

Madison Metropolitan Sewerage District



Request for Bids 2025 Lead Abatement

Madison, Wisconsin

June 2025

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**ADVERTISEMENT FOR BIDS
MADISON METROPOLITAN SEWERAGE DISTRICT
2025 LEAD ABATEMENT**

The Madison Metropolitan Sewerage District (MMSD or the District) will receive sealed bids for the 2025 Lead Abatement project. Bids will be received at the office of the District, 1610 Moorland Road, Madison, Wisconsin 53713 until 11:00am., local time on Tuesday, July 15, 2025, at which time and place all bids will be publicly opened and read aloud. All bid responses will be public records.

The 2025 Lead Abatement project will prepare existing painted surfaces for repainting while providing lead abatement measures to facilitate the surface prep work. The surfaces that require preparation for painting are located in Aeration Gallery 1. The project involves approximately 190 feet of below grade tunnel measuring 17 ft-11 in wide by 17 ft high containing approximately 30 feet of 2-1/2-inch pipe, 220 feet of 6-inch pipe, 190 feet of 10-inch pipe, 200 feet of 12-inch pipe, and 230 feet of 36-inch pipe. The project is located at the Nine Springs Wastewater Treatment Plant, 1610 Moorland Road, Madison, Wisconsin.

A pre-bid meeting will be held at 2:00 pm. local time on Tuesday, June 24, 2025, at the office of the District, 1610 Moorland Road, Madison, Wisconsin 53713, Operations Building, and will include a site visit. Attendance is not mandatory but is highly encouraged.

Complete digital project bidding documents are available by visiting the District's website at <https://www.madsewer.org/contracting-center/>. No paper project documents will be provided by MMSD.

All questions regarding the project shall be directed to Brady Lessner, Maintenance Project Specialist, Madison Metropolitan Sewerage District. Phone: (608) 222-1201x281, email: rfp@madsewer.org. Responses to any questions received will be answered in a formal addendum.

Bids shall be addressed to the Madison Metropolitan Sewerage District; Brady Lessner; 1610 Moorland Road; Madison, Wisconsin 53713; and shall be marked "Sealed Bid, 2025 Lead Abatement."

All prospective bidders must submit qualifications for review and approval by the District. Prequalification applications will be distributed with the Contract documents or can be obtained from the District. Bidders who have already submitted prequalification documentation to the District within the current calendar year need not resubmit but must notify the District in writing by the due date (using the form provided) of their desire to prequalify for this specific work. Prequalification applications must be completed and emailed to prequalifications@madsewer.org no later than 4:00pm, Tuesday, July 1, 2025. Bidders will be notified only of disqualification no later than 4:00pm, Tuesday, July 8, 2025. If a bidder has not filed the prequalification application, their bid shall not be opened.

This project is exempt from State of Wisconsin sales and use taxes in accordance with Wisconsin Administrative Rule Tax 11.11 pursuant to Section 77.54(26) of the Wisconsin Statutes. Contract letting is subject to the provisions of Section 66.0901, Wisconsin Statutes.

The District reserves the right to reject any or all bids or to waive any technicality and accept any bid that may, in its opinion, be advantageous to the District.

In connection with the performance of work under this contract, the contractor agrees not to discriminate against any employee or applicant for employment because of age, race, religion, color, handicap, sex, physical condition, developmental disability, or national origin. This provision shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff and termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor further agrees to post in conspicuous places, available for employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.

Published by authority of the Commissioners of the Madison Metropolitan Sewerage District.

By _____
Bradley Murphy, Secretary

Madison, Wisconsin
June 2025

Madison Metropolitan Sewerage District



PRE-QUALIFICATION APPLICATION

THE CONTENTS OF THIS QUESTIONNAIRE SHALL BE CONFIDENTIAL FOR THE EXCLUSIVE USE OF THE CONTRACTING AGENCY AND SHALL NOT BE MADE PUBLIC EXCEPT BY WRITTEN PERMISSION OF THE PROSPECTIVE BIDDER.

INFORMATION / INSTRUCTIONS

- 1) To be submitted by all prime bidders. All others to submit as required by the bidding documents.
- 2) Must be received by The District prior to deadline stated in bidding documents. Additional information, if necessary, may be requested by the District.
- 3) Fill out and send questionnaire (IN PDF FORMAT) to: Prequalifications@madsewer.org
- 4) Bidder's Statement of Request for Pre-Qualification (**Green Sheet**) must be filled out for every project.
- 5) Statement of Qualifications (**Blue Sheets**) are valid for the current calendar year only.
(*EXAMPLE: project bid in June, statement of qualifications valid until 12/31*)
- 6) Submission of the Blue Sheets section of the application does not grant automatic approval for all projects advertised by the District in the current calendar year. Qualifications are still reviewed project to project by project engineer.

PREQUALIFICATION STATEMENT

There is submitted herewith for your consideration, pursuant to Section 66.0901(2), Wisconsin Statutes, a statement of qualifications of the undersigned to furnish the necessary labor, materials, and skills required to enter upon and complete contracts for Madison Metropolitan Sewerage District.

BIDDER'S STATEMENT OF REQUEST FOR PRE-QUALIFICATION

IDENTIFICATION

1. Firm's Name: _____

Mailing Address: _____

Telephone: _____

E-Mail: _____

Number of years in business under present name: _____

Is the business a: ☐ ☐ Corporation (includes LLC and S) Partnership ☐ Individual Owner

If a Corporation: Year incorporated: _____ State incorporated: _____

Contact information regarding questions related to this form:

Name: _____

Telephone Number: _____

Email Address: _____

2. The above-named Bidder requests to be pre-qualified for construction of the following project/contract:

Which do you wish to qualify as (select all that apply): Prime Contractor Subcontractor

Please specify trade(s) : _____

☐ Bidder **HAS NOT** submitted a Statement of Qualifications within the current calendar year. Documentation is required. Proceed to following page, complete forms and attach documentation.

☐ Bidder **HAS** submitted a Statement of Qualifications within the current calendar year. A new Statement of Qualifications is not required. Bidder acknowledges his/her intent to be pre-qualified for the above-named project(s) by signing and dating this form below and by returning this form to the District prior to the deadline stated in the bidding documents.

Firm Name

Signature

Title

Date

BIDDER'S STATEMENT OF QUALIFICATIONS

EXPERIENCE

I - PERSONNEL

What is the experience of the principal individuals, including officers, superintendents and/or foremen/women, of your organization? Provide information similar to the table below:

Name	Present Position/Title	Years of Experience	Description of Duties
(1)	(3)	(3)	(4)

Average number of employees during the last 12 months:

Office: _____ Skilled: _____ Unskilled: _____

II - PROJECTS COMPLETED

Provide a list of work performed on any projects pertinent to the type of work for which pre-qualification is desired. Provide information similar to the table below. Under "Capacity", state whether the work was as a Prime Contractor, Subcontractor, etc.

Year Finished	Project Name	Type of Work	Capacity	Contract Amount (\$)	Reference Name	Reference City, State	Reference Phone #	Reference Email
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

III - CURRENT CONTRACTS

Attach information related to current contracts. Highlight contracts that are for work similar to the type of work for which pre-qualification is desired. Provide information similar to the table below:

Project Name	Owner	% Complete	Contract Amount (\$)	Completion Date	Type of Work	Reference Name	Reference City, State	Reference Phone #	Reference Email
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

IV - EQUIPMENT

Provide a list of major pieces of equipment owned and available when needed for proposed work. Provide information similar to the table below:

No. of Each	Description	Model/Size	Capacity	Year
(1)	(2)	(3)	(4)	(5)

CONTRACTUAL RESPONSIBILITY

Answering "yes" to any of the following questions may not directly disqualify a company from becoming approved to bid by the District. However, *failure to answer truthfully* will likely result in disqualification.

If response is "Yes", please attach a description of particulars (date, parties involved, type of work, amount of contract, cause, resolution).

1) Has your firm or any officer or partner of your firm ever been debarred, suspended, disapproved, or not pre-qualified by the State of Wisconsin or any government entity in the past ten (10) years?
[☐ Yes [☐ No

2) Has your firm or any officer or partner of your firm had any type of business, contracting, or trade license, certification, or registration revoked or suspended in the past ten (10) years?
[☐ Yes [☐ No

3) Does your firm or any officer or partner of your firm have an open or ongoing investigation or been cited in a violation of federal, state, or local government safety or environmental laws? This includes, but is not limited to, any OSHA, EPA, or WDNR violations.
[☐ Yes [☐ No

If Yes, include in description the OSHA reportable incidents and citations.

4) Has your firm or any officer or partner of your firm ever declared bankruptcy while performing work on a contract or work awarded to it in the past ten (10) years?
[☐ Yes [☐ No

5) Has your firm ever defaulted on or failed to complete any contract or work awarded to it in the past ten (10) years?
[☐ Yes [☐ No

6) Has your firm or any officer or partner of your firm asked to be relieved from a bid submitted by it to a public awarding authority in the past ten (10) years?
[☐ Yes [☐ No

7) Has your firm or any officer or partner of your firm ever been charged with or convicted of a violation of any Davis Bacon federal wage rates?
[☐ Yes [☐ No

8) Has your firm; any of its owners; a subsidiary or corporate parent; or any officer, director, or partner thereof, been convicted of violating Section 133.03 Wisconsin Statutes (Unlawful Contracts: Conspiracies) in the last ten (10) years?
[☐ Yes [☐ No

COMMITMENT TO SAFETY

A safe work environment is always the top priority of the District, and this priority extends to all contractors and subcontractors on work of any capacity. **Please attach a description of your company's commitment to safety** (including but not limited to safety programs, safety personnel, and leadership commitment)

BONDING RESPONSIBILITY

Current Bonding Company

Bonding Company Name: _____

Mailing Address: _____

Telephone: _____ E-Mail: _____

Firm's current performance and payment bond limit for a single job: _____

Firm's current performance and payment bond limit for aggregate jobs: _____

CONTRACTOR'S FINANCIAL STATEMENT

- 1) Attach a bank letter, no later than the previous calendar year, indicating credit available.
- 2) Attach a dated, recent financial statement, no later than the previous calendar year, showing breakdown of your firm's assets, liabilities, and net worth.

AFFIDAVIT

I certify that all above statements and attachments hereto are true and correct and are made on behalf of

Firm Name

Officer/Owner Name

Signature

Title

Sworn and Subscribed to before me this ____ day of _____, 20__.

Notary Public.

My commission expires _____.

**BID FOR
MADISON METROPOLITAN SEWERAGE DISTRICT
2025 LEAD ABATEMENT**

NOTE: Use Black Ink Or Typewriter For Completing This Bid Form

PROJECT: 2025 Lead Abatement

THIS BID IS SUBMITTED TO: Madison Metropolitan Sewerage District
1610 Moorland Road
Madison, Wisconsin 53713

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into a Contract with Owner in the form included in the Bidding Documents to perform and furnish all Work as specified or indicated in the Bidding Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.
2. Bidder accepts all of the terms and conditions of the Advertisement for Bids and the Request for Bids. This Bid will remain subject to acceptance for the period of time specified in the Advertisement for Bids after the day of Bid opening. Bidder will sign and submit the Contract with other documents required by the Bidding Requirements within 10 days after the date of Owner's Notice of Award.
3. In submitting this Bid, Bidder represents, as more fully set forth in the Bidding Documents, that:
 - (a) Bidder has examined copies of all the Bidding Documents and of the following Addenda, receipt of all which is hereby acknowledged:

<u>Addenda Number</u>	<u>Date</u>
_____	_____
_____	_____
_____	_____
_____	_____

- (b) Bidder has familiarized themselves with the nature and extent of the Bidding Documents, Work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.
 - (c) Bidder has given Engineer written notice of all conflicts, errors or discrepancies that it has discovered in the Bidding Documents and the written resolution thereof by Engineer is acceptable to Bidder.

4. Bidder will complete the Work for the following prices:

Item and Description

1. To prepare existing painted surfaces for repainting while providing lead abatement measures to facilitate the surface prep work, and all other associated work for:

TOTAL \$ _____

(Contractor's Seal) Signature: _____

Printed Name of Signer: _____

Title: _____

5. Bidder agrees that the Work will be substantially completed as specified in Request for Bid.

6. The following documents are attached to and made a condition of this Bid:

(a) Required Bid Security

7. Communications concerning this Bid shall be addressed to:

Name: _____

Company Name: _____

Address: _____

Email: _____

Telephone No.: _____

SUBMITTED ON _____, 20____

**CONTRACT FOR
MADISON METROPOLITAN SEWERAGE DISTRICT
2025 LEAD ABATEMENT**

THIS CONTRACT, made this _____ day of _____, 20____
between _____

hereinafter called the CONTRACTOR, and the Madison Metropolitan Sewerage District,
hereinafter called the OWNER or the District.

WITNESSETH: That the Contractor and the Owner for the consideration stated herein agree as follows:

ARTICLE I, SCOPE OF WORK:

The contractor shall provide and furnish all labor, materials, equipment, tools, power, utilities, transportation, and all other items and services necessary to perform and complete in a workman like manner the **2025 Lead Abatement** project, for the Madison Metropolitan Sewerage District, all in accordance with the Contract Documents herein mentioned, including any and all Addenda prepared by the Madison Metropolitan Sewerage District, which Contract Documents are made a part of this Contract; and the Contractor shall do all other things required of the Contractor by said Contract Documents.

ARTICLE II, CONTRACT PRICE:

The Owner shall pay to the contractor for the performance of this Contract in U.S. dollars, the amount of _____ Dollars
and _____ Cents, (_____),
the said amount being computed from the Contractor's prices stated in the Bid. Payments are to be made to the Contractor in accordance with and subject to the provisions embodied in the Contract Documents.

ARTICLE III, CONTRACT DOCUMENTS:

This Contract consists of the following Contract Documents, all of which are as fully a part of this Contract as if herein set out verbatim, or if not attached, as if hereto attached.

1. Addenda No. ____ to ____ inclusive
2. Advertisement
3. MMSD General and Supplementary Conditions
4. Request for Bid
5. Contractor's Bid
6. This Instrument

In the event that any provision in any of the above component parts of this Contract conflicts with any provision in any other of the component parts, the provision in the component part first enumerated above shall govern over any other component part which follows it numerically, except as may be otherwise specifically stated.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement. One counterpart each has been delivered to Owner, Contractor and Engineer. All portions of the Contract Documents have been signed or identified by Owner and Contractor.

(Contractor's Seal)

(Contractor)

Attest _____

By _____

Title _____

Title _____

(Owner's Seal)

Madison Metropolitan Sewerage District
(Owner)

Attest _____

By _____

Title _____

Title _____

GENERAL CONDITIONS

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GENERAL CONDITIONS

PART 1: DEFINITIONS AND TERMINOLOGY

1.01 Defined Terms

A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. Addenda—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
2. Agreement—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
3. Application for Payment—The document prepared by Contractor, in a form acceptable to Engineer, to request progress or final payments, and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
4. Bid—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
5. Bidder—An individual or entity that submits a Bid to Owner.
6. Bidding Documents—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
7. Bidding Requirements—The Advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
8. Change Order—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
9. Change Proposal—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
10. Claim—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
11. Commission—The Commission of the Madison Metropolitan Sewerage District.
12. Constituent of Concern—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

13. Consulting Engineer—Consulting Engineer is identified in Article 3 of the Agreement. The Consulting Engineer duties shall be in accordance with Article 3 of the Agreement. The Consulting Engineer is not the Engineer as defined in these documents.
14. Contract—The entire and integrated written contract between Owner and Contractor concerning the Work.
15. Contract Documents—Those items so designated in the Agreement, and which together comprise the Contract.
16. Contract Price—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.
17. Contract Times—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
18. Contractor—The individual or entity with which Owner has contracted for performance of the Work.
19. Contractor's Guarantee—The terms of the guarantee set forth in Section 315.
20. District—Madison Metropolitan Sewerage District
21. Drawings—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
22. Effective Date of the Contract—The date, indicated in the Agreement, on which the Contract becomes effective.
23. Electronic Document—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.
24. Electronic Means—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.
25. Engineer— The District Principal Engineer of the Madison Metropolitan Sewerage District, including authorized representatives of the District Principal Engineer as further defined in Article 3 of the Agreement. Whenever the word Architect or Architect/Engineer is used in the Specifications, it shall have the same meaning as the word Engineer.
26. Field Order—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
27. General Requirements—Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications
28. Hazardous Environmental Condition—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.
 - a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.
 - b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
 - c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.

29. Laws and Regulations; Laws or Regulations—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
30. Liens—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
31. Milestone—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.
32. Notice—Wherever the Contract Documents refer to the giving of any notice to the Owner, Contractor, or Surety, such notice shall be deemed to have been given when written notice has been delivered to, delivered by Electronic Means, or placed in the United States mails addressed to, the authorized representative of the respective Owner, Contractor, or Surety at the permanent place of business or, in the case of notice to the Contractor, at the site of the project.
33. Notice of Award—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
34. Notice to Proceed—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
35. Order—Wherever under the provisions of the Contract an order to the Contractor from the Engineer or Owner is required, such order shall be understood to mean a written order addressed to the Contractor and signed by the Engineer or a duly authorized representative of the Owner.
36. Owner—Madison Metropolitan Sewerage District, 1610 Moorland Road, Madison, WI 53713
37. Progress Schedule—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor's plan to accomplish the Work within the Contract Times.
38. Project—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
39. Proposal—Contractor's Proposal, submitted to Owner in response to a Request for Proposal, and included as part of the Contract Documents.
40. Records—Any and all documents and records created by the Contractor for the benefit of the Owner, relating to the Work. Records include but are not limited to plans, drawings, specifications, shop drawings, tests, inspections and related reports.
41. Resident Project Representative—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.
42. Samples—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
43. Schedule of Submittals—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals.
44. Schedule of Values—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
45. Shop Drawings—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
46. Site—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.

47. **Specifications**—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
48. **Subcontractor**—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
49. **Submittal**—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers' instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.
50. **Substantial Completion**—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion of such Work.
51. **Successful Bidder**—The Bidder to which the Owner makes an award of contract.
52. **Supplementary Conditions**—The part of the Contract that amends or supplements these General Conditions.
53. **Supplier**—A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
54. **Surety**—Any person, firm, or corporation that has executed, as Surety, the Contractor's Performance or Payment Bonds securing the within Contract.
55. **Technical Data**
- a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.
 - b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.
 - c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.
56. **Underground Facilities**—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit,

distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.

57. Unit Price Work—Work to be paid for on the basis of unit prices.
58. Work—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
59. Work Change Directive—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. Intent of Certain Terms or Adjectives: The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 406 or any other provision of the Contract Documents.

C. Day: The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. Defective: The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:

1. does not conform to the Contract Documents;
2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
3. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or Paragraph 15.04).

E. Furnish, Install, Perform, Provide

1. The word “furnish,” when used in connection with services, materials, or equipment, means to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word “install,” when used in connection with services, materials, or equipment, means to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, means to furnish and install said services, materials, or equipment complete and ready for intended use.

4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

F. Contract Price or Contract Times: References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.

G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

PART 2: INSURANCE, BONDS, AND LEGAL MATTERS

201. CONTRACTOR'S INSURANCE

The Contractor shall not commence work under this Contract, and shall not allow any subcontractors to commence work, until all the insurance required hereunder has been obtained and such insurance certification has been reviewed by the Owner. Review of the insurance certification by the Owner shall not relieve or decrease the liability of the Contractor hereunder. The insurance certification shall name as Additional Insureds the Madison Metropolitan Sewerage District, its Consulting Engineer, if any, and others as set forth in the Supplementary Conditions. Contractor shall provide updated certification as required until at least final acceptance. Contractor shall ensure that all insurance coverages remain in full force continuously from the commencement of work until final acceptance and during any correction periods without lapse.

The Contractor shall obtain, pay for, and maintain such Worker's Compensation and Employer's Liability, Comprehensive General Liability, Business Automobile Liability, Umbrella Liability Insurance, and such other insurances that Owner may determine is necessary, to protect the Contractor performing work covered by this Contract from claims for damages for bodily injury, including accidental death, as well as for claims for property damage which may arise from operations under this Contract whether such operations be by Contractor itself or any Subcontractor, or by anyone directly or indirectly employed by either of them, on the forms, and with limits not less than those set forth in the Supplementary Conditions. The policies of insurance required remain in effect, at least until final acceptance, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.

All policies shall be underwritten by insurer(s) with minimum A.M. Best Ratings of A-VII. Each policy of insurance shall provide that it will not be canceled by the insurance company or the Contractor, except upon thirty (30) days' written notice to Owner, such notice to be delivered by registered mail to the representative named in the Notice section of this Contract. The certificates of insurance and endorsements shall be delivered to Owner upon execution of the Contract but in no event later than fifteen (15) days prior to commencement of the Work. In addition, all insurance maintained by the Contractor, including any excess or umbrella policy(ies), shall be primary with respect to the interest of Owner, with any other insurance maintained by Owner being excess and not contributory with the Contractor's insurance. Upon Owner's request, the Contractor shall provide Owner with the full policies of insurance for the insurance required by this Contract, and copies of any new or renewed policies of insurance issued pursuant to this paragraph shall be provided to Owner within fifteen (15) days of their issuance.

Failure on the part of the Owner to receive a copy of the insurance policy(ies), certificate(s) of insurance, or endorsements from the Contractor does not preclude the Contractor from satisfying this contractual provision.

