

1. Drain product from piping back into the tank, taking care to avoid spilling product. Using only explosion proof pumps or hand pumps.
2. Pump any existing fuel into temporary aboveground storage tanks. Do not pump sludge or water into temporary aboveground storage tanks.
3. Remove petroleum products, sludge, water, and liquid wastes from the tank. The suction hose shall be maneuvered along the tank bottom so that the maximum possible quantity of liquid is stripped from the interior.
4. Liquids shall be temporarily stored in above ground IDOT-approved containers or may be pumped directly into a tank truck for immediate disposal if the determination is made in advance. Waste removal from the site shall be performed only by properly licensed waste haulers in strict accordance with IEPA guidelines, including requirements for testing, laboratory analysis and manifesting. Coordinate location of temporary storage with the PBC Project Manager and the MEC.
5. Residue from tanks, which may have contained leaded gasoline, shall be treated with caution. Tank residues shall be disposed of in accordance with all applicable state and federal laws and regulations. Provide documentation of the proper disposal of all tank product and wastes to the PBC Project Manager and the MEC.

3.2 UST REMOVAL PROCEDURES

A. Purge storage tanks of flammable and combustible gases:

1. Observing all required safety precautions, disconnect all piping and compounds, except for the vent pipe, which is to remain connected until purging is completed. Temporary plug all other openings so that all vapors will be forced through the vent opening. Vapors shall be purged by one of the several methods listed in API/1604-87.
2. Instrument for detecting and measuring Low Explosion Limits (LEL) and oxygen levels shall be maintained and operate continuously at the job site at all times when work is being performed in areas which are or may become hazardous. Instrument shall be properly calibrated according to the manufacturer's specifications and checked and maintained accordingly.
3. OSHA standards for confined space entry and hazardous material regulations shall be strictly followed.
4. Disconnect and remove existing electrical lines to USTs pumps.

B. Excavate above and around the UST(s):

1. Remove and dispose of all pavement, concrete and debris associated with the UST.
2. The Contractor shall be responsible for locating all existing utilities, which will be encountered during removal operations. The Contractor shall protect the utilities as required to complete the work.
3. Excavate soil above and around tanks. Excavating area shall be large enough to uncover the profile of the tank and piping to complete removal.
4. Soils that exceed Appendix B, Section 742, Table A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters shall be disposed of in accordance with Section 02316 and/or 02317 as applicable.

C. Storage tank removal:

1. Check tanks for combustible gases. Purge tanks again as necessary.
2. Remove all associated tank piping, and tank hold down components including straps and concrete dead-man.
3. Remove tank in accordance with API recommended practice 1604.
4. After tanks have been removed from the ground, place the tank on a stable level surface for inspection.

D. Storage tank cleaning:

1. Cut holes in tanks using non-sparking tools to facilitate tank cleaning. Only cold cut equipment shall be used. The total surface area of all the holes shall be a minimum of 2% of the total surface area of the tank, or minimum of 9 square feet each opposite side or end. The Contractor shall have fire extinguishers on-site during cutting of tanks.
2. Clean tanks in accordance with API recommended practice 2015.
3. UST(s) removed from the excavation zone shall be cleaned on-site the day of removal. The tank will then be temporarily stored on-site until proper disposal arrangements are made.

E. Disposal of tank cleaning washwater:

1. The Contractor shall submit samples of tank cleaning washwater and sludge to an independent laboratory for analysis as required by disposal facility. Submit copies of the analytical report and chain-of-custody form to the PBC Project Manager and the MEC.
2. Transporter of tank cleaning washwater and sludge shall be an Illinois licensed special waste hauler. The disposal facility shall be approved by the IEPA.
3. The Contractor shall prepare manifests required for transportation and disposal of washwaters and sludge. Submit copies of manifests to the PBC Project Manager and the MEC.

F. Disposal of storage tanks:

1. All tanks will be taken to an appropriate disposal facility (e.g. scrap steel reclaimed or landfill). Tanks will not be retained by the Contractor or reused in any manner.
2. Tanks shall be labeled with legible letters at least two inches high, as follow: TANK HAS CONTAINED (name of product)

NOT VAPOR FREE NOT SUITABLE FOR STORAGE OF FOOD OR LIQUIDS INTENDED FOR HUMAN OR ANIMAL CONSUMPTION DATE OF REMOVAL:(month/day/year)

In addition, tanks which have or may have contained leaded fuels shall be labeled as:

TANK HAS CONTAINED LEADED GASOLINE LEAD VAPORS MAY BE RELEASED IF HEAT IS APPLIED TO TANK SHELL

3. Tanks, piping and components shall be removed from the site on the same day the site is excavated. If transportation on the day of removal is not possible, materials shall be secured on-site until disposal agreements are made.
4. Provide a certificate of destruction signed by the Contractor and a representative of the disposal/recycling facility to the PBC Project Manager and the MEC.
5. The excavation must be securely fenced to prevent access by unauthorized personnel until backfilled per Specification 02318.

G. Storm Water Run-on/Run-off and Dewatering

1. The Contractor shall implement surface grading, pumping and/or combination of silt fence, sandbags, tarpaulins, plastic sheeting, and movable straw bales, as approved by the PBC Project Manager and the MEC, to prevent storm water runoff from entering the Tank Remediation Area.
2. Storm water that has come in contact with any portion of the contaminated soil as a result of the Contractor's failure to prevent contact with excavated soils or the excavation will be collected and disposed of at the Contractor's own expense or as determined by the PBC Project Manager and MEC.

H. Soil Removal and Disposal

1. All excavation shall be performed in accordance with OSHA requirements and guidelines.
2. The Contractor shall excavate a maximum 2 feet around the USTs basin for the UST removal. The MEC will determine the extent of soils present that exceed Appendix B, Section 742, Table A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters, if present, at each UST basin. The extent of soil removal shall not extend beyond the proposed construction limit.
3. The Contractor shall collect a sufficient amount of representative soil samples for laboratory analysis to obtain a waste stream authorization from the disposal facility.
4. The Contractor shall submit the soil samples to the laboratory and pay for the cost of analyzing the constituents required by the disposal facility.
5. The MEC may collect soil samples for laboratory analysis or field Photo-ionization Detector (PID) screening. The Contractor shall provide the necessary equipment and manpower to assist the MEC in collecting soil samples at no additional cost to the Owner.

3.3 DISPOSAL OF MATERIALS

A. General: Remove daily from site accumulated debris, rubbish, and other materials resulting from piping and dispenser removal activities.

B. Removal: Dispose of materials removed from site in accordance with the 35 IAC regulations. Transport and legally dispose of all materials and equipment. Comply with manifest regulations of all removed and disposed equipment and materials. Materials that shall be removed include, but are not limited to, the following:

1. Underground Storage Tanks.
2. Piping.
3. Soils and sludges.
4. Paving materials, including but not limited to concrete and asphalt.
5. Product from storage tank and piping, and tank cleaning washwater.
6. Free product and liquids if encountered during the USTs removal process.
7. Liquids /water from excavation and dewatering operations.

3.4 SITE ASSESSMENT

A. Upon removal of the UST(s), the MEC may conduct a site assessment and collect soil samples as needed. A representative of the CPH will also render an opinion as to whether a release has occurred.

B. In the event that no release is confirmed, the Contractor shall complete removal of the tank, disposal of the tank, and backfill the excavation.

C. In the event that a release is confirmed, the Contractor shall complete removal of the tank, dispose of the tank and excavate contaminated soil as determined by the PBC Project Manager or MEC. Soils associated with the UST removal will be disposed of in accordance with Section 02316 and or Section 02317 as applicable.

D. The excavation shall remain open until the sampling is completed. The Contractor is responsible for providing fencing and access control to prevent unauthorized access to the excavation by unauthorized personnel in accordance with applicable rules and regulations.

3.5 BACKFILLING OF THE EXCAVATION

A. The Contractor shall not backfill excavation areas without approval of the PBC Project Manager and the MEC. If the Contractor backfills the excavation area without obtaining approval from the PBC Project Manager and the MEC, the backfill materials shall be excavated, transported and disposed of at a permitted Subtitle D Landfill, if required, at the Contractor's own expense.

B. The UST basin shall be backfilled in accordance with the project specifications or as directed by the PBC Project Manager . The Contractor shall utilize on-site suitable materials or imported granular CA-6 stone consistent with Illinois DOT gradation that does not exceed APPENDIX B, SECTION 742, TABLE A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters in accordance with Section 02318. Compact backfill materials in accordance with the project specification.

C. For each off-site source of backfill materials, the Contractor shall provide to the PBC Project Manager and the MEC laboratory analyses and certification that the imported materials do not contain contaminant values above APPENDIX B, SECTION 742, TABLE A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742 for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters in accordance with Section 02318. For samples from virgin sources, one representative sample must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from recycled sources, one sample per 1,000 tons of material must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. The date of the analytical results shall be within 60 day of importing such material to the site. Written authorization from the MEC verifying the analytical results is required by the PBC Project Manager prior to backfilling.

D. Site Restoration: Restore the site according to the Architect/Engineer design plan, or as directed by the PBC Project Manager.

3.6 DUST CONTROL

A. The Contractor shall control dust by all necessary means, including but not limited to covering trucks, stockpiles and open materials, watering haul roads, sweeping paved roads, and limiting the speed of all on-site vehicles.

PART 4 - PAYMENT

4.1 CONTRACT PRICING

A. No USTs are known to exist at the site. If USTs are encountered, the contract price will be modified by change order and the UST removal work will be performed as described in this Section..

END SECTION

SECTION 02119

SPECIAL, NONHAZARDOUS SPECIAL, AND HAZARDOUS WASTE LIQUIDS REMOVAL AND DISPOSAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. All drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this Section.

B. Book 1: Project Information, Instructions to Bidders, and Executions Documents

C. Book 2: Standard Terms and Conditions for Construction Contracts

D. Book 2a: Standard Terms and Conditions Procedures Manual

1.2 INTRODUCTION:

A. This part only applies to those materials that are classified as:

1. Special Wastes as defined in Title 35: Environmental Protection; Subtitle G: Waste Disposal; Chapter I: Pollution Control Board; Subchapter i: Solid Waste and Special Waste Hauling; Part 808: Special Waste Classifications; Subpart A: General Provisions; Section 808.110.
2. Nonhazardous Special Waste as defined in Title 35: Environmental Protection; Subtitle G: Waste Disposal; Chapter I: Pollution Control Board; Subchapter i: Solid Waste and Special Waste Hauling; Part 809: Non Hazardous Special Waste Classifications; Subpart A: General Provisions; Section 809.103.
3. Hazardous Wastes as defined by:
    a. 40 CFR Part 261;
    b. Section 3001 of the Resource Conservation and Recovery Act of 1976, P.L. 4-580
    c. Illinois Administrative Code Title 35, Section 721.103 (35 IAC 721.103).
4. Industrial Wastes as defined by:
    a. Sewage and Waste Control Ordinance - Metropolitan Water Reclamation District of Greater Chicago
    b. Environmental Remediation Wastewater Ordinance – Metropolitan Water Reclamation District of Greater Chicago
5. Hazardous Material (HM): materials identified and regulated by the Department of Transportation under 49 CFR 172.101

1.3 SUMMARY

A. Related Documents: All terms and conditions of the Contract apply to this Section.

B. Work included: This specification is for the permitting, packaging, excavation, labeling, loading, hauling, and removal of special waste, nonhazardous special waste, and hazardous wastes from Public Building Commission projects. The Contractor shall perform the work under this section in accordance with all applicable local, county, IEPA, USEPA, OSHA and DOT regulations and shall perform the following:

1. Prior to packaging, labeling, loading, hauling, and removal of any special waste, nonhazardous special waste, and hazardous waste liquids from a Public Building Commision facility, obtain authorization for ultimate disposition of wastes from a facility approved by PBC.
2. Remove special waste, nonhazardous special waste, and hazardous waste liquids in accordance with the project specification. Conduct compatibility testing to ensure that incompatible materials are not intermingled.
3. Load special waste, nonhazardous special waste, and hazardous waste liquids into licensed special/hazardous waste trucks, trailers, containers or vessels for final disposition as per item B. 1., above.
4. Provide copies of all daily reports, transport manifests, volume tickets, and disposal receipts to the PBC Project Manager on a daily basis.
5. Decontaminate areas where special waste, nonhazardous special waste, and hazardous waste liquids were spilled. Containerize decontamination residuals for final disposition as per item B. 1., above.
6. For areas where special waste, nonhazardous special waste, and hazardous waste liquids removal requires soil excavation and removal, refer to Specification 02316 and 02317.

C. The Contractor shall comply with all applicable regulatory requirements and other federal, state or local laws, codes and ordinances that govern or regulate the handling, transportation and disposal of special waste, nonhazardous special waste, and hazardous waste liquids. The Contractor shall mark, label, placard, package and manifest special waste, nonhazardous special waste, and hazardous waste liquids as necessary in accordance with all applicable state, federal and local regulations. The Contractor shall ensure protection against spillage of special waste, nonhazardous special waste, and hazardous waste liquids. The Contractor shall handle all special waste, nonhazardous special waste, and hazardous waste liquids in accordance with all applicable federal, state and local laws, regulations and ordinance.

1.4 DEFINITIONS

A. PBC Project Manager: means the entity responsible for overall project coordination and completion.

B. CDL means Commercial driver's License.

C. CFR means Code of Federal Regulations.

D. Discharge Authorization (DA) is a written authorization issued by the MWRDGC giving permission to discharge wastewaters to its sewer system and sewage treatment facilities.

E. DOT means Department of Transportation.

F. Hazardous Material (HM): materials identified and regulated by the Department of Transportation under 49 CFR 172.101

G. Hazardous Waste Liquids: Any Liquids or Sludges, any Chemicals, Groundwater, Stormwater, or Surface Runoff designated as a waste pursuant to:

1. 40 CFR Part 261
2. Illinois Administrative Code Title 35, Section 721.103 (35 IAC 721.103).
3. Section 3001 of the Resource Conservation and Recovery Act of 1976, P.L. 94-580

H. IEPA means Illinois Environmental Protection Agency.

I. Industrial Wastes as defined by:

1. Sewage and Waste Control Ordinance - Metropolitan Water Reclamation District of Greater Chicago
2. Environmental Remediation Wastewater Ordinance – Metropolitan Water Reclamation District of Greater Chicago

J. Manifest is the form provided or prescribed by IEPA and used for identifying name, quality, routing, and destination of special waste nonhazardous special waste, and hazardous waste soils during its transportation from point of generation to the point of disposal, treatment, or storage.

K. MWRDGC means the Metropolitan Water Reclamation District of Greater Chicago, the entity that owns and operates of the sewage system and issues discharge authorizations.

L. Managing Environmental Consultant (MEC): The entity that will perform environmental oversight on the behalf of the PBC. Terracon Consultants, Inc. is the MEC for this project.

M. Remediation Area means any area on site where special, nonhazardous special, and hazardous waste liquids are present.

N. Special Waste Liquids means any Petroleum Liquids or Sludges, any Chemical, and any Groundwater, Stormwater, or Surface Runoff designated as a waste pursuant to:

1. Title 35: Environmental Protection; Subtitle G: Waste Disposal; Chapter I: Pollution Control Board; Subchapter i: Solid Waste and Special Waste Hauling; Part 808: Special Waste Classifications; Subpart A: General Provisions; Section 808.110.

AND

2. Title 35: Environmental Protection; Subtitle G: Waste Disposal; Chapter I: Pollution Control Board; Subchapter i: Solid Waste and Special Waste Hauling; Part 809: Non-Hazardous Special Waste Classifications; Subpart A: General Provisions; Section 809.103.

O. USEPA means United States Environmental protection Agency.

1.5 SUBMITTALS

A. Prior to removal of any special, nonhazardous special, and hazardous waste liquids from the site, the Contractor shall provide the MEC and the PBC Project Manager with copies of the following submittals:

1. Name, address and telephone number of the facility and/or permitted/licensed disposal facility where special, nonhazardous special, and/or hazardous waste liquids are to be deposited. This information should include, at a minimum, the following:

    a. Name
    b. Address
    c. Telephone Number
    d. Site Contact
    e. Illinois Facility Identification Number
    f. USEPA Disposal Site ID numbers (for Hazardous Waste Sites only)
    g. State and Local Operational Permit Number(s)
2. Discharge Authorization and/or permit from the facility and/or licensed disposal facility where special, nonhazardous special, or hazardous waste liquids are to be deposited prior to removal from the site. The authorization must also include a statement indicating that the facility or licensed disposal facility has received a copy of the analysis report that classified the materials as a special, nonhazardous special, or hazardous waste liquids.
3. Name and address and telephone number of the laboratory that will be used by the Contractor to perform the analytical testing for waste characterization prior to starting work.
4. Contractor's Site-Specific Health and Safety Plan.
5. Proof of OSHA training in compliance with the Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120) for applicable workers
6. Operating licenses and special waste or hazardous waste permits for each proposed transporter. Details of haul routes from site to the disposal facilities.
7. Copies of waste stream authorizations, and permits as applicable.
8. Copies of all daily reports, transport manifests, volume tickets and disposal receipts to the PBC Project Manager on a daily basis.
9. Any air sampling data collected during the course of the Work, including OSHA compliance air monitoring.
10. Copies of equipment decontamination procedures for equipment and vehicles utilized to excavate and remove special, nonhazardous special, or hazardous waste liquids form the site.

B. Submittal Review:

1. Review of submittals or any comments made does not relieve the Contractor from compliance with the requirements of the drawings and specifications. The purpose of this check is to review for general conformance with the design concept of the project and general compliance with the information given in the contract documents. The Contractor is responsible for confirming and correlating all quantities and dimensions; electing techniques of construction; coordinating the Work; and performing the Work in a safe and satisfactory manner.

1.6 NOTIFICATIONS

A. The Contractor shall notify the PBC Project Manager and MEC no less than two (2) business days prior to loading and transporting any special, nonhazardous special, and hazardous waste liquids from the site.

1.7 RECORD KEEPING

A. The Contractor shall provide documentation of labor, equipment, materials and laboratory analysis used for the removal and disposal of special, nonhazardous special, or hazardous waste liquids when requested by the PBC Project Manager. The contractor shall maintain copies of documentation in accordance with all regulatory requirements, but in any case for a period of at least 3 years from the date of disposal or treatment of the waste.

PART 2 - PRODUCTS

2.1 REMOVALS AND DISPOSAL

A. The Contractor shall furnish all necessary means, products, tools, and equipment required.

PART 3 - EXECUTION

3.1 AUTHORIZATIONS

A. The Contractor shall obtain written authorization from the facility receiving special, nonhazardous special, or hazardous waste liquids. Contractor shall submit the names, addresses and telephone numbers of the facility receiving special, non-hazardous special, and hazardous waste liquids to the PBC Project Manager.

B. Haulers for transportation of special wastes, non-hazardous special waste, or hazardous waste liquids shall hold a current, valid waste hauling permit pursuant to 35 IAC 809. All drivers must hold a current and valid Commercial Drivers License (CDL) and present the CDL whenever requested by any representative of the owner.

3.2 MATERIAL SAMPLING

A. The Contractor shall, at contractors' own cost, collect sufficient amount of representative sample(s) of materials being removed from the site to obtain authorization for the ultimate disposition of special, non-hazardous special or hazardous waste liquids. The contractor is responsible for acquisition of any required disposal permits and payment of all sampling, analysis costs and permitting fees.

B. The Contractor shall submit the sample(s) to the laboratory and pay for the cost of analyzing the constituents required for the ultimate disposition of special, non-hazardous special, or hazardous waste liquids.

C. The MEC may collect samples for laboratory analysis or field Photo-ionization Detector (PID) screening. The Contractor shall provide the necessary equipment and manpower to assist the MEC consultant in sample collection at no additional cost to the PBC.

D. The Contractor shall immediately notify the PBC Project Manager and MEC if materials requiring special handling are encountered in areas not identified in site drawings.

E. In the event the Contractor causes special waste, nonhazardous special waste, or hazardous waste liquids to be discharged onto, or come into contact with site surface materials including but not limited to soils, asphalt, concrete, bricks, gravel, and the surface cannot be decontaminated, the surface materials shall be considered special waste, nonhazardous special waste, or hazardous waste. The contractor shall submit the sample(s) to the laboratory and pay for the cost of analyzing the constituents required for the ultimate disposition of such materials. For removal and disposal of such materials refer to Specification 02317.

3.3 DECONTAMINATION

A. The Contractor shall remove special, nonhazardous special, or hazardous waste soils, dusts, rocks, etc. from the exterior of trucks, trailers, tankers, containers or other equipment leaving the site.

B. The Contractor shall clean the trucks, trailers, tankers or containers that are loaded with materials for disposal by removing clinging soils, dust, or debris from the exterior of the equipment.

C. The Contractor shall not allow equipment or trucks, trailers, tankers or containers to leave the site with any discharge or mud dripping or caked to the equipment or trucks.

D. The Contractor shall decontaminate equipment (tools, shovels, backhoes, etc.) with a jet washer or steam cleaner after completing removal work in the special, nonhazardous special, or hazardous waste liquid areas and prior to start working in new areas. All cleaning and/or decontamination residuals must be collected and disposed of as special, nonhazardous special, or hazardous waste liquids in accordance with applicable federal, state and local regulations.

E. The Contractor must transport all materials in closed or covered trucks, trailers, tankers or containers as applicable.

F. The contractor shall require all tankers or containers that hold special, nonhazardous special, or hazardous liquids to be decontaminated in accordance with applicable federal, state and local regulations prior to reuse.

3.4 STOCKPILING

A. Contractor may stockpile special, non-hazardous special, or hazardous waste liquids on site for a maximum of five (5) working days. The Contractor shall be responsible for keeping such special, nonhazardous special, or hazardous waste liquids separated from materials that are not designated as special wastes, non-hazardous special waste, or hazardous waste. If special wastes, non-hazardous special waste, or hazardous waste liquids comes in contact with materials that are not designated as special wastes, non-hazardous special waste, or hazardous waste, the former non-special waste materials will now be considered special wastes, non-hazardous special waste, or hazardous waste, and the Contractor shall dispose of newly designated materials as special wastes, non-hazardous special waste, or hazardous waste at his/her own expense. The Contractor will be responsible for sampling analysis costs associated with Characterization of newly designated materials as special wastes, non-hazardous special waste, or hazardous waste.

B. The location of the stockpiled special wastes, non-hazardous special waste, or hazardous waste liquids on site shall be coordinated with the PBC Project Manager. The Contractor shall keep special wastes, non-hazardous special waste, or hazardous waste liquids labeled, containerized covered and/or sealed until subsequent loading, transportation and disposal. For temporarily stockpiled special wastes, non-hazardous special waste, or hazardous waste soils, refer to Specification 02317.

C. The Contractor shall not allow runoff from stored or stockpiled soil/materials to enter storm drains or leave the site.

D. Materials storage areas must be secured so as to permit authorized personnel only and should be labeled or placarded as required by law.

3.5 LOADING

A. The Contractor shall load special, nonhazardous special or hazardous waste liquids directly from the site or from temporary stockpiles into hauling trucks, trailers, tankers or containers as applicable for subsequent transportation and ultimate disposition.

B. Traffic: Conduct special, nonhazardous special or hazardous waste liquids removal to ensure minimum interference with roads, streets, walks and other adjacent occupied and used facilities. Do not close or obstruct streets, walks or other occupied or used facilities without permission from the applicable governing agency and the PBC Project Manager. Provide alternate routes around closed or obstructed traffic ways if required by the governing agency.

C. The Contractor is responsible for complying with State and local Road/Street weight limits.

3.6 TRANSPORTATION

A. The special, nonhazardous special or hazardous waste liquids shall be transported by a licensed hauler, licensed in the state of Illinois to transport special wastes, non-hazardous special waste, or hazardous waste liquids as applicable. All packaging, labeling, marking, placarding, shipping name and shipping documentation shall be in conformance with DOT shipping requirements under 49 CFR 172.

B. All special, nonhazardous special or hazardous waste liquids must be transported directly to the disposal site from the site. Intermediate storage is not permitted unless previous approval was obtained from the PBC Project Manager.

C. The Contractor shall provide and complete copies of all daily reports, transport manifests, volume tickets and receipts (as applicable) for transportation and ultimate disposition of special, nonhazardous special or hazardous waste liquids to the MEC and the PBC Project Manager for review and signature as required.

D. The Transporter shall present evidence of Special Waste hauling permits and CDL upon request by the PBC Project Manager.

3.7 DISPOSAL

A. The Contractor shall provide copies of volume receipts from the facility accepting special, nonhazardous special or hazardous waste liquids to the MEC and the PBC Project Manager within two business days.

B. In the event the contractor causes special, nonhazardous special or hazardous waste liquids to discharge onto site surfaces and the surfaces cannot be decontaminated, the Contractor shall dispose of newly designated materials as special wastes, non-hazardous special waste, or hazardous waste at his/her own expense. The Contractor will be responsible for sampling analysis costs associated with Characterization of newly designated materials as special wastes, non-hazardous special waste, or hazardous waste. All materials shall be disposed of in accordance with Specification 02317.

3.8 BACKFILL

A. In the event the contractor causes special, nonhazardous special or hazardous waste liquids to discharge onto site surfaces and the surfaces cannot be decontaminated, the Contractor shall excavate and dispose of newly designated materials as special wastes, non-hazardous special waste, or hazardous waste at his/her own expense and in accordance with Specification 02317. The excavated area shall be backfilled in accordance with Specification 02318. The Contractor will be responsible for sampling analysis costs associated with Characterization of newly designated materials as special wastes, non-hazardous special waste, or hazardous waste.

PART 4 - QUALITY CONTROL

4.1 REQUIREMENTS: The Contractor shall perform the following quality control measures to fulfill the scope of work:

A. Visual inspections shall be made daily by the Contractor and/or as directed by the PBC Project Manager to assure that all remediation equipment, containment areas, and trucks, trailers tankers and containers are properly marked, covered or sealed, and/or functioning properly.

B. Damages: Promptly replace or repair any damage caused to building equipment and structures, and adjacent pavement, utilities or facilities by removal operations at no additional cost. Work shall be performed to the satisfaction of the PBC Project Manager.

C. Utility Services: Maintain existing utilities and protect against damage during removal operations.

D. Contaminated Areas: Promptly clean and decontaminate any areas, which may become contaminated as a result of the contractor's actions.

PART 5 - MEASUREMENT AND PAYMENT

5.1 CONTRACT UNIT PRICING

A. Volume determination and pricing shall in accordance with the contract documents.

END OF SECTION

SECTION 02136

GENERAL DUST, FUME AND ODOR CONTROL

PART 1 - GENERAL

1.1 INTRODUCTION

A. Dust, fume, and odor emission control is required to maintain a healthy environment for contractors, maintain good public relations with neighbors and employees, prevent damage, minimize cleaning and maintenance costs, and to comply with regulations and laws. All contractors (including subcontractors, lower-tier subcontractors, and suppliers) who perform work or provide services on a PBC project are required to control dust, fume, and odor emissions from their operations and/or activities.

1.2 PROJECT SUMMARY

A. Section includes requirements for temporary dust, fume, and odor emission control.

1.3 DEFINITIONS

A. In addition to the terms listed herein all definitions in the laws and regulations specified elsewhere in this Section are incorporated by reference, whether or not restated herein.

B. Architect of Record (AOR) means the entity that assembles the overall documents and bid package, and approves the completed work.

C. Contractor: The partnership, firm, corporation, joint venture, or entity entering into the contract with the Commission to perform to perform the Work required by the Contract Documents. This includes any sub-contractors (or sub-contractors to sub-contractors) working under the Prime Contract.

D. PBC: Public Building Commission

E. Commission: The Public Building Commission of Chicago, a municipal corporation organized under the Public Building Commission Act of the State of Illinois, as amended, or its duly authorized officers or employees.

F. MEC means the Managing Environmental Consultant the PBC's consultant regarding environmental aspects of the project. Terracon Consultants, Inc. is the MEC for this project.

G. Lead-Based Paint means paints or coatings that are lead bearing substances as defined by IDPH regulations referenced in Laws, Regulations and Standards.

H. HEPA Filter means a High Efficiency Particulate Air filter capable of trapping 99.97% percent of particles greater than 0.3 micrometers in mass median aerodynamic equivalent diameter.

I. IDPH means the Illinois Department of Public Health.

J. MSDS means Material Safety Data Sheets, required by OSHA for any chemical in the workplace that that could be expected to cause an exposure to workers during normal use or in emergency situations.

K. Plasticize means to apply plastic sheeting over surfaces or objects to protect them from contamination or water damage.

L. Personal Protective Equipment (PPE) means the protective suits, head and foot covers, gloves, respirators and other items used to protect persons from potential hazards.

M. Work Area means the area or areas where work is being conducted.

1.4 WORK INCLUDED

A. The work includes the control of dust, vapors, fumes, odors or emissions caused by construction, demolition, renovation, restoration, or related activities including, but not limited to sawing, cutting, grinding, sanding, abrading, sweeping, crushing, scraping, gluing, prying, plowing, heating, finishing, painting, welding, torch cutting or burning, or any other related processes on a PBC project that can create noxious dust, fumes or odors.

B. No visible emissions or unreasonable odors or dust shall be permitted outside the work area.

C. All products to be used at on a PBC project that could potentially emit dusts, fumes, vapors or odors, etc. shall be submitted to the PBC Environmental Coordinator, MEC and/or Board Authorized Representative with accompanying MSDS for approval prior to the use of the product.

1.5 LAWS, REGULATIONS, AND STANDARDS.

A. The Contractor is responsible for compliance with all applicable federal, state, county and municipal laws, regulations and ordinances including, but not limited to, those listed below, which are incorporated by reference.

B. The following laws, regulations and standards are incorporated by reference:
1. 29 CFR 1910: US OSHA General Industry Standards
2. 29 CFR 1926: US OSHA Construction Standards
3. 40 CFR Part 61: USEPA National Emissions Standards for Hazardous Air Pollutants (NESHAP)
4. 11-4-2170: Chicago Building Code- Demolition and renovation safeguards
5. 11-4-2190: Chicago Building Code: Sandblasting, grinding and chemical washing of buildings, facilities or other structures - Dust minimization--Containment, wettting or vacuuming; plan required
6. 40 CFR 745: Lead Renovation, Repair and Painting Program

C. In accordance with 40 CFR 745 RRP effective April 2010, Contractors that perform renovation, repair, and painting projects in schools built before 1978 that disturbs lead-based paint shall be certified and follow specific work practices to prevent lead contamination.

1.6 SUBMITTALS

A. Dust- and HVAC-Control Plan: Submit coordination drawing and narrative that indicates the dust- and HVAC-control measures proposed for use, proposed locations, and proposed time frame for their operation. Identify further options if proposed measures are later determined to be inadequate. Include the following:

1. Locations of dust-control partitions at each phase of work.
2. HVAC system isolation schematic drawing.
3. Location of proposed air-filtration system discharge.
4. Waste handling procedures.
5. Other dust-control measures proposed by the Contractor

1.7 NOTIFICATION

A. The Contractor shall provide notification to the Commission Representative and MEC no less than forty-eight (48) business hours prior to placing barricades, lockdown, or traffic barriers.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.1 BARRIERS OR WORK AREA ISOLATION

A. Contractors shall prevent the spread of dust, fumes and odors from their immediate work areas by:
1. Erecting dust-tight barriers between indoor work areas and adjacent occupied areas. Construction barriers may be used for this purpose if suitably constructed to prevent dust, fume or odor migration.
2. Closing and or covering windows, intake vents, louvers, or other building openings in the immediate vicinity of outdoor work, sufficient to prevent dust, fume or odor migration into the building interior. If such openings cannot be adequately sealed by closing, then poly sheeting, tape, or other impermeable covers shall be used.
3. The contractor shall provide a HEPA filtered, local exhaust system for the isolated work area.
4. Where applicable, the Contractor shall move all furnishings and equipment out of the area of work. Place plastic drop cloths over and under fixed-in-place equipment or furnishings to remain in room or work area. Lap and seal covering so that dust and debris cannot become lodged on these items or fall into them. Replace furnishings and equipment to its original location or position upon completion of work.

B. Contractor is prohibited from creating other hazardous or uncomfortable conditions for building occupants, such as very hot, humid, cold, or other conditions created by ventilation system alterations or blockages, closed or open windows in hot or cold weather conditions.

C. Contractor is responsible for making itself familiar with building conditions and shall take care to isolate its work area in such a manner that building occupant activities and comfort are not unreasonably disrupted.

D. Where painted surfaces are disturbed, Contractor shall secure the work area by means of scheduling, locking, or use of traffic barriers. Overlapped polyethylene "flap" doorways should be installed at the entrance to the work area or room. Only Contractor personnel should be allowed in the work area. Contractor shall implement procedures and/or controls to ensure that workers and equipment leaving work area are clean to keep dust and debris within the work area.

3.2 DUST, FUME AND ODOR CONTROL

A. Dust, fume or odor release shall be prevented by a suitable means, including but not limited to:
1. Tools equipped with shrouds, HEPA filter equipped vacuum pickups
2. Alteration, shut down, or isolation of building ventilation systems in the immediate work vicinity
3. Shrouding around work activities
4. Shrouding stages, scaffolds, or other work platforms
5. Local exhaust ventilation systems exhausted to the outside of the building
6. Wet work methods, except where poses additional hazards such as on or near electrical systems.

B. The Contractor shall clean the work area after completing the work involving painted surfaces including:

1. Pick up debris with wet cloths and place in 6 mil bags or wrap in plastic for transport and disposal.

2. HEPA vacuum the work area, plastic and disposable gloves, coveralls and shoe covers to remove visible dust and debris. Place disposable materials, including entrance flap cloths and drop cloths, in a disposable bag. Wipe dust off tools and equipment.

3. Wet wipe the entire work area with a clean cloth and cleaning solution. Discard all used cleaning cloths in the disposal bag. Then wipe the entire work area with a clean cloth and clean water until clean.

C. It is the Contractor's responsibility to select the means and methods it considers most suitable to achieve dust, fume and odor control.

D. In the event that dust or fumes escape from the work area or create dirty conditions or contamination to nearby building spaces or grounds, the Contractor is responsible for all costs associated with the cleaning, testing and/ or repair deemed necessary by the Board Authorized Representative.

END OF SECTION

SECTION 02201

SUMMARY OF EXISTING CONDITIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings
B. Book 1: Project Information, Instructions to Bidders, and Execution Documents
C. Book 2: Standard Terms and Conditions for Construction Contracts
D. Book 2A: Standard Terms and Conditions Procedures Manual
E. Book 3: Technical Specifications

1.2 APPLICABILITY

A. These environmental requirements apply to all Public Building Commission of Chicago (PBC) projects where materials existing on the site will be removed.

1.3 ENVIRONMENTAL ASSESSMENT DOCUMENTS

A. The following environmental documents are made part of the Contract Documents.

1. Phase I Environmental Site Assessment (ESA) – Former Laundromat Parcel / 421-429 E. 79th Street, Chicago, IL / Terracon Consultants, Inc. September 30, 2012

2. Comprehensive Phase II Environmental Site Assessment – Proposed Whitney Young Library Expansion / 7901 Martin Luther King Drive and 415-23 East 79th Street, Chicago, IL / Terracon Consultants, Inc. January 29, 2010

3. Supplemental Investigation Report/Remediation Objectives Report/Remedial Action Plan – Proposed Whitney Young Library Expansion (LPC No.: 0316455026) / 7901 Martin Luther King Drive and 415-23 East 79th Street, Chicago, IL / Terracon Consultants, Inc. November 3, 2010

4. Preliminary Geotechnical Investigation Report – Whitney Young Branch Library / 7901 Martin Luther King Drive, Chicago, IL / GSG Consultants, Inc., Rev. June 23, 2009

1.4 SITE DESCRIPTION

A. The Site is located at 415 – 423 East 79th Street, Chicago, Illinois, 60619, and encompasses approximately 0.36 acres. The PBC enrolled the Site in the Illinois Environmental Protection Agency (IEPA) Site Remediation Program (SRP) on May 26, 2010 and was assigned LPC No. 0316455026. The Site has been assessed under SRP protocols and a Remedial Action Plan (RAP) has been conditionally approved by IEPA. Additionally, in August 2012, a Remediation

Objectives Report (ROR)/RAP Addendum, which includes the scope in this RFP, was submitted to the IEPA for approval. The Services defined herein shall be funded by a combination of an IEPA Municipal Brownfields Revolving Loan Fund (RLF) and a United States Environmental Protection Agency (USEPA) Brownfields Cleanup Cooperative Agreement

1.5 SITE HISTORY

A. The property has been used as a gasoline service / automobile repair station from 1931 to 1941, a paint store from 1951 through the 1980s, and a dry cleaner as of 1981. The Phase I ESA revealed the presence of several environmental concerns, including the presence of impacted soil due to the historic uses of the site and the adjacent properties. Documentation exists indicating the current or former presence of underground storage tanks (USTs) on the site.

B. The Phase II ESA and Supplemental Investigation Report conducted at the site indicated that several volatile organic compounds (VOCs) and polynuclear aromatic hydrocarbons (PNAs), exceed Tier 1 SROs for the residential and construction worker exposure routes. PNAs are present at concentrations exceeding the SROs for the residential soil ingestion and soil component of the Class I groundwater ingestion exposure route in several surface soil samples at the site. VOCs including tetrachloroethene (PCE), tricholoethene (TCE), and methylene chloride are present at the Site at concentrations exceeding the Tier 1 SROs for the soil ingestion/inhalation exposure routes for residential properties and construction workers as well as the soil component of the Class I groundwater ingestion exposure route. PCE was detected at concentrations which exceed the soil saturation limit at a depth of 10-14 feet, and are present in the groundwater at the Site. The majority of the fill material onsite is composed of clay and fine to coarse sand with gravel and with varying amounts of cinder, glass, and brick urban fill. The fill material was defined in a geotechnical report as extending to an average depth of 1.5 feet bgs. This was underlain by loose to medium dense, fine brown sand with silt, which extended to a depth of approximately 8 feet bgs. Below the sand was a layer of soft to medium stiff, gray sandy silt, extending to depths ranging from 10 to 10.5 feet bgs. This was underlain by a stiff to very hard, gray silty clay to the boring termination at a depth of 50 feet bgs. Groundwater was encountered at depths of approximately 6 to 10 feet bgs.

1.6 ENVIRONMENTAL CONDITIONS

A. All soil excavated from within the site shall be removed in accordance with Section 02316 Soil, Fill, Backfill, CU Structural soil & Construction & Demolition Debris Removal and with Section 02317 Special, Nonhazardous Special And Hazardous Waste Soil Removal And Disposal

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 02222

EXCAVATING, BACKFILLING AND COMPACTING FOR UTILITIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings

B. Book 1: Project Information, Instructions to Bidders, and Execution Documents

C. Book 2: Standard Terms and Conditions for Construction Contracts

D. Book 2A: Standard Terms and Conditions Procedures Manual

1.2 SUMMARY

A. Work Under this Sections Includes:

1. Excavation for - trenches for water, sanitary sewer, site drainage, and storm sewer lines to public utility.
2. Compacted bed and compacted fill over utilities to subgrade elevations.

1.3 SUBMITTALS

A. Submit 10 lb. sample of each type of fill to Owners testing agency, in separate airtight containers.

1.4 TESTS

A. Tests and analysis of fill materials will be performed in accord with ASTM D1557, and with General Conditions and testing required by Section 02318 for acceptability as fill material.

1.5 REFERENCES

A. ASTM C136, - Sieve Analysis of Fine and Coarse Aggregates.

B. ASTM D1556, - Density of Soil in place by Sand-Cone Method.

C. ASTM D1557, - Tests for Moisture-Density Relationship of Soils and Soil-Aggregate Mixtures Using 10 lb. Rammer and 18 inch Drop.

D. 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters and Appendix B., Section 742, Table A.; Tiered Approach To Corrective Action Objectives (Taco): 35 Ill .Adm. Code 742.

E. Illinois Department of Transportation (IDOT):

1. IDOT 2012 Specifications for Road and Bridge Construction including all addenda.

1.6 PROTECTION

A. Protect excavations by shoring, bracing, sheet piling, underpinning or other methods or prevent cave-in or loose soil from falling into excavation.

B. Underpin adjacent structures which may be damaged by excavation work, including service utilities and pipe chases.

C. Notify Architect immediately of unexpected subsurface conditions. Confirm notification in writing. Discontinue work until Architect issues written notification to resume work.

D. Protect bottom of excavations and soil adjacent to and beneath foundations from frost.

E. Grade excavation perimeter to prevent surface water runoff into excavation.

PART 2 - PRODUCTS

2.1 MATERIALS

A. The Owner's testing agency representative shall determine if the excavated material is suitable for backfill. The suitable trench excavated material shall be used for trench backfill. Backfill operations must be consistent with Sections 02316, 02317, and 02318, and the Owner's Managing Environmental consultant.

B. Granular Fill Type A:

1. Material for granular fill shall be FA-6 or CA-16 in compliance with IDOT 2012, Article 703.1 and 703.5 and with Section 02318.

2. Bedding Material: Material for bedding shall be CA-11 in compliance with IDOT 2012, Article 704.01 and 703.5 and with Section 02318.

C. Fill Material Type D: Fill material shall be cohesive soil obtained from on-site required excavations and approved by the Owner testing agency representative as suitable backfill material in accordance with ASTM D 2487, Uniform Soils Classification System 1 and 703.5 and with Section 02318 Use to backfill excavations except where type E on X is specified.

D. Fill Material Type E: Fill under landscaped areas shall be free from alkali, salt shall not exceed Appendix B, Section 742,Table A; Tiered Approach to Corrective Action objectives (Taco); Ill Adm .Code 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters and shall be obtained from on-site required excavations when conforming to the specifications. This fill shall be approved by the Owner's testing agency representative as suitable material.

E. Fill Material Type X: Off-site borrow material shall comply to soil types GP, GW, SC and CL in accordance with ASTM D 2487, Uniform Soils Classification System and with Section 02318. It shall be used where needed under structural slabs, roads, pavement and landscaped areas.

PART 3 - EXECUTION

3.1 INSPECTION

A. Verify stockpiled fill to be reused as approved in writing by Architect.

B. Verify foundation perimeter drainage installation has been inspected and approved in writing by Architect.

C. Verify and confirm in writing that areas to be backfilled are free of debris, snow, ice or water, and surfaces are not frozen.

3.2 PREPARATION

A. Identify specified lines, levels, contours and data.

B. Compact subgrade surfaces to density specified for backfill materials.

3.3 EXCAVATION

A. Cut trenches wide enough to enable utility installation and allow inspection.

B. Hand trim excavation and leave free of loose matter. Hand trim for bell and spigot pipe joints.

C. Excavation shall not interfere with normal 45 degree bearing splay of foundations.

D. Sides, walls or faces of all trenches shall be sloped and maintained in a safe manner and in the required condition until completion of backfilling. Excavations shall be braced or sloped in compliance to the latest Occupational Safety and Health Administration (OSHA) requirements or as instructed by the testing agency on-site representative.

E. Locate and retain reusable excavated materials away from the edge of excavation.

3.4 BACKFILLING

A. Support pipes, and conduits during placement and compaction of bedding fill.

B. Backfill trenches to contours and elevations shown. Backfill systematically, as early as possible to allow maximum time for natural settlement. Do not backfill over porous, wet or spongy subgrade surfaces.

C. Place compact fill materials in continuous layers as specified in Section 02300.

D. Use a placement method that will not disturb or damage utilities in trenches, perimeter drainage.

E. Maintain optimum moisture content of backfill materials, determined by laboratory analysis, to obtain specified compaction density.

F. Remove surplus backfill materials and materials unsuitable for backfill from the site to state and local permitted/licensed facilities.

3.5 FILL TYPES AND COMPACTION

A. Compact all fill and backfill to specified values based on Modified Proctor Test in accordance with section 02300.

3.6 COLD WEATHER PROTECTION

A. Quality Control Testing During Construction: An independent inspection and testing agency employed by the Owner shall inspect and approve each subgrade and fill layer before further backfill and fill work is performed.

1. The inspection and testing agency shall perform field and laboratory density tests in accordance with either ASTM D 1556 (sand cone method) and ASTM D 1557 as applicable.
2. Field density tests may also be performed by the nuclear method in accordance with ASTM D 2922. The calibration curves shall be periodically checked and adjusted to correlate to tests performed using ASTM D 1556. In conjunction with each density calibration check, the calibration curves furnished with the moisture gauges shall be checked in accordance with ASTM D 3017.
3. If field tests are performed using nuclear methods, the inspection and testing agency shall make calibration checks on both density and moisture gauges at beginning of work, on each different type of material encountered, and at intervals as specified by the equipment manufacturer.
4. If, in the opinion on the Owner testing agency representative, based on the inspection and testing agency reports and inspections, subgrade or fills have been placed by specified density, the Contractor shall perform additional compaction and retesting until specified density contractor to pay for all retesting work.
5. The Contractor shall assist the inspection and testing agency by providing access to the excavation and fill areas, and by removing loose materials from compacted soil layers prior to testing.

3.7 STORAGE AND REMOVAL OF EXCAVATION MATERIALS

A. Remove surplus backfill materials and materials unsuitable for backfill from the site in accordance with Section 02316 and 02317.

B. Locate and retain reusable excavated materials away from the edge of excavation.

C. Remove excess and deleterious materials. The hauling of materials to designated areas shall be at the Contractor's expense.

END OF SECTION

SECTION 02250

COHESIVE SOIL LAYER

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

A. The Contractor shall furnish all labor, materials, tools, supervision, transportation, and equipment necessary for the construction of the cohesive soil layer as specified herein, as shown on the Drawings, and in accordance with the Construction Quality Assurance (CQA) Plan.

B. The Contractor shall be prepared to construct the cohesive soil layer in conjunction with the earthwork and the installation and construction of the other components of the Project.

C. Notwithstanding the prequalification of any material sources for the cohesive soil layer, the Contractor shall be entirely responsible for meeting the requirements of this Section.

1.2 DEFINITIONS

The following list of definitions is provided for reference.

A. "Compaction" shall mean the process of increasing the density or unit weight of soil by rolling, tamping, vibrating, or other mechanical means.

B. "Unit Weight" shall mean the weight of a soil weight per unit volume, usually expressed in lb/ft^3 or kN/m^3.

C. "In Situ" shall mean in-place naturally.

D. "Moisture Content" shall mean the ratio of weight of water in the soil to the weight of the soil solids (dry soil), expressed in percentage; also referred to as water content.

1.3 REFERENCES

A. Construction Quality Assurance (CQA) Plan.

B. Latest version of American Society for Testing and Materials (ASTM) standards:

1. ASTM D 422, Standard Method for Particle-Size Analysis of Soils.

2. ASTM D 698, Test Method for Laboratory Compaction of Soil Using Standard Effort (12,400 ft-lbf/ft^3 (600 kN-m/m^3)).

3. ASTM D 1140, Standard Test Method for Amount of Material in Soils Finer than the No. 200 (75-μm) Sieve.

4. ASTM D 1556, Standard Test Method for Density of Soil In Place by the Sand-Cone Method.

5. ASTM D 1557, Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3 (2,700 kN-m/m^3)).

6. ASTM D 1587, Standard Practice for Thin-Walled Tube Sampling of Soils.

7. ASTM D 2216, Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock.

8. ASTM D 2487, Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).

9. ASTM D 2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure).

10. ASTM D 2922, Standard Test Methods for Density of Soil and Soil-Aggregate In Place by Nuclear Methods (Shallow Depth).

