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To: David Schumacher, PE
Superintendent of Water Production
Water Production Division
City of Aurora
44 East Downer Place
Aurora, IL 60507

January 22, 2016

From: Charles Nelson, PE

**Re: City of Aurora Lime Residual UIC Project
Mine Consultant Review Services Proposal**

Introduction

The City of Aurora, Illinois (City) is in the planning stage of a multi-contract construction project to place lime residual from the Aurora Water Treatment Plant (AWTP) in the existing LaFarge-Conco Limestone Mine. The overall project involves a new pump station, a forcemain, injection wells, in-mine piping distribution system, and an extraction well and system. Bulkheads (Kennedy stoppings) between the lime residual space and the active mine are also required.

The City is interested in retaining CNA Consulting Engineers (CNA) to review the project from a mine repurposing, geotechnical, and groundwater standpoint. Specifically, CNA will review design and construction of the injection wells; in-mine piping distribution system; extraction well and system; and bulkheads.

This letter is our proposal to conduct the reviews requested. The sections below describe the scope of services and deliverables we propose.

Documents Reviews

The documents listed below are the documents that CNA proposes to review:

1. Existing Documents
 - a. Lease Agreement
 - b. EPA Permit Application
 - c. EPA Permit
 - d. Memorandum of Design

2. Design Phase Documents
 - a. Contract #2 Injection and Extraction Wells
 - i. 60% Drawings and Specifications
 - ii. 90% Drawings and Specifications
 - b. Contract #4 In-Mine Distribution Piping
 - i. 60% Drawings and Specifications
 - ii. 90% Drawings and Specifications
 - c. Contract #5 Extraction Pumping System
 - i. 60% Drawings and Specifications
 - ii. 90% Drawings and Specifications
 - d. Kennedy Stoppings: final or near final documents
 - e. Gas Generation Experiment by Marquette University

3. Construction Phase Documents Review. Quality Assurance checks of the Contractor's Quality Control procedures for the following:
 - a. Contract #2 Injection and Extraction Wells
 - b. Contract #4 In-Mine Distribution Piping
 - c. Contract #5 Extraction Pumping System
 - d. Kennedy Stoppings

As stated in the RFP, CNA will not be required to review Contract #1 Forcemain or Contract #3 A WTP Pump Station.

Elements Included in CNA's Reviews

CNA's reviews will focus on the mine repurposing, geostructural, and groundwater aspects of the project. Our reviews will involve design aspects listed below:

1. Geologic and groundwater information and modeling to assess the completeness of the site characterization. Make recommendations for additional site investigation and characterization if required. Specific aspects include:
 - a. Regional and site geology
 - b. Test boring logs and monitoring well reports
 - c. Regional and site groundwater studies
 - d. Rock joint characterization
 - e. Rock stability modeling
 - f. Fluid flow modeling
2. Potential for lime residual to have an effect on host rock.
3. Geotechnical Baseline Reports if they are prepared and comment on the need for them. Typically, underground construction project documents include these reports to set baseline geotechnical conditions that the contractor can rely on in preparing their bid.
4. Mine preparation design for accepting lime residual, including:
 - a. Host rock, bedding plane, and joint sealing
 - b. Bulkheads (Kennedy Stoppings)
 - c. Berm construction
5. Mine ventilation considerations
6. Injection wells
 - a. Well construction design to meet regulatory requirements
7. Extraction wells
 - a. Well construction design to meet regulatory requirements
8. In mine distribution piping
 - a. Pipe supports and anchorage to rock
9. Gas generation experiment results
10. Regulatory requirements
 - a. Mine repurposing
 - b. Well construction
 - c. Ongoing monitoring
 - d. Contingency plans
 - e. Reporting

11. Construction-Time Services: Besides the Quality Assurance (QA) services described elsewhere. We have included time during construction to cover issues that may come up. This could include review of specific issues related to the geology, construction, or groundwater.

Materials Handling Engineers Allowance

We propose to include a cost allowance to obtain the services of engineers who specialize in designing the pumping and piping systems required for the project. We anticipate mechanical and electrical engineers will be required for this task. Specifically, materials handling engineers will review the following:

1. Injection and extraction well pumps, piping, and electrical systems.
2. Extraction pumping system pumps, pipes, and electrical systems.
3. In-mine corrosion potential of proposed mechanical and electrical systems and evaluation of hardened systems required for the mine environment.

Quality Assurance Procedures

We will develop a project specific Quality Plan to guide the independent review process. The Plan will cover the existing documents review, and the design and construction phases. The engineering documents subject to review will include those listed in “Document Reviews,” above. We will review design protocols for compliance with engineering practice, but will not conduct an independent check of calculations or perform independent calculations. Construction phase review documents include construction submittals, inspection reports, and QC test reports. We will perform a review of construction documentation selected by the City, and will not conduct the primary review, which is the responsibility of the designer of record and/or the City.

The Quality Control/Quality Assurance procedures will include a documented method for communicating review comments to the City and for documenting the resolution of the review comments by the design consultant.

