

AGREEMENT

THIS AGREEMENT, made and entered into this _____ day of _____, 2018, by and between the City of Reno and the City of Sparks, hereinafter referred to as the "CLIENT", and Brown and Caldwell, hereinafter referred to as "ENGINEER":

WITNESSETH:

WHEREAS, CLIENT desires to obtain construction management services for the TMWRF Nitrification Tower #2 Rehabilitation Project, hereinafter referred to as "Project";

WHEREAS, public convenience and necessity require the services of a consulting engineer to provide the services required;

WHEREAS, the CLIENT has found ENGINEER qualified and experienced in the performance of said services;

WHEREAS, the CLIENT is desirous of engaging the services of ENGINEER to perform said services; and

NOW, THEREFORE, said CLIENT and said ENGINEER, for the considerations hereinafter set forth, mutually agree as follows:

ARTICLE I - SERVICES

CLIENT agrees to retain and does hereby retain ENGINEER to perform the professional engineering services hereinafter more particularly described, with such services to commence on the date of the execution of this Agreement and to continue until the completion of the work provided for herein.

ENGINEER hereby agrees to perform the professional services as set forth herein and to furnish or procure the use of incidental services, equipment, and facilities necessary for the completion of said engineering services.

ENGINEER has the status of an independent contractor as defined in NRS 333.700 and shall not be entitled to any of the rights, privileges, benefits, and emoluments of either an officer or employee of CLIENT. ENGINEER shall undertake performance of services as independent contractor and shall be wholly responsible for the methods of performance and for their performance.

ENGINEER is subject to NRS 338.010 – 338.090 (prevailing wage) for all covered work.

ARTICLE II - SCOPE OF SERVICES

The Scope of Services is set forth in Exhibit A as attached hereto and incorporated herein by this reference which consists of 12 pages setting forth tasks. List of Drawings is reflected in Attachment A.

ARTICLE III - COMPENSATION

Payment for the engineering services hereinabove set forth shall be made by the CLIENT to the ENGINEER and shall be considered as full compensation for all personnel, materials, supplies, and equipment used in carrying out the work.

A. Compensation to the ENGINEER shall be on the basis of Time and Expense basis as set forth in Exhibit A per the rate schedule in Attachment B which are attached hereto and incorporated herein by this reference.

B. Payments shall be made by the CLIENT based on itemized invoices from the ENGINEER which lists costs and expenses. Such payments shall be for the invoice amount.

C. CLIENT shall pay ENGINEER within 30 days of receipt by CLIENT of ENGINEER's invoice. If CLIENT disputes only portions of an invoice, CLIENT agrees to pay for undisputed items on that invoice within the time provided herein. Payment by CLIENT of invoices or request for payment shall not constitute acceptance by CLIENT of work performed under the Agreement by the ENGINEER.

D. The budget for total charges for services authorized by this Agreement is \$445,512.00, which includes a force account in the sum of \$40,000.00, and shall not be exceeded without authorization of the CLIENT. The City of Reno's share is the sum of \$305,754.88 and the City of Sparks' share is the sum of \$139,757.12. The budget may be increased by amendment hereto if necessitated by a change in the scope of services which increases the cost of providing the services. ENGINEER is not authorized to provide any additional services beyond the scope of work without having authorized funding pursuant to a written amendment hereto signed by the authorized representative of the governing body.

ARTICLE IV - SCHEDULE OF WORK

ENGINEER will commence the services as described immediately following the Notice to Proceed provided to the ENGINEER by the CLIENT and will proceed with such services in a diligent manner. ENGINEER will not be responsible for delays caused by factors beyond ENGINEER's control and will not be responsible for delays caused by factors which could not reasonably have been foreseen at the time the Agreement was approved.

ARTICLE V - ASSIGNMENT OF AGREEMENT

The ENGINEER SHALL not assign this Contract or any portion of the work without prior written approval of the CLIENT which may be withheld for any reason whatsoever.

ARTICLE VI- OWNER'S RESPONSIBILITY

CLIENT shall provide any information in its possession that is requested by ENGINEER and is necessary to complete the Project. CLIENT shall assist ENGINEER in obtaining access to public and private lands to allow the ENGINEER to perform the work under this Agreement. CLIENT shall examine all studies, reports, sketches, estimates, specifications, drawings, proposals, and other documents presented by the ENGINEER and shall render decisions pertaining thereto within a reasonable time so as not to delay the work of the ENGINEER.