The Contractor agrees that any dispute that arises between the Contractor and the insuring agent or insurance company regarding coverage relating to the Work shall be a dispute solely between the Contractor and the insuring agent or insurance company and should be resolved by the

Contractor and the insuring agent or insurance company. All costs and legal fees arising from such disputes will be borne solely by the Contractor. The Contractor agrees that any dispute and associated costs, including attorneys' fees, regarding insurance coverage pursuant to the terms of this Contract will be the sole responsibility of the Contractor. Any damage to property, personal injury, or other injury or damage for which the Contractor is responsible to indemnify the Owner shall not be affected by the coverage or lack of coverage by any insurance obtained by the Contractor.

In the event the Contractor fails to obtain such insurance prior to the commencement of the Work or in the event of cancellation of such insurance for any reason, either by the Contractor or by the insurance company, the Owner may negotiate and purchase such insurance in the amounts and within the limits provided for herein and charge all costs and expenses in obtaining such insurance against the principal amount due under this Contract. The Contractor agrees to reimburse the Owner for the same within five (5) days after being furnished with a statement thereof.

All insurances required herein, pursuant to the specific requirements of the Supplementary Conditions, are the minimum types and amounts required for compliance with this Contract and shall not be construed as the full amount and types of insurance necessary to adequately protect the Contractor or its subcontractors nor its full and complete obligations to the Owner as provided for in this Contract or otherwise, and the Contractor shall be solely responsible for any deficiencies thereof. It is the Contractor's sole obligation to determine and implement any other types or additional amounts of insurance necessary to protect the Contractor's obligations and interests. The types and amounts of any insurance required herein shall not serve to limit the total liability of the Contractor under the Contractor's Guarantee, or any warranty or indemnity provision of this Contract or any other obligation the Contractor may have to the Owner or others.

202. OWNER'S INSURANCE

The Owner, at its option, may maintain such insurance as will protect it from liability for injuries to persons or damage to property which may arise from operations under this Contract. Any such insurance maintained by Owner shall be excess and not contributory with the Contractor's insurance.

203. PERFORMANCE AND PAYMENT BONDS

The Contractor shall furnish a Performance Bond and a Payment Bond each in an amount at least equal to 100% of the Contract price, as security for the faithful performance of this Contract and for the payment of all persons performing labor and furnishing materials in connection with this Contract, including without limitations because of specific enumeration therein all of the items mentioned in Section 779.14 (1m)(e) Wisconsin Statutes. The Performance Bond and the Payment Bond shall each run for the life of the Contract including any guarantee or warranty periods.

The Owner may, in the Owner's sole discretion, waive requirement for a Performance Bond and Payment Bond as provided by Supplementary Conditions.

The form of the Performance Bond and the Payment Bond shall be EJCDC® C 610, Performance Bond (2010, 2013, or 2018 edition) and EJCDC® C 615, Payment Bond (2010, 2013, or 2018 edition).

The surety on the bonds shall be licensed to underwrite contracts in the State of Wisconsin, and a certificate to that effect shall be attached to the bond. If the principal is an individual, full name and residence of the individual shall be inserted in the body thereof; and the individual shall sign the bond with their usual signature on the line opposite the scroll seal. If the principals are partners, their individual names shall appear in the body of the bond with the recital that they are partners comprising a firm and naming it; and all members of the firm shall execute the bond as individuals. The signature of a witness shall appear in the appropriate place, attesting to the signature of each individual party to the bond. If the principal is a corporation, the name of the State in which incorporated shall be inserted in the appropriate place in the body of the bond; and said instrument shall be executed and attested under the corporate seal as indicated on the form. If the corporation has no corporate seal, the fact shall be stated, in which case a scroll or adhesive seal shall appear following the corporate name. This also applies to execution by surety.

A power of attorney, authorizing the execution of the bond by an attorney-in-fact or agent, shall be attached to one executed counterpart of the bond. If the bond is executed by an out-of-state agent, it shall be countersigned by a licensed resident agent of Wisconsin; and evidence of his being so licensed shall be furnished.

Every bond must run to the Madison Metropolitan Sewerage District. The date of the bond must not be prior to the date of the Contract for which it is given.

204. COMPLIANCE WITH LAWS

The Contractor shall, at all times, comply with all laws, ordinances, rules, and regulations applicable to the Work and/or remedies thereto performed by the Contractor, including the production, transport, delivery, installation, correction, repairs, and/or re-performance of the Work or any portion thereof. The Contractor shall indemnify, defend, and save harmless the Owner and all of its officers and employees against any claim or liability arising from or based on the violation of any such law, ordinance, rule, or regulation, whether by the Contractor or the Contractor's employees, Subcontractors, or agents. The Contractor shall comply with the Wisconsin Unemployment Compensation Act and Title Eight of the Social Security Act.

205. ROYALTIES AND PATENTS

The Contractor shall pay for all royalties and patents relating to the Work, shall defend all suits or claims for infringement on any patent right, and shall save the Owner harmless from loss on account thereof.

206. INDEMNIFICATION

- a) General Indemnity. The Contractor shall indemnify, defend and save harmless the Owner and all of its officers, employees, consultants and agents ("Indemnified Parties") against any claim, liability, loss, damage, expense, cost and attorneys' fees arising from or based on, in whole or in part, any negligent act or omission by the Contractor or the Contractor's employees, subcontractors or agents, whether negligent or not. In the event one or more of the Indemnified Parties is made a party to any suit or litigation (whether or not the Indemnified Parties are the only parties alleged to be negligent) because of injury or damage or alleged injury or damage to person, life, or property or injury or alleged injury resulting in the death of any person or persons arising out of or in connection with the performance of the Work or progress of the Work to be done under

the Contract Documents, the Contractor shall defend such action on behalf of the Indemnified Party or Parties by counsel chosen by the applicable Indemnified Party or Parties being defended and shall pay all damages, costs, expenses, and reasonable attorneys' fees incurred in connection with such defense. If judgment shall be obtained or claim allowed in any of such proceedings against any of the Indemnified Parties or a settlement is reached, the Contractor shall pay and satisfy such judgment, claim, or settlement, except the portion thereof that shall be determined or mutually agreed to be caused solely by the negligence of one or more of the Indemnified Parties. In the event it is determined after final disposition of any action arising as a result of any acts indemnified that the acts complained of were the result of the sole negligence on the part of the Owner or its officers, agents, employees, or board of directors, the Owner shall still, in that event, be entitled to indemnity from the Contractor for the cost of defense, including reasonable attorneys' fees.

- b) Additional Indemnity. The Contractor also agrees to indemnify and hold harmless the Indemnified Parties from and against all claims, damages, losses, forfeitures, penalties, and expenses, including but not limited to attorneys' fees and court costs arising out of or resulting from:
- i. The negligent or otherwise wrongful acts or omissions of the Contractor or the Contractor's subcontractors, suppliers, laborers, workers, mechanics, materialmen, and furnishers of machinery and parts thereof; equipment; power tools; and all supplies incurred in the furnishing or performance of the Work, including any person directly or indirectly employed by any of them or any person for whose acts any of them may be liable during the furnishing or performance of the Work or any curative action under the Contractor's Guarantee under this Contract following furnishing or performance of the Work.
 - ii. Claims growing out of demands of the Contractor's subcontractors, including without limitation all expenses and attorneys' fees incurred by any Indemnified Party in discharging any liens or similar encumbrances.
 - iii. All claims, demands, fines, or causes of action by any regulatory body or governmental agency arising out of any violation for the Contractor or its subcontractors' failure to have appropriate authority to furnish or perform the Work.
 - iv. All claims, fines, damages, losses, or causes of action in any way related to hazardous or toxic substances, wastes, materials, pollutants, or contaminants (as such terms may be defined under any federal or state law pertaining to health, safety, or protection of the environment) that the Contractor or its employees, subcontractors, or sub-suppliers bring onto the location of the Work and all damages or claims of whatever nature arising from environmental violations and citations due to noncompliance with environmental permits, laws, statutes, ordinances, orders, rules, and regulations.

207. NO DISCRIMINATION

The Contractor will not discriminate against any employee or applicant for employment in violation of any applicable federal, state, or local law, statute, regulation, or ordinance. The Contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their sex, race, color, creed, age, sexual-orientation, gender identity, disability or national origin. Additionally, the Contractor will comply with all applicable laws, regulations, and rules of government agencies relating to equal employment, civil rights, nondiscrimination, and immigration.

208. INDEMNITY AGAINST LIABILITY UNDER THE FAIR LABOR STANDARDS ACTS, SOCIAL SECURITY ACTS, AND UNEMPLOYMENT COMPENSATION ACTS.

The Contractor shall comply with all applicable fair labor standards acts, unemployment compensation acts, and federal social security acts in all respects, including the preparation of reports and records required thereunder. The Contractor will indemnify and save the Owner harmless from all claims and liabilities arising under applicable fair labor standards acts, unemployment compensation acts, and the federal social security acts.

PART 3: SCOPE OF THE WORK

301. INTENT OF THE CONTRACT DOCUMENTS

The Contract Documents are complementary and what is called for by one shall be as binding as if called for by all. The intention of the Contract Documents is to include in the Contract price the cost of all labor and materials, water, fuel, tools, plant, equipment, power, light, transportation, and all other expenses, including unforeseen costs, as may be necessary for the proper execution of the Work. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.

Standard specifications and codes which are referenced in the Contract Documents shall be made a part of the Contract Documents by reference. The most recent revisions of such standard specifications or codes shall apply.

In any case of discrepancy in the Contract Documents, the matter shall be immediately submitted to the Engineer, who shall provide a written decision within 10 business days. The Contractor shall not proceed with any related Work until the discrepancy is resolved, except at its own sole risk and expense.

The Contractor agrees that it is an independent contractor and not an employee of the Owner and shall at all times be solely responsible for itself, as well as its employees, agents, and subcontractors, as to workmanship, accidents, injuries, wages, supervision, and control. The Contractor shall indemnify and hold the Owner harmless from any claims arising from the Contractor's failure to comply with these responsibilities.

The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.

Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will 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.

302. SAFETY, HEALTH, AND SANITATION

The Contractor shall comply with all Federal, State, and Local laws and codes governing safety, health, and sanitation; shall provide and maintain all safeguards, safety devices, and protective equipment; and shall take any other actions necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the Work covered by the Contract. Failure to comply with these requirements will be considered a breach of contract. Unless otherwise indicated in the Contract Documents, the Contractor shall provide and maintain acceptable portable toilets and other sanitary conveniences at the site of the Work.

The Contractor is specifically notified that wastewater treatment plants, pumping stations and sewer systems contain confined space work areas which may be susceptible to accumulation of hazardous gases or depletion of oxygen levels. The Contractor must familiarize itself with and

abide by all applicable state and federal regulations regarding confined space entry precautions and procedures. The Contractor shall familiarize itself with the proper use of gas detectors, breathing apparatus, tripods/harnesses, ventilation and all other measures as called for in the applicable state and federal regulations.

The Contractor is solely responsible for establishing and administering a safety program relating to the Work to meet any applicable Occupational Safety and Health Administration (OSHA), federal, state, and local safety laws, statutes, regulations, or requirements, including applicable Owner safety policies and procedures (collectively, "Safety Requirements") and is responsible for the safety of its employees and equipment. The Contractor will pay any citation issued for noncompliance of Safety Requirements arising from or related to the Work. The Contractor shall indemnify and hold the Owner and its employees, officers, directors, agents, and authorized representatives harmless from any damage or claims of whatever nature arising from safety violations and citations due to noncompliance with Safety Requirements.

Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.

Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly known as material safety data sheets) or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations. Failure to properly coordinate and communicate hazard information will be considered a breach of contract.

303. PROTECTION OF THE WORK

Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

1. all persons on the Site or who may be affected by the Work;
2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

All damage, injury, or loss to any property referred to in this Article caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense, regardless of whether the damage was foreseeable or unforeseeable (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.

Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.

These statements of specific duties on the part of the Contractor shall not be considered as a limitation of the general duties imposed by the Contract Documents.

In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused by an emergency, or are required as a result of Contractor's response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor's response, a Work Change Directive or Change Order will be issued. Failure to act promptly in an emergency will be considered a breach of contract.

The Owner reserves the right to remedy any neglect on the part of the Contractor as regards protection of the Work after 24 hours' notice in writing, except in case of any emergency when the Owner shall have the right to remedy any neglect without notice and, in either case, to deduct the cost of such remedy from any money due or to become due to the Contractor.

304. PERMITS, LICENSES, AND NOTIFICATIONS

Unless otherwise indicated in the Contract Documents, or if the permitting agency will only grant required permits or licenses to the Owner, the Contractor shall obtain and pay for all permits and licenses. The Contractor shall comply with all provisions of required permits and licenses and shall give all notices which are necessary for the due and lawful prosecution of the Work. The Contractor shall furnish proof to the Owner that such permits and licenses have been obtained. The Contractor shall maintain such permits and licenses for the duration of the Contract.

305. USE OF THE SITE

Owner shall furnish the Site. Owner shall notify Contractor in writing of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. The Contractor shall honor any agreement between the Owner and third parties relating to use of real property.

Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other

adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.

If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.

Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall promptly remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

In case of a dispute, the Owner may remove the rubbish or surplus materials and charge the cost to the Contractor. Contractor shall promptly reimburse Owner for such costs.

The Contractor shall take special precautions, such as confining its operations to as small an area as possible, in order to minimize damage to crops, soils, and general vegetation on the Site.

Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

306. SUBSURFACE AND PHYSICAL CONDITIONS

A. The Supplementary Conditions identify:

1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;
2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the

Site (except Underground Facilities), that contain Technical Data; and
3. Technical Data contained in such reports and drawings.

B. Underground Facilities are shown or indicated on the Drawings, pursuant to Article 308, and not in the drawings referred to in Paragraph 306.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

C. Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data. as defined in Paragraph 1.01.A.55.b.

D. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;

3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or

4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

307. DIFFERING SUBSURFACE OR PHYSICAL CONDITIONS

A. If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:

1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Article 3.06 is materially inaccurate;
2. is of such a nature as to require a change in the Drawings or Specifications;
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement by Owner permitting Contractor to do so.

B. After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for

Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 3.07.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.

C. After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

D. If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

E. Possible Price and Times Adjustments

1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. Such condition must fall within any one or more of the categories described in Paragraph 3.07.A;
- b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Article 311; and,
- c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 3.07.D and 3.07.E.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:

- a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;
- b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
- c. Contractor failed to give the written notice required by Paragraph 3.07.A.

3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.

4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the

subsurface or physical condition in question.

F. Article 308 governs rights and responsibilities regarding the presence or location of Underground Facilities. Article 309 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Articles 306 and 307 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

308. UNDERGROUND FACILITIES

A. Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:

1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
2. complying with applicable state and local utility damage prevention Laws and Regulations;
3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.

B. If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency), notify Owner and Engineer in writing regarding such Underground Facility.

C. Engineer will, in his or her sole discretion:

1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;
2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;
3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and
4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.

During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

D. After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.

E. If at any time Engineer determines, in his or her sole discretion, that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

F. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Article 311;
- b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 308.D and 308.E; and
- c. Contractor gave the notice required in Paragraph 308.B.

If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.

Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, or (b) obtained from available records. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 308.F.

309. HAZARDOUS ENVIRONMENTAL CONDITIONS AT SITE

A. The Supplementary Conditions identify:

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;
2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
3. Technical Data contained in such reports and drawings.

B. Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and

procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.

D. Contractor shall be 100% responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.

E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are reasonably necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 309.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.

G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions Articles 312 and 507.

H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 312. Owner may have such deleted portion of the Work performed by Owner's own forces or

others in accordance with Articles 310 and 414.

I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Consulting Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 309.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 309.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligent act or omission.

J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 309.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

K. The provisions of Articles 306, 307, and 308 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

310. OTHER CONTRACTS

The Owner may undertake additional work at the job site through other contractors or through the Owner's employees. The Contractor shall cooperate fully with such other contractors and employees and shall carefully fit its own Work to that provided by others. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other contractor or employee.

311. CUTTING AND PATCHING

The Contractor shall do all cutting, fitting, or patching of the Work that may be required to make its several parts fit together properly and fit it to receive or be received by work of other contractors shown upon or reasonably implied by the plans.

312. CHANGES IN THE WORK

The Contract may be amended or supplemented by a Change Order, or a Work Change Directive. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. Owner and Contractor shall execute appropriate Change Orders covering:

1. Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
3. Changes in the Work which are: (a) ordered by Owner, (b) required because of Owner's acceptance of defective Work or Owner's correction of defective Work, or (c) agreed to by the parties; and
4. Changes that embody the substance of any final and binding results resolving the impact of a Work Change Directive or Change Proposal; final adjustments resulting from allowances; final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.

If Owner or Contractor refuses to execute a Change Order that is required to be executed as specified above, it will be deemed to be of full force and effect, as if fully executed.

A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments.

Engineer may authorize minor changes in the Work if, in his or her sole discretion, the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a "No Cost" Work Change Directive and will be binding on Contractor, which shall perform the Work involved promptly. If Contractor believes that a "No Cost" Work Change Directive justifies an adjustment in the Contract Price or Contract Times, then before proceeding with the Work at issue, Contractor shall promptly submit a Change Proposal.

Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work. The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

Without invalidating the Contract and without notice to any surety, Engineer may, at any time or from time to time, order additions, deletions, or revisions in the Work. All such additions, deductions, alterations, or revisions which are not already stated or reasonably implied under the Contract Documents, shall be designated as Changes in the Work. Such Changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if

any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency.

If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

Adjustments, if any, in the amounts to be paid to the Contractor due to Changes in the Work shall be determined on the basis of an agreed lump sum amount, an agreed unit price, or time-and-materials. For adjustments based on a lump sum amount, the Contractor shall submit supporting documentation acceptable to the Engineer showing how the lump sum amount was computed. The Contractor or Subcontractor who actually performs the Change in Work shall be allowed a maximum mark-up of 15% to the actual cost to do the Work. Any higher tier Subcontractors and the Contractor shall be allowed a maximum mark-up of 5% to the next lower tier Subcontractor. It is understood that these mark-ups constitute full compensation for overhead and profit and that additional costs or mark-ups for items such as bonds, insurance, administration, estimating, engineering, general conditions, vehicles, equipment, small tools, consumables, paperwork preparation, etc., will not be allowed. For credit Changes in Work, the total decrease in cost shall be the actual decrease in cost to the Contractor plus a 5% decrease for overhead and profit.

If any Change in the Work is such that an estimated Work item quantity stated in the Proposal is increased or decreased by 50 percent or less, the Contractor agrees that payment adjustments for such Change in the Work shall be computed in accordance with the original unit price given in the Proposal for that Work item. If, however, any Change in the Work is increased or decreased by more than 50 percent of such quantity, the Contractor agrees that payment adjustments for such Change in the Work shall be as re-negotiated by the Owner and Contractor.

For Changes in the Work to be paid for on the basis of time-and-materials, the Contractor shall be paid the costs of labor, materials, and equipment, all as defined below. The Contractor or Subcontractor who actually performs the Change in Work shall be allowed a maximum mark-up of 15% to the actual cost to do the Work. Any higher tier Subcontractors and the Contractor shall be allowed a maximum mark-up of 5% to the next lower tier Subcontractor. It is understood that these mark-ups constitute full compensation for overhead and profit and that additional costs or mark-ups for items such as bonds, insurance, administration, estimating, engineering, general conditions, vehicles, equipment, small tools consumables, paperwork preparation, etc., will not be allowed. For credit Changes in Work, the total decrease in cost shall be the actual decrease in cost to the Contractor plus a 5% decrease for overhead and profit. It is also understood that this mark-up shall constitute full compensation for overhead and profit and shall apply regardless of whether the labor, materials and equipment are furnished by the Contractor's own forces or by a subcontractor or supplier. The costs of labor, materials and equipment shall be determined as provided in the following paragraphs:

- a. Labor

The cost of labor shall include the cost of all workers and supervisors devoting their exclusive attention to the work in question, whether they are employed directly by the Contractor or by a Subcontractor. Unless otherwise approved by the Engineer, in his or her sole discretion, the cost of labor shall be based on an hourly rate and shall be computed as the sum of the employee's basic hourly wage, fringe benefits (including health and welfare, pension, vacation, holiday pay, and training), worker's compensation insurance premiums, state and federal unemployment insurance contributions, social security taxes, property damage insurance premiums, and liability insurance premiums. A detailed breakdown of the hourly rates shall be submitted by the Contractor prior to starting the time-and-materials work and shall be subject to the Engineer's sole approval.

b. Materials

The cost of materials shall be the actual cost to the purchaser (whether Contractor or Subcontractor) of materials which are approved by the Engineer and which are actually used or incorporated into the work in question.

c. Equipment

The cost of equipment shall be computed on the basis of rental rates which are acceptable to the Engineer and which are no higher than those used by established distributors or equipment rental agencies in the local area of the work. Rental rates shall be understood to include the costs of fuel, oil, lubrication, supplies, attachments, depreciation, insurance and all repairs, maintenance and incidentals. Rental rates shall not include any markup for Contractor overhead and profit, since this is included in the markup as set forth above.

Rental rates shall be allowed only for equipment, the use of which is authorized by the Engineer and only for the period of time during which the equipment is actually required for the time-and-materials work in question. Equipment stand-by rates shall not be allowed. When equipment is transported, rental rates shall be allowed for the transporting vehicle only. Rental rates shall not be allowed for non-working days nor for time when the equipment is inoperable due to breakdowns. Rental rates shall not be allowed for small tools or any items of equipment having a replacement value of less than \$200. If the Contractor and Engineer cannot agree on acceptable rental rates, the rates shall be in accordance with the following paragraphs.