Field Observations and On Site Meetings

We have included the following site visits for field observations and on site meetings with the City, LaFarge, IEPA, and designers:

Phase	Number of Trips
Existing Documents Review Phase	1
Design Phase	
Contract #2 Injection and Extraction Wells	1
Contract #4 Mine Distribution Piping	1
Contract #5 Extraction Pumping System	1
Kennedy Stoppings	0 (included in another trip)
Gas Generation Experiment	0 (included in another trip)
Construction Phase	
Contract #2 Injection and Extraction Wells	1
Contract #4 Mine Distribution Piping	1
Contract #5 Extraction Pumping System	1
Kennedy Stoppings	0 (included in another trip)
Total	7

Remote Meetings

We have included remote meetings (phone calls or web conferences) in our proposal. The hours allocated to this task are included in the attached Fee Spreadsheets.

David Schumacher, PE
January 22, 2016
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Deliverables

Review comments will be contained on standardized review forms that will expedite our reviews and provide you with an easy to follow format. A separate review form will be prepared for document reviewed.

Closure

We propose to provide these services on an hourly not-to-exceed basis plus expenses for \$148,000. Detailed breakdowns of our estimated level of effort and our rate sheet are attached. Note that rates may be need to be adjusted for work after December 31, 2016.

We also propose the allowance for Materials Handling Engineers be \$40,000.

We look forward to working with you on this very interesting project.

Sincerely,



Charles Nelson, PE
Project Manager



**Scope of Services for
Aurora Lime Residual UIC Project - Peer Review**

22-Jan-16

Existing Documentation Review

Work Task	Principal	Senior Consultant	Senior Engineer in Training	Tech	Total hours	Total Cost
1 Project Administration		6			6	\$1,184
2 Lease Agreement Review	4	8			12	\$2,439
3 EPA Permit Application and Permit Review	20	40			60	\$12,196
4 Memorandum of Design Review	4	8			12	\$2,439
5 QA		8			8	\$1,600
6 Field Observations (One Site Visit)	12	12	12		36	\$6,133
7 Onsite Meetings (Included in Field Observations)					0	\$0
8 Remote Meetings	6	6			18	\$3,674
9 QA Procedures Preparation					0	\$0
Total Hours	46	14	0	0	152	\$29,666

Expenses

Airline	\$660
Car Rental/Tolls/Parking	\$200
Hotel	\$450
Meals	\$240
Total	\$31,216



**Scope of Services for
Aurora Lime Residual UIC Project - Peer Review**

22-Jan-16

Design Phase

Work Task	Principal	Senior Consultant	Senior Engineer	Engineer in Training	Tech	Total hours	Total Cost
1 Project Administration						0	\$0
2 Contract #2 - Injection and Extraction Wells							
60% Review	4	8	8	8		20	\$3,229
90% Review	4	8	8	8		20	\$3,229
QA		4				4	\$800
3 Contract #4 - In-Mine Distribution Piping							
60% Review	8	4	16	16		44	\$6,934
90% Review	8	4	16	16		44	\$6,934
QA		4				4	\$800
4 Contract #5 - Extraction Pumping System							
60% Review	8	4	8	8		20	\$3,299
90% Review	8	4	8	8		20	\$3,299
QA		4				4	\$800
5 Kennedy Stoppings							
99% Review	8	4	16	16		44	\$6,934
QA		4				4	\$800
6 Gas Generation Experiment Review							
QA	8	8	8	8		24	\$4,089
QA		4				4	\$800
7 Field Observations (Three Site Visits)							
8 Onsite Meetings (Included in Field Observations)			36	36		72	\$10,660
9 Remote Meetings	32	32	32			96	\$19,597
Total Hours	88	52	112	124	0	420	\$72,202
	\$18,920	\$10,400	\$22,109	\$8,534	\$0		

Expenses

Airline	\$1,980
Car Rental	\$600
Hotel	\$1,350
Meals	\$720
	\$76,852



**Scope of Services for
Aurora Lime Residual UIC Project - Peer Review**

22-Jan-16

Construction Phase

Work Task	Principal	Senior Consultant	Senior Consultant	Senior Engineer	Engineer in Training	Tech	Total hours	Total Cost
1 Project Administration							0	\$0
2 Contract #2 - Injection and Extraction Wells - QA		8					8	\$1,600
3 Contract #4 - In-Mine Distribution Piping - QA		8					8	\$1,600
4 Contract #5 - Extraction Pumping System - QA		8					8	\$1,600
5 Kennedy Stoppings - QA		8					8	\$1,600
6 Field Observations (Three Site Visits)			36		36		72	\$10,660
7 Onsite Meetings (Included in Field Observations)		8					0	\$0
8 Remote Meetings	8	8					24	\$4,899
9 Involvement in Construction-Related Issues	32	32					24	\$13,197
Total Hours	40	40	76	0	36	0	24	\$0
	\$8,600	\$8,000	\$15,002	\$0	\$3,553	\$0	\$0	\$35,156

Expenses

Airline	\$1,980
Car Rental	\$600
Hotel	\$1,350
Meals	\$720
	\$39,806



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CNA HOURLY CHARGE RATES
Effective October 1, 2015 – December 31, 2016

<u>DISCIPLINE</u>	<u>HOURLY RATE</u>
Senior Consultants	\$ 180 - 215
Senior Engineers	\$ 150 - 195
Engineers	\$ 100 - 175
Engineers In Training	\$ 55 - 100
Technicians	\$ 30 - 55

These rates include typing, CADD equipment, office equipment and supplies, field equipment and local travel, overhead and profit but not included are costs for out-of-town travel or field supplies.