11. ASTM D 2937, Standard Test Method for Density of Soil in Place by the Drive-Cylinder Method.

12. ASTM D 3017, Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

13. ASTM D 4220, Standard Practices for Preserving and Transporting Soil Samples.

14. ASTM D 4318, Standard Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

15. ASTM D 4718, Standard Practice for Correction of Unit Weight and Water Content for Soils Containing Oversize Particles.

16. ASTM D 5080, Standard Test Method for Rapid Determination of Percent Compaction.

17. ASTM D 5084, Standard Test Method for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter.

C. Daniel, D.E. and R.M. Koerner, (1993), Technical Guidance Document: Quality Assurance and Quality Control for Waste Containment Facilities, EPA/600/R-93/182.

1.4 SUBMITTALS

A. The Contractor shall submit the following information and samples to the Company or Managing Environmental Consultant (MEC) a minimum of 14 days prior to the start of construction of the cohesive soil layer, unless otherwise approved by the MEC:

1. Identification of the proposed material source or sources.

2. A representative 50-pound sample.

B. The Contractor shall notify the Company in writing a minimum of 7 days prior to starting construction of the cohesive soil layer. The notice shall state the material to be used, the equipment to be used, the date and time that placement operations will start, and the name of the person in the field who will be in charge of the construction of the cohesive soil layer.

C. If work is interrupted for reasons other than inclement weather, the Contractor shall notify the Company and MEC a minimum of 24 hours prior to the resumption of work.

1.5 CONSTRUCTION QUALITY ASSURANCE

A. The construction of the cohesive soil layer shall be monitored as outlined in the Construction Quality Assurance (CQA) Plan.

B. The Contractor shall be aware of the activities outlined in the CQA Plan and shall account for these activities in the construction schedule.

1. The proposed minimum testing frequencies for CQA are presented in the CQA Plan. Actual test frequencies may vary. CQA testing, or lack thereof, does not relieve the Contractor from its responsibility to complete the Work in accordance with the Specifications.

2. Sampling locations shall be selected by the MEC. If necessary, the location of routine in-place moisture content and dry unit weight tests shall be determined using a non-biased sampling plan.

3. Undisturbed cohesive soil layer material samples for laboratory hydraulic conductivity testing shall be taken in accordance with ASTM D 1587. If requested by the MEC, the Contractor shall provide assistance such that the sample tube is inserted vertically into the cohesive soil layer with a continuous smooth stroke from the construction equipment used to advance the sampler.

4. Additional testing may be performed at the MEC's discretion.

C. If a defective area is discovered in the cohesive soil layer, the MEC shall determine the extent and nature of the defect. If the defect is indicated by an unsatisfactory test result, the MEC shall determine the extent of the defective area by additional tests, observations, a review of records, or other means that the MEC deems appropriate.

D. After determining the extent and nature of a defect, the MEC shall notify the Contractor and schedule appropriate retests when the defective work has been corrected.

E. The Contractor shall correct defective work to the satisfaction of the MEC. The cost of corrective actions shall be borne by the Contractor.

1. All retests recommended by the MEC must verify that the defect has been corrected before any additional work is performed by the Contractor in the area of the deficiency.

PART 2 - PRODUCTS

2.1 MATERIAL

A. All laboratory testing to evaluate the suitability or conformance of soil materials for the cohesive soil layer shall be carried out in accordance with the CQA Plan.

B. The cohesive soil layer shall consist of relatively homogeneous, natural or amended soils which are free of gypsum, ferrous, calcareous concretions, roots, debris, foreign objects, excess silt, and organics. No particles larger than 0.75 inches shall be allowed in lifts contacting a geomembrane. Particles able to pass a 3-inch sieve shall be allowed in other lifts. The soil shall be classified according to the Unified Soil Classification System as CL or CH material or shall be other natural or amended material capable of meeting hydraulic conductivity requirements. Regardless of the classification requirements, the material shall meet the requirements of Part 2.01 C. of this section. The soils selected shall not be gap-graded or susceptible to piping. Substandard materials shall be segregated at the source and will not be permitted at the work area. Any material which is found by the MEC to be substandard shall be removed from the work area by the Contractor as directed by the Company at no extra cost to Company.

C. The cohesive soil layer shall have an in situ (i.e., after compaction) hydraulic conductivity less than or equal to 1.0×10^{-7} cm/sec as measured in accordance with ASTM D-5084.

D. The alternate cohesive soil layer shall have an in situ (i.e., after compaction) hydraulic conductivity less than or equal to 1.0×10^{-5} cm/sec as measured in accordance with ASTM D-5084.

E. The cohesive soil layer material shall have a minimum liquid limit of 25.

F. The cohesive soil layer material shall have a minimum plasticity index of 10.

G. Onsite or other materials may be amended to achieve the permeability requirements for the cohesive soil layer material. Amending agents and methods shall be approved by the Company and the MEC prior to use.

H. For construction quality assurance (CQA) purposes, the Company shall provide soil testing in accordance with the CQA plan. Costs associated with retesting of failing CQA tests shall be paid for by the Contractor if requested by the Company. The Contractor may use quality assurance test results to assist him with constructing the cohesive soil

layer in accordance with these Specifications. If the Contractor requires additional testing to control construction quality, such additional testing shall be provided by the Contractor at no additional cost to the Company.

I. Clay must meet environmental criteria contained in Section 02318.

PART 3 - EXECUTION

3.1 FAMILIARIZATION

A. Prior to implementing any work of this Section, the Contractor shall become thoroughly familiar with the site, the site conditions, and all portions of the work falling within this Section and the CQA Plan.

B. Inspection:

1. Prior to implementing any work of this Section, the Contractor shall carefully inspect the installed work of all other Sections and verify that all such work is complete to the point where the installation of this Section may properly commence without adverse impact.

2. If the Contractor has any concerns regarding the installed work of other Sections or the site, the Contractor shall notify the MEC and the Company in writing within 48 hours of the site visit. Failure to notify the Company or MEC prior to installation of the cohesive soil layer will be construed as Contractor's acceptance of the related work of all other Sections.

3. The Contractor shall verify that the as-built subgrade has been surveyed to sufficient accuracy as approved by the MEC prior to placement of any cohesive soil layer material.

3.2 COHESIVE SOIL LAYER PLACEMENT

A. The Contractor shall construct the cohesive soil layer to the grades, slopes, and elevations shown on the Drawings and as specified in this Section.

B. The Contractor shall construct the cohesive soil layer on a firm, dry compacted subgrade

C. The source of the soil shall be in accordance with Section 02318 and be approved by the MEC prior to construction.

D. The cohesive soil layer material shall be spread and compacted in lifts not to exceed a compacted thickness of 6 inches. Additionally, if applicable, care shall be taken during the compaction of the clay liner to prevent damage the underlying high-density polyethylene (HDPE) liner. The soil placed under the liner shall be worked to provide a smooth surface without loose materials or abrupt ruts, dips, pits or extrusions so as to provide intimate contact between the clay and soil layers and the HDPE liner.

E. Prior to compaction, the Contractor shall mix the cohesive soil layer by disc-harrowing or an approved equivalent method to a homogenous consistency without clods which are not easily broken by the compaction process.

F. Equipment or truck traffic on the surface will not be permitted during the period between scarifying and placement of the following lift.

G. Each lift shall be thoroughly remolded and compacted to at least 98 percent of the material's standard proctor maximum dry density as determined by ASTM D 698, as approved by the Company or MEC.

H. At the beginning of each day's work, the previously placed cohesive soil layer shall be inspected by the MEC. The Company or MEC may specify recompaction of the top surface of soil and recompaction, as necessary in the judgment of the MEC, to obtain the compaction criteria and provide a suitable surface for the next lift. This work will be performed at no cost to Company.

I. The moisture content of the cohesive soil layer material shall be within a range of plus or minus three percent of optimum moisture content as determined by ASTM D 698 or be within an acceptable range as demonstrated by testing and as approved by the MEC, during the entire time when the compactor is working the soil. If, in the opinion of the MEC, the soil is too dry for proper compaction, the Contractor shall spray the soil with a sufficient quantity of clean water and mix the water into the soil to bring the soil to a uniform, proper moisture content.

J. No cohesive soil layer shall be placed over a lift which has not been tested and approved by the MEC and the PBC Project Manager. Should the field tests indicate that the density of any layer of cohesive soil layer, or portion thereof, is below the required dry unit weight, the particular layer, or portion thereof, shall be reworked at no extra cost to Company.

K. Compaction of lifts will be performed with an appropriately heavy, properly ballasted, penetrating-foot compactor (such as a CAT 815 or equivalent) subject to approval from the MEC. A minimum of 6 passes will be required on each area of each lift to remold the soil regardless of whether the lift meets compaction specifications. One pass of a double-wheeled roller, such as the CAT 815, will be considered as two passes.

L. The daily work area will extend a distance no greater than necessary to maintain moist soil conditions and continuous operations. Desiccation and crusting of the lift surface will be avoided as much as possible.

M. If desiccation and crusting of the lift surface occurs before placement of the next lift, this area will be sprinkled with water and then scarified and tested for water content to ensure uniform moisture before placement of a subsequent lift.

N. Transition from full depth liner to beginning of adjacent new section will be accomplished by sloping (cutting back) the end of a full depth section at 5:1 (horizontal to vertical) or flatter for tying in a new lift. Alternatively, each new lift will be benched into the previously constructed liner at 2-ft horizontal intervals.

O. The transition between the bottom and side slopes will be accomplished by compacting parallel to the slope and by running up and down the slope.

P. Dozer or scraper equipment will not be used for primary compaction efforts.

Q. No frozen or thawing cohesive soil layer material shall be placed, spread or compacted.

R. No cohesive soil layer material shall be placed, spread, or compacted while the subgrade is frozen or thawing, during unfavorable weather conditions, or during periods of precipitation.

S. Hand compaction at the proper moisture content shall be used in all locations around penetrations, corners, appurtenances, etc., in order to achieve the specified dry unit weight and moisture content. Care shall be taken to protect piping, geosynthetics and other structures. Damage to any materials or work shall be repaired by the Contractor at no additional cost to Company.

T. The same material and compaction methods as outlined in this Section shall be used to replace unacceptable zones detected by the MEC.

U. The cohesive soil layer surface shall be made smooth and free from ruts or indentations at the end of every working day when precipitation is forecast and/or at the completion of the compaction operations in that area.

V. The Contractor shall finish each day's work with a smooth roller to create a smooth surface which will promote surface-water runoff and minimize moisture penetration.

W. The entire area shall be left in a manner to promote runoff at the end of each day.

X. Any holes in the cohesive soil layer shall be backfilled with similar soil material or with bentonite. The backfill material shall be compacted in loose lift thicknesses no greater than 8 inches.

Y. All grade stakes shall be removed upon the achievement of final grade. Holes remaining after the removal of grade stakes shall be backfilled and compacted as specified in Paragraph 4.

Z. After completion of a segment of cohesive soil layer, the top of the soil will be surveyed to ensure that: (i) the specified thickness of the cohesive soil layer has been achieved; (ii) the top of the clay liner slopes across the cell at the grades specified on the permitted plans; and (iii) the top of the clay liner in the collection sump area is at the grades and elevations specified on the permitted plans.

3.4 PRODUCT PROTECTION

A. The Contractor shall use all means necessary to protect all prior work, including all materials and completed work of other Sections.

B. In the event of damage, the Contractor shall immediately make all repairs and replacements necessary to the approval of the MEC and at no additional cost to Company.

END OF SECTION

SECTION 02300

EARTHWORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

a. Drawings
b. Book 1: Project Information, Instructions to Bidders, and Execution Documents
c. Book 2: Standard Terms and Conditions for Construction Contracts
d. Book 2A: Standard Terms and Conditions Procedures Manual

1.2 SUMMARY

A. Section Includes: Earthwork required to complete the Project.

1.3 SUBMITTALS

A. Samples
1. Submit 10 lb samples of each material to be used. Identify source, type (use) of each material and gradation. Forward to Owner's testing agency packed tightly in containers to prevent contamination. Submit copy of transmittal to Architect.
2. The Contractor shall also collect sufficient amounts of representative (no composite samples) backfill samples for analytical testing sufficient to verify that these materials do not exceed APPENDIX B, SECTION 742,TABLE A;TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL ADM. CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters per Specification 02316, 02317, and 02318. For Target Compound Listed parameters known as PNAs, Appendix A Table H (Concentrations of Polynuclear Hydrocarbon Chemicals in background Soils) values may be used. For samples from virgin sources, one representative sample must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from recycled sources, one sample per 1,000 tons of material must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. The contractor is responsible for payment of all backfill samples and analytical fees.

B. Submit directly to General Contractor invoices and delivery tickets indicating the amount and type of off-site materials delivered.

C. Submit sediment and erosion plan, specific to the site, that complies with EPA 832/R-92-005 "Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices" or City of Chicago requirement where more restrictive.

D. Submit certification signed by the producer certifying that recycled crushed concrete complies with City of Chicago and IEPA requirements as "clean" containing no contaminates if any used.

E. Product Data: For the following:
1. Each type of plastic warning tape.

2. Drainage fabric.
3. Separation fabric.

F. Material Test Reports: From owner's testing agency indicating and interpreting test results for compliance of the following with requirements indicated:

1. Classification according to ASTM D 2487 of each on-site or borrow soil material proposed for fill and backfill.
2. Laboratory compaction curve according to ASTM D 698 for each on-site or borrow soil material proposed for fill and backfill.
3. Laboratory compaction curve according to ASTM D 1557 for each on-site or borrow soil material proposed for fill and backfill.

G. Submit Settlement monitoring reports as specified in PROJECT CONDITIONS, H, Protection.

H. Submit Earthwork surveys as specified in PROJECT PROTECTION, Earthwork Surveys.

1.4 QUALITY ASSURANCE

A. Codes and Standards: Perform Work in compliance with applicable requirements of governing authorities having jurisdiction including the City of Chicago.

B. Soil Testing and Inspection Service:
1. The Owner will engage a soil testing and inspection service, to include testing soil materials proposed for use in the Work and initial quality control testing during earthwork operations.
2. Furnish soil survey for satisfactory soil materials and samples of soil materials to the testing service.
3. The Contractor shall supply only backfill the does not exceed the APPENDIX B, SECTION 742, TABLE A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO); 35 ILL. ADM.CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For Target Compound Listed parameters known as PNAs, Appendix A Table H (Concentrations of Polynuclear Hydrocarbon Chemicals in background Soils) values may be used. The date of the environmental analysis of the backfill shall be within 60 days of importing such materials to the site.

1.5 PROJECT CONDITIONS

A. Site Information
1. The Owner has had a subsurface investigation performed, the results of which are contained in a report. The report presents conclusions on the subsurface conditions based on the interpretation of the data obtained in the investigation.
2. The Contractor acknowledges that they have reviewed the report and any addenda thereto.
3. It is recognized that a subsurface investigation may not disclose all conditions as they actually exist and other conditions may change, particularly groundwater conditions, between the time of a subsurface investigation and the time of earthwork operations.
4. The data on indicated subsurface conditions are not intended as representations or warranties of the continuity of such conditions. It is expressly understood that the Owner and Architect will not be responsible for interpretations or conclusions drawn therefrom by the Contractor. The data are made available for the convenience of the Contractor.
5. Additional test borings and other exploratory operations may be made by the Contractor at no cost to the Owner.

B. Traffic: Conduct operations to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities. Do not close or obstruct streets, walks or other occupied or used facilities without permission from authorities having jurisdiction.

C. Protection of Existing Improvements:
   1. Provide barricades, coverings, or other types of protection necessary to prevent damage to existing improvements to remain in place.
   2. Restore damaged improvements to their original condition, as acceptable to the Owners and other parties or authorities having jurisdiction.

D. Protection of Existing and Newly Planted Vegetation:
   1. Protect existing vegetation to remain in place against unnecessary cutting, breaking or skinning of roots, skinning and bruising of bark, smothering by stockpiling construction materials or excavated materials within drip line, excess foot or vehicular traffic, or parking of vehicles within drip line. Provide temporary fences, barricades or guards as required to protect vegetation to be left standing.
   2. Water as required to maintain health during the course of construction operations.
   3. Protect root systems from damage due to noxious materials in solution caused by runoff or spillage during mixing and placement of construction materials, or drainage from stored materials. Protect root systems from flooding, erosion or excessive wetting resulting from dewatering operations.
   4. Do not allow fires under or adjacent to plantings which are to remain.
   5. Provide protection for roots over 1½" diameter that are cut during construction operations. Coat the cut faces with an emulsified asphalt or other acceptable coating especially formulated for horticultural use on cut or damaged plant tissues. Temporarily cover all exposed roots with wet burlap to prevent roots from drying out; provide earth cover as soon as possible.
   6. Repair or replace vegetation damaged by construction operations, in a manner acceptable to the Architect.
   7. Repair tree damage by a qualified tree surgeon. Replace trees, which cannot be repaired and restored to full-growth status, as determined by the tree surgeon at no cost to the Owner.

E. Improvements on Public Property: Obtain authority for performing removal and alteration Work on public property.

F. Existing Utilities:
   1. Locate existing underground utilities in the areas of Work before starting earthwork operations. If utilities are to remain in place, provide adequate means of protection during earthwork operations.
   2. Contact D.I.G.G.E.R (312-744-7000) to verify locations of existing underground utilities before starting excavation.
   3. Should uncharted or incorrectly charted piping or other utilities be encountered during excavation, consult the Architect immediately for directions as to procedure.
   4. Cooperate with the Owner and public and private utility companies in keeping their respective services and facilities in operation.
   5. Demolish and completely remove from the site underground utilities indicated to be removed. Coordinate with local utility companies for shutoff of services if lines are active.

G. Use of Explosives: The use of explosives will not be permitted.

H. Protection:
1. Protect existing improvements on and off the site from damages caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
a. Settlement Monitoring Readings: Contractor shall have the surveyor take readings of the work and adjacent property at the minimum number of points indicated below. Additional monitoring points may be established as the Contractor determines to be necessary. Provide a proposed written program for settlement monitoring prior to start of excavation or foundation work. Record readings weekly until the work is substantially complete.

1) Street and Pedestrian Pavement on Grade: one hundred (100) feet on center along each vehicular and pedestrian roadway and walkway; vertical control.
2) For all adjacent properties, buildings, structures, curbs, walks, drives on all adjacent blocks, alleys, streets facing the Site: two (2) points for each location horizontal and vertical control.
3) Reports: The Contractor shall submit a written report to the Commission Representative and the Architect weekly.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

A. All Materials: Comply with Section 02318.

B. Landscape Fill: Provide a clean, debris-free mineral material with a brown sandy clay content and granular material with no stones measuring larger than one inch in diameter. The pH should range between 5.5 to 6.5 with no limestone present. Gray clay soils shall not be accepted. Subsoil fill for landscape areas shall not exceed the APPENDIX B, SECTION 742, TABLE A;TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO); 35 ILL ADM CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters.

C. Select Fill:
1. Clean natural or crushed stone or gravel conforming to State of Illinois, Department of Transportation Gradation CA 6. In addition to State of Illinois Depart of Transportation Gradation requirements, select fill shall Not exceed APPENDIX B; SECTION 742, TABLE A;TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO); 35 ILL ADM CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters.
2. Clean, washed, natural or crushed stone or gravel conforming to State of Illinois, Department of Transportation Gradation CA 1. In addition to State of Illinois Depart of Transportation Gradation requirements, select fill shall Not exceed APPENDIX B; SECTION 742, TABLE A;TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO); 35 ILL ADM CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters.

D. Underbed Material: Naturally or artificially graded mixture of natural or crushed stone or gravel conforming to State of Illinois, Department of Transportation Specifications for Gradation CA 8, or CA 7. In addition to State of Illinois Department of Transportation Specifications,

Underbed material shall not exceed APPENDIX B; SECTION 742, TABLE A; TIERED APPROCH TO CORRECTIVE ACTION OBJECTIVES (TACO); 35 IL ADM CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters.

E. Contractor may use suitable on site materials generated from site excavation if such materials meet environmental remediation requirements and found acceptable by the Owner. Refer to Soil Management Plan for location and depth of materials that may be reused on site (or Refer to Section 02316, Section 02317 and/or the Plans for location and depth of materials that may be reused on site).

F. Use Contractor supplied off-site material except that general fill may be from excavation if found acceptable by the Owner's testing service provided that all off-site and general fill material does not exceed APPENDIX B; SECTION 742, TABLE A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL ADM CODE 7D42 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For Target Compound Listed parameters known as PNAs, Appendix A Table H (Concentrations of Polynuclear Hydrocarbon Chemicals in background Soils) values may be used. Provide all materials required to complete the Work in the Contract.

G. Required Tests for Proposed Soil Materials by Contractor:
   1. Contractor shall provide:
      a. Laboratory analytical results for all imported materials showing that imported materials that do not exceed APPENDIX B; SECTION 742, TABLE A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES(TACO);35 ILL ADM CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For Target Compound Listed parameters known as PNAs, Appendix A Table H (Concentrations of Polynuclear Hydrocarbon Chemicals in background Soils) values may be used.
      b. For samples from virgin sources, one representative sample must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from recycled sources, one sample per 1,000 tons of material must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. The date of the environmental analysis of any soil proposed for use shall be within 60 days of importing such material to the site.
   2. The Owner's testing agency will:
      a. Provide one optimum moisture-maximum density curve for each type of cohesive soil. Determine maximum densities in accordance with ASTM D 1557.
      b. Determine the suitability of materials to be used as fill and backfill.
      c. Perform a mechanical analysis (AASHO T88), plasticity index (AASHO T91), and frost susceptibility analysis.

2.2 ACCESSORIES

A. Warning Tape: Acid- and alkali-resistant polyethylene film warning tape manufactured for marking and identifying underground utilities, 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility; colored as follows:

B. Detectable Warning Tape: Acid- and alkali-resistant polyethylene film warning tape manufactured for marking and identifying underground utilities, minimum 6 inches and 4 mils thick, continuously inscribed with a description of utility, with metallic core encased in a

protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep; colored as follows:

1. Red: Electric.
2. Yellow: Gas, oil, steam, and dangerous materials.
3. Orange: Telephone and other communications.
4. Blue: Water systems.
5. Green: Sewer systems.

C. Drainage Fabric, if required: Non-woven geotextile, specifically manufactured as a drainage geotextile; made from polyolefins, polyesters, or polyamides; and with the following minimum properties determined according to ASTM D 4759 and referenced standard test methods:

1. Grab Tensile Strength: 110 lbf (490 N); ASTM D 4632.
2. Tear Strength: 40 lbf (178 N); ASTM D 4533.
3. Puncture Resistance: 50 lbf (222 N); ASTM D 4833.
4. Water Flow Rate: 150 gpm per sq. ft. (100 L/s per sq. m); ASTM D 4491.
5. Apparent Opening Size: No. 50 (0.3 mm); ASTM D 4751.

D. Separation Fabric, if required: Woven geotextile, specifically manufactured for use as a separation geotextile; made from polyolefins, polyesters, or polyamides; and with the following minimum properties determined according to ASTM D 4759 and referenced standard test methods:

1. Grab Tensile Strength: 200 lbf (890 N); ASTM D 4632.
2. Tear Strength: 75 lbf (333 N); ASTM D 4533.
3. Puncture Resistance: 90 lbf (400 N); ASTM D 4833.
4. Water Flow Rate: 4 gpm per sq. ft. (2.7 L/s per sq. m); ASTM D 4491.
5. Apparent Opening Size: No. 30 (0.6 mm); ASTM D 4751.

PART 3 - EXECUTION

3.1 TEMPORARY EROSION CONTROL

A. Before mobilizing and starting Work on the site, institute, expand as necessary, and maintain throughout the project a sediment and erosion control system that complies with EPA 832/R-92-005 and as required by authorities having jurisdiction, City of Chicago.

B. Control erosion and sediment damage to roadways, adjacent properties and water resources through the use of basins, ditch checks, temporary ditches, mulch barriers, mulches, grasses, silt dikes, silt filter fences, hay or straw bales, aggregate barriers, inlet and pipe protection and other appropriate means.

C. Remove and legally dispose of debris resulting from the project when no longer required in accordance with Section 02316 and 02317.

3.2 CLEARING

A. Environmental Hazards:
1. Before starting Work and thereafter as appropriate, report conditions indicative of environmental hazards to the Owner's Managing Environmental Consultant and the PBC Deputy Director for Environment and proceed as directed.

B. General:
1. Comply with the requirements of Section 02316 and 02317.
2. Remove vegetation, improvements, or obstructions that interfere with installation of new construction. Removal includes new and old stumps and their roots.
3. Carefully and cleanly cut roots and branches of vegetation to be left standing, where such roots and branches obstruct new construction.
4. Comply with the environmental protection and safety requirements of all authorities having jurisdiction. Keep dust to a minimum. Maintain streets free of mud, dirt and debris.

C. Removal of Improvements:
1. Remove improvements that interfere with construction.
2. Cap and remove abandoned underground piping or conduit.
3. Where uncharted or incorrectly charted below grade improvements are discovered, obtain approval of Architect before removal.

3.3 EXCAVATION

A. General:
1. Comply with the requirements of section 02316 and 02317.
2. Excavation consists of the removal and disposal of materials encountered when establishing the required grade elevations. Such excavation is unclassified regardless of the materials encountered and all materials are to be disposed of in accordance with Section 02316 and 02317.
3. Unauthorized excavation consists of removal of materials beyond indicated or required elevations. Replace unauthorized excavation by backfilling and compacting as specified for select fill at no cost to Owner.
4. Excavate under future Building to the extent required to establish subgrades.
5. Excavate under future pavements as required to comply with cross sections, elevations and grades.
6. Excavate elsewhere as required to establish new finish grades

B. Dewatering:
1. Prior to commencing work, the Contractor shall provide a storm water management plan. This plan shall stipulate provisions for dewatering, pumping, collection, temporary storage, and discharge or disposal of storm water , perched water and other liquids, contaminated and/or uncontaminated, at the site so as to facilitate soil removal and minimize disposal costs for contaminated fluids.
2. Do not allow water to accumulate in excavations. Remove water from excavations to prevent softening of foundation bottoms, undercutting footings, and soil changes detrimental to the stability of subgrades and foundations. Provide and maintain pumps, sumps, suction and discharge lines, and other dewatering system components necessary to convey the water away from the site.
3. Convey water removed from excavations and rainwater to collecting or run-off areas acceptable to authorities having jurisdiction. Do not use trench excavations for site utilities as temporary drainage ditches.
4. Comply with requirements of authorities having jurisdiction, including but not limited to, the City of Chicago and the Metropolitan Water Reclamation District (MWRD) of Greater Chicago.

C. Stability of Excavations:
   1. Slope the side of excavations to comply with local codes, authorities having jurisdiction, and the City of Chicago, and maintain same. Secure, shore, and brace where sloping is not possible either because of space restrictions or stability of material excavated.
   2. Maintain sides and slopes of excavations in a safe condition until completion of backfilling.

D. Shoring and Bracing:
   1. Provide shoring and bracing to comply with local codes, authorities having jurisdiction and the City of Chicago.
   2. Provide materials for shoring and bracing, such as sheet piling, uprights, stringers and cross braces, in good serviceable conditions.
   3. Maintain shoring and bracing in excavations regardless of the time period excavations will be open. Carry down shoring and bracing as the excavation progresses.

E. Material Storage: Stockpile excavated materials classified as satisfactory soil material in accordance with Section 02316 and 02317 until required for backfill or fill. Place, grade and shape stockpiles for proper drainage and to prevent production of dust and blowing of materials.

F. Excavation for Structures:
   1. Excavate to the subgrade elevations required within a tolerance of plus or minus 0.10' to balance, and extending a sufficient distance from footings and foundations to permit placing and removal of concrete formwork, installation of services, other construction required, and for inspection.

G. Removal of Unsatisfactory Soil Materials:
   1. Excavate unsatisfactory soil materials encountered that extend below the required elevations, to the additional depth established by the Owner's testing service and approved by Owner.
   2. If excavated unsatisfactory materials are to be removed form the property, all such materials shall be disposed of in accordance with Section 02316 and 02317.
   3. Such additional excavation, provided it is not due to the fault or neglect of the Contractor, will be measured and paid for as a change in the Work if approved by Owner.

H. Closing Abandoned Underground Utilities: Close open ends of abandoned underground utilities, which are to remain permanently, and with sufficiently strong closures to withstand pressures which may result after closing.

I. Cold Weather Protection: Protect excavation bottoms against freezing when the atmospheric temperature is less than 35 degrees F. Maintain excavation free of water, ice and snow.

3.4 PROOF ROLLING

A. Proof Roll entire area under building and pavements with a pneumatic roller or heavily loaded dump truck (minimum 25 tons).

B. Make at least two (2) passes (second at right angle to first) in the presence of a representative of the Owner's testing service.

C. Excavate unsatisfactory soil materials encountered to the additional depth established by the Owner's testing service and approved by Owner.

D. Perform no further Work until slab subgrades are acceptable to the representative of the Owner's testing service.

3.5 COMPACTION

A. General: Control soil compaction during construction, providing the minimum percentage of density specified.

B. Percentage of Maximum Density Requirements: Provide not less than the following percentages of density of soil material compacted at ± 2% optimum moisture content, for the actual density of each layer of soil material-in-place:
   1. Compact top 12" of subgrade and each layer of backfill or fill material to 75% relative density for cohesionless soils (ASTM D 4253 & D 4254) and 95% maximum density for cohesive soil (ASTM D 1557).

C. Moisture Control:
   1. Where the subgrade or layer of soil material must be moisture conditioned before compaction, uniformly apply water to the surface of subgrade, or layer of soil material, to prevent free water appearing on the surface during or subsequent to compaction operations.
   2. Remove and replace, to scarify and air dry, soil material that is too wet to permit compaction to specified density.

3.6 BACKFILL AND FILL

A. Prior to Backfill Placement: Backfill excavations as promptly as the Work permits, but not until completion of the following:
   1. Review of construction below finish grade.
   2. Removal of shoring and bracing, and backfilling of voids with satisfactory materials. Cut off temporary sheet piling driven below bottom of structures and remove in manner to prevent settlement of the structure or utilities, or leave in place if required.
   3. Removal of trash and debris.
   4. Permanent or temporary horizontal bracing is in place on horizontally supported walls.
   5. Bottom of Excavation Survey.

B. Ground Surface Preparation:
   1. Remove vegetation, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placement of fills. Plow, strip, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so that fill material will bond with existing surface.
   2. When the existing ground surface has a density less than that specified under "Compaction" for the particular area classification, break up the ground surface, pulverize, bring moisture condition to the optimum moisture content, and compact to the required depth and percentage of maximum density.

C. Placement and Compaction:

1. Place backfill and fill materials to required grades in layers not more than 8" in loose depth for materials compacted by heavy compaction equipment and not more than 4" in loose depth for materials compacted by hand operated tampers. Before compaction, moisten or aerate each layer as necessary to provide the optimum moisture content of the soil material. Compact each layer to the required percentage of density.
2. Place backfill and fill materials evenly on all sides of structures to required elevations and uniformly along the full length of each structure.
3. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.
4. Backfill and fill under Building slabs to an elevation required to allow for thickness of underbed shown or a minimum of 6" if not shown.
   a. Use select fill material.
5. Backfill and fill under pavements as required to comply with cross sections, elevations and grades shown.
   a. Use select fill material, except below 3-foot, general fill may be used.
6. Fill and backfill under footings where not on undisturbed ground using select fill material.
7. Backfill and fill elsewhere as required to comply with cross sections, elevations and grades shown.
   a. Use material specified in documents.

3.7 GRADING

A. General: Uniformly grade the area, including adjacent transition areas. Smooth finished surfaces within specified tolerances, compact with uniform levels or slopes between elevation points, or between such points and existing grades.

B. Building Pad: Shape the surface of areas under future building to not more than 0.10' above or 0.10' below the required backfill elevation, compacted as specified.

C. Pavements: Shape the surface of the areas under pavement to not more than 0.10' above or 0.10' below the required backfill elevation, compacted as specified.

3.8 FIELD QUALITY CONTROL

A. Quality Control Testing During Construction:
   1. The Owner's testing service must inspect and approve sub-grades and fill layers before further construction work is performed thereon.
   2. If, in the opinion of the Owner's testing service, based on reports of the testing service and inspection, the subgrade or fills which have been placed are below the specified density, additional compaction and testing will be required until satisfactory results are obtained at no additional cost to Owner. In such event, retesting will be paid by the Contractor.

B. Owner will engage a qualified independent testing and inspecting agency to sample materials, perform tests, and submit test reports during earthwork operations.

C. Contractor's Responsibilities
   1. Notify Agency sufficiently in advance of operations to allow for assignment of personnel and scheduling of tests.
   2. Coordinate with Agencies' personnel; provide access to Work, to manufacturer's operations.

3. Provide preliminary representative samples of materials to be tested, in required quantities.
4. Furnish casual labor and facilities to provide access to Work to be tested to obtain and handle samples at the site to facilitate inspections and tests, and storage and curing of tests.
5. Arrange with laboratory, pay for, additional samples and tests required when initial tests indicate Work does not comply with Contract Documents.

D. Tests for Proposed Soil Materials:
1. Test soil materials proposed for use in the Work and promptly submit test result reports. Soil samples will be provided by Contractor.
2. Provide one optimum moisture-maximum density curve for each type of cohesive soil. Determine maximum densities in accordance with ASTM D 1557.
3. Determine the suitability of materials to be used as fill and backfill.
4. Perform a mechanical analysis (AASHO T88), plasticity index (AASHO T91), and frost susceptibility analysis.
5. Supply only soil materials that do not exceed APPENDIX B; SECTION 742, TABLE A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES(TACO);35 ILL ADM CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from virgin sources, one representative sample must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from recycled sources, one sample per 1,000 tons of material must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For Target Compound Listed parameters known as PNAs, Appendix A Table H (Concentrations of Polynuclear Hydrocarbon Chemicals in background Soils) values may be used The date of the environmental analysis of any soil proposed for use shall be within 60 days of importing such material to the site.

E. Verification of Footing Subgrades:
1. Provide one optimum moisture-maximum density curve for each type of soil encountered.
2. For each strata of soil on which footings will be placed, conduct at least one test to verify the required design bearing capacities. Subsequent verification and approval of each footing subgrade may be based on a visual comparison of each subgrade with the related tested strata.

F. Compaction Testing:
1. Inspect, test, and approve each lift of fill and backfill before next lift is placed. Test in accordance with ASTM D1556 or D2167 as appropriate.
2. Take a field density test for each 2,000 sq. ft. of backfill and fill under slabs and pavements.
3. Take a field density test at 100 foot intervals along the inside of continuous footings, but not less than one (1) test per 20 foot run.
4. Take a field density test for each four (4) isolated footings.
5. Take a field density test at 50 foot intervals along utility trench backfill under slabs and pavements.

G. Proofrolling Observation:
1. Provide continuous observation of proofrolling of entire building area. Four passes will be made.
2. Approve subgrade or make recommendations for removal.

H. Submittals: Submit copies of the following reports:

1. Report and certification of granular fill and drainage fill.
2. Test reports on fill and backfill material.
3. Field density test reports.
4. One optimum moisture-maximum density curve for each type of soil encountered.
5. Report of actual unconfined compressive strength and/or results of plate bearing tests of each strata tested.
6. Other tests' and materials' certificates, as required.

3.9 MAINTENANCE AND RESTORATION

A. Protection of Graded Areas:
   1. Protect newly graded areas from traffic and erosion, and keep free of trash and debris and growth of weeds.
   2. Repair and reestablish grades in settled, eroded, and rutted areas to the specified tolerances.

B. Reconditioning Compacted Areas: Where completed compacted areas are disturbed by subsequent construction operations or adverse weather scarifies the surface, reshape, and compact to the required density prior to further construction.

C. Restoration: Restore all areas affected by construction both on and off Owner's property to original condition.

3.10 DISPOSAL OF EXCESS AND WASTE MATERIALS

A. Burning is not permitted on the Owner's property.

B. Remove waste materials, excess excavated materials, excavated materials classified as unsatisfactory soil material from the Owners property and legally dispose of all materials at state and local permitted facilities per Section 02316 and 02317.

C. Provided the excess soil materials do not exceed APPENDIX B; SECTION 742, TABLE A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO); 35 ILL. ADM. CODE 742 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters, and for Target Compound Listed parameters known as PNAs, Appendix A Table H (Concentrations of Polynuclear Hydrocarbon Chemicals in background Soils) values may be used to remove excess soil materials to spoil area, spread and compact to provide drainage. Strip top soil before spoiling and respread after.

D. If the excess soil materials exceed APPENDIX B; SECTION 742, TABLE A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO); 35 ILL. ADM. CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters, and Target Compound Listed parameters known as PNAs, Appendix A Table H (Concentrations of Polynuclear Hydrocarbon Chemicals in background Soils) dispose of all materials in accordance with Section 02316 and 02317.

3.11 PROTECTION:

A. Protect existing improvements on and off the site from damages caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.

B. Settlement Monitoring: Contractor shall have the surveyor take readings of the work and adjacent property at the minimum number of points indicated below. Additional monitoring points may be established as the Contractor determines to be necessary. Provide a proposed written program and location drawing for settlement monitoring prior to start of work to Commission Rep Record readings weekly until the work is complete.

1. Street and Pedestrian Pavement on Grade: one hundred (50) feet on center along each vehicular and pedestrian roadway and walkway; vertical control.
2. For all adjacent properties, buildings, structures, curbs, walks, drives on all adjacent blocks, alleys, streets facing the Site: two (2) points for each location horizontal and vertical control.
3. Reports: The Contractor shall submit a written report to the Commission Representative and the Architect weekly.

C. Earthwork Surveys: Employ a surveyor licensed in the State of Illinois to take readings to perform the following:

1. Bottom of excavation as-built survey

   a. Provide a bottom of excavation as-built survey with a maximum grid spacing of 25 feet for all soil remediation, soil undercuts, and foundation removal.
   b. Clearly delineate the perimeter, corners, and elevations of all locations in which foundations were removed and where authorized undercut areas were excavated.
   c. Survey to include spot elevations along perimeter and corners of the property lines/project boundary lines.
   d. Provide dimensions from property lines to benchmarks and to all undercut areas and excavation areas.
   e. Provide length and width dimensions for all undercut areas and excavation areas.
   f. Submit one (1) electronic copy in PDF format and three (3) full size hard copies, stamped by a Professional Land Surveyor, within 7 business days of completion of all demolition / excavation / export operations.
   g. For projects with construction durations greater than 30 calendar days, submit one (1) electronic copy in PDF format monthly from construction start date to substantial completion date.

2. Top of Compacted Backfill and Fill As-built Survey

   a. Provide a top of compacted backfill and fill as-built survey with a maximum grid spacing of 25 feet for all soil remediation, soil undercuts, and foundation removal.
   b. Clearly delineate the perimeter, corners, and elevations of all locations in which foundations were removed and where authorized undercut areas

were excavated.

c. Survey to include spot elevations along perimeter and corners of the property lines/project boundary lines.

d. Provide dimensions from property lines to benchmarks and to all undercut areas and excavation areas.

e. Provide length and width dimensions for all undercut areas and excavation areas.

f. Submit one (1) electronic copy in PDF format and three (3) full size hard copies, stamped by a Professional Land Surveyor, within 7 business days of completion of all demolition / excavation / export operations.

g. For projects with construction durations greater than 30 calendar days, submit one (1) electronic copy in PDF format monthly from construction start date to substantial completion date.

END OF SECTION 02300

SECTION 02316

SOIL, FILL, BACKFILL, CU STRUCTURAL SOIL & CONSTRUCTION & DEMOLITION DEBRIS REMOVAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. All drawings and general provisions of the Contract, including General and Supplementary Conditions and Specifications Sections, apply to this Section.

B. Section 02317, which refers to the removal and disposal of Special, Non-hazardous Special, and Hazardous waste soil applies to this Section.

1.2 SUMMARY

A. Work included: This specification is for the excavation, stockpiling, loading, hauling, removal, and disposal of any soils (including non-special waste soils,non-hazardous special waste soils, and hazardous waste soils), fill, backfill, top soil, CU Structural Soil, and general construction and demolition debris from Public Building Commission (PBC) properties. The Contractor shall perform the work under this section in accordance with all applicable local, county, IEPA, USEPA, and OSHA regulations. The Work shall include the following:

1. Removal and disposal

   a. Excavation of soils (including non-special waste soils,non-hazardous special waste soils, and hazardous waste soils), fill, backfill, top soil, CU Structural Soil, and general construction and demolition debris materials to the depth required to complete the proposed site preparation/construction work activities as specified in the drawings and specifications. Onsite materials shall not be utilized as structural fill on site. Environmentally impacted soils should be removed from the site in accordance with this specification. Notify the PBC Project Manager and MEC immediately if environmentally impacted soil are encountered.
   b. Obtain authorization from a Permitted Subtitle D or Subtitle C landfill indicating acceptance of materials at the facility. The Authorization must be signed by the owner of the Permitted Subtitle D or Subtitle C landfill and state that the facility complies with all local zoning codes and all local, State, and Federal rules and regulations, that all required laboratory analyses has been received by the facility, and that the facility has agreed to accept the soils (including non-special waste soils, non-hazardous special waste soils, and hazardous waste soils), fill, backfill, top soil, CU Structural Soil, and general construction and demolition debris materials. The Authorization shall further state that the soils (including non-special waste soils, non-hazardous special waste soils, and hazardous waste soils), fill, backfill, top soil, CU Structural Soil, general construction and demolition debris materials are being accepted for permanent placement on site, and that the material will not be removed from the site unless required by a local, State or Federal Authority.

c. Perform analytical testing for waste stream authorizations as necessary to secure all required disposal permits for all materials.
d. Load and transport all materials leaving the property to the approved Permitted Subtitle D or Subtitle C landfill or the onsite deposition area as directed by the PBC Project Manager and MEC.
e. Prepare daily reports, transport manifests, weight tickets and receipts (as applicable) prior to starting any soil removal activities.
f. Provide copies of all daily reports, transport/waste manifest, weight tickets, and disposal receipts (as applicable) to the PBC Project Manager and MEC on a daily basis documenting proper disposal of soils (including non-special waste soils, non-hazardous special waste soils, and hazardous waste soils), fill, backfill, top soil, CU Structural Soil, and general construction and demolition debris materials.

2. Placement of backfill, top soil, CU structural soil

a. The contractor shall supply only backfill, top soil and CU Structural Soil per project specifications and which does not exceed APPENDIX B, SECTION 742, TABLE A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from virgin sources, one representative sample must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from recycled sources, one sample per 1,000 tons of material must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. The date of the environmental analysis of any backfill, top soil shall be within 60 days of importing such material to a PBC property.

1.3 DEFINITIONS

A. Agency means Illinois Environmental Protection Agency (IEPA).

B. Backfill means granular or cohesive material used to fill the excavation to design grade as referenced in design plans and specifications, and which does not exceed Title 35: Environmental Protection Subtitle G: Waste Disposal Chapter I: Pollution Control Board Subchapter F: Risk Based Cleanup Objectives, Part 742, Tiered Approach To Corrective Action Objectives, Appendix B values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters.

C. PBC Project Manager means the person or entity designated as the official representative of the owner in connection with a project.

D. CU Structural Soil means a uniformly blended mixture of crushed stone, clay, loam and hydrogel.

E. Fill means any earthen or non-earthen materials including but not limited to any sediment, granular or cohesive non-native earthen materials, cinders, ash, wood, and brick, concrete, and asphalt fragments, glass, and building debris encountered above naturally occurring undisturbed soils or bedrock in built-up areas.

F. General Construction and Demolition (C&D) Debris means non-hazardous, uncontaminated materials resulting from construction, remodeling, repair, and demolition of utilities, structures,

and roads as defined in Public Act 92-0574, The Environmental Protection Act, 415 ILCS 5 Section 3.160. and regulated under Title 35: Environmental Protection; Subtitle G: Waste Disposal; Chapter I: Pollution Control Board; Subchapter i: Solid Waste and Special Waste Hauling. General Construction and demolition (C&D) debris may include soil, wall coverings, reclaimed asphalt pavement, rock, plaster, glass, non-hazardous painted wood, drywall, plastics, non-hazardous coated wood, non-asbestos insulation, bricks, wood products, roofing shingles, concrete, and general roof coverings.

G. Permitted Subtitle D landfill means any solid waste landfill facility in any state licensed and/or permitted to accept non-hazardous waste.

H. Permitted Subtitle C landfill means any solid waste landfill in any state licensed and/or permitted to accept hazardous waste.

I. IEPA means Illinois Environmental Protection Agency.

J. IDOT means Illinois Department of Transportation.

K. Manifest means the form provided or prescribed by IEPA and used for identifying name, quality, routing, and destination of special waste during its transportation from point of generation to the point of disposal, treatment, or storage.

L. Hazardous Waste means a waste, or combination of wastes, which has been identified by characteristics or listing as hazardous pursuant to Section 3001 of the Resource Conservation and Recovery Act of 1976, P.L. 94-580, 40 CFR part 261, Illinois Environmental protection Act 415 ILCS 5/3.220, and Section 809.103 of Title 35: Environmental Protection; Subtitle G: Waste Disposal; Chapter I: Pollution Control Board. A waste is classified as hazardous if it exhibits any of the following characteristics: 1) ignitability, 2) corrosivity, 3) reactivity, or 4) toxicity, and as defined in Illinois Administrative Code Title 35, Section 721.103 (35 IAC 721.103).

M. Managing Environmental Consultant (MEC) means the entity with overall responsibility for the direction and control of the environmental investigations, assessments, designs, and supervision of remediation work. Terracon Consultants, Inc. is the MEC for this project.

N. MSDS means Material Safety Data Sheet, required by OSHA for any substances that are toxic, caustic, or otherwise potentially hazardous to workers.

O. OSHA means Occupational Safety and Health Administration.

P. Remediation Area means any area on site where underground storage tanks, non-special waste and/or non-hazardous special waste, or soil that do not meet Tier 1 SROs for residential properties is present.

Q. Soil means any granular or cohesive materials designated for removal as specified in the Architect/Engineer drawings and specifications and includes soils that are determined to be non-special and special waste.

R. Special Waste (aka Non-hazardous Special Waste) means any wastes as defined in Title 35: Environmental Protection; Subtitle G: Waste Disposal; Chapter I: Pollution Control Board; Subchapter i: Solid Waste and Special Waste Hauling; Part 808: Special Waste Classifications; Subpart A: General Provisions; Section 808.110,

AND

Any wastes as defined in Title 35: Environmental Protection; Subtitle G: Waste Disposal; Chapter I: Pollution Control Board; Subchapter i: Solid Waste and Special Waste Hauling; Part 809: Non Hazardous Special Waste Classifications; Subpart A: General Provisions; Section 809.103.

S. SROs mean Soil Remediation Objectives for various exposure routes identified in 35 Illinois Administrative Code 742: Tiered Approach To Corrective Action Objectives (TACO).

T. Storm water means water deposited at the site in the form of rain, snow or other natural weather event.

U. TACO means TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO) per 35 Illinois Administrative Code 742.

V. Top Soil means soils placed to design grade and used to promote vegetative growth, and which does not exceed Title 35: Environmental Protection Subtitle G: Waste Disposal Chapter I: Pollution Control Board Subchapter F: Risk Based Cleanup Objectives, Part 742, Tiered Approach To Corrective Action Objectives, Appendix B values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters.