For all Contractor-owned equipment used on the time-and-materials work, equipment rental rates contained in the Rental Rate Blue Book, published by Equipment Watch, will be used, unless otherwise provided, to compute the equipment rental rate. The rental rates in effect on April 1 of each year will be used for work throughout the season. Rental rates will not be adjusted to account for regional differences in cost. The equipment rental rate shall be the sum of the monthly or weekly rental rate expressed on an hourly basis and the hourly operating cost and will be determined as follows: The monthly rental rate will be divided by 176 to obtain the monthly-hourly rental rate and the weekly rental rate will be divided by 40 to obtain the weekly-hourly rental rate. The equipment rental rate for on-job equipment will be based on the monthly-hourly rental rate for all hours of operation. The equipment cost rate for equipment furnished only to accomplish time-and-materials Work will be based on the weekly-hourly rental rate for all hours of operation up to and including 88 hours and on the monthly-hourly rental rate for all hours of operation over 88 hours. The rate for any specialized equipment not listed in the Rental Rate Blue Book must be approved by the Engineer prior to use.

For equipment which is rented by the Contractor for time-and-materials work, the cost of equipment shall be the actual amount shown by invoice from the rental agent, or shall be computed in the manner described above for Contractor-owned equipment, whichever amount is less.

d. Exemptions

No additional allowance shall be made for general superintendence, the use of small tools, or other costs for which no specific allowance is herein provided.

e. Records

The compensation as set forth above shall be received by the Contractor as payment in full for Work done on a time-and-materials basis. At the end of each day the Contractor's representative and the Engineer shall compare records of the cost of Work done on a time-and-materials basis.

f. Itemized Statements

No payment will be made for Work performed on a time-and-materials basis until the Contractor shall furnish to the Engineer duplicate itemized statements of the cost of such Work, detailed as to the following:

1. Name, classification, dates, daily hours, total hours, rate, and extension of each laborer and supervisor.
2. Designation, dates, daily hours, total hours, rental rate, and extension of each truck and other unit of machinery and equipment.
3. Quantities of materials, prices, and extensions.
4. Transportation of materials.
5. Such statements shall be accompanied and supported by original receipted invoices for all materials used, equipment rented, and transportation charges; provided that if materials used on the time-and-materials Work are not specifically purchased for such Work but are taken from the Contractor's stock, then in lieu of the original invoices the statements shall contain or be accompanied by an affidavit of the Contractor certifying that such materials were taken from stock, that the quantity claimed was actually used, and that the price and transportation claimed represents the actual cost to the Contractor.

No verbal order or suggestions given by an employee of the Owner shall be construed as authorizing or laying the basis for any claim on the part of the Contractor for extra compensation, either for work or materials or for damages because of the Contractor's compliance therewith. Such verbal orders and suggestions as to the performance of the Work may be freely given, but in case they appear to the Contractor to involve Changes in the Work, for which the Contractor should receive extra compensation, the Contractor shall obtain a written order from the Engineer for such Changes in the Work prior to performing the Work unless an emergency situation is determined to exist by the Engineer in his or her sole discretion. In case of a dispute as to what does or does not constitute Changes in the Work, a decision will be made by the Engineer in his or her sole discretion.

313. ALLOWANCES

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. Cash Allowances: Contractor agrees that:

1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment for any of the foregoing will be valid.

C. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

314. UNIT PRICE WORK

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. Adjustments in Unit Price

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
 - a. the quantity of the item of Unit Price Work performed by Contractor differs by more than 50 percent of such quantity from the estimated quantity of such item indicated in the Agreement; and
 - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.

3. Adjusted unit prices will apply to all units of that item.
4. The Contractor shall provide, to the Engineer, satisfactory supporting documentation that justifies adjustments to unit prices.

315. CONTRACTOR'S GUARANTEE

Unless otherwise stated in the Contract Documents, the Contractor shall guarantee the Work performed under this Contract against defects in workmanship and materials for a period of one year from the date of final acceptance of the Work by the Commission. This guarantee shall cover all the Work and materials provided under the Contract, including that provided by any Subcontractors or manufacturers. If any defect should appear during the guarantee period, the Contractor shall promptly make required replacement or acceptable repairs of the defective Work at his own expense and shall pay for any damage to other Works resulting from such defects. This expense includes total and complete restoration of any disturbed surface to its original or better than original condition which existed before the repairs or replacement, regardless of improvements on lands where the repair or replacement is required.

The Performance Bond and Payment Bond shall remain in force during this guarantee period. The Contractor shall make all repairs and replacements promptly. If the Contractor fails to make the repairs and replacements promptly, the Owner may do the Work; and the Contractor and his Surety shall be liable for the cost thereof. The Contractor also agrees to hold the Owner and the Engineer harmless from liability of any kind arising from damage due to said defects in workmanship or materials.

This guarantee shall not preclude claims by the Owner beyond the one-year guarantee period for negligence or intentional acts by the Contractor arising out of or related to the Work.

316. PARTIAL OWNER OCCUPANCY

The Owner, at its sole discretion, may place into service certain portions of the completed work. The Contractor shall provide proper access to Owner's personnel for this purpose.

If the Owner places a certain portion of the work into service, and if the Owner becomes fully satisfied with the performance of that specific work, the Owner may, at Owner's sole discretion, allow the Contractor's guarantee period for that specific work to begin on a date earlier than the overall final acceptance date for the project. Unless the Owner specifically notifies the Contractor, in writing, of such an earlier guarantee date, the Contractor's Guarantee against defects in workmanship and materials for work which has been placed into service shall remain for one full year after the date on which the work receives final acceptance by the Commission.

PART 4: CONTROL OF THE WORK

401. NOTICE TO PROCEED

The Contractor shall not begin the Work until written Notice to Proceed has been issued by the Owner. The Contractor shall abide by any special instructions which may be stated in the Notice to Proceed.

402. PRE-CONSTRUCTION SUBMITTALS

Before beginning the Work, the Contractor shall submit the following preconstruction submittals to the Engineer, for review and comment:

- Detailed construction schedule, in graphical chart form, showing the Contractor's proposed start and finish dates for all key construction tasks required on the project and that provides an orderly progression of the Work to completion within the Contract Times.
- Detailed Schedule of Submittals that provides a workable arrangement for reviewing and processing the required submittals before materials and products are ordered and in ample time to permit satisfactory progress of the Work.
- Detailed schedule of values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.
- Copies of all building permits, dewatering permits, erosion control permits and any other construction related permits required by local, state or other bodies.
- Additional special preconstruction submittals as may be required in the specifications.

403. SUPERINTENDENCE

The Contractor shall have, at the site of the Work, at all times, a competent foreman, superintendent, or other representative with at least 10 years of relevant experience and certifications satisfactory to the Owner and having authority to act for the Contractor.

404. CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION

Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and Owner does not have any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services. Contractor shall be fully liable for any errors, omissions, or defects in such services. Contractor shall indemnify and hold harmless Owner and Engineer for any deficiencies arising from such services.

405. DELEGATION OF PROFESSIONAL DESIGN SERVICES

A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the

performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.

B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.

C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.

D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.

E. Pursuant to this Article 405, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:

1. Checking for conformance with the requirements of this Article 405;
2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.

F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.

G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

406. ENGINEER'S STATUS

The Engineer shall resolve all questions which arise as to the quality and acceptability of materials furnished and the Work performed, manner of performance, rate of progress of the Work, interpretation of the Contract Documents, compensation, and disputes and mutual rights between Contractors under the Contract Documents. The Engineer shall determine the amount and quantity of the Work performed and materials furnished. The Engineer shall have the authority to order the partial or complete suspension of the Work whenever it may be necessary to insure the proper fulfillment of the Contract. The Work shall be prosecuted in such order as is acceptable to the Engineer.

The Engineer and all duly authorized representatives shall at all times have access to the Work wherever it is in preparation or progress and the Contractor shall provide proper facilities for such access and for inspection. The Engineer reserves the right to inspect and reject materials and workmanship at any stage of the construction. If any Work should be covered up or made inaccessible without approval or consent of the Engineer, it must, if required by the Engineer, be uncovered or made accessible for examination at the Contractor's expense. The presence or absence of the Engineer shall not relieve in any degree the responsibility or the obligation of the Contractor to construct in accordance with the Contract Documents.

If the Contract Documents, the Engineer's instructions, laws, ordinances, or any public authority require any Work to be specially tested or approved, the Contractor shall give the Engineer timely notice of its readiness for such inspection or testing. If the inspection or testing is by an authority other than the Engineer, the Contractor shall give the Engineer timely notice of the date fixed for such inspection.

The Engineer shall have the right to reject any materials and workmanship which, in the Engineer's opinion, are defective or unacceptable. The Contractor shall promptly remove, replace, and make good at the Contractor's cost any such defective or unacceptable Work. Any failure to reject Work at the time of its construction shall not be construed as an acceptance of defective Work.

If any doubt exists as to the character or acceptability of Work performed, the Engineer may order the Contractor to perform special tasks needed to expose, examine, or verify the character or acceptability of the Work and the Contractor shall promptly perform such special tasks. No extra payment shall be allowed to the contractor for such special tasks if the Work in question is found to be defective or unacceptable or if such special tasks are already required or implied under the Contract Documents. If, however, the Work in question is found to be acceptable and the said special tasks are not already required or implied under the Contract Documents, such special tasks shall be paid for as Changes in the Work.

407. PLANS, DRAWINGS, AND SPECIFICATIONS

Unless otherwise provided in the Contract Documents, the Owner will furnish the Contractor the plans, drawings, or specifications in electronic format, that are reasonably necessary to carry out the Work. The Engineer may also furnish from time to time such additional detail drawings or other information as he or she may consider necessary. The Contractor shall keep on the worksite a copy of the plans, drawings, and specifications and shall at all times give the Engineer access to them.

The Contractor shall check carefully all dimensions shown on the plans and drawings before beginning the Work. Should errors be discovered, the Engineer's attention shall be called to the same and proper corrections made.

Contours or profiles of the ground, where shown on the plans or drawings, are believed to be reasonably correct but are not guaranteed to be absolutely so and, together with any schedule of quantities, are presented only as an approximation. No payment shall be made for additional Work due to minor discrepancies in existing grade.

408. REFERENCE POINTS

Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

409. SUBMITTALS

The Contractor shall submit to the Engineer shop drawings or schedules of all materials and products required for the Work. Material samples or additional data shall be submitted by the Contractor as required by the Specifications. Shop drawings, schedules, samples, and additional data shall be submitted before materials and products are ordered and in ample time to permit satisfactory progress of the Work. Unless otherwise specified in the Contract Documents, shop drawings and schedules shall be submitted in an electronic format that is specified and approved by Owner and Engineer and in such detail as may be necessary for the Engineer to inform him or herself of the design and character of the various materials and products which the Contractor proposes to use for the Work.

The Contractor shall promptly make any corrections or revisions in the shop drawings or schedules as may be required by the Engineer and shall resubmit the same without delay. Upon the Engineer's review of shop drawings, samples, schedules, or other data, Engineer shall confirm to the Contractor that the corrections or revisions are acceptable or, if not acceptable, Engineer shall state additional corrections or revisions needed. Materials and products furnished shall be in conformance with such approved shop drawings, samples, schedules, and data. Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

It is expressly understood that review by the Engineer of the Contractor's submitted shop drawings, schedules, samples, or other data shall in no way release the Contractor from his responsibility to properly fulfill the requirements of the Contract Documents nor from his liability to replace materials or products should they prove defective or inappropriate or fail to meet the specified requirements.

410. OWNERSHIP OF RECORDS.

Any Records created by the Contractor for the Owner as part of the Work shall be the property of the Owner. The Contractor shall maintain the Records for the duration of the Contract, including the time of the Contractor's Guarantee. The Contractor shall provide the Records to the Owner at any time, within five (5) days of the Owner's request. At the expiration or early termination of the Contract, the Contractor shall provide to the Owner all Records relating to the Work.

Contractor and its Subcontractors and Suppliers shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media versions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.

411. SERVICES, MATERIALS AND EQUIPMENT

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are

specifically called for in the Contract Documents.

B. All materials and equipment incorporated into the Work must be new and of good quality, except as otherwise provided in the Contract Documents. If not otherwise provided, material or Work called for in this Contract shall be furnished and performed in accordance with well-known established practices and standards recognized by architects, engineers, and the trade. All special warranties and guarantees required by the Specifications will expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment must be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

The Contractor shall be responsible for loading, unloading, and transporting all materials and equipment furnished by the Owner for use in the Work. The Contractor shall return all unused materials and equipment to the Owner as directed by the Owner, except as otherwise provided in this Contract.

412. "OR EQUAL" CLAUSE

Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, minimum standard of design, efficiency, and quality required, and shall not be construed in such a manner as to exclude other manufacturers' products of comparable type, quality, design, and efficiency. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.

1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:

- a. in the exercise of reasonable judgment Engineer determines that the proposed item:
 - 1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) has a proven record of performance and availability of responsive service; and
 - 4) is not objectionable to Owner or the Engineer.

b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:

- 1) there will be no increase in cost to the Owner or increase in Contract Times; and
- 2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.

Contractor shall provide all data in support of any proposed "or equal" item at Contractor's sole expense.

Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be

the sole judge of acceptability. No “or-equal” item will be ordered, furnished, installed, or utilized until Engineer’s review is complete and Engineer determines, in his or her sole discretion that the proposed item is an “or-equal,” which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination. Neither approval nor denial of an “or-equal” request will result in any change in Contract Price. The Engineer’s denial of an “or-equal” request will be final and binding and may not be reversed through an appeal under any provision of the Contract.

If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an “or-equal” item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Article 413.

413. SUBSTITUTION

A. Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.

1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.

2. The requirements for review by Engineer will be as set forth in Paragraph 4.0x.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:

a. must certify that the proposed substitute item will:

- 1) perform adequately the functions and achieve the results called for by the general design;
- 2) be substantially similar in substance to the item specified; and
- 3) be suited to the same use as the item specified.

b. must state:

- 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;
- 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
- 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.

c. must identify:

- 1) all variations of the proposed substitute item from the item specified; and
- 2) available engineering, sales, maintenance, repair, and replacement services.

d. must contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other

contractors affected by any resulting change.

B. Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines, in his or her sole discretion, that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination. Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

Contractor shall promptly provide all data in support of any proposed substitute at Contractor's expense.

If Engineer approves the substitution request, Contractor shall promptly execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

414. OWNER'S RIGHT TO DO WORK

The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

If the Contractor should neglect to prosecute the Work properly or fail to perform any provision of this Contract, the Owner may, after 3 days' written notice to the Contractor and its Surety, without prejudice to any other remedy Contractor may have, make good such deficiencies and may deduct the cost thereof from the payment due the Contractor.

In case of an emergency which threatens loss, damage, or injury to persons or property and which requires immediate action to remedy in the absence of the Contractor's personnel, then and in that event the Owner, with or without notice to the Contractor or its Surety, may provide suitable protection to the said property and persons by causing such Work to be done and such material to be furnished as shall provide such protection as the Owner may consider necessary and adequate. The cost and expense of such Work and material so furnished shall be borne by the Contractor, and if the same shall not be paid on presentation of the bills therefore, then such costs shall be deducted from any amounts due or to become due the Contractor. The performance of such emergency Work under the direction of the Owner shall in no way relieve the Contractor from any damages which may occur during or after said emergency Work.

In the event that the Contractor refuses or neglects to use measures to protect the Work from damage or the Contractor is guilty of carelessness or incompetence in the execution of the Work such that public or private property is left in an unacceptable condition at the end of the work day and the Contractor is unavailable or unwilling to rectify the unacceptable condition to the satisfaction of the Engineer, in his or her sole discretion, in a timely manner, the Owner may remedy the situation and deduct all costs incurred from the amounts due the Contractor.

415. APPRENTICESHIP STANDARDS

A. All apprentices must be registered with the WI Department of Workforce Development.

B. Ratio of Apprentices to Skilled Workers by Trade: The ratio of skilled employees, journey workers, and apprentices shall be strictly followed as follows:

1. One apprentice will be allowed per company for companies with at least one full-time skilled/journey employee on job site.
2. A second apprentice may be added with 3 or 4 skilled/journey employees on jobsite. Two more journey workers than apprentices between five and twelve skilled/journey workers. Thereafter, one additional apprentice for two journey workers.
3. Fifth (final) year apprentices will be allowed to work alone on those jobs for which they have been trained and qualified for. During this period, they will not be counted toward the total number of apprentices for the purpose of the ratio.
4. At no time on a job site can there be more apprentices than journey workers.

C. Supervision of Apprentices: The apprentice shall be trained under the supervision of skilled trade persons regularly employed by the sponsoring employer. Apprentices require on-the-job supervision to ensure thorough, safe training and continuity of employment by the sponsoring employer. Unless noted by trade, final year apprentices do not have to be in direct supervision with a skilled employee. Apprentices shall never be given the responsibility to be the direct supervisor of other apprentices. On the job the ratio of apprentices to skilled trade persons shall be consistent with proper supervision.

1. First year apprentices may not work on or be exposed to live circuits or systems.
2. Fifth (final) year apprentices will be allowed to work alone on those jobs for which they have been trained and qualified for. During this period, they will not be counted toward the total number of apprentices for the purpose of the ratio.
3. At no time on a job site can there be more apprentices than journey workers.
4. Apprentices may not supervise other apprentices.

PART 5: PROSECUTION, PROGRESS, AND PAYMENT

501: PARTIAL PAYMENTS

Not later than the 20th day of each calendar month, and except as provided herein, the Owner will make partial payment to the Contractor on the basis of a duly certified and approved estimate of the Work performed by the Contractor during the preceding calendar month. Such estimates shall be submitted by the Contractor not later than the five business days prior to the first (1st) business day of the respective calendar month. Estimates submitted after this deadline will not be considered until the following month. Estimates shall be submitted on forms acceptable to the Engineer and shall be subject to the Engineer's review and approval. If approved by the Engineer, such estimates may include materials and equipment for the Project which are suitably stored at the site of the Project.

The Owner will retain 5% of the amount of each estimate until 50% of the Contract dollar amount of the Work is complete. This retainage will be held by the Owner until final acceptance of the Work by the Commission. No additional retainage by the Owner will be made unless the Work does not proceed satisfactorily. If the Work does not proceed satisfactorily, as determined by the Engineer in his or her sole discretion, the Owner may retain up to 10% of the value of the completed Work until satisfactory progress is achieved.

Payments by the Owner may be delayed due to disruptions in the Commission meeting schedule, for Owner's cash flow management, or similar reasons.

The Contractor shall pay (1) for all transportation and utility services not later than the 20th day of the calendar month following that in which such services are rendered; (2) for all materials, tools, and other expendable equipment to the extent of 90% of the cost thereof, not later than the 20th day of the calendar month following that in which such materials, tools, and equipment are incorporated or used; and (3) to each of its Subcontractors not later than the 5th day following each payment to the Contractor the respective amount allowed the Contractor on account of the Work performed by the Subcontractors to the extent of such Subcontractor's interests therein.

The Contractor shall make prompt payment of all claims for labor performed and material furnished, used, or consumed in the Work including, without limitation because of specific enumeration, fuel, lumber, building materials, machinery, vehicles, tractors, equipment, fixtures, apparatus, tools, appliances, supplies, electric energy, gasoline and other motor oil, lubrication oil and greases, and the premiums for Worker's Compensation Insurance. Failure to make prompt payments may result in a suspension of the Work. Contractor shall indemnify and hold harmless the Owner and the Engineer for any claims arising from a failure to make prompt payments hereunder.

502. SUBSTANTIAL COMPLETION

When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

Within 10 business days after receiving Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer

does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor, and Contractor shall address the deficiencies promptly. A re-inspection will be conducted within 5 business days of Contractor's notice that deficiencies have been corrected.

If Owner and Engineer consider the Work substantially complete, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Additionally, the Owner and Contractor will negotiate the division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

The Engineer will execute and deliver to Owner and Contractor a final certificate of Substantial Completion which will fix the date of Substantial Completion and define the division of responsibilities with respect to security, operation, protection of the Work, property insurance, maintenance, heat, and utilities. A revised punch list of items to be completed or corrected, reflecting such changes from the draft punch list as deemed necessary by the Engineer, will be attached to the certificate of Substantial Completion.

After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

503. FINAL INSPECTION, FINAL ACCEPTANCE OF THE WORK, AND FINAL PAYMENT

Within 10 business days after completion of all the Work required under the Contract, including any field testing, site restoration, and cleanup, the Contractor shall request in writing a final inspection of the Work. Such final inspection shall then be conducted by the Engineer or his or her authorized representative within ten (10) business days after receipt of the Contractor's written request. If, in the sole opinion of the Engineer, the final inspection reveals items of Work still to be performed, the Contractor shall promptly perform them and then request a re-inspection. If the final inspection or re-inspection reveals that all the Work has been completed to the sole satisfaction of the Engineer, the Engineer shall certify that the Work has been completed as of such inspection date.

After Contractor has, in the sole opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents, and other documents, Contractor may make application for final payment.

The final Application for Payment must be accompanied (except as previously delivered) by:

- a. all documentation called for in the Contract Documents;

- b. consent of the surety, if any, to final payment;
- c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
- d. a list of all duly pending Change Proposals and Claims; and
- e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.

If, on the basis of Engineer's sole observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, the Engineer shall, within thirty (30) days thereof, recommend to the Commission final acceptance of the completed Work and submit a final estimate of the amount due the Contractor under this Contract. Upon final acceptance of the Work and approval of this final estimate by the Commission, the Owner shall pay to the Contractor within ten (10) business days all monies due to the Contractor under the provisions of these Contract Documents, such monies not to include special retainers for maintenance guarantees or any other sums which may have been provided for in the Contract Documents. The Contractor agrees that it shall not be entitled to demand or receive payments for any portion of the Work except in the manner set forth in this Contract.