Field drilling, laboratory testing, subconsultants, out-of-town travel and field supplies at direct cost.

Billings will be made on a monthly basis. Payment due in ~~30~~ days.

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DSchu

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

**AGREEMENT BETWEEN OWNER,
AND REVIEWERS
FOR REVIEW OF DESIGN**

Prepared by



and

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**AGREEMENT BETWEEN OWNER
AND REVIEWERS
FOR REVIEW OF DESIGN**

THIS IS AN AGREEMENT between and among City of Aurora, Illinois
(“Owner”), and the following Reviewers: CNA Consulting Engineers (“Reviewer”).

Each Reviewer that is a business entity will provide the services of the individual designated below (“Individual Reviewers”) to fulfill the entity’s obligations under this Agreement:

Charles Nelson _____, from CNA Consulting Engineers _____;

Bruce Wagener _____, from CNA Consulting Engineers _____;

and Jay Wetmore _____, from CNA Consulting Engineers _____.

Owner intends to construct or have constructed Lime Residual Underground Injection Control (UIC) at LaFarge Conco Mine, Aurora, Illinois

Owner and Reviewers are referred to herein individually as a “party” or collectively as the “parties.” If there is only one Reviewer, the term “Reviewers” shall mean the sole Reviewer.

Owner, and Reviewers agree that the Reviewers will conduct an Independent Review of Design (“Review”). This Agreement sets forth the extent of the Review and the relationships between the parties named above in connection with the Review.

This Agreement is intended to implement a Review required by the Owner (the “Commissioning Authority”).

Whenever terms are used in this Agreement (including the Exhibits) and printed with initial capital letters, they shall have the meanings indicated where first used or in Article 9. These meanings are applicable to both the singular and plural.

This Agreement constitutes the sole agreement between Owner and Reviewers in connection with the Project.

ARTICLE 1 – STATUS OF REVIEWERS

1.01 *Personal Services Contract*

- A. Review services are to be provided by the Reviewers personally (and in the case of Reviewers that are entities, by the designated Individual Reviewers). The Reviewers may supplement and support such services with administrative personnel to promote economy and efficiency.

- B. To promote economy and efficiency, the personal services of the Reviewers may be supplemented and supported by technical personnel specifically indicated in Exhibit B, "Authorization of Technical Support Personnel to Assist Reviewers," at the discretion of the Reviewers in accordance with good professional judgment and practice. The personnel or classifications of personnel named in Exhibit B may be supplemented or substituted at the request of the Reviewers supervising the support persons and with the approval of the Team Leader.

1.02 *Representations as to Independence and Authorization*

- A. Each Reviewer represents as follows with regard to itself as of the Effective Date:

1. It is not employed by, nor does it have any financial interest in the Owner's organizations, or related entities. It does not have any financial interest in the outcome of the Review, nor have any personal relationships which could influence or compromise the review process. It has had no previous involvement in the Project being reviewed.
2. It has disclosed in writing any and all relationships between itself and Owner, and any employees of either that could be a source of or create the appearance of a conflict of interest or could impair the independence of the Review. Execution of this Agreement by and Owner shall be their confirmation that a Reviewer who has made a disclosure is satisfactory as to independence. A copy of each such disclosure, if any, is attached as Exhibit D, "Disclosure and Acceptance of Potentially Conflicting Relationships of Reviewers."
3. That the providing of services in fulfillment of this Agreement is in no way related to or impaired by any other financial, business, property, personal or other relationships or interests of the individual or entity, whether such relationships or interests are identified or not, and that all necessary notifications to other employers, clients, or others, if any, have been made and all necessary permissions, if any, have been granted.
4. That the Reviewer (or in the case of an entity, the designated Individual Reviewer) is a licensed design professional in the state where the Project is located.
5. That the Reviewer is authorized to conduct business in the state in which the Project is located.

ARTICLE 2 – BASIC SERVICES OF REVIEWERS

2.01 *General*

- A. Reviewers shall perform as Basic Services the tasks set forth in Article 5 and Exhibit A, within the time periods stipulated in Exhibit A.
- B. The parties recognize that the nature of the services during a Review cannot be foreseen precisely. The parties shall cooperate to expedite and complete the Review within the scope of Basic Services, if possible, consistent with this Agreement and good professional judgment and practice. If it is necessary to adjust the scope of the Reviewers' services as the

Review progresses, then the compensation for services may be equitably adjusted. Reviewers shall keep Owner periodically informed as to the effort expended and progress made toward completion of the Review.

- C. All responsibilities shall be carried out in accordance with all applicable laws, rules, regulations, ordinances, codes, orders, and special controlling requirements, if any, of governmental agencies, lending institutions, or other authorities having jurisdiction, including but not limited to requirements of the Commissioning Authority.
- D. Communications between and among all the parties during the Review shall be encouraged to facilitate efficiency, cooperation, and understanding.
- E. Reports shall be prepared in such quantities and distributed as set forth in Exhibit A, or if not otherwise indicated, distributed by Reviewers to Owner.
- F. Each Reviewer shall designate in writing a person to act as its representative under this Agreement. Such person shall have authority to transmit instructions and receive information.