W. USEPA means United States Environmental Protection Agency.

1.4 SUBMITTALS

A. Copies of the following submittals shall be prepared and submitted to the PBC Project Manager at Contractor's own cost:

1. Soil, Fill, Backfill, CU Structural Soil, Construction and Demolition Debris Removal

a. Contractor's Site Specific Health and Safety Plan for all workers engaged in excavation, stockpiling, loading, hauling, removal, and disposal of any soils (including non-special waste soils, non-hazardous special waste soils, and hazardous waste soils), fill, general construction and demolition debris from the property. The plan shall comply with all OSHA requirements. The work shall be performed under the direct supervision of a trained experienced site supervisor. The plan should at a minimum include the following:

1) Name key personnel and alternates responsible for site safety.
2) Describe the risks associated with each operation conducted.
3) Type of personnel training and responsibilities and to handle the specific hazardous situations they may encounter.
4) Describe the protective clothing and equipment to be worn by personnel during various site operations.
5) Describe any site-specific medical surveillance requirements.
6) Describe the program for the periodic air monitoring, personnel monitoring, and environmental sampling if needed.
7) Describe the actions to be taken to mitigate existing hazards to make the work environment less hazardous.
8) Define site control measures including a site map.

9) Establish procedures for personnel and equipment and transporting trucks to ensure that impacted soils are not tracked off site on to non-impacted areas of the site.
10) Set forth the site Standard Operating Procedures (SOPs). SOPs are those activities that can be standardized (i.e., decon procedures and respirator fit testing).
11) Set forth a Contingency Plan for the safe and effective response to emergencies.

b. Soil Management Plan outlining proposed excavation work sequences and procedures to separate each type of material to be removed from the site. The Soil Management Plan shall show the locations of each type of material to be stored on site and location of material to be stored on site for future disposal. The Plan shall also include information regarding concrete recycling procedures and name and address of the concrete recycling sites that will be used as part of this project.

c. Name, address and telephone number of the Permitted Subtitle D or Subtitle C Landfill facility where soils (including non-special waste soils, non-hazardous special waste soils, and hazardous waste soils), fill, general construction and demolition debris are to be deposited. This submittal must be made prior to removal of any materials from the site. This information should include, at a minimum, the following:

1) Facility Name and Address and Telephone Number.
2) Site Contact.
3) Facility Identification Number issued by Illinois, U.S. EPA, or other state licensing agencies for Special Waste Disposal facility.
4) USEPA Disposal Site ID numbers (for Hazardous Waste Sites only).
5) State and/or Local Operational Permit Number(s) for the impacted Construction and Demolition Debris Disposal sites.

d. Letter of authorization from the facility where soils (including non-special waste soils, non-hazardous special waste soils, and hazardous waste soils), fill, general construction and demolition debris are to be deposited prior to removal from the site. The authorization must be signed by the Permitted Subtitle D or Subtitle C landfill facility representative and state that the facility complies with all local zoning codes and all local, State, and Federal rules and regulations, that all required laboratory analyses has been received by the facility, and that the facility has agreed to accept the soils (including non-special waste soils, non-hazardous special waste soils, and hazardous waste soils), fill, and general construction and demolition debris materials. The Authorization shall further state that the soils (including non-special waste soils, non-hazardous special waste soils, and hazardous waste soils), fill, general construction and demolition debris fill materials are being accepted for permanent placement on site, and that the material will not be removed from the site unless required by a local, State or Federal Authority.

e. Copies of analytical results for each waste stream to be removed from the site as applicable. The name and address and telephone number of the laboratory that will be used by the Contractor to perform analytical testing for waste stream authorization.

f. Storm Water Management Plan - prior to commencing work, the contractor shall provide a liquid materials handling plan. This plan shall stipulate provisions for

dewatering, pumping, collection, temporary storage, and discharge or disposal of storm water, perched water and other liquids, contaminated and/or uncontaminated, at the site so as to facilitate soil removal and minimize disposal costs for contaminated fluids.

g. Copies of all daily reports, transport/waste manifests, weight tickets and receipts (as applicable) to the PBC Project Manager and/or Project Manager on a daily basis.

h. Any sampling data collected during the course of the Work.

1.5 SUBMITTAL REVIEW

A. Review of submittals or any comments made does not relieve the Contractor from compliance with the requirements of the drawings and specifications. The purpose of this check is to review for general conformance with the design concept of the project and general compliance with the information given in the contract documents. The Contractor is responsible for confirming and correlating all quantities and dimensions; electing techniques of construction; coordinating the Work; and performing the Work in a safe and satisfactory manner.

1.6 NOTIFICATIONS

A. The Contractor shall notify the PBC Project Manager and MEC no less than two (2) business days prior to loading and transporting any materials from the site.

1.7 RECORDKEEPING

A. The Contractor shall provide documentation of labor, equipment, materials and disposal laboratory analysis used for soil removal, when requested by the PBC Project Manager.

PART 2 - PRODUCTS

2.1 REMOVAL OF SOIL, FILL, BACKFILL, CU STRUCTURAL SOIL, AND CONSTRUCTION AND DEMOLITION DEBRIS

A. The Contractor shall furnish all necessary means, products, tools, and equipment required to remove soil (including non-special waste soils, non-hazardous special waste soils, and hazardous waste soils), fill, backfill, CU Structural Soil and construction and demolition debris from the site as directed by the PBC Project Manager.

PART 3 - EXECUTION

3.1 AUTHORIZATIONS

A. Obtain authorization from the Permitted Subtitle D or Subtitle C landfill owner where soils (including non-special waste soils, non-hazardous special waste soils, and hazardous

waste soils), fill, backfill, CU Structural Soil and construction and demolition debris are to be deposited. The Authorization must be signed by the property owner and shall state that the property owner has received a copy of one or more laboratory analyses of representative sample(s) collected from the site by the contractor and has agreed to accept the material. The Authorization shall further state that the site owner agrees to accept the material for permanent placement on their site and that the material will not be removed from their site unless required by a local, State or Federal Authority. The Authorization further shall state that the site complies with all local zoning codes, State, Federal and Local laws, rules, and regulations.

B. Obtain prior authorization from PBC Project Manager to backfill excavations and utility lines, and apply top soil. All backfill, CU Structural Soil, and top soil shall comply with site specific project specifications.

C. Haulers for transportation of soils, backfill and top soil shall hold, and present upon request, a current valid Commercial Driver's License (CDL).

3.2 MATERIAL SAMPLING

A. Soil, Fill, Backfill, CU Structural Soil, Construction and Demolition debris

1. The Contractor shall collect sufficient amount of representative sample(s) from each type of material being removed from the site for analytical testing to obtain authorization for the ultimate disposition of the materials. The contractor is responsible for acquisition of any required permits and payment of all fees.
2. The Contractor shall be responsible for obtaining liquid samples as needed for characterization for liquid disposal offsite or disposition onsite as applicable. The Contractor is responsible to the acquisition of any required disposal permits and the payment of any fees associated with liquid disposal.
3. The Contractor shall submit the soil and liquid samples (as applicable) to the laboratory and pay for the cost of analyzing the constituents required for the ultimate disposition of soils and liquids.
4. The MEC may collect samples for laboratory analysis or field Photo-ionization Detector (PID) screening, or liquid samples for laboratory analysis. The Contractor shall provide the necessary equipment and manpower to assist the MEC to collect materials to be sampled at no additional cost to the project.
5. The Contractor shall immediately notify the PBC Project Manager and the MEC if any materials, (solid or liquid) requiring special handling (i.e., stained soil, soil with odors, or liquids) are encountered.
6. All excavated soils, liquids, and other material shall be removed from the site in accordance with applicable federal, state and local regulations.

3.3 EXCAVATION

A. The Contractor shall perform excavation of soils (including non-special waste soils, non-hazardous special waste soils, and hazardous waste soils), fill, backfill, CU Structural Soil and construction and demolition debris as directed by the PBC Project Manager.

B. All excavation shall be performed in accordance with OSHA requirements and guidelines.

3.4 HAULING

A. The Contractor shall remove soils, dusts, rocks, etc. from the exterior of trucks, trailers, or other heavy equipment leaving the site before they leave the site.

B. The Contractor shall clean the tractor-trailers or trucks that are loaded with materials for off site placement/salvage by removing clinging soils, or rocks from the exterior of the equipment.

C. The Contractor shall not create dust and shall maintain adequate dust suppression equipment on site if conditions warrant.

D. The Contractor shall maintain streets clean and free of mud and dirt. The contractor shall provide a street sweeper for street maintenance, if requested by the PBC, at no additional cost to the project.

E. The Contractor shall conduct soil (including non-special waste soils, non-hazardous special waste soils, and hazardous waste soils), fill, backfill, CU Structural Soil and construction and demolition debris removal in a manner that ensures minimum interference with roads; streets, walks and other adjacent occupied and used facilities. Do not close or obstruct streets, walks or other occupied or used facilities without permission from the applicable governing agency and PBC Project Manager. Provide alternate routes around closed or obstructed traffic ways if required by the governing agency.

3.5 TRANSPORTATION

A. The Contractor shall remove soils, dusts, rocks, etc. from the exterior of trucks, trailers, or other heavy equipment leaving the site before they leave the site. The Contractor shall provide and complete copies of all daily reports, weight tickets and receipts (as applicable) for transportation and ultimate off site placement of materials removed from the property to the PBC Project Manager, review and signature as required.

3.6 DUST CONTROL

A. The Contractor shall control dust by all necessary means, including but not limited to covering trucks, stockpiles and open materials, watering haul roads, sweeping paved roads, and limiting the speed of all on-site vehicles.

3.7 LIQUID (WATER) MANAGEMENT

A. The Contractor shall subscribe to a weather notification system and manage the work so as not to accumulate storm water on the site during excavation.

B. Prior to commencing work, the contractor shall provide a storm water management plan. This plan shall stipulate provisions for dewatering, pumping, collection, temporary storage, and discharge or disposal of storm water, perched water and other liquids, contaminated and/or uncontaminated, at the site so as to facilitate soil removal and minimize disposal costs for contaminated fluids.

C. The Contractor shall ensure that contamination of water, perched water and previously uncontaminated water or perched water does not occur by preventing the contact of such liquid with materials that exceed Title 35: Environmental Protection Subtitle G: Waste Disposal Chapter I: Pollution Control Board Subchapter F: Risk Based Cleanup Objectives, Part 742, Tiered Approach To Corrective Action Objectives, Appendix B, Table A values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. Earthen berms, plastic (polyethylene) sheeting, pumping, and other such means, as specified in the approved Storm water Management Plan, may be used.

D. If the Contractor, through negligence, allows storm water to contact materials that exceed Title 35: Environmental Protection Subtitle G: Waste Disposal Chapter I: Pollution Control Board Subchapter F: Risk Based Cleanup Objectives, Part 742, Tiered Approach To Corrective Action Objectives, Appendix B, Table A values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters, the water must be disposed of as water that exceeds Title 35: Environmental Protection Subtitle G: Waste Disposal Chapter I: Pollution Control Board Subchapter F: Risk Based Cleanup Objectives, Part 742, Tiered Approach To Corrective Action Objectives, Appendix B, Table A values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. The Contractor will be responsible for the additional costs incurred for any disposal analysis and disposal costs.

3.10 QUALITY CONTROL

A. Visual inspections and damage repairs shall be made daily by the Contractor and/or as directed by the PBC Project Manager to assure that erosion, drainage and containment control measures are functioning properly.

B. The Contractor shall take all necessary precautions to protect structures, equipment, pavement, walks and utilities against movement or settlement during the course of work.

C. Damages: Promptly replace or repair any damage caused to adjacent pavement, utilities or facilities by removal operations at no additional cost. Work shall be performed to the satisfaction of the PBC Project Manager.

D. Utility Services: Maintain existing utilities and protect against damage during removal operations.

PART 4 - MEASUREMENT AND PAYMENT

4.1 CONTRACT UNIT PRICING

A. Volume determination and pricing shall in accordance with the contract documents.

B. Base bid assumes all waste disposal in Subtitle D landfill.

C. Subtitle C landfill waste soil disposal shall be authorized by PBC prior to work and shall be paid out of the allowance table.

END OF SECTION

SECTION 02317

SPECIAL, NONHAZARDOUS SPECIAL AND HAZARDOUS WASTE SOIL REMOVAL AND DISPOSAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. All drawings and general provisions of the Contract, including General and Supplementary Conditions and Specifications Sections, apply to this Section.

1.2 INTRODUCTION:

A. This part only applies to those soils that are classified as:

1. Special Wastes as defined in Title 35: Environmental Protection; Subtitle G: Waste Disposal; Chapter I: Pollution Control Board; Subchapter i: Solid Waste and Special Waste Hauling; Part 808: Special Waste Classifications; Subpart A: General Provisions; Section 808.110.

AND

Any wastes as defined in Title 35: Environmental Protection; Subtitle G: Waste Disposal; Chapter I: Pollution Control Board; Subchapter i: Solid Waste and Special Waste Hauling; Part 809: Non Hazardous Special Waste Classifications; Subpart A: General Provisions; Section 809.103.

2. Nonhazardous Special Waste as defined in Title 35: Environmental Protection; Subtitle G: Waste Disposal; Chapter I: Pollution Control Board; Subchapter i: Solid Waste and Special Waste Hauling; Part 809: Non Hazardous Special Waste Classifications; Subpart A: General Provisions; Section 809.103.

3. Hazardous Wastes as defined by

   a. 40 CFR Part 261 and 40 CFR Part 268;
   b. Section 3001 of the Resource Conservation and Recovery Act of 1976, P.L. 94-580; and
   c. Illinois Administrative Code Title 35, Section 721.103 (35 IAC 721.103), and 35 IAC 723.

1.3 SUMMARY

A. Related Documents: All terms and conditions of the Contract apply to this Section.

B. Work included: This specification is for the permitting, excavation, loading, hauling, and removal of special waste, nonhazardous special waste, and hazardous wastes soils from PBC

facilities. The Contractor shall perform the work under this section in accordance with all applicable local, county, IEPA, USEPA, and OSHA regulations and shall perform the following:

1. Prior to excavation of any special waste, nonhazardous special waste, and hazardous waste soils from a PBC facility, obtain authorization for ultimate disposition of soils at a landfill facility approved by PBC.
2. It is the intention of PBC to dispose of all soils identified for removal per plan in a Subtitle D landfill as non-hazardous waste. Treat hazardous waste soils / soils exceeding Land Disposal Restriction limits with in-situ chemical oxidation to meet Subtitle D disposal criteria. No soil shall be disposed off site as hazardous waste without prior PBC approval.
3. PBC shall have the option to order soils on site to be disposed at a Subtitle C hazardous landfill.
4. Remove special waste, nonhazardous special waste, and hazardous waste soils to the extent shown in the project drawings. Removal of hazardous waste soils requires authorization from PBC.
5. Load special waste, nonhazardous special waste, and hazardous waste soils (if applicable) into licensed special/hazardous waste trucks, containers or vessels for final disposition as per item B. 1., above.
6. Provide copies of all daily reports, transport manifests, weight tickets, and disposal receipts to the PBC Project Manager on a daily basis.
7. Backfill and compact the excavation using granular material and/or soil that does not exceed Appendix B, Section 742, Table A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters, and restore the site to elevations outlined in the project design plans as applicable.

C. Contractor shall comply with all applicable regulatory requirements and other federal, state or local laws, codes and ordinances that govern or regulate the handling, transportation and disposal of special waste, nonhazardous special waste, and hazardous waste soils. The Contractor shall mark, label, placard, package and manifest special waste, nonhazardous special waste, and hazardous waste soils as necessary in accordance with all applicable state, federal and local regulations. The Contractor shall ensure protection against spillage of special waste, nonhazardous special waste, and hazardous waste soils. The Contractor shall handle all special waste, nonhazardous special waste, and hazardous waste soils in accordance with all applicable federal, state and local laws, regulations and ordinance.

1.4 DEFINITIONS

A. Backfill: Granular or cohesive material, used to fill the project area to design grade that does not exceed Title 35: Environmental Protection Subtitle G: Waste Disposal Chapter I: Pollution Control Board Subchapter F: Risk Based Cleanup Objectives, Part 742, Tiered Approach To Corrective Action Objectives, Appendix B, Table A values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters.

B. PBC Project Manager: The person or entity designated as the official representative of the owner in connection with a project.

C. CDL Commercial driver's License.

D. CFR Code of Federal Regulations.

E. Hazardous Waste: A waste pursuant to:

1. 40 CFR Part 261 and Part 268
2. Illinois Administrative Code Title 35, Section 721.103 (35 IAC 721.103) and 35 IAC 728.
3. Section 3001 of the Resource Conservation and Recovery Act of 1976, P.L. 94-580

F. IDOT: Illinois Department of Transportation.

G. IEPA Illinois Environmental Protection Agency.

H. Land Disposal Restriction or LDR: A restriction imposed on the land disposal of a hazardous waste pursuant to 35 IAC 728 and 738. The land disposal of hazardous waste is generally prohibited, except where the activity constituting land disposal is specifically allowed, pursuant to 35 IAC 728 and 738.

H. Managing Environmental Consultant (MEC): The entity with overall responsibility for the environmental program, including design, organization, direction and control of the environmental program including investigations, assessments, designs, and supervision of remediation work. Terracon Consultants, Inc. is the MEC for this project.

I. Manifest: The form provided or prescribed by IEPA and used for identifying name, quality, routing, and destination of special waste nonhazardous special waste, and hazardous waste soils during its transportation from point of generation to the point of disposal, treatment, or storage.

J. Non-Hazardous Special Waste means any waste, as defined in 35 iAC Part 809, that has not been identified, by characteristic or listing, as hazardous waste pursuant to Section 3001 of the Resource Conservation and Recovery Act.

K. Remediation Area: Remediation Area means any area on site where special waste, nonhazardous special waste, and hazardous waste soils are present.

L. Special Waste: Any wastes as defined in Title 35: Environmental Protection; Subtitle G: Waste Disposal; Chapter I: Pollution Control Board; Subchapter i: Solid Waste and Special Waste Hauling; Part 808: Special Waste Classifications; Subpart A: General Provisions; Section 808.110.

AND

Any wastes as defined in Title 35: Environmental Protection; Subtitle G: Waste Disposal; Chapter I: Pollution Control Board; Subchapter i: Solid Waste and Special Waste Hauling; Part 809: Non Hazardous Special Waste Classifications; Subpart A: General Provisions; Section 809.103.

M. Top Soil: Any soils placed to design grade and used to promote vegetative growth. All top soil shall not exceed Title 35: Environmental Protection Subtitle G: Waste Disposal Chapter I: Pollution Control Board Subchapter F: Risk Based Cleanup Objectives, Part 742, Tiered

Approach To Corrective Action Objectives, Appendix B, Table A values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters.

N. USEPA United States Environmental protection Agency

1.5 SUBMITTALS

A. Prior to removal of any soils from the site or backfilling any areas, the Contractor shall provide the PBC Project Manager with copies of the following submittals:

1. Name, address and telephone number of the Permitted Subtitle D (or Subtitle C if applicable and authorized by PBC) landfill where special waste, nonhazardous special waste, and/or hazardous waste soils are to be deposited. This information should include, at a minimum, the following:

    a. Name
    b. Address
    c. Telephone Number
    d. Site Contact
    e. Illinois Facility Identification Number
    f. USEPA Disposal Site ID numbers (for Hazardous Waste Sites only)
    g. State and Local Operational Permit Number(s)
2. Authorization and/or permit from the Permitted Subtitle D or Subtitle C landfill where special waste, nonhazardous special waste, or hazardous waste soils are to be deposited prior to removal of soils from the site. The authorization must also include a statement indicating that the facility or licensed disposal facility has received a copy of the soils analysis report that classified the soils as a special waste, nonhazardous special waste, or hazardous waste.
3. Copies of analytical results of backfill materials verifying that the backfill, does not exceed Title 35: Environmental Protection Subtitle G: Waste Disposal Chapter I: Pollution Control Board Subchapter F: Risk Based Cleanup Objectives, Part 742, Tiered Approach To Corrective Action Objectives, Appendix B, Table A values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from virgin sources, one representative sample must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from recycled sources, one sample per 1,000 tons of material must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. The date of the analysis shall be within 60 days of importing such material to a school property.
4. Name and address and telephone number of the laboratory that will be used by the Contractor to perform the analytical testing for waste characterization and backfill samples prior to starting work.
5. Contractor's Site-Specific Health and Safety Plan.
6. Proof of OSHA training in compliance with the Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120) for applicable workers.
7. Operating licenses and special waste or hazardous waste permits for each proposed transporter. Details of haul routes from site to the disposal facilities.
8. Copies of waste stream authorizations, and permits as applicable.

9. Copies of all daily reports, transport manifests, weight tickets and disposal receipts to the PBC Project Manager on a daily basis.
10. Any air sampling data collected during the course of the Work, including OSHA compliance air monitoring.
11. Copies of equipment decontamination procedures for equipment and vehicles utilized to excavate and remove special waste, nonhazardous special waste, or hazardous waste soils form the site.

B. Submittal Review: Review of submittals or any comments made does not relieve the Contractor from compliance with the requirements of the drawings and specifications. The purpose of this check is to review for general conformance with the design concept of the project and general compliance with the information given in the contract documents. The Contractor is responsible for confirming and correlating all quantities and dimensions; electing techniques of construction; coordinating the Work; and performing the Work in a safe and satisfactory manner.

1.6 NOTIFICATIONS

A. The Contractor shall notify the PBC Project Manager and MEC no less than two (2) business days prior to loading and transporting soils form the site.

1.7 RECORD KEEPING

A. The Contractor shall provide documentation of labor, equipment, materials and laboratory analysis used for the removal and disposal of special waste, nonhazardous special waste, or hazardous waste soils when requested by the PBC Project Manager.

PART 2 - PRODUCTS

2.1 REMOVAL AND DISPOSAL OF SOILS

A. The Contractor shall furnish all necessary means, products, tools, and equipment required to fulfill the scope of work described in the Specifications and Drawings for this Project.

PART 3 - EXECUTION

3.1 AUTHORIZATIONS

A. The Contractor shall obtain written authorization from the Permitted Subtitle D or Subtitle C landfill facility receiving special waste, nonhazardous special waste, or hazardous waste soils. Contractor shall submit the names, addresses and telephone numbers of the facility receiving site soils and/or special wastes, non-hazardous special waste to the PBC Project Manager.

B. Haulers for transportation of special wastes and non-hazardous special waste soils shall hold a current, valid waste hauling permit pursuant to 35 IAC 809.

C. Haulers for transportation of hazardous waste soils shall hold a current, valid waste hauling permit pursuant to 35 IAC 723.

3.2 MATERIAL SAMPLING

A. The Contractor shall, at contractors own cost, collect sufficient amount of representative soil samples from the site for analysis to obtain authorization for the ultimate disposition of special wastes, non-hazardous special waste or hazardous waste soils. The contractor is responsible for acquisition of any required Permitted Subtitle D and Subtitle C landfill disposal permits and payment of all sampling, analysis costs and permitting fees.

B. The Contractor shall submit the soil samples to the laboratory and pay for the cost of analyzing the constituents required for the ultimate disposition of special wastes, non-hazardous special waste, or hazardous waste soils.

C. The MEC shall collect soil samples for laboratory analysis and field Photo-ionization Detector (PID) screening. The Contractor shall provide the necessary equipment and manpower to assist the MEC collecting soils samples at no additional cost to PBC. Completion of treatment of in-situ chemical ISCO areas shall be determined based on MEC sample data.

D. The Contractor shall immediately notify the PBC Project Manager and the MEC if soils and/or materials requiring special handling are encountered in areas not identified in site drawings.

E. All excavated special waste, nonhazardous special waste, or hazardous waste soils shall be removed from the site in accordance with applicable federal, state and local regulations.

3.3 EXCAVATION

A. The Contractor shall perform removal of site soils to the extent shown in the site demolition plan. Removal of site soils shall be performed in accordance with OSHA requirements and guidelines.

3.4 DECONTAMINATION

A. The Contractor shall remove soils, dusts, rocks, etc. from the exterior of trucks, trailers, or other heavy equipment leaving the site.

B. The Contractor shall clean the tractor-trailers or trucks that are loaded with materials for disposal/salvage by removing clinging soils, rocks from the exterior of the equipment.

B. The Contractor shall not allow equipment or trucks to leave the site with water leaking or mud dripping or caked to the equipment or trucks.

C. The Contractor shall clean and/or decontaminate excavation equipment (tools, shovels, backhoes, etc.) with a jet washer or steam cleaner after completing excavation work in the special waste soil areas and prior to start working in the clean soil areas. All cleaning and/or decontamination residuals must be collected and disposed of in accordance with applicable federal, state and local regulations.

D. The Contractor must transport all materials in covered trailers.

3.5 STOCKPILING

A. Contractor may stockpile special wastes, non-hazardous special waste, (or hazardous waste soils if pre-approved by PBC) that cannot be reused or spread on-site for a maximum of five (5) working days. The Contractor shall be responsible for keeping such soil separated from soils that are not designated as special wastes, non-hazardous special waste, or hazardous waste. If special wastes, non-hazardous special waste, or hazardous waste soil comes in contact with soils that are not designated as special wastes, non-hazardous special waste, or hazardous waste, the former non-special waste soils will now be considered special wastes, non-hazardous special waste, or hazardous waste soils, and the Contractor shall dispose of newly designated soils as special wastes, non-hazardous special waste, or hazardous waste soils at his own expense. The Contractor will be responsible for sampling analysis costs associated with Characterization of newly designated soils as special wastes, non-hazardous special waste, or hazardous waste soil/materials.

B. The location of the stockpile area shall be coordinated with the PBC Project Manager. The Contractor shall keep special wastes, non-hazardous special waste, or hazardous waste soils, covered with 6-mil polyethylene visqueen or containerized until subsequent loading, transportation and disposal. For stockpiled soils, provide a 12" to 18" berm around the stockpile. Base sheeting shall overlap the dike.

C. The Contractor shall not allow runoff from stockpiled soil/materials to enter storm drains or leave the site

D. No stockpiling of soil to be treated with chemical oxidant will be permitted. ISCO soils will be treated in place.

3.6 LOADING

A. The Contractor shall load special, nonhazardous special or hazardous waste soil/materials directly from the site or from temporary stockpiles into hauling trucks for subsequent transportation and ultimate disposition.

B. Traffic: Conduct special, nonhazardous special or hazardous waste soil/materials removal to ensure minimum interference with roads, streets, walks and other adjacent occupied and used facilities. Do not close or obstruct streets, walks or other occupied or used facilities without permission from the applicable governing agency and the PBC Project Manager. Provide alternate routes around closed or obstructed traffic ways if required by the governing agency.

C. The Contractor is responsible for complying with State and local Road/Street weight limits.

3.7 TRANSPORTATION

A. The special, nonhazardous special or hazardous waste soil/materials shall be transported by a licensed hauler, licensed in the state of Illinois to transport site soils and/or special wastes, non-hazardous special waste, or hazardous waste soil/materials as applicable.

B. C. The Contractor shall provide and complete copies of all daily reports, transport manifests, weight tickets and receipts (as applicable) for transportation and ultimate disposition of the soil/materials to the PBC Project Manager for review and signature as required.

D. The Transporter shall present evidence of Special Waste hauling permits or Hazardous Waste hauling permits and CDL upon request by the PBC Project Manager.

3.8 DISPOSAL

A. The Contractor shall provide copies of weight tickets and/or volume (cubic yards, tons or gallons) receipts from the Permitted Subtitle D or Subtitle C landfill facility accepting special, nonhazardous special or hazardous waste soil/materials to the PBC Project Manager within two business days.

B. The Contractor shall provide copies of completed daily reports, transport manifests, weight tickets and receipts (as applicable) executed by transporter and the facility accepting the special, nonhazardous special or hazardous waste soil/materials to the PBC Project Manager as required.

C. Contractor shall dispose of no soils identified as hazardous, over Land Disposal Restriction limits, or identified to exceed saturation concentrations Csat as special or non-special waste.

3.9 BACKFILL

A. The backfill material shall be granular or cohesive material that meets the project specified IDOT gradation and/or project specifications. Such backfill material shall not exceed Title 35: Environmental Protection Subtitle G: Waste Disposal Chapter I: Pollution Control Board Subchapter F: Risk Based Cleanup Objectives, Part 742, Tiered Approach To Corrective Action Objectives, Appendix B, Table A values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from virgin sources, one representative sample must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from recycled sources, one sample per 1,000 tons of material must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. The date of the analytical results shall be within 60 day of importing such material to the site.

B. For each off-site source of backfill materials, the Contractor shall provide to the PBC Project Manager laboratory analyses and certification that the imported materials do not exceed Title 35: Environmental Protection Subtitle G: Waste Disposal Chapter I: Pollution Control Board Subchapter F: Risk Based Cleanup Objectives, Part 742, Tiered Approach To Corrective Action Objectives, Appendix B, Table A values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from virgin sources, one representative sample must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from recycled sources, one sample per 1,000 tons of material must be

analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. The date of the analysis shall be within 60 days of importing such material to the site.

C. The contractor shall not backfill excavation areas without approval of the PBC Project Manager. If the Contractor backfills the excavation area without obtaining approval from the PBC Project Manager, the backfill materials shall be excavated, if required, at the Contractor's expense.

3.10 DUST CONTROL

A. The Contractor shall control dust by all necessary means, including but not limited to covering trucks, stockpiles and open materials, watering haul roads, sweeping paved roads, and limiting the speed of all on-site vehicles.

B. During in-situ chemical oxidation (ISCO) activities, Contractor shall control migration of associated chemicals and treated site soils.

PART 4 - LIQUID (WATER) MANAGEMENT

4.1 CONTRACTOR REQUIREMENTS

A. The Contractor shall furnish all necessary means, products, tools, and equipment required to fulfill the scope of work described in the Specifications and Drawings for this Project.

B. The Contractor shall subscribe to a weather notification system and manage the work so as not to accumulate storm water on the site during excavation.

C. Prior to commencing work, the contractor shall provide a storm water management plan. This plan shall stipulate provisions for dewatering, pumping, collection, temporary storage, and discharge or disposal of storm water, perched water and other liquids, contaminated and/or uncontaminated, at the site so as to facilitate soil removal and minimize disposal costs for contaminated fluids.

D. The Contractor shall ensure that contamination of storm water and previously uncontaminated water or perched water does not occur by preventing the contact of such liquid with special, non-hazardous special or hazardous waste soils and water if present on site. Earthen berms, plastic (polyethylene) sheeting, pumping, and other such means, as specified in the approved Storm water Management Plan, may be used.

E. If the Contractor, through negligence, allows storm water to contact special, non-hazardous special or hazardous waste soils (if present on site) and thereby contaminates the storm water so that the water must be disposed of as special, non-hazardous special or hazardous waste, the Contractor will be responsible for the additional costs incurred.

PART 5 - QUALITY CONTROL

5.1 REQUIREMENTS: The Contractor shall perform the following quality control measures to fulfill the scope of work described in the Specifications and Drawings for this Project

A. Visual inspections and damage repairs shall be made daily by the Contractor and/or as directed by the PBC Project Manager to assure that erosion, drainage and containment control measures are functioning properly.

B. The Contractor shall take all necessary precautions to protect structures, equipment, pavement, walks and utilities against movement or settlement during the course of work.

C. Damages: Promptly replace or repair any damage caused to adjacent pavement, utilities or facilities by removal operations at no additional cost. Work shall be performed to the satisfaction of the PBC Project Manager.

D. Utility Services: Maintain existing utilities and protect against damage during removal operations.

PART 6 - MEASUREMENT AND PAYMENT

6.1 CONTRACT UNIT PRICING

A. Volume and pricing shall be in accordance with the contract documents.

B. Base bid assumes all waste disposal in Subtitle D landfill.

C. Subtitle C landfill waste soil disposal shall be authorized by PBC prior to work and shall be paid out of the allowance table.

END OF SECTION

SECTION 02318

ACCEPTANCE OF BACKFILL, TOP SOIL & CU STRUCTURAL SOIL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. All drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this Section.

1.2 DEFINITIONS

A. Agency means Illinois Environmental Protection Agency (IEPA).

B. Backfill means any granular or cohesive material used to fill an excavation or bring property to design grade as specified in the Architect/Engineer drawings and specifications.

C. PBC Project Manager means the person designated as the official representative of the owner in connection with a project.

D. CU Structural Soil means a uniformly blended mixture of crushed stone, clay, loam and hydrogel, as referenced in Specification 02901.

E. IEPA means Illinois Environmental Protection Agency

F. Managing Environmental Consultant (MEC) means the entity with overall responsibility for the direction and control of the environmental investigations, assessments, designs, and supervision of remediation work. Terracon Consultants, Inc. is the MEC for this project.

G. Top Soil means any soils placed to design grade and used to promote vegetative growth All top soil shall not exceed Title 35: Environmental Protection Subtitle G: Waste Disposal Chapter I: Pollution Control Board Subchapter F: Risk Based Cleanup Objectives, Part 742, Tiered Approach To Corrective Action Objectives, Appendix B, Table A values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters.

1.3 SUBMITTALS

A. Copies of environmental analytical results of all backfill material, top soil and CU Structural Soil verifying that these materials do not exceed APPENDIX B, SECTION 742, TABLE A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from virgin sources, one representative sample must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from recycled sources, one sample per 1,000 tons of material must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. A copy of the analytical results shall be submitted at least one week prior to depositing backfill or top soil on site. The date of the analysis shall be within 60 days of the MEC review.

B. Name and address and telephone number of the laboratory that will be used by the Contractor to perform the environmental analytical testing for backfill, top soil and CU Structural Soil samples prior to starting work. The laboratory performing the analysis must be an IEPA accredited laboratory.

C. Copies of all daily reports, transport records and receipts to the PBC Project Manager on a daily basis.

1.4 SUBMITTAL REVIEW

A. Review of submittals or any comments made does not relieve the Contractor from compliance with the requirements of the drawings and specifications. The purpose of this check is to review for general conformance with the design concept of the project and general compliance with the information given in the contract documents. The Contractor is responsible for confirming and correlating all quantities and dimensions; electing techniques of construction; coordinating the Work; and performing the Work in a safe and satisfactory manner.

PART 2 - PRODUCTS

2.1 BACKFILL, TOP SOIL, CU STRUCTURAL SOIL

A. The contractor shall supply only backfill, top soil and CU Structural Soil that does not exceed APPENDIX B, SECTION 742, TABLE A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from virgin sources, one representative sample must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from recycled sources, one sample per 1,000 tons of material must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. The date of the environmental analysis of any backfill, top soil or CU Structural Soil shall be within 60 days of the MEC review.

PART 3 - EXECUTION

3.1 AUTHORIZATIONS

A. Haulers for transportation of backfill, top soil or CU Structural Soil shall hold and present upon request a current, valid Commercial Driver's License (CDL).

3.2 MATERIAL SAMPLING

A. The Contractor shall collect sufficient amount of representative (no composite samples) backfill, top soil and CU Structural Soil sample(s) for analytical testing sufficient to verify that these materials do not exceed APPENDIX B, SECTION 742, TABLE A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. The contractor is

responsible for payment of all backfill, top soil and CU Structural Soil sampling and analytical fees.

B. The MEC may collect backfill, top soil or CU Structural Soil samples for laboratory analysis on to verify contractors soil analysis if requested by the PBC.

C. The MEC may collect samples for laboratory analysis or field Photo-ionization Detector (PID) screening, or liquid samples for laboratory analysis. The Contractor shall provide the necessary equipment and manpower to assist the MEC to collect materials to be sampled at no additional cost to the project, and in compliance with OSHA and all other Rules and Regulations.

3.3 HAULING

A. The Contractor shall not create dust and shall maintain adequate dust suppression equipment on site if conditions warrant.

B. The Contractor shall maintain streets clean and free of mud and dirt.

C. The Contractor shall place backfill, top soil, and CU Structural Soil to ensure minimum interference with roads; streets, walks and other adjacent occupied and used facilities. Do not close or obstruct streets, walks or other occupied or used facilities without permission from the applicable governing agency and the PBC Project Manager. Provide alternate routes around closed or obstructed traffic ways if required by the governing agency.

3.4 TRANSPORTATION

A. The Contractor shall provide and complete copies of all daily reports, weight tickets and receipts (as applicable) for transportation and ultimate placement of the backfill, top soil, and CU Structural Soil to the PBC Project Manager, Project Manager and/or MEC for review and signature within 5 business days or as directed by the PBC Project Manager.

3.5 BACKFILL

A. The backfill material shall be granular or cohesive material that meets the project specified requirements.

B. For each off-site source of backfill materials, the Contractor shall provide to the PBC Project Manager, Project Manager and/or MEC as required, environmental laboratory analyses and certification that the imported backfill does not exceed APPENDIX B, SECTION 742, TABLE A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from virgin sources, one representative sample must be analyzed for Appendix B, Section 742 Table A parameters. For samples from recycled sources, one sample per 1,000 tons of material must be analyzed for Appendix B, Section 742 Table A parameters. The date of the analysis of any backfill shall be within 60 days of the MEC review.

C. The contractor shall not place backfill material without approval of the PBC Project Manager. If the Contractor backfills the excavation area without obtaining approval from the PBC Project Manager, the backfill materials shall be excavated, if required, at the Contractor's expense.

3.6 TOP SOIL

A. The Top Soil material shall meet the project specified requirements as referenced in Specification 02900.

B. For each off-site source of top soil, the Contractor shall provide to the PBC Project Manager as required, environmental laboratory analyses and certification that the imported top soil does not exceed APPENDIX B, SECTION 742, TABLE A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from virgin sources, one representative sample must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from recycled sources, one sample per 1,000 tons of material must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. The date of the analysis of any backfill top soil shall be within 60 days of the MEC review.

C. The contractor shall not place top soil without approval of the PBC Project Manager. If the Contractor places top soil without obtaining approval from the PBC Project Manager, the top soil shall be excavated, if required, at the Contractor's expense.

3.7 CU STRUCTURAL SOIL

A. CU Structural Soil shall meet the project specified requirements as referenced in Section 02901.

B. For each off-site source of CU Structural Soil, the Contractor shall provide to the PBC Project Manager, Project Manager and/or MEC, as required, environmental laboratory analyses and certification that the imported materials do not exceed APPENDIX B, SECTION 742, TABLE A; TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES (TACO): 35 ILL. ADM. CODE 742 values for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from virgin sources, one representative sample must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. For samples from recycled sources, one sample per 1,000 tons of material must be analyzed for 35 ILL. ADM CODE 740 APPENDIX A Target Compound List (TCL) parameters. The date of the analysis of any CU Structural Soil shall be within 60 days of the MEC review.

C. The contractor shall not place CU Structural Soil without approval of the PBC Project Manager. If the Contractor places CU Structural Soil without obtaining approval from the PBC Project Manager the CU Structural Soil shall be excavated, if required, at the Contractor's expense.

3.8 DUST CONTROL

A. The Contractor shall control dust by all necessary means, including but not limited to covering trucks, stockpiles and open materials, watering haul roads, sweeping paved roads, and limiting the speed of all on-site vehicles.

3.9 QUALITY CONTROL

A. The Contractor shall take all necessary precautions to protect structures, equipment, pavement, walks and utilities against movement or settlement during the course of work.

B. Damages: Promptly replace or repair any damage caused to adjacent pavement, utilities or facilities by removal operations at no additional cost. Work shall be performed to the satisfaction of the PBC Project Manager.

C. Utility Services: Maintain existing utilities and protect against damage during placement of backfill, top soil and CU Structural Soil.

PART 4 - MEASUREMENT AND PAYMENT

4.1 CONTRACT PRICING

A. Volume determination and pricing shall be in accordance with the contract documents.

END OF SECTION

SECTION 02511

HOT-MIX ASPHALT PAVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

a. Drawings
b. Book 1: Project Information, Instructions to Bidders, and Execution Documents
c. Book 2: Standard Terms and Conditions for Construction Contracts
d. Book 2A: Standard Terms and Conditions Procedures Manual

1.2 SUMMARY

A. Section includes hot-mix asphalt paving and pavement markings required to complete the project.

1.3 SUBMITTALS

A. Product Data: Submit manufacturers' product data for traffic marking paint and handicapped parking signs demonstrating compliance with the specified requirements.

B. Material Certificates: Provide copies of materials certificates signed by material producer and contractor, certifying that each material item complies with, or exceeds, specified requirements.

C. Pavement Marking Plan: Submit 4 copies of the pavement marking plan, indicating lane separations, dedicated handicapped parking spaces and diagonally striped access aisles, parking space lines, and other markings. Dedicated handicapped parking spaces shall be marked with the international graphics symbol. All handicapped traffic markings shall comply with the Illinois Accessibility Code and the Americans with Disabilities Act.

1.4 REFERENCES

A. Specified references, or cited portions thereof, current at date of bidding documents unless otherwise specified, govern the work.

B. Asphalt Institute (AI) :
1. ES-11 Asphalt Surface Treatments - Specifications.
2. ES-12 Asphalt Surface Treatments - Construction Techniques.
3. MS-1 Thickness Design - Asphalt Pavements for Highways.
4. MS-2 Mix Design Methods for Asphalt Concrete and Other Hot-Mix Types.
5. MS-5 Introduction to Asphalt.
6. MS-8 Asphalt Paving Manual.
7. MS-10 Soils Manual.
8. MS-14 Asphalt Cold-Mix Manual.
9. MS-15 Drainage of Asphalt Pavement Structures.

10. MS-17 Asphalt Overlays for Highway and Street Rehabilitation.
11. MS-22 Principles of Construction of Hot-Mix Asphalt Pavements.

C. The American Society of Testing and Materials (ASTM):
1. ASTM D698 - Tests for Moisture-Density Relationship of Soils and Soil-Aggregate Mixtures, Using 5 Lb. Rammer and 12 in. Drop.

D. Illinois Department of Transportation:
1. Standard Specifications for Road and Bridge Construction, January 2012, including all addenda.
2. Manual of Instructions for Bituminous Proportioning and Testing.

1.5 TESTING & INSPECTION

A. Testing and inspection of bituminous concrete mixes and testing of placed stabilized base course and bituminous concrete pavement will be performed by an independent testing laboratory employed by the Owner.

B. Allow testing laboratory access to mixing plant for verification of weights or proportions, character of materials used and determination of temperatures used in preparation of bituminous concrete mix.

C. When requested, testing laboratory shall perform tests on proposed bituminous pavement mixes to determine conformity with specifications.

D. Testing laboratory shall perform one series of compaction tests for stabilizing base course and for each bituminous pavement course. The Contractor shall pay for all costs of additional testing due to improper performance of work.

E. When stabilizing base course, or portion thereof, has been placed and compacted in accord with specifications, notify testing laboratory to perform density tests. Do not place bituminous concrete pavement until satisfactory results have been verified and base course approved in writing by Architect.

F. When compaction test results indicate nonconforming work, remove defective work, replace and retest.

G. Observe the proof-rolling of the subgrade prior to placing base course materials.

H. Check base course materials for conformance to specifications.

I. Perform extraction analysis on samples of bituminous concrete mixes to check for conformance to the Illinois Department of Transportation Class I requirements.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Stabilizing Base Course: Comply with IDOT, 2012 for gradation CA-6, and Section 02318.

B. Hot-Mix Asphalt Paving Materials: Comply with IDOT 2012, Section 406:
   1. Surface Course:
      a) For Primary Arterial Roads: Mix E, N90
      b) For Secondary Arterial Roads: Mix D, N70
      c) For Collector Roads: Mix D, N50
      d) For Residential Roads: IL-9.5 Mix C, N30; Low ESAL
      e) Within Property Limits: IL-9.5 Mix C, N30; Low ESAL

   2. Binder Course:
      a) For Primary Arterial Roads: IL-19.0, N90
      b) For Secondary Arterial Roads: IL-19.0, N70
      c) For Collector Roads: IL-19.0, N50
      d) For Residential Roads: IL-19, N30 Low ESAL
      e) Within Property Limits: IL-19.0, N50

C. Geotextile Filter Fabric: 100 percent nonwoven fabric, needle punched continuous filament polyester fabric per ASTM D 4759.

D. Traffic Marking:
   1. The colors for pavement markings shall conform to the standard highway colors, unless otherwise indicated.
   2. Alkyd resin type paint, ready mixed, complying with AASHTO M248 Type I for site striping.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Provide all items and perform all preparation and work in accord with IDOT 2012, referenced Sections:
   1. Subgrade: Comply with IDOT 2012, Section 301.
   2. Granular Base: Comply with IDOT 2012, Section 311.

3.2 PLACEMENT OF STABILIZING BASE COURSE

A. Bring base course to indicated depths and profiles. Place in layers not exceeding 4 in. in depth. Compact each layer 95% in accordance with ASTM D 1557. Properly compact areas adjacent to curbs, catch basins, manholes and other areas not accessible to rollers with mechanical or hand tamping devices. Ensure granular base course materials are not contaminated with deleterious materials and conform to Section 02318.

B. Add water during compaction to bring granular material to optimum moisture content.

C. Spread base course materials over prepared granular subbase to a 3 inch compacted depth. Compact to 95% per ASTM D 1557. Ensure top surface of base course is true to lines and grades indicated, with all points within 1/2 in. of indicated elevations.

D. Add water during compaction to bring stabilizing base course to optimum moisture content determined in accord with ASTM D1557. When an excess of moisture exists, rework stabilizing base course materials until optimum moisture content is obtained.

3.3 PRIMING PREPARED STABILIZED BASE COURSE

A. Ensure stabilized base course is dry and free of loose or foreign material before priming.

B. Apply primer over prepared stabilizing base course at a uniform rate of 0.3 gallon/sq. yd. Ensure primer is at temperature recommended by manufacturer. Use clean natural sand to blot excess primer.

C. Similarly prime surfaces of curbs and gutters which will be in contact with bituminous pavement.

D. Coat surfaces of manholes and catch basins that are to remain free of asphalt with oil to prevent asphalt adhesion.

3.4 PLACEMENT OF BITUMINOUS PAVEMENT

A. Place bituminous pavement within twenty-four (24) hours of priming stabilizing base course.

B. Place binder course to compacted depth as shown on Drawings.

C. Place surface course to compacted depth as shown on Drawings.

D. Do not place bituminous pavement when surface temperature is 40 F. or lower.

E. Compact each bituminous paving course to specified density, with rolling equipment approved by Architect. Start compaction as soon as pavement will bear equipment without checking or undue displacement.

F. Execute compaction in three operations in pass sequence. Ensure each pass of roller overlaps previous passes to ensure smooth surface, free of roller marks. Keep roller wheels sufficiently moist not to pick up material.

G. Hand tamp in areas not accessible to rolling equipment.

H. Ensure joints made during paving operations are straight, clean, vertical and free of broken or loose material. Prime vertical surfaces of joints to ensure tight bond.

I. Ensure surface of completed bituminous pavement is true to lines, profiles and elevations indicated, and are free from depressions exceeding 1/4 in. when measured with a 10 ft. straightedge.

J. Do not allow vehicular traffic on newly paved areas until surface coat has cooled to ambient atmospheric temperature.

3.5 TRAFFIC MARKINGS

A. Cleaning: Sweep and clean surface to remove loose material and dust.

B. Exterior Markings

1. Do not apply traffic marking paint until layout and placement has been verified with the Architect.

2. Apply paint with mechanical equipment to produce uniform straight edges. Apply to produce a minimum of 12 mils dry thickness.