504. OWNER'S RIGHT TO WITHHOLD CERTAIN AMOUNTS

In addition to payment to be retained by the Owner under preceding provisions of these General Conditions, the Owner may, at the sole discretion of the Engineer, withhold a sufficient amount of any payment otherwise due to the Contractor to cover payments that may be earned or due for (1) just claims for labor or materials furnished in or about the performance of the Work on the Project under this Contract; (2) defective Work not remedied; (3) failure of the Contractor to make proper payments to its Subcontractors; (4) unresolved safety violations; (5) unresolved permit or licensing violations; or (6) any violation or breach of any Contract Documents. The Owner shall disburse and shall have the right to act as agent for the Contractor in disbursing such funds as have been withheld, pursuant to this paragraph, to the party or parties who are entitled to payment therefrom. The Owner will render to the Contractor a proper accounting of all such funds disbursed on behalf of the Contractor.

505. DEDUCTION FOR UNCORRECTED WORK

If the Owner deems it expedient to accept Work injured or not done in accordance with the Contract, the difference in value together with a fair allowance for the damages shall be deducted.

506. TIME OF COMPLETION AND LIQUIDATED DAMAGES

All the Work required under the Contract, including any field testing, site restoration, and cleanup, shall be fully completed by the Contractor, as certified to the sole satisfaction of the Engineer, within the time fixed by the Contract for completion of the Work or within such extra time as may have been allowed by authorized extensions to the time of completion.

The number of days within which, or the dates by which, Milestones are to be achieved, the Work is to be substantially completed, and completed and ready for final payment, are set forth in the Agreement. Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for Final Payment, are set forth

in the Agreement.

507. DELAYS AND EXTENSIONS OF TIME

If the Contractor is delayed in the completion of the Work by any act or neglect of the Owner or the Owner's representative; by any other contractor employed by the Owner; by strikes, lockouts, fire, unavoidable casualties, or any causes beyond the control of the Contractor, then the time of completion may be extended for a reasonable time as determined by Engineer. The Contractor shall notify the Owner in writing of the cause of such delay within five (5) business days from the beginning of any such delay. The Contractor shall hold the Owner and Engineer harmless for any such delay and shall not be entitled to any additional compensation from the Owner.

In the event any material alterations or additions are made as herein specified, which in the opinion of the Engineer will require additional time for the execution of any Work under this Contract, the time of completion of the Work shall be extended by such a period of time as may be fixed by the Engineer if the Contractor shall request in writing an extension of time within five (5) business days after being notified in writing of such alterations or additions. No extensions of time shall be given for any minor alterations or additions. The Contractor shall not be entitled to any damage or compensations from the Owner on account of such additional time required for the execution of the Work. The Engineer's decision on the time extension necessary to complete such additional Work shall be final and binding upon both the Contractor and the Owner.

508. SUBCONTRACTING

Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner and the Engineer. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents. The Contractor shall be as fully responsible to the Owner for the acts and omissions of the Subcontractor as the Contractor is for the acts and omissions of a person directly employed by the Contractor. This Contract obligation shall be in addition to the liability imposed by law upon the Contractor. Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and the Owner. Any deficiencies or non-compliance by Subcontractors will be treated as if directly caused by the Contractor, and the Contractor shall be liable for any resulting delays, costs or damages.

Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.

Prior to entry into any binding subcontract or purchase order, Contractor shall submit to the Engineer the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless the Engineer raises a substantive, reasonable objection within 5 business days.

Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.

If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.

No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.

Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.

The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.

All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.

Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.

509. ASSIGNMENT OF CONTRACT

The Contractor shall not assign this Contract or any part thereof without the written consent of the Owner. No assignment of this Contract shall be valid unless it shall contain provision that the funds to be paid to the Assignee under the assignment are subject to the prior lien for services rendered or materials supplied for the performance of the Work called for in this Contract in favor of all persons, firms, or corporations rendering such services or supplying such materials.

510. LIEN WAIVER AND INDEMNITY AGAINST LIENS

The Contractor waives any and all rights to construction liens against the Owner or its properties that the Contractor would otherwise be entitled to under the Wisconsin Statutes. The Contractor shall pay for all labor, materials, and services furnished to the Contractor in connection with the performance of this Contract. In addition to any other indemnity, the Contractor shall hold the Owner harmless from any liability, damages, costs, or expenses, including attorneys' fees, caused by reason of any construction or mechanic's liens filed against the property of the Owner arising out of the Contractor's or a subcontractor's performance of this Contract. At the Owner's request, the Contractor shall promptly furnish satisfactory evidence that all labor, materials, and services have been paid for. In addition to the rights and obligations set forth herein, the Owner may withhold any monies due the Contractor as a result of lien claims filed against the Contractor or the Owner unless the Contractor posts a bond, in a form and underwritten by a surety satisfactory to the Owner, providing for the prompt payment when due of any amounts for labor, materials, or

services furnished to the Contractor in connection with this Contract and holding the Owner and Engineer harmless from such lien claims or threatened lien claim(s).

511. VIOLATION OF CONTRACT PROVISIONS

If the Contractor shall abandon the Work under this Contract, or fail to perform the Work of the character and in the time herein specified, or fail financially or for any other cause whatsoever is unable to carry out this Contract and complete the Work, or if Contractor assigns the Contract or loses control of the Work for any cause whatsoever except by act of God, the United States Government, or the public enemy or if Contractor refuses or neglects to follow instructions of the Engineer or if in the sole opinion of the Engineer any one of the following conditions exists: (1) the Contractor refuses or neglects to use measures to protect the Work from damage or (2) the Contractor is guilty of carelessness or incompetence in the execution of the Work or (3) the Work has been or is being delayed by the Contractor or (4) the rate of progress is not such as to insure completion of the Work within the time specified or (5) the Work or any part thereof is unnecessarily or unreasonably delayed or (6) the Contractor is willfully or persistently violating any of the conditions or covenants of this Contract or (7) the Contractor is not fulfilling the Contract in good faith, then at such time and upon certification by the Engineer, in cases where the Engineer's opinion is required, the Owner may proceed to terminate this Contract as provided in these General Conditions.

512. TERMINATION FOR BREACH

If the Contractor or any of his Subcontractors shall in the sole judgment of the Engineer be unable to carry on the Work satisfactorily or if the Contractor or any of its Subcontractors shall violate any of the provisions of this Contract, the Owner may serve written notice upon the Contractor and its Surety of Owner's intention to terminate this Contract. Such notice shall contain the reasons for the Owner's intention to terminate the Contract. If within ten (10) days after the service of such notice the Contractor, the Subcontractor, or the Surety have not proceeded to carry on the Work in accordance with this Contract and to the satisfaction of the Engineer, this Contract shall cease and terminate and the Owner shall have the right to take over the Work and prosecute the same to completion at the expense of the Contractor and the Surety. The Contractor and the Surety shall be liable to the Owner for any excess cost incurred by the Owner thereby; and in such event the Owner may take possession of and utilize in completing the Work such materials, appliances, and plant as may be on the site of the Work and necessary therefore.

In the event the Engineer determines, in his or her sole discretion, that the failure of the Contractor, Subcontractor, or Surety to perform the Work in accordance with the Contract has resulted in an emergency which will require that the Owner take over the Work immediately to avoid loss or waste of a substantial part of the Work already performed, the Owner may immediately take over the Work and prosecute the same at the expense of the Contractor and Surety to the extent necessary to avoid damage.

513. TERMINATION FOR OTHER CAUSES

Upon the occurrence of one or more of the following events, the Owner, after giving the Contractor prior written notice, shall have the sole discretion to terminate this Contract:

- a) If the Contractor commences a voluntary case under any chapter of the Bankruptcy Code as now or hereafter in effect or if the Contractor takes any equivalent or similar action by filing a petition or otherwise relating to bankruptcy or insolvency.

- b) If a petition is filed against the Contractor under any chapter of the Bankruptcy Code as now or hereafter in effect at the time of filing or if a petition is filed seeking any such equivalent or similar relief against the Contractor under any applicable laws in effect at the time relating to bankruptcy or insolvency.
- c) If the Contractor makes a general assignment for the benefit of creditors.
- d) If the Contractor admits in writing an inability to pay its debts generally as they become due.

514. LOSS OR DAMAGE

Until accepted by the Commission, the Work shall be at the Contractor's risk, and if any loss of or damage to the Work occurs prior to such acceptance, regardless of passage of title directly to the Owner prior to such acceptance, the Contractor shall, without cost to the Owner, promptly make repairs, replacements, or re-perform the Work as necessary to place the Work in the condition required by the Contract Documents.

SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the General Conditions and other provisions of the Contract Documents as indicated below. All provisions that are not so amended or supplemented remain in full force and effect.

PART 2 INSURANCE, BONDS, AND LEGAL MATTERS

SC-201 Supplement General Condition Article 201 with the following provisions:

Insurance Requirements

Minimum Contractor's Insurance

The Contractor shall not commence work under this Contract until all insurance required hereunder has been obtained and such insurance certification has been reviewed by the Owner. The Contractor shall not allow any Subcontractor to commence work on his Subcontract until certification for all similar insurance required for that portion of the Work has been reviewed by the Owner. Review of the insurance certification by the Owner shall not relieve or decrease the liability of the Contractor hereunder. The insurance certification shall name as Additional Insureds the Madison Metropolitan Sewerage District.

The Contractor shall obtain, pay for, and maintain during the life of this Contract such Worker's Compensation and Employer's Liability, Comprehensive General Liability, Business Automobile Liability, and Umbrella Liability Insurance to protect the Contractor performing work covered by this Contract from claims for damages for bodily injury, including accidental death, as well as for claims for property damage which may arise from operations under this Contract whether such operations be by himself or any Subcontractor, or by anyone directly or indirectly employed by either of them, on the forms, and with limits not less than set forth below:

a) General Liability

- Comprehensive general liability coverage shall include, but not be limited to, Products and Completed Operations, Independent Contractors, Contractual Liability, Broad Form Property Damage, Personal Injury, Premises and Operations, and Explosion, Collapse and Underground.
- General aggregate limit shall be at least \$2,000,000. Policy shall be endorsed such that this full limit is reserved specifically for the named Madison Metropolitan Sewerage District project.
- Products-Completed Operations Aggregate limit shall be at least \$2,000,000.
- Each Occurrence limit shall be at least \$1,000,000.

b) Automobile Liability

- Auto liability policy shall cover all autos, whether owned, non-owned, or hired.
- Bodily injury and property damage limits shall be at least \$1,000,000 each, or
- Combined single limit shall be at least \$1,000,000.

c) Excess Liability Umbrella Form

- Umbrella limits shall be at least \$2,000,000 aggregate/\$2,000,000 each occurrence.

d) Worker's Compensation and Employer's Liability

- Worker's Compensation limits shall be in accordance with all applicable state and federal statutes.
- Employer's Liability limits shall be at least \$100,000 each accident, \$500,000 disease policy limit, and \$100,000 disease-each employee.

SC-203 Delete paragraph 203 in its entirety.

PART 3 SCOPE OF THE WORK

SC-302 Contractor shall be able to use toilets and other sanitary conveniences as allowed by Owner.

SC-315 Replace "final acceptance of the Work by the Commission" with "acceptance of the Work by the Owner"

PART 5 PROSECUTION, PROGRESS, AND PAYMENT

SC-501 Delete paragraph 501 in its entirety

SC-502 Delete paragraph 502 in its entirety

SC-503 Replace the last paragraph with:

If, on the basis of Engineer's sole observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, the Engineer shall, within ten (10) days thereof, recommend final acceptance of the completed Work. Upon final acceptance of the Work, the Owner shall pay to the Contractor within thirty (30) business days all monies due to the Contractor under the provisions of these Contract Documents, such monies not to include special retainers for maintenance guarantees or any other sums which may have been provided for in the Contract Documents. The Contractor agrees that it shall not be entitled to demand or receive payments for any portion of the Work except in the manner set forth in this Contract.

SC-506 Replace "the Agreement" with "Project Sequence and Schedule" in the Request for Bid

REQUEST FOR BID
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REQUEST FOR BID
MADISON METROPOLITAN SEWERAGE DISTRICT
2025 LEAD ABATEMENT

The Madison Metropolitan Sewerage District (MMSD or the District) will receive sealed bids for the 2025 Lead Abatement project. Bids will be received at the office of the District, 1610 Moorland Road, Madison, Wisconsin 53713 until 11:00 a.m. local time on Tuesday, July 15, 2025, at which time and place all bids will be publicly opened and read aloud. All bid responses will be public records.

A pre-bid meeting will be held at 2:00 pm. local time on Tuesday, June 24, 2025, at the office of the District, 1610 Moorland Road, Madison, Wisconsin 53713, Operations Building, and will include a site visit. Attendance is not mandatory but is highly encouraged.

Project Location

The 2025 Lead Abatement project, in Aeration Gallery 1, is located at the Nine Springs Wastewater Treatment Plant, 1610 Moorland Road, Madison, Wisconsin.

Prequalification of Bidders

The requirements for qualifications of Bidders are as stated in the Advertisement. All Bidders must be prequalified for this project.

Project Description and Scope of Work

The 2025 Lead Abatement project will prepare existing painted surfaces for repainting while providing lead abatement measures to facilitate the surface prep work.

Contractor Warranty

Contractor shall guarantee the work performed under this Contract against defects in workmanship and materials. The warranty period shall be for one (1) year from the date of completion of the work. This guarantee shall cover all work and materials provided under the contract, including those provided by subcontractors or manufacturers. If any defect should appear during the guarantee period, the Contractor shall make required replacement or acceptable repairs of the defective work at Contractor's own expense and shall pay for damage to others work resulting from such defect.

Conduct of Work, Use of Site, Demolition and Debris Removal

All pipes and valves must remain in service. Safe and lead-free access to these pipes, valves, and equipment for MMSD personnel must be provided for at all times.

Contractor must conduct work in a manner that will not hinder District personnel's access. The Contractor is responsible for determining the suitability of access points to the site. These access routes and any proposed storage areas must be approved by MMSD before beginning work. Adequate equipment must be provided by the Contractor to ensure a minimum negative impact on the

surrounding property. Debris must be removed from the site within 24 hours of completion of demolition. Contractor is solely responsible for debris removal and clean up.

The Contractor shall conform to all local, state, and federal regulations including those set forth by OSHA, RCRA and the EPA and any other applicable authorities.

Typical allowable working hours are 7:00 am to 3:30 pm, Monday through Friday. Contractor shall give notice to MMSD 24 hours in advance if they would like extended working hours.

Any damage done by the Contractor to any property shall be repaired to a condition equal to or better than what existed prior to the damage. Any damage repairs shall be considered as incidental to the Contract.

Upon acceptance of the installed work, the Contractor shall restore the project area affected by the operations to a condition at least equal to that existing prior to the work. Clean up includes, but is not limited to removing rubbish, debris, dirt, equipment and excess material from the site. The Contractor shall clean adjacent surfaces soiled by and during the course of work.

Project Sequence and Schedule

Notice to Proceed is anticipated to be August 21, 2025. Completion shall be One Hundred Twenty (120) calendar days from the Notice to Proceed. Contractor shall give written notice to the District at least five (5) working days in advance of the anticipated start of work.

Invoicing shall be completed no later than Friday, December 19, 2025.

Quality Assurance

Contractor shall initiate and enforce quality control procedures consistent with applicable ASTM, NACE and SSPC (AMPP) standards.

District representatives shall have access to the site and the work at reasonable times for their observation, and inspection. Contractor shall provide proper and safe conditions for such access and advise them of Contractor's site safety procedures and programs so that they may comply therewith as applicable. The interpretation of this shall mean, but not be limited to mean, that the Contractor shall provide the District's representative with access and proper safety equipment at appropriate times to conduct inspection.

Contractor shall monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.

Contractor shall comply with manufacturers' instructions, including each step in sequence.

Should manufacturers' instructions conflict with Contract Documents, Contractor shall request clarification from Owner before proceeding.

Contractor shall comply with specified standards as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

Work shall be performed by persons qualified to produce workmanship of specified quality.

Safety

The contractor agrees to perform all work under this contract in accordance with local, state, and federal safety regulations. The Contractor is specifically notified that wastewater treatment plants, pumping stations and sewer systems contain confined space work areas which may be susceptible to accumulation of hazardous gases or depletion of oxygen levels.

Handling of hazardous materials, machinery operations, worker protection, and control of airborne dust and fumes shall comply with all applicable facility, local, state, and federal health and safety regulations.

All work must be performed in strict adherence to the attached Lead Paint Compliance Plan.

Bid Requirements

All Bids must be made on the forms provided herein and shall be addressed to the Madison Metropolitan Sewerage District; Brady Lessner; 1610 Moorland Road, Madison, Wisconsin 53713; and shall be marked "Sealed Bid, 2025 Lead Abatement."

Bids are requested in terms of a lump sum bid. All work included under the Bidding Documents but not listed as bid items shall be considered as work incidental and subsidiary to the bid items and will not be measured for payment.

Bids shall include all labor, materials, equipment, tools, power, utilities, transportation, and all other services or items necessary to perform and complete in a workmanlike manner, the 2025 Lead Abatement project. Contractor is responsible for obtaining all necessary permits at the contractor's expense.

Bid Guarantee

No bid will be accepted unless accompanied by a certified check or bid bond equal to at least five percent (5%) of the amount proposed, payable to the District, as guarantee that if the bid is accepted, the Bidder will execute and file the proper Contract within ten (10) calendar days after award of the Contract. Certified checks will be returned to Bidders upon proper execution of the Contract. If the successful Bidder shall fail to execute and file the Contract within ten (10) calendar days after the award of the Contract, the certified check or bid bond shall be forfeited to the District as liquidated damages.

Bidder's Responsibility

The bidders are required to carefully review all the Bidding Documents and to inform themselves of the conditions under which the work is to be performed. The bidder, if awarded the Contract, shall not be allowed any extra compensation by reason of their failure to have fully informed themselves prior to the bidding of any matter or thing which such bidder might have fully informed them.

If the bidder is in doubt as to the true meaning of any part of the Bidding Documents, the bidder may submit to the District a written request for an interpretation thereof. Any interpretation of the Bidding Documents will be made only by an addendum duly issued.

A bidder may withdraw their bid, providing such a written request is in the hands of the District by the time set for opening bids. When such a bid is reached, it will be returned unopened to the bidder. No bid shall be withdrawn after the opening of bids for a period of thirty (30) calendar days after the scheduled time of receiving bids without the consent of the District.

This project is exempt from State of Wisconsin sales and use taxes in accordance with Wisconsin Administrative Rule Tax 11.11 pursuant to Section 77.54(26) of the Wisconsin Statutes.

Contract letting is subject to the provisions of Section 66.0901, Wisconsin Statutes.

Terms

The District reserves the right to reject any or all bids or to waive any technicality and accept any bid that may, in its opinion, be advantageous to the District.

Before award of any Contract can be approved, MMSD shall be satisfied that the bidder involved maintains a permanent place of business, has adequate plant and equipment to do the work properly and expeditiously, has a suitable financial status to meet obligations incident to the work, has appropriate technical experience, and has a satisfactory performance record. The award, if made, will be made to the lowest, qualified, responsive, responsible bidder and approved by the Commission of the District.

Within twenty (20) calendar days after the opening of bids, the Owner will accept one of the bids or will act as stated herein. The acceptance of the bid will be by written Notice of Award, mailed or delivered to the office designated in the bid.

Within ten (10) calendar days after receiving the Notice of Award, the successful bidder shall sign the Contract hereto attached and submit to the District acceptable certificates of insurance required under the Contract Documents. Within fifteen (15) calendar days after receiving the signed Contract from the successful bidder, the Owner's authorized agent will sign the Contract.

The Contractor shall not begin work until written Notice to Proceed has been issued by MMSD. The Contractor shall abide by any special instructions which may be stated in the Notice to Proceed.

If the Bidder whose bid is accepted should fail to execute the proper Contract within the time allowed as stated herein, the Owner may award the Contract to another Bidder and the certified check or bid bond of the first-mentioned Bidder shall be forfeited.

Payment will be made to the Contractor within 30 days of written request for payment after completion of the work. Written request for payment shall indicate date of completion for warranty purposes.

Submittals

The Contractor shall submit the following for review and approval to the MMSD Project Manager.

Submit for Prequalification:

1. Completed Prequalification form with required attachments.
2. Certification of training for all workers and supervisors per training requirements of the Lead Paint Compliance Plan.

Submit with the bid:

1. Completed Bid Form
2. Bid guarantee

Submit with signed Contract:

1. Certificates of Insurance.

Submit prior to commencing work:

1. Proof of any required federal, state or local permits or licenses for the project.
2. Written Occupant Protection Plan.
3. Proposed schedule of work, showing how the work will be completed by the required date.
4. Construction Plan detailing proposed site use and storage areas. Include proposed methods for dust containment, and proposed safety procedures and equipment. Design details for any additional ancillary systems and equipment to be used in surface preparation, cleaning and testing. Submit construction plan to MMSD Project Manager a minimum of one (1) week prior to the start of work.
5. Product Data Sheets for proposed primer coat material.

Submit upon completion of installation:

1. Respirator fit test documentation
2. Medical surveillance records
3. Exposure monitoring records
4. Monitoring observer reports
5. Jobsite competent person inspection reports
6. Other documentation and test reports as required by Lead Compliance Plan,
7. Lien waivers.

Referenced Documents and Standards

This specification references standards of the Society for Protective Coatings (SSPC) (now AMPP), such as: SSPC-SP2 Hand Tool Cleaning, and SSPC-SP3 Power Tool Cleaning which are made a part hereof by such reference and shall be the latest edition and revision thereof.

