

**AGREEMENT FOR
ENGINEERING SERVICES WITH CH2M HILL Engineers Inc.
PROJECT NUMBER TMUA ES 2016-01**

DESCRIPTION OF WORK AND LOCATION Conceptual, Preliminary and Final Design plus Bidding
Services for the design of New Aeration Basins at Haikey Creek Wastewater Treatment Plant.

ACCOUNT NO. 6951-541101-040520152019 (50% share with Broken Arrow)

Total Budget	\$16,000,000.00
Original Construction Cost	\$14,592,235.39
Original Design	\$1,407,764.61
Additional Design Cost	\$0.00
Total Design Cost	\$1,407,764.61
Raw Labor Cost	\$480,793.84
Overhead	161.10%
Profit	10.00%
Multiplier	2.82
Total Design Cost / Total Construction Cost	9.64%
Advertising Date	February 2018

ENGINEERING CONSULTING AGREEMENTS CHECKLIST

Over all cover sheet (attached)

Front End Documents

- ☐ ☒ There are 20 Sections *29*
- ☒ ~~Correct project number~~ and contract number
- ☒ Correct Account number
- ☒ New insurance information (Section 11)
- ☒ Signature page separate sheet having "IN WITNESS WHEREOF..." paragraph and signatures
- ☐ ~~Two signed and sealed original agreements~~ *(5 originals to be submitted following approval by PCSSC)*

Attachment A

- ☒ Detailed description of the work and location, N-S and E-W

Attachment B

- ☒ Phases of work with milestones and deliverables
- ☐ Include Right of Way information
- ☒ Include Plan-in-hand / field review
- ☐ Plan sheets shall be no more than 30' per inch unless specified by Engineer
- ☒ *Reference schedule exhibit*

Attachment C

- ☒ Check Record Drawing reference - Construction Information provided to the Engineer to prepare Record Drawings.

Attachment D

- ☒ Callout the hourly fees, overhead and profit
- ☐ Use current IRS rate for mileage *(no local mileage)*
- ☒ Conditions of payment
 - ☒ City pay within 30 days
 - ☒ Project delayed or suspended for more than 180 days
- ☒ *Reference Fee Computation Exhibit*

Attachment E

- ☐ Resident Inspector Services

Fee Computation Exhibit

- ☒ Detailed man-hour / task breakdown showing:
 - ☐ Personnel
 - ☒ Tasks
 - ☒ Man-hours
 - ☒ Raw labor
 - ☒ Overhead
 - ☒ Detailed Expenses
 - ☒ Profit

Schedule Exhibit

- ☒ Milestones that match scope of services in Attachment B
- ☒ Advertise Date

Other attachments

- ☒ Insurance Certificate with correct cancellation clause, Carrier name correction and completely spelled out
- ☒ Affidavit of Claimant
- ☐ M/FBE-1
- ☐ M/FBE-2
- ☐ M/FBE-3

Prepared By:

Consulting Engineer Lars Ostervold, Area Manager
(Type Name & Title)

Project Engineer _____

Lead Engineer _____

AGREEMENT
FOR
PROFESSIONAL ENGINEERING SERVICES
FOR
Haikey Creek Activated Sludge Management Rehabilitation
PROJECT NO. RMUA ES 2016-01
BROKEN ARROW _____

THIS AGREEMENT for Professional Engineering Services, (Contract No. _____), is made and entered into this _____ day of _____, 2016 between the Regional Metropolitan Utility Authority, a Public Trust of the State of Oklahoma, hereinafter referred to as AUTHORITY, and CH2M HILL Engineers, Inc. hereinafter referred to as ENGINEER;

WITNESSETH:

WHEREAS, AUTHORITY intends to provide design plans for the Haikey Creek Activated Sludge Management Rehabilitation, hereinafter referred to as the Project; and

WHEREAS, AUTHORITY requires certain professional services in connection with the PROJECT, hereinafter referred to as the SERVICES; and,

WHEREAS, ENGINEER is prepared to provide such SERVICES;

WHEREAS, funding is available for the PROJECT under Account Number _____

NOW THEREFORE, in consideration of the promises contained herein, the parties hereto agree as follows:

- 1.0 SCOPE OF PROJECT: The scope of this PROJECT is as described in Attachment A, SCOPE OF PROJECT, which is attached hereto and incorporated by reference as part of this AGREEMENT.
- 2.0 SERVICES TO BE PERFORMED BY ENGINEER: ENGINEER shall perform the SERVICES described in Attachment B, SCOPE OF SERVICES, and Exhibit B, PROJECT SCHEDULE, which is attached hereto and incorporated by reference as part of this AGREEMENT.

- 3.0 AUTHORITY'S RESPONSIBILITIES. AUTHORITY shall be responsible for all matters described in Attachment C, RESPONSIBILITIES OF THE AUTHORITY, which is attached hereto and incorporated by reference as part of this AGREEMENT.
- 4.0 COMPENSATION: AUTHORITY shall pay ENGINEER in accordance with Attachment D, COMPENSATION, and Exhibit D, FEE COMPUTATION, which is attached hereto and incorporated by reference as part of this AGREEMENT.
- 5.0 RESIDENT INSPECTOR SERVICES. (Not part of this AGREEMENT)
- 6.0 STANDARD OF PERFORMANCE. ENGINEER shall perform the SERVICES undertaken in a manner consistent with the prevailing accepted standard for similar services with respect to projects of comparable function and complexity and with the applicable laws and regulations published and in effect at the time of performance of the SERVICES. The PROJECT shall be designed and engineered in a good and workmanlike manner and in strict accordance with this AGREEMENT. All engineering work shall be performed by or under the supervision of Professional Engineers licensed in the State of Oklahoma, and properly qualified to perform such engineering services, which qualification shall be subject to review by AUTHORITY. Other than the obligation of the ENGINEER to perform in accordance with the foregoing standard, no warranty, either expressed or implied, shall apply to the SERVICES to be performed by the ENGINEER pursuant to this AGREEMENT or the suitability of ENGINEER'S work product.
- 7.0 LIMITATIONS OF RESPONSIBILITY.
- 7.1 ENGINEER shall not be responsible for construction means, methods, techniques, sequences, procedures, or safety precautions and programs in connection with the PROJECT.
- 8.0 OPINIONS OF COST AND SCHEDULE.
- 8.1 Since ENGINEER has no control over the cost of labor, materials, equipment or services furnished by others, or over contractors', subcontractors', or vendors' methods of determining prices, or over competitive bidding or market conditions, ENGINEER'S cost estimates shall be made on the basis of qualification and experience as a Professional Engineer.
- 8.2 Since ENGINEER has no control over the resources provided by others to meet construction contract schedules, ENGINEER'S forecast schedules shall be made on the basis of qualification and experience as a Professional Engineer.
- 9.0 LIABILITY AND INDEMNIFICATION.
- 9.1 ENGINEER shall defend and indemnify AUTHORITY from and against legal liability for damages arising out of the performance of the SERVICES for AUTHORITY including but not limited to any claims, costs, attorney fees, or other expenses of whatever nature where such liability is caused by the negligent act, error, or omission of ENGINEER or any person or organization for whom ENGINEER is legally liable.