END OF SECTION

SECTION 02513

PORTLAND CEMENT CONCRETE PAVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

a. Drawings
b. Book 1: Project Information, Instructions to Bidders, and Execution Documents
c. Book 2: Standard Terms and Conditions for Construction Contracts
d. Book 2A: Standard Terms and Conditions Procedures Manual

1.2 SUMMARY

A. Section includes Portland cement concrete paving required to complete the project.

1.3 SUBMITTALS

A. Laboratory Test Reports: Submit 2 copies of laboratory test reports to concrete materials and mix design tests.

B. Delivery Tickets: Submit copies of delivery tickets for each load of concrete delivered to the site to the General Contractor.

C. Product Data: Submit copies of manufacturer's specifications with application and installation instructions for proprietary materials and items upon request.

1.4 QUALITY ASSURANCE

A. Perform work in accord with reference IDOT Specifications and City of Chicago requirements.

B. Obtain materials from same source throughout.

C. Regulatory Requirements:
1. Illinois Steel Products Procurement Act as amended (Illinois Revised Statues, Ch. 48, par. 1901 et. seq.).
2. City of Chicago.

D. Mock-Up:

1. Samples Panel:

a. General Contractor: Before installing any exterior concrete paving, provide a sample paving panel for a typical concrete walk inclusive of a handicapped curb ramp.
b. Paving is to show the proposed color, surface finish of both the walk and textured

ramp surface, reinforcement, control and expansion joints, sealant and workmanship.

c. Panel size shall be a minimum of 5' -0" wide x 15' -0" long in the presence of the Architect prior to the installation of these materials on the site.
d. Erect the panel in a location acceptable to the Architect and in the presence of the Architect prior to the installation of these materials on the site.
e. Do not start concrete site work until the Architect has given written approval of all components of the sample panel.
f. This sample panel will be used as a standard of comparison for all site concrete constructed of same materials.

E. Concrete Testing Service:
1. The Owner will employ a separate testing laboratory to perform initial field quality control testing.
2. Materials and installed Work may require testing and retesting at any time during the progress of the Work. Allow free access to material stockpiles and facilities at all times. Retesting of rejected materials and installed Work shall be done at the Contractor's expense.
3. Three concrete test cylinders shall be taken for every 75 or less cu. yds. of each class of concrete placed each day.
4. One additional test cylinder shall be taken during cold weather and be cured on site under same conditions as concrete it represents.
5. One slump test shall be taken for each set of test cylinders taken.

PART 2 - PRODUCTS

2.1 FORM MATERIALS

A. Comply with IDOT Specification, section 420.

2.2 REINFORCEMENT

A. Reinforcing steel: ASTM A615: Grade 60, epoxy coated finish.

B. Welded steel wire fabric: Plain type, ASTM A185; rolls; epoxy coated finish.

C. Tie wire: Annealed steel, minimum 16 gauge size.

D. Dowels: ASTM A615; Grade 60, plain steel, epoxy coated finish.

2.3 ACCESSORIES

A. Curing compound: Comply with IDOT Specification, Article 1020.13.

B. Liquid surface sealer. ASTM D-3405.

C. Preformed joint filler: ASTM D1751.

2.4 ADMIXTURES

A. Air entrainment admixture: Comply with ASTM C 260.

B. Chemical admixture: Comply with ASTM C494.

2.5 CONCRETE MIX

A. Mix concrete in accordance with IDOT 2012, Section 1020, for Class PV Concrete. Also mix in accordance with Section 1020.11.

B. Provide concrete for paving of the following characteristics:
1. Compressive strength at:
7 days: (2450) psi.
28 days: (3500) psi.

C. Use accelerating admixtures in cold weather only with Architect prior written approval. Use of admixtures will not relax cold weather placement requirements.

D. Add air entraining agent to concrete mix for concrete work subject to freeze/thaw cycling and exposed to exterior.

PART 3 - EXECUTION

3.1 SUBGRADE PREPARATION

A. Prepare in accordance with IDOT2012, Section 301.

1. Proof roll areas under drives and parking areas.

B. Provide additional fill for soft spots and hollows.

C. Level and Compact subgrade, to receive granular base for concrete work, to 95% Modified Proctor Density.

3.2 CONCRETE PLACING

A. Place all paving concrete in accordance with IDOT 2012, Section 420.

B. Place concrete for sidewalks in accordance with IDOT 2012, Section 424.

C. Cure concrete in accordance with IDOT 2012, Section 1020.13.

3.3 INSPECTION

A. The Testing Laboratory shall verify that the compacted base is ready to support paving and imposed loads.

B. Verify gradients and elevations of base are correct.

C. Start of installation constitutes acceptance of existing conditions.

3.4 PREPARATION

A. Moisten base to minimize absorption of water from fresh concrete.

B. Notify Architect minimum 24 hours before start of concreting operations.

3.5 FORMING

A. Place and secure forms to correct location, dimensions and profile.

B. Assemble formwork to permit easy stripping and dismantling without damaging concrete.

C. Place joint fillers vertical in position, in straight lines. Secure to formwork during concrete placement.

3.6 REINFORCEMENT

A. Place reinforcement at mid-height of slabs-on-grade.

B. Interrupt reinforcement at contraction and expansion joints.

C. Place reinforcement to achieve slab and curb alignment as detailed.

D. Provide dowelled joints at interruptions of concrete with one end of dowel set in capped sleeve to allow longitudinal movement.

3.7 FORMED JOINTS

A. Place expansion, control and contraction joints as shown on the drawings. Align curb and gutter, sidewalk, and concrete pavement joints.

B. Place joint filler between paving components and building (s) or other appurtenances. Recess top of filler 1/2 inch for sealer placement in accordance with 07900.

C. Place joint sealer at all expansion joints in accordance with IDOT 2012 Section 420 and 1050.

D. Provide scored, joints at 5 feet intervals of sidewalk except where otherwise shown.

3.8 CURING

A. Curing and protection shall be as outlined in IDOT Sections 1020. White pigmented curing compound as outlined in IDOT Section 1022 is the preferred curing method. White-opaque polyethylene film shall not be accepted as a curing method.

3.9 FINISHING

A. Area paving: Light wood float.

B. Sidewalk paving: Light broom, radiused and trowel joints edges, wood float.

C. Curbs and gutters: Light broom.

D. Handicap curb ramps: Provide detectable warning consisting of raised truncated domes with a diameter of nominal .9in. (23mm) a height of nominal .2 in. (5mm) and a center to center spacing of nominal 2.35 in. (60mm) and shall contrast visually with adjoining surfaces. The detectable warning shall comply with the Americans with Disabilities Accessibility Guidelines (ADAAG) and the Chicago Department of Transportation.

E. Place curing compound on exposed concrete surfaces immediately after finishing. Apply in accordance with manufacturer's current printed instructions.

F. Planter Curb: Rubbed Finish: Apply the following to smooth-formed finished as-cast concrete where indicated:
   1. Smooth-Rubbed Finish: Not later than one day after form removal, moisten concrete surfaces and rub with carborundum brick or another abrasive until producing a uniform color and texture. Do not apply cement grout other than that created by the rubbing process.

3.10 FIELD QUALITY CONTROL

A. Maintain record of placed concrete items. Record date, location of pour, quantity, air temperature and test samples taken.

3.11 PROTECTION

A. Immediately after placement, protect concrete from premature drying, excessive hot or cold temperatures and mechanical injury. Maintain protection until accepted.

3.12 FIELD QUALITY CONTROL

A. Initial Testing: The Owner will employ a separate testing laboratory to perform field quality control testing.

B. Additional Tests: The testing service will make additional tests of in-place concrete when test results indicate the specified concrete strengths and other characteristics have not been attained in the structure, as directed by the Architect. The Contractor shall pay for such tests conducted, and any other additional testing as may be required, when unacceptable concrete is verified.

C. Formed Concrete Dimensional Tolerances:

1. Formed concrete having any dimension smaller or greater than required, and outside the specified tolerance limits, will be considered deficient in strength and subject to additional testing as herein specified.
2. Formed concrete having any dimension greater than required will be rejected if the appearance or function of the structure is adversely affected, or if the larger dimensions interfere with other construction. Repair, or remove and replace rejected concrete as required to meet the construction conditions. When permitted, accomplish the removal of excessive material in a manner to maintain the strength of the section without affecting function and appearance.
3. Construction for ADAAG accessible walks, pavement surfaces, and areas shall have tolerance limits in accordance with local and federal regulations (whichever is more stringent).

D. Defective Work: Concrete work which does not conform to the specified requirements, including strength, tolerances, and finishes, shall be corrected at the Contractor's expense, without extension of time therefore. The Contractor shall also be responsible for the cost of corrections to any other work affected by or resulting from corrections to the concrete work.

END OF SECTION

SECTION 02700

SEWERAGE AND DRAINAGE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

a. Drawings
b. Book 1: Project Information, Instructions to Bidders, and Execution Documents
c. Book 2: Standard Terms and Conditions for Construction Contracts
d. Book 2A: Standard Terms and Conditions Procedures Manual

1.2 SUMMARY

A. This work shall consist of constructing storm sewers, trench drains, underdrain system, water system, and adjusting elevations of existing structures in accordance with the requirements of the Contract Documents.

1.3 SUBMITTALS

A. General: Submit each item in this Article according to the Conditions of the Contract and Specification Sections.

B. Shop drawings for precast concrete manholes, catch basins, trench drains, and other structures. Include frames, covers, and grates.

C. Inspection and test reports specified in the "Field Quality Control" Article.

1.4 QUALITY ASSURANCE

A. Environmental Agency Compliance: Comply with regulations pertaining to sanitary sewerage and storm drainage systems.

B. Utility Compliance: Comply with regulations pertaining to sanitary sewerage and storm drainage systems. Include standards of water and other utilities where appropriate.

C. Product Options: Drawings indicate sizes, profiles, connections, and dimensional requirements of system components and are based on specific manufacturer types indicated. Other manufacturers' products with equal performance characteristics may be considered.

1.5 PERFORMANCE REQUIREMENTS

A. Gravity-Flow, Non-pressure Piping Pressure Ratings: At least equal to system test pressure.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Protect pipe, pipe fittings, and seals from dirt and damage.

B. Handle precast concrete manholes and other structures according to manufacturer's rigging instructions.

1.7 PROJECT CONDITIONS

A. Site Information: Perform site survey, research public utility records, and verify existing utility locations.

B. Existing Utilities: Do not interrupt existing utilities serving facilities occupied by the Owner or others except when permitted under the following conditions and then only after arranging to provide acceptable temporary utility services.
   1. Notify Architect not less than 48 hours in advance of proposed utility interruptions.
   2. Do not proceed with utility interruptions without receiving Architect's written permission.

PART 2 - PRODUCTS

2.1 PIPES AND FITTINGS

A. Push-on-Joint, Ductile-Iron Pipe: AWWA C151, with push-on-joint bell and plain spigot end, unless grooved or flanged ends are indicated.

   1. Push-on-Joint, Ductile-Iron Fittings: AWWA C110, ductile- or gray-iron standard pattern or AWWA C153, ductile-iron compact pattern.
   2. Gaskets: AWWA C111, rubber.

B. Perforated pipe: ASTM D 3034; PVC-SDR-26. Provide four rows of perforations meeting AASHTO M278 specifications. Joints ASTM D 2855 or ASTM D 3212.

2.2 MANHOLES

A. Precast Concrete Manholes: ASTM C 478 (ASTM C 478M), precast, reinforced concrete, of depth indicated, with provision for rubber gasket joints.
   1. Ballast: Increase thickness of precast concrete sections or add concrete to base section, as required to prevent floatation.
   2. Base Section: 6-inch (150-mm) minimum thickness for floor slab and 4-inch (100-mm) minimum thickness for walls and base riser section, and having a separate base slab or base section with integral floor.
   3. Riser Sections: 4-inch (100-mm) minimum thickness, 48-inch (1220-mm) diameter, and lengths to provide depth indicated.
   4. Top Section: Eccentric cone type, unless concentric cone or flat-slab-top type is indicated. Top of cone of size that matches grade rings.
   5. Gaskets: ASTM C 443 (ASTM C 443M), rubber.
   6. Grade Rings: Include 2 or 3 reinforced-concrete rings, of 6- to 9-inch (152- to 229-mm) total thickness, that match a 24-inch- (610-mm-) diameter frame and cover.

7. Steps: ASTM C 478 (ASTM C 478M) individual steps or ladder. Omit steps for manholes less than 60 inches (1500 mm) deep.
8. Pipe Connectors: ASTM C 923 (ASTM C 923M), resilient, of size required, for each pipe connecting to base section.

B. Frames and Grates:
1. Manhole Frames and Covers: ASTM A-48, Class 35B, cast gray iron and per current city code. Include indented top design with lettering cast into cover:
   a. Sanitary Sewerage Piping Systems: Raised flush letters per current city code.
   b. Storm Drainage Piping Systems: Raised flush letters per current city code
   c. Dry Well: INFILTRATION BASIN.

2.3 CATCH BASINS/ DRYWELLS

A. Precast Concrete Catch Basins: ASTM C 478 (ASTM C 478M), precast, reinforced concrete, of depth indicated, with provision for rubber gasket joints.
1. Base Section: 6-inch (150-mm) minimum thickness for floor slab and 4-inch (100-mm) minimum thickness for walls and base riser section, and having a separate base slab or base section with integral floor.
2. Riser Sections: 4-inch (100-mm) minimum thickness; 48-inch (1220-mm) diameter, and lengths to provide depth indicated.
3. Top Section: Eccentric cone type, unless concentric cone or flat-slab-top type is indicated. Top of cone of size that matches grade rings.
4. Gaskets: ASTM C 443 (ASTM C 443M), rubber.
5. Grade Rings: Include 2 or 3 reinforced-concrete rings, of 6- to 9-inch (152- to 229-mm) total thickness, that match a 24-inch- (610-mm-) diameter frame and grate.
6. Steps: ASTM C 478 (ASTM C 478M) individual steps or ladder. Omit steps for catch basins less than 60 inches (1500 mm) deep.
7. Pipe Connectors: ASTM C 923 (ASTM C 923M), resilient, of size required, for each pipe connecting to base section.
8. Drywell aggregate: CA-1

B. Frames and Grates:
1. Manhole Frames and Covers: ASTM A-48, Class 35B, cast gray iron and per current city code. Include indented top design with lettering cast into cover:
   a. Sanitary Sewerage Piping Systems: Raised flush letters per current city code.
   b. Storm Drainage Piping Systems: Raised flush letters per current city code
   c. Dry Well: INFILTRATION BASIN.

2.4 CLEANOUTS

A. Push-on-Joint, Ductile-Iron Fittings: AWWA C110, ductile- or gray-iron standard pattern or AWWA C153, ductile-iron compact pattern.
1. Gaskets: AWWA C111, rubber.

2.5 CONCRETE

A. General: Cast-in-place concrete according to ACI 318, ACI 350R, and the following:
1. Cement: ASTM C 150, Type II.
2. Fine Aggregate: ASTM C 33, sand.
3. Coarse Aggregate: ASTM C 33, crushed gravel.

4. Water: Potable.

B. Structures: Portland-cement design mix, 4000 psi (27.6 MPa) minimum, with 0.45 maximum water-cement ratio.
   1. Reinforcement Fabric: ASTM A 185, steel, welded wire fabric, plain.
   2. Reinforcement Bars: ASTM A 615, Grade 60 (ASTM A 615M, Grade 400), deformed steel.

2.6 PROTECTIVE COATINGS

A. General: Include factory- or field-applied protective coatings to structures and appurtenances according to the following:

B. Coating: 1- or 2-coat, coal-tar epoxy, 15-mil (0.381-mm) minimum thickness, except where otherwise indicated.
   1. Manholes: On exterior and interior surfaces.
   2. Manhole Frames and Covers: On interior surfaces.
   3. Catch Basins: On exterior and interior surfaces.
   4. Catch Basin Frames and Grates: On interior surfaces.

PART 3 - EXECUTION

3.1 EARTHWORK

A. Excavating, trenching, and backfilling are specified in Division 2 Section "Excavation, Backfilling, and Compaction for Utilities" and Sections 02316 and 02318.

3.2 IDENTIFICATION

A. Install green warning tapes directly over piping and at outside edges of underground structures.
   1. Use warning tapes or detectable warning tape over ferrous piping.
   2. Use detectable warning tape over nonferrous piping and over edges of underground structures.

3.3 SEWERAGE PIPING APPLICATIONS

A. General: Include watertight joints.

B. Provide pipe material as shown on drawings and per Part 2-Products.

3.4 INSTALLATION, GENERAL

A. General Locations and Arrangements: Drawings (plans and details) indicate the general location and arrangement of underground sewerage and drainage systems piping. Location and arrangement of piping layout take into account many design considerations. Install piping as indicated, to extent practical.

B. Install piping beginning at low point of systems, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's recommendations for

use of lubricants, cements, and other installation requirements. Maintain swab or drag in line and pull past each joint as it is completed.

C. Install gravity-flow-systems piping at constant slope between points and elevations indicated. Install straight piping runs at constant slope, not less than that specified, where slope is not indicated.

D. Extend piping and connect to building's drains, of sizes and in locations indicated. Terminate piping as indicated.

E. Install piping pitched down in direction of flow, at minimum slope of 1 percent (1:100) and 36-inch (1000-mm) minimum cover, except where otherwise indicated.

3.5 PIPE JOINT CONSTRUCTION AND INSTALLATION

A. General: Join and install pipe and fittings according to the following:
1. Push-on joint bell and plain spigot, ductile-iron pipe
2. Perforated pipe: ASTM D 3034; PVC-SDR-35. Joints ASTM D 2855 or ASTM D 3212.

3.6 MANHOLE INSTALLATION

A. General: Install manholes, complete with accessories, as indicated.

B. Set tops of frames and covers flush with finished surface where manholes occur in pavements. Set tops 3 inches (76 mm) above finished surface elsewhere, except where otherwise indicated.

C. Place precast concrete manhole sections as indicated, and install according to ASTM C 891.
1. Provide rubber joint gasket complying with ASTM C 443 (ASTM C 443M), at joints of sections.
2. Apply bituminous mastic coating at joints of sections.

3.7 CATCH BASIN/DRYWELL INSTALLATION

A. Construct catch basins to sizes and shapes indicated.

B. Set frames and grates to elevations indicated.

3.8 TAP CONNECTIONS

A. Make connections to existing piping and underground structures so finished work conforms as nearly as practical to requirements specified for new work.

B. Use commercially manufactured wye fittings for piping branch connections. Remove section of existing pipe, install wye fitting into existing piping, and encase entire wye fitting plus 6-inch (150-mm) overlap, with not less than 6 inches (150 mm) of 3000-psi (20.7-MPa), 28-day, compressive-strength concrete.

C. Make branch connections from side into existing piping, sizes 4 to 20 inches (100 to 500 mm) by removing a section of existing pipe and installing a wye fitting into existing

piping. Encase entire wye with not less than 6 inches (150 mm) of 3000-psi (20.7-MPa), 28-day, compressive-strength concrete.

1. Use concrete that will attain a minimum 28-day compressive strength of 3000 psi (20.7 MPa), unless otherwise indicated.
2. Use epoxy bonding compound as an interface between new and existing concrete and piping materials.

D. Protect existing piping and structures to prevent concrete or debris from entering while making tap connections. Remove debris or other extraneous material that may accumulate.

3.9 FIELD QUALITY CONTROL

A. Clear interior of piping and structures of dirt and superfluous material as the work progresses. Maintain swab or drag in piping and pull past each joint as it is completed.
   1. In large, accessible piping, brushes and brooms may be used for cleaning.
   2. Place plug in end of incomplete piping at end of day and whenever work stops.
   3. Flush piping between manholes and other structures, if required by authorities having jurisdiction, to remove collected debris.

B. Inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24 inches (600 mm) of backfill is in place, and again at completion of the Project.
   1. Submit separate reports for each system inspection.
   2. Defects requiring correction include the following:
      a. Alignment: Less than full diameter of inside of pipe is visual between structures.
      b. Deflection: Flexible piping with deflection that prevents passage of a ball or cylinder of a size not less than 92.5 percent of piping diameter.
      c. Crushed, broken, cracked, or otherwise damaged piping.
      d. Infiltration: Water leakage into piping.
      e. Exfiltration: Water leakage from or around piping.
   3. Replace defective piping using new materials and repeat inspections until defects are within allowances specified.
   4. Reinspect and repeat procedure until results are satisfactory.

C. Test new piping systems and parts of existing systems that have been altered, extended, or repaired for leaks and defects.
   1. Do not enclose, cover, or put into service before inspection and approval.
   2. Test completed piping systems according to authorities having jurisdiction.
   3. Schedule tests, and their inspections by authorities having jurisdiction, with at least 24 hours' advance notice.
   4. Submit separate reports for each test.
   5. Where authorities having jurisdiction do not have published procedures, perform tests as follows:
      a. Sanitary Sewerage: Perform hydrostatic test.
         1) Allowable leakage is a maximum of 50 gallons per inch nominal pipe size, for every mile of pipe, during a 24-hour period.
         2) Close openings in system and fill with water.
         3) Purge air and refill with water.
         4) Disconnect water supply.

5) Test and inspect joints for leaks.
6) Option: Test ductile-iron piping according to AWWA C600, Section 4 "Hydrostatic Testing." Use test pressure of at least 10 psig (69.0 kPa).

b. Sanitary Sewerage: Perform air test according to UNI-B-6.
1) Option: Test Poly Vinyl Chloride (PVC) according to ASTM-D1785-86.

c. Storm Drainage: Perform hydrostatic test.
1) Allowable leakage is a maximum of 200 gallons per inch nominal pipe size, for every mile of pipe, during a 24-hour period.
2) Close openings in system and fill with water.
3) Purge air and refill with water.
4) Disconnect water supply.
5) Test and inspect joints for leaks.
6) Storm Drainage: Perform hydrostatic test. Close openings in system and fill with water to not less than 10-foot (3-m) head of water. Disconnect water supply. Water level must not drop for 15 minutes. Inspect joints for leaks.

d. Storm Drainage: Perform air test according to UNI-B-6.

END OF SECTION

SECTION 02777

HDPE GEOMEMBRANE

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

The Geomembrane Installer (Installer) shall furnish all labor, materials, supervision, and equipment to install the 60-mil HDPE geomembrane liner (Geomembrane or Geomembrane Liner), including, but not limited to liner layout, seaming, patching, and testing, and all necessary and incidental items required to complete the Work, in accordance with the Drawings and these Specifications. The Contractor shall furnish all labor, materials, supervision, and equipment to excavate and backfill the anchor trench for the Geomembrane.

1.2 DEFINITIONS

The following list of definitions is provided for reference.

A. "Compaction" shall mean the process of increasing the density or unit weight of soil by rolling, tamping, vibrating, or other mechanical means.

B. "Unit Weight" shall mean the weight of a soil weight per unit volume, usually expressed in lb/ft^3 or kN/m^3.

C. "Extrusion Weld" shall mean a bond between two high density polyethylene (HDPE) materials which is achieved by extruding a bead of HDPE over the leading edge of the seam between the upper and lower sheet using a hand held apparatus.

D. "Fusion Weld" shall mean a bond between two high density polyethylene (HDPE) materials which is achieved by fusing both HDPE surfaces in a homogeneous bond of the two surfaces using a power driven apparatus capable of heating and compressing the overlapped portions of the Geomembrane sheets.

E. "HDPE Geomembrane" or "Geomembrane" shall mean a relatively impermeable sheet of high density polyethylene, 60-mil in thickness, used as a barrier liner or cover to prevent liquid or vapor migration into or from liquid or solid storage facilities.

F. "In Situ" shall mean in-place naturally.

G. "Moisture Content" shall mean the ratio of weight of water in the soil to the weight of the soil solids (dry soil), expressed in percentage; also referred to as water content.

H. "Textured Geomembrane" shall mean Geomembrane with roughened, high-friction surfaces created by coextrusion, impingement, lamination or other methods approved by the MEC.

1.3 REFERENCES

A. Construction Quality Assurance (CQA) Plan.

B. Latest version of the American Society for Testing and Materials (ASTM) standards:

1. ASTM D 638, "Standard Test Method for Tensile Properties of Plastics."
2. ASTM D 746, "Standard Test Method for Brittleness Temperature of Plastics and Elastomers by Impact."
3. ASTM D 751, "Standard Methods for Coated Fabrics."
4. ASTM D 792, "Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement."
5. ASTM D 1004, "Standard Test Method of Initial Tear Resistance of Plastic Film and Sheeting."
6. ASTM D 1204, "Standard Plastics Test Method for Linear Dimensional Changes of Nonrigid Thermoplastic Sheeting or Film at Elevated Temperature."
7. ASTM D 1238, "Standard Test Method for Flow Rates of Thermoplastics by Extrusion Plastometer."
8. ASTM D 1505, "Standard Test Methods for Density of Plastics by the Density-Gradient Technique."
9. ASTM D 1603, "Standard Test Method for Carbon Black in Olefin Plastics."
10. ASTM D 1693, "Standard Test Method for Environmental Stress Cracking of Ethylene Plastics."
11. ASTM D 3015, "Recommended Practice for Microscopical Examination of Pigment Dispersion in Plastic Compounds."
12. ASTM D 4437, "Standard Test Methods for Determining the Integrity of Field Seams Used in Joining Flexible Polymeric Geomembranes."
13. ASTM D 4833, "Test Method for Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products."
14. ASTM D5199, "Standard Test Method for Measuring Nominal Thickness of Geotextiles and Geomembranes."

15. ASTM D 5321, "Standard Test Method for Determining the Coefficient of Soil and Geosynthetic or Geosynthetic and Geosynthetic Friction by the Direct Shear Method."

16. ASTM D 5397, "Standard Test Method for Evaluation of Stress Crack Resistance of Polyolefin Geomembranes Using Notched Constant Tensile Load Test."

C. FTMS 101/2065, "Federal Test Method Standard for Puncture Resistance and Elongation Test."

D. Daniel, D.E. and R.M. Koerner, (1993), *Technical Guidance Document: Quality Assurance and Quality Control for Waste Containment Facilities*, EPA/600/R-93/182.

E. U.S.E.P.A., (1991), *Technical Guidance Document: Inspection Techniques for the Fabrication of Geomembrane Field Seams*, EPA/530/SW-91/051.

F. NSF Joint Committee on Flexible Membrane Liners, (1993), *Standard 54, Flexible Membrane Liners*, NSF International.

G. Geosynthetic Research Institute Test Method GM-5 (b), "Single Point Notched Constant Tensile Load (SP-NCTL) Test for Polyolefin Resin or Geomembranes."

H. Geosynthetic Research Institute Test Method GM-6, "Pressurized Air Channel Test for Dual Seamed Geomembranes."

1.4 SUBMITTALS

A. The Installer shall submit the following information and samples to MEC a minimum of 14 days prior to the start of construction of the recompacted soil liner, unless otherwise approved by the MEC:

1. Identification of the proposed material source or sources.

2. Manufacturer's Material Certifications for each roll of geomembrane sheet. As a minimum, the Contractor shall perform the tests at the frequencies given in Table 02777-2 on the HDPE sheet prior to shipping HDPE material to the site.

3. The Geomembrane Installer and Material Supplier shall be required to submit their Quality Control program to the MEC prior to initiating field work.

B. The Contractor shall notify the Company in writing a minimum of 7 days prior to starting construction of the geomembrane liner. The notice shall state the material to be used, the equipment to be used, the date and time that placement operations will start, and the name of the person in the field who will be in charge of the construction of the geomembrane liner.

C. If work is interrupted for reasons other than inclement weather, the Contractor shall notify the Company and MEC a minimum of 24 hours prior to the resumption of work.

1.5 CONSTRUCTION QUALITY ASSURANCE

A. The construction of the geomembrane liner shall be monitored as outlined in the Construction Quality Assurance (CQA) Plan.

B. The Installer and Contractor shall be aware of the activities outlined in the CQA Plan and shall account for these activities in the construction schedule.

1. The proposed minimum testing frequencies for CQA are presented in the CQA Plan. Actual test frequencies may vary. CQA testing, or lack thereof, does not relieve the Contractor from its responsibility to complete the Work in accordance with the Specifications.

2. Sampling locations shall be approved by the MEC. If necessary, the location of destructive seam tests shall be determined using a non-biased sampling plan.

3. Additional testing may be performed at the MEC's discretion.

C. If a defective area is discovered in the geomembrane liner, the Geomembrane Installer shall determine the extent and nature of the defect. If the defect is indicated by an unsatisfactory test result, the Geomembrane Installer shall determine the extent of the defective area by additional tests, observations, a review of records, or other means that the MEC deems appropriate.

D. After determining the extent and nature of a defect, the Geomembrane Installer shall notify the MEC and schedule appropriate retests when the defective work has been corrected.

E. The Geomembrane Installer shall correct defective work to the satisfaction of the MEC. The cost of corrective actions shall be borne by the Geomembrane Installer.

1. All retests recommended by the MEC must verify that the defect has been corrected before any additional work is performed by the Contractor in the area of the deficiency.

PART 2 - PRODUCTS

2.1 GEOMEMBRANE LINER

A. Geomembrane Liner shall be made of smooth (untextured) or textured, high density polyethylene (HDPE), no less than 60-mils in thickness, as noted on the Drawings. Required nominal liner thicknesses are also shown on the Drawings.

B. Geomembrane used shall meet, at a minimum, the standards included in the CQA Plan and GRI GM-13 or the most recent GRI update for textured geomembranes.

C. If textured Geomembrane is required by the Drawings, the method and degree of texturing shall be approved by the MEC. The texturing shall be consistent among rolls and consistent with the samples approved by the MEC.

D. The chemical resistance of the Geomembrane Liner and seams shall be in keeping with typical properties of high quality polyethylene products currently available through commercial sources.

E. Geomembrane Liner shall be shipped rolled.

F. The Contractor shall submit proposed Geomembrane panel layouts to the Company at least 7 days prior to mobilization of crews, unless otherwise approved by the MEC. Once the panel layout is approved, the Contractor may not change the layout without permission of the MEC.

G. No reclaimed material (that is, material that has seen previous service) shall be allowed in the Geomembrane sheet.

H. Up to 5 percent (by weight) clean, uncontaminated regrind material (that is, material that has been previously processed by the same manufacturer, but has never seen previous service) shall be allowed in the Geomembrane sheet if approved by the MEC. The MEC's approval shall not be unreasonably withheld if the manufacturer can demonstrate compliance with this Specification. Regrind material made of the same resin as the geomembrane liner from sheet failing the physical properties of the liner or resin as specified herein shall not be allowed under any circumstances. Edge trim and sheet failed for thickness or cosmetic reasons may be considered for regrind.

I. The geomembrane shall be free of pinholes and reasonably free from surface blemishes, scratches and other defects as judged by the MEC.

PART 3 - EXECUTION

3.1 CONSTRUCTION - GENERAL

The Geomembrane Liner shall be constructed as soon as practical after completion and approval by the MEC and Contractor of the soil subgrade/soil liner or portion thereof. Each sequential section of liner shall be secured in an anchor trench or continuously welded to the adjacent sections as shown on the Drawings.

3.2 GEOMEMBRANE INSTALLATION

A. Surfaces to receive liner installation should be relatively smooth and even, and free of ruts, voids, protrusions, and deleterious material. Vehicles leaking contaminants or causing ruts, pumping, or deformation of surface greater than 1.0 inch (25 mm) or otherwise unacceptable to the MEC are not permitted on final dressed surfaces unless authorized by the MEC and the Company. Any damage to the surface caused by the Contractor's vehicles shall be repaired at the Contractor's expense.

B. An anchor trench (as illustrated on the Drawings) will be required at the liner perimeter to secure the Geomembrane. The Contractor shall take precautions to minimize loose soil

underlying the Geomembrane in the anchor trenches. The time schedule for excavation and backfilling of the anchor trench is to be approved by the Company so that excessive desiccation of trench soils does not occur prior to backfilling.

C. Installation of the Geomembrane shall be as follows:

1. Unroll only those sections which are to be seamed together or anchored in one day. Panels should be positioned with the overlap recommended by the manufacturer, but not less than 3 in. (76 mm), after the necessary alignment and cutting. The edge of the upslope sheet shall be positioned above the edge of the downslope sheet in a shingle-like fashion. The Geomembrane Liner sections shall be placed in an anchor trench which is then backfilled by the Contractor with compacted soil as shown on the Drawings.

2. After panels are initially in place, remove as many wrinkles as possible. Unroll several panels and allow the liner to relax before beginning field seaming. The purpose of this is to make the edges which are to be bonded as smooth and free of wrinkles as possible.

3. Once panels are in place and smooth, commence field seaming operations.

4. At the end of each day or installation segment all unseamed edges shall be anchored by rope, sand bags, or other approved device. Sand bags securing the geomembrane on the side slopes should be connected by rope fastened at the top of the slope section by a temporary anchor. Staples, U-shaped rods or other penetrating anchors shall not be used to secure the geomembrane. Any damage to the liner due to wind, rain, hail, or other weather shall be the sole responsibility of the Contractor.

D. Field seaming may be extrusion or fusion welding or a combination of these methods. Solvent welding is not acceptable. The MEC and Company reserve the right to reject any proposed seaming method believed to be unacceptable. Additional concepts and requirements of proper field seaming include the following:

1. All foreign matter (dirt, water oil, etc.) shall be removed from the edges to be bonded. For extrusion-type welds, the bonding surfaces must be thoroughly cleaned by mechanical abrasion or alternate methods approved by the Company and the MEC to remove surface oxidation and prepare the surfaces for bonding. All abrasive buffing shall be performed using No. 80 grit or finer sandpaper. The grinding shall be performed so that grind marks are generally perpendicular to the edge of sheet. No solvents shall be used to clean the Geomembrane Liner.

2. As much as practical, field seaming shall start from the top of the slope down. Tack welds (if used) shall use heat only; no double sided tape, glue or other method shall be permitted.

3. The completed liner shall not exhibit any "trampolining" at the time protective cover or other materials are being placed over the Geomembrane.

4. The seams should be oriented as shown by the approved panel layout drawing, generally parallel to the line of maximum slope. In corners and odd shaped geometric locations, the number of field seams should be minimized.

5. No horizontal seams should be within 5 ft (1.5m) of the toe or crest of the slope.

6. No seaming should be attempted above 104°F (40°C) ambient air temperature. Below 41°F (5°C) ambient air temperature, preheating of the Geomembrane shall be required, unless it is demonstrated that this is not necessary (i.e., acceptable trial test (start-up) seams which duplicate, as closely as possible, actual field conditions). Preheating may be achieved by natural and/or artificial means (shelters and heating devices). Ambient temperature is measured 6 in. (150mm) above the Geomembrane Liner surface. The membrane installation contractor shall supply instrumentation for measurement of ambient temperature.

7. A moveable protective layer of plastic may be required, as recommended by the MEC, to be placed directly below each overlap of Geomembrane that is to be seamed. This is to prevent any moisture build-up between the sheets to be welded. The protective layer must be removed after seaming is complete unless approved by the MEC.

8. Seaming shall extend to the outside edge of panels to be placed in anchor trenches.

9. If required, a firm working surface should be provided by using a flat board, a conveyor belt, or similar hard surface directly under the seam overlap to achieve proper support. The surface must be removed after seaming is complete.

10. No excessive grinding prior to welding shall be permitted. Overground or improperly ground areas shall be replaced at the Geomembrane Installer's expense.

11. Seams at panel corners of 3 or 4 sheets shall be completed in a fully leak-proof manner. Open ends of all air channels must be welded closed. A patch having a minimum dimension of 24 in. (610mm), extrusion welded to the parent sheet or other approved techniques may be used. The Geomembrane Installer shall submit a drawing of its proposed seam completion detail and obtain approval from the MEC and the Company prior to shipment of the Geomembrane.

3.3 GEOMEMBRANE TESTING

All Geomembrane sheet and seams shall be tested and evaluated prior to acceptance. In general, testing of the sheet shall be conducted by the manufacturer. Testing of the seams shall be conducted by the Geomembrane Installer under observation of the MEC. The MEC or a designated, independent geosynthetics laboratory may perform additional testing, as required by these Specifications or as required in the judgement of the MEC or Company to verify that the HDPE sheet and seams meet the specifications. Testing requirements are detailed in the following subsections:

A. Pre-shipping Sheet Tests

The Geomembrane Installer or supplier shall be required to submit his Quality Control program to the Company prior to initiating field work. As a minimum, the Contractor shall perform the tests at the frequencies given in Table 1 of the CQA Plan on the HDPE sheet prior to shipping HDPE material to the site.

Test results shall be submitted to the MEC and the Company prior to shipping the HDPE rolls unless otherwise approved by the Company.

B. Trial Test Seams

The Geomembrane Installer shall maintain and use equipment and personnel at the site to perform testing of test seams. Test seams shall be made each day prior to commencing field seaming. These seams shall be made on fragment pieces of Geomembrane Liner to verify that seaming conditions are adequate. Such test seams shall be made at the beginning of each seaming period; at changes of equipment, equipment settings, weather, or sheet temperature; at the MEC's discretion; and at least once every four to six hours during continuous operation of each welding machine. Also, each seamer shall make at least one test seam each day. Requirements for test seams are as follows:

1. The test seam sample shall be at least 3 ft (0.9m) long by 1 ft (0.3 m) wide with the seam centered lengthwise. Six adjoining specimens 1 in. (25mm) wide each shall be die cut from the test seam sample. These specimens shall be tested in the field with a tensometer for both shear (3 specimens) and peel (3 specimens) for single-track fusion welds or extrusion welds. For dual-track fusion welds, the Contractor shall test each track as if it was a single-track weld. Test seams shall be tested by the Contractor under observation of the MEC, or designated representative of the Company. The specimens should not fail in the weld. The Geomembrane Installer shall supply qualified quality control personnel and testing equipment. No strain measurements need to be obtained in the field. A passing fusion or extrusion welded test seam shall be achieved when the criteria described in section D below and Table 1 of the CQA Plan are satisfied with the exclusion of any strain requirements. If a test seam fails, the entire operation shall be repeated. If the additional test seam fails, the seaming apparatus or seamer shall not be accepted and shall not be used for seaming until the deficiencies are corrected and two consecutive successful full test seams are achieved. Test seam failure is defined as failure of any one of the specimens tested in shear or peel. For double-weld seams, both weld tracks shall meet the test seam criteria.

2. The MEC shall observe all test seam procedures. The remainder of the successful test seam sample shall be assigned a number and marked accordingly by the MEC, who shall also log the date, hour, ambient temperature, number of seaming unit, name of seamer, and pass or fail description. The sample itself should be retained in the Company's archives. In addition, at least one tested specimen from each test as selected by the MEC shall be retained by the MEC.

C. Non-Destructive Testing

Production seams shall be tested by the Contractor continuously using non-destructive techniques. The Geomembrane Installer shall perform all pressure and vacuum testing

under the observation of the MEC. Requirements for non-destructive testing are as follows:

1. Single Weld Seams - the Geomembrane Installer shall maintain and use equipment and personnel at the site to perform continuous vacuum box testing on all single weld production seams. The system shall be capable of applying a vacuum of at least 3 psi (21 kPa). The vacuum shall be held for a minimum of 10 seconds for each section of seam.

2. Double Weld Seams - The Geomembrane Installer shall maintain and use equipment and personnel to perform air pressure testing of all double weld seams. The system shall be capable of applying a pressure of at least 30 psi (207 kPa) for not less than 5 minutes. Pressure loss tests shall be conducted in accordance with the procedures outlined in "Pressurized Air Channel Test for Dual Seamed Geomembranes," Geosynthetic Research Institute Test Method GM-6. As outlined by the test method, following a 2 minute pressurized stabilization period pressure losses over a measurement period of 5 minutes shall not exceed the following values for different geomembrane thicknesses: 40 mil (1 mm), 4.0 psi (28 kPa); 60 mil (1.5 mm), 3.0 psi (21 kPa); or 80 mil (2 mm), 2.0 psi (14 kPa).

D. Destructive Testing

Destructive testing shall be performed on an average of every 500 linear ft of production seam. The locations shall be selected by the MEC. Sufficient samples shall be obtained by the Geomembrane Installer to provide one sample to the archive, one sample to the MEC for laboratory testing, and one sample to be retained by the Geomembrane Installer for field or laboratory testing. Testing requirements are as follows: Each sample shall be large enough to test five specimens in peel and five specimens in shear. The average values of each set of five specimens must meet the specification, and four of the five specimen tests must meet the specifications for the seam to be considered a passing seam. If the average of the five specimens is adequate, but one of the specimens is failing, values for the failing specimen must be at least 80 percent of the values required for the seam for the sample to pass. All specimens must fail in film tear bond (FTB) and meet the strain or separation requirements of Table 1 of the CQA Plan. Samples which do not pass the shear and peel tests shall be re-sampled from locations at least 10 ft (3 m) on each side of the original location. These two re-test samples must pass both shear and peel testing. If these two samples do not pass, then additional samples shall continue to be obtained until the questionable seam area is defined. Requirements for each destructive test are as follows:

1. The Geomembrane Installer shall test samples in the field or in a laboratory. All tests shall be performed using a calibrated, motor-driven, strain-controlled tensometer approved by the MEC.

    a. Peel shall be measured for one sample (that is, five specimens). Peel tests shall be evaluated for the criteria described in Table 1 of the CQA Plan.

b. Shear shall be measured for one sample (that is, five specimens). Strain measurements are required for the shear specimens. Laboratory tests shall be evaluated for the criteria described in Table 1 of the CQA Plan.

2. The MEC shall observe all production seam field test procedures. He shall perform laboratory testing for both peel and shear and evaluate test results in accordance with Table 1 of the CQA Plan.

3. The MEC shall be responsible for the archive specimen. He shall assign a number to the archive sample and mark the sample with the number. He shall also log the date, seam number, approximate location in the seam, and field test pass-or-fail description, if applicable.

4. For double-weld seams, all destructive testing shall be performed for each weld to ensure a continuous good weld.

3.4 REPAIR OF DAMAGED, SAMPLED, AND FAILED SEAM AREAS

Damaged and sample coupon areas of Geomembrane shall be repaired by the Geomembrane Installer by construction of a cap strip. No repairs shall be made to seams by application of an extrusion bead to a seam edge previously welded by fusion or extrusion methods. Repaired areas shall be tested for seam integrity. Damaged materials are the property of the Contractor and shall be removed from the site at the Geomembrane Installer's expense. The Contractor shall retain all ownership and responsibility for the Geomembrane until acceptance by the Company. The Geomembrane shall be accepted by the Company after the installation and repair are complete, and after the Company has received documentation for the installation from the MEC.

3.5 POTENTIALLY DAMAGING ACTIVITIES

No support equipment shall be allowed on the Geomembrane unless the equipment and protective measures are approved by the MEC. Light-weight portable generators must be placed on protective rub sheets, and stands or supports shall be adequately padded to prevent potential damage to the rub sheet or Geomembrane. All-terrain-vehicles (ATV's) may only be operated on the Geomembrane if deemed necessary by the MEC and approved by the Company. If used, an ATV shall have sufficiently low bearing pressure to prevent damage to the Geomembrane. Wheels of ATV's must be thoroughly cleaned to remove stones and other deleterious material prior to operation on the Geomembrane. Personnel working on the Geomembrane shall not smoke, wear damaging shoes, or engage in any activity which damages the Geomembrane.

3.6 ANCHOR TRENCH BACKFILLING

The anchor trench shall be backfilled and compacted by the Earthwork Contractor to a dry unit weight not less than 90 percent of the maximum dry unit weight determined by ASTM D-698. Care should be taken when backfilling the trench to prevent any damage to the Geomembrane. Anchor trench spoil shall be used as backfill material, wherever possible.

END OF SECTION

PUBLIC BUILDING COMMISSION OF CHICAGO
REQUEST FOR PROPOSALS
IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES
415 – 423 E. 79TH STREET – PS1913

EXHIBIT 3

DRAWINGS

(DRAWINGS FOLLOW THIS PAGE)

PUBLIC BUILDING COMMISSION OF CHICAGO

EXHIBIT 3 – DRAWINGS

PROFESSIONAL SERVICES CONTRACT # PS1913

IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES
415 – 423 EAST 79TH STREET
ENVIRONMENTAL SERVICES
PROJECT #08070

Mayor Rahm Emanuel
Chairman

Erin Lavin Cabonargi
Executive Director

Room 200
Richard J. Daley Center
50 West Washington Street
Chicago, Illinois 60602
312-744-3090
www.pbcchicago.com

REQUEST FOR PROPOSAL

GENERAL NOTES:

1. TOPOGRAPHIC INFORMATION INCLUDING CONTOURS, EXISTING SPOT GRADES, ELEVATION OF EXISTING STRUCTURE RIM AND INVERTS, ETC, IS ALL AS OBTAINED FROM A TOPOGRAPHIC MAP RECEIVED FROM THE ARCHITECT/OWNER. THE SURVEY BASE PROVIDED HEREON IS FOR INFORMATIONAL PURPOSES ONLY. THE OWNER/ARCHITECT/ENGINEER ARE NOT RESPONSIBLE FOR ANY MISCHARTED OF UNCHARTED UTILITIES, OR OTHER ERRORS DETECTED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL SITE CONDITIONS. TERRA ENGINEERING, LTD. HAS UTILIZED THIS INFORMATION AT OWNERS REQUEST AND MAKES NO WARRANTY REGARDING THE ACCURACY THEREOF.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THEIR WORK WITH ACTUAL CONDITIONS AT THE JOB SITE. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLAN, HE MUST IMMEDIATELY REPORT SAME TO THE ENGINEER BEFORE DOING ANY WORK, OTHERWISE THE CONTRACTOR ASSUMES FULL RESPONSIBILITIES. IN THE EVENT OF DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, STANDARD SPECIFICATIONS AND/OR SPECIAL DETAIL, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSIONS OR DISCREPANCIES, FAILING TO SECURE SUCH INSTRUCTION, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE. IN THE EVENT OF ANY DOUBT OR QUESTION ARISING WITH RESPECT TO THE TRUE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE DECISION OF THE ENGINEER SHALL BE FINAL AND CONCLUSIVE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND PAYING THE REQUISITE FEES FOR CONSTRUCTION. HE SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE STREETS OR ROADWAYS AND ASSOCIATED STRUCTURES AND SHALL MAKE REPAIRS AS NECESSARY TO THE SATISFACTION OF THE ENGINEER.
4. THE CONTRACTOR MUST COMPLY WITH ALL FEDERAL, STATE AND LOCAL CODES.
5. ALL WORK AND MATERIALS WHICH DO NOT CONFORM TO THE SPECIFICATIONS ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
6. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
7. ALL DISTURBED AREAS SHALL BE RESTORED BY THE CONTRACTOR TO THE ORIGINAL CONDITION.
8. IN ORDER TO PROTECT CITY'S BENCH MONUMENTS, ALL BENCH MONUMENT LOCATIONS WITHIN THE LIMITS OF THE PROJECT MUST BE LISTED ON THE PLAN SHEETS. IF NOT FOUND OR DAMAGE TO THE BENCH MONUMENTS IS ENCOUNTERED, PLEASE CONTACT THE SEWER UNIT OF THE DOB IMMEDIATELY AT (312) 744-3351.
9. CONTRACTOR TO PROVIDE PROTECTION FOR EXISTING ALLEY AND ALL RIGHTS-OF-WAY ADJACENT TO THE PROJECT.