Sections of a Limited Lead Based Paint Survey report are attached. The survey and report were prepared by Environmental Management Consulting, Inc. (EMC) in February 2015.

A Lead Paint Compliance Plan prepared by EMC is also attached. Whenever the word Employer is used in the Lead Paint Compliance Plan, it shall have the same meaning as Contractor.

Primer Coat

Contractor shall provide one spot coat of primer. It shall be applied to bare areas, overlapping prepared existing coating. Surface preparation, dry film thickness, application rate and procedures shall conform to the paint manufacturer recommendation. Primer coat material shall be rust inhibitive, universal primer that can be used under water based or solvent based high performance topcoats.

Inspection Procedures Prior To Surface Preparation

Observe existing conditions with MMSD Project Manager present. Review surface preparation extent and expectations.

Surface Preparation

The objective of surface preparation is to produce a surface that is suitable for application and adhesion of a protective coating system.

Surface preparation shall be performed in accordance with "SSPC-SP 2 Hand Tool Cleaning and/or SSPC-SP3 Power Tool Cleaning". In instances where there are discrepancies between said referenced standard and this specification, this specification shall supersede.

Hand tool cleaning removes all loose mill scale, loose rust, loose paint, and other loose detrimental foreign matter. It is not intended that adherent mill scale, rust, and paint be removed by this process. Mill scale, rust, and paint are considered adherent if they cannot be removed by lifting with a dull putty knife.

Power tool cleaning removes all loose mill scale, loose rust, loose paint, and other loose detrimental foreign matter. It is not intended that adherent mill scale, rust, and paint be removed by this process. Mill scale, rust, and paint are considered adherent if they cannot be removed by lifting with a dull putty knife.

Remove rust, and all loose and flaking paint. Feather edges of well adhered existing coatings.

Surface Cleaning

All prepared surfaces shall be inspected for surface cleanliness after cleaning and drying but prior to releasing the facility for coating application.

All surfaces in lead containment area shall be cleaned and tested as specified in the Lead Compliance Plan. This work includes, but is not limited to, HEPA Vacuum lead dust, wet wipe area with TSP (trisodium phosphate) and perform lead safe wipe testing until the satisfactory lead safe card reading is met. If satisfactory levels are not achieved, continue re-cleaning, until levels satisfy the DHS (Department of Health Services) lead safe wipe requirements.

Third party wipe sampling with lab analysis is not required.

Waste Disposal

Once satisfactory levels are achieved for all exposed surfaces, remove the containment structure and place all lead-containing waste in approved containers.

Contractor will provide an insured and licensed transporter of hazardous waste to transport these containers to a secured licensed hazardous waste landfill.

Contractor shall dispose of all non-hazardous waste.

2025 Lead Abatement- Limited Lead Based Paint Survey(2015)- Aeration Gallery 1



Environmental Management Consulting, Inc.

LIMITED LEAD BASED PAINT SURVEY

**MADISON METROPOLITAN SEWERAGE DISTRICT
NINE SPRINGS WASTEWATER TREATMENT PLANT
1610 MOORLAND ROAD
MADISON, WI 53713-3398**

**INSPECTION DATE: FEBRUARY 2 – 6, 2015
REPORT DATE: FEBRUARY 20, 2015
EMC PROJECT NUMBER: 150249-01**

PREPARED FOR:

**MADISON METROPOLITAN SEWERAGE DISTRICT
NINE SPRINGS WASTEWATER TREATMENT PLANT
ATTN: MR BRADLEY LESSNER
1610 MOORLAND ROAD
MADISON, WI 53713-3398**

PREPARED BY:

**MR. JEREMY R. NOEGEL
ENVIRONMENTAL MANAGEMENT CONSULTING, INC.
W7748 COUNTY HIGHWAY V
LAKE MILLS, WI 53551**

Securing Safer Futures...

W 7748 Cty Hwy V, Lake Mills, WI 53551 ◆ 920.648.6343 Fax: 920.648-4370 ◆ www.emc-wi.com

LIMITED LEAD BASED PAINT SURVEY

Madison Metropolitan Sewerage District
Nine Springs Wastewater Treatment Plant
1610 Moorland Road
Madison, WI 53713-3398

Environmental Management Consulting, Inc. (EMC) was contacted by Mr. Bradley Lessner of Nine Springs Wastewater Treatment Plant to conduct a limited lead paint inspection on various buildings.

Mr. Jeremy R. Noegel of EMC inspected the buildings from February 2, 2015 to February 6, 2015. XRF/Lead chip samples were extracted for painted surfaces as discussed with the owner.

The inspection was limited to piping, pumps and other equipment in the buildings. The following buildings were inspected:

- ~~(#27) Aeration Control #1~~
- ~~- (#28) Aeration Control #2~~
- ~~- (#29) Aeration Control #3~~
- (#30) Aeration Gallery #1
- ~~- (#26) Blower Building #1~~
- ~~- (#23) Primary Gallery #1~~
- ~~- (#14) Primary Sludge Pumping #1~~
- ~~- (#16) Primary Sludge Pumping #2~~

The following is a summary of the findings of this inspection.

LEAD BASED PAINT SURVEY PROTOCOL

The purpose of this inspection is to provide information to MMSD regarding some painted surfaces within the facility to assist MMSD in complying with OSHA lead paint rules.

The scope of the limited lead survey included screening of select surfaces by XRF and confirmation chip sampling of surfaces that show a negative XRF result.

XRF Sampling - As a lead certified firm in the State of Wisconsin, EMC supplied a lead inspector to collect lead-based paint samples non-destructively utilizing XRF analysis with an RMD LPA-1 Lead-Based Paint Analyzer. A single reading was taken from each subject surface within the functional space. A sufficient number of samples will be gathered to be representative of all components included in the scope of the survey.

Results will be reported as above 0.7 mg/m^2 or below 0.7 mg/m^2 . Painted surfaces that contain levels below 0.7 mg/m^3 could create lead dust or lead contaminated soil hazards if the paint is turned into dust by abrasion, scraping or sanding. OSHA applicable work practices would be required to protect workers against these hazards. Contractors shall be responsible for their own OSHA compliance training, medical surveillance, work practices and exposure monitoring.

Confirmation Chip Sampling – For all surfaces that tested below 0.7 mg/m^2 by XRF analysis, EMC collected representative lead chip samples to confirm the presence of lead. Results are reported in ppm and inform contractor if lead exists in tested components. OSHA applicable work practices would be required to protect workers against these hazards. Contractors shall be responsible for their own OSHA compliance training, medical surveillance, work practices and exposure monitoring.

Please note that TCLP sampling for waste disposal may be required for waste generated during any renovation process. Waste must be analyzed for compliance with RCRA disposal requirements.

LEAD PAINT REGULATORY REVIEW

Lead based paint is regulated by various different agencies in the State of Wisconsin.

- **Wisconsin Department of Health:** Defined by the State of Wisconsin as paint, which contains lead at or above the concentration of 0.06%, by weight or .7mg/cm² (XRF). HFS 163 applies to all work in target housing and child occupied facilities in Wisconsin. The rule also applies to situations with a child lead poisoning or ordered lead hazard reduction or abatement.
- **OSHA:** Any level of lead in paint above the laboratory detection limit is considered lead paint. Any Employee would may disturb a component with lead paint is therefore subject to the OSHA Construction standard for lead (1926.62).

For renovation projects, if lead is present, OSHA 1926.62 requires employers to assume exposure at certain trigger tasks to insure employee exposure is not above the action level. Engineering and administrative controls as well as training and personal protective equipment may be required. Painted surfaces may contain levels below .7 mg/m², which could create lead dust or lead contaminated soil hazards if the paint is turned into dust by abrasion, scraping or sanding. OSHA applicable work practices may be required to protect workers against these hazards

- **DNR:** For demolition, architectural lead painted components may be demolished and properly disposed of as solid waste if the paint is not separated from the structural material (intact). A hazardous waste determination is not necessary if the lead paint is intact. Recyclers should be contacted for specific work practices if structural steel is to be recycled.

Lead paint scrapings and chip debris may be considered hazardous waste. Prior to disposal lead chip debris should be characterized or assumed as hazardous waste. Paint waste is considered hazardous waste if it fails the Toxicity Characteristic Teaching Procedure (TCLP) for specific toxic metals. This test determines how much toxic metal could leach from a waste and potentially migrate into the groundwater.

AERATION GALLERY #1

Representative chip/XRF sampling showed the following:

- Lead is present in the paint.

Chip/XRF sample results were as follows:

- Dark Green Paint on Drain Pipe (XRF)
- Yellow Paint on Sump Pump Pit (XRF)
- Gray Paint on Air Lines (XRF)
- Dark Gray Paint on Plant Water Pipes (XRF)
- Blue Paint on Water Lines (XRF)
- Green Paint on ML from AT Valves & Piping (XRF)
- Yellow Paint on ML from AT Valves & Piping (XRF)
- Blue Paint on Scum Tank (XRF)
- Brown Paint on Scum Pipe (XRF)
- Silver Paint on Pipe Bracket (XRF)
- Purple Paint on Compressed Air line (XRF)
- Red Paint on Valve (Chip)
- Gray Paint on Tank (Chip)

Contractors shall follow employee exposure rules as per OSHA 1926.62. See attached Lead Paint Compliance Strategy.

XRF DATA SUMMARY

PARTIAL LEAD INSPECTION EMC XRF DATA SUMMARY

Client: Madison Metro Sewerage District
 Client Phone: 608-347-3609
 Building Name: Aerator Gallery #1
 Dates of Construction: 1961
 Date of Sampling: February 3, 2015
 XRF Serial Number: 1692

Jeremy R. Noegel
 W7748 County Highway V, Lake Mills, WI
Cert # LII-105450
 Phone: (920) 648-6343

Jeremy Noegel

ROOM/ AREA	LOCATION	PAINT/ VARNISH COLOR	SUBSTRATE	CURRENT CONDITION	A/B CLASS	COMMENTS
Aeration Gallery #1	North - Green Pipe	Green	Metal	NA	A	
Aeration Gallery #1	North - Dark Gray Pipe	Dark Gray	Metal	NA	A	Upper WAS from ACB4
Aeration Gallery #1	North - Air Pipe	Gray	Metal	NA	A	
Aeration Gallery #1	Middle - ML from AT3	Green	Metal	NA	A	
Aeration Gallery #1	Middle - ML from AT3	Yellow	Metal	NA	A	
Aeration Gallery #1	Middle - RAS to AT1 & 4	Dark Gray	Metal	NA	A	
Aeration Gallery #1	Middle - WAS from ACB4	Gray	Metal	NA	A	
Aeration Gallery #1	Middle - WAS from ACB1	Dark Gray	Metal	NA	A	
Aeration Gallery #1	East-Mid - ML from AT6	Green	Metal	NA	A	
Aeration Gallery #1	East-Mid - ML from AT6	Yellow	Metal	NA	A	
Aeration Gallery #1	Air Pipe	Gray	Metal	NA	A	
Aeration Gallery #1	Drain #7	Gray	Metal	NA	B	
Aeration Gallery #1	ML From AT9	Green	Metal	NA	A	
Aeration Gallery #1	Drain Line to Sump Pump	Green	Metal	NA	A	
Aeration Gallery #1	Sump Cap	Yellow	Metal	NA	A	
Aeration Gallery #1	Air Pipe to Drain 11	Gray	Metal	NA	A	

Key

Calibration: Where calibration is indicated, the date and initial/final (I, F). Calibration is noted in this space
Substrate: Indicates substrate at sampling location - **B**=Block, **M**=Metal, **P**=Plaster, **D**=Drywall, **W**=Wood, **C**=Concrete, or other as described
Condition: Condition of paint at the time of sampling as established in assessment protocol - **I**=Intact, **P**=Poor, **F**=Fair
Classification: Indicates levels related to the 0.7 mg/cm² lead regulatory limit - **A**=Lead loading above 0.7 mg/cm² (lead paint), **B**=Lead loading below 0.7 mg/cm². Paint identified at <0.7 mg/cm² may still contain measurable quantities of lead.
Side Wall Identification (A-D) - Perimeter wall sides were identified with letters A, B, C and D. Side A is the entry door side. Side B, C and D are identified clockwise from side A as one faces the dwelling; if entry was unclear, directional indications were used (N, S, E, W).

Certified Lead Company
 Environmental Management Consulting
 W7748 County Highway V
 Lake Mills, WI 53551
 Cert #DHS-13160
 Phone: (920) 648-6343

EMC XRF DATA SUMMARY

Client: Madison Metro Sewerage District
 Client Phone: 608-347-3609
 Building Name: Aerator Gallery #1
 Dates of Construction: 1961
 Date of Sampling: February 3, 2015
 XRF Serial Number: 1692

Jeremy R. Noegel
 W7748 County Highway V, Lake Mills, WI
Cert # LII-105450
 Phone: (920) 648-6343

Jeremy Noegel

ROOM/ AREA	LOCATION	PAINT/ VARNISH COLOR	SUBSTRATE	CURRENT CONDITION	A/B CLASS	COMMENTS
Aeration Gallery #1	W2 - Pipe	Light Blue	Metal	NA	A	
Aeration Gallery #1	Return Sludge	Black	Metal	NA	A	By Bowling Alley
Aeration Gallery #1	Pink #13	Yellow	Concrete	NA	A	
Aeration Gallery #1	Return Sludge by ACB3	Black	Metal	NA	A	
Aeration Gallery #1	ML From AT16	Green	Metal	NA	B	
Aeration Gallery #1	Air Pipe by Drain 18	Gray	Metal	NA	B	
Aeration Gallery #1	Air Pipe	Gray	Metal	NA	A	By Bowling Alley
Aeration Gallery #1	Waste Sludge	Black	Metal	NA	A	By Bowling Alley
Aeration Gallery #1	Return Sludge	Black	Metal	NA	A	By Bowling Alley
Aeration Gallery #1	W2 - Pipe	Blue	Metal	NA	A	By Bowling Alley
Aeration Gallery #1	South Tank	Gray	Metal	NA	B	By Bowling Alley
Aeration Gallery #1	Return Activated Sludge at 13	Red	Metal	NA	B	By Bowling Alley
Aeration Gallery #1	Scum Tank	Blue	Metal	NA	A	By Bowling Alley
Aeration Gallery #1	Scum Pipe	Brown	Metal	NA	A	By Bowling Alley
Aeration Gallery #1	Compressed Air - High Pressure	Purple	Metal	NA	A	
Aeration Gallery #1	Pipe Bracket	Silver	Metal	NA	A	

Key

Calibration: Where calibration is indicated, the date and initial/final (I, F). Calibration is noted in this space

Substrate: Indicates substrate at sampling location - **B**=Block, **M**=Metal, **P**=Plaster, **D**=Drywall, **W**=Wood, **C**=Concrete, or other as described

Condition: Condition of paint at the time of sampling as established in assessment protocol - **I**=Intact, **P**=Poor, **F**=Fair

Classification: Indicates levels related to the 0.7 mg/cm² lead regulatory limit - **A**=Lead loading above 0.7 mg/cm² (lead paint), **B**=Lead loading below 0.7 mg/cm². Paint identified at <0.7 mg/cm² may still contain measurable quantities of lead.

Side Wall Identification (A-D) - Perimeter wall sides were identified with letters A, B, C and D. Side A is the entry door side. Side B, C and D are identified clockwise from side A as one faces the dwelling; if entry was unclear, directional indications were used (N, S, E, W).

Certified Lead Company
 Environmental Management Consulting
 W7748 County Highway V
 Lake Mills, WI 53551
 Cert #DHS-13160
 Phone: (920) 648-6343

LEAD PAINT CHIP SAMPLE RESULTS

LEAD BULK SAMPLE CHART

SAMPLE DATE: Feburary 4, 2015

SAMPLE LOCATION: Aeration Gallery #1

EMC INSPECTOR: Jeremy R. Noegel

PROJECT NUMBER: 150249-01

INSPECTOR NUMBER: LII-105450

COMPANY LICENSE: HSF-13160

[illegible]

LEAD PAINT

State of Wisconsin

.06% by weight

600 ppm

Federal HUD

.5% by weight

5000 ppm



W7748 County Highway V
Lake Mills, WI 53551



Analysis for Lead Concentration in Paint Chips

by Flame Atomic Absorption Spectroscopy
EPA SW-846 3050B/6010C/7420



Customer: Environmental Management
Consulting
W7748 Cnty Hwy V
Lake Mills WI 53551

Attn: Jeremy Noegel

Lab Order ID: 1502394

Analysis ID: 1502394_PBP

Date Received: 2/9/2015

Date Reported: 2/12/2015

Project: Madison Metro Sewerage Dist. AG#1

Sample ID	Description	Mass (g)	Concentration (ppm)	Concentration (% by weight)
Lab Sample ID	Lab Notes			
AG1-1	Red	0.0537	110	0.011%
1502394PBP_1				
AG1-2	Gray	0.0509	250	0.025%
1502394PBP_2				

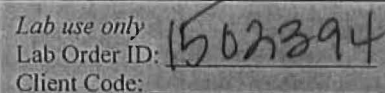
Unless otherwise noted blank sample correction was not performed on analytical results. Scientific Analytical Institute participates in the AIHA IHPAT program. IHPAT Laboratory ID: 173190. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. Analytical uncertainty available upon request. The quality control samples run with the samples in this report have passed all EPA required specifications unless otherwise noted. RL: (Report Limit for an undiluted 50ml sample is 4µg Total Pb).

Daniel Olson (2)

Analyst

Scientific Analytical Institute, Inc. 4604 Dundas Dr. Greensboro, NC 27407 (336) 292-3888

Laboratory Director



Turn Around Times		
3 Hours	<input type="checkbox"/>	72 Hours <input checked="" type="checkbox"/>
6 Hours	<input type="checkbox"/>	96 Hours <input type="checkbox"/>
12 Hours	<input type="checkbox"/>	120 Hours <input type="checkbox"/>
24 Hours	<input type="checkbox"/>	144+ Hours <input type="checkbox"/>
48 Hours	<input type="checkbox"/>	

Lead Test Types		
Paint Chips by Flame AA <input checked="" type="checkbox"/>	Soil by Flame AA <input type="checkbox"/>	Other <input type="checkbox"/>
Wipe by Flame AA <input type="checkbox"/>	Air by Flame AA <input type="checkbox"/>	

[illegible]

Total Number of Samples 2

Relinquished by	Date/Time	Received by	Date/Time
<i>[Signature]</i>	2-6-15	<i>[Signature]</i>	2-7-15 0845

Please Email To:

- ☐ bfreeman@emc-wi.com
 ☐ bjungen@emc-wi.com
 ☒ jnoegel@emc-wi.com
 ☐ rvidekovich@emc-wi.com
☐ jbushman@emc-wi.com
 ☐ jschneider@emc-wi.com
 ☐ mfreeman@emc-wi.com
 ☐ cmertens@emc-wi.com
☐ jjozwiakowski@emc-wi.com
 ☐ rhaveman@emc-wi.com
 ☐ lwinslow@emc-wi.com
 Page _____ of _____

LEAD PAINT COMPLIANCE PLAN

POLICY

This policy is intended to be a summary of major requirements for compliance only and shall not be construed as a plan intended to comply with OSHA regulations.

- The information, training and procedures will supplement training and provide management a means of protecting all employees from exposures to lead.
- All field personnel have a potential exposure to lead-containing materials on the job-site.
- Prior to the initiation of any job, management will provide appropriate information as to potential exposures or how to obtain such information.
- Field supervisors will complete a field exposure assessment prior to conducting any work where lead paint may be present. The pre-assessment shall include a review of all pertinent data, the site specific requirements and communication of hazards.
- Field supervisors will serve as on-site competent person and ensure implementation of this plan.
- In all situations, the protection of employees to lead exposures is paramount. Field supervisors shall implement controls and procedures necessary to protect employees.
- Proper training and communication of potential hazards is required.
- Management will perform regular and frequent inspections of all jobs to ensure compliance including periodic review of the plan.

LEAD COMPLIANCE PLAN

The intent of this plan is to protect all employees from lead exposure related to construction activities. In addition, controls will be instituted to protect occupants in the immediate area of all work. The protection will be insured through the use of various controls measures that may include protective barriers, boundaries, signage, air and wipe sampling and work practices.

The Employer shall ensure that no employees are exposed to lead greater than 50 micrograms/meter of air over an 8 hour period.

All lead-related work has the potential to exceed OSHA action levels. Until a job specific exposure assessment and job specific air monitoring data has been collected that documents levels below the action level, all workers and occupants of adjacent work areas shall be properly protected until the exposure assessment and sampling results dictate acceptable levels.

Until a negative exposure determination is made, the following interim procedures will be followed:

- Training of workers
- Exposure Assessment of various job tasks
- Respiratory Protection
- Protective Clothing/Equipment
- Clean change area
- Hand-washing facility
- Biological monitoring
- Use of lead Safe Work Procedures
- Monitoring and Testing of Employees

TRAINING REQUIREMENTS

- A. All workers will be trained in accordance with OSHA 1926.62 and other applicable lead standards. All training will be provided prior to initial assignment.
- B. Training will be conducted annually for all employees who exceed the action level.
- C. All project supervisors will serve as the job-site competent person and will have the authority to stop all work and take corrective action as they deem appropriate.
- D. Training requirements for employees will be as follows:
 - 1. All other employees, including foremen, supervisors, and other company personnel or agents who may be exposed to lead or who may be responsible for any aspects of lead activities, have successfully completed lead awareness training per OSHA. Training will include specific nature of operations that may cause exposure to lead.
 - 2. All employees who may be exposed at levels at or above the action level will receive additional training including: the content of 1926.62, medical surveillance and medical removal, engineering and work practice controls, contents of this compliance plan, information on chelating agents, access to records, access to training information and information on how to obtain copies of this standard.
 - 3. Supervisors on all jobs will be trained as the lead competent person for all tasks on the job.
 - 4. All employees who are engaged in renovation, repair and painting activities (RRP) on target housing and child occupied facilities as per DHS 163 will receive additional training. The project supervisor will be a certified lead professional as per the rule. All remaining workers will receive additional training as required by the RRP rule.
 - 5. All employees performing lead abatement or lead hazard reduction activities as per DHS 163 will be certified lead abatement worker/supervisor as per DHS 163.