Nothing in this paragraph shall make the ENGINEER liable for any damages caused by the AUTHORITY or any other Contractor of the AUTHORITY.

- 9.2 ENGINEER shall not be liable to AUTHORITY for any special, indirect or consequential damages, such as, but not limited to, loss of revenue, or loss of anticipated profits.
- 10.0 COMPLIANCE WITH LAWS.
- 10.1 In performance of the SERVICES, ENGINEER shall comply with applicable regulatory requirements including federal, state, and local laws, rules, regulations, orders, codes, criteria and standards. ENGINEER shall procure the permits, certificates, and licenses necessary to allow ENGINEER to perform the SERVICES. ENGINEER shall not be responsible for procuring permits, certificates, and licenses required for any construction unless such responsibilities are specifically assigned to ENGINEER in Attachment B, SCOPE OF SERVICES.
- 10.2 The ENGINEER shall take the necessary actions to ensure its facilities are in compliance with the requirements of the Americans With Disabilities Act. It is understood that the program of the ENGINEER is not a program or activity of the Regional Metropolitan Utility Authority. The ENGINEER agrees that its program or activity will comply with the requirements of the Americans With Disabilities Act. Any costs of such compliance will be the responsibility of the ENGINEER. Under no circumstances will ENGINEER conduct any activity which it deems to not be in compliance with the Americans With Disabilities Act.
- 11.0 INSURANCE.
- 11.1 During the performance of the SERVICES under this AGREEMENT, ENGINEER shall maintain the following insurance:
- 11.1.1 General Liability Insurance with bodily injury and property damage combined single limit of not less than \$1,000,000 for each occurrence.
- 11.1.2 Automobile Liability Insurance with a bodily injury and property damage combined single limit of not less than \$1,000,000 for each occurrence.
- 11.1.3 Worker's Compensation Insurance in accordance with statutory requirements and Employers' Liability Insurance with limits of not less than \$100,000 for each occurrence.
- 11.1.4 Professional Liability Insurance in accordance with Title 18, Tulsa Revised Ordinances Section 104 and any amendments or successor provisions related thereto with prior acts endorsement for the insurance to remain in effect for two years after AUTHORITY acceptance of the PROJECT.
- 11.2 ENGINEER shall furnish AUTHORITY certificates of insurance evidencing the above insurance coverage with companies authorized to do business in the State of Oklahoma, which shall include a provision that such insurance shall not be canceled without at least 30 days written notice to the AUTHORITY.

12.0 OWNERSHIP AND REUSE OF DOCUMENTS.

12.1 All documents, including original drawings, estimates, specifications, field notes and data shall become and remain the property of the AUTHORITY.

12.2 AUTHORITY'S reuse of such documents without written verification or adaptation by ENGINEER for the specific purpose intended will be at AUTHORITY'S risk.

13.0 TERMINATION OF AGREEMENT.

13.1 The obligation to continue SERVICES under this AGREEMENT may be terminated by either party upon fifteen days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party.

13.2 AUTHORITY shall have the right to terminate this AGREEMENT, or suspend performance thereof, for AUTHORITY'S convenience upon written notice to ENGINEER; and ENGINEER shall terminate or suspend performance of SERVICES on a schedule acceptable to AUTHORITY. In the event of termination or suspension for AUTHORITY'S convenience, ENGINEER shall be compensated for all SERVICES performed up to the date of the Notice of Termination in accordance with provisions of Attachment D, COMPENSATION. Upon restart of a suspended project, ENGINEER shall be compensated in accordance with Attachment D, COMPENSATION.

14.0 NOTICE.

14.1 Any notice, demand, or request required by or made pursuant to this AGREEMENT shall be deemed properly made if personally delivered in writing or deposited in the United States mail, postage prepaid, to the address specified below.

14.1.1 To ENGINEER: CH2M HILL Engineers, Inc.
401 S. Boston Ave., Suite 330
Tulsa, OK 74103

14.1.2 To AUTHORITY: REGIONAL METROPOLITAN UTILITY AUTHORITY
2317 South Jackson Avenue, Room N-104
Tulsa, Oklahoma 74107

14.2 Nothing contained in this Article shall be construed to restrict the transmission of routine communications between representatives of ENGINEER and AUTHORITY.

15.0 UNCONTROLLABLE FORCES. Neither AUTHORITY nor ENGINEER shall be considered to be in default of this AGREEMENT if delays in or failure of performance shall be due to forces which are beyond the control of the parties; including, but not limited to: fire, flood, earthquakes, storms, lightning, epidemic, war, riot, civil disturbance, sabotage; inability to procure permits, licenses, or authorizations from any state, local, or federal agency or person for any of the supplies, materials,

accesses, or services required to be provided by either AUTHORITY or ENGINEER under this AGREEMENT; strikes, work slowdowns or other labor disturbances, and judicial restraint.