ARTICLE 3 – ADDITIONAL SERVICES OF REVIEWERS

3.01 Additional Services

- A. Services set forth below are Additional Services.
 - 1. Study or research of advanced technical subjects by Reviewers not contemplated in the Basic Services.
 - 2. Services by Reviewers required to be performed after the delivery of the Report and response thereto if required to resolve any conflicting technical opinions that remain after normal efforts to reconcile their different professional conclusions.
 - 3. The making of oral or written presentations by Reviewers to the Commissioning Authority (except if the Commissioning Authority is the Owner) or a governmental agency, a lender, or other entity that is not a party to this Agreement.
 - 4. Services required because the Review scope is modified in writing by the parties as to purpose, services, time of performance, and amount or type of documentation.
 - 5. Analyses or examinations by Reviewers not contemplated as a part of Basic Services.
 - 6. The performance or observation of tests by Reviewers not contemplated in Basic Services.
 - 7. Additional analyses or examinations, not within the scope of Basic Services, recommended by Reviewers that may permit more economical construction than would be permissible without such additional analyses.

8. Visits by Reviewers to the Project site to enhance understanding of site-specific design elements and enable Reviewers to make site-specific Review recommendations.

3.02 *Authorization for Additional Services*

- A. Additional Services under Paragraph 3.01 and other Additional Services agreed upon by the parties shall be authorized in writing in advance by Owner using the procedures of Paragraph 8.11.F.

ARTICLE 4 – OWNER’S RESPONSIBILITIES

4.01 *General*

- A. Owner shall perform or provide the following in a timely manner so as not to delay the services of Reviewers:
 1. Designate in writing a person to act as Owner’s representative with respect to this Agreement. Such person shall have authority to transmit instructions, receive information, and interpret and define Owner’s policies and decisions with respect to Reviewers’ services for this Review.
 2. Provide all available information pertinent to the parts of the Project under Review and current as of the date of the Review. Reviewers may use and rely upon this information in performing services under this Agreement. Such information shall include, as appropriate, but not be limited to the items outlined in the Scope of Services or as listed in RFP.
 3. Arrange for access to and make all provisions for Reviewers to enter upon public and private property as required for Reviewers to perform services under this Agreement.
 4. Examine all studies, reports, and other documents presented by Reviewers.
 5. Render necessary decisions in writing within a reasonable time.
 6. Give prompt written notice to Reviewers whenever Owner becomes aware of any condition that affects the scope, timing, or factual bases of the Review.
 7. Furnish additional information or direct Reviewers to provide Additional Services to obtain such additional information as required due to conditions that arise during the conduct of the Review and as are necessary for its completion.

ARTICLE 5 – REVIEWERS’ RESPONSIBILITIES

5.01 *Principal Duties*

- A. Reviewers shall provide a Review of the design in accordance with the specific scope and purpose and at the specific stages outlined in Exhibit A.

- B. At each specific stage at which a Review is conducted, Reviewers shall:
1. Review the Review Documents for compliance with the Project program and purpose as well as with accepted standards of professional and technical practices. Such review is to be for acceptability and not merely for Reviewers' personal preferences.
 2. Discuss findings with Owner and attempt to reach agreement on all points where Reviewers recommend that the design be revised, including acceptable modifications to Reviewers' own recommendations as appropriate in order to obtain acceptance by Owner.
 3. Recommend to Owner that its Project program be modified as appropriate to accommodate revisions for the improvement of the Project.
 4. Prepare and present a written Report of the Reviewers' findings and recommendations to Owner when review of the Review Documents is complete, explanation of Reviewers' recommendations to Owner is accomplished, and the appropriateness of revisions to the design has been agreed upon to the extent possible by Reviewers and Owner.
 5. Cooperate with Owner in determining the necessary steps to take to resolve any conflicting technical opinions between original design and Reviewers, endeavoring at all times to accomplish the necessary revisions so as to minimize the Review's cost and disruption of the Project's progress.
 6. Inform Owner of the progress of the Review, the points of agreement, the points of disagreement, the alternatives available, and the effects of each alternative.
- C. In performing their tasks and functions, Reviewers shall:
1. When practical, maintain confidentiality of source with respect to any information gained from separate meetings with individual employees.
 2. Limit activities and analysis to those areas or parts of the Project reasonably necessary for the accomplishment of the Review. Reviewers shall have no responsibility to review components, elements, or aspects of the Project not covered by the scope of services.
 3. Provide the Review services as necessary for the improvement of the design, not insisting on changes that are merely personal preference, and making no misleading representations thereafter as to the value of these services or of the recommendations resulting therefrom.

ARTICLE 6 – PERIOD OF SERVICE

6.01 General

- A. The number of separate Reviews, designated by reference to the phases of the design after which each Review will occur, is set forth in Exhibit A together with the anticipated dates of beginning of the Review process at each stage. It is agreed that all dates for the performance

of the Review(s) are dependent upon Owner delivering all Review Documents by dates set forth in Exhibit A. Whenever Owner believes that the date scheduled for a Review will not be met, it shall notify Reviewers and cooperate in accelerating its activities or rescheduling the Review.