EMPLOYER EXPOSURE ASSESSMENT

- A. All lead related construction activities have the potential to exceed OSHA action levels and PEL's. All work shall be assumed to exceed OSHA action levels until a job specific exposure assessment is completed. This may include job specific air monitoring data.
- B. Employees will be required to wear respiratory protection as outlined herein until assessment is completed.
- C. Employer will collect exposures measurements from all construction related work activities where lead may be present.
- D. Exposure measurements shall be maintained by the EMPLOYER office staff and used to determine the reasonable likelihood of employee exposures at or above the action level. Employees will be made aware of the location of results

- E. Exposure assessments that are used to remove protective barriers, protective equipment or protective measures must be statistically reliable.
- F. EMPLOYER shall monitor specific tasks to obtain job specific data for each task where lead may be present. Among others, these tasks may include:
 - Manual demolition of building components
 - Manual renovation, repair or painting of building components
 - Roto-pinning with HEPA filtered exhaust
 - Chemical paint removal
 - Mechanical demolition of equipment/components
 - Cutting/torching activities
 - Machine demolition of structures
 - Installation of lead components

EMPLOYER RESPIRATORY PROTECTION

- A. All respiratory protection shall be provided to workers in accordance with the written respiratory protection program as per OSHA 29 CFR 1910.134
- B. Workers shall be provided with personally issued respirators.
- C. The use of engineering controls such as negative pressure ventilation units and HEPA vacuums and good work practices such as the wet wiping, misting the work area, and proper cleanup and containerization shall be used as appropriate to reduce airborne lead levels in the work area.
- D. Workers must perform positive and negative air pressure fit tests each time a respirator is put on, whenever the respirator design so permits. Powered air-purifying respirators shall be tested for adequate flow as specified by the manufacturer.
- E. Employees with potential exposures above the action level will be given a qualitative fit test in accordance with procedures detailed in the OSHA 1910.134.
- F. Documentation of respirator fit test will be maintained by the EMPLOYER office.
- G. Respirators shall be worn until assessment data shows reliable levels below the action level.
- H. For all jobs, the following exposures shall be assumed until the job assessment proves otherwise:

Up to 10 times the PEL (half-face)

- Manual demolition,
- Manual renovation, repair and painting,
- Chemical paint removal,
- Installation of intact lead
- Manual cleaning
- Heat Gun
- Roto pinning with HEPA filtered exhaust

Up to 50 times the PEL (Full Face or PAPR)

- Power Tool Cutting/Demolition
- Roto-pinning without HEPA exhaust
- Removal of abrasive blasting enclosures

Greater than 50 times the PEL (Full face supplied air)

- Abrasive blasting
- Torch cutting
- Welding

PROTECTIVE CLOTHING/EQUIPMENT

- A. Disposable clothing including head, foot and full body protection will be provided in sufficient quantities and adequate sizes for all employees exposed above the action level without regard to respiratory protection and all authorized visitors.
- B. Hard hats, protective eyewear, gloves, rubber boots and/or other footwear shall be provided as required for employees exposed above the action level without regard to respiratory protection and authorized visitors.
- C. Protective clothing shall be worn by all employees until assessment shows levels below the action level.

HYGIENE FACILITIES AND PRACTICES

- A. EMPLOYER will provide clean change area for all employees to protect personal items and clothing from cross-contamination with work clothing and equipment
- B. Supervisor will identify and provide adequate hand-washing facility
- C. Employees shall wash hands and face at the end of each work shift.
- D. Showers will be provided where exposures are anticipated to be above the PEL.
- E. A clean eating facility shall be provided to all employees.

WORK PRACTICES

- A. Surfaces shall be maintained as free as practicable of accumulations of lead.
- B. Clean up of surfaces shall be accomplished using wet methods or HEPA vacuuming to minimize exposure to lead.
- C. Dry shoveling, dry sweeping and compressed air shall not be used
- D. At all times, employees shall utilize engineering controls and work practices to reduce exposures to lead dusts

PREPARATION OF WORK AREA

- A. Written Occupant Protection Plan
A written plan will be maintained by the EMPLOYER as required by DHS 163 on RRP and other regulated jobs
- B. Warning Signs
Warning signs will be affixed and clearly visible at the entrance to the work area. Warning signs shall clearly read "WARNING LEAD WORK AREA, POISON, NO SMOKING OR EATING". Signs may be posted prior to the disturbance of materials.

- C. **Regulated Area**
A regulated area will be prepared. This area may be simple barricade tape to isolate off the work area from untrained personnel or may consist of the room interior supplemented by critical barriers placed on all windows, vents and other opening. Critical barrier areas will be sealed off with six (6) mil polyethylene sheeting and tape. The site supervisor will determine the level of protection.
- D. **Occupant Protection**
This plan is designed to protect all employees from lead exposure related to construction activities. The protection will be insured through the use of protective barriers, boundaries, signage and work practices as appropriate.

Protections will insure employees are not exposed to levels of lead higher than the existing conditions and OSHA Action Level.

Periodic construction employee exposure monitoring will be conducted.

**LEAD SAFE WORK PROCEDURES –
(ALL WORK THAT MAY EXCEED ACTION LEVEL)**

- A. The work will commence when the work area is properly prepared.
- B. **Personal Hygiene**
1. Upon departure from the work area of any employee, the lead competent person will enforce hygiene standards to ensure that no lead contamination leaves the work area.
2. In no instance will violation of hygiene practices be tolerated. Employees will not ever be allowed to eat or drink, smoke or apply cosmetics in the work area.
- C. Use methodologies including but not limited to dust suppression, misting, ventilating with HEPA filtered machines, etc to conduct work in a manner that does not create lead hazards including work practices and engineering controls that limit the creation of dust and prevent the spread of dust, debris and paint chips outside the work area as is feasible in construction/demolition work.
- D. Fully evaluate work area prior to beginning work including the review of emergency procedures
- E. Assign a lead competent person to provide supervision during worksite setup, including posting warning signs and establishing work area containments as needed, and shall be on-site regularly during renovation activities to direct work performed by others and to ensure lead-safe practices are being followed, barriers are maintained and dust and debris does not spread beyond the work area.
- F. Prior to beginning work, EMPLOYER shall post signs clearly defining the work area warning occupants and others to remain outside the work area. Lead warning signs are at supervisor discretion.
- G. EMPLOYER shall contain as needed to ensure that no dust or debris leaves the work area during the activity that will exceed OSHA exposure levels. Competent person shall perform regular visual inspections to ascertain compliance with the work methods.

- H. For all interior work, where feasible or needed to maintain acceptable exposure levels:
- Remove all objects from the work area including furniture, rugs and window coverings.
 - Objects that cannot be removed shall be covered with plastic sheeting.
 - Close and seal all duct openings.
 - Close windows in the work area.
 - All doors used as entrances to the work area shall be covered to allow worker egress while confining dust to the work area.
 - Cover all floor surfaces in the work area at least 6 feet beyond the perimeter of the surfaces undergoing renovation or a sufficient distance to contain all dust (whichever is greater).
 - Use precautions to ensure that all personnel, tools and other items are free of dust before leaving the work area. This includes the exteriors of containers for waste. Competent person shall perform regular visual inspections to ascertain compliance with the work methods.
- I. For all interior work with less than 6 square feet of lead disturbance per room:
1. Cover all surfaces within 6 feet of work area
 2. Use precautions to minimize dust from work activity
 3. Promptly clean work area utilizing wet methods and/or HEPA
- J. For all exterior work, where feasible or needed to maintain acceptable exposure levels:
- Remove all objects from the workplace
 - Objects that cannot be removed shall be covered with plastic.
 - Close all doors and windows within 20 feet of the renovation work area. On multi-story buildings, close all doors and windows within 20 feet on the same floor as the renovation and all doors and windows on floors beneath the work which are the same horizontal distance.
 - Ensure that doors within the work area that may be used while the job is being performed are covered in plastic that allows workers to pass through and contains dust and debris to the work area.
 - Cover the ground with plastic sheeting extending at least 10 feet beyond the work area or a distance sufficient to collect all dust and falling paint debris (whichever is greater).
 - Take extra precautions as needed to ensure that dust does not migrate to other areas of the property or adjacent properties.
- K. Prohibited Practices
- The following work practices are prohibited or restricted during the renovation:
- Open-flame burning or torching
 - Operating a heat gun above 1100 degrees Fahrenheit
 - Using a chemical paint stripper containing Methylene Chloride.
 - Using machines to remove paint through high speed operations such as blasting, sandblasting, needle gunning, machine sanding or grinding unless the machine is properly fitted with HEPA-filtered exhaust control

- High pressure washing unless conducted in a fully contained work area with a HEPA filtered exhaust control and water collection system
- Dry sweeping of dust, debris or paint chips.

L. Waste Handling

Waste shall be determined to be potentially to be C+D waste or potentially hazardous waste.

C+D Waste:

All construction components where the paint remains substantially intact shall be treated as normal C+D waste.

Potential Hazardous Waste:

All paint chips, debris or other non-intact debris may be potential hazardous waste. All such waste shall be collected and managed as outlined below until status is determined.

- All wastes considered as potentially hazardous. (lead concentration equal to or exceeding five (5) parts per million TCLP) unless proven otherwise by TCLP lead analysis.
- All wastes must be placed in 17-H DOT approved 55 gallon drums sealed and properly labeled in accordance with DOT, 49 CFR Parts 171 and 172.
- Containerized lead-containing waste must be stored on-site until proper disposal is arranged. These containers must be placed in a secure location to prevent tampering by others.
- EMPLOYER will to stage drums in an area chosen by the owner. The owner is required to have a properly insured and licensed transporter of hazardous waste, transport these containers to a secured licensed hazardous waste landfill.
- All waste must be properly manifested in accordance with all federal, state and local regulations.

M. Cleaning the work area

Documented technologies shall be followed to clean all work areas at the end of each work day and when all renovation activities have been completed. Cleaning methods shall include prompt clean up and disposal of waste bulk waste, regular wet mopping of work areas and HEPA vacuuming of surfaces where construction dust may accumulate.

All surfaces shall be maintained as free as practicable of accumulations of lead that are a direct result of construction activity.

N. Decontamination

Contactor shall establish decontamination area to properly clean all tools, equipment and personnel. Area shall be directly attached to the work area. Competent person shall ensure that all workers fully decontaminate prior to leaving the work area and at the end of each work shift.

EMPLOYER MONITORING AND TESTING

1. Employee Exposure Air Monitoring

The EMPLOYER shall be responsible for all employee personnel monitoring which is required by the Occupational Safety and Health Act. Employee lead exposure monitoring shall be conducted in accordance with OSHA 1926.62. Respiratory protection shall be appropriate as to work practices as described by OSHA.

Each specific job shall be monitored as per OSHA requirements utilizing 37 mm cassettes measured at a rate of 2 lpm. Monitoring shall be representative of full shift exposure.

Notify all employees of exposure monitoring results.

2. Employee Biological Monitoring, Medical Surveillance and Recordkeeping

The EMPLOYER shall be responsible for medical surveillance and blood lead and ZPP sampling and analysis in accordance with OSHA 1926.62. Employee records must be maintained by the Employer also in accordance with OSHA 1926.62

This monitoring shall be conducted in any employee exposure exceeds the action level for more than 30 days.

Medical removal of employees will be conducted if employee blood level exceeds OSHA limits.

CLEARANCE CRITERIA

Non-regulated jobs: Clearance required to be determined by specification or contract

Regulated RRP Jobs: Clearance by RRP supervisor cleaning verification or clearance wipe sampling by certified lead inspector.

Regulated jobs for lead abatement or lead hazard reduction in subject facility: As per DHS 163 rules by certified inspector

Protocol: A certified lead inspector will conduct a visual inspection and clearance wipe sampling upon completion of cleaning activities. Upon completion of a successful visual inspection, indicating no residual dust or debris present, wipe sampling will be conducted.

If clearance wipe sampling fails to pass the observed clearance criteria, the area will be re-cleaned until it meets or exceeds the clearance criteria.

LABORATORY ANALYSIS

All samples shall be analyzed by an accredited laboratory (National Lead Laboratory Accreditation Program)

REGULATORY LEVELS

AIR

1.5 $\mu\text{g}/\text{m}^3$	-	EPA National Ambient Air Quality Standard (Quarterly Time-Weighted Average)
30 $\mu\text{g}/\text{m}^3$	-	OSHA Action Level (8 Hour Time-Weighted Average)
50 $\mu\text{g}/\text{m}^3$	-	OSHA Permissible Exposure Limit (Construction Industry)

WATER

15 ppb (ug/liter)	-	EPA Maximum Containment Level
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DUST

40 $\mu\text{g}/\text{ft}^2$	-	HUD Clearance Level for Floors
250 $\mu\text{g}/\text{ft}^2$	-	HUD Clearance Level for Interior Window Sills
400 $\mu\text{g}/\text{ft}^2$	-	HUD Clearance Level for Window Wells

BLOOD

10 $\mu\text{g}/\text{dl}$	-	(CDC) Lead Poisoned Child
30 $\mu\text{g}/\text{dl}$	-	(OSHA) Permissible Blood Lead Level
50 $\mu\text{g}/\text{dl}$	-	(OSHA) Blood Level Requiring Medical Removal of Worker
10 $\mu\text{g}/\text{dl}$	-	Minnesota Limit for Pregnant Women
25 $\mu\text{g}/\text{dl}$	-	For Adults (U.S. Public Health Service, Centers for Disease Control, Healthy People 2000, 1991)

PAINT

.06% Weight 600 ug/DL	-	Consumer Product Safety Commission, Defined Lead Paint
.7 mg/cm ²	-	State of Wisconsin DHS (XRF)
1.0 mg/cm ² <u>or</u> 5,000 ppm 0.5% Weight	-	HUD Definition of Lead-Based Paint Lead

SOIL

500 – 1,000 ppm	-	EPA Superfund Limit
50 ppm	-	DNR Non-Industrial Hygienist
500 ppm	-	DNR Industrial Hygienist

HAZARDOUS WASTE

5 ppm	-	(Analyzed as “Leachable” Using Toxicity Characteristic Leachate Procedure – TLCP)
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GASOLINE

0.1 grams/gallon

EMPLOYEE INFORMATION

This information summarizes key provisions of the lead in construction standard that you as a worker should become familiar with.

I. Permissible Exposure Limit (PEL) - Paragraph (C)

The standard sets a permissible exposure limit (PEL) of 50 micrograms of lead per cubic meter of air (50 ug/m^3), averaged over an 8-hour workday which is referred to as a time-weighted average (TWA). This is the highest level of lead in air to which you may be permissibly exposed over an 8-hour workday. However, since this is an 8-hour average, short exposures above the PEL are permitted so long as for each 8-hour work day your average exposure does not exceed this level. This interim final standard, however, takes into account the fact that your daily exposure to lead can extend beyond a typical 8-hour workday as the result of overtime or other alterations in your work schedule. To deal with this situation, the standard contains a formula which reduces your permissible exposure when you are exposed more than 8 hours. For example, if you are exposed to lead for 10 hours a day, the maximum permitted average exposure would be 40 ug/m^3 .

II. Exposure Assessment - Paragraph (D)

If lead is present in your workplace in any quantity, your Employer is required to make an initial determination of whether any employee's exposure to lead exceeds the action level (30 ug/m^3 averaged over an 8-hour day). Employee exposure is that exposure which would occur if the employee were not using a respirator. This initial determination requires your Employer to monitor workers' exposures unless he or she has objective data which can demonstrate conclusively that no employee will be exposed to lead in excess of the action level. Where objective data is used in lieu of actual monitoring the Employer must establish and maintain an accurate record, documenting its relevancy in assessing exposure levels for current job conditions. If such objective data is available, the Employer need proceed no further on employee exposure assessment until such time that conditions have changed and the determination is no longer valid.

Objective data may be compiled from various sources, e.g., insurance companies and trade associations and information from suppliers or exposure data collected from similar operations. Objective data may also comprise previously - collected sampling data including area monitoring. If it cannot be determined through using objective data that worker exposure is less than the action level, your Employer must conduct monitoring or must rely on relevant previous personal sampling, if available. Where monitoring is required for the initial determination, it may be limited to a representative number of employees who are reasonably expected to have the highest exposure levels. If your Employer has conducted appropriate air sampling for lead in the past 12 months, he or she may use these results, provided they are applicable to the same employee tasks and exposure conditions and meet the requirements for accuracy as specified in the standard. As with objective data, if such results are relied upon for the initial determination, your Employer must establish and maintain a record as to the relevancy of such data to current job conditions.

If there have been any employee complaints of symptoms which may be attributable to exposure to lead or if there is any other information or observations which would indicate employee exposure to lead, this must also be considered as part of the initial determination.

If this initial determination shows that a reasonable possibility exists that any employee may be exposed, without regard to respirators, over the action level, your Employer must set up an air monitoring program to determine the exposure level representative of each employee exposed to lead at your workplace. In carrying out this air monitoring program, your Employer is not required to monitor the exposure of every employee, but he or she must monitor a representative number of employees and job types. Enough sampling must be done to enable each employee's exposure level to be reasonably representative of full shift exposure. In addition, these air samples must be taken under conditions which represent each employee's regular, daily exposure to lead. Sampling performed in the past 12 months may be used to determine exposures above the action level if such sampling was conducted during work activities essentially similar to present work conditions.

The standard lists certain tasks which may likely result in exposures to lead in excess of the PEL and, in some cases, exposures in excess of 50 times the PEL. If you are performing any of these tasks, your Employer must provide you with appropriate respiratory protection, protective clothing and equipment, change areas, hand washing facilities, biological monitoring, and training until such time that an exposure assessment is conducted which demonstrates that your exposure level is below the PEL.

If you are exposed to lead and air sampling is performed, your Employer is required to notify you in writing within 5 working days of the air monitoring results which represent your exposure. If the results indicate that your exposure exceeds the PEL (without regard to your use of a respirator), then your Employer must also notify you of this in writing, and provide you with a description of the corrective action that has been taken or will be taken to reduce your exposure.

Your exposure must be rechecked by monitoring, at least every six months if your exposure is at or over the action level but below the PEL. Your Employer may discontinue monitoring for you if 2 consecutive measurements, taken at least 7 days apart, are at or below the action level. Air monitoring must be repeated every 3 months if you are exposed over the PEL. Your Employer must continue monitoring for you at this frequency until 2 consecutive measurements, taken at least 7 days apart, are below the PEL but above the action level, at which time your Employer must repeat monitoring of your exposure every six months and may discontinue monitoring only after your exposure drops to or below the action level. However, whenever there is a change of equipment, process, control, or personnel or a new type of job is added at your workplace which may result in new or additional exposure to lead, your Employer must perform additional monitoring.

III. Methods of Compliance - Paragraph (E)

Your Employer is required to assure that no employee is exposed to lead in excess of the PEL as an 8-hour TWA. The interim final standard for lead in construction requires Employers to institute engineering and work practice controls including administrative controls to the extent feasible to reduce employee exposure to lead.

Where such controls are feasible but not adequate to reduce exposures below the PEL they must be used nonetheless to reduce exposures to the lowest level that can be accomplished by these means and then supplemented with appropriate respiratory protection.

Your Employer is required to develop and implement a written compliance program prior to the commencement of any job where employee exposures may reach the PEL as an 8-hour TWA. The interim final standard identifies the various elements that must be included in the plan. For example, Employers are required to include a description of operations in which lead is emitted, detailing other relevant information about the operation such as the type of equipment used, the type of material involved, employee job responsibilities, operating procedures and maintenance practices. In addition, your Employer's compliance plan must specify the means that will be used to achieve compliance and, where engineering controls are required, include any engineering plans or studies that have been used to select the control methods. If administrative controls involving job rotation are used to reduce employee exposure to lead, the job rotation schedule must be included in the compliance plan. The plan must also detail the type of protective clothing and equipment, including respirators, housekeeping and hygiene practices that will be used to protect you from the adverse effects of exposure to lead.

The written compliance program must be made available, upon request, to affected employees and their designated representatives, the Assistant Secretary and the Director.

Finally, the plan must be reviewed and updated at least every 6 months to assure it reflects the current status in exposure control.

IV. Respiratory Protection - Paragraph (F)

Your Employer is required to provide and assure your use of respirators when your exposure to lead is not controlled below the PEL by other means. The Employer must pay the cost of the respirator. Whenever you request one, your Employer is also required to provide you a respirator even if your air exposure level is not above the PEL. You might desire a respirator when, for example, you have received medical advice that your lead absorption should be decreased. Or, you may intend to have children in the near future, and want to reduce the level of lead in your body to minimize adverse reproductive effects. While respirators are the least satisfactory means of controlling your exposure, they are capable of providing significant protection if properly chosen, fitted, worn, cleaned, maintained, and replaced when they stop providing adequate protection.