- 16.0 INTEGRATION AND MODIFICATION. This AGREEMENT includes Attachments A, B, Exhibit B, C, D, and Exhibit D, and represents the entire and integrated AGREEMENT between the Parties; and supersedes all prior negotiations, representations, or agreements pertaining to the SCOPE OF SERVICES herein, either written or oral. This AGREEMENT may be amended only by a written instrument signed by each of the Parties.
- 17.0 DISPUTE RESOLUTION PROCEDURE. In the event of a dispute between the Engineer and the AUTHORITY over the interpretation or application of the terms of this AGREEMENT, the matter shall be referred to the City's Director of Public Works for resolution. If the Director of Public Works is unable to resolve the dispute, the matter may, in the Director's discretion, be referred to the Mayor for resolution. Regardless of these procedures, neither party shall be precluded from exercising any rights, privileges or opportunities permitted by law to resolve any dispute.
- 18.0 ASSIGNMENT. ENGINEER shall not assign its obligations undertaken pursuant to this AGREEMENT without written consent from the AUTHORITY, provided that nothing contained in this paragraph shall prevent ENGINEER from employing such independent consultants, associates, and subcontractors as ENGINEER may deem appropriate to assist ENGINEER in the performance of the SERVICES hereunder.
- 19.0 APPROVAL. It is understood and agreed that all work performed under this AGREEMENT shall be subject to inspection and approval by the Public Works Department of the City of Tulsa, and any plans or specifications not meeting the terms set forth in this AGREEMENT will be replaced or corrected at the sole expense of the ENGINEER. The ENGINEER will meet with the City staff initially and monthly thereafter and will be available for public hearings and/or Regional Metropolitan Utility Authority presentations.
- 20.0 TIME OF ESSENCE. The Parties agree that time is deemed to be of the essence with respect to this Agreement, including but not limited to the commencement of the Project, rate of progress of the Project and completion date of the Project.
- 21.0 GOVERNING LAW; JURISDICTION; VENUE. This Agreement shall be deemed to have been executed by all parties hereto in Tulsa County, Oklahoma and accordingly, this Agreement shall be governed by and construed in accordance with the laws of the State of Oklahoma. The parties agree that any suit, action or proceeding with respect to this Agreement shall be brought in the District Court of Tulsa County, Oklahoma. All parties hereby irrevocably waive any objections which they may now or hereafter have to the personal jurisdiction or venue of any suit, action or proceeding arising out of or relating to this Agreement brought in any such court and hereby further irrevocably waive any claim that such suit, action or proceeding brought in such court has been brought in an inconvenient forum.

- 22.0 Nothing in this Agreement shall be construed to create a partnership, joint venture, or agency relationship among the parties. No party shall have any right, power or authority to act as a legal representative of another party, and no party shall have any power to obligate or bind another party, or to make any representations, express or implied, on behalf of or in the name of the other in any manner or for any purpose whatsoever.
- 23.0 INVALIDITY. If any terms of this Agreement shall be declared invalid, illegal, or unenforceable for any reason or in any respect, such invalidity, illegality, or unenforceability shall not affect any other provisions hereof and this Agreement shall be construed as if such provision had never been contained herein.
- 24.0 THIRD PARTIES. This Agreement is between the Regional Municipal Utility Authority and ENGINEER and creates no right unto or duties to any other person. No person is or shall be deemed a third party beneficiary of this Agreement.
- 25.0 HEADINGS. The headings used herein are for convenience only and shall not be used in interpreting this Agreement.
- 26.0 BINDING EFFECT. This Agreement shall be binding upon AUTHORITY and ENGINEER and their respective successors, heirs, legal representatives and permitted assigns.
- 27.0 WAIVER. The rights and remedies of the parties to this Agreement are cumulative and not alternative. Neither the failure nor any delay by any party in exercising any right, power or privilege under this Agreement will operate as a waiver of such right, power or privilege, and no single or partial exercise of any such right, power or privilege will preclude any other or further exercise of such right, power or privilege or the exercise of any other right, power or privilege. To the maximum extent permitted by applicable laws: (i) no claim or right arising out of this Agreement or the documents referred to in this Agreement can be discharged by one party, in whole or in part, by a waiver or renunciation of the claim or right unless in writing signed by the other parties; (ii) no waiver that may be given by a party shall be applicable except to the specific instance for which it is given; and (iii) no notice or demand on one party shall be deemed to be a waiver of any obligation of such party or of the right of the party giving such notice or demand to take further action without notice or demand as provided in this Agreement.
- 28.0 INTERPRETIVE MATTERS AND DEFINITIONS. The following interpretive matters shall be applicable to this Agreement:
- (1) Unless the context otherwise requires: (a) all references to Sections are to Sections of or to this Agreement; (b) each term defined in this Agreement

has the meaning assigned to it; (c) "or" is disjunctive but not necessarily exclusive; (d) words in a singular include the plural and vice versa. All references to "\$" or to dollar amounts shall be in lawful currency of the United States of America;

(2) No provision of this Agreement will be interpreted in favor of, or against, any of the parties hereto by reason of the extent to which such party or its counsel participated in the drafting thereof or by reason of the extent to which any such provision is inconsistent with any prior draft hereof or thereof;

(3) Any reference to any applicable laws shall be deemed to refer to all rules and regulations promulgated thereunder and judicial interpretations thereof, unless the context requires otherwise;

(4) The word "including" means "including, without limitation" and does not limit the preceding words or terms; and

(5) All words used in this Agreement shall be construed to be of such gender, number or tense as circumstances require.

29.0

This Agreement may be executed in several counterparts, each of which shall be deemed an original, but which together shall constitute one and the same instrument.

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IN WITNESS WHEREOF, the parties have executed this AGREEMENT in multiple copies on the respective dates herein below reflected to be effective on the date executed by the Chairman of the Regional Metropolitan Utility Authority.

(SEAL)

ATTEST:



Assistant Corporate Secretary

CH2M HILL Engineers, Inc.