- B. Reviewers shall begin each Review within 14 days of receiving the Review Documents unless otherwise stipulated in Exhibit A or otherwise agreed.
- C. It is agreed that all schedules for the performance of project phases that follow a Review are dependent upon Reviewers having completed the Review within the intervals set forth in Exhibit A.
- D. Reviewers shall expedite their services whenever possible by the review of selected Review Documents in advance of assembly of Reviewers at Owner's office or the site of the Project.
- E. Reviewers and Owner shall expedite the resolution of technical questions by keeping each other informed of incipient differences of opinion and by seeking resolutions of such differences as early as reasonably possible.

ARTICLE 7 – COMPENSATION OF REVIEWERS

7.01 Method of Compensation

- A. Owner shall compensate Reviewers for services and Reimbursable Expenses under this Agreement in accordance with Exhibit C, "Compensation of Reviewers."
- B. The method of compensation, or the agreed upon rates, or both, may be adjusted if the periods or times of performance are changed materially through no fault of the party (or parties) seeking the revision to the compensation provisions of this Agreement.

7.02 Times of Payment

- A. Reviewer shall submit, not more often than monthly, invoices for Basic and Additional Services performed and for Reimbursable Expenses incurred, as set forth in Exhibit C.
- B. If Owner objects to any invoices from Reviewers, Owner shall so indicate in writing. If Owner disputes an invoice, either as to amount or entitlement, then Owner shall promptly advise the party that submitted the invoice of the specific basis for disputing the invoice, may withhold the portion so disputed from payment, and must pay the undisputed portion within the time permitted under Paragraph 7.02.C.
- C. Invoices from Reviewers are due and payable within 45 days of receipt of an acceptable invoice. If Owner fails to make any payment due and owing to Reviewer within 45 days after receipt of the invoice, then the amounts due Reviewer therefor shall be increased at the rate of 1 percent per month (or the maximum rate of interest permitted by law, if less) from said 45th day. In addition, Reviewer may, upon giving seven days' written notice to Owner, suspend services under this Agreement until all past due charges for services and Reimbursable Expenses are paid.

7.03 *Additional Provisions Concerning Payments*

- A. In the event of termination under Paragraphs 8.01.A or B, payment due Reviewers shall be based on services rendered and Reimbursable Expenses incurred through the effective date of termination, plus reasonable additional expenses, if any, associated with early termination of the Review.
- B. Records of and Reviewers' hours expended on the Review and Reimbursable Expenses shall be kept in accordance with generally recognized accounting principles.
- C. In the event of suspension of the Review for a period of more than 180 days, compensation to Reviewers may be equitably adjusted to reflect changes in the various factors that affect compensation.

ARTICLE 8 – GENERAL CONSIDERATIONS

8.01 *Termination*

- A. This Agreement may be terminated by Owner with or without cause upon 14 days' written notice to Reviewers.
- B. This Agreement may be terminated for cause by Reviewers upon 14 days' written notice to the other parties for substantial failure by any of the other parties to perform in accordance with this Agreement through no fault of the party terminating the Agreement. This includes failure of Owner to pay monthly invoices within 60 days.
- C. This Agreement shall terminate automatically after occurrence of all of the following: upon completion of the Review, the agreement on actions that are to be taken with regard to each recommendation resulting therefrom, the completion of all such actions, the issuing by Owner of a statement of completion of the Review including satisfaction of the requirements of the Commissioning Authority, and payment for all services hereunder to Reviewers.

8.02 *Records*

- A. Records of the Review shall be maintained on file by the Team Leader for a period of twenty years following the completion of the Review and upon request shall be made available at cost to Owner within that period. Records of Reviewers' activities, analyses, and recommendations shall be made available to Owner at cost for the same period. Maintenance of such records shall be the responsibility of the Reviewers with appropriate compensation therefor.

8.03 *Insurance*

- A. Each party shall procure and maintain insurance as set forth in Exhibit E, "Insurance."
- B. Prior to commencement of the Review, all parties shall exchange certificates indicating that the required insurance is in effect and that 30 days' notice shall be provided to all parties by

any insurance company canceling, reducing, or not renewing coverage under the insurance prescribed above.

8.04 *Professional Responsibility of Reviewers*

- A. *Standard of Care:* The standard of care for all professional and related services performed or furnished by Reviewers under this Agreement will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. Reviewers make no warranties, express or implied, under this Agreement or otherwise, in connection with any services that they perform or furnish.
- B. Reviewers shall not become the Designer of Record for any portion of the Project. Reviewers shall cooperate with Owner to reach agreement, if possible, on mutually acceptable revisions to the Review Documents.
- C. Owner shall cooperate with Reviewers to the extent consistent with the purposes of the Project to aid in mutual acceptance of recommendations, including consideration of reasonable modifications to the Project.
- D. In the event that there appear to be irreconcilable differences of opinion between Owner and Reviewers regarding a Review recommendation, Owner may agree that the project will proceed with the design without accepting the Review recommendation in question. Owner may choose to retain independent expert advisor(s) to examine matters still at issue.

8.05 *Mutual Waiver of Consequential Damages*

- A. To the fullest extent permitted by law, Owner and Reviewers waive against each other, and the other's employees, officers, directors, agents, insurers, partners, and consultants, any and all claims for or entitlement to special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to the Project.