DEMOLITION NOTES:

1. THE EXTENT OF DEMOLITION WORK IS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN AND INCLUDES, BUT IS NOT LIMITED TO THE REMOVAL OF ALL UTILITIES, OVERHEAD LINES AND POLES, PAVING, VEGETATION AND OTHER SITE FEATURES WHICH CONFLICT WITH THE CONSTRUCTION OF THE NEW FACILITIES, OR ARE DESIGNATED TO BE REMOVED.
2. CONDUCT DEMOLITION OPERATIONS AND REMOVAL OF DEBRIS AND SPOILS TO ENSURE MINIMAL INTERFERENCE WITH FACILITY OPERATIONS.
3. ENSURE SAFE PASSAGE OF PERSONS AROUND AREAS OF DEMOLITION. REMOVE FROM SITE ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION AND LAWFULLY DISPOSE OF SAME.
4. NOTIFY OWNER 48 HOURS IN ADVANCE OF ANY UTILITY SHUTDOWN.
5. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER/ARCHITECT ALL ITEMS DESIGNATED TO BE REMOVED OR RELOCATED.
6. IF ANY ITEMS ARE ENCOUNTERED IN THE FIELD THAT ARE NOT SHOWN ON THE PLAN WHICH REQUIRE DEMOLITION OR RELOCATION, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY.
7. THE CONTRACTOR WILL PROTECT ALL UTILITIES DESIGNATED TO REMAIN. ANY DAMAGE BY THE CONTRACTOR TO UTILITIES, ALLEYWAYS, STREETS OR ADJACENT PROPERTIES WILL BE REPLACED/REPAIRED AT THE CONTRACTOR'S EXPENSE.
8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ALL EXISTING SERVICES AND APPURTENANCES TO DEMOLISHED SITE FEATURES AND CAP/TERMINATE AS REQUIRED BY THE UTILITY COMPANY. CONTRACTOR SHOULD CONTACT ARCHITECT/ENGINEER IF ANY QUESTION ARISES REGARDING THE VIABILITY OF A UTILITY STRUCTURE.

UTILITY NOTES:

1. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES SHALL BE OBTAINED FROM ALL UTILITY COMPANIES, INVESTIGATED AND VERIFIED IN THE FIELD BY THE CONTRACTOR BEFORE STARTING WORK IN THE CONSTRUCTION AREA. EXCAVATION IN THE VICINITY OF EXISTING STRUCTURES SHALL BE PERFORMED BY HAND. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING FACILITIES, MAINTENANCE AND PROTECTION OF EXISTING UTILITIES AND STRUCTURES.
2. THE CONTRACTOR IS TO UNCOVER ALL LINES BEING TIED INTO AND VERIFY GRADES BEFORE ANY CONSTRUCTION.
3. CALL DIGGER (312) 744-7000 PRIOR TO DIGGING FOR ANY UTILITY CONSTRUCTION.
4. A WATER MAIN SHALL BE SEPARATED FROM A SEWER SO THAT ITS INVERT IS A MINIMUM OF 18 INCHES ABOVE THE CROWN OF THE SEWER. WHENEVER WATER MAINS CROSS STORM SEWERS, SANITARY SEWERS OR SEWER SERVICE CONNECTIONS, THIS VERTICAL SEPARATION SHALL BE MAINTAINED. A LENGTH OF WATER MAIN PIPE SHALL BE CENTERED OVER THE SEWER TO BE CROSSED WITH JOINTS EQUIDISTANT FROM THE SEWER OR DRAIN. A TEN FOOT HORIZONTAL SEPARATION BETWEEN ALL WATER AND SEWER PIPES SHALL BE MAINTAINED.
5. WHEN IT IS IMPOSSIBLE TO OBTAIN THE PROPER SEPARATION AS DESCRIBED ABOVE, OR THE WATER MAIN PASSES UNDER A SEWER OR DRAIN, BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT CAST OR DUCTILE IRON PIPE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION.

EROSION CONTROL NOTES:

1. THE SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS FOR SOIL AND SEDIMENTATION CONTROL OF LOCAL GOVERNMENT AGENCIES, PROCEDURES AND STANDARDS FOR URBAN SOIL AND SEDIMENTATION CONTROL IN ILLINOIS, AND IEPA STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, LATEST EDITION.
2. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
3. PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING BUT NOT LIMITED TO, ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS) A SUPPLEMENTARY EROSION CONTROL PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.
4. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE ENGINEER.
5. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO SEDIMENT BASINS OR SILT TRAPS. DEWATERING DIRECTLY INTO THE FIELD TILES OR STORMSEWER IS PROHIBITED.
6. PERMANENT OR TEMPORARY SOIL STABILIZATION MUST BE APPLIED WITHIN 15 CALENDAR DAYS OF THE END OF ACTIVE SOIL DISTURBANCE.
7. FILTER BASKETS SHALL BE INSTALLED AND MAINTAINED AROUND THE INLET AND OUTLET STRUCTURES AS SPECIFIED.
8. SEDIMENTATION BASINS, BARRIERS, AND ALL APPROPRIATE EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SORT OF SITE DISTURBING.
9. THE CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES WEEKLY AND AFTER ANY STORM EVENT IN EXCESS OF 1/2".
10. SHOULD THE VOLUME, VELOCITY, SEDIMENT LOAD, OR PEAK FLOW RATES OF STORMWATER RUNOFF TEMPORARILY INCREASE DURING CONSTRUCTION, THEN ADDITIONAL MEASURES TO PROTECT ADJACENT PROPERTIES SHALL BE UNDERTAKEN.
11. THE TEMPORARY EROSION MEASURES SHALL REMAIN IN PLACE UNTIL ALL THE PERMANENT EROSION CONTROL ITEMS ARE FULLY FUNCTIONAL.
12. GRAVELED ROADS, ACCESS DRIVES, PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH, AND VEHICLES WASHDOWN FACILITIES, SHALL BE PROVIDED TO PREVENT THE DEPOSIT OF SOIL FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. ANY SOIL REACHING A PUBLIC OR PRIVATE ROADWAY SHALL BE REMOVED CONTINUOUSLY.
13. DUST SCREENING SHALL BE PROVIDED ON ALL CONSTRUCTION FENCING.

PRIOR TO UNDERTAKING ANY WORK IN THE PUBLIC WAY CONTACT:

GEORGE BLACK, DEPARTMENT OF TRANSPORTATION, RELATIVE TO ANY CITY OF CHICAGO SIGNS, TRAFFIC OR STREET, 312-748-6450.

THOMAS STEVENS, DEPARTMENT OF REVENUE RELATIVE TO PARKING METERS, 312-742-6676

RON WESLOW, CTA, PRIOR TO UNDERTAKING ANY WORK IN THE VICINITY OF A BUS SHELTER, 312-681-4217

MIKE RASHED, CDOT DEPARTMENT OF ELECTRICAL OPERATIONS, 312-746-4638.

CONTRACTOR SHALL NOTIFY THE OWNER, ENGINEER, AND THE CHICAGO UTILITY ALERT NETWORK, DIGGER @ 312-744-7000 48 HOURS PRIOR TO BEGINNING WORK.

ALL WORK IN THE PUBLIC WAY REQUIRES A PERMIT FROM THE OFFICE OF EMERGENCY MANAGEMENT; COMMUNICATIONS TRAFFIC MANAGEMENT AUTHORITY, PERMIT DIVISION, ROOM 901 CITY HALL.

GENERAL NOTES FOR WORK IN THE PUBLIC WAY:

1. THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," LATEST EDITION, AND ALL ADDENDA THERETO, AND CITY OF CHICAGO CONSTRUCTION STANDARDS FOR WORK IN THE PUBLIC WAY SHALL GOVERN THE EARTHWORK AND PAVING WORK UNDER THIS CONTRACT.
2. THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS," LATEST EDITION, SHALL GOVERN THE UNDERGROUND WORK UNDER THIS CONTRACT EXCEPT AS MODIFIED BY THESE SPECIFICATIONS, OR WHERE IN CONFLICT WITH CITY OF CHICAGO STANDARDS.
3. ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH OSHA REQUIREMENTS AND CITY OF CHICAGO REGULATIONS AND STANDARDS AND SHALL CONFORM IN ALL RESPECTS TO ALL STATE AND FEDERAL LAWS AND REGULATIONS.
4. THE CONTRACTORS SHALL NOTIFY ALL UTILITY COMPANIES FOR FIELD LOCATIONS OF THEIR FACILITIES PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND PRESERVATION OF THESE FACILITIES. ANY UTILITY LOCATIONS SHOWN ON PLANS ARE BASED ON AVAILABLE RECORDS AND ARE FOR GENERAL DIRECTION ONLY. ALL UTILITY LOCATIONS SHOWN MUST BE VERIFIED BY THE CONTRACTOR IN THE FIELD.
5. ALL UTILITY TRENCHES UNDER AND WITHIN TWO FEET OF PAVEMENT, SIDEWALK, CURB AND GUTTER, ETC. SHALL BE BACKFILLED WITH CA-6 CRUSHED STONE (GRADE 8 OR 9), COMPACTED IN 6" LIFTS TO 95% OF MODIFIED PROCTOR.
6. UTILITY CONNECTIONS WITHIN THE STREET RIGHT-OF-WAY SHALL BE ACCOMPLISHED BY SAW CUTTING AND REMOVING THE EXISTING PAVEMENT. BACKFILL AND RESTORATION SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE DEPT. OF TRANSPORTATION.

CDWM NOTES:

1. A PERMIT IS REQUIRED FROM THE SEWER UNIT OF THE DEPARTMENT OF BUILDINGS (DOB) PRIOR TO THE CONSTRUCTION OF, OR REPAIRS TO, UNDERGROUND SEWERS, DRAIN CONNECTIONS OR SEWER STRUCTURES, INCLUDING THE ADJUSTMENT OF SEWER STRUCTURES AND REMOVAL/REPLACEMENT OF FRAMES AND LIDS. THE PERMIT MUST BE OBTAINED BY A DRAINLAYER CURRENTLY LICENSED FROM THE SEWER UNIT OF THE DOB.
2. THE SEWER UNIT OF THE DOB MUST BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF CONSTRUCTION, WITH THE NAME AND TELEPHONE NUMBER OF THE RESIDENT ENGINEER WHO COULD BE CONTACTED FOR ANY SEWER EMERGENCY.
3. MANHOLES, CATCH BASINS AND INLETS MUST BE PROTECTED FROM THE ENTRY OF ASPHALT/DEBRIS INTO THE SEWER SYSTEM DURING CONSTRUCTION. THE CONTRACTOR MUST MARK LOCATIONS OF ALL SEWER STRUCTURES ON THE SIDEWALK BEFORE STARTING PAVEMENT REMOVAL/REPLACEMENT. ADJUSTMENT OF FRAMES AND LIDS OF SEWER STRUCTURES MUST BE COMPLETED PRIOR TO STREET RESURFACING.
4. EXISTING SEWERS TO BE ABANDONED MUST BE REMOVED OR FILLED WITH FLOWABLE FILL. SEWERS SMALLER THAN 24-0" DIAMETER ARE CLOSED WITH A PLUG WHILE 24-0" DIAMETER AND LARGER ARE CLOSED WITH A BULKHEAD. WITHIN THE CENTRAL BUSINESS DISTRICT, ALL ABANDONED SEWERS MUST BE INJECTED WITH FLOWABLE FILL.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE ADEQUATE PROTECTION OF THE EXISTING SEWERS, DRAIN CONNECTIONS, SEWER STRUCTURES, AND BENCH MONUMENTS DURING CONSTRUCTION OPERATIONS AND USE OF HEAVY EQUIPMENT IN THE LIMITS OF THE PROJECT.
6. EXISTING CATCH BASIN LATERALS TO BE REUSED MUST BE RODDED AND FLUSHED IN THE PRESENCE OF THE SEWER UNIT OF THE DWM INSPECTOR. A NEW CONNECTION TO THE MAIN SEWER IS REQUIRED IF THE EXISTING CATCH BASIN LATERAL IS NOT APPROVED BY THE SEWER INSPECTOR.
7. WHEN A SEWER STRUCTURE IS ABANDONED, ALL PIPE OPENINGS MUST BE PLUGGED, STRUCTURES FILLED WITH TRENCH BACK-FILL, AND LIDS AND FRAMES REMOVED PER THE SEWER UNIT OF THE DWM STANDARDS AND SPECIFICATIONS.
8. THE CONTRACTOR IS REQUIRED TO REPLACE ANY BROKEN FRAMES AND LIDS OF SEWER STRUCTURES WITH STANDARD FRAMES AND LIDS OF THE DWM. IN ADJUSTMENT OR RECONSTRUCTION OF SEWER STRUCTURES, ANY NON-STANDARD FRAMES AND LIDS MUST BE REPLACED WITH STANDARD FRAMES AND LIDS. IN ADJUSTMENT OR RECONSTRUCTION OF INLETS, ANY NON-STANDARD INLETS (GUTTER BOXES) MUST BE REPLACED WITH DWM STANDARD INLETS.
9. THE FRAMES AND LIDS OF SEWER STRUCTURES TO BE ABANDONED, REMOVED, OR FILLED MUST BE SALVAGED AND THE DWM NOTIFIED FOR PICK UP.
10. IN LOCATIONS WHERE THE MAIN SEWER IS NOT BEING REPLACED AND THE EXISTING DRAINAGE FACILITIES ARE DISTURBED OR DAMAGED DURING CONSTRUCTION BY THE CONTRACTOR, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO RESTORE AND REPLACE THE DAMAGED FACILITIES AT HIS/HER EXPENSE TO THE SATISFACTION OF THE DWM.
11. IN CASE OF ANY DAMAGE TO THE CITY'S SEWER SYSTEM, PRIVATE AND PUBLIC DRAIN CONNECTIONS, AND/OR BENCH MONUMENTS, THE CONTRACTOR MUST CONTACT THE SEWER UNIT OF THE DOB IMMEDIATELY AT PHONE NUMBER (312) 744-3351. THE CONTRACTOR MUST, AT HIS/HER COST, REPLACE THE AFFECTED SEWERS, DRAIN CONNECTIONS, SEWER STRUCTURES AND/OR BENCH MONUMENTS AS NECESSARY. THE SEWER FLOWS MUST BE MAINTAINED AT ALL TIMES.
12. ON WORK COMPLETION, THE CONTRACTOR MUST PROVIDE THE SEWER UNIT OF THE DWM, FOR REVIEW AND ACCEPTANCE, A DVD OF THE SEWER MAINS.
13. AS-BUILT DRAWINGS MUST BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL FOLLOWING THE CONSTRUCTION OF THIS DEVELOPMENT, WITHIN 30 DAYS OF SUBSTANTIAL COMPLETION. AS-BUILT DRAWINGS MUST INCLUDE INFORMATION ON THE FOLLOWING DRAWINGS AS A MINIMUM: DIMENSION PLAN, GRADING PLAN, UTILITY PLAN, SEWER DETAILS, AND STORMWATER BMP DETAILS. THE AS-BUILTS SHALL BE GENERATED BY A LICENSED SURVEYOR AND SHOULD INDICATE THE DESIGN INFORMATION WITH A LINE THROUGH THE TEXT AND THE AS-BUILT ELEVATION WRITTEN NEXT TO IT. SHOULD THE INFORMATION BE CONSTRUCTED AS DESIGNED, THE TEXT SHALL BE CIRCLED, INDICATING FULL COMPLIANCE. AS-BUILT INFORMATION IS EXPECTED TO BE PROVIDED FOR THE FOLLOWING ITEMS AT A MINIMUM: UTILITY STRUCTURE RIM ELEVATIONS, PIPE INVERTS, LENGTHS AND SIZES OF PIPES, SLOPES OF PIPES, SPOT ELEVATIONS AND CONTOURS.

DUTY TO INDEMNIFY

THE CONTRACTOR SHALL DEFEND, INDEMNIFY, KEEP SAFE HARMLESS THE MUNICIPALITY, OWNER AND ENGINEER, AND THEIR RESPECTIVE BOARD MEMBERS, REPRESENTATIVES, AGENTS AND EMPLOYEES, IN BOTH INDIVIDUAL AND OFFICIAL CAPACITIES, AGAINST ALL SUITS, CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING ATTORNEY'S FEES, CAUSED BY, GROWING OUT OF, OR INCIDENTAL TO THE PERFORMANCE OF WORK UNDER THE CONTRACT BY THE CONTRACTOR OR ITS SUBCONTRACTORS TO THE FULL EXTENT AS ALLOWED BY THE LAWS OF THE STATE OF ILLINOIS AND NOT BEYOND ANY EXTENT WHICH WOULD RENDER THESE PROVISIONS VOID OR UNENFORCEABLE. THIS OBLIGATION INCLUDES BUT IS NOT LIMITED TO: THE ILLINOIS LAWS REGARDING STRUCTURAL WORK [IL REV. STAT. CH 48, PAR. 60 AT SEQ.] AND REGARDING THE PROTECTION OF ADJACENT LANDOWNERS [IL. REV. STAT. CH. 17-1/2 PAR. 51 ET. SEQ.]. IN THE EVENT OF ANY SUCH INJURY [INCLUDING DEATH] OR LOSS OR DAMAGE, OF CLAIMS THEREFORE, OR CLAIMS THEREFORE, THE CONTRACTOR SHALL GIVE PROMPT NOTICE TO THE OWNER.

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REVISIONS

#	DATE	ISSUE
1	2012.12.20	ISSUE FOR REVIEW

Title: GENERAL NOTES

Sheet No.: C0.0

Dec 27, 2012 - 1:27pm
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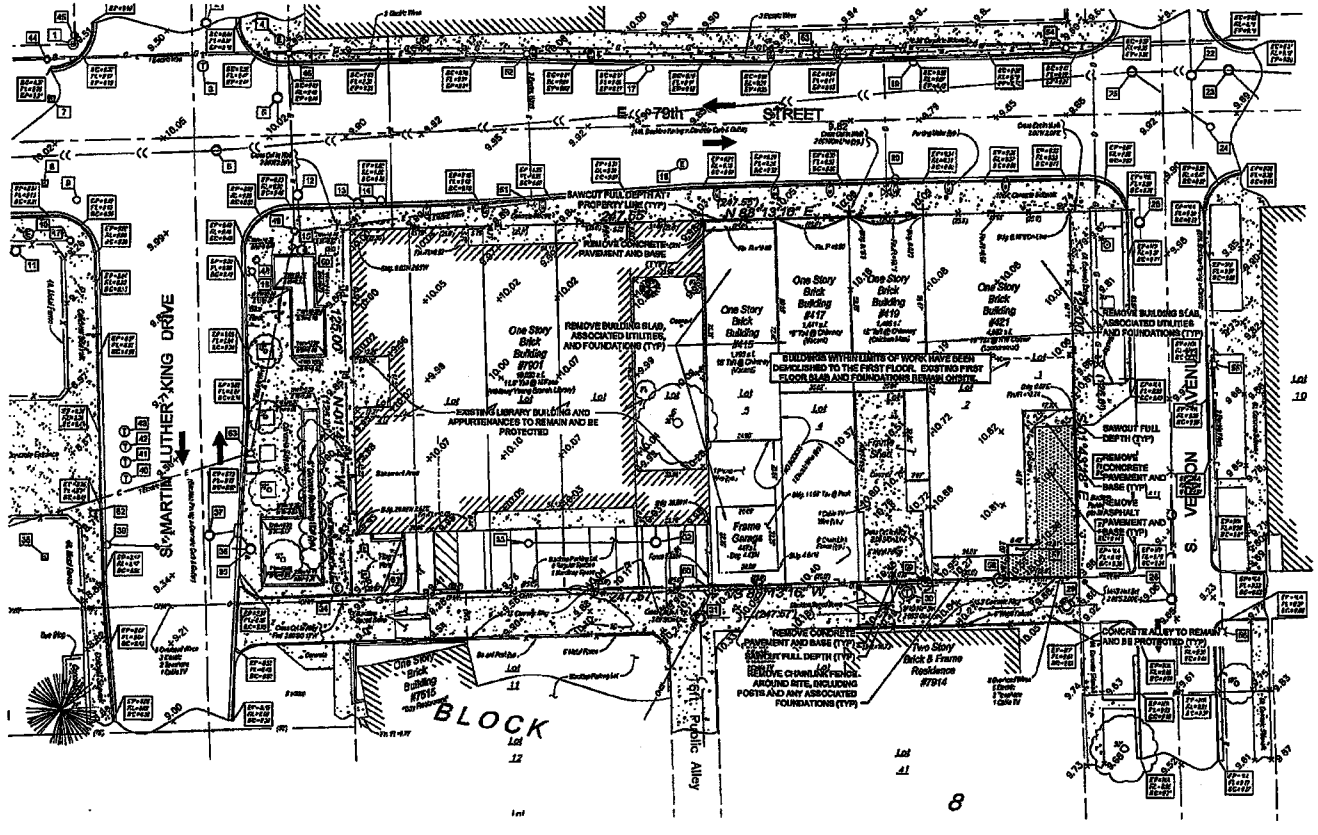

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

LEGEND AND ABBREVIATIONS:

- PL — PROPERTY LINE
- REMOVE CONCRETE PAVEMENT AND BASE
- REMOVE ASPHALT PAVEMENT AND BASE
- REMOVE BUILDING SLAB, FOUNDATIONS, UTILITIES, AND APPURTENANCES
- X — REMOVE FENCE, POSTS GATES AND FOUNDATIONS
- STRUCTURE TO REMAIN AND BE PROTECTED
- REMOVE STRUCTURE / TREE
- SAWCUT (FULL DEPTH)

NOTES:

1. BUILDINGS WITHIN LIMITS OF WORK HAVE BEEN DEMOLISHED TO THE FIRST FLOOR. EXISTING FIRST FLOOR SLAB AND FOUNDATIONS REMAIN ONSITE.
2. ALL EXISTING UTILITIES THAT CONFLICT WITH PROPOSED WORK SHALL BE REMOVED AND ABANDONED. COORDINATE WITH UTILITY COMPANY PRIOR TO DEMOLITION.
3. EXISTING RIGHT OF WAY IMPROVEMENTS TO REMAIN AND BE PROTECTED. ANY DAMAGE TO IMPROVEMENTS IN THE CHICAGO RIGHT OF WAY MUST BE RESTORED PER CDOT REQUIREMENTS.

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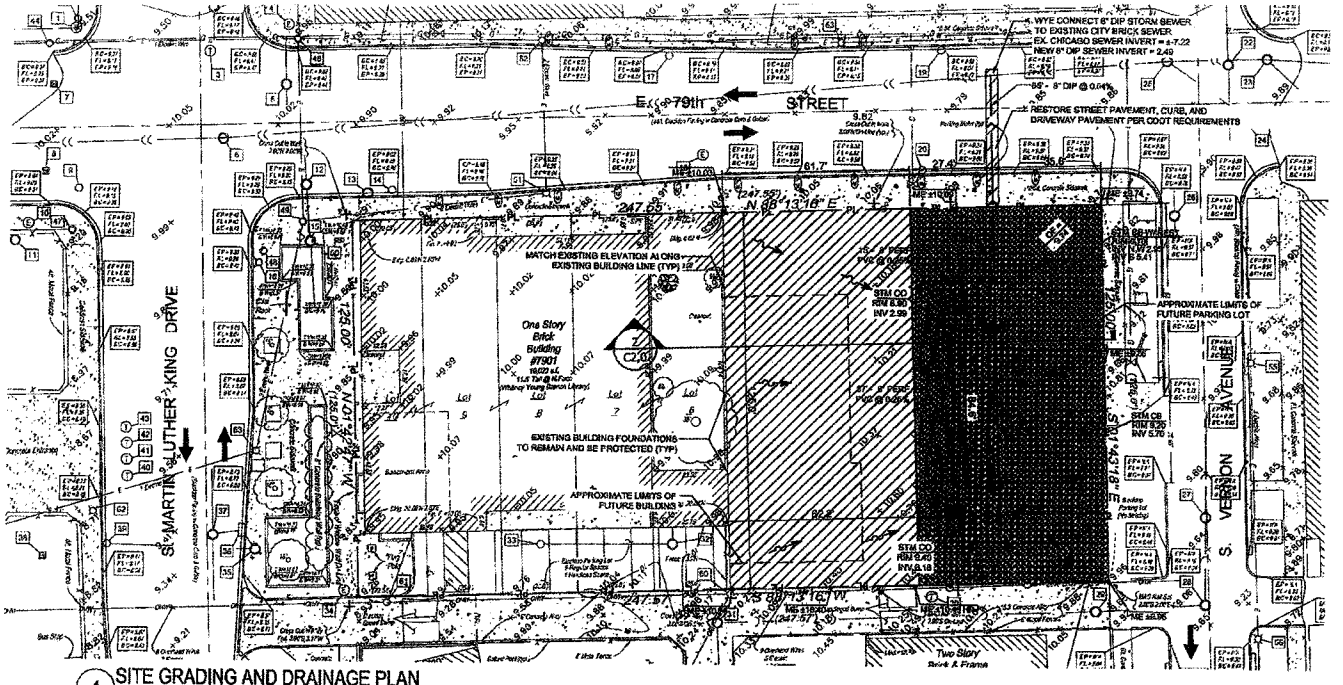
REVISIONS		
#	DATE	ISSUE
1	2023.01.02	ADDENDUM 1

Title: SITE DEMOLITION PLAN

Sheet No.: C1.0



1 SITE GRADING AND DRAINAGE PLAN
SCALE: 1"=20'

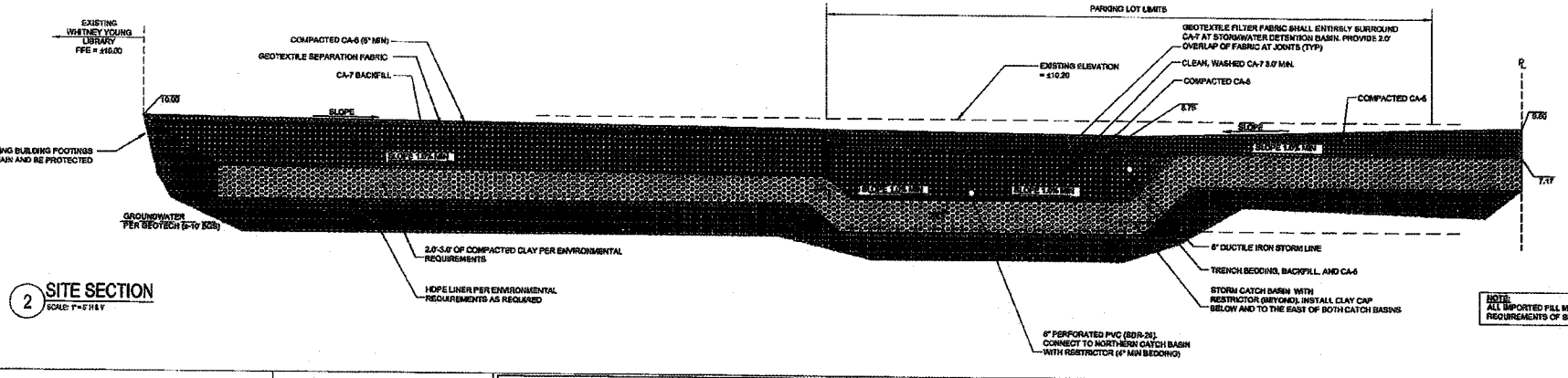
LEGEND AND ABBREVIATIONS

- PL — PROPERTY LINE
- RESTORE PAVEMENT PER CITY REQUIREMENTS. AREA SHOWN SCHEMATIC ONLY
- EXCAVATE AS REQUIRED PER ENVIRONMENTAL REQUIREMENTS AND FOR REMOVAL OF EXISTING FOUNDATIONS. PLACE CLAY CAP PER ENVIRONMENTAL REQUIREMENTS, CA-7, AND COMPACTED CA-6 TO FINISHED GRADE
- EXCAVATE AS REQUIRED PER ENVIRONMENTAL REQUIREMENTS AND FOR REMOVAL OF EXISTING FOUNDATIONS. PLACE CLAY CAP PER ENVIRONMENTAL REQUIREMENTS AND COMPACTED CA-6 TO FINISHED GRADE
- EXCAVATE AS REQUIRED PER ENVIRONMENTAL REQUIREMENTS AND FOR REMOVAL OF EXISTING FOUNDATIONS. PLACE CLAY CAP PER ENVIRONMENTAL REQUIREMENTS, CA-7 FOR STORMWATER DETENTION, AND COMPACTED CA-6 TO FINISHED GRADE
- STORM LINE
- PERFORATED STORM LINE
- CATCH BASIN (CB)
- CLEAN OUT (CO)
- 14.20 — SPOT ELEVATION
- ME — MATCH EXISTING ELEVATION
- RESTRICTOR (REST)
- STORMWATER RUN-OFF

SITE GRADING AND BACKFILL NOTES:

1. DEWATER EXCAVATIONS AS REQUIRED.
2. PROVIDE REQUIRED EROSION AND SEDIMENTATION CONTROL MEASURES WHEN STOCKPILING EXISTING SOILS.
3. CONTRACTOR TO PROVIDE PROTECTION FOR EXISTING ALLEY, ROADWAY, AND ALL RIGHTS-OF-WAY ADJACENT TO THE PROJECT. PROVIDE TEMPORARY SHORING AS REQUIRED.
4. HAUL OFF AND EXCAVATION REQUIREMENTS TO BE PER ENVIRONMENTAL SPECIFICATIONS 02316, 02317, AND MANAGING ENVIRONMENTAL COORDINATOR.
5. COORDINATE EARTHWORK ACTIVITIES WITH SPECIFICATION 02300.
6. REMOVE EXISTING UTILITIES AS REQUIRED FOR COMPLETION OF NEW WORK. COORDINATE REMOVAL AND ABANDONMENT OF EXISTING UTILITIES WITH UTILITY COMPANY.
7. COORDINATE ALL WORK WITH ENVIRONMENTAL AND GEOTECHNICAL REQUIREMENTS.

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.



2 SITE SECTION
SCALE: 1"=5'H&V

NOTE:
ALL IMPORTED FILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF SPECIFICATION 02318

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REVISIONS

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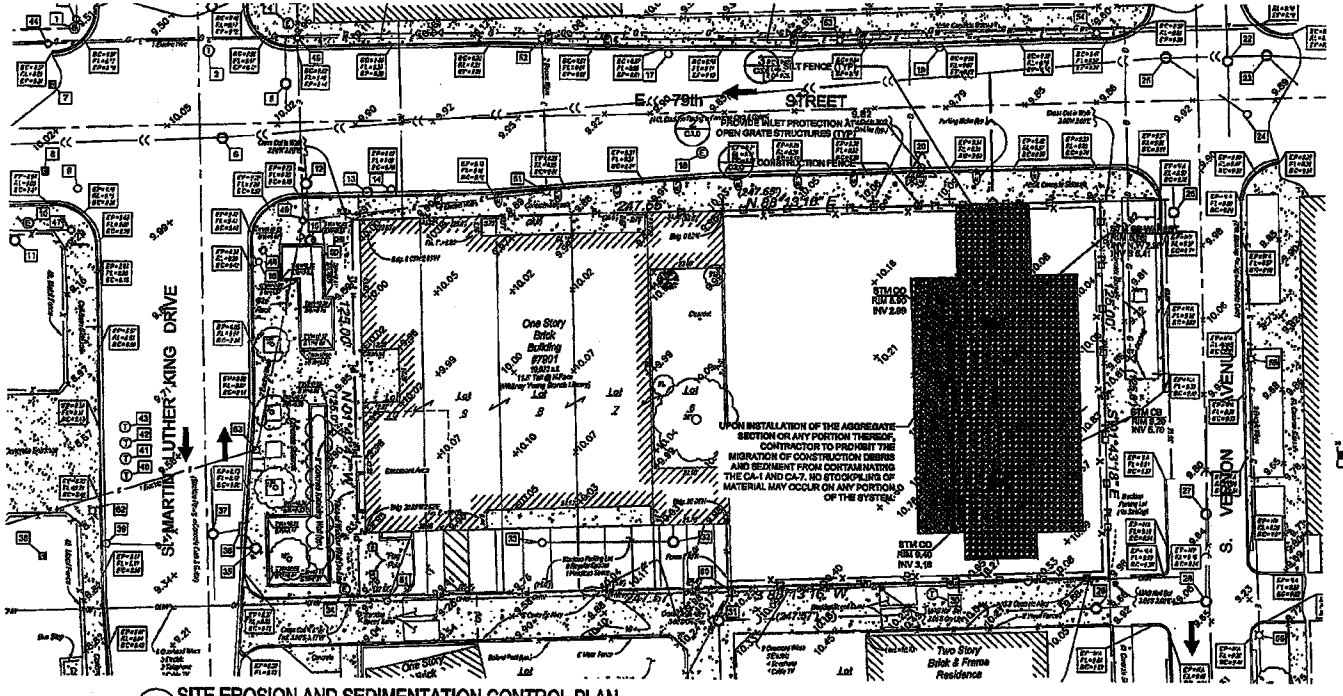
2	2019.01.02	ADDENDUM 1

Title
SITE GRADING AND DRAINAGE PLAN

Sheet No.
C2.0



1 SITE EROSION AND SEDIMENTATION CONTROL PLAN

SCALE: 1" = 30'

LEGEND AND ABBREVIATIONS:

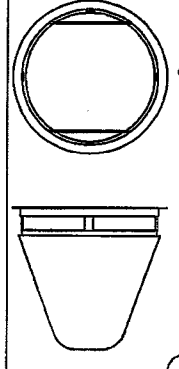
- PL — PROPERTY LINE
- COMPACTED CA-5
- COMPACTED CA-5 ON STORMWATER DETENTION BASIN
- STORM LINE
- PERFORATED STORM LINE
- SILT FENCE
- CONSTRUCTION FENCE
- CATCH BASIN (CB)
- CLEAN OUT (CO)
- RESTRICTOR (REST)
- PROVIDE INLET PROTECTION

GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

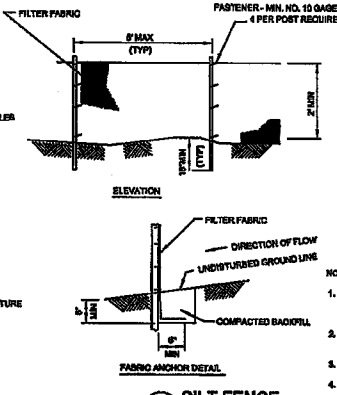
EROSION CONTROL NOTES:

1. THE SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS FOR SOIL AND SEDIMENTATION CONTROL OF LOCAL GOVERNMENT AGENCIES, PROCEDURES AND STANDARDS FOR URBAN SOIL AND SEDIMENTATION CONTROL IN ILLINOIS, AND IEPA STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, LATEST EDITION.
2. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
3. PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING BUT NOT LIMITED TO, ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS) A SUPPLEMENTARY EROSION CONTROL PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.
4. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE ENGINEER.
5. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO SEDIMENT BASINS OR SILT TRAPS. DEWATERING DIRECTLY INTO THE FIELD TILES OR STORM SEWER IS PROHIBITED.
6. PERMANENT OR TEMPORARY SOIL STABILIZATION MUST BE APPLIED WITHIN 15 CALENDAR DAYS OF THE END OF ACTIVE SOIL DISTURBANCE.
7. FILTER BASKETS SHALL BE INSTALLED AND MAINTAINED AROUND THE INLET AND OUTLET STRUCTURES AS SPECIFIED.
8. SEDIMENTATION BASINS, BARRIERS, AND ALL APPROPRIATE EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SORT OF SITE DISTURBING.
9. THE CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES WEEKLY AND AFTER ANY STORM EVENT IN EXCESS OF 1/2".
10. SHOULD THE VOLUME, VELOCITY, SEDIMENT LOAD, OR PEAK FLOW RATES OF STORMWATER RUNOFF TEMPORARILY INCREASE DURING CONSTRUCTION, THEN ADDITIONAL MEASURES TO PROTECT ADJACENT PROPERTIES SHALL BE UNDERTAKEN.
11. THE TEMPORARY EROSION MEASURES SHALL REMAIN IN PLACE UNTIL ALL THE PERMANENT EROSION CONTROL ITEMS ARE FULLY FUNCTIONAL.
12. ACCESS DRIVES, PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH, AND VEHICLES WASHDOWN FACILITIES, SHALL BE PROVIDED TO PREVENT THE DEPOSIT OF SOIL FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. ANY SOIL REACHING A PUBLIC OR PRIVATE ROADWAY SHALL BE REMOVED CONTINUOUSLY.
13. DUST SCREENING SHALL BE PROVIDED ON ALL CONSTRUCTION FENCING.



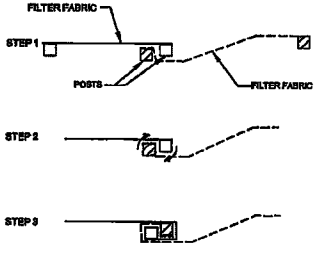
2 INLET PROTECTION

SCALE: NTS



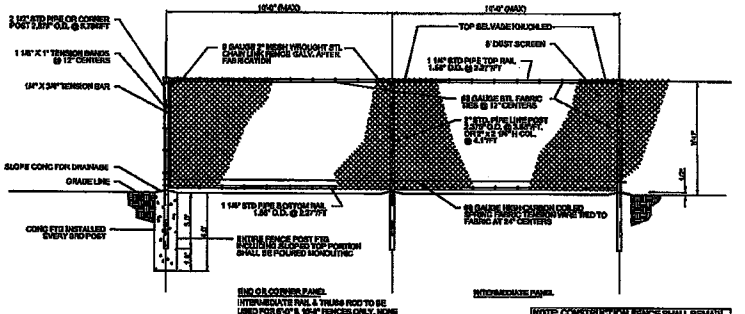
3 SILT FENCE

SCALE: NTS



NOTES:

1. TEMPORARY SEDIMENT FENCE SHALL BE INSTALLED PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED. THEY SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD AND REMOVED IN CONJUNCTION WITH THE FINAL GRADING AND SITE STABILIZATION.
2. FILTER FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATION 592 GEOTEXTILE TABLE 1 OR 2, CLASS WITH EQUIVALENT OPENING SIZE OF AT LEAST 30 FOR NONWOVEN AND 50 FOR WOVEN.
3. FENCE POSTS SHALL BE EITHER STANDARD STEEL POST OR WOOD POST WITH A MINIMUM CROSS-SECTIONAL AREA OF 3.0 SQ. IN.
4. PLACE THE END POST OF THE SECOND FENCE INSIDE THE END POST OF THE FIRST FENCE.
5. ROTATE BOTH POSTS AT LEAST 180 DEGREES IN A CLOCKWISE DIRECTION TO CREATE A TIGHT SEAL WITH THE FABRIC MATERIAL.
6. DRIVE BOTH POSTS A MINIMUM OF 16 INCHES INTO THE GROUND AND BURY THE FLAP.



4 CONSTRUCTION FENCE

SCALE: NTS

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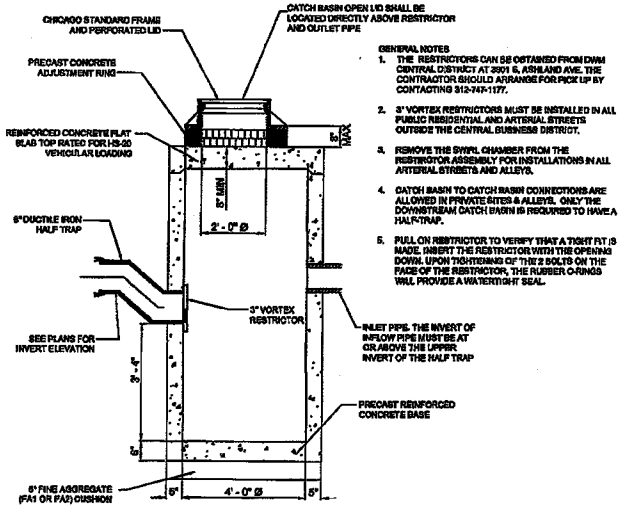
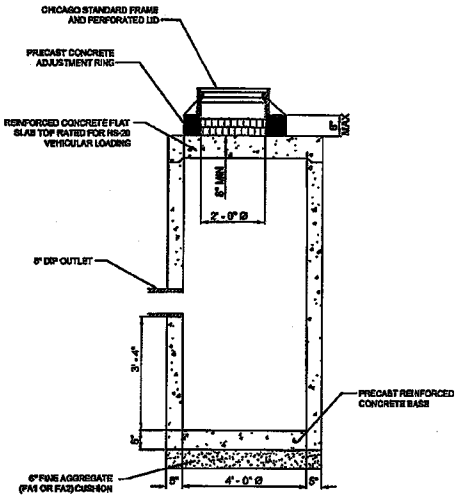
REVISIONS		
#	DATE	ISSUE
1	2013.01.02	ADDENDUM 1

Title: SITE EROSION AND SEDIMENTATION CONTROL PLAN

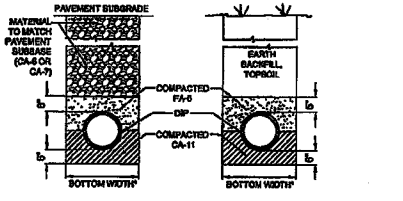
Sheet No. C3.0



1 CATCH BASIN WITH RESTRICTOR
SCALE: NTS

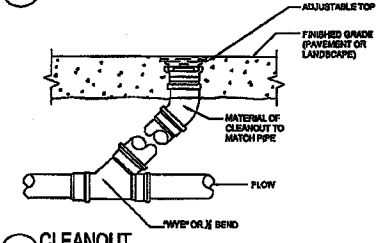


2 CATCH BASIN WITHOUT RESTRICTOR
SCALE: NTS

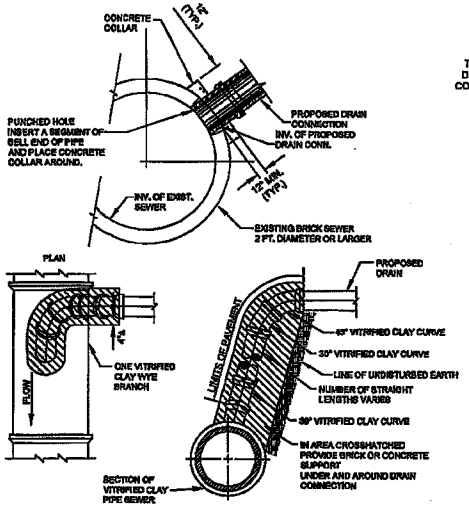


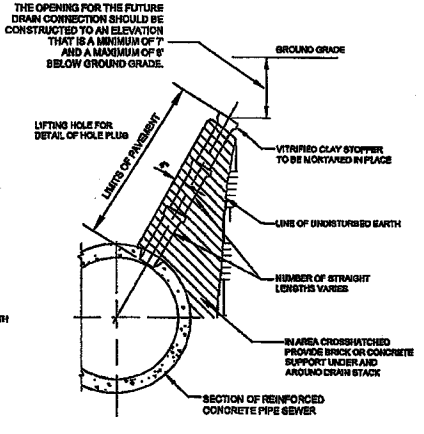
* BOTTOM WIDTH: PIPE SIZES UP TO 24", USE I.D. PLUS 20" OVER 24", USE O.D. PLUS 24"

NON-PERFORATED SEWER
3 TRENCH BEDDING AND BACKFILL
SCALE: NTS

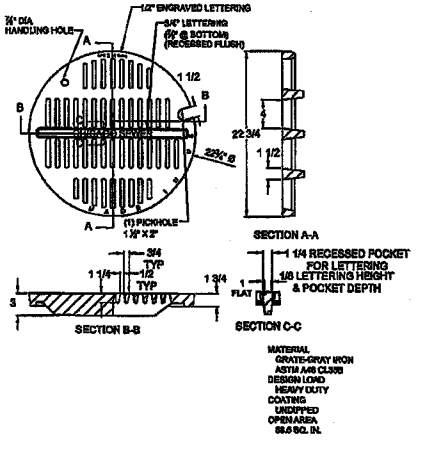


4 CLEANOUT
SCALE: NTS

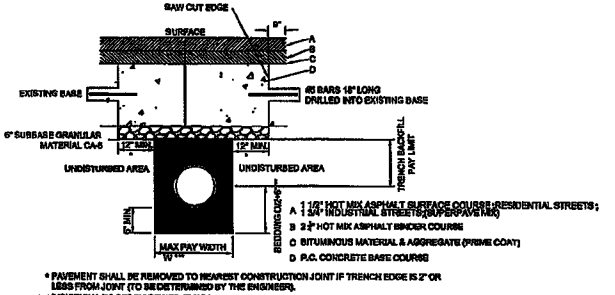




5 TYPICAL DRAIN CONNECTIONS
SCALE: NTS



6 SEWER FRAME AND LID
SCALE: NTS



* PAVEMENT SHALL BE REMOVED TO NEAREST CONSTRUCTION JOINT IF TRENCH EDGE IS 2' OR LESS FROM JOINT (TO BE DETERMINED BY THE ENGINEER).
* * INCIDENTAL TO STORM SEWER, TYPE 2
* * * W = 8' O.D. + 8", WHEN TRENCH DEPTH ≤ 8FT.
W = 10' O.D. + 16", WHEN TRENCH DEPTH > 8FT.

NOTES:
1. ALL TIE BARS AND DOWEL BARS ARE TO BE EPOXY COATED.
2. THE PORTLAND CEMENT CONCRETE BASE SHALL BE 9 OR MORE INCHES. FOR CONCRETE STREETS THE CONCRETE SHALL BE BROUGHT TO GRADE (INCLUDING 1'-0" OVERLAP) AND APPROPRIATE FINISHED.
3. ALL EXISTING PAVEMENTS SHALL BE SAW CUT 1'-0" ON EITHER SIDE OF THE TRENCH OR PAVEMENT OPENING. UNDER NO CIRCUMSTANCES, SHOULD EXISTING PAVEMENT WHICH HAS BEEN UNDERMINED OR OTHERWISE DISTURBED BE LEFT IN PLACE AND NOT RESTORED.
4. ALL ARTERIAL STREET PAVEMENT WHICH HAS BEEN RECONSTRUCTED IN THE LAST SEVEN YEARS WILL REQUIRE PLACEMENT OF #5 DOWEL BARS, 18 INCHES LONG DRILLED AND GROUTED (NON SHRINK) AT 36" CENTERS ON ALL SIDES. A MINIMUM OF TWO DOWEL BARS WILL BE REQUIRED ON EACH SIDE OF SAW CUT BOUNDARIES.