A handwritten signature in blue ink, appearing to read "Ed M. Motley", written over a horizontal line.

Edward Motley, Designated Manager and
Business Vice President

Date 8/31/2016

(SEAL)

APPROVED:

REGIONAL METROPOLITAN UTILITY
AUTHORITY

Secretary

Chairman

Date _____

APPROVED AS TO FORM:

RECOMMENDED:

Attorney for Regional Metropolitan
Utility Authority

City Engineer

RECOMMENDED:

City of Broken Arrow



SECRETARY CERTIFICATE

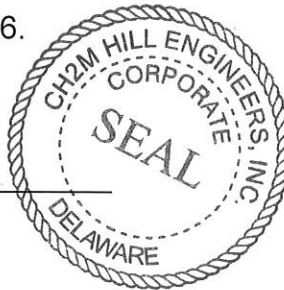
I, Cheryl J. Rimas, Assistant Secretary of CH2M HILL Engineers, Inc., hereby certify that:

Edward Motley is Business Vice President and Designated Manager of CH2M HILL Engineers, Inc., and has been granted authority in accordance with our Signature Authority Policy to execute documents on behalf of the company.

Dated this 1st day of September, 2016.

A handwritten signature in blue ink, appearing to read 'CJRimas', written over a horizontal line.

Cheryl J. Rimas, Assistant Secretary

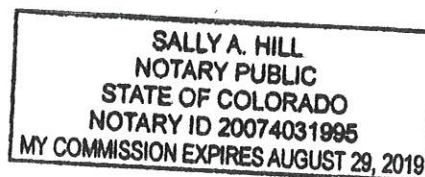


State of Colorado
County of Douglas

Subscribed and sworn to before me by Cheryl J. Rimas this 1st day of September 2016.

A handwritten signature in blue ink, appearing to read 'Sally A Hill', written over a horizontal line.

Notary Public



ATT. "A"

**AGREEMENT
FOR
PROFESSIONAL ENGINEERING SERVICES
FOR
Haikey Creek Activated Sludge Management Rehabilitation
PROJECT NO. RMUA ES 2016-01
Broken Arrow Project No. _____**

SCOPE OF PROJECT

ATTACHMENT A

- A. SCOPE OF PROJECT. The PROJECT shall consist of the following major project tasks:

The PROJECT shall consist of providing for new activated sludge basins, blower building, piping and junction boxes to increase the Maximum Month Average Day (MMAD) capacity to 16 mgd. The engineering services to be provided include a Process Study, Preliminary Design, Final Design, and Bidding services. Construction phase services during the 24-month anticipated construction period. Construction phase services and on-site construction inspection services provided by a Resident Project Representative (RPR) are not included.

It is hereby understood and agreed by the Parties that upon AUTHORITY'S determination of the services and materials needed for the PROJECT and upon funding of the PROJECT, there will be construction and service contracts which must be entered into in order to consummate the PROJECT, including but not limited to services and or construction contracts for design, engineering, utilities relocations, construction, equipment, and other services or contracts related to the PROJECT.

ATT. "B"

AGREEMENT**FOR****PROFESSIONAL ENGINEERING SERVICES****FOR****Haikey Creek Activated Sludge Management Rehabilitation****PROJECT NO. RMUA ES 2016-01****Broken Arrow Project No. _____****SCOPE OF SERVICES****ATTACHMENT B**

SCOPE OF SERVICES. The services to be performed by the ENGINEER under this AGREEMENT will consist of four (4) Phases (B1 to B4), as stated below. Further, it is understood and agreed that the date of beginning, rate of progress, and the time of completion of the work to be done hereunder are essential provisions of this AGREEMENT; and it is further understood and agreed that the work embraced in this AGREEMENT shall commence upon execution of this AGREEMENT after receipt of a Notice to Proceed, and progress according to the attached schedule titled Exhibit 1. An updated schedule reflecting all differences between actual work complete and the original schedule shall be submitted with each monthly pay request.

B.1 Phase 1 – Conceptual Design

Phase 1 will initiate with Notice to Proceed. The ENGINEER will conduct two workshops over the period of one week to review, discuss and finalize the Process decisions for the activated sludge basins and associated facilities listed below in Table 1. The ENGINEER will provide draft recommendations ahead of the workshops. Within one week after the workshop, the ENGINEER will deliver a TM documenting the Process decisions.

TABLE 1
Process Decisions for Conceptual Study

Facility/Item	Design Concept
Plant Sizing	Ultimate Maximum Month Average Day (MMAD) of 24 million gallons per day (mgd). Interim 16 mgd MMAD after aeration basins are completed.
Facility Layout Options	Comparison of facility location alternatives and yard piping alternatives for cost effective solution
Aeration Basin	Comparison of Basin width and length along with number of basins required for cost effective solution

TABLE 1
Process Decisions for Conceptual Study

Facility/Item	Design Concept
Plant Hydraulics Modeling	Verify hydraulics through new aeration basins, with provisions for new primary clarifiers and future secondary clarifiers
Plant Solids Modeling	Refine Existing Solids modeling previously prepared by the ENGINEER in Pro2D ® to confirm facility dimensions
Biosolids Handling	Refine CIP and update cost estimates based on revised facility sizing.
Blower Selection	Decision Analysis for Single Stage, Multi-Stage and Turbo blowers plus supporting appurtenances (electrical and controls)
Aeration System	Decision Analysis for air piping material and acceptable aeration system manufacturers. Assumed to be fine bubble diffusers.
Oxidation Ditch – Future Use	Decision Analysis for Oxidation Ditch repurposing or demolition

B.2 Phase 2 – Preliminary Design

The project improvements to be implemented as a part of this contract are identified as follows:

B.2.1 Prepare Design Concepts – Shown in Table 2.