8.06 *Indemnification*

- A. To the fullest extent permitted by law, Owner shall indemnify and hold harmless Reviewers as set forth below:
 - 1. The indemnity and hold harmless applies to the officers, directors, members, partners, employees, agents, and consultants of Reviewers.
 - 2. The indemnity shall reimburse covered third-party claims, damages, losses, and expenses.
 - 3. Covered claims, damages, losses, and expenses are any and all such items, including defense expenses and reasonable attorney's fees, arising or alleged to have arisen out of or resulting from a Reviewer's professional services in connection with the Review.
- B. The indemnification obligation does not apply to the negligence or willful misconduct of a Reviewer.

C. The indemnification right of Paragraph 8.06 is:

1. In recognition of:

- a. the limited services performed by Reviewers.
- b. the fact that much of the data on which Reviewers base their services and opinions are provided only by Owner.

2. Inducement to Reviewers to engage in limited services for limited compensation.

8.07 *Electronic Data*

A. The transmitting party makes no representations as to the accuracy, long term compatibility, usability, or readability of documents resulting from software application packages, operating systems, computer hardware, or magnetic media associated with the electronic data.

8.08 *Controlling Law*

A. This Agreement shall be governed by the laws of the State of Illinois.

8.09 *Successors and Assigns*

A. Each party to this Agreement is hereby bound, and the successors, executors, administrators, and legal representatives of each and, to the extent of Paragraph 8.09.B, the assigns of each are hereby bound to the other parties to this Agreement and to the successors, executors, administrators, and legal representatives (and said assigns) of each party, in respect to all covenants, agreements, and obligations of this Agreement.

B. No party shall assign, sublet, or transfer any rights under or interest in this Agreement (including without limitation money that is due or that may become due) without the written consent of the other parties, except to the extent that any assignment, subletting, or transfer is mandated by law, or to the extent the effect of this limitation may be restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.

C. Nothing under this Agreement shall create or be construed to give any rights or benefits in this Agreement to anyone other than the parties herein named, and all duties and responsibilities undertaken pursuant to this Agreement will be for the sole benefit of the parties and not for the benefit of any other party. No third party shall have the right to use in any manner or to rely on Reviewers' opinions rendered in connection with the Basic Services or Additional Services without Reviewers' written consent and the third party's agreement to be bound to the same conditions and limitations as Owner.

8.10 Confidentiality

- A. Except to the extent required by laws and regulations, all proceedings and recommendations of this Review shall be kept confidential unless all parties grant express written permission for specific disclosures.
- B. Reviewers may list the Review on summaries of their experience or otherwise acknowledge its occurrence and their participation but, except as set forth in Paragraph 8.09.A, shall not reveal particulars of the Review.

8.11 Miscellaneous Provisions

- A. *Notices:* Any notice required under this Agreement will be in writing, addressed to the appropriate party at its address on the signature page and given personally, or by certified mail postage prepaid, or by a commercial courier service, or by facsimile. All notices shall be effective upon the date of receipt.
- B. *Survival:* All express representations, indemnifications, and limitations of liability included in this Agreement will survive its completion or termination for any reason.
- C. *Severability:* Any provision or part of the Agreement held to be void or unenforceable under any Laws or Regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Reviewers, all of which agree that this Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- D. *Waiver:* A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement.
- E. *Headings:* The headings used in this Agreement are for general reference only and do not have special significance.
- F. *Amendments:* Amendments for Additional Services under Article 3 shall be documented prior to performance of services.

ARTICLE 9 – DEFINITIONS

9.01 Defined Terms

- A. Wherever used in this Agreement (including the Exhibits) and printed with initial or all capital letters, the terms listed below, in addition to those terms defined when first used, have the meanings indicated, which are applicable to both the singular and plural thereof:
 - 1. *Additional Services* – The services to be performed by Reviewers or which are not included in Basic Services for Owner, such as those listed in Article 3. Additional

Services are to be included in the Agreement by amendment pursuant to Paragraph 8.11.F of this Agreement.

2. *Agreement* – This “Agreement between Owner and Reviewers for Review of Design,” including those Exhibits listed in Article 10.
3. *Basic Services* – The services to be performed by Reviewers and as set forth in Articles 2, 5, and Exhibit A of this Agreement.
4. *Commissioning Authority* – The Owner shall be deemed the Commissioning Authority.
5. *Individual Reviewer* – The individual designated to carry out Reviewer’s professional duties under this Agreement in those cases in which the Reviewer is an entity.
6. *Owner* – The entity that initiates and controls the Project.
7. *Review (or Independent Review of Design)* – An independent and objective technical review of the design of the Project or a part thereof, conducted at specified stages of design completion by one or more qualified professionals, for the purpose of enhancing the quality of the design in accordance with this Agreement.
8. *Reviewer* – An individual or entity contractually responsible for conducting a Review in accordance with this Agreement.
9. *Project – Project* – The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, and construction.
10. *Report* – The written final findings and recommendations prepared by Reviewers.
11. *Review Documents* – The documents furnished to the Reviewers as the subject of a Review.
12. *Team Leader* – The Reviewer selected at the commencement of the Review process to serve as chair of the Reviewers.

ARTICLE 10 – EXHIBITS

10.01 Exhibits

- A. The following Exhibits are attached and made a part of this Agreement:
 1. Exhibit A, “Description of Basic Services of Reviewers in Connection with Review of Design.”
 2. Exhibit B, “Authorization of Technical Support Personnel to Assist Reviewers.”
 3. Exhibit C, “Compensation of Reviewers.”