Your Employer is required to select respirators from the types listed in Table I of the Respiratory Protection section of the standard. Any respirator chosen must be approved by the Mine Safety and Health Administration (MSHA) or the National Institute for Occupational Safety and Health (NIOSH). This respirator selection table will enable your Employer to choose a type of respirator which will give you a proper amount of protection based on your airborne lead exposure. Your Employer may select a type of respirator that provides greater protection than that required by the standard; that is, one recommended for a higher concentration of lead than is present in your workplace. For example, a powered air purifying respirator (PAPR) is much more protective than a typical negative pressure respirator, and may also be more comfortable to wear. A PAPR has a filter, cartridge or canister to clean the air, and a power source which continuously blows filtered air into your breathing zone. Your Employer might make a PAPR available to you to ease the burden of having to wear a respirator for long periods of time. The standard provides that you can obtain a PAPR upon request.

Your Employer must also start a Respiratory Protection Program. This program must include written procedures for the proper selection, use, cleaning, storage, and maintenance of respirators.

Your Employer is required to select respirators from the types listed in Table I of the Respiratory Protection section of the standard (Sec. 1926.62 (f)). Any respirator chosen must be approved by the National Institute for Occupational Safety and Health (NIOSH) under the provisions of 42 CFR Part 84. This respirator selection table will enable your Employer to choose a type of respirator that will give you a proper amount of protection based on your airborne lead exposure. Your Employer may select a type of respirator that provides greater protection than that required by the standard; that is, one recommended for a higher concentration of lead than is present in your workplace. For example, a powered air-purifying respirator (PAPR) is much more protective than a typical negative pressure respirator, and may also be more comfortable to wear. A PAPR has a filter, cartridge, or canister to clean the air, and a power source that continuously blows filtered air into your breathing zone. Your Employer might make a PAPR available to you to ease the burden of having to wear a respirator for long periods of time. The standard provides that you can obtain a PAPR upon request.

You must also receive from your Employer proper training in the use of respirators. Your Employer is required to teach you how to wear a respirator, to know why it is needed, and to understand its limitations.

Your Employer must ensure that your respirator facepiece fits properly. Proper fit of a respirator facepiece is critical to your protection from airborne lead. Obtaining a proper fit on each employee may require your Employer to make available several different types of respirator masks. To ensure that your respirator fits properly and that facepiece leakage is minimal, your Employer must give you either a qualitative or quantitative fit test as specified in Appendix A of the Respiratory Protection standard located at 29 CFR 1910.134.

The standard provides that if your respirator uses filter elements, you must be given an opportunity to change the filter elements whenever an increase in breathing resistance is detected. You also must be permitted to periodically leave your work area to wash your face and

respirator facepiece whenever necessary to prevent skin irritation. If you ever have difficulty in breathing during a fit test or while using a respirator, your Employer must make a medical examination available to you to determine whether you can safely wear a respirator. The result of this examination may be to give you a positive pressure respirator (which reduces breathing resistance) or to provide alternative means of protection.

V. Protective Work Clothing and Equipment - Paragraph (G)

If you are exposed to lead above the PEL as an 8-hour TWA, without regard to your use of a respirator, or if you are exposed to lead compounds such as lead arsenate or lead azide which can cause skin and eye irritation, your Employer must provide you with protective work clothing and equipment appropriate for the hazard.

If work clothing is provided, it must be provided in a clean and dry condition at least weekly, and daily if your airborne exposure to lead is greater than 200 ug/m(3). Appropriate protective work clothing and equipment can include coveralls or similar full-body work clothing, gloves, hats, shoes or disposable shoe coverlets, and face shields or vented goggles. Your Employer is required to provide all such equipment at no cost to you. In addition, your Employer is responsible for providing repairs and replacement as necessary, and also is responsible for the cleaning, laundering or disposal of protective clothing and equipment.

The interim final standard requires that your Employer assure that you follow good work practices when you are working in areas where your exposure to lead may exceed the PEL. With respect to protective clothing and equipment, where appropriate, the following procedures should be observed prior to beginning work:

1. Change into work clothing and shoe covers in the clean section of the designated changing areas;
2. Use work garments of appropriate protective gear, including respirators before entering the work area; and
3. Store any clothing not worn under protective clothing in the designated changing area.

Workers should follow these procedures upon leaving the work area:

1. HEPA vacuum heavily contaminated protective work clothing while it is still being worn. At no time may lead be removed from protective clothing by any means which result in uncontrolled dispersal of lead into the air;
2. Remove shoe covers and leave them in the work area;
3. Remove protective clothing and gear in the dirty area of the designated changing area. Remove protective coveralls by carefully rolling down the garment to reduce exposure to dust.
4. Remove respirators last; and
5. Wash hands and face.

Workers should follow these procedures upon finishing work for the day (in addition to procedures described above):

1. Where applicable, place disposal coveralls and shoe covers with the abatement waste;
2. Contaminated clothing which is to be cleaned, laundered or disposed of must be placed in closed containers in the change room.
3. Clean protective gear, including respirators, according to standard procedures;
4. Wash hands and face again. If showers are available, take a shower and wash hair. If shower facilities are not available at the work site, shower immediately at home and wash hair.

VI. Housekeeping - Paragraph (H)

Your Employer must establish a housekeeping program sufficient to maintain all surfaces as free as practicable of accumulations of lead dust. Vacuuming is the preferred method of meeting this requirement, and the use of compressed air to clean floors and other surfaces is generally prohibited unless removal with compressed air is done in conjunction with ventilation systems designed to contain dispersal of the lead dust. Dry or wet sweeping, shoveling, or brushing may not be used except where vacuuming or other equally effective methods have been tried and do not work. Vacuums must be used equipped with a special filter called a high-efficiency particulate air (HEPA) filter and emptied in a manner which minimizes the reentry of lead into the workplace.

VII. Hygiene Facilities and Practices - Paragraph (I)

The standard requires that hand washing facilities be provided where occupational exposure to lead occurs. In addition, change areas, showers (where feasible), and lunchrooms or eating areas are to be made available to workers exposed to lead above the PEL. Your Employer must assure that except in these facilities, food and beverage is not present or consumed, tobacco products are not present or used, and cosmetics are not applied, where airborne exposures are above the PEL. Change rooms provided by your Employer must be equipped with separate storage facilities for your protective clothing and equipment and street clothes to avoid cross-contamination. After showering, no required protective clothing or equipment worn during the shift may be worn home. It is important that contaminated clothing or equipment be removed in change areas and not be worn home or you will extend your exposure and expose your family since lead from your clothing can accumulate in your house, car, etc.

Lunchrooms or eating areas may not be entered with protective clothing or equipment unless surface dust has been removed by vacuuming, downdraft booth, or other cleaning method. Finally, workers exposed above the PEL must wash both their hands and faces prior to eating, drinking, smoking or applying cosmetics.

All of the facilities and hygiene practices just discussed are essential to minimize additional sources of lead absorption from inhalation or ingestion of lead that may accumulate on you, your clothes, or your possessions. Strict compliance with these provisions can virtually eliminate several sources of lead exposure which significantly contribute to excessive lead absorption.

VIII. Medical surveillance - Paragraph (J)

The medical surveillance program is part of the standard's comprehensive approach to the prevention of lead-related disease. Its purpose is to supplement the main thrust of the standard which is aimed at minimizing airborne concentrations of lead and sources of ingestion.

Only medical surveillance can determine if the other provisions of the standard have effectively protected you as an individual. Compliance with the standard's provision will protect most workers from the adverse effects of lead exposure, but may not be satisfactory to protect individual workers (1) who have high body burdens of lead acquired over past years, (2) who have additional uncontrolled sources of non-occupational lead exposure, (3) who exhibit unusual variations in lead absorption rates, or (4) who have specific non-work related medical conditions which could be aggravated by lead exposure (e.g., renal disease, anemia). In addition, control systems may fail, or hygiene and respirator programs may be inadequate. Periodic medical surveillance of individual workers will help detect those failures. Medical surveillance will also be important to protect your reproductive ability - regardless of whether you are a man or woman.

All medical surveillance required by the interim final standard must be performed by or under the supervision of a licensed physician. The Employer must provide required medical surveillance without cost to employees and at a reasonable time and place. The standard's medical surveillance program has two parts -- periodic biological monitoring and medical examinations. Your Employer's obligation to offer you medical surveillance is triggered by the results of the air monitoring program. Full medical surveillance must be made available to all employees who are or may be exposed to lead in excess of the action level for more than 30 days a year and whose blood lead level exceeds 40 ug/dl. Initial medical surveillance consisting of blood sampling and analysis for lead and zinc protoporphyrin must be provided to all employees exposed at any time (1 day) above the action level.

Biological monitoring under the standard must be provided at least every 2 months for the first 6 months and every 6 months thereafter until your blood lead level is below 40 ug/dl. A zinc protoporphyrin (ZPP) test is a very useful blood test which measures an adverse metabolic effect of lead on your body and is therefore an indicator of lead toxicity.

If your BLL exceeds 40 ug/dl, the monitoring frequency must be increased from every 6 months to at least every 2 months and not reduced until two consecutive BLLs indicate a blood lead level below 40 ug/dl. Each time your BLL is determined to be over 40 ug/dl, your Employer must notify you of this in writing within five working days of his or her receipt of the test results. The Employer must also inform you that the standard requires temporary medical removal with economic protection when your BLL exceeds 50 ug/dl. (See Discussion of Medical Removal Protection - Paragraph (k).) Anytime your BLL exceeds 50 ug/dl your Employer must make available to you within two weeks of receipt of these test results a second follow-up BLL test to confirm your BLL. If the two tests both exceed 50 ug/dl, and you are temporarily removed, then your Employer must make successive BLL tests available to you on a monthly basis during the period of your removal.

Medical examinations beyond the initial one must be made available on an annual basis if your

blood lead level exceeds 40 ug/dl at any time during the preceding year and you are being exposed above the airborne action level of 30 ug/m³ for 30 or more days per year. The initial examination will provide information to establish a baseline to which subsequent data can be compared.

An initial medical examination to consist of blood sampling and analysis for lead and zinc protoporphyrin must also be made available (prior to assignment) for each employee being assigned for the first time to an area where the airborne concentration of lead equals or exceeds the action level at any time. In addition, a medical examination or consultation must be made available as soon as possible if you notify your Employer that you are experiencing signs or symptoms commonly associated with lead poisoning or that you have difficulty breathing while wearing a respirator or during a respirator fit test. You must also be provided a medical examination or consultation if you notify your Employer that you desire medical advice concerning the effects of current or past exposure to lead on your ability to procreate a healthy child.

Finally, appropriate follow-up medical examinations or consultations may also be provided for employees who have been temporarily removed from exposure under the medical removal protection provisions of the standard. (See Part IX, below.)

The standard specifies the minimum content of pre-assignment and annual medical examinations. The content of other types of medical examinations and consultations is left up to the sound discretion of the examining physician. Pre-assignment and annual medical examinations must include (1) a detailed work history and medical history; (2) a thorough physical examination, including an evaluation of your pulmonary status if you will be required to use a respirator; (3) a blood pressure measurement; and (4) a series of laboratory tests designed to check your blood chemistry and your kidney function. In addition, at any time upon your request, a laboratory evaluation of male fertility will be made (microscopic examination of a sperm sample), or a pregnancy test will be given.

The standard does not require that you participate in any of the medical procedures, tests, etc. which your Employer is required to make available to you. Medical surveillance can, however, play a very important role in protecting your health. You are strongly encouraged, therefore, to participate in a meaningful fashion. The standard contains a multiple physician review mechanism which will give you a chance to have a physician of your choice directly participate in the medical surveillance program. If you are dissatisfied with an examination by a physician chosen by your Employer, you can select a second physician to conduct an independent analysis. The two doctors would attempt to resolve any differences of opinion, and select a third physician to resolve any firm dispute. Generally your Employer will choose the physician who conducts medical surveillance under the lead standard - unless you and your Employer can agree on the choice of a physician or physicians. Some companies and unions have agreed in advance, for example, to use certain independent medical laboratories or panels of physicians. Any of these arrangements are acceptable so long as required medical surveillance is made available to workers.

The standard requires your Employer to provide certain information to a physician to aid in his

or her examination of you. This information includes (1) the standard and its appendices, (2) a description of your duties as they relate to occupational lead exposure, (3) your exposure level or anticipated exposure level, (4) a description of any personal protective equipment you wear, (5) prior blood lead level results, and (6) prior written medical opinions concerning you that the Employer has.

After a medical examination or consultation the physician must prepare a written report which must contain (1) the physician's opinion as to whether you have any medical condition which places you at increased risk of material impairment to health from exposure to lead, (2) any recommended special protective measures to be provided to you, (3) any blood lead level determinations, and (4) any recommended limitation on your use of respirators. This last element must include a determination of whether you can wear a powered air purifying respirator (PAPR) if you are found unable to wear a negative pressure respirator.

The medical surveillance program of the interim lead standard may at some point in time serve to notify certain workers that they have acquired a disease or other adverse medical condition as a result of occupational lead exposure. If this is true, these workers might have legal rights to compensation from public agencies, their Employers, firms that supply hazardous products to their Employers, or other persons. Some states have laws, including worker compensation laws that disallow a worker who learns of a job - related health impairment to sue, unless the worker sues within a short period of time after learning of the impairment. (This period of time may be a matter of months or years.) An attorney can be consulted about these possibilities. It should be stressed that OSHA is in no way trying to either encourage or discourage claims or lawsuits. However, since results of the standard's medical surveillance program can significantly affect the legal remedies of a worker who has acquired a job - related disease or impairment, it is proper for OSHA to make you aware of this.

The medical surveillance section of the standard also contains provisions dealing with chelation. Chelation is the use of certain drugs (administered in pill form or injected into the body) to reduce the amount of lead absorbed in body tissues. Experience accumulated by the medical and scientific communities has largely confirmed the effectiveness of this type of therapy for the treatment of very severe lead poisoning. On the other hand, it has also been established that there can be a long list of extremely harmful side effects associated with the use of chelating agents. The medical community has balanced the advantages and disadvantages resulting from the use of chelating agents in various circumstances and has established when the use of these agents is acceptable. The standard includes these accepted limitations due to a history of abuse of chelation therapy by some lead companies. The most widely used chelating agents are calcium disodium EDTA, (Ca Na₂ EDTA), Calcium Disodium Versenate (Versenate), and d-penicillamine (penicillamine or Cupramine).

The standard prohibits "prophylactic chelation" of any employee by any person the Employer retains, supervises or controls. "Prophylactic chelation" is the routine use of chelating or similarly acting drugs to prevent elevated blood levels in workers who are occupationally exposed to lead, or the use of these drugs to routinely lower blood lead levels to predesignated concentrations believed to be "safe". It should be emphasized that where an Employer takes a worker who has no symptoms of lead poisoning and has chelation carried out by a physician

(either inside or outside of a hospital) solely to reduce the worker's blood lead level, that will generally be considered prophylactic chelation. The use of a hospital and a physician does not mean that prophylactic chelation is not being performed. Routine chelation to prevent increased or reduce current blood lead levels is unacceptable whatever the setting.

The standard allows the use of "therapeutic" or "diagnostic" chelation if administered under the supervision of a licensed physician in a clinical setting with thorough and appropriate medical monitoring. Therapeutic chelation responds to severe lead poisoning where there are marked symptoms. Diagnostic chelation involved giving a patient a dose of the drug then collecting all urine excreted for some period of time as an aid to the diagnosis of lead poisoning.

In cases where the examining physician determines that chelation is appropriate, you must be notified in writing of this fact before such treatment. This will inform you of a potentially harmful treatment, and allow you to obtain a second opinion.

IX. Medical Removal Protection - Paragraph (K)

Excessive lead absorption subjects you to increased risk of disease. Medical removal protection (MRP) is a means of protecting you when, for whatever reasons, other methods, such as engineering controls, work practices, and respirators, have failed to provide the protection you need. MRP involves the temporary removal of a worker from his or her regular job to a place of significantly lower exposure without any loss of earnings, seniority, or other employment rights or benefits. The purpose of this program is to cease further lead absorption and allow your body to naturally excrete lead which has previously been absorbed. Temporary medical removal can result from an elevated blood lead level, or a medical opinion. For up to 18 months, or for as long as the job the employee was removed from lasts, protection is provided as a result of either form of removal. The vast majority of removed workers, however, will return to their former jobs long before this eighteen month period expires.

You may also be removed from exposure even if your blood lead level is below 50 ug/dl if a final medical determination indicates that you temporarily need reduced lead exposure for medical reasons. If the physician who is implementing your Employers medical program makes a final written opinion recommending your removal or other special protective measures, your Employer must implement the physician's recommendation. If you are removed in this manner, you may only be returned when the doctor indicates that it is safe for you to do so.

The standard does not give specific instructions dealing with what an Employer must do with a removed worker. Your job assignment upon removal is a matter for you, your Employer and your union (if any) to work out consistent with existing procedures for job assignments. Each removal must be accomplished in a manner consistent with existing collective bargaining relationships. Your Employer is given broad discretion to implement temporary removals so long as no attempt is made to override existing agreements. Similarly, a removed worker is provided no right to veto an Employer's choice which satisfies the standard.

In most cases, Employers will likely transfer removed employees to other jobs with sufficiently low lead exposure. Alternatively, a worker's hours may be reduced so that the time weighted

average exposure is reduced, or he or she may be temporarily laid off if no other alternative is feasible.

In all of these situations, MRP benefits must be provided during the period of removal - i.e., you continue to receive the same earnings, seniority, and other rights and benefits you would have had if you had not been removed. Earnings include more than just your base wage; it includes overtime, shift differentials, incentives, and other compensation you would have earned if you had not been removed. During the period of removal you must also be provided with appropriate follow-up medical surveillance. If you were removed because your blood lead level was too high, you must be provided with a monthly blood test. If a medical opinion caused your removal, you must be provided medical tests or examinations that the doctor believes to be appropriate. If you do not participate in this follow up medical surveillance, you may lose your eligibility for MRP benefits.

When you are medically eligible to return to your former job, your Employer must return you to your "former job status." This means that you are entitled to the position, wages, benefits, etc., you would have had if you had not been removed. If you would still be in your old job if no removal had occurred that is where you go back. If not, you are returned consistent with whatever job assignment discretion your Employer would have had if no removal had occurred. MRP only seeks to maintain your rights, not expand them or diminish them.

If you are removed under MRP and you are also eligible for worker compensation or other compensation for lost wages, your Employer's MRP benefits obligation is reduced by the amount that you actually receive from these other sources. This is also true if you obtain other employment during the time you are laid off with MRP benefits.

The standard also covers situations where an Employer voluntarily removes a worker from exposure to lead due to the effects of lead on the employee's medical condition, even though the standard does not require removal. In these situations MRP benefits must still be provided as though the standard required removal. Finally, it is important to note that in all cases where removal is required, respirators cannot be used as a substitute. Respirators may be used before removal becomes necessary, but not as an alternative to a transfer to a low exposure job, or to a lay-off with MRP benefits.

X. Employee Information and Training - Paragraph (L)

Your Employer is required to provide an information and training program for all employees exposed to lead above the action level or who may suffer skin or eye irritation from lead compounds such as lead arsenate or lead azide. The program must train these employees regarding the specific hazards associated with their work environment, protective measures which can be taken, including the contents of any compliance plan in effect, the danger of lead to their bodies (including their reproductive systems), and their rights under the standard. All employees must be trained prior to initial assignment to areas where there is a possibility of exposure over the action level.

This training program must also be provided at least annually thereafter unless further exposure above the action level will not occur.

XI. Signs - Paragraph (M)

The standard requires that the following warning sign be posted in work areas where the exposure to lead exceeds the PEL:

**WARNING
LEAD WORK AREA
POISON
NO SMOKING OR EATING**

These signs are to be posted and maintained in a manner which assures that the legend is readily visible.

XII. Recordkeeping - Paragraph (N)

Your Employer is required to keep all records of exposure monitoring for airborne lead. These records must include the name and job classification of employees measured, details of the sampling and analytical techniques, the results of this sampling, and the type of respiratory protection being worn by the person sampled. Such records are to be retained for at least 30 years. Your Employer is also required to keep all records of biological monitoring and medical examination results. These records must include the names of the employees, the physician's written opinion, and a copy of the results of the examination. Medical records must be preserved and maintained for the duration of employment plus 30 years. However, if the employee's duration of employment is less than one year, the Employer need not retain that employee's medical records beyond the period of employment if they are provided to the employee upon termination of employment.