TABLE 2
Design Anticipated for Activated Sludge Basins

Facility/Item	Design Concept
Aeration Basin Sizing	To be determined. Initial estimate is based on 5 trains at 1.16 Million Gallons (MG), for a total volume of 5.8 MG. Layout to be confirmed during conceptual design.
Primary Clarifier Diversion Structure	Installed downstream of headworks; initially diverts to primary clarifier junction box (confirm influent or effluent during Phase 1) with future capability to incorporate primary clarifiers
Primary Clarifier Junction Box (influent or effluent to be determined in Phase 1)	Installed upstream of Aeration Basins; initially receives unclarified primary flow, with provisions to be incorporated with future primary clarifiers
Aeration Basin Flow Split Box	Installed between Primary Clarifier Junction Box and Aeration Basin to distribute flow evenly to aeration basins. Flow Split structure location

TABLE 2
Design Anticipated for Activated Sludge Basins

Facility/Item	Design Concept
	and size to take into account future potential for anaerobic zone, anoxic zone, and expansion of aeration basin capacity.
Aeration Basin Junction Box	Installed immediately downstream of the aeration basin to collect flows and convey them to secondary clarifiers
Secondary Clarifier Junction Box	New junction box for future diversion to future secondary clarifiers.
Yard Piping	New lines from RAS Pump Station to Primary Clarifier Junction Box; New lines from Primary Clarifier Diversion Box to Primary Clarifier Junction Box; New lines from Aeration Basins to Secondary Clarifiers Flow Split Box. Assumed to be a single line between each facility.
Aeration System	Design based on Phase 1 decision
Blower Selection	Design based on Phase 1 decision
Blower Building	Requires noise baffling to reduce neighborhood impacts. Should be elevated above 100 year flood plain. Intended to be split-faced block structure with similar architectural look to existing buildings.
Structural – Basins	Cast in place concrete
Biological Nutrient Removal	Anoxic zone to be included with treatment goal of approximately 8 mg/L Total Nitrogen.
Electrical	Assumed that new transformer will be required. To be sized based on future blower demands and primary clarifier demands. Existing Arc Flash study will be reviewed.
Structural/Geotech	Engineer will provide geotechnical borings, laboratory analysis of samples, and engineering analysis
Coatings	Coatings will be applied to exposed concrete for corrosion protection
Construction Timeline	Assumed Fall 2017 start construction with completion Fall 2019
Programming/SCADA	Install PLCs for local control. Integrate into existing network. Coordinate with new city wide SCADA project. Include ability to assess efficiency and optimize processes for O&M costs, specifically energy consumption.
ODEQ Permitting	Coordinate ODEQ Permitting including variances. ODEQ regulation requires primary clarifier ahead of aeration basin. Variance should already exist, will verify with ODEQ.
Cost Estimating	Provide appropriate Class (4,3,2,1) of cost estimating based on phase of design (conceptual, preliminary, final, bid)

TABLE 2
Design Anticipated for Activated Sludge Basins

Facility/Item	Design Concept
Construction Contract	A single construction contract will be developed for implementation of the designed facilities.

B.2.2 Shown in Table 3 are items excluded from the scope of work.

TABLE 3
Exclusions from Design Concepts

Item
Sampling and laboratory analysis of existing wastewater stream characteristics will not be performed by the ENGINEER. ENGINEER will review sampling data provided by others and incorporate into modeling and design.
Subsurface Investigation through potholing will not be performed by the ENGINEER.

B.2.3. Prepare the preliminary design report (PDR) to include preliminary design drawings and preliminary construction cost estimate based upon the design concepts shown in Table 2. The PDR represents the 30% completion milestone of the overall project. The PDR provides project and facility definition based upon the basis of design concepts and criteria previously established in Phase 1. The phase of the project will be provided after acceptance of the Phase 1 Conceptual Design TM. The following assumptions and tasks apply to the delivery of the PDR:

- B.2.3.1 Existing plans and records will be utilized and relied upon as the design basis of the existing conditions. Design criteria development will be limited to existing facilities and existing sizing limitations.
- B.2.3.2 During the Preliminary Design, the Project Manager responsibilities shall include Project team coordination, budget and schedule monitoring and responsibility, and communication with the AUTHORITY regarding Project status.
- B.2.3.3 Twelve (12) half-sized copies and an electronic file of the PDR will be submitted to the AUTHORITY (3 copies to BAMA, 9 copies to TMUA) for review and comment. The PDR shall be submitted according to the project schedule in Exhibit 1.
- B.2.3.4 Meet with AUTHORITY to receive and discuss review comments on the PDR. Appropriate modifications to the PDR will be documented and integrated into the design during Phase 3. Reprinting of the PDR is not anticipated; however, review comments will be documented and incorporated as appropriate into the Final Design phase.

B.3 Phase 3 - Final Design

Based upon the results of the Preliminary Design and review comments on the PDR by the AUTHORITY, the ENGINEER shall complete the final detailed design and prepare Contract Documents for Activated Sludge Improvements.

The ENGINEER shall provide the Technical Specifications and Drawings portions of the Contract Documents. It is understood that the technical specifications, will be prepared from the ENGINEER's specifications and according to Construction Specifications Institute (CSI) standards. These will be combined with the legal requirements or "front ends" needed for bidding and construction of the improvements. These non-technical portions of the Contract Documents shall be provided by the AUTHORITY and shall include proposal forms, notice to bidders, bid forms, and bond forms, General Conditions, and other sections as needed by the AUTHORITY to competitively bid the work. The Contract Documents will be organized for the submission of a single lump sum bid for providing the new facilities. The following assumptions and tasks apply to the delivery of the Final Design and preparation of Contract Documents:

- B.3.1 ENGINEER shall provide all documentation required for applicable Federal, State, and/or Local permits including ODEQ Construction Permit, Stormwater Pollution Prevention Plan (SWP3), and Earth Change Permit as necessary. The AUTHORITY shall be responsible for making the necessary submittals, permit fees, and required communications with the appropriate agencies.

During final design, ENGINEER's representatives will meet with the AUTHORITY's staff as needed to review Project status and solicit input. ENGINEER's Project Manager will meet monthly with the AUTHORITY regarding project status and will brief the AUTHORITY at regarding project status and progress.