4. Exhibit D, "Disclosure and Acceptance of Potentially Conflicting Relationships of Owner and Reviewers."
5. Exhibit E, "Insurance."

10.02 *Total Agreement*

- A. This Agreement together with the Exhibits identified in Paragraph 10.01.A, constitutes the entire Agreement between Owner and Reviewers as to the Review and supersedes all prior written or oral understandings regarding the Review. This Agreement and said Exhibits and schedules may only be amended, supplemented, modified, or terminated by a duly executed written instrument.

10.03 *Reviewers' Certifications*

- A. Each Reviewer hereby certifies that it has not engaged in corrupt, fraudulent, or coercive practices in competing for or in executing the Agreement. For the purposes of this Paragraph 10.03:
 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the selection process or in the Agreement execution;
 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the selection process or the execution of the Agreement to the detriment of Owner, or (b) to deprive Owner of the benefits of free and open competition;
 3. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the selection process or affect the execution of the Agreement.

This Agreement is effective on February 15, 2016.

OWNER

Signature/Name

Title

Owner's Name

Owner's Designated Representative:

Name: _____

Title: _____

Phone Number: _____

Facsimile Number: _____

E-Mail Address: _____

REVIEWER



Signature/Name

Brent K. Nelson

Chief Financial Officer

Title

CNA Consulting Engineers

Name of Firm

Reviewer's Designated Representative:

Name: Bruce Wagener _____

Title: Project Manager _____

Phone Number: (612) 379-8805 _____

Facsimile Number: (612) 379-8160 _____

E-Mail Address: bdw@cnaengineers.com _____

This is **EXHIBIT A**, referred to in and part of the **Agreement between Owner and Reviewers for Review of Documents** listed in Exhibit A Attachment 1 and the review services proposal letter dated January 22, 2016.

Description of Basic Services of Reviewers in Connection with Review of Design

The descriptions of Basic Services of Reviewers in Articles 2 and 5 are supplemented as set forth below. The time periods for the performance of certain services of the Agreement are as set forth below.

A2.01 Purpose of Review

- A. The purpose of the Review is: Provide review of mine- and geotechnical-related aspects of documents for the Aurora Lime Residual UIC Project

A2.03 Basic Services of Reviewers

- A. Reviewers shall conduct a Review following the stages of design indicated below:

- Review of Permit, Permit Application, and Associated Documents
- Review of 60% Drawings and Specifications
- Review of 90% Complete Drawings and Specifications
- Review of Construction submittals, inspection reports, and QC test reports

A complete list of Documents is included in Attachment 1 and the attached review services proposal letter dated January 22, 2016, to Exhibit A.

A2.04 Review Schedule

- A. The Reviewers shall review the Review Documents as prepared and made ready for Review by Owner at the ends of the phases of the Project indicated immediately above, with end-of-phase Reviews anticipated to begin on the dates indicated in Attachment 1.

A2.05 Anticipated Duration of Reviews

- A. Reviewers shall begin each Review not later than 14 days after receiving the Review Documents for that phase from Owner, provided however, that the Team Leader may, upon examination of the Review Documents, promptly notify the Owner in writing of the Team Leader's determination that the Review Documents provided are not sufficient or ready for review.
- B. The anticipated duration of the Reviews at each phase, from receipt of the Review Documents to completion of the Report, and including the above 14-day period, are indicated in Attachment 1.

- C. Other services and responsibilities of Reviewers in addition to those set forth in the Agreement are specifically: N/A

A2.06 Procedures after Reports:

- A. Unless stated otherwise herein, Reviewers are not required to review documents a second time after Submission of report to Owner
- B. Anticipated response by Owner to each recommendation by Reviewers includes:
1. acceptance of recommendation without qualifications or conditions; or
 2. proposal of alternative solutions to satisfy Reviewers' concerns; or
 3. consultation with an additional expert advisor as to the recommendation in question; or
 4. final rejection of the recommendation.
- C. In the event of final rejection of the recommendation, which is to be avoided, if possible, by all parties by the development of alternative proposals, an expert on the technical matter at issue may be engaged by Owner to render added advice to Owner, all in accordance with Paragraph 8.04.D.

A2.07 Amendment to Basic Services

- A. Additional Services required by Owner or recommended by Reviewers during the Review may be so authorized.

ATTACHMENT 1

Review to be Conducted at End of Indicated Design Phase:	Owner to Provide Review Documents to Reviewers on or Before: (Anticipated Dates)	Reviewers Complete Review and Submit Report
Lease Agreement, EPA Permit Application, EPA Permit, Memorandum of Design	March 11, 2016	April 15, 2016
60% Design Phase	When Available	One month after receipt of each Document
90% Design Phase	When Available	One month after receipt of each Document
Construction	When Available	Two weeks after receipt of each Document

Reference attached review services proposal letter dated January 22, 2016 which is hereby incorporated into this Agreement.

This is **EXHIBIT B**, referred to in and part of the **Agreement between Owner and Reviewers for Review of Documents** listed in Exhibit A Attachment 1 and the review services proposal letter dated January 22, 2016.