ARTICLE VII - NONDISCLOSURE OF PROPRIETARY INFORMATION

ENGINEER shall consider all information provided by CLIENT to be proprietary unless such information is available from public sources. ENGINEER shall not publish or disclose proprietary information for any purpose other than the performance of the Services without the prior written authorization of CLIENT or in response to legal process or as required by the regulations of public entities.

ARTICLE VIII - NOTICE

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:

To ENGINEER:
Ron L. Ablin, P.E.
Vice President
Brown and Caldwell
201 East Washington, Suite 500
Phoenix, AZ 85004

To CLIENT:
John Flansberg, P.E.
Director of Public Works
City of Reno
1 East First Street
Reno, NV 89501
P.O. Box 1900
Reno, NV 89505

John Martini, P.E.
Community Services Director
City of Sparks
431 Prater Way
Sparks, NV 89431
PO Box 857
Sparks, NV 89432

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

ARTICLE IX - UNCONTROLLED FORCES

Neither CLIENT nor ENGINEER shall be considered to be in default of this Agreement, if delays in or failure of performance shall be due to uncontrollable forces the effect of which, by the exercise of reasonable diligence, the non-performing party could not avoid and is not reasonably foreseeable at the time of entering into this Agreement. The term “uncontrollable forces” shall mean any event which results in the prevention or delay of performance by a party of it’s obligations under this Agreement and which is beyond the control of the non-performing party. It includes, but is 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 personal for any of the supplies, material, accesses, or services required to be provided by either CLIENT or ENGINEER under this Agreement, strikes, work slowdowns or other labor disturbances, and judicial restraint. ENGINEER shall be paid for services performed prior to the delay.

Neither party shall, however, be excused from performance if nonperformance is due to uncontrollable forces, which are removable. The provisions of this Article shall not be interpreted or construed to require ENGINEER or CLIENT to prevent, settle, or otherwise avoid a strike, work slowdown, or other labor action. The non-performing party shall upon being prevented or delayed from performance by an uncontrollable force immediately give written notice to the other party describing the circumstances and uncontrollable forces preventing continued performance of the obligation of this Agreement.

ARTICLE X- GOVERNING LAW

This Agreement shall be governed by and construed pursuant to the laws of the State of Nevada. In the event suit is commenced hereunder and in accordance with the Dispute Resolution Procedures of Article XXIII, the suit shall be brought in the appropriate court in Washoe County, State of Nevada. In the event of an arbitration or mediation pursuant to Article XXII, such arbitration or mediation shall be held in Reno, Nevada.

ARTICLE XI - SUCCESSORS AND ASSIGNS

CLIENT and ENGINEER each binds itself and their successors, and assigns to the other party to this Agreement and to the successors, and assigns of such other party, in respect to all covenants, agreements and obligations or this Agreement.

ARTICLE XII - ASSIGNMENT

Neither CLIENT nor ENGINEER shall assign, sublet, or transfer any rights under interest in (including, but without limitation, monies that may become due or monies that are due) this Agreement without the written consent of the other, except to the extent that the effect of this limitation may be restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement. Nothing contained in this paragraph shall prevent

ENGINEER from employing such independent consultants, associates, and subconsultants as she may deem appropriate to assist her in the performance of the Services hereunder.

ARTICLE XIII - INDEMNIFICATION

To the fullest extent permitted by law, ENGINEER shall defend, indemnify and hold harmless CLIENT and its officers, employees and agents (collectively "Indemnitees") from any liabilities, damages, losses, claims, actions or proceedings, including, without limitation, reasonable attorneys' fees, that are caused by the negligence, errors, omissions, recklessness or intentional misconduct of the ENGINEER or employees or agents of the ENGINEER in the performance of this Agreement.

ENGINEER assumes no liability for the negligence or willful misconduct of any indemnitee or other consultants of indemnitee.

ENGINEER'S indemnification obligations for claims involving Professional Liability (claims involving acts, error, or omissions in the rendering of professional services and Economic Loss Only (claims involving economic loss which are not connected with bodily injury or physical damage to property) shall be limited to the proportionate extent of ENGINEER'S negligence or other breach of duty.