- B.3.2 Prepare 75% milestone drawings and specifications. Submit twelve (12) half sized sets and electronic set to the AUTHORITY (3 copies to BAMA, 9 copies to TMUA) for review and comment. Participate in project a ½ day site visit for the purpose of a "plan-in-hand" review.
- B.3.3 Discuss and review AUTHORITY's comments from the 75% design review and incorporate into drawings and specification.
 - B.3.3.1 Discuss and refine, as necessary, General Conditions, including Instructions to Bidders, Bid Proposal, and all required bidding and contract forms.
 - B.3.3.2 Review proposed construction sequencing and potential construction constraints.
 - B.3.3.3 Review ENGINEER's opinion of project cost based on the 75% design milestone.
- B.3.4 Provide 100% milestone drawings and specifications for review. Submit twelve (12) half sized sets and electronic set to the AUTHORITY (3 copies to BAMA, 9 copies to TMUA) and two (2) sets and one electronic set to DEQ for review and comment. The 100% drawings and specifications shall be submitted according to the project schedule in Exhibit B.
- B.3.5 Upon receiving the AUTHORITY's review comments of the 100% design milestone, the ENGINEER Project Manager and Design Manager shall participate in a ½ day workshop to include:
 - B.3.5.1 Review and discuss AUTHORITY and DEQ 100% review comments.
 - B.3.5.2 Review ENGINEER's updated opinion of project cost based on the 100% design.

- B.3.6 Incorporate appropriate review comments from the workshop for bid advertisement.
- B.3.7 ENGINEER shall furnish 1 full size check set. Upon approval, ENGINEER shall submit Mylars and bidding documents.
- B.3.8 ENGINEER shall furnish 10 copies of full size drawings, 35 copies of half-size drawings, and 35 copies of final Contract Documents; including printing, binding and miscellaneous expenses. AUTHORITY will distribute Contract Documents to perspective Bidders and maintain a list of document holders.
- B.3.9 Provide Bidding Services that include attending the pre-bid conference, answering potential bidder questions, prepare needed addenda (maximum of 2), furnish ENGINEER'S final construction cost estimate, evaluate bids, tabulate bids and prepare the recommendation for award of contract.

ATTACHMENT "C"

AGREEMENT
FOR
PROFESSIONAL ENGINEERING SERVICES
Haikey Creek Activated Sludge Management Rehabilitation
PROJECT NO. RMUA ES 2016-01
BROKEN ARROW _____
RESPONSIBILITIES OF THE AUTHORITY
ATTACHMENT C

C. RESPONSIBILITIES OF THE AUTHORITY. The AUTHORITY agrees:

C.1 Reports, Records, etc. To furnish, as required by the work, and not at expense to the ENGINEER:

C.1.1 Records, reports, studies, plans, drawings, and other data available in the files of the AUTHORITY, which may be useful in the PROJECT.

C.1.2 Standard drawings and standard specifications.

C.2 Access. To provide access to public and private property when required in performance of ENGINEER'S services.

C.3 Staff Assistance. To furnish the services of at least one of AUTHORITY'S employees or staff who has right of entry to, and who has knowledge of, AUTHORITY'S facilities relating to this PROJECT.

C.3.1 To furnish legal assistance as required in the preparation, review and approval of construction documents.

C.3.2 To furnish staff assistance in locating existing utilities and in expediting their relocation.

C.4 Review. To examine all studies, reports, sketches, estimates, specifications, drawings, proposals and other documents presented by ENGINEER and render in writing decisions pertaining thereto within a reasonable time so as not to delay the SERVICES of ENGINEER.

C.5 Record Drawings. To provide to the ENGINEER the construction information required to prepare record drawings at the conclusion of construction.

"ATT. D"

**AGREEMENT
FOR
PROFESSIONAL ENGINEERING SERVICES
FOR**

Haikey Creek Activated Sludge Management Rehabilitation

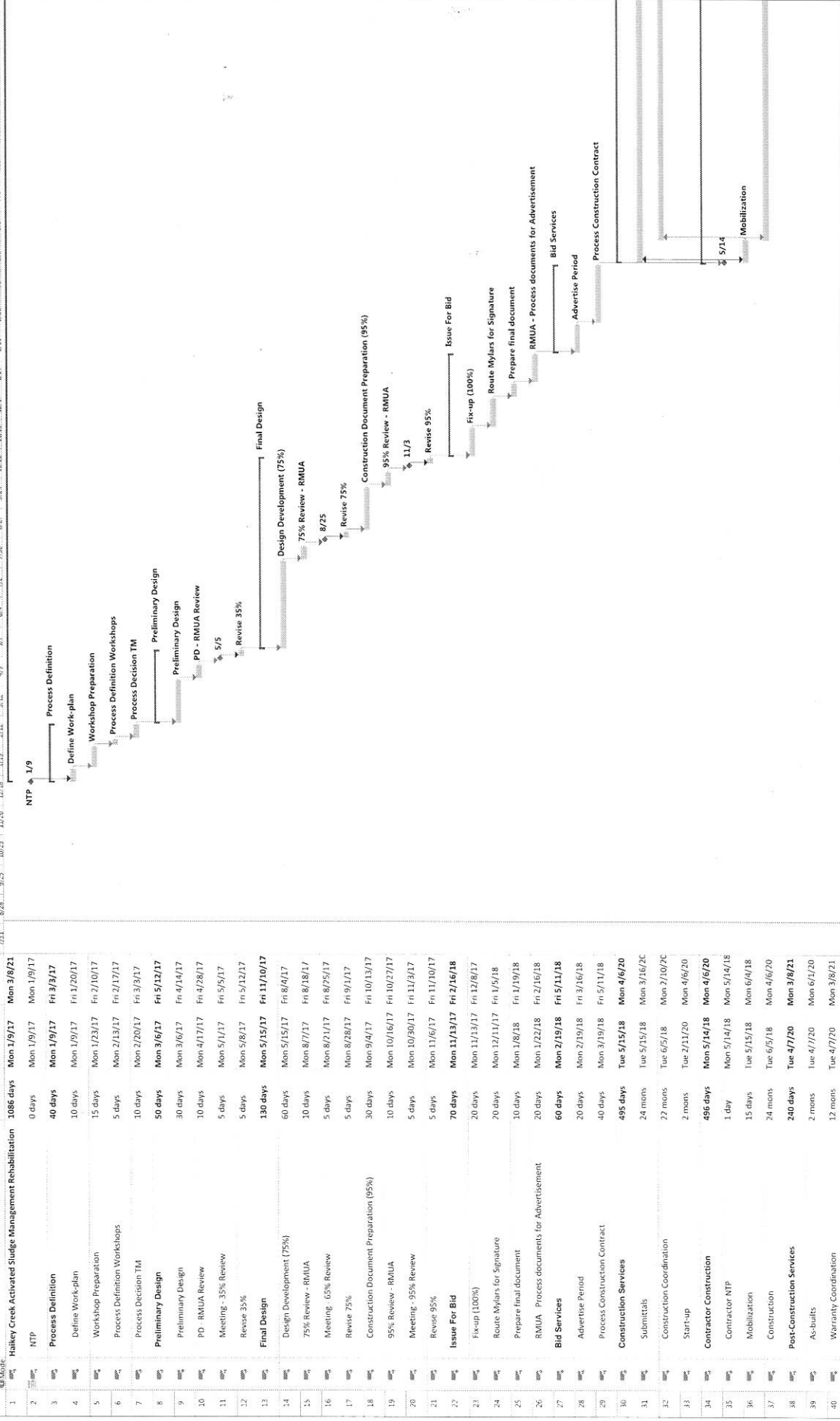
**PROJECT NO. RMUA ES 2016-01
Broken Arrow Project No. _____**