Authorization of Technical Support Personnel to Assist Reviewers

The Agreement is amended and supplemented as set forth below:

B1.01

A. In addition to the named Reviewers (including Individual Reviewers in the case of a Reviewer that is a business entity) the following persons (or classifications of personnel) are hereby authorized to participate in the Review to assist in testing, analytical, graphical, and other technical tasks under the direction of the indicated Reviewer.

1. For Reviewer CNA Consulting Engineers____:

CNA Consulting Engineers Staff:

Principal

Senior Consultant

Senior Engineer

Engineer-in-Training

Technician

2. As yet to be determined materials handling engineer subconsultant.

B1.02

A. No other persons shall be called upon to participate in the Review by Reviewers nor shall any other person be compensated for participation in the Review.

B1.03

A. Compensation for services and authorized Reimbursable Expenses of persons named herein shall be as set forth elsewhere in this Agreement. In addition, the following special provisions shall apply:

This is **EXHIBIT C**, referred to in and part of the **Agreement between Owner and Reviewers for Review of Documents** listed in Exhibit A Attachment 1 and the review services proposal letter dated January 22, 2016

Compensation of Reviewers

Article 7 of the Agreement is amended and supplemented as indicated below.

C7.01 Method of Compensation of Reviewers

- A. *Standard Hourly Rates:* For Basic and Additional Services as described in the Agreement, including Exhibits A and B, and amendments, if any, Owner will pay Reviewers an amount (1) computed by multiplying Reviewer's Standard Hourly Rates (Attachment 2) times the hours expended on the Review by Reviewer's authorized employees, plus (2) Reimbursable Expenses as set forth in Paragraph C7.02 times a factor of 1.0.
- B. All provisions of Paragraph C7.03 are applicable to this Paragraph C7.01.

C7.02 Reimbursable Expenses

- A. In addition to the compensation provided for in Paragraph C7.01, Owner shall pay Reviewers the actual cost of Reimbursable Expenses incurred by Reviewers. Reimbursable Expenses shall mean the actual expenses incurred by Reviewers, directly or indirectly, in connection with the Review, including but not limited to expenses for transportation (and lodging and subsistence incidental thereto), reproduction of documents, and, if authorized in advance in writing by Owner, overtime work requiring higher than regular rates.

C7.03 General Provisions Concerning Compensation

- A. The estimated total compensation to Reviewer on a time and material, not-to-exceed basis is as described in the attached review services proposal letter dated January 22, 2016.
- B. The following provisions apply to Paragraph C7.01 above. See also Article 7 of the Agreement for other provisions related to compensation of Reviewers.

If it becomes apparent to Reviewers at any time before Basic Services to be rendered under this Agreement are approximately eighty percent complete that the estimated total compensation to be paid to Reviewers will be inadequate for the Basic Services required because of the extent of Review found necessary or the complexity of the issues that must be resolved, Reviewers shall give Owner written notice thereof. Promptly thereafter, all parties shall review the matter of compensation and scope of services. Either Owner shall agree to such compensation exceeding said estimated amounts or all parties shall agree to a reduction in the remaining services to be rendered by Reviewers under this Agreement so that total compensation for Basic Services shall not exceed said estimated amounts when such services are completed.

This is **EXHIBIT D**, referred to in and part of the **Agreement between Owner and Reviewers for Review of Documents** Listed in Exhibit A Attachment 1 and the review services proposal letter dated January 22, 2016.

Disclosure and Acceptance of Potentially Conflicting Relationships of Reviewers

D1.01 Reviewers represent that they know of no circumstances or relationships that would cause a potential conflict of interest with respect to Owner, other Reviewers, or the Project except and to the extent hereby disclosed:

None

D1.02 Reviewers and Owner hereby acknowledge the disclosures set forth above and, based on those representations, accept the stated circumstances and relationships as not creating a material conflict of interest.

D1.03 Reviewers hereby agree to amend this Exhibit if new material facts become known as to the circumstances or relationships disclosed above or if new circumstances or relationships become known. In the event of such amended representations and disclosures, Reviewer and Owner shall consider such amended information and, if acceptable as not creating a material conflict of interest, shall so indicate by executing an amendment to this Exhibit.

This is **EXHIBIT E**, referred to in and part of the **Agreement between Owner and Reviewers for Professional Services for Review of Documents** Listed in Exhibit A Attachment 1 and the review services proposal letter dated January 22, 2016

Insurance

Paragraph 8.03 of the Agreement is amended and supplemented to include the following agreement of the parties.

E8.03 *Insurance*

A. The limits of liability for the insurance required by Paragraph 8.03 of the Agreement are as follows:

1. By each Reviewer:

- a. Workers' Compensation: \$ 500,000
- b. General Liability –
 - 1) Each Occurrence (Bodily Injury and Property Damage): \$ 1,000,000
 - 2) General Aggregate: \$ 2,000,000
- c. Automobile Liability – \$ 1,000,000
- d. Combined Single Limit (Bodily Injury and Property Damage):
Each Accident \$ 1,000,000
- e. Professional Liability –
 - 1) Each Claim Made \$ 1,000,000
 - 2) Annual Aggregate \$ 3,000,000

f. Owner shall be endorsed and named as a primary, non-contributory additional insured on General Liability and Automobile Liability insurance policies.