7 STREET PAVEMENT RESTORATION
SCALE: NTS

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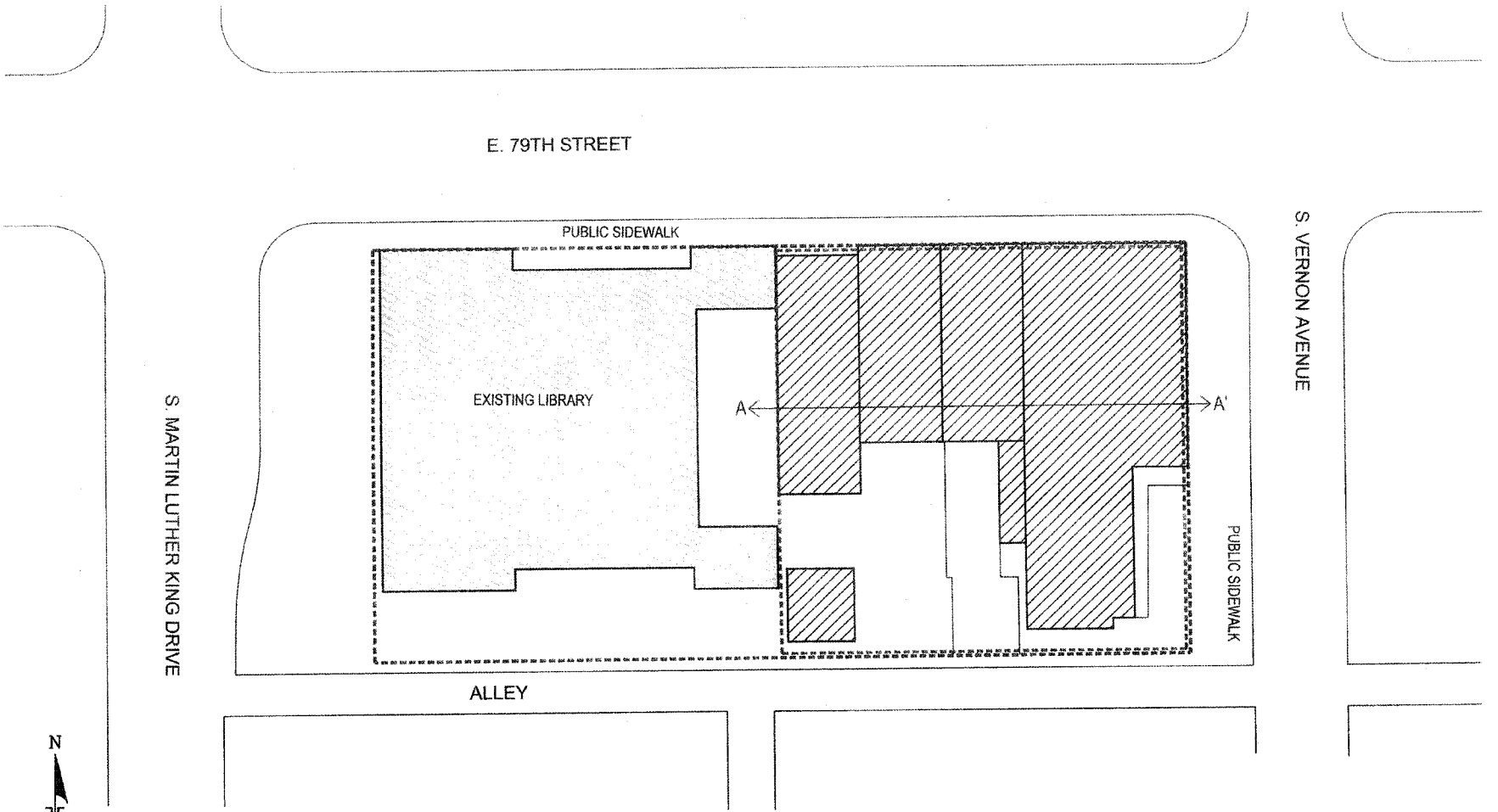
REVISIONS		
#	DATE	ISSUE
1	2013.01.02	ADDENDUM 1

Title: DETAILS

Sheet No. C4.0



THIS DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Mngr:	RMO	Project No:	A2127021-5
Drawn By:	DWD	Scale:	AS SHOWN
Checked By:	RMO/MRF	File No:	A2127021-5-1
Approved By:	RMO	Date:	DEC. 2012

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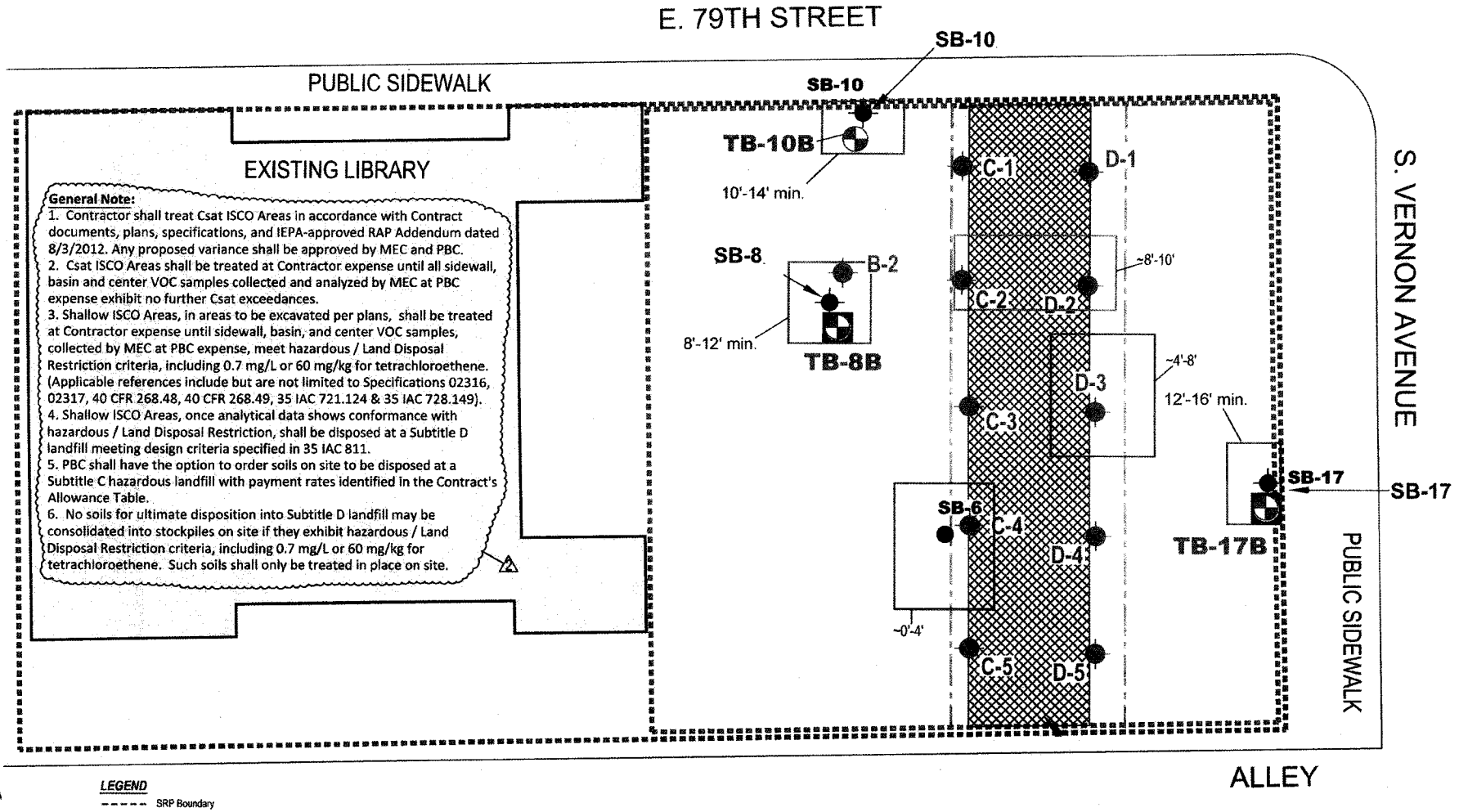
EXISTING SITE LAYOUT
PUBLIC BUILDING COMMISSION OF CHICAGO
REQUEST FOR PROPOSALS
IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES
415-423 E. 79TH STREET
PS1913

EXHIBIT
R-1.0



REVISIONS		
#	DATE	ISSUE
1	2013.01.02	ADDENDUM 1
2	2013.01.15	ADDENDUM 2

Project Mngr:	RMO	Project No.	A2117021-5
Drawn By:	DWD	Scale:	AS SHOWN
Checked By:	RMO/MRF	File No.	A2117021-5-2
Approved By:	RMO	Date:	DEC. 2012

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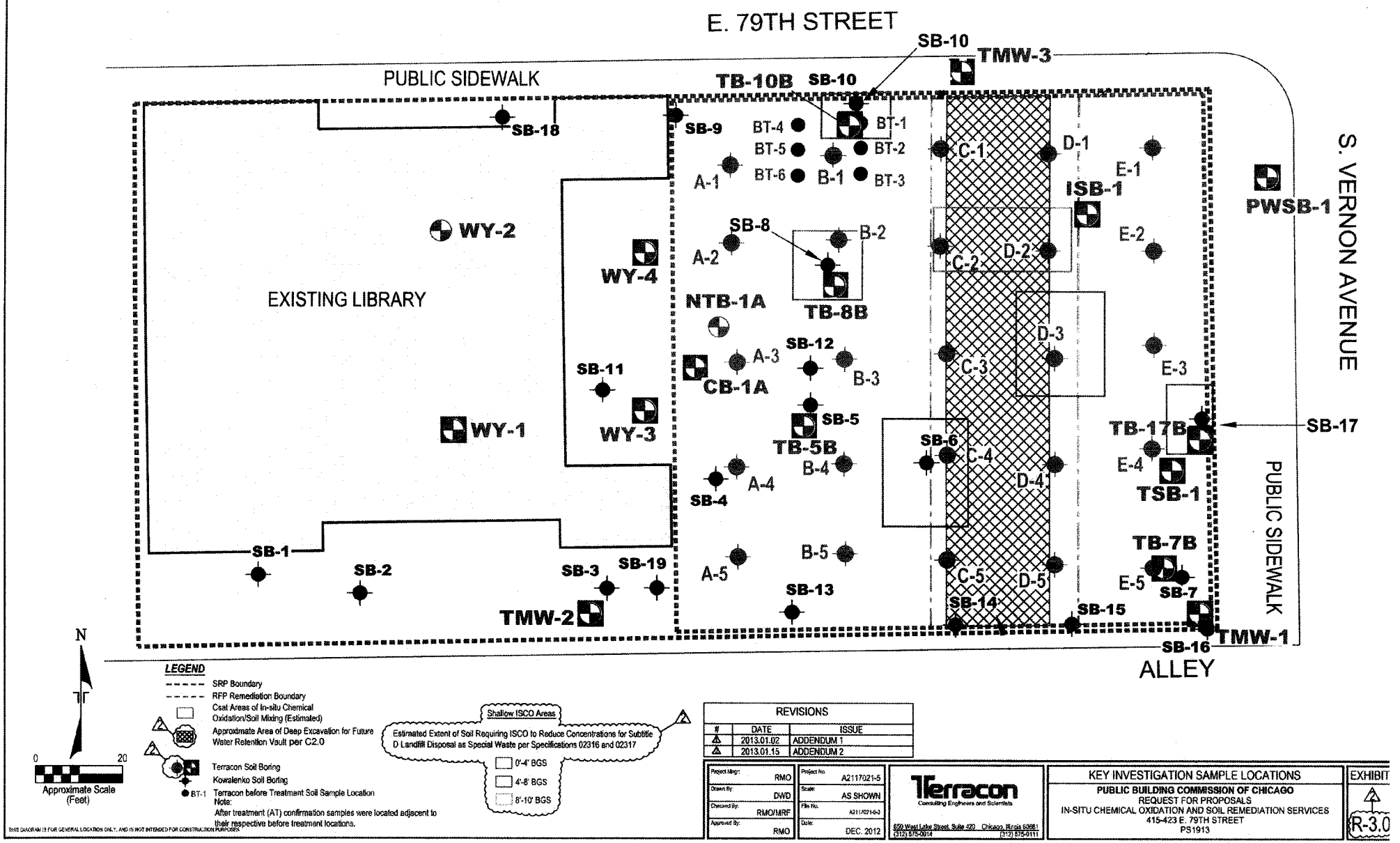
ISCO TREATMENT AREAS
PUBLIC BUILDING COMMISSION OF CHICAGO
REQUEST FOR PROPOSALS
IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES
415-423 E. 79TH STREET
PS1913

EXHIBIT
1
R-2.0



REVISIONS		
#	DATE	ISSUE
1	2013.01.02	ADDENDUM 1
2	2013.01.15	ADDENDUM 2

Project Mngr:	RMO	Project No.	A2117021-5
Drawn By:	DWD	Scale:	AS SHOWN
Checked By:	RMO/MRF	File No.	A2117021-5-3
Approved By:	RMO	Date:	DEC. 2012

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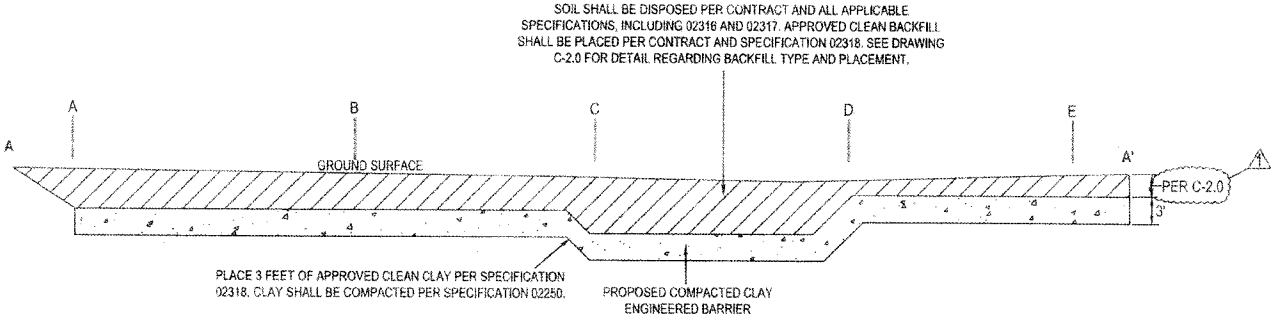
KEY INVESTIGATION SAMPLE LOCATIONS
PUBLIC BUILDING COMMISSION OF CHICAGO
REQUEST FOR PROPOSALS
IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES
415-423 E. 79TH STREET
PS1913

EXHIBIT 4
R-3.0



A VOC DELINIATION BORING LOCATIONS

NOTE:
-REFER TO EXHIBIT R-1.0 FOR CROSS SECTION LOCATION
-LOCATION OF ALTERNATIVE BARRIER AT LOWER ELEVATION IS APPROXIMATE AND MAY CHANGE BASED ON PLACEMENT OF STORMWATER MANAGEMENT STRUCTURES

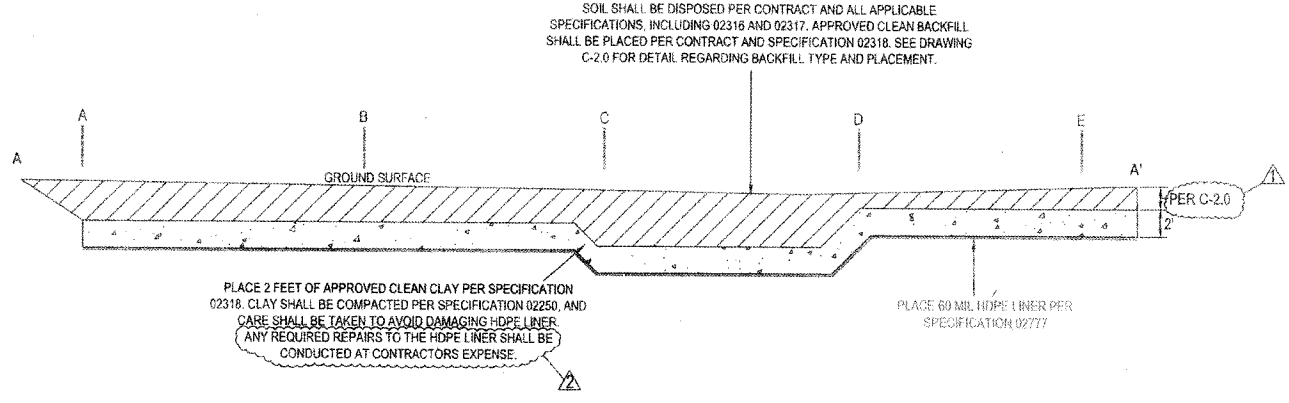
0 10
Approximate Scale (Feet)

THIS DRAWING IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

REVISIONS		
#	DATE	ISSUE
1	2013.01.02	ADDENDUM 1
2	2013.01.15	ADDENDUM 2

Project Mngr: RMO	Project No: A2117021-5	Terracon Consulting Engineers and Scientists	REMEDIATION STRATEGIES: OPTION 1
Drawn By: DWD	Scale: AS SHOWN	650 West Lake Street, Suite 420 Chicago, Illinois 60661 (312) 575-0010 (312) 575-0111	**PUBLIC BUILDING COMMISSION OF CHICAGO**
Checked By: RMO/MRF	File No: A2117021-5-4A		REQUEST FOR PROPOSALS
Approved By: RMO	Date: DEC. 2012		IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES
			415-423 E. 79TH STREET
			PS1913

EXHIBIT 1 R-4.1



A VOC DELINIATION BORING LOCATIONS 2

NOTE:
-REFER TO EXHIBIT R-1.0 FOR CROSS SECTION LOCATION
-LOCATION OF ALTERNATIVE BARRIER AT LOWER ELEVATION IS APPROXIMATE AND MAY CHANGE BASED ON PLACEMENT OF STORMWATER MANAGEMENT STRUCTURES

0 10
Approximate Scale (Feet)

THIS DRAWING IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

REVISIONS		
#	DATE	ISSUE
1	2013.01.02	ADDENDUM 1
2	2013.01.15	ADDENDUM 2

Project Mngr: RMO	Project No.: A2117021-5	Terracon Consulting Engineers and Scientists	REMEDIATION STRATEGIES: OPTION 2
Drawn By: DWD	Scale: AS SHOWN	550 West Lake Street, Suite 420 Chicago, Illinois 60661 (312) 575-0014 (312) 575-0111	PUBLIC BUILDING COMMISSION OF CHICAGO REQUEST FOR PROPOSALS IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES 415-423 E. 79TH STREET PS1913
Checked by: RMO/MRF	File No.: A2117021-5-4B		
Approved By: RMO	Date: DEC. 2012		EXHIBIT 2 R-4.2

EXHIBIT 4

INSURANCE REQUIREMENTS

The Contractor must provide and maintain at Contractor's own expense, until expiration or termination of the Agreement and during the time period following expiration if Contractor is required to return and perform any additional work, the minimum insurance coverage and requirements specified below, insuring all operations related to the Agreement.

4.1. INSURANCE TO BE PROVIDED

4.1.1. Workers' Compensation and Employers Liability

Workers' Compensation Insurance, as prescribed by applicable law covering all employees who are to provide a service under the Agreement and Employers Liability coverage with limits of not less than $1,000,000 each accident, illness or disease.

4.1.2. Commercial General Liability (Primary and Umbrella)

Commercial General Liability Insurance or equivalent with limits of not less than $5,000,000 per occurrence for bodily injury, personal injury, and property damage liability. Coverage must include the following: All premises and operations, products/completed operations, separation of insureds, defense, and contractual liability. Contractor and all subcontractors of every tier **will specifically name** the Public Building Commission of Chicago and the City of Chicago as Additional Insured using the ISO CG2010 and CG2037 or equivalents. The Public Building Commission of Chicago and the City of Chicago must be named as Additional Insured on a primary, non-contributory basis for any liability arising directly or indirectly from the work.

If tank removal or excavation is to be performed, the contractor must include the following additional coverage: All premises and operations, products/completed operations (for minimum of two (2) years following project completion), explosion, collapse, underground, separation of insureds, defense, and contractual liability.

Subcontractors performing work for Contractor must maintain limits of not less than $1,000,000 per occurrence with the same terms herein

4.1.3. Automobile Liability (Primary and Umbrella)

When any motor vehicles (owned, non-owned and hired) are used in connection with work to be performed, the Contractor must provide Automobile Liability Insurance, with limits of not less than $2,000,000 per occurrence for bodily injury and property damage. The Public Building Commission of Chicago and the City of Chicago must be named as Additional Insured on a primary, non-contributory basis.

Subcontractors performing work for Contractor must maintain limits of not less than $1,000,000 per occurrence with the same terms herein

4.1.4. Professional Liability

When Contractor performs work in connection with the Agreement, Professional Liability Insurance must be maintained with limits of not less than $5,000,000 covering acts, errors, or omissions. The policy will include coverage for wrongful acts, including but not limited to errors, acts or omissions, in the rendering or failure to render professional services resulting in a pollution incident. When policies are renewed or replaced, the

policy retroactive date must coincide with, or precede the, start of work on the Agreement. Coverage must be maintained for two years after substantial completion. A claims-made policy, which is not renewed or replaced, must have an extended reporting period of two (2) years.

Subcontractors performing work for Contractor must maintain limits of not less than $1,000,000 per occurrence with the same terms herein.

4.1.5 Property

2. The Contractor is responsible for all loss or damage to Public Building Commission and City of Chicago and/or property owner at full replacement or repair cost. The Contractor is responsible for all loss or damage to personal property (including but not limited to materials, equipment, tools, and supplies) owned, rented, or used by Contractor.

4.1.6 Valuable Papers

When any plans, designs, drawings, data, media, or other documents are produced or used under this Agreement, Valuable Papers Insurance shall be maintained in an amount to insure against any loss whatsoever, and shall have limits sufficient to pay for the re-creation and reconstruction of such records.

4.1.7 Contractors Pollution Liability

Contractors Pollution coverage is required with limits of not less than $5,000,000 per occurrence for any portion of the services, which may entail, exposure to any pollutants, whether in the course of sampling, remedial work or any other activity under this contract. The contractor pollution liability policy will provide coverage for sums that the insured become legally obligated to pay as loss as a result of claims for bodily injury, property damage and/or clean-up costs caused by any pollution incident arising out of the Work including remediation operations, transportation of pollutants, owned and non-owned disposal sites and any and all other activities of Contractor and its subcontractors. Pollution incidents will include, but not be limited to, the discharge, dispersal, release or escape of any solid, liquid, gaseous or thermal irritant or contaminant, including but not limited to smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, medical waste, waste materials, lead, asbestos, silica, hydrocarbons and microbial matter, including fungi, bacterial or viral matter which reproduces through release of spores or the splitting of cells or other means, including but not limited to, mold, mildew and viruses, whether or not such microbial matter is living.

The policy will be maintained for a period of three years after final completion and include completed operations coverage. The policy will include the Public Building Commission of Chicago and the City of Chicago as Additional Insured on a primary and non-contributory basis for on going and completed operations.

Subcontractors performing work for Contractor must maintain limits of not less than $1,000,000 per occurrence with the same terms herein.

4.1.8 Railroad Protective Liability

When work is to be performed within fifty (50) feet of the rail right-of-way, Contractor shall ensure that Railroad Protective Liability insurance in the name of the railroad or transit entity remains in force during the course of the project entity for losses arising out of injuries to or death of all persons, and for damage to or destruction of property, including the loss of use thereof.

Contractors and subcontractors are required to endorse their liability policies with form CG 24 17 to eliminate the exclusion for work within fifty (50) feet of the rail right-of-way. Contractors and subcontractors must provide copies of this endorsement with the certificate of insurance required below.

4.2. ADDITIONAL REQUIREMENTS

The Contractor must furnish the Public Building Commission Procurement Department, Richard J. Daley Center, Room 200, Chicago, IL 60602, original Certificates of Insurance, or such similar evidence, to be in force on the date of this Agreement, and Renewal Certificates of Insurance, or such similar evidence, if any insurance coverage has an expiration or renewal date occurring during the term of this Agreement. The Contractor must submit evidence of insurance to the Commission before award of Agreement. The receipt of any certificate does not constitute agreement by the Commission that the insurance requirements in the Agreement have been fully met or that the insurance policies indicated on the certificate are in compliance with all Agreement requirements. The failure of the Commission to obtain certificates or other insurance evidence from Contractor is not a waiver by the Commission of any requirements for the Contractor to obtain and maintain the specified coverage. The Contractor will advise all insurers of the Agreement provisions regarding insurance. Non-conforming insurance does not relieve Contractor of the obligation to provide insurance as specified in this Agreement. Non-fulfillment of the insurance conditions may constitute a breach of the Agreement, and the Commission retains the right to stop work until proper evidence of insurance is provided, or the Agreement may be terminated.

The Commission reserves the right to obtain copies of insurance policies and records from the Contractor and/or its subcontractors at any time upon written request.

The insurance must provide for 30 days prior written notice to be given to the Commission if any policies are canceled, substantially changed, or non-renewed.

Any deductibles or self-insured retentions on referenced insurance must be borne by Contractor.

3. The Contractor hereby waives and agrees to require their insurers to waive their rights of subrogation against the Public Building Commission of Chicago and the City of Chicago, their respective Board members, employees, elected and appointed officials, and representatives and any Owner or other entity listed in the Agreement. The Contractor must require each Subcontractor to include similar waivers of subrogation in favor of the Commission and the City of Chicago.

4.

The insurance coverage and limits furnished by Contractor in no way limit the Contractor's liabilities and responsibilities specified within the Agreement or by law.

Any insurance or self-insurance programs maintained by the Public Building Commission of Chicago and the City of Chicago do not contribute with insurance provided by the Contractor under the Agreement.

The required insurance to be carried is not limited by any limitations expressed in the indemnification language in this Agreement or any limitation placed on the indemnity in the Agreement given as a matter of law.

If Contractor is a joint venture or limited liability company, the insurance policies must name the joint venture or limited liability company as a named insured

The Contractor must require all its subcontractors to provide the insurance required in this Agreement, or Contractor may provide the coverage for its subcontractors. All subcontractors are subject to the same insurance requirements of Contractor unless otherwise specified in this Agreement.

If Contractor or its subcontractors desire additional coverage, the party desiring the additional coverage is responsible for the acquisition and cost.

The Commission's Risk Management Department maintains the rights to modify, delete, alter or change these requirements.

Contractor must submit the following at the time of award:

1. Standard ACORD form Certificate of Insurance issued to the Public Building Commission of Chicago as Certificate Holder including:
   a. All required entities as Additional Insured
   b. Evidence of waivers of subrogation
   c. Evidence of primary and non-contributory status
2. All required endorsements including the CG2010 and CG2037

EXHIBIT 5

SPECIAL CONDITIONS REGARDING DISADVANTAGED BUSINESS PROGRAM FOR PROFESSIONAL SERVICE CONTRACTS

1. Policy Statement

   1. It is the policy of the Public Building Commission of Chicago (the "Commission") that Disadvantaged Business Enterprises (DBEs) as defined in 40 CFR Part 33 have the maximum opportunity to participate fully in the performance of contracts subject to 40 CFR Part 33. The Contractor must not discriminate against any person or business on the basis of race, color, national origin or sex in the performance of this Contract. The Contractor must carry out applicable requirements of 40 CFR Part 33 in the award and administration of United States Department Environmental Protection Agency ("EPA") financial assistance agreements. Failure by the Contractor to carry out these requirements is a material breach of this Contract which may result in the termination of this Contract or other legally available remedies.

   2. The Commission requires the Contractor also agree to take affirmative action to ensure that MBE and WBE firms have the maximum opportunity to compete for and perform subcontracts with respect to this Contract.

   3. The Commission requires the Contractor to notify MBE and WBE firms, utilized on this contract, about opportunities on contracts without affirmative action goals.

   4. The Contractor is required to pay all Subcontractors both MBE/WBE and non-MBE/WBE, for all work which the Subcontractor has satisfactorily completed, no later than thirty (30) days after the Contractor received payment from the Commission.

2. Aspirational Goals

   1. The EPA has negotiated with the Illinois Environmental Protection Agency and established fair share objectives/goals, which provide that 5% of the total EPA financial assistance is awarded to MBEs and 12% of the total EPA financial assistance is awarded to WBEs. The Contractor shall award 5% of all Commission Contracts to MBEs and 25% of all Commission Contracts to WBEs.

   2. Further, the Contractor must agree to use its best efforts to include MBE and WBE firms in any Contract modification work that increases the Contract value by 10% of the initial Contract value or $50,000, whichever is less. Where the proposed contract modification involves work which can be performed by MBEs and WBEs already performing work on the contract such MBEs and WBEs will participate in such work specified in the contract modification.

   3. Failure to carry out the commitments and policies set forth in this Program constitute a material breach of contract and may result in termination of the Contractor or such other remedy, as the Commission deems appropriate.

3. Definitions

For purposes of this Special Condition, the following definitions apply:

(1) "Certified Minority Business Enterprise" means a person or entity granted certification by the City of Chicago or County of Cook.

(2) "Certified Women's Business Enterprise" means a person or entity granted certification by the City of Chicago or County of Cook.

(3) "Contract" means a contract for the construction, repair, alteration, renovation or improvement, or professional services for any building, facility or other structure.

(4) "Contract Specific Goals" means the subcontracting goals for MBE and WBE participation established for a particular contract based upon the availability of MBEs and WBEs to perform and anticipated scope of work of the contract and the Commission's progress towards meeting the aspirational goals.

(5) "Contractor" means any person or business entity that seeks to enter into a Construction Contract with the Commission and includes all partners, affiliates and joint ventures of such person or entity.

(6) "Disadvantaged Business Enterprise" means an entity owned or controlled by a socially and economically disadvantaged individual as described by Public Law 102-389 (42 U.S.C. 4370d) or an entity owned and controlled by a socially and economically disadvantaged individuals as described by Title X of the Clean Air Act Amendments of 1990 (42 U.S.C. 7601 note); a Small Business Enterprise (SBE); a Small Business in a Rural Area (SBRA); or a Labor Surplus Area Firm (LSAF), a Historically Underutilized Business (HUB) Zone Small Business Concern, or a concern under a successor program.

(7) "Executive Director" means the Executive Director of the Commission or her duly designated representative as appointed in writing.

(8) "Fair share objective" means an objective expressing the percentage of MBE or WBE utilization expected absent the effects of discrimination.

(9) "Good faith efforts" means actions undertaken by a Contractor to achieve a Contract Specific Goal that by their scope, intensity and appropriateness to the objective can reasonably be expected to fulfill the Program's requirements.

(10) "Joint venture" means an association of a DBE firm and one or more firms to carry out a single, for-profit business enterprise, for which the parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest. Joint ventures must have an agreement in writing specifying the terms and conditions of the relationships between the parties and their relationship and responsibilities to the contract.

(11) "Minority Business Enterprise (MBE)" means a Disadvantaged Business Enterprise (DBE) other than a Small Business Enterprise (SBE) a Labor Surplus Area Firm (LSAF), a Small Business in Rural Areas (SBRA), or a Women's Business Enterprise (WBE).

(12) "Program" means the minority- and women-owned business enterprise construction procurement program established in this special condition.

(13) "Women Business Enterprise (WBE) means a business concern which is at least 51% owned or controlled by women for purposes of EPA's 8% statute, or a business concern which is at least 51%owned and controlled by women for purposes of EPA's 10% statute. Determination of ownership by a married woman in a community property jurisdiction will not be affected by her husband's 50 percent interest in her share. Similarly, a business concern which is more than 50 percent owned by a married man will not become a qualified WBE by virtue of his wife's 50 percent interest in his share.

4. Determining MBE/WBE Utilization

The methodology for determining MBE and WBE utilization will be determined for purposes of analysis with respect to this contract as follows:

1. The total dollar value of the contract awarded to the certified MBE or WBE firm will be credited to such participation. Only minority business participation may be counted toward MBE participation and only women business participation may be counted toward WBE participation.

2. The total dollar value of a contract with a firm owned and controlled by minority women is counted toward either the MBE or WBE goal, but not both. The Contractor employing the firm may choose the goal to which the contract value is applied. Various work done by one and the same Subcontractor will be considered, for the purpose of this principle, as work effectively done under one subcontract only, which Subcontractor may be counted toward only one of the goals, not toward both.

3. A Contractor may count toward its MBE or WBE goal the portion of the total dollar value of a contract with an eligible joint venture equal to the percentage of the ownership and control of the MBE or WBE partner in the joint venture. A joint venture seeking to be credited for MBE participation may be formed among certified MBE and WBE firms, or between certified MBE and WBE firms and a non-MBE/WBE firm. A joint venture satisfies the eligibility standards of this Program if the certified MBE or WBE participant of the joint venture:

   (1) Shares in the ownership, control, management responsibilities, risks and profits of the joint venture; and

   (2) Is responsible for a clearly defined portion of work to be performed in proportion to the MBE or WBE ownership percentage.

4. A Contractor may count toward its MBE and WBE goals only expenditures to firms that perform a commercially useful function in the work of a contract. A firm is considered to perform a commercially-useful function when it is responsible for execution of a distinct element of the work of a contract and carries out its responsibilities by actually performing, managing, and supervising the work involved. To determine whether a firm is performing a commercially useful function, the Commission will evaluate the amount of work subcontracted, industry practices and other relevant factors.

5. Consistent with normal industry practices, a MBE or WBE firm may enter into subcontracts. If a MBE or WBE Contractor 50% or more of the total dollar amount of a MBE or subcontracts a significantly greater portion of the work of a contract than would be expected on the basis of normal industry practices, the MBE or WBE will be rebuttably presumed not to be performing a commercially-useful function.

6. A Contractor may count toward its goals expenditures to MBE or WBE manufacturers (i.e., suppliers that produce goods from raw materials or substantially alters them before resale).

7. A Contractor may count toward its goals expenditures to MBE or WBE suppliers provided that the supplier performs a commercially useful function in the supply process. Expenditures to suppliers will only be counted if the supplies are sold to the Contractor or Subcontractor that installs those supplies in the Work.

8. A Contractor may count toward its goal expenditures to an MBE or WBE trucker/hauler only if the MBE or WBE trucker/hauler is performing a commercially useful function. The following factors should be used in determining whether an MBE or WBE trucker/hauler is performing a commercially useful function:

   (1) The MBE or WBE must be responsible for the management and supervision of the entire trucking/hauling operation for which it is responsible on a particular contract, and there cannot be a contrived arrangement for the purpose of meeting MBE or WBE objectives.

   (2) The MBE or WBE must itself own and operate at least one fully licensed, insured, and operational truck used on the contract.

i. If the firm is not currently certified as a MBE or WBE in accordance with 40 CFR Part 33, at the time of execution of the contract, the Contractor shall not count or report the firm's participation.

5. Submission of Bid Proposals

The following schedules and documents constitute the Bidder's MBE/WBE compliance proposal and must be submitted at the time of the bid or proposal or within such extended period as provided by the Commission.

(1) Evidence of Certification: Affidavit of MBE/WBE. A copy of each proposed MBE and WBE firm's Letter of Certification from the City of Chicago, Department of Procurement Services or any other entity accepted by the Public Building Commission of Chicago.

(2) Schedule B: Affidavit of MBE/Non-MBE or WBE/Non-WBE Joint Ventures. Where the Bidder's MBE/WBE compliance proposal includes participation of any MBE or WBE as a joint venture participant, the Bidder must submit a Schedule B: Affidavit of MBE/Non-MBE or WBE/Non-WBE Joint Venture" with an attached copy of the joint venture agreement proposed among the parties. The Schedule B and the joint venture agreement must clearly evidence that the MBE or WBE participant will be responsible for a clearly defined portion of the work to be performed and that the MBE or WBE firm's responsibilities are in proportion with its ownership percentage.

(3) Schedule C: Letter of Intent to Perform as a, Subcontractor, Subconsultant, or Material Supplier, Schedule C, executed by the MBE/WBE firm (or Joint Venture Subcontractor) must be submitted by the Bidder for each MBE/WBE included on the Schedule D. Schedule C must accurately detail the work to be performed by the MBE or WBE firm and the agreed rates and prices to be paid.

(4) Schedule D: Affidavit of Prime Contractor Regarding MBE or WBE Utilization. A completed Schedule D committing to the utilization of each listed MBE or WBE firm. Unless the Bidder has submitted a completed request for a waiver of participation by MBE/WBE firms (See Request for Waiver procedures in Section 7), the Bidder must include the specific dollar amount of participation of each MBE/WBE firm listed on its Schedule D. The total dollar commitment to proposed MBE firms must at least equal the MBE goal, and the total dollar commitment to proposed WBE firms must at least equal the WBE goal. Bidders are responsible for calculating the dollar equivalent of MBE or WBE utilization as percentages of their total base bid.

The submittals must have all blank spaces on the Schedule pages applicable to the contract correctly filled in. Agreements between a Bidder/Proposer and a MBE/WBE in which the MBE/WBE promises not to provide subcontracting quotations to other Bidders are prohibited.

6. Evaluation of Compliance Proposals

1. During the period between bid opening and contract award, the Bidder's MBE/WBE compliance proposal will be evaluated by the Commission. The Bidder agrees to provide, upon request, earnest and prompt cooperation to the Executive Director or his designee in submitting to interviews that may be necessary, in allowing entry to places of business, in providing further documentation, or in soliciting the cooperation of a proposed MBE or WBE firm in providing such assistance. A bid may be treated as non-responsive by reason of the determination that the Bidder's proposal did not contain a sufficient level of Certified MBE or WBE participation, that the Bidder was unresponsive or uncooperative when asked for further information relative to the proposal, or that false statements were made in the Schedules.

2. If the Commission's review of a Respondent's proposal concludes that the MBE or WBE proposal was deficient, the Commission will promptly notify the Respondent of the apparent deficiency and instruct the Respondent to submit (within 3 business days of such notice given by the Commission) a modification of the MBE or WBE Proposal, in proper format, which remedies the deficiencies cited. Failure to correct all deficiencies cited by the Commission will be cause for rejection of the Bidder's proposal as non-responsive.

3. Respondents will not be permitted to modify their MBE/WBE compliance proposal except insofar as directed to do so by the Commission. Therefore, all terms and conditions stipulated for prospective MBE and WBE Subcontractor or suppliers should be satisfactorily negotiated prior to the submission to the Commission of the Bidder's MBE/WBE compliance proposal with the bid. If circumstances should arise, however, where a proposed MBE/WBE is no longer available, the process described in Section 12 should be followed.

4. If the Compliance Proposal includes participation by material suppliers, the PBC will request copies of the offers from such suppliers. The offers must be furnished to the PBC within three (3) business days of the bidder's receipt of the request for such offers from the PBC. The PBC may make such request by electronic mail. The offers must specify: (i) the particular materials, equipment and/or supplies that will be furnished; (ii) the supplier's price for each of the items; (iii)

the total price of the items to be furnished by the supplier, (iv)the supplier's source for the items (e.g., manufacturer, wholesaler) and (v) the Subcontractor that the supplies will be purchased by.

7. Request for Waiver

1. If a Bidder is unable to identify qualified MBE and WBE firms to perform sufficient work to fulfill the MBE or WBE percentage goals for this Contract, the bid or proposal must include a written request for waiver. A request for waiver must be sent to the Executive Director and must set forth the Bidder's inability to obtain sufficient MBE and WBE firms notwithstanding good faith attempts to achieve such participation.

2. Good Faith efforts to achieve participation include but are not limited to:

(1) Ensure that DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. This will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.

(2) Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.

(3) Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. This will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.

(4) Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.

(5) Use the services and assistance of the SBA and the Minority Business Development Agency of the Department of Commerce.

3. The Executive Director, after review and evaluation of the request provided by the Bidder, may grant a waiver request upon the determination that:

(1) Sufficient qualified MBE and/or WBE firms capable of providing the goods or services required by the contract are unavailable despite the good faith efforts of the Bidder;

(2) The price(s) quoted by potential MBE and/or WBE firms for goods or services is above competitive levels to an extent unwarranted by any increased cost of doing business attributable to the present effects of disadvantage or discrimination.

8. Failure To Achieve Goals

If the Contractor cannot achieve the contract specific goals, as the Project proceeds, it must have documented its good faith efforts to do so. In determining whether the Contractor has made such good faith efforts, the performance of other Contractor's in meeting the goals may be considered. The Executive Director or his designee shall consider, at a minimum, the Contractor efforts to do the following:

(1) Soliciting through reasonable and available means the interest of MBEs or WBEs that provide interested MBEs or WBEs with adequate information about the plans, specifications and requirements of the contract, including addenda, in a timely manner to assist them in responding to the solicitation.

(2) Provide interested MBEs or WBEs with adequate information about the plans, specifications and requirements of the contract, including addenda, in a timely manner to assist them in responding to the solicitation.

(3) Negotiating in good faith with interested MBEs or WBEs that have submitted bids. Documentation of negotiation must include the names, addresses and telephone numbers of MBEs or WBEs that were solicited; the date of each such solicitation; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why agreements could not be reached with MBEs or WBEs to perform the work. That there may be some additional costs involved in solicitation and using MBEs and WBEs is not a sufficient reason for a Contractor's failure to meet the goals, as long as such costs are reasonable.

(4) Not rejecting MBEs or WBEs as being unqualified without sound reasons based on the thorough investigation of their capabilities. The MBEs' or WBEs' standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations are not legitimate cases for rejecting or not soliciting bids to meet the goals.

(5) Making a portion of the work available to MBE or WBE Subcontractors and suppliers and to select those portions of the work or material consistent with the available MBE or WBE Subcontractors and suppliers, so as to facilitate meeting the goals.

(6) Making good faith efforts despite the ability or desire of a Contractor to perform the work of a contract with its own organization. A Contractor that desires to self-perform the work of a contract must demonstrate good faith efforts unless the goals have been met.

(7) Selecting portions of the work to be performed by MBEs or WBEs in order to increase the likelihood that the goals will be met. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate MBE or WBE participation even when the Contract might otherwise prefer to perform these items with its own forces.

(8) Making efforts to assist interested MBEs or WBEs in obtaining bonding lines of credit or insurance as required by the Commission or Contractor.

(9) Making efforts to assist interested MBEs or WBEs in obtaining necessary equipment, supplies, materials or related assistance or services, including participation in a mentor-protégée program; and

(10) Effectively using the services of the Commission; minority or women community organizations; minority or women Contractor's groups; local, state and federal minority or women business assistance offices; and other organizations to provide assistance in the recruitment and placement of MBEs or WBEs.

9. Reporting and Record-Keeping Requirements

1. The Contractor, within 5 working days of contract award, must execute a formal subcontract or purchase order in compliance with the terms of the Contractor's bid proposal and MBE/WBE assurances, and submit to the Commission a copy of the MBE and WBE subcontracts or purchase orders, each showing acceptance of the subcontract or purchase order by the MBE and WBE firms. During the performance of the contract, the Contractor will submit partial and final waivers of lien from MBE and WBE Subcontractors and suppliers indicating the current payment amount and the cumulative dollar amount of payments made to date. The Contractor will file regular MBE and WBE utilization reports on the form entitled "Status Report of MBE and WBE (Sub) Contract Payments" at the time of submitting each monthly Payment Estimate, which reflects the current status of cumulative and projected payments to MBE and WBE firms.

2. The Contractor must maintain records of all relevant data with respect to the utilization of MBE and WBE firms, including without limitation payroll records, tax returns and records, and books of account, records concerning compliance with these Special Conditions, and its Good Faith Efforts in such detail as the Commission requires, and retain such records for a period of at least 5 years after final acceptance of the work. Full access to such records will be granted to the Commission and/or its designees, on 5 business days' notice in order for the Commission to determine the Contractor's compliance with its MBE and WBE commitments and the status of any MBE or WBE firm performing any portion of the contract.

3. The Contractor must maintain a bidders list for a period of at least 5 years after final acceptance of the work. The bidder's list must include all firms that bid or quote on subcontracts, including both MBE/WBEs and non-MBE/WBEs. The bidders list must contain the following information: (i) the entity's name with point of contract; (ii) the entity's mailing address, telephone number, and e-mail address; (iii) the procurement on which the entity bid or quoted, and date of the bid or quote; and (iv) the entity's status as an MBE/WBE or non-MBE/WBE.

4. The Contractor shall safeguard from disclosure to unauthorized persons information that may reasonably be considered as confidential business information, consistent with Federal, state, and local law.

5. The Contractor is required to cooperate fully and promptly with the EPA and the Commission in reviews, investigations, and other requests for information. Failure to do so shall be a ground for appropriate action against the Contractor in accordance with 40 CFR §33.105.

6. A Contractor must not intimidate, threaten, coerce or discriminate against any individual or firm for the purpose of interfering with any right or privilege set forth in 40 CRF Part 36. Failure to do so shall be a ground for appropriate action against the Contractor in accordance with 40 CFR §33.105.

10. Disqualification of MBE or WBE

1. The Contract may be terminated by the Executive Director upon the disqualification of the Contractor as an MBE or WBE if the Contractor's status as an MBE or WBE was a factor in the award and such status was misrepresented by the Contractor.

2. The Contract may be terminated by the Executive Director upon the disqualification of any MBE or WBE if the Subcontractor's, subconsultant's or supplier's status as an MBE or WBE was a factor in the award of the contract and the status of the Subcontractor, subconsultant or supplier was misrepresented by the Contractor. If the Contractor is determined not to have been involved in any misrepresentation of the status of the disqualified Subcontractor, subconsultant or supplier, the Contractor shall make good faith efforts to engage a qualified MBE or WBE replacement.

11. Prohibition On Changes To MBE/WBE Commitments

The Contractor must not make changes to its contractual MBE and WBE commitments or substitute such MBE or WBE Subcontractors without the prior written approval of the Executive Director. Unauthorized changes or substitutions, including performing the work designated for a Subcontractor with the Contractor's own forces, is a violation of this section and a breach of the contract with the Commission, and may cause termination of the contract for breach, and/or subject the Contractor to contract remedies or other sanctions. The facts supporting the request must not have been known nor reasonably should have been known by the parties prior to entering into the subcontract.

12. MBE/WBE Substitution Requirements and Procedures

Arbitrary changes by the Contractor of the commitments earlier certified in the Schedule D are prohibited. Further, after once entering into each approved MBE and WBE sub-contract agreement, the Contractor shall thereafter neither terminate the subcontract, nor reduce the scope of the work to be performed by the MBE or WBE, nor decrease the price to the MBE or WBE, without in each instance receiving the prior written approval of the Executive Director. In some cases, however, it may become necessary to substitute a new MBE or WBE in order to actually fulfill the MBE or WBE requirements. In such cases, the Executive Director must be given reasons justifying the release by the Contractor of prior specific MBE or WBE commitments established in the contract, and will need to review the eligibility of the MBE or WBE presented as a substitute. The substitution procedure will be as follows:

(1) The Contractor must notify the Executive Director immediately in writing of an apparent necessity to reduce or terminate a MBE or WBE subcontract and to propose a substitute firm for some phase of work, if needed in order to sustain the fulfillment of the MBE/WBE contract requirements.

(2) The Contractor's notification should include the specific reasons for the proposed substitution. Stated reasons which would be acceptable include any of the following reasons: a) Unavailability after receipt of reasonable notice to proceed; b) failure of performance; c) financial incapacity; d) refusal by the Subcontractor to honor the bid or proposal price or scope; e) mistake of fact or law about the elements of the scope of work of a solicitation where a reasonable price cannot be agreed; f) failure of the Subcontractor to meet insurance, licensing or bonding requirements; g) the Subcontractor's withdrawal of its bid or proposal; or h) decertification of the Subcontractor as MBE or WBE. If a Subcontractor fails to complete work

for any reason, the Contractor must employ the Good Faith Efforts described in Section 7 in soliciting a replacement subcontractor.

(3) The Contractor's position must be fully explained and supported with adequate documentation. Stated reasons which will not be acceptable include: replacement firm has been recruited to perform the same work under terms more advantageous to the Contractor; issues about performance by the committed MBE or WBE were disputed (unless every reasonable effort has already been taken to have the issues resolved or mediated satisfactorily); an MBE or WBE has requested reasonable price escalation which may be justified due to unforeseen circumstances.

The Contractor's notification should include the names, address and principal official of any proposed substitute MBE or WBE and the dollar value and scope of work of the proposed subcontract. Attached should be all the same MBE/WBE affidavits, documents and Letters of Intent which are required of the proposed MBE or WBE firms, as enumerated above in Section 5. Submission of Bid Proposals.