COMPENSATION FOR SERVICES

ATTACHMENT D

- D. COMPENSATION - The AUTHORITY agrees to pay, as compensation for scope of services set forth in Attachment D of this AGREEMENT and further described in Exhibit D, the following compensation, payable monthly as each Phase of the work progresses; and within 30 calendar days of receipt of invoice. ENGINEER shall submit monthly invoices based upon the services actually completed at the time of billing. Invoices shall be accompanied by such documentation as the AUTHORITY may require in substantiation of the amount billed.
- D.1 TOTAL COMPENSATION - For engineering services as set forth in SCOPE OF SERVICES described in Attachment B of this AGREEMENT, the total maximum billing for the services shall not exceed One Million, Four Hundred Seven Thousand, Seven Hundred Sixty-Four and Sixty-One Cents (\$ 1,407,764.61), which amount includes the fixed fees and shall not be exceeded without further written authorization by the AUTHORITY (See Exhibit D)

September 2016	October 2016	November 2016	December 2016	January 2017	February 2017	March 2017	April 2017	May 2017	June 2017	July 2017	August 2017	September 2017	October 2017	November 2017	December 2017	January 2018	February 2018	March 2018	April 2018	May 2018	June 2018	July 2018	August 2018	September 2018	October 2018	November 2018	December 2018
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[illegible]

Exhibit D - Haikey Creek Activated Sludge Mgmt Rehabilitation

Price by Element



Level 3 Tasks, Original Budget, without Budget Subtotals, without Period Subtotals, without Estimating Frequency Subtotals

Task	Hours	Labor	Labor Overhead	Labor Subtotal	Expense	Subs	Travel	Subtotal	Profit	Task Total
Top Task 03 - Engineering										
03.31.10 - Process Definition (Conceptual)	368.00	21,708.96	37,339.39	59,048.35	500.00	0.00	6,400.00	65,948.35	2,253.77	68,202.12
03.35.05 - Preliminary Design	2,097.00	97,816.12	167,930.12	265,746.24	27.60	0.00	0.00	265,773.84	14,102.75	279,876.59
03.35.15 - 75% Design	2,798.00	138,881.10	238,666.39	377,547.49	33.35	9,200.00	0.00	386,780.84	21,154.23	407,935.07
03.35.20 - 95% Design	2,874.00	139,993.58	240,579.84	380,573.42	33.35	30,570.00	0.00	411,176.77	24,947.91	436,124.68
03.35.30 - 100% Design and Mylars	1,328.00	65,605.80	112,733.79	178,339.59	16.10	0.00	0.00	178,355.69	12,504.26	190,859.95
03.36.36 - BID Services	170.00	8,677.28	14,924.94	23,602.22	0.00	0.00	0.00	23,602.22	1,163.98	24,766.20
Subtotal for 03	9,635.00	472,682.84	812,174.47	1,284,857.31	610.40	39,770.00	6,400.00	1,331,637.71	76,126.90	1,407,764.61
Grand Total	9,635.00	472,682.84	812,174.47	1,284,857.31	610.40	39,770.00	6,400.00	1,331,637.71	76,126.90	1,407,764.61

AFFIDAVIT OF CLAIMANT

STATE OF OKLAHOMA)

CONTRACT # 25879

) ss.
COUNTY OF TULSA)

The undersigned person, of lawful age, being first duly sworn on oath, says that all invoices to be submitted pursuant to this agreement with the Tulsa Metropolitan Utility Authority will be true and correct. Affiant further states that the work, services or material furnished will be completed or supplied in accordance with the plans, specifications, orders, requests or contract furnished or executed by the affiant. Affiant further states that (s)he has made no payment directly or indirectly to any elected official, officer or employee of the City of Tulsa or of any public trust where the City of Tulsa is a beneficiary, of money or any other thing of value to obtain payment of the invoice or procure the contract or purchase order pursuant to which an invoice is submitted. Affiant further certifies that (s)he has complied with all applicable laws regarding equal employment opportunity.

Company: CH2M HILL Engineers Inc
TIN: 59-0918189
Address: 401 S Boston Ave, Suite 330
City, State, Zip: Tulsa OK 74103
Phone: 918-921-6051
Signature: *Edward M. Motley*
Title: Edward M. Motley, Business Vice President and Designated Manager

Subscribed and sworn to before me this 1st day of September, 2016.