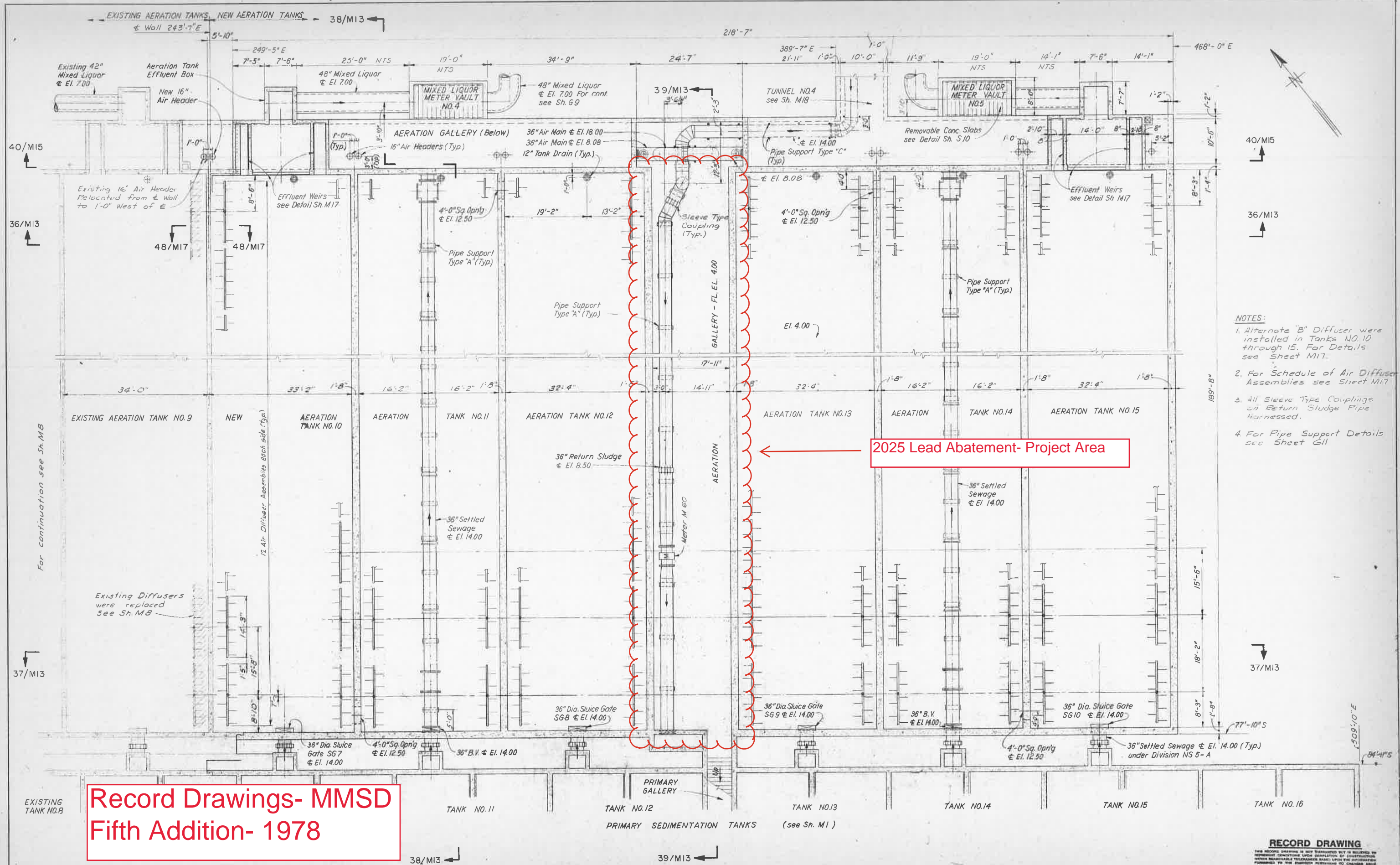
Recordkeeping is also required if you are temporarily removed from your job under the medical removal protection program. This record must include your name and social security number, the date of your removal and return, how the removal was or is being accomplished, and whether or not the reason for the removal was an elevated blood lead level. Your Employer is required to keep each medical removal record only for as long as the duration of an employee's employment.

The standard requires that if you request to see or copy environmental monitoring, blood lead level monitoring, or medical removal records, they must be made available to you or to a representative that you authorize. Your union also has access to these records. Medical records other than BLL's must also be provided upon request to you, to your physician or to any other person whom you may specifically designate. Your union does not have access to your personal medical records unless you authorize their access.

XIII. Observation of Monitoring - Paragraph (O)

When air monitoring for lead is performed at your workplace as required by this standard, your Employer must allow you or someone you designate to act as an observer of the monitoring. Observers are entitled to an explanation of the measurement procedure to record the results.

Since results will not normally be available at the time of the monitoring, observers are entitled to record or receive the results of the monitoring when returned by the laboratory. Your Employer is required to provide the observer with any personal protective devices required to be worn by employees working in the area that is being monitored. The Employer must require the observer to wear all such equipment and to comply with all other applicable safety and health procedures.

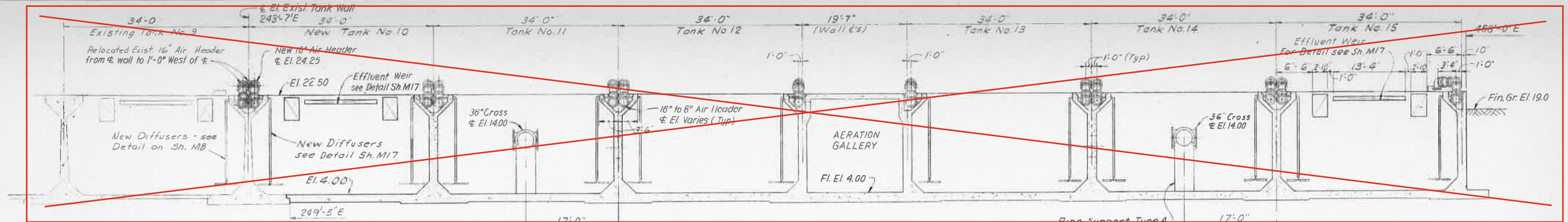


- NOTES:**
1. Alternate "B" Diffuser were installed in Tanks NO. 10 through 15. For Details see Sheet M17.
 2. For Schedule of Air Diffuser Assemblies see Sheet M17.
 3. All Sleeve Type Couplings on Return Sludge Pipe harnessed.
 4. For Pipe Support Details see Sheet G11.

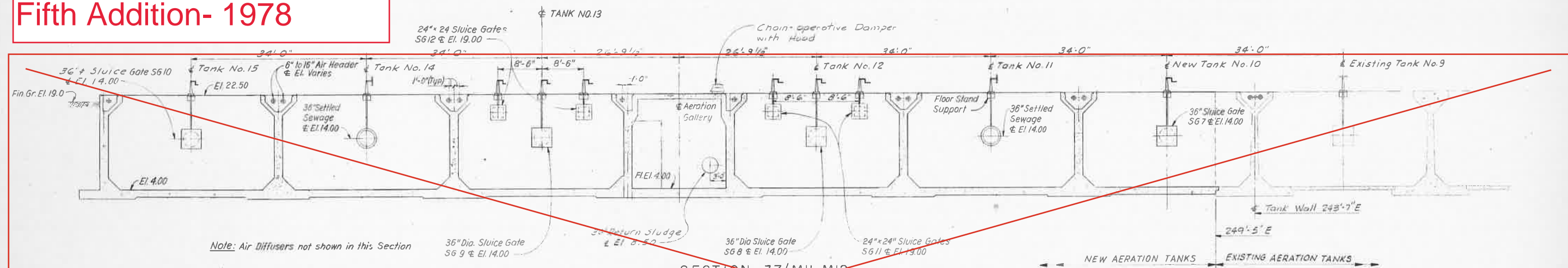
**Record Drawings- MMSD
Fifth Addition- 1978**

2025 Lead Abatement- Project Area

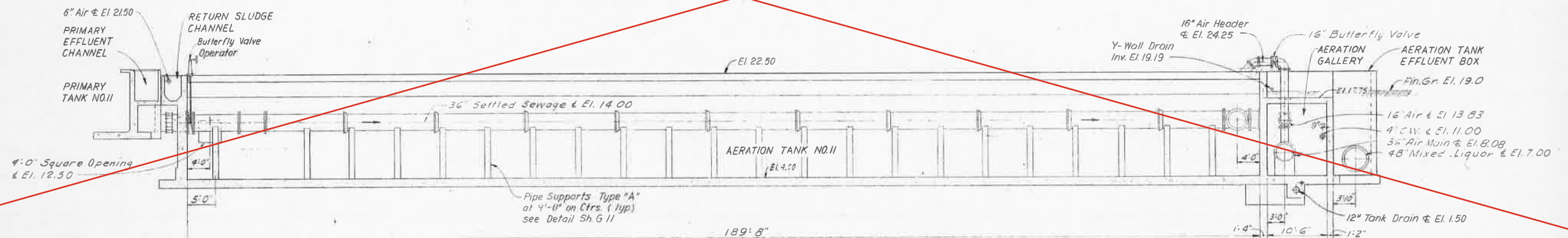
Record Drawings- MMSD Fifth Addition- 1978



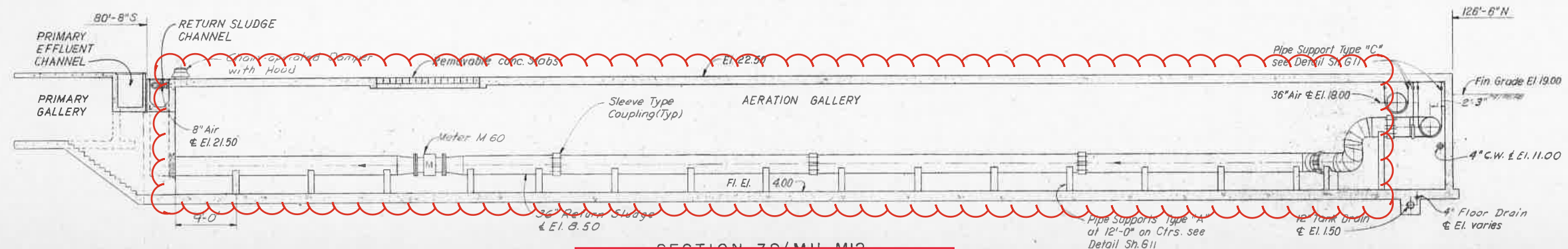
SECTION 36/MII, M12



SECTION 37/MII, M12



SECTION 38/MII, M12



SECTION 39/MII, M12

2025 Lead Abatement- Project Area

- NOTES:
1. All Sleeve Type Couplings on Return Sludge Pipe Harness.
 2. For Pipe Support Details see Sh. G.11.

RECORD DRAWING
THIS RECORD DRAWING IS NOT GUARANTEED BUT IS SUBJECT TO NECESSARY CORRECTIONS AND MODIFICATIONS OF CONSTRUCTION WITHIN REASONABLE LIMITS BASED UPON THE INFORMATION FURNISHED TO THE ENGINEER HEREON AND CHANGES MADE DURING CONSTRUCTION.

GREELEY AND HANSEN
ENGINEERS
222 S. RIVERSIDE PLAZA
CHICAGO, ILLINOIS 60606

DESIGNED TRA, MHE
DRAWN ESL, JK
CHECKED TRA

APPROVED

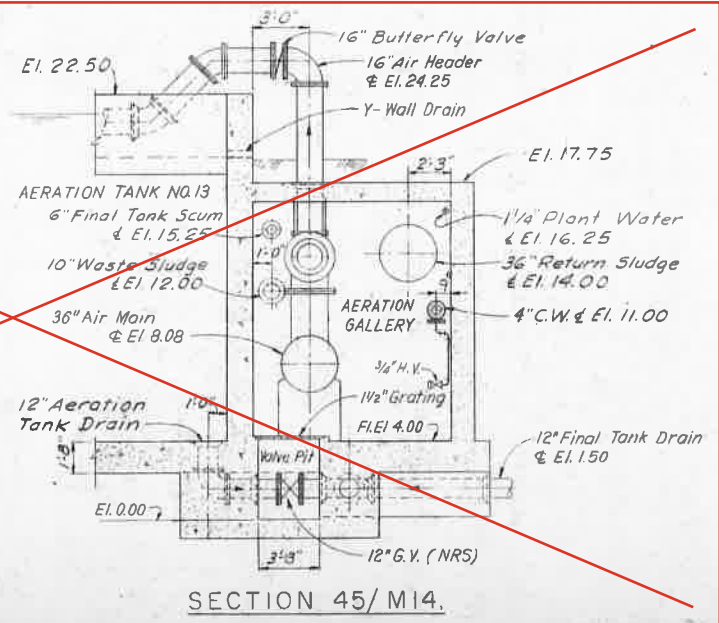
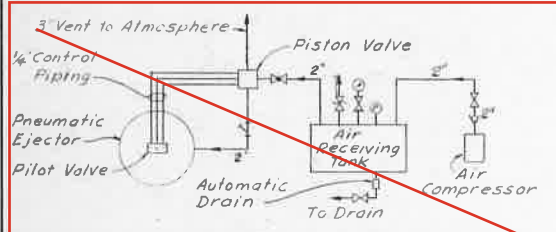
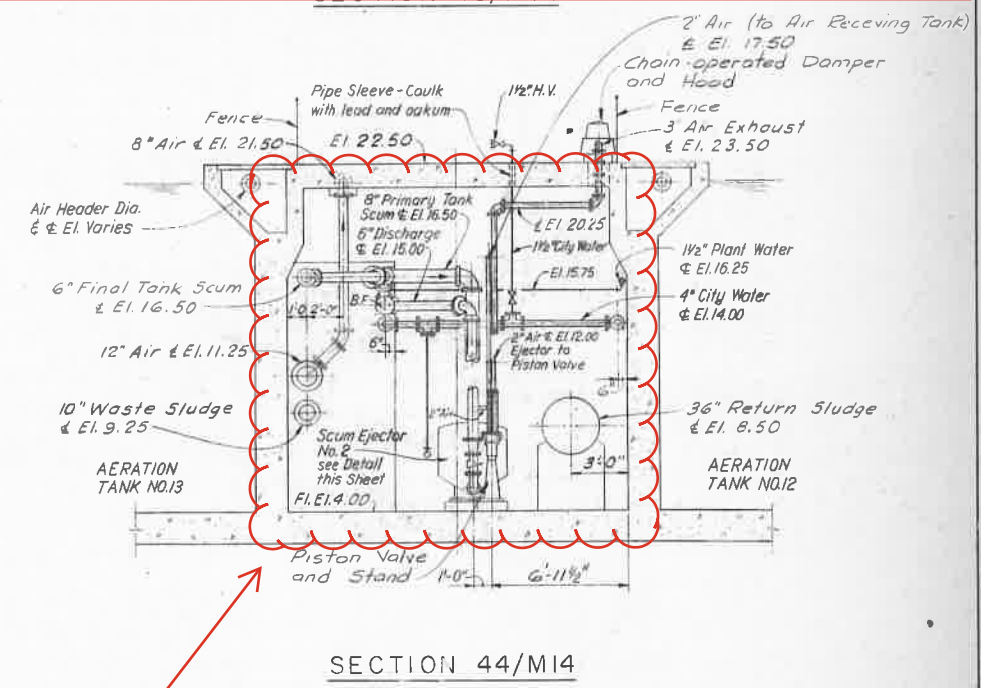
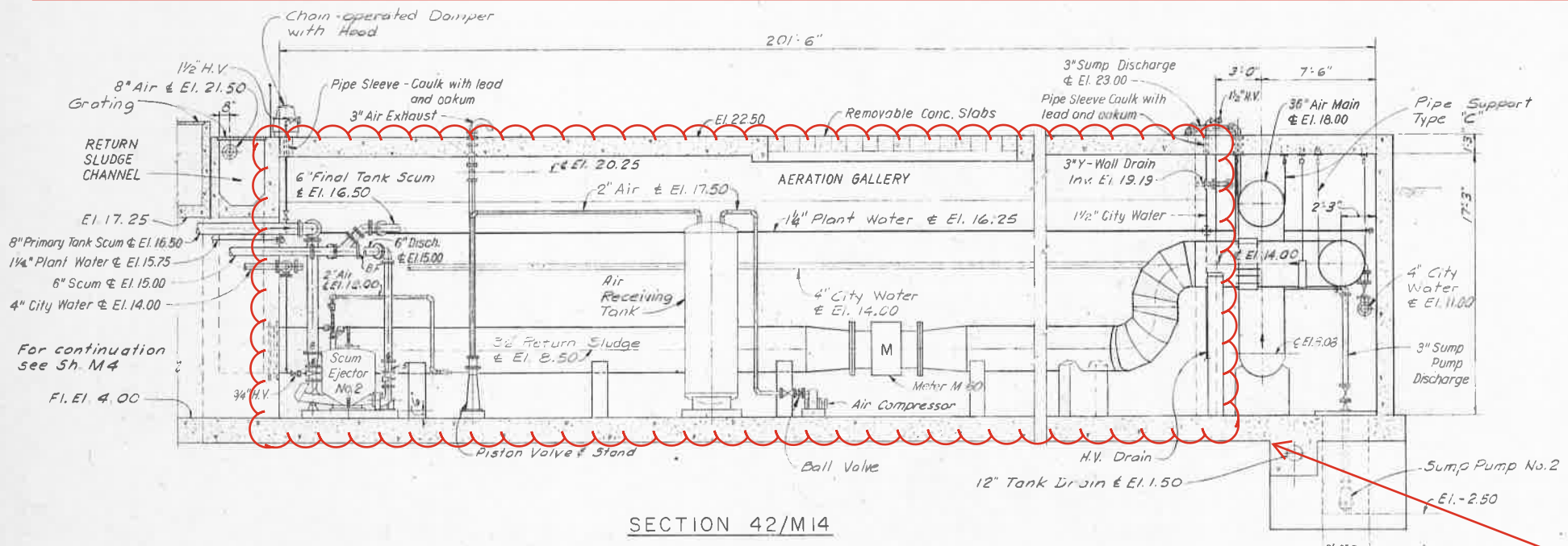
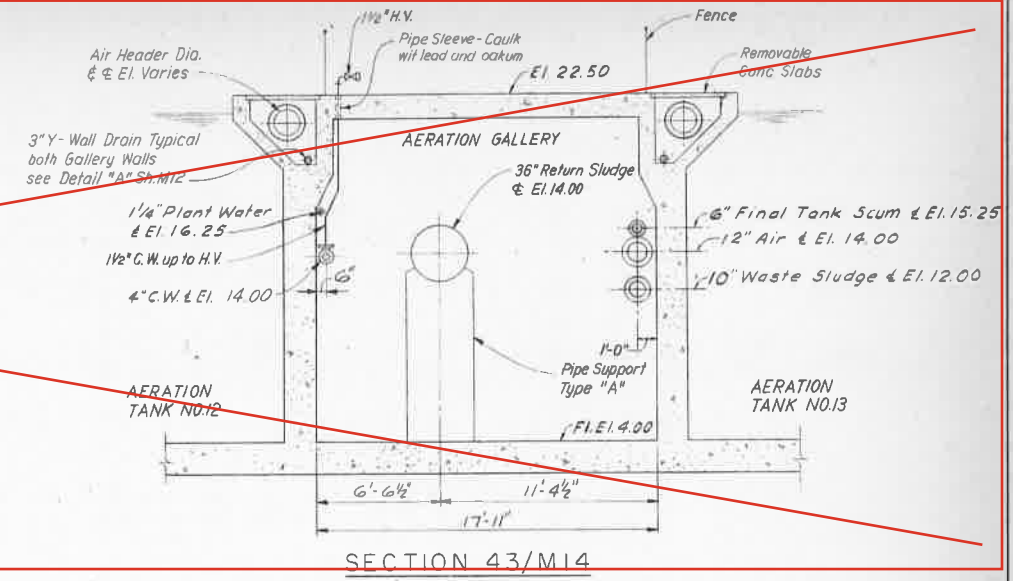
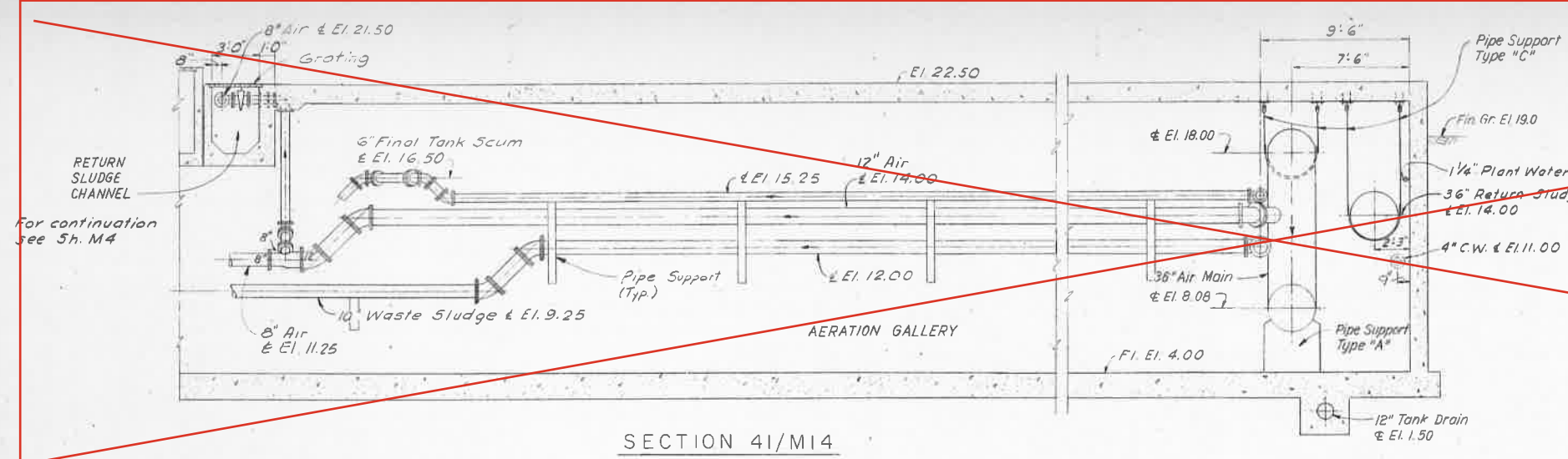
NO.	DATE	APP.	REVISION
1	12/1/78	TRA	Record Drawing Revisions

SCALE
1" = 10'-0"

MADISON METROPOLITAN SEWERAGE DISTRICT
WISCONSIN
FIFTH ADDITION TO NINE SPRINGS
SEWAGE TREATMENT WORKS

AERATION TANKS NO. 10-15
EQUIPMENT
SECTIONS

PROJ. NO. 545-71-640
SHEET M13 OF 88
DATE APR. 1978 REV. 1



2025 Lead Abatement- Project Area

Record Drawings- MMSD
Fifth Addition-1978

NOTES:
1. For Pipe Support Details see Sh. 611
2. For continuation of Outside Piping see Sh. 69

RECORD DRAWING