(4) The Executive Director will evaluate the submitted documentation, and respond within fifteen (15) working days to the request for approval of a substitution. The response may be in the form of requesting more information, or requesting an interview to clarify or mediate the problem. In the case of an expressed emergency need to receive the necessary decision for the sake of job progress, the Executive Director will instead respond as soon as practicable.

(5) Actual substitution of a replacement MBE or WBE to fulfill contract requirements must not be made before the Executive Director's approval is given of the acceptability of the substitute MBE or WBE. This subcontract must be executed within five (5) working days, and a copy of the MBE WBE subcontract with signatures of both parties to the agreement should be submitted immediately to the Executive Director.

The Executive Director will not approve extra payment for escalated costs incurred by the Contractor when a substitution of Subcontractor becomes necessary for the Contractor in order to comply with MBE/WBE contract requirements.

No relief of the MBE/WBE requirements will be granted by the Executive Director except in exceptional circumstances. Requests for complete or partial waiver of the MBE/WBE requirements of this contract must be made in writing, stating all details of the request, the circumstances, and any additional relevant information. The request must be accompanied by a record of all efforts taken by the Contractor to locate specific firms, solicit MBE and WBE bids, seek assistance from technical assistance agencies, and other good faith efforts undertaken to achieve compliance with the MBE/WBE goals.

13. Non-Compliance

The Executive Director has the authority to apply suitable sanctions to the Contractor if the Contractor is found to be in non-compliance with the MBE and WBE requirements. Failure to comply with the MBE or WBE terms of this contract or failure to use MBE or WBE firms as stated in the Contractor's assurances constitutes a material breach of the contract, and may lead to the suspension or termination of the contract in part or in whole. In some cases, monthly progress payments may be withheld until corrective action is taken.

When the contract is completed, if the Executive Director has determined that the Contractor did not comply in the fulfillment of the required MBE and/or WBE goals, and a grant of relief of the requirements was not obtained, the Commission will be damaged in the failure to provide the benefit of participation to minority or women business to the degree set forth in this Special Condition. In that case, the Commission may disqualify the Contractor from entering into future contracts with the Commission.

14. Severability

If any section, subsection, paragraph, clause, provision or application of these Special Conditions is held invalid by any count, the invalidity of such section, paragraph, clause or provision will not affect any of the remaining provisions hereof.

MINORITY AND WOMEN OWNED BUSINESS ENTERPRISE UTILIZATION PLAN

(Schedule D, Schedule C's and Letters of Certification Follow This Page)

SCHEDULE D - Affidavit of Professional Service Provider Regarding MBE/WBE Participation

(1 of 2)

Name of Project: In-Situ Chemical Oxidation & Soil Remediation (PS1913)

STATE OF ILLINOIS }
} SS
COUNTY OF COOK }

In connection with the above-captioned contract, I HEREBY DECLARE AND AFFIRM that I am the
Principal Engineer
Title
and duly authorized representative of
Natural Resource Technology, Inc.
Name of Professional Service Provider
whose address is
300 South Wacker Drive, Suite 2050

in the City of Chicago, State of Illinois
and that I have personally reviewed the material and facts submitted with the attached Schedules of MBE/WBE participation in the above-referenced Contract, including Schedule C and Schedule B (if applicable), and the following is a statement of the extent to which MBE/WBE firms will participate in this Contract if awarded to this firm as the Consultant for the Project.

Name of MBE/WBE Consultant	Type of Work to be Done in Accordance with Schedule C	Dollar Credit Toward MBE/WBE Goals	
		MBE	WBE
L&B Trucking	Transport of Soil	$	$ 120,000
Sanchez & Associates	Surveying	$ 19,193	$
STAT Analysis	Environmental Laboratory	$ 5,076	$
Driven Fence	Construction Fence	$	$ 16,160
Chicagoland Trucking, Inc.	Transport of Soil	$ 90,000	$
		$	$
See Schedule E		$	$
	Total Net MBE/WBE Credit	$ 114,269	$ 136,160
	Percent of Total Base Bid	11.4 %	16.2 %

The Professional Service Provider may count toward its MBE/WBE goal a portion of the total dollar value of a contract with a joint venture equal to the percentage of the ownership and control of the MBE/WBE partner.

SUB-SUBCONTRACTING LEVELS

0 % of the dollar value of the MBE/WBE subcontract will be sublet to non-MBE/WBE Consultants.

0 % of the dollar value of the MBE/WBE subcontract will be sublet to MBE/WBE Consultants.

SCHEDULE D - Affidavit of Professional Service Provider Regarding MBE/WBE Participation

(2 of 2)

If MBE/WBE sub-consultant/contractor will not be sub-subcontracting any of the work described in this Schedule, a zero (0) must be filled in each blank above.

If more than 10% of the value of the MBE/WBE sub-consultant/contractor's scope of work will be sublet, a brief explanation and description of the work to be sublet must be provided.

The undersigned will enter into a formal agreement for the above work with the above-referenced MBE/WBE firms, conditioned upon performance as Professional Service Provider of a Contract with the Commission, and will do so within five (5) business days of receipt of a notice of Contract award from the Commission.

By:

Natural Resource Technology, Inc.

Name of Professional Service Provider (Print)

January 17, 2013

Date

312.465.1740

Phone

JM Nardozzi

Signature

John M. Nardozzi

Name (Print)

IF APPLICABLE:

By:

Joint Venture Partner (Print)

Date

Phone/FAX

Signature

Name (Print)

MBE ____ WBE ____ Non-MBE/WBE ___

SCHEDULE C - Letter of Intent from MBE/WBE

To Perform As

Subcontractor, Subconsultant, and/or Material Supplier (1 of 2)

SCHEDULE C AND SUPPORTING DOCUMENTS MUST BE SUBMITTED WITH PROPOSAL

Name of Project: IN SITU CHEMICAL OXIDATION AND SOIL REMEDIATION

Project Number: ~~058070~~ PS1913

FROM:

L & B TRUCKING INC _____ MBE _____ WBE X
(Name of MBE or WBE)

TO: NATURAL RESOURCE

TECHNOLOGY _____ and Public Building Commission of Chicago
(Name of Professional Service Provider)

The undersigned intends to perform work in connection with the above-referenced project as (check one):

_____ a Sole Proprietor	X a Corporation
_____ a Partnership	_____ a Joint Venture

The MBE/WBE status of the undersigned is confirmed by the attached Letter of Certification, dated _____. In addition, in the case where the undersigned is a Joint Venture with a non-MBE/WBE firm, a Schedule B, Joint Venture Affidavit, is provided.

The undersigned is prepared to provide the following described services or supply the following described goods in connection with the above-named project.

TRUCKING (DUMP TRUCKS)

The above-described services or goods are offered for the following price, with terms of payment as stipulated in the Contract Documents.

SCHEDULE C - Letter of Intent from MBE/WBE

To Perform As

Subcontractor, Subconsultant, and/or Material Supplier (2 of 2)

PARTIAL PAY ITEMS

For any of the above items that are partial pay items, specifically describe the work and subcontract dollar amount:

If more space is needed to fully describe the MBE/WBE firm's proposed scope of work and/or payment schedule, attach additional sheet(s).

SUB-SUBCONTRACTING LEVELS

0 % of the dollar value of the MBE/WBE subcontract will be sublet to non-MBE/WBE Consultants.

0 % of the dollar value of the MBE/WBE subcontract will be sublet to MBE/WBE Consultants.

If MBE/WBE sub-consultant/contractor will not be sub-subcontracting any of the work described in this Schedule, a zero (0) must be filled in each blank above. If more than 10% percent of the value of the MBE/WBE sub-consultant/contractor's scope of work will be sublet, a brief explanation and description of the work to be sublet must be provided.

The undersigned will enter into a formal agreement for the above work with the Respondent, conditioned upon its execution of a contract with the Public Building Commission of Chicago, and will do so within five (5) working days of receipt of a notice of Contract award from the Commission.

By:

L & B Trucking Inc
Name of MBE/WBE Firm (Print)

11/9/13
Date

708-516-2042
Phone

Maria Martinez
Signature

Maria Martinez
Name (Print)

IF APPLICABLE:

By:

Joint Venture Partner (Print)

Signature

Date

Name (Print)

MBE ___ WBE ___ Non-MBE/WBE ___

Phone

Vendor Information

CLOSE WINDOW

HELP

Vendor Information

Business Name	**L & B Trucking, Inc.**
Owner	**Ms. Maria G Martinez**
Address > Map This Address	**4439 Wenonah Avenue Stickney, IL 60402-4330**
Phone	**708-516-2042**
Fax	**708-749-1792**
Email	**l_btruckinginc@yahoo.com**

Certification Information

Certifying Agency	**City of Chicago**
Certification Type	**MBE - Minority Business Enterprise**
Certification Date	**2/24/2012**
Renewal Date	**3/31/2013**
Expiration Date	**3/31/2015**
Certified Business Description	**Hauling Services**

Commodity Codes

NAICS 48411	General Freight Trucking, Local (More)
NIGP 96239	Hauling Services

Customer Support

Print This Page

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SCHEDULE C - Letter of Intent from MBE/WBE

To Perform As

Subcontractor, Subconsultant, and/or Material Supplier (1 of 2)

SCHEDULE C AND SUPPORTING DOCUMENTS MUST BE SUBMITTED WITH PROPOSAL

Name of Project: IN SITU CHEMICAL OXIDATION AND SOIL REMEDIATION

Project Number: ~~083070~~ PS1913

FROM:

CHICAGOLAND TRUCKING MBE X WBE _____
(Name of MBE or WBE)

TO: NATURAL RESOURCE TECHNOLOGY and Public Building Commission of Chicago
(Name of Professional Service Provider)

The undersigned intends to perform work in connection with the above-referenced project as (check one):

_____ a Sole Proprietor
✓ a Corporation
_____ a Partnership
_____ a Joint Venture

The MBE/WBE status of the undersigned is confirmed by the attached Letter of Certification, dated _____. In addition, in the case where the undersigned is a Joint Venture with a non-MBE/WBE firm, a Schedule B, Joint Venture Affidavit, is provided.

The undersigned is prepared to provide the following described services or supply the following described goods in connection with the above-named project.

TRUCKING (DUMP TRUCKS)

The above-described services or goods are offered for the following price, with terms of payment as stipulated in the Contract Documents.

$ 156,000

SCHEDULE C - Letter of Intent from MBE/WBE

To Perform As

Subcontractor, Subconsultant, and/or Material Supplier (2 of 2)

PARTIAL PAY ITEMS

For any of the above items that are partial pay items, specifically describe the work and subcontract dollar amount:

If more space is needed to fully describe the MBE/WBE firm's proposed scope of work and/or payment schedule, attach additional sheet(s).

SUB-SUBCONTRACTING LEVELS

0 % of the dollar value of the MBE/WBE subcontract will be sublet to non-MBE/WBE Consultants.

0 % of the dollar value of the MBE/WBE subcontract will be sublet to MBE/WBE Consultants.

If MBE/WBE sub-consultant/contractor will not be sub-subcontracting any of the work described in this Schedule, a zero (0) must be filled in each blank above. If more than 10% percent of the value of the MBE/WBE sub-consultant/contractor's scope of work will be sublet, a brief explanation and description of the work to be sublet must be provided.

The undersigned will enter into a formal agreement for the above work with the Respondent, conditioned upon its execution of a contract with the Public Building Commission of Chicago, and will do so within five (5) working days of receipt of a notice of Contract award from the Commission.

By:

CHICAGOLAND TRUCKIN INC.
Name of MBE/WBE Firm (Print)

Signature

Date

ALBERTO ROMAN
Name (Print)

(773)921-9200
Phone

IF APPLICABLE:

By:

Joint Venture Partner (Print)

Signature

Date

Name (Print)

MBE ___ WBE ___ Non-MBE/WBE ___

Phone

Vendor Information

CLOSE WINDOW

HELP

Vendor Information

Business Name	**Chicagoland Truckin Inc.**
Owner	**Alberto Roman**
Address > Map This Address	**5494 West Roosevelt Road** **Chicago, IL 60644-1467**
Phone	**773-921-9200**
Fax	**773-921-8944**
Email	**cti-trucks@ameritech.net**

Certification Information

Certifying Agency	**City of Chicago**
Certification Type	**MBE - Minority Business Enterprise**
Certification Date	**10/22/2012**
Renewal Date	**10/1/2013**
Expiration Date	**10/1/2017**
Certified Business Description	**NAICS 484220 Dump trucking (e.g., gravel, sand, top soil)**

Commodity Codes

NAICS 484220 Dump trucking (e.g., gravel, sand, top soil) (More)

Customer Support

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SCHEDULE C - Letter of Intent from MBE/WBE

To Perform As

Subcontractor, Subconsultant, and/or Material Supplier (1 of 2)

SCHEDULE C AND SUPPORTING DOCUMENTS MUST BE SUBMITTED WITH PROPOSAL

IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES

Name of Project: 415-423 E. 79TH STREET

Project Number: PS1913

FROM:

Driven Fence, Inc. MBE _____ WBE X
(Name of MBE or WBE)

TO:

Natural Resource Technology and Public Building Commission of Chicago
(Name of Professional Service Provider)

The undersigned intends to perform work in connection with the above-referenced project as (check one):

_____ a Sole Proprietor
_____ a Partnership
X a Corporation
_____ a Joint Venture

The MBE/WBE status of the undersigned is confirmed by the attached Letter of Certification, dated 12/20/12. In addition, in the case where the undersigned is a Joint Venture with a non-MBE/WBE firm, a Schedule B, Joint Venture Affidavit, is provided.

The undersigned is prepared to provide the following described services or supply the following described goods in connection with the above-named project.

Installation of 6 ft temporary panel fencing, with sandbags and windscreen attached to fencing.

The above-described services or goods are offered for the following price, with terms of payment as stipulated in the Contract Documents.

the estimated amount is $3,149.16

SCHEDULE C - Letter of Intent from MBE/WBE

To Perform As

Subcontractor, Subconsultant, and/or Material Supplier (2 of 2)

PARTIAL PAY ITEMS

For any of the above items that are partial pay items, specifically describe the work and subcontract dollar amount:

If more space is needed to fully describe the MBE/WBE firm's proposed scope of work and/or payment schedule, attach additional sheet(s).

SUB-SUBCONTRACTING LEVELS

0 % of the dollar value of the MBE/WBE subcontract will be sublet to non-MBE/WBE Consultants

0 % of the dollar value of the MBE/WBE subcontract will be sublet to MBE/WBE Consultants.

If MBE/WBE sub-consultant/contractor will not be sub-subcontracting any of the work described in this Schedule, a zero (0) must be filled in each blank above. If more than 10% percent of the value of the MBE/WBE sub-consultant/contractor's scope of work will be sublet, a brief explanation and description of the work to be sublet must be provided.

The undersigned will enter into a formal agreement for the above work with the Respondent, conditioned upon its execution of a contract with the Public Building Commission of Chicago, and will do so within five (5) working days of receipt of a notice of Contract award from the Commission.

By:

Driven Fence, Inc.
Name of MBE/WBE Firm (Print)

1/10/13
Date

(708) 356-1322
Phone

Sherce Haggio Pres
Signature

Sherce Haggio
Name (Print)

IF APPLICABLE:

By:

Joint Venture Partner (Print)

Date

Phone

Signature

Name (Print)

MBE ___ WBE ___ Non-MBE/WBE ___

DEPARTMENT OF PROCUREMENT SERVICES

CITY OF CHICAGO

DEC 20 2012

Sheree Maggio
Driven Fence, Inc.
654 Babcock
Elmhurst, IL ..60126

Annual Certificate Expires: August 1, 2013

Dear Ms. Maggio:

Congratulations on your continued eligibility for certification as a **Women's Business Enterprise (WBE)** by the City of Chicago. This certification is valid until **August 1, 2015**.

As a condition of continued certification during this five year period, you must file a No-Change Affidavit **within 60 days prior** to the date of expiration. Failure to file this Affidavit will result in the termination of your certification. You must also notify the City of Chicago of any changes in ownership or control of your firm or any other matters or facts affecting your firm's eligibility for certification.

It is important to note that you also have an ongoing affirmative duty to notify the City of Chicago of any changes in ownership or control of your firm, or any other fact affecting your firm's eligibility for certification within 10 days of such change. These changes may include but are not limited to a change of address, change of business structure, change in ownership or ownership structure, change of business operations, and/or gross receipts that exceed the program threshold.

Please note – you shall be deemed to have had your certification lapse and will be ineligible to participate as a WBE if you fail to:

- file your No Change Affidavit within the required time period;
- provide financial or other records requested pursuant to an audit within the required time period; or
- notify the City of any changes affecting your firm's certification within 10 days of such change.

Further, if you or your firm is found to be involved in certification, bidding and/or contractual fraud or abuse, the City will pursue decertification and debarment. And in addition to any other penalty imposed by law, any person who knowingly obtains, or knowingly assists another in obtaining, a contract with the city by falsely representing that the individual or entity, or the individual or entity assisted, is a minority-owned business or a woman-owned business, is guilty of a misdemeanor, punishable by incarceration in the county jail for a period not to exceed six months or a fine of not less than $5,000.00 and not more than $10,000, or both.

Your firm's name will be listed in the City's Directory of Minority Business Enterprises and Women Business Enterprises in the specialty area(s) of:

NAICS 238990	**Chain link fence installation**
NAICS 238990	**Fence installation (except electronic containment fencing for pets)**

Your firm's participation on City contracts will be credited only toward Women Business Enterprises (WBE) goals in your area(s) of specialty. While your participation on City contracts is not limited to your specialty, credit toward goals will be given only for work done in the specialty category.

Thank you for your continued interest in the City's Minority and Women Business Enterprise (MBE/WBE) Program.

Sincerely,

Jamie L. Rhee
Chief Procurement Officer

JLR/sl

SCHEDULE C - Letter of Intent from MBE/WBE

To Perform As

Subcontractor, Subconsultant, and/or Material Supplier (1 of 2)

SCHEDULE C AND SUPPORTING DOCUMENTS MUST BE SUBMITTED WITH PROPOSAL

Name of Project: Whitney Young Library Remediation

Project Number: ~~#08070~~ PS1913

FROM:

Sanchez & Associates, P.C. MBE ✓ WBE _____

(Name of MBE or WBE)

TO:

Natural Resource Technology, Inc. and Public Building Commission of Chicago

(Name of Professional Service Provider)

The undersigned intends to perform work in connection with the above-referenced project as (check one):

_____ a Sole Proprietor ✓ a Corporation

_____ a Partnership _____ a Joint Venture

The MBE/WBE status of the undersigned is confirmed by the attached Letter of Certification, dated _____. In addition, in the case where the undersigned is a Joint Venture with a non-MBE/WBE firm, a Schedule B, Joint Venture Affidavit, is provided.

The undersigned is prepared to provide the following described services or supply the following described goods in connection with the above-named project.

Land Surveying Services

The above-described services or goods are offered for the following price, with terms of payment as stipulated in the Contract Documents.

$ 19,193.00 (Nineteen Thousand One Hundred Ninety three and 00/100 dollars)

SCHEDULE C - Letter of Intent from MBE/WBE

To Perform As

Subcontractor, Subconsultant, and/or Material Supplier (2 of 2)

PARTIAL PAY ITEMS

For any of the above items that are partial pay items, specifically describe the work and subcontract dollar amount:

N/A

If more space is needed to fully describe the MBE/WBE firm's proposed scope of work and/or payment schedule, attach additional sheet(s).

SUB-SUBCONTRACTING LEVELS

0 % of the dollar value of the MBE/WBE subcontract will be sublet to non-MBE/WBE Consultants.

0 % of the dollar value of the MBE/WBE subcontract will be sublet to MBE/WBE Consultants.

If MBE/WBE sub-consultant/contractor will not be sub-subcontracting any of the work described in this Schedule, a zero (0) must be filled in each blank above. If more than 10% percent of the value of the MBE/WBE sub-consultant/contractor's scope of work will be sublet, a brief explanation and description of the work to be sublet must be provided.

The undersigned will enter into a formal agreement for the above work with the Respondent, conditioned upon its execution of a contract with the Public Building Commission of Chicago, and will do so within five (5) working days of receipt of a notice of Contract award from the Commission.

By:

Gerardo P. Sanchez
Name of MBE/WBE Firm (Print)

Gerardo P. Sanchez
Signature

GERARDO P. SANCHEZ
Name (Print)

Date January 14, 2013

Phone

IF APPLICABLE:

By:

Joint Venture Partner (Print)

Signature

Date

Name (Print)

MBE ____ WBE ____ Non-MBE/WBE ___

Phone

DEPARTMENT OF PROCUREMENT SERVICES

CITY OF CHICAGO

DEC 1 7 2012

Gerardo P. Sanchez
Sanchez & Associates P.C.
8605 W. Bryn Mawr Suite 309
Chicago, IL 60631

Annual Certificate Expires: December 1, 2013

Dear Mr. Snachez

We are pleased to inform you that Sanchez & Associates P.C. has been certified as a Minority Business Enterprise (MBE) by the City of Chicago. This MBE certification is valid until December 1, 2017; however your firms' certification must be re-validated annually.

As a condition of continued certification during this five year period, you must file an annual No-Change Affidavit. Your firm's **No Change Affidavit is due by December 1, 2013.** Please remember, you have an affirmative duty to file your No-Change Affidavit 60 days prior to the date of expiration. Therefore, you must file your **No-Change Affidavit by October 1, 2013.**

It is important to note that you also have an ongoing affirmative duty to notify the City of Chicago of any changes in ownership or control of your firm, or any other fact affecting your firm's eligibility for certification within **10 days** of such change. These changes may include but are not limited to a change of address, change of business structure, change in ownership or ownership structure, change of business operations, and/or gross receipts that exceed the program threshold.

Please note – you shall be deemed to have had your certification lapse and will be ineligible to participate as a (MBE) if you fail to:

- file your No Change Affidavit within the required time period;
- provide financial or other records requested pursuant to an audit within the required time period; or
- notify the City of any changes affecting your firm's certification within 10 days of such change.

Further, if you or your firm is found to be involved in certification, bidding and/or contractual fraud or abuse, the City will pursue decertification and debarment. And in addition to any other penalty imposed by law, any person who knowingly obtains, or knowingly assists another in obtaining, a contract with the city by falsely representing that the individual or entity, or the individual or entity assisted, is a minority-owned business or a woman-owned business, is guilty of a misdemeanor, punishable by incarceration in the county jail for a period not to exceed six months or a fine of not less than $5,000.00 and not more than $10,000, or both.

Your firm's name will be listed in the City's Directory of Minority and Women-Owned Business Enterprises in the specialty area(s) of:

NAICS Code - 541370 – Land Surveying Services

Your firm's participation on City contracts will be credited only toward Minority owned Business Enterprise (MBE) goals in your area(s) of specialty. While your participation on City contracts is not limited to your specialty, credit toward goals will be given only for work done in the specialty category.

Thank you for your interest in the City's Minority and Women-Owned Business Enterprise (MBE/WBE) Program.

Sincerely,

Jamie L. Rhee
Chief Procurement Officer

JLR/vlw

SCHEDULE C - Letter of Intent from MBE/WBE

To Perform As

Subcontractor, Subconsultant, and/or Material Supplier (1 of 2)

SCHEDULE C AND SUPPORTING DOCUMENTS MUST BE SUBMITTED WITH PROPOSAL

Name of Project: Public Building Commission (PBC) of Chicago
~~IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES,~~ 415-423 E. 79TH STREET

Project Number: PS1913

FROM:

HI-TEK ENVIRONMENTAL d/b/a STAT Analysis _____ MBE ✓ WBE _____
(Name of MBE or WBE)

TO:

Natural Resource Technology, Inc. _____ and Public Building Commission of Chicago
(Name of Professional Service Provider)

The undersigned intends to perform work in connection with the above-referenced project as (check one):

_____ a Sole Proprietor ✓ a Corporation
_____ a Partnership _____ a Joint Venture

The MBE/WBE status of the undersigned is confirmed by the attached Letter of Certification, dated thru Nov. 1, 2013. In addition, in the case where the undersigned is a Joint Venture with a non-MBE/WBE firm, a Schedule B, Joint Venture Affidavit, is provided.

The undersigned is prepared to provide the following described services or supply the following described goods in connection with the above-named project.

Laboratory Testing Services - NAICS Code 541380

The above-described services or goods are offered for the following price, with terms of payment as stipulated in the Contract Documents.

$1,422.00

SCHEDULE C - Letter of Intent from MBE/WBE
To Perform As
Subcontractor, Subconsultant, and/or Material Supplier (2 of 2)

PARTIAL PAY ITEMS

For any of the above items that are partial pay items, specifically describe the work and subcontract dollar amount:

N/A

If more space is needed to fully describe the MBE/WBE firm's proposed scope of work and/or payment schedule, attach additional sheet(s).

SUB-SUBCONTRACTING LEVELS

0 % of the dollar value of the MBE/WBE subcontract will be sublet to non-MBE/WBE Consultants.

0 % of the dollar value of the MBE/WBE subcontract will be sublet to MBE/WBE Consultants.

If MBE/WBE sub-consultant/contractor will not be sub-subcontracting any of the work described in this Schedule, a zero (0) must be filled in each blank above. If more than 10% percent of the value of the MBE/WBE sub-consultant/contractor's scope of work will be sublet, a brief explanation and description of the work to be sublet must be provided.

The undersigned will enter into a formal agreement for the above work with the Respondent, conditioned upon its execution of a contract with the Public Building Commission of Chicago, and will do so within five (5) working days of receipt of a notice of Contract award from the Commission.

By:

HI-TEK ENV. - d/b/a STAT Analysis
Name of MBE/WBE Firm (Print)

1/10/2013
Date

(312) 733-0551
Phone

Signature

Bruce C. Souder
Name (Print)

IF APPLICABLE:

By:

N/A
Joint Venture Partner (Print)

Date

Phone

Signature

Name (Print)

MBE ___ WBE ___ Non-MBE/WBE ___

DEPARTMENT OF PROCUREMENT SERVICES

CITY OF CHICAGO

Surendra Kumar
Hi-Tek Environmental, dba STAT
2242 W. Harrison Street Suite 200
Chicago, IL 60612

Certificate Expires: November 1, 2013

Dear Surendra Kumar:

Congratulations on your continued eligibility for certification as a **Minority Business Enterprise (MBE)** by the City of Chicago. This certification is valid until **November 1, 2013**.

You have an affirmative duty to file for recertification 60 days prior to the date of expiration. Therefore, you must file for recertification by **November 1, 2013.**

It is important to note that you also have an ongoing affirmative duty to notify the City of Chicago of any changes in ownership or control of your firm, or any other fact affecting your firm's eligibility for certification within 10 days of such change. These changes may include but are not limited to a change of address, change of business structure, change in ownership or ownership structure, change of business operations, and/or gross receipts that exceed the program threshold.

Please note – you shall be deemed to have had your certification lapse and will be ineligible to participate as a MBE/WBE/BEPD if you fail to:

- file your No Change Affidavit within the required time period;
- provide financial or other records requested pursuant to an audit within the required time period; or
- notify the City of any changes affecting your firm's certification within 10 days of such change.
- re-certify with the city within prescribed time frame.

Further, if you or your firm is found to be involved in certification, bidding and/or contractual fraud or abuse, the City will pursue decertification and debarment. And in addition to any other penalty imposed by law, any person who knowingly obtains, or knowingly assists another in obtaining, a contract with the city by falsely representing that the individual or entity, or the individual or entity assisted, is a minority-owned business or a woman-owned business, is guilty of a misdemeanor, punishable by incarceration in the county jail for a period not to exceed six months or a fine of not less than $5,000.00 and not more than

Your firm is listed in the City's Directory of Minority Business Enterprises (MBE) and Women Business Enterprises (WBE) in the specialty area(s) of:

NAICS Code	Description
562910	**Asbestos abatement services**

Your firm's participation on City contracts will be credited only toward Minority Business Enterprise (MBE) goals in your area(s) of specialty. While your participation on City contracts is not limited to your specialty, credit toward Minority Business Enterprise (MBE) goal will be given only for work done in a specialty category.

Thank you for your continued participation in the City's Minority Business Enterprises (MBE) and Women Business Enterprises (WBE) Diversity Programs.

Sincerely,

Jamie L. Rhee
Chief Procurement Officer

JR/bl

SCHEDULE E - Request for Waiver from MBE/WBE Participation

Date: January 22, 2013

Erin Lavin Cabonargi, Executive Director
Public Building Commission of Chicago
Richard J. Daley Center
50 W. Washington Street, Room 200
Chicago, IL 60602

Dear Mrs. Lavin Cabonargi:

RE: Professional Services Agreement No. PS1913

Project Title: In-Situ Chemical Oxidation and Soil Remediation Services

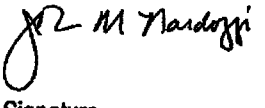
The undersigned hereby requests a waiver/partial waiver from the MBE/WBE provisions. The undersigned certifies that it/we has/have been diligent in our attempt to identify potential subcontractors certified as MBE/WBE to perform work in this project, that such efforts have not been successful, and that it/we cannot meet the Minority/Women Business Enterprise contract goal. These efforts are described below and are consistent with the "Request for Waiver" provisions of the MBE/WBE Program as detailed in Section 23.01.7 as follows:

Partial waiver of revised WBE goal pursuant to Addendum No. 2

Documentation attached: yes X no___ see attachment

Based on the information provided above, we request consideration of this waiver request.

Sincerely,



Signature

John M. Nardozzi, PE

Print Name

Principal Engineer

Title

Natural Resource Technology, Inc.

Name of Firm

Attachment to Schedule E
Request for Waiver from MBE/WBE Participation
January 22, 2013

RE: Professional Service agreement No. PS 1913
In-situ Chemical Oxidation and Soil Remediation Services

Summary of Project Specific MBE/WBE Goals		
PBC Documents	MBE Percentage	WBE Percentage
Original RFQ and RFP (11/21/2012 through 1/15/1013)	5%	12%
Addendum #2 (1/16/13)	5%	25%

NRT is requesting a partial waiver for WBE participation on the above referenced project. Our efforts to achieve full MBE and WBE compliance during the proposal and bidding phase and our justification for a partial waiver are as follows:

- The original Request for Qualifications dated November 21, 2012 and the Request for Proposal dated January 3, 2013 indicated that the MBE and WBE goals for this project were 5% MBE and 12% WBE. Throughout the two phase proposal process these goals were emphasized by PBC at two pre-proposal meetings. It was indicated that these were project specific goals and were dictated by the IEPA and/or USEPA grant and loan funding that PBC intended to use as a primary funding source for the environmental remediation efforts. Accordingly, NRT assembled its project team on the basis of these original participation goals. On January 16, 2013 Addendum #2 was issued that increased the WBE participation to 25%. As our project team and scoping of the project were complete, Addendum #2 did not allow reasonable time to reconfigure the project team with additional subcontractors to meet the revised requirement.
- NRT has and will continue to make good faith efforts to secure a higher level of WBE participation on the project. Our original scoping met the original 12% level of WBE participation. We had previously anticipated using two subcontract trucking firms, one WBE and one MBE. With the increased WBE goal, we will adjust our split of work to have the WBE firm (L&B Trucking) provide more of the work. However, they may not be able to support the necessary number of trucks during peak construction season as required to meet the project schedule.
- The project involves a significant quantity of Subtitle D (and possible Subtitle C) landfill disposal of contaminated soils. It is well established that the landfill facilities in the Chicago area that meet PBC's technical specifications, including Waste Management and Veolia facilities, are large national firms that are not MBE or WBE owned. As such, we request a partial waiver such that the portion of our proposed base bid price attributable to landfill disposal be excluded from our WBE calculation. With this limited partial waiver, we expect to be able to achieve **16.2% WBE participation** on the balance of the contract amount.

This waiver request does not impact MBE participation. The MBE participation goal of 5% will be met with no waiver.

EXHIBIT 6

EXECUTIVE ORDER 11246

EXHIBIT F
PUBLIC BUILDING COMMISSION OF CHICAGO
INSITU CHEMICAL OXIDATION REMEDIATION SERVICES AT 415-423 EAST 79TH STREET – PS1913

1. **Notice Requirements for Affirmative Action To Ensure Equal Employment Opportunity (Executive Order 11246)**

a. The Contractor's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth in the Contract.

b. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Minority Group Employment for each trade 19.6%
Female Group Employment for each trade 6.9%

c. These goals are applicable to all the Contractor's Work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs Work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the Work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

d. The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

e. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (U.S. Department of Labor, Office of Federal Contract Compliance, Programs, 230 South Dearborn Street – Room 434, Chicago, IL 60604) within 10 working days of award of any construction subcontract in excess of $10,000 at any tier for construction work under the Contract resulting from the solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

f. As used in this Notice, and in the Contract resulting from this solicitation, the "covered area" includes the City of Chicago, Cook, DuPage, Kane, Lake, McHenry and Will Counties (Standard Metropolitan Statistical Area).

2. **Equal Opportunity Clause**

During the performance of the Contract, the Contractor agrees as follows:

a. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are

employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

b. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.

c. The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

d. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

e. The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

f. In the event of the Contractor's noncompliance with the nondiscrimination clauses of the Contract or with any of the said rules, regulations, or orders, the Contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

g. The Contractor will include provisions of paragraphs (a) through (g) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each Subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: *Provided, however*, That in the event the Contractor becomes involved in, or is threatened with, litigation with a Subcontractor or vendor as a result of such direction by the administering agency the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

3. **Standard Federal Equal Employment Opportunity Construction Specifications (Executive Order 11246)**

a. As used in these specifications:

(1) "Covered area" means the geographical area described in the solicitation from which this Contract resulted;

(2) "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

(3) "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

(4) "Minority" includes:

(i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);

(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

b. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the Work involving any construction trade, it shall physically include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which the Contract resulted.

c. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

d. The Contractor shall implement the specific affirmative action standards provided in paragraphs g (1) through (16) of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction Contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

e. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

f. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training,

subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

g. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

(1) Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

(2) Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

(3) Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

(4) Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

(5) Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under g (2) above.

(6) Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

(7) Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

(8) Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

(9) Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

(10) Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

(11) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

(12) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

(13) Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

(14) Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

(15) Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

(16) Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

h. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (g (1) through (16)). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under g(1) through (16) of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

i. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

j. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

k. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

l. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

m. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

n. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Contractors shall not be required to maintain separate records.

o. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

EXHIBIT 7

DAVIS BACON REQUIREMENTS

EXHIBIT E
PUBLIC BUILDING COMMISSION OF CHICAGO

INSITU CHEMICAL OXIDATION REMEDIATION SERVICES AT 415-423 EAST 79TH STREET – PS1913
DAVIS-BACON REQUIREMENTS

(a) The Agency head shall cause or require the contracting officer to insert in full in any contract in excess of $2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1, the following clauses (or any modifications thereof to meet the particular needs of the agency, *Provided*, That such modifications are first approved by the Department of Labor):

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The (write in name of Federal Agency or the loan or grant recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the (write in name of appropriate federal agency) if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to the (write in name of agency). The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the (write in name of appropriate federal agency) if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit them to the applicant, sponsor, or owner, as the case may be, for transmission to the (write in name of agency), the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, sponsor, or owner).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either

directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the (write the name of the agency) or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees--

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the

contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the (write in the name of the Federal agency) may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

EXHIBIT 8

ILLINOIS DEPARTMENT OF LABOR PREVAILING RATES OF HOURLY WAGES FOR COOK COUNTY

Cook County Prevailing Wage for January 2013

(See explanation of column headings at bottom of wages)

Trade Name	RG	TYP	C	Base	FRMAN	M-F>8	OSA	OSH	H/W	Pensn	Vac	Trng
ASBESTOS ABT-GEN		ALL		36.200	36.700	1.5	1.5	2.0	12.78	9.020	0.000	0.500
ASBESTOS ABT-MEC		BLD		34.160	36.660	1.5	1.5	2.0	10.82	10.66	0.000	0.720
BOILERMAKER		BLD		43.450	47.360	2.0	2.0	2.0	6.970	14.66	0.000	0.350
BRICK MASON		BLD		40.680	44.750	1.5	1.5	2.0	9.550	12.00	0.000	0.970
CARPENTER		ALL		41.520	43.520	1.5	1.5	2.0	13.19	11.75	0.000	0.530
CEMENT MASON		ALL		42.350	44.350	2.0	1.5	2.0	11.21	11.40	0.000	0.320
CERAMIC TILE FNSHER		BLD		34.440	0.000	2.0	1.5	2.0	9.700	6.930	0.000	0.610
COMM. ELECT.		BLD		37.500	40.150	1.5	1.5	2.0	8.420	9.980	1.100	0.700
ELECTRIC PWR EQMT OP		ALL		43.350	48.350	1.5	1.5	2.0	10.38	13.50	0.000	0.430
ELECTRIC PWR GRNDMAN		ALL		33.810	48.350	1.5	1.5	2.0	8.090	10.53	0.000	0.330
ELECTRIC PWR LINEMAN		ALL		43.350	48.350	1.5	1.5	2.0	10.38	13.50	0.000	0.430
ELECTRICIAN		ALL		42.000	44.800	1.5	1.5	2.0	12.83	13.07	0.000	0.750
ELEVATOR CONSTRUCTOR		BLD		48.560	54.630	2.0	2.0	2.0	11.03	11.96	2.910	0.000
FENCE ERECTOR		ALL		33.740	35.740	1.5	1.5	2.0	12.61	10.18	0.000	0.250
GLAZIER		BLD		39.500	41.000	1.5	2.0	2.0	11.99	14.30	0.000	0.840
HT/FROST INSULATOR		BLD		45.550	48.050	1.5	1.5	2.0	10.82	11.86	0.000	0.720
IRON WORKER		ALL		40.750	42.750	2.0	2.0	2.0	13.20	19.09	0.000	0.350
LABORER		ALL		36.200	36.950	1.5	1.5	2.0	12.78	9.020	0.000	0.500
LATHER		ALL		41.520	43.520	1.5	1.5	2.0	13.19	11.75	0.000	0.530
MACHINIST		BLD		43.550	46.050	1.5	1.5	2.0	6.130	8.950	1.850	0.000
MARBLE FINISHERS		ALL		29.700	0.000	1.5	1.5	2.0	9.550	11.75	0.000	0.620
MARBLE MASON		BLD		39.880	43.870	1.5	1.5	2.0	9.550	11.75	0.000	0.730
MATERIAL TESTER I		ALL		26.200	0.000	1.5	1.5	2.0	12.78	9.020	0.000	0.500
MATERIALS TESTER II		ALL		31.200	0.000	1.5	1.5	2.0	12.78	9.020	0.000	0.500
MILLWRIGHT		ALL		41.520	43.520	1.5	1.5	2.0	13.19	11.75	0.000	0.530
OPERATING ENGINEER		BLD	1	45.100	49.100	2.0	2.0	2.0	15.70	10.55	1.900	1.250
OPERATING ENGINEER		BLD	2	43.800	49.100	2.0	2.0	2.0	15.70	10.55	1.900	1.250
OPERATING ENGINEER		BLD	3	41.250	49.100	2.0	2.0	2.0	15.70	10.55	1.900	1.250
OPERATING ENGINEER		BLD	4	39.500	49.100	2.0	2.0	2.0	15.70	10.55	1.900	1.250
OPERATING ENGINEER		BLD	5	48.850	49.100	2.0	2.0	2.0	15.70	10.55	1.900	1.250
OPERATING ENGINEER		BLD	6	46.100	49.100	2.0	2.0	2.0	15.70	10.55	1.900	1.250
OPERATING ENGINEER		BLD	7	48.100	49.100	2.0	2.0	2.0	15.70	10.55	1.900	1.250
OPERATING ENGINEER		FLT	1	51.300	51.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		FLT	2	49.800	51.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		FLT	3	44.350	51.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		FLT	4	36.850	51.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	1	43.300	47.300	1.5	1.5	2.0	15.70	10.55	1.900	1.250
OPERATING ENGINEER		HWY	2	42.750	47.300	1.5	1.5	2.0	15.70	10.55	1.900	1.250
OPERATING ENGINEER		HWY	3	40.700	47.300	1.5	1.5	2.0	15.70	10.55	1.900	1.250
OPERATING ENGINEER		HWY	4	39.300	47.300	1.5	1.5	2.0	15.70	10.55	1.900	1.250
OPERATING ENGINEER		HWY	5	38.100	47.300	1.5	1.5	2.0	15.70	10.55	1.900	1.250
OPERATING ENGINEER		HWY	6	46.300	47.300	1.5	1.5	2.0	15.70	10.55	1.900	1.250
OPERATING ENGINEER		HWY	7	44.300	47.300	1.5	1.5	2.0	15.70	10.55	1.900	1.250
ORNAMNTL IRON WORKER		ALL		40.800	43.300	2.0	2.0	2.0	12.86	15.61	0.000	0.500
PAINTER		ALL		40.000	44.750	1.5	1.5	1.5	9.750	11.10	0.000	0.770
PAINTER SIGNS		BLD		33.920	38.090	1.5	1.5	1.5	2.600	2.710	0.000	0.000
PILEDRIVER		ALL		41.520	43.520	1.5	1.5	2.0	13.19	11.75	0.000	0.530
PIPEFITTER		BLD		45.050	48.050	1.5	1.5	2.0	8.460	14.85	0.000	1.780
PLASTERER		BLD		40.250	42.670	1.5	1.5	2.0	10.85	10.94	0.000	0.550
PLUMBER		BLD		45.000	47.000	1.5	1.5	2.0	12.53	10.06	0.000	0.880
ROOFER		BLD		38.350	41.350	1.5	1.5	2.0	8.080	8.220	0.000	0.430
SHEETMETAL WORKER		BLD		40.810	44.070	1.5	1.5	2.0	10.13	17.79	0.000	0.630

SIGN HANGER		BLD		29.460	29.960	1.5	1.5	2.0	4.800	2.980	0.000	0.000
SPRINKLER FITTER		BLD		49.200	51.200	1.5	1.5	2.0	10.25	8.200	0.000	0.450
STEEL ERECTOR		ALL		40.750	42.750	2.0	2.0	2.0	13.20	19.09	0.000	0.350
STONE MASON		BLD		40.680	44.750	1.5	1.5	2.0	9.550	12.00	0.000	0.970
TERRAZZO FINISHER		BLD		35.510	0.000	1.5	1.5	2.0	9.700	9.320	0.000	0.400
TERRAZZO MASON		BLD		39.370	42.370	1.5	1.5	2.0	9.700	10.66	0.000	0.550
TILE MASON		BLD		41.430	45.430	2.0	1.5	2.0	9.700	8.640	0.000	0.710
TRAFFIC SAFETY WRKR		HWY		28.250	29.850	1.5	1.5	2.0	4.896	4.175	0.000	0.000
TRUCK DRIVER	E	ALL	1	33.850	34.500	1.5	1.5	2.0	8.150	8.500	0.000	0.150
TRUCK DRIVER	E	ALL	2	34.100	34.500	1.5	1.5	2.0	8.150	8.500	0.000	0.150
TRUCK DRIVER	E	ALL	3	34.300	34.500	1.5	1.5	2.0	8.150	8.500	0.000	0.150
TRUCK DRIVER	E	ALL	4	34.500	34.500	1.5	1.5	2.0	8.150	8.500	0.000	0.150
TRUCK DRIVER	W	ALL	1	32.550	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.000
TRUCK DRIVER	W	ALL	2	32.700	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.000
TRUCK DRIVER	W	ALL	3	32.900	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.000
TRUCK DRIVER	W	ALL	4	33.100	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.000
TUCKPOINTER		BLD		40.950	41.950	1.5	1.5	2.0	8.180	10.82	0.000	0.940

Legend:
- RG (Region)
- TYP (Trade Type - All,Highway,Building,Floating,Oil & Chip,Rivers)
- C (Class)
- Base (Base Wage Rate)
- FRMAN (Foreman Rate)
- M-F>8 (OT required for any hour greater than 8 worked each day, Mon through Fri.
- OSA (Overtime (OT) is required for every hour worked on Saturday)
- OSH (Overtime is required for every hour worked on Sunday and Holidays)
- H/W (Health & Welfare Insurance)
- Pensn (Pension)
- Vac (Vacation)
- Trng (Training)

Explanations

COOK COUNTY

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration. If in doubt, please check with IDOL.

TRUCK DRIVERS (WEST) - That part of the county West of Barrington Road.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.
ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS ELECTRICIAN

Installation, operation, inspection, maintenance, repair and service of radio, television, recording, voice sound vision production and reproduction, telephone and telephone interconnect, facsimile, data apparatus, coaxial, fibre optic and wireless equipment, appliances and systems used for the transmission and reception of signals of any nature, business, domestic, commercial, education, entertainment, and residential purposes, including but not limited to, communication and telephone, electronic and sound equipment, fibre optic and data communication systems, and the performance of any task directly related to such installation or service whether at new or existing sites, such tasks to include the placing of wire and cable and electrical power conduit or other raceway work within the equipment room and pulling wire and/or cable through conduit and the installation of any incidental conduit, such that the employees covered hereby can complete any job in full.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of

material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under: Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators; Hydraulic

Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches; Bobcats (up to and including ¾ cu yd.) .

Class 4. Bobcats and/or other Skid Steer Loaders (other than bobcats up to and including ¾ cu yd.); Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall.

Class 7. Mechanics.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines: ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane: Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dowell Machine with Air Compressor; Dredges; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Hydraulic Backhoes; Backhoes with shear attachments; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Trenching Machine; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; All Locomotives, Dinky; Off-Road Hauling Units (including articulating)/2 ton capacity or more; Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled;

Scoops - Tractor Drawn; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper; Scraper - Prime Mover in Tandem (Regardless of Size): Tank Car Heater; Tractors, Push, Pulling Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Fireman on Boilers; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Hydro- Blaster; Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Tractaire; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. Bobcats (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Gradall and machines of like nature.

OPERATING ENGINEER - FLOATING

Class 1. Craft Foreman; Diver/Wet Tender; and Engineer (hydraulic dredge).

Class 2. Crane/Backhoe Operator; 70 Ton or over Tug Operator; Mechanic/Welder; Assistant Engineer (Hydraulic Dredge); Leverman (Hydraulic Dredge); Diver Tender; Friction and Lattice Boom Cranes.

Class 3. Deck Equipment Operator, Machineryman; Maintenance of Crane (over 50 ton capacity); Tug/Launch Operator; Loader/Dozer and like equipment on Barge; and Deck Machinery, etc.

Class 4. Deck Equipment Operator, Machineryman/Fireman (4 Equipment Units or More); Off Road Trucks (2 ton capacity or more); Deck Hand, Tug Engineer, Crane Maintenance 50 Ton Capacity and Under or Backhoe Weighing 115,000 pounds or less; and Assistant Tug Operator.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

TRAFFIC SAFETY

Work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary lane

markings, and the installation and removal of temporary road signs.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION - EAST & WEST

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled Dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by

landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

EXHIBIT 9

COMMUNITY AREA MAP

IN-SITU Chemical Oxidation and Soil Remediation Services for 415-423 E. 79th St.