Amanda H. George
Notary Public

My commission expires:

12-02-19

Commission Number

15011025



THIS SIGNED AFFIDAVIT MUST BE RETURNED WITH THE AGREEMENT

INTEREST AFFIDAVIT

STATE OF Oklahoma)
)ss.
COUNTY OF Tulsa)

I, Edward M. Motley, of lawful age, being first duly sworn, state that I am the agent authorized by Contractor, Engineer, Architect or provider of professional service ["Services Provider"] to submit the attached Agreement. Affiant further states that no officer or employee of the City of Tulsa either directly or indirectly owns a five percent (5%) interest or more in the Services Provider's business or such a percentage that constitutes a controlling interest. Affiant further states that the following officers and/or employees of the City of Tulsa own an interest in the Services Provider's business which is less than a controlling interest, either direct or indirect.

By _____

Edward M. Motley

Signature

Title Designated Manager and Business Vice President

Subscribed and sworn to before me this 1st day of Sept, 2016.

Amanda M. George
Notary Public

My Commission Expires: 12/2/19

Notary Commission Number: 15011025

County & State Where Notarized: Tulsa, OK



The Affidavit must be signed by an authorized agent and notarized.

NON-COLLUSION AFFIDAVIT
(Required by Oklahoma law, 74 O.S. §85.22-85.25)

STATE OF Oklahoma)
)ss.
COUNTY OF Tulsa)

I, Edward M. Motley, of lawful age, being first duly sworn, state that:
(Authorized Agent)

1. I am the authorized agent of Contractor, Engineer, Architect or provider of professional service ["Services Provider"] herein for the purposes of certifying facts pertaining to the existence of collusion between and among Services Provider and municipal officials or employees, as well as facts pertaining to the giving or offering of things of value to government personnel in return for special consideration in the letting of any contract pursuant to which this statement is attached.
2. I am fully aware of the facts and circumstances surrounding the making of the contract to which this statement is attached, and I have been personally and directly involved in the proceedings leading to the awarding of such contract; and
3. Neither the Services Provider nor anyone subject to the Services Provider's direction or control has been a party:
 - a. to any collusion with any municipal official or employee as to quantity, quality, or price in the prospective contract, or as to any other terms of such prospective contract, nor
 - b. in any discussions between Services Provider and any municipal official concerning exchange of money or other thing of value for special consideration in the letting of a contract.

By: Ed M. Motley
Signature

Title: Designated Manager and Business Vice President

Subscribed and sworn to before me this 1st day of Sept, 2016.

Amanda M. George
Notary Public

My Commission Expires: 12/2/19

Notary Commission Number: 15011025

County & State Where Notarized: Tulsa, OK



The Affidavit must be signed by an authorized agent and notarized.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
09/01/2016

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

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

PRODUCER MARSH USA INC. 1225 17TH STREET, SUITE 1300 DENVER, CO 80202-5534		CONTACT NAME: PHONE (A/C, No, Ext): E-MAIL ADDRESS:	
15114 -12345-5EX2P-16/17		016057	SP
INSURED CH2M HILL ENGINEERS, INC. A LEGAL ENTITY OF CH2M HILL COMPANIES, LTD. 9127 S. JAMAICA STREET ENGLEWOOD, CO 80112		INSURER(S) AFFORDING COVERAGE INSURER A: Greenwich Insurance Company INSURER B: N/A INSURER C: XL Specialty Insurance Company INSURER D: Zurich American Insurance Co INSURER E: INSURER F:	
		NAIC # 22322 N/A 37885 16535	

COVERAGES**CERTIFICATE NUMBER:**

SEA-002835366-13

REVISION NUMBER: 10

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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> \$500,000 SIR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			RGE500025505	05/01/2016	05/01/2017	EACH OCCURRENCE \$ 1,500,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,500,000 MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ 1,500,000 GENERAL AGGREGATE \$ 5,000,000 PRODUCTS - COMP/OP AGG \$ 5,000,000
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS			RAD500025405	05/01/2016	05/01/2017	COMBINED SINGLE LIMIT (Ea accident) \$ 2,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB DED <input type="checkbox"/> RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	N/A	RWD500025205 (AOS) RWR500025305 (WI)	05/01/2016 05/01/2016	05/01/2017 05/01/2017	<input checked="" type="checkbox"/> PER STATUTE E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
D	PROFESSIONAL LIABILITY*			EOC3829621-14	05/01/2016	05/01/2017	Each Claim & Aggregate \$2,000,000 Each Policy Period

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

RE: PROJECT NO. ES 2012-01 - HAIKEY CREEK WWTP ACTIVATED SLUDGE TRAIN REHABILITATION.
THE CITY OF TULSA OKLAHOMA AND ITS AUTHORITIES (REGIONAL METROPOLITAN UTILITY AUTHORITY AND TULSA METROPOLITAN UTILITY AUTHORITY) ARE INCLUDED AS AN ADDITIONAL INSURED ON THE GENERAL LIABILITY AND AUTOMOBILE LIABILITY POLICIES AS REQUIRED BY WRITTEN CONTRACT OR AGREEMENT. *FOR PROFESSIONAL LIABILITY COVERAGE, THE AGGREGATE LIMIT IS THE TOTAL INSURANCE AVAILABLE FOR CLAIMS PRESENTED WITHIN THE POLICY PERIOD FOR ALL OPERATIONS OF THE INSURED. THE LIMIT WILL BE REDUCED BY PAYMENTS OF INDEMNITY AND EXPENSE.

CERTIFICATE HOLDER

REGIONAL METROPOLITAN UTILITY AUTHORITY
ATTN: SHERRY CARTWRIGHT
CITY HALL AT ONE TECHNOLOGY CENTER
175 EAST 2ND STREET, 8TH FLOOR
TULSA, OK 74103

CANCELLATION

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

AUTHORIZED REPRESENTATIVE
of Marsh USA Inc.

Sharon A. Hammer

Sharon A. Hammer

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