Community Hiring Areas

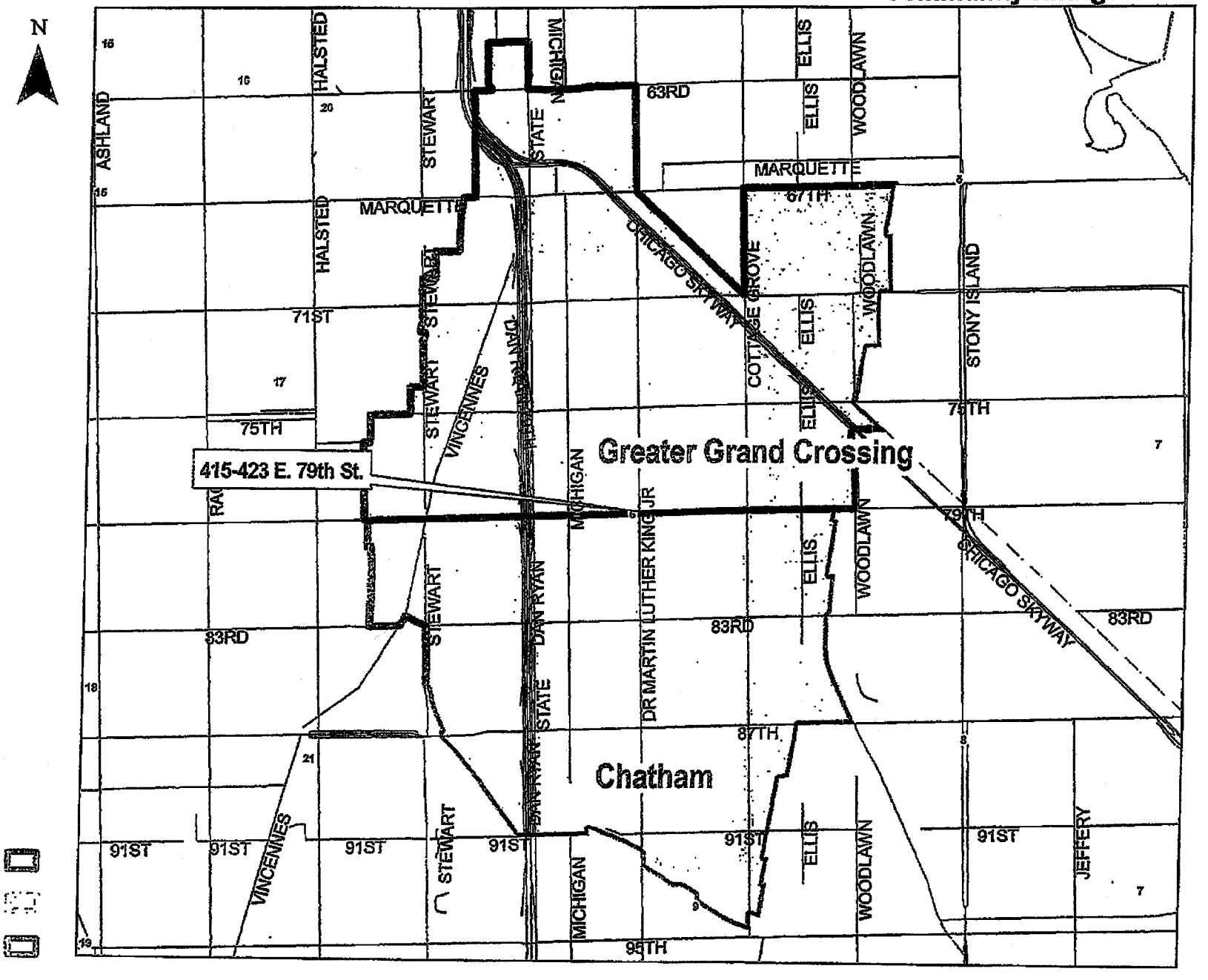


EXHIBIT 10

DISCLOSURE OF RETAINED PARTIES

PUBLIC BUILDING COMMISSION OF CHICAGO
REQUEST FOR QUALIFICATIONS
IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES
415 – 423 E. 79TH STREET – PS1913

ATTACHMENT D

DISCLOSURE OF RETAINED PARTIES

A. **Definitions and Disclosure Requirements**

1. As used herein, "Consultant" means a person or entity who has any contract or lease with the Public Building Commission of Chicago ("Commission").

2. Commission bids, leases, contracts, and/or qualification submittals must be accompanied by a disclosure statement providing certain information about lobbyists whom the Consultant has retained or expects to retain with respect to the contract or lease. In particular, the Consultant must disclose the name of each such person, his or her business address, the name of the relationship, and the amount of fees paid or estimated to be paid. The Consultant is not required to disclose employees who are paid solely through the Consultant's regular payroll.

3. "Lobbyists" means any person (a) who for compensation or on behalf of any person other than himself undertake to influence any legislative or administrative action, or (b) any part of whose duties as an employee of another includes undertaking to influence any legislative or administrative action.

B. **Certification**

Consultant hereby certifies as follows:

1. This Disclosure relates to the following transaction: PS 1913 In-Situ Chemical Oxidation & Soil Remediation Services

   Description or goods or services to be provided under Contract: Soil remediation at 415-423 E. 79th Street, Chicago, IL

2. Name of Consultant: Natural Resource Technology, Inc.

3. **EACH AND EVERY** lobbyist retained or anticipated to be retained by the Consultant with respect to or in connection with the contract or lease is listed below. Attach additional pages if necessary.

Retained Parties:

Name	Business Address	Relationship (Attorney, Lobbyist, etc.)	Fees (indicate whether paid or estimated)

Check Here If No Such Persons Have been Retained or Are Anticipated To Be Retained: ✓

4. The Consultant understands and agrees as follows:

a. The information provided herein is a material inducement to the Commission execution of the contract or other action with respect to which this Disclosure of Retained Parties form is being executed, and the Commission may rely on the information provided herein. Furthermore, if the Commission determines that any information provided herein is false, incomplete, or inaccurate, the Commission may terminate the contract or other transaction, terminate the Consultant's participation in the contract or other transactions with the Commission.

b. If the Consultant is uncertain whether a disclosure is required, the Consultant must either ask the Commission's Representative or his or her manager whether disclosure is required or make the disclosure.

c. This Disclosure of Retained Parties form, some or all of the information provided herein, and any attachments may be made available to the public on the Internet, in response to a Freedom of Information Act request, or otherwise. The Consultant waives and releases any possible rights or claims it may have against the Commission in connection with the public release of information contained in the completed Disclosure of Retained Parties form and any attachments.

Under penalty of perjury. I certify that I am authorized to execute this Disclosure of Retained Parties on behalf of the Consultant and that the information disclosed herein is true and complete.

Laurie L. Parsons
Signature

December 10, 2012
Date

Laurie L. Parsons
Name (Type or Print)

President
Title

Subscribed and sworn to before me

this 10 day of 12 2012

Notary Public

NOTARY PUBLIC ERIN M. BABCOCK STATE OF WISCONSIN

Commission expires 1.26.2014

EXHBIT 11

DISCLOSURE AFFIDAVIT

PUBLIC BUILDING COMMISSION OF CHICAGO
REQUEST FOR QUALIFICATIONS
IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES
415 – 423 E. 79TH STREET – PS1913

ATTACHMENT A

DISCLOSURE AFFIDAVIT

Name: Natural Resource Technology, Inc.

Address: 300 S. Wacker Drive, Suite 2050, Chicago, IL 60606

Telephone No.: 312.465.1740

Federal Employer I.D. #.: 391753368 Social Security #: _____

Nature of Transaction:
[ ] Sale or purchase of land
[√] Construction Contract
[√] Professional Services Agreement
[ ] Other

Instructions: FOR USE WITH ANY OF THE ABOVE TRANSACTIONS. Any firm proposing one of the above transactions with the Public Building Commission of Chicago must complete this Disclosure Affidavit. Please note that in the event the Contractor is a joint venture, the joint venture and each of the joint venture partners must submit a completed Disclosure Affidavit.

The undersigned Laurie L. Parsons, as President
(Name) (Title)
and on behalf of Natural Resource Technology, Inc.
("Bidder/ Proposer" or "Contractor") having been duly sworn under oath certifies that:

I. DISCLOSURE OF OWNERSHIP INTERESTS

Pursuant to Resolution No. 5371 of the Board of Commissioners of the Public Building Commission of Chicago, all

bidders/proposers shall provide the following information with their bid/proposal. If the question is not applicable, answer "NA". If the answer is none, please answer "none".

Bidder/Proposer/Contractor is a: [✓] Corporation [ ] LLC
[ ] Partnership [ ] LLP
[ ] Joint Venture [ ] Not-for-Profit Corporation
[ ] Sole Proprietorship [ ] Other

SECTION 1. FOR PROFIT CORPORATION OR LIMITED LIABILITY COMPANY (LLC)

a. State of Incorporation or organization Wisconsin

b. Authorized to do business in the State of Illinois: Yes [✓] No [ ]

c. Names of all officers of corporation or LLC (or attach list):

Name (Print or Type)	Title (Print or Type)
See Attached List	

Names of all directors of corporation or LLC (or attach list):

Name (Print or Type)	Title (Print or Type)

d. Indicate here or attach a list of names and addresses of all shareholders owning shares equal to or in excess of seven and one-half percent (7.5%) of the proportionate ownership of the corporation and indicate the percentage interest of each.

Name (Print or Type)	Address	Ownership Interest
See Attached List		%
		%
		%

e. For LLC's, state whether member-managed or identify managing member:

Attachment A - Disclosure Affidavit
Section 1. For Profit Corporation or Limited Liability Company (LLC)

C - Names of all officers and directors of corporation or LLC:

Name	Officer Titles	Board of Directors Title
Laurie L. Parsons	Principal Engineer	President
Clark J. Crosby	Business Manager	Vice President/Treasurer
Richard G. Fox	Principal Scientist	Vice President
Bruce R. Hensel	Principal Hydrogeologist	Vice President
Richard H. Weber	Principal Engineer	Vice President/Secretary
Roy E. Wittenberg	Principal Engineer	Vice President

D - Names and addresses of all shareholders owning shares equal to or in excess of seven and one-half percent (7.5%) of the proportionate owenership of the corporation and the percentage interest of each:

Name	Address	Ownership Interest
Laurie L. Parsons	23713 W. Paul Road, Suite D Pewaukee, WI 53072	33.7%
Clark J. Crosby	23713 W. Paul Road, Suite D Pewaukee, WI 53072	11.9%
Richard G. Fox	23713 W. Paul Road, Suite D Pewaukee, WI 53072	11.4%
Bruce R. Hensel	23713 W. Paul Road, Suite D Pewaukee, WI 53072	11.0%
Richard H. Weber	23713 W. Paul Road, Suite D Pewaukee, WI 53072	11.5%
Roy E. Wittenberg	23713 W. Paul Road, Suite D Pewaukee, WI 53072	11.1%

f. Is the corporation or LLC owned partially or completely by one or more other corporations or legal entities?

Yes [ ] No [✓]

If "yes" provide the above information, as applicable, for each such corporation or entity such that any person with a beneficial ownership interest of 7.5% or more in the corporation contracting in the PBC is disclosed. For example, if Corporation B owns 15% of Corporation A, and Corporation A is contracting with the PBC, then Corporation B must complete a Disclosure Affidavit. If Corporation B is owned by Corporations C and D, each of which owns 50% of Corporation B, then both Corporations C and D must complete Disclosure Affidavits.

SECTION 2. PARTNERSHIPS

a. If the bidder/proposer or Contractor is a partnership, indicate the name of each partner and the percentage of interest of each therein. Also indicate, if applicable, whether general partner (GP) or limited partner (LP)

Name of Partners (Print or Type)	Percentage Interest
N/A	_____%
	_____%
	_____%

SECTION 3. SOLE PROPRIETORSHIP

a. The bidder/proposer or Contractor is a sole proprietorship and is not acting in any representative capacity on behalf of any beneficiary: Yes [ ] No [ ]

If NO, complete items b. and c. of this Section 3.

b. If the sole proprietorship is held by an agent(s) or a nominee(s), indicate the principal(s) for whom the agent or nominee holds such interest.

Name(s) of Principal(s). (Print or Type)

N/A

c. If the interest of a spouse or any other party is constructively controlled by another person or legal entity, state the name and address of such person or entity possessing such control and the relationship under which such control is being or may exercised.

Name(s)	Address(es)

SECTION 4. LAND TRUSTS, BUSINESS TRUSTS, ESTATES & OTHER ENTITIES

If the bidder/proposer or Contractor is a land trust, business trust, estate or other similar commercial or legal entity, identify any representative, person or entity holding legal title as well as each beneficiary in whose behalf title is held including the name, address and percentage of interest of each beneficiary.

Name(s)	Address(es)
N/A	

SECTION 5. NOT-FOR-PROFIT CORPORATIONS

a. State of Incorporation _____

b. Name of all officers and directors of corporation (or attach list):

Name (Print or Type)	Title (Print or Type)	Name (Print or Type)	Title (Print or Type)
N/A			

_____	_____	_____	_____
_____	_____	_____	_____

NOTE: The Public Building Commission of Chicago may require additional information from any entity or individual to achieve full disclosure relevant to the transaction. Further, any material change in the information required above must be provided by supplementing this statement at any time up to the time the Public Building Commission of Chicago takes action on the contract or other action requested of the Public Building Commission.

II. CONTRACTOR CERTIFICATION

A. CONTRACTOR

1. The Contractor, or any affiliated entities of the Contractor, or any responsible official thereof, or any other official, agent or employee of the Contractor, any such affiliated entity, acting pursuant to the direction or authorization of a responsible official thereof has not, during a period of three years prior to the date of execution of this certification:

   a. Bribed or attempted to bribe, or been convicted of bribery or attempting to bribe a public officer or employee of the City of Chicago, the State of Illinois, any agency of the federal government or any state or local government in the United States (if an officer or employee, in that officer's or employee's official capacity); or

   b. Agreed or colluded, or been convicted of agreement or collusion among bidders or prospective bidders in restraint of freedom of competition by agreement to bid a fixed price or otherwise; or

   c. Made an admission of such conduct described in 1(a) or (b) above which is a matter of record but has not been prosecuted for such conduct.

2. The Contractor or agent, partner, employee or officer of the Contractor is not barred from contracting with any unit of state or local government as a result of engaging in or being convicted of bid-rigging[2] in violation of Section 3 of Article 33E of the Illinois Criminal Code of 1961, as amended (720 ILCS 5/33E-3), or any similar offense of any state or the United States which contains the same elements as the offense of bid-rigging during a period of five years prior to the date of submittal of this bid, proposal or response.[3]

3. The Contractor or any agent, partner, employee, or officer of the Contractor is not barred from contracting with any unit of state or local government as a result of engaging in or being convicted of bid-rotating[4] in violation of Section 4 of Article 33E of the Illinois Criminal Code of 1961, as amended (720 ILCS 5/33E-4), or any similar offense of any state or the United States which contains the same elements as the offense of bid-rotating.

4. The Contractor understands and will abide by all provisions of Chapter 2-56 of the Municipal Code entitled "Office of the Inspector General" and all provisions of the Public Building Commission Code of Ethics Resolution No.5339, as amended by Resolution No. 5371.

5. The Contractor certifies to the best of its knowledge and belief, that it and its principals:

   a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal, state or local department or agency.

   b. Have not within a three-year period preceding this bid or proposal been convicted of or had a civil judgement rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state antitrust statutes; commission of embezzlement, theft, forgery, bribery, falsification or destruction of records; making false statements; or receiving stolen property;

   c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any of the offenses enumerated in paragraph (5)(b) above; and

   d. Have not within a three-year period preceding this bid or proposal had one or more public transactions (federal, state or local) terminated for cause or default.

B. SUBCONTRACTORS

1. The Contractor has obtained from all subcontractors being used in the performance of this contract or agreement, known by the Contractor at this time, disclosures substantially in the form of Section 1, and certifications substantially in the form of Section 2, of this Disclosure Affidavit. Based on such disclosures and certification(s), and any other information known or obtained by the Contractor, is not aware of any such subcontractor or subcontractor's affiliated entity or any agent, partner, employee or officer of such subcontractor or subcontractor's affiliated entity having engaged in or been convicted of (a) any of the conduct describe in Section II(A) (1)(a) or (b) of this certification; (b) bid-rigging, bid-rotating, or any similar offense of any state or the United States which contains the same elements as bid-rigging or bid-rotating, or having made an admission of guilt of the conduct described in Section II(A)(1)(a) or (b) which is matter of record but has/have not been prosecuted for such conduct.

2. The Contractor will, prior to using them as subcontractors, obtain from all subcontractors to be used in the performance of this contract or agreement, but not yet known by the Contractor at this time, certifications substantially in the form of this certification. The Contractor shall not, without the prior written permission of the Commission, use any of such subcontractors in the performance of this contract if the Contractor, based on such certifications or any other information known or obtained by Contractor, became aware of such subcontractor, subcontractor's affiliated entity or any agent, employee or officer of such subcontractor or subcontractor's affiliated entity having engaged in or been convicted of (a) any of the conduct describe in Section II(A)(1)(a) or (b) of this certification or (b) bid-rigging, bid-rotating or any similar offenses of any state or the United States which contains the same elements as bid-rigging or bid-rotating or having made an admission of guilt of the conduct described in Section II(A)(1)(a) or (b) which is a matter of record but has/have not been prosecuted for such

conduct. The Contractor shall cause such subcontractors to certify as to Section II(A)(5). In the event any subcontractor is unable to certify to Section II(A)(5), such subcontractor shall attach an explanation to the certification.

3. For all subcontractors to be used in the performance of this contract or agreement, the Contractor shall maintain for the duration of the contract all subcontractors' certifications required by Section II(B)(1) and (2) above, and Contractor shall make such certifications promptly available to the Public Building Commission of Chicago upon request.

4. The Contractor will not, without the prior written consent of the Public Building Commission of Chicago, use as subcontractors any individual, firm, partnership, corporation, joint venture or other entity from whom the Contractor is unable to obtain a certification substantially in the form of this certification.

5. The Contractor hereby agrees, if the Public Building Commission of Chicago so demands, to terminate its subcontractor with any subcontract if such subcontractor was ineligible at the time that the subcontract was entered into for award of such subcontract. The Contractor shall insert adequate provisions in all subcontracts to allow it to terminate such subcontract as required by this certification.

C. STATE TAX DELINQUENCIES

1. The Contractor is not delinquent in the payment of any tax administered by the Illinois Department of Revenue or, if delinquent, the Contractor is contesting, in accordance with the procedures established by the appropriate Revenue Act, its liability for the tax or amount of the tax.

2. Alternatively, the Contractor has entered into an agreement with the Illinois Department of Revenue for the payment of all such taxes that are due and is in compliance with such agreement.

3. If the Contractor is unable to certify to any of the above statements [(Section II (C)], the Contractor shall explain below. Attach additional pages if necessary.

N/A

_____

_____

_____

If the letters "NA", the word "None" or no response appears on the lines above, it will be conclusively presumed that the Undersigned certified to the above statements.

4. If any subcontractors are to be used in the performance of this contract or agreement, the Contractor shall cause such subcontractors to certify as to paragraph (C)(1) or (C)(2) of this certification. In the event that any subcontractor is unable to certify to any of the statements in this certification, such subcontractor shall attach an explanation to this certification.

D. OTHER TAXES/FEES

1. The Contractor is not delinquent in paying any fine, fee, tax or other charge owed to the City of Chicago.

2. If Contractor is unable to certify to the above statement, Contractor shall explain below and attach additional sheets if necessary.

N/A

If the letters "NA", the word "None" or no response appears on the lines above, it will be conclusively presumed that the Undersigned certified to the above statements.

E. PUNISHMENT

A Contractor who makes a false statement material to Section II(A)(2) of this certification commits a Class 3 felony. 720 ILCS 5/33E-11(b).

F. JUDICIAL OR ADMINISTRATIVE PROCEEDINGS

1. The Contractor is not a party to any pending lawsuits against the City of Chicago or the Public Building Commission of Chicago nor has Contractor been sued by the City of Chicago or the Public Building Commission of Chicago in any judicial or administrative proceeding.

2. If the Contractor cannot certify to the above, provide the (1) case name; (2) docket number; (3) court in which the action is or was pending; and (4) a brief description of each such judicial or administrative proceeding. Attach additional sheets if necessary.

N/A

If the letters "NA", the word "None" or no response appears on the lines above, it will be conclusively presumed that the Undersigned certified to the above statements.

IV. CERTIFICATION OF ENVIRONMENTAL COMPLIANCE

A. Neither the Contractor nor any affiliated entity of the Contractor has, during a period of five years prior to the date of execution of this Affidavit: (1) violated or engaged in any conduct which violated federal, state or local Environmental Restriction[5], (2) received notice of any claim, demand or action, including but not limited

to citations and warrants, from any federal, state or local agency exercising executive, legislative, judicial, regulatory or administrative functions relating to a violation or alleged violation of any federal, state or local statute, regulation or other Environmental Restriction; or (3) been subject to any fine or penalty of any nature for failure to comply with any federal, state or local statute, regulation or other Environmental Restriction.

If the Contractor cannot make the certification contained in Paragraph A of Section III, identify any exceptions:

N/A

(Attach additional pages of explanation to this Disclosure Affidavit, if necessary.)

If the letters "NA", the word "None" or no response appears on the lines above, it will be conclusively presumed that the Undersigned certified to the above statements.

B. Without the prior written consent of the Public Building Commission of Chicago, Contractor will not employ any subcontractor in connection with the contract or proposal to which this Affidavit pertains without obtaining from such subcontractor a certification similar in form and substance to the certification contained in Paragraph A of this Section III prior to such subcontractor's performance of any work or services or furnishing any goods, supplies or materials of any kind under the proposal or the contract to which this Affidavit pertains.

C. Until completion of the Contract's performance under the proposal or contract to which this Affidavit pertains, the Contractor will not violate any federal, state or local statute, regulation or other Environmental Restriction, whether in the performance of such contract or otherwise.

V. INCORPORATION INTO CONTRACT AND COMPLIANCE

The above certification shall become part of any contract awarded to the Contractor set forth on page 1 of this Disclosure Affidavit and are a material inducement to the Public Building Commission of Chicago's execution of the contract, contract modification or contract amendment with respect to which this Disclosure Affidavit is being executed and delivered on behalf of the Contractor. Furthermore, Contractor shall comply with these certifications during the term and/or performance of the contract.

REMAINDER OF PAGE LEFT BLANK INTENTIONALLY

Notes 1-5 Disclosure Affidavit

1. Business entities are affiliated if, directly or indirectly, one controls or has the power to control the other, or if a third person controls or has the power to control both entities. Indicia of control include without limitation: interlocking management or ownership; identity of interests among family members; shared facilities and equipment; common use of employees; or organization of another business entity using substantially the same management, ownership or principals as the first entity.

2. For purposes of Section II (A) (2) of this certification, a person commits the offense of and engages in bid-rigging when he knowingly agrees with any person who is, or but for such agreement should be, a competitor of such person concerning any bid submitted or not submitted by such person or another to a unit of state or local government when with the intent that the bid submitted or not submitted will result in the award of a contract to such person or another and he either (1) provides such person or receives from another information concerning the price or other material term or terms of the bid which would otherwise not be disclosed to a competitor in an independent non-collusive submission of bids or (2) submits a bid that is of such a price or other material term or terms that he does not intend the bid to be accepted. see 720 ILCS 5/33-E-3.

3. No corporation shall be barred from contracting with any unit of state or local government as a result of a conviction, under either Section 33E-3 or Section 33E-4 of Article 33 of the State of Illinois Criminal Code of 1961, as amended, of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent on behalf of the corporation as provided in paragraph (2) of subsection (a) of Section 5-4 of the State of Illinois Criminal Code.

4. For purposes of Section II(A) of this certification, a person commits the offense of and engages in bid rotating when, pursuant to any collusive scheme or agreement with another, he engages in a pattern over time (which, for the purposes hereof, shall include at least three contract bids within a period of ten years, the most recent of which occurs after January 1, 1989) of submitting sealed bids to units of state or local government with the intent that the award of such bids rotates, or is distributed among, persons or business entities which submit bids on a substantial number of the same contracts. See 720 ILCS 5/33E-4.

"Environmental Restriction" means any statute, ordinance, rule, regulation, permit, permit condition, order or directive relating to or imposing liability or standards of conduct concerning the release or threatened release of hazardous materials, special wastes or other contaminants into the environment, and to the generation, use, storage, transportation, or disposal of construction debris, bulk waste, refuse, garbage, solid wastes, hazardous materials, special wastes or other contaminants including but not limited to (1) Section 7-28-440 or 11-4-1500 or Article XIV of Chapter 11-4 or Chapter 7-28 or 11-4 of the Municipal Code of Chicago; (2) Comprehensive Environment Response and Compensation and Liability Act (42 U.S.C. § 9601 *et seq.*) the Hazardous Material Transportation Act (49 U.S.C. § 1801 *et seq.*); (4) the Resource Conversation and Recovery Act of 1976 (42 U.S.C. § 7401 *et seq.*); (5) the Clean Water Act (33 U.S.C. § 1251 *et seq.*); (6) the Clean Air Act (42 U.S.C. § 7401 *et seq.*); (7) the Toxic Substances Control Act of 1976 (15 U.S.C. § 2601 *et seq.*); (8) the Safe Drinking Water Act (42 U.S.C. § 300f); (9) the Occupational Health and Safety Act of 1970 (29 U.S.C. § 651 *et seq.*); (10) the Emergency Planning and Community Right to Know Act (42 U.S.C. § 11001 *et seq.*); and (10) the Illinois Environmental Protection Act (415 ILCS 5/1 through 5/56.6).

VERIFICATION

Under penalty or perjury, I certify that I am authorized to execute this Disclosure Affidavit on behalf of the Contractor set forth on page 1, that I have personal knowledge of all the certifications made herein and that the same are true.

The Contractor must report any change in any of the facts stated in this Affidavit to the Public Building Commission of Chicago within 14 days of the effective date of such change by completing and submitting a new Disclosure Affidavit. Failure to comply with this requirement is grounds for your firm to be deemed non-qualified to do business with the PBCC. Deliver any such new Disclosure Affidavit to: Public Building Commission of Chicago, Director of Procurement, 50 W. Washington, Room 200, Chicago, IL 60602.

Laurie L. Parsons
Signature of Authorized Officer

Laurie L. Parsons
Name of Authorized Officer (Print or Type)

President
Title

262.522.1193
Telephone Number

State of Wisconsin

County of Waukesha

Signed and sworn to before me on this 10 day of 12, 2012 by

Laurie L. Parsons (Name) as President (Title) of

Natural Resource Technology (Proposer or Contractor)

NOTARY PUBLIC ERIN M. BABCOCK STATE OF WISCONSIN

Notary Public Signature and Seal

Commission expires 1.26.2012

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EXHIBIT 12

CERTIFICATION FOR CONTRACTS, GRANTS, LOANS, AND COOPERATIVE AGREEMENTS
LOBBYING CERTIFICATION

EXHIBIT A
CERTIFICATION FOR CONTRACTS, GRANTS, LOANS,
AND COOPERATIVE AGREEMENTS
(LOBBYING CERTIFICATION)

PUBLIC BUILDING COMMISSION OF CHICAGO
INSITU CHEMICAL OXIDATION REMEDIATION SERVICES AT 415-423 EAST 79TH STREET – PS1913

The undersigned certifies, to the best of his or her knowledge and belief that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned must complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government Wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96)]. Standard Form - LLL is available via the Internet from the following URL http://www.whitehouse.gov/sites/files/omb/grants/sflll.pdf.

(3) The undersigned must require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans and cooperative agreements) and that all sub-recipients must certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 USC § 1352 [as amended by the Lobbying Disclosure Act of 1995]. Any person who fails to file required certifications must be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

(Signature Page Follows)

CERTIFICATION FOR CONTRACTS, GRANTS, LOANS, AND COOPERATIVE AGREEMENTS (LOBBYING CERTIFICATION)
Page 2 of 2

Executed this 10th day of Dec., 2012.

By: _____
Signature of Authorized Officer

Laurie L. Parsons, President
Typed Name and Title of Authorized Officer

Natural Resource Technology, Inc.
Typed Name of Contractor

EXHIBIT 13

CERTIFICATION REGARDING A DRUG FREE WORKPLACE

EXHIBIT B
CERTIFICATION REGARDING A DRUG FREE WORKPLACE

PUBLIC BUILDING COMMISSION OF CHICAGO
INSITU CHEMICAL OXIDATION REMEDIATION SERVICES AT 415-423 EAST 79TH STREET – PS1913

Pursuant to the definitions regarding a Drug Free Workplace provided in the Drug-Free Workplace Act of 1988, the Illinois Drug Free Workplace Act, 30 ILCS 580/1 *et seq.*, the Illinois Substance Abuse Prevention on Public Works Projects Act, 820 ILCS 265/ I *et seq.*, and 40 CFR 36.200 et seq. ("Consultant/Contractor") certifies to the best of its knowledge and belief that it and its principals:

1. Maintain a workplace(s) (i.e. the site(s) for the performance of work done by the Consultant/Contractor in connection with this contract) safe and free from "controlled substances" as described in the Controlled Substances Act (21 U.S.C. 812) and as further described in regulations 21 CFR 1308.11 - 1308.15.

2. Have neither been convicted, including entering a plea of 'nolo contendere,' nor had sentence imposed by any judicial body charged with the responsibility to determine violations of Federal or State criminal drug statutes.

3. Publish and give notice to its employees and sub-contractors that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Consultant/Contractor's workplace, and also that actions will be taken against any and all employees, subconsultants and sub-contractors found to be violation of same.

4. Provide that all employees engaged in the performance of the contract receive a copy of the above statement, that the employee will abide by the terms of this statement, and that the employee will notify the employer in writing of the employee's conviction no later than five (5) calendar days after such conviction.

5. Provide for appropriate action against an employee for violation of any and all of these rules and that an employee convicted of drug abuse must satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by Federal, State, or local health or law enforcement or other appropriate agency.

CERTIFICATION REGARDING A DRUG FREE WORKPLACE
Page 2 of 2

6. Have in place a written program which meets or exceeds the program requirements of the Illinois Substance Abuse Prevention on Public Works Projects Act (820 ILCS 265/1 et seq.) to be filed with the Commission and made available to the general public, or have in place a collective bargaining agreement which deals with the subject matter of the Illinois Substance Abuse Prevention on Public Works Projects.

7. Will otherwise comply with all drug and alcohol policies set forth in applicable Federal, State and local laws and regulations, including, but not limited to the Drug-Free Workplace Act of 1988, Illinois Drug Free Workplace Act, 40 CFR 36.200 et. seq. in such version, prior or subsequent to amendment or revision, as is currently enforced or enforceable at and during the execution and performance of this Agreement.

In addition to other remedies, the Consultant's/Contractor's failure to comply with any part of the requirements of the Drug-Free Workplace Act of 1988, Illinois Drug Free Workplace Act, the Illinois Substance Abuse Prevention on Public Works Projects Act, 40 CFR 36.200 et. seq, may render the Consultant/Contractor subject to any or all of the following: suspension of payments, termination of contract for default, suspension or debarment.

President — December 10, 2012

Signature and Title of Authorized Official — Date

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EXHIBIT 14

CERTIFICATION OF PRIMARY PARTICIPANT REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

EXHIBIT C
CERTIFICATION OF PRIMARY PARTICIPANT
REGARDING DEBARMENT, SUSPENSION, AND OTHER
RESPONSIBILITY MATTERS

PUBLIC BUILDING COMMISSION OF CHICAGO
INSITU CHEMICAL OXIDATION REMEDIATION SERVICES AT 415-423 EAST 79TH STREET – PS1913

The Consultant or Contractor for a major third-party Contract, In-Situ Chemical Oxidation & Soil Remediation, certifies, by submission of this, Natural Resource Technology, Inc.
(Company Name)
Proposal/Bid/Agreement that it or its principals or its affiliates to the best of their knowledge and belief:

1. Are not presently or proposed to be debarred or suspended, declared ineligible, or voluntarily excluded from transactions by any Federal department or agency, state, county or City of Chicago (hereafter "public" transactions);

2. Have not within a three-year period preceding this Proposal/Bid/Agreement been convicted of or had a civil judgment rendered against them for fraud or commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, bribery, forgery, falsification or destruction of records, making false statements, or receiving stolen property;

3. Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offences enumerated in paragraph (2) of this certification; and

4. Have not within a three-year period preceding this application Proposal/Bid/Agreement had one or more public transactions (Federal, State, or local) terminated for cause or default.

5. Are not potentially liable, or afflicted with any other person that is potentially liable for response costs at the facility through any direct or indirect familial relationship; or any contractual, corporate, or financial relationships; or a recognized business entity that was potentially liable or otherwise liable under CERCLA §107(a) [42 U.S.C. §9607(a)] as a prior owner or operator, or generator or transporter of hazardous substances to the facility;

6. Shall use funds only for eligible activities and in compliance with the requirements of CERCLA 104(k) [42 U.S.C. §9604(k)] and applicable Federal and State laws and regulations;

7. Is not now, and has not in the past, been subject to any penalties resulting from environmental noncompliance at the Site;

8. Shall ensure that the cleanup protects human health and the environment; and

9. Shall document how funds are used.

THE PRIMARY PARTICIPANT (APPLICANT OR POTENTIAL CONSULTANT OR CONTRACTOR FOR A MAJOR, THIRD PARTY CONTRACT) Natural Resource Technology, Inc.
(Company Name)
CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF THE CONTENTS OF THE STATEMENTS SUBMITTED ON OR WITH THIS CERTIFICATION AND UNDERSTANDS THAT THE PROVISIONS OF 31 USC §§ 3801 ET SEQ., ARE APPLICABLE THERETO.

President — December 10, 2012

Signature and Title of Authorized Officer — Date

Laurie L. Parsons, President

Typed Name and Title of Authorized Officer

If the Primary Participant is unable to certify to any of the statements in this certification, then the Primary Participant must attach an explanation to this certification.

EXHIBIT 15

CERTIFICATION OF LOWER-TIER PARTICIPANT REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, VOLUNTARY EXCLUSION AND OTHER RESPONSIBILITY MATTERS

PUBLIC BUILDING COMMISSION OF CHICAGO
REQUEST FOR PROPOSALS
IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES
415 – 423 E. 79TH STREET – PS1913

ATTACHMENT E

CERTIFICATE OF LOWER-TIER PARTICIPATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, VOLUNTARY EXCLUSION AND OTHER RESPONSIBILITY MATTERS

The Lower-Tier Participant (applicant or potential Subconsultant/Subcontractor for a major third party Contract), Calcon Corp (Company Name), certifies, by submission of this Proposal/Bid/Agreement, that it and its principals, or its affiliates to the best of their knowledge and belief:

1. Are not presently or proposed to be debarred or suspended, declared ineligible, or voluntarily excluded from transactions by any Federal department or agency, state, county or City of Chicago (hereafter "public" transactions);

2. Have not within a three-year period preceding this Proposal/Bid/Agreement been convicted of or had a civil judgment rendered against them for fraud or commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, bribery, forgery, falsification or destruction of records, making false statements, or receiving stolen property;

3. Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offences enumerated in paragraph (2) of this certification; and

4. Have not within a three-year period preceding this application Proposal/Bid/Agreement had one or more public transactions (Federal, State, or local) terminated for cause or default.

5. Are not potentially liable, or afflicted with any other person that is potentially liable for response costs at the facility through any direct or indirect familial relationship; or any contractual, corporate, or financial relationships; or a recognized business entity that was potentially liable or otherwise liable under CERCLA §107(a) [42 U.S.C. §9607(a)] as a prior owner or operator, or generator or

transporter of hazardous substances to the facility;

6. Shall use funds only for eligible activities and in compliance with the requirements of CERCLA 104(k) [42 U.S.C. §9604(k)] and applicable Federal and State laws and regulations;

7. Is not now, and has not in the past, been subject to any penalties resulting from environmental noncompliance at the Site;

8. Shall ensure that the cleanup protects human health and the environment; and

9. Shall document how funds are used.

THE LOWER-TIER PARTICIPANT (APPLICANT OR POTENTIAL SUBCONTRACTOR FOR A MAJOR THIRD PARTY CONTRACT) Calcon Corp

(Company Name)

CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF THE CONTENTS OF THE STATEMENTS SUBMITTED ON OR WITH THIS CERTIFICATION AND UNDERSTANDS THAT THE PROVISIONS OF 31 USC §§ 3801 *ET SEQ.* ARE APPLICABLE THERETO.

President

Signature and Title of Authorized Officer

01/14/13

Date

Ray Calderon, President

Typed Name and Title of Authorized Officer

If the Lower-Tier Participant is unable to certify to any of the statements in this certification, then the Lower-Tier Participant must attach an explanation to this certification.

PUBLIC BUILDING COMMISSION OF CHICAGO
REQUEST FOR PROPOSALS
IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES
415 – 423 E. 79TH STREET – PS1913

ATTACHMENT E

CERTIFICATE OF LOWER-TIER PARTICIPATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, VOLUNTARY EXCLUSION AND OTHER RESPONSIBILITY MATTERS

The Lower-Tier Participant (applicant or potential Subconsultant/Subcontractor for a major third party Contract), Regenesis, certifies, by submission of this
(Company Name)
Proposal/Bid/Agreement, that it and its principals, or its affiliates to the best of their knowledge and belief:

1. Are not presently or proposed to be debarred or suspended, declared ineligible, or voluntarily excluded from transactions by any Federal department or agency, state, county or City of Chicago (hereafter "public" transactions);

2. Have not within a three-year period preceding this Proposal/Bid/Agreement been convicted of or had a civil judgment rendered against them for fraud or commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, bribery, forgery, falsification or destruction of records, making false statements, or receiving stolen property;

3. Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offences enumerated in paragraph (2) of this certification; and

4. Have not within a three-year period preceding this application Proposal/Bid/Agreement had one or more public transactions (Federal, State, or local) terminated for cause or default.

5. Are not potentially liable, or afflicted with any other person that is potentially liable for response costs at the facility through any direct or indirect familial relationship; or any contractual, corporate, or financial relationships; or a recognized business entity that was potentially liable or otherwise liable under CERCLA §107(a) [42 U.S.C. §9607(a)] as a prior owner or operator, or generator or

transporter of hazardous substances to the facility;

6. Shall use funds only for eligible activities and in compliance with the requirements of CERCLA 104(k) [42 U.S.C. §9604(k)] and applicable Federal and State laws and regulations;

7. Is not now, and has not in the past, been subject to any penalties resulting from environmental noncompliance at the Site;

8. Shall ensure that the cleanup protects human health and the environment; and remediate the PCE impacted soil to below 240 mg/kg per the specifications

9. Shall document how funds are used.

THE LOWER-TIER PARTICIPANT (APPLICANT OR POTENTIAL SUBCONTRACTOR FOR A MAJOR THIRD PARTY CONTRACT) Regenesis Bioremediation Products, Inc.

(Company Name)

CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF THE CONTENTS OF THE STATEMENTS SUBMITTED ON OR WITH THIS CERTIFICATION AND UNDERSTANDS THAT THE PROVISIONS OF 31 USC §§ 3801 *ET SEQ.* ARE APPLICABLE THERETO.

C. Graham CFO

Signature and Title of Authorized Officer

Jan 8, 2013

Date

CHRISTOPHER GRAHAM CFO

Typed Name and Title of Authorized Officer

If the Lower-Tier Participant is unable to certify to any of the statements in this certification, then the Lower-Tier Participant must attach an explanation to this certification.

PUBLIC BUILDING COMMISSION OF CHICAGO
REQUEST FOR PROPOSALS
IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES
415 – 423 E. 79TH STREET – PS1913

ATTACHMENT E

CERTIFICATE OF LOWER-TIER PARTICIPATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, VOLUNTARY EXCLUSION AND OTHER RESPONSIBILITY MATTERS

The Lower-Tier Participant (applicant or potential Subconsultant/Subcontractor for a major third party Contract); Driven Fence, Inc., certifies, by submission of this
(Company Name)
Proposal/Bid/Agreement, that it and its principals, or its affiliates to the best of their knowledge and belief:

1. Are not presently or proposed to be debarred or suspended, declared ineligible, or voluntarily excluded from transactions by any Federal department or agency, state, county or City of Chicago (hereafter "public" transactions);

2. Have not within a three-year period preceding this Proposal/Bid/Agreement been convicted of or had a civil judgment rendered against them for fraud or commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, bribery, forgery, falsification or destruction of records, making false statements, or receiving stolen property;

3. Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offences enumerated in paragraph (2) of this certification; and

4. Have not within a three-year period preceding this application Proposal/Bid/Agreement had one or more public transactions (Federal, State, or local) terminated for cause or default.

5. Are not potentially liable, or afflicted with any other person that is potentially liable for response costs at the facility through any direct or indirect familial relationship; or any contractual, corporate, or financial relationships; or a recognized business entity that was potentially liable or otherwise liable under CERCLA §107(a) [42 U.S.C. §9607(a)] as a prior owner or operator, or generator or

transporter of hazardous substances to the facility;

6. Shall use funds only for eligible activities and in compliance with the requirements of CERCLA 104(k) [42 U.S.C. §9604(k)] and applicable Federal and State laws and regulations.

7. Is not now, and has not in the past, been subject to any penalties resulting from environmental noncompliance at the Site;

8. Shall ensure that the cleanup protects human health and the environment; and

9. Shall document how funds are used.

THE LOWER-TIER PARTICIPANT (APPLICANT OR POTENTIAL SUBCONTRACTOR FOR A MAJOR THIRD PARTY CONTRACT) DRIVEN FENCE, INC.

(Company Name)

CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF THE CONTENTS OF THE STATEMENTS SUBMITTED ON OR WITH THIS CERTIFICATION AND UNDERSTANDS THAT THE PROVISIONS OF 31 USC §§ 3801 *ET SEQ.* ARE APPLICABLE THERETO.

Sheree Maggio President

Signature and Title of Authorized Officer

1/10/13

Date

Sheree Maggio, President

Typed Name and Title of Authorized Officer

If the Lower-Tier Participant is unable to certify to any of the statements in this certification, then the Lower-Tier Participant must attach an explanation to this certification.

PUBLIC BUILDING COMMISSION OF CHICAGO
REQUEST FOR PROPOSALS
IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES
415 – 423 E. 79TH STREET – PS1913

ATTACHMENT E

CERTIFICATE OF LOWER-TIER PARTICIPATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, VOLUNTARY EXCLUSION AND OTHER RESPONSIBILITY MATTERS

The Lower-Tier Participant (applicant or potential Subconsultant/Subcontractor for a major third party Contract), Sanchez & Associates, P.C., certifies, by submission of this
(Company Name)
Proposal/Bid/Agreement, that it and its principals, or its affiliates to the best of their knowledge and belief:

1. Are not presently or proposed to be debarred or suspended, declared ineligible, or voluntarily excluded from transactions by any Federal department or agency, state, county or City of Chicago (hereafter "public" transactions);

2. Have not within a three-year period preceding this Proposal/Bid/Agreement been convicted of or had a civil judgment rendered against them for fraud or commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, bribery, forgery, falsification or destruction of records, making false statements, or receiving stolen property;

3. Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offences enumerated in paragraph (2) of this certification; and

4. Have not within a three-year period preceding this application Proposal/Bid/Agreement had one or more public transactions (Federal, State, or local) terminated for cause or default.

5. Are not potentially liable, or afflicted with any other person that is potentially liable for response costs at the facility through any direct or indirect familial relationship; or any contractual, corporate, or financial relationships; or a recognized business entity that was potentially liable or otherwise liable under CERCLA §107(a) [42 U.S.C. §9607(a)] as a prior owner or operator, or generator or

transporter of hazardous substances to the facility;

6. Shall use funds only for eligible activities and in compliance with the requirements of CERCLA 104(k) [42 U.S.C. §9604(k)] and applicable Federal and State laws and regulations;

7. Is not now, and has not in the past, been subject to any penalties resulting from environmental noncompliance at the Site;

8. Shall ensure that the cleanup protects human health and the environment; and

9. Shall document how funds are used.

THE LOWER-TIER PARTICIPANT (APPLICANT OR POTENTIAL SUBCONTRACTOR FOR A MAJOR THIRD PARTY CONTRACT) Sanchez & Associates, P.C.,

(Company Name)

CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF THE CONTENTS OF THE STATEMENTS SUBMITTED ON OR WITH THIS CERTIFICATION AND UNDERSTANDS THAT THE PROVISIONS OF 31 USC §§ 3801 *ET SEQ.* ARE APPLICABLE THERETO.

Gerardo P. Sanchez — January 14, 2013

Signature and Title of Authorized Officer — Date

Gerardo P. Sanchez / President

Typed Name and Title of Authorized Officer

If the Lower-Tier Participant is unable to certify to any of the statements in this certification, then the Lower-Tier Participant must attach an explanation to this certification.

PUBLIC BUILDING COMMISSION OF CHICAGO
REQUEST FOR PROPOSALS
IN-SITU CHEMICAL OXIDATION AND SOIL REMEDIATION SERVICES
415 – 423 E. 79TH STREET – PS1913

ATTACHMENT E

CERTIFICATE OF LOWER-TIER PARTICIPATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, VOLUNTARY EXCLUSION AND OTHER RESPONSIBILITY MATTERS

The Lower-Tier Participant (applicant or potential Subconsultant/Subcontractor for a major third party Contract), HI-TEK ENVIRONMENTAL d/b/a STAT Analysis Corporation, certifies, by submission of this
(Company Name)
Proposal/Bid/Agreement, that it and its principals, or its affiliates to the best of their knowledge and belief:

1. Are not presently or proposed to be debarred or suspended, declared ineligible, or voluntarily excluded from transactions by any Federal department or agency, state, county or City of Chicago (hereafter "public" transactions);

2. Have not within a three-year period preceding this Proposal/Bid/Agreement been convicted of or had a civil judgment rendered against them for fraud or commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, bribery, forgery, falsification or destruction of records, making false statements, or receiving stolen property;

3. Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offences enumerated in paragraph (2) of this certification; and

4. Have not within a three-year period preceding this application Proposal/Bid/Agreement had one or more public transactions (Federal, State, or local) terminated for cause or default.

5. Are not potentially liable, or afflicted with any other person that is potentially liable for response costs at the facility through any direct or indirect familial relationship; or any contractual, corporate, or financial relationships; or a recognized business entity that was potentially liable or otherwise liable under CERCLA §107(a) [42 U.S.C. §9607(a)] as a prior owner or operator, or generator or

transporter of hazardous substances to the facility;

6. Shall use funds only for eligible activities and in compliance with the requirements of CERCLA 104(k) [42 U.S.C. §9604(k)] and applicable Federal and State laws and regulations;

7. Is not now, and has not in the past, been subject to any penalties resulting from environmental noncompliance at the Site;

8. Shall ensure that the cleanup protects human health and the environment; and

9. Shall document how funds are used.

THE LOWER-TIER PARTICIPANT (APPLICANT OR POTENTIAL SUBCONTRACTOR FOR A MAJOR THIRD PARTY CONTRACT) HI-TEK ENVIRONMENTAL d/b/a STAT Analysis Corporation

(Company Name)

CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF THE CONTENTS OF THE STATEMENTS SUBMITTED ON OR WITH THIS CERTIFICATION AND UNDERSTANDS THAT THE PROVISIONS OF 31 USC §§ 3801 *ET SEQ.* ARE APPLICABLE THERETO.

Business Dev. Mngr. — 1/10/2013

Signature and Title of Authorized Officer — Date

Bruce C. Souder / Business Development Manager

Typed Name and Title of Authorized Officer

If the Lower-Tier Participant is unable to certify to any of the statements in this certification, then the Lower-Tier Participant must attach an explanation to this certification.