If CLIENT's personnel (engineers or other professionals) are involved in defending such legal action, ENGINEER shall also reimburse CLIENT for the time spent by such personnel at the rate charged for such services by private professionals. These provisions shall survive termination of this agreement and shall be binding upon ENGINEER, her legal representatives, heirs, successors and permitted assigns.

If ENGINEER does not so defend the CLIENT and the ENGINEER is adjudicated to be liable, reasonable attorney's fees and costs shall be paid to CLIENT in an amount proportionate to the liability of ENGINEER.

ARTICLE XIV - INTELLECTUAL PROPERTY INDEMNITY

To the fullest extent permitted by law, ENGINEER shall defend, protect, hold harmless, and indemnify CLIENT and the CLIENT'S related Parties from and against any and all liability, loss, claims, demands, suits, costs, fees and expenses (including actual fees and expenses of attorneys, expert witnesses, and other consultants), by whomsoever brought or alleged, for infringement of patent rights, copyrights, or other intellectual property rights, except with respect to designs, processes or products of a particular manufacturer expressly required by CLIENT in writing. If ENGINEER has reason to believe the use of a required design, process or product is an infringement of a patent, ENGINEER shall be responsible for such loss unless such information is promptly given to CLIENT. This Indemnity Covenant shall survive the termination of this Agreement.

ARTICLE XV – PAYMENT OF TAXES

Any and all Federal, State and local taxes, charges, fees, or contributions required by law to be paid with respect to ENGINEER'S performance of this Agreement (including, without limitation, unemployment insurance, social security, and income taxes).

ARTICLE XVI - INSURANCE

GENERAL REQUIREMENTS

The CLIENT requires that ENGINEER purchase Industrial Insurance, General Liability, and ENGINEER'S Errors and Omissions Liability Insurance as described below against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the ENGINEER, its agents, representatives, employees or subconsultants. The cost of such insurance shall be borne by ENGINEER unless otherwise agreed.

INDUSTRIAL INSURANCE (WORKERS' COMPENSATION & EMPLOYER'S LIABILITY)

It is understood and agreed that there shall be no Industrial Insurance coverage provided for ENGINEER or any Subconsultant by the CLIENT and in view of NRS 616B.627 and 617.210 requiring that ENGINEER complies with the provisions of Chapters 616A to 616D, inclusive and 617 of NRS, ENGINEER shall, before commencing work under the provision of this Agreement, furnish to the CLIENT a certificate of insurance from the Worker' Compensation Insurer certifying that the ENGINEER and each Subconsultant have complied with the provisions of the Nevada Industrial Insurance Act, by providing coverage for each and every employee, subconsultants, and independent contractors. Should the ENGINEER be self-insured for Industrial Insurance, the CONSULTANT shall so notify the CLIENT and approve written approval of such self-insurance prior to the signing of a Contract. The CLIENT reserves the right to accept or reject a self-insured CONSULTANT and to approve the amount(s) of any self-insured retentions. The ENGINEER agrees that the CLIENT is entitled to obtain additional documentation, financial or otherwise, for review prior to entering into a Contract with the ENGINEER.

Upon completion of the project, the contractor shall provide the CLIENT with a Final Certificate for itself and each Subconsultant which is prepared by the State of Nevada Industrial Insurance System. If the ENGINEER or Subconsultants are unlicensed and are a sole proprietor, coverage for the sole proprietor must be purchased and evidence of coverage must appear on the Certificate of Insurance and Final Certificate.

It is further understood and agreed by and between the CLIENT and ENGINEER that ENGINEER shall procure, pay for, and maintain the above mentioned industrial insurance coverage at the ENGINEER'S sole cost and expense.

MINIMUM SCOPE OF LIABILITY INSURANCE

Coverage shall be at least as broad as: *

Commercial General Liability at least as broad as Insurance Services Office Commercial General Liability Coverage "occurrence" form CG OO 01 04 13 or an equivalent form. The Comprehensive General Liability Coverage shall include, but is not limited to, liability coverage arising from premises, operations, independent contractors, products and completed operations, personal and advertising, injury, blanket contractual liability and broad form property damage.

Automobile Coverage at least as broad as Insurance Services Office Business Auto Coverage form CA OO 01 10 13 or an equivalent form covering Automobile Liability Symbol 1 "Any Auto". In lieu of a separate Business Auto Liability Policy, the City may agree to accept Auto Liability covered in the General Liability Policy, if non owned and hired auto liability are included. The ENGINEER shall maintain limits of no less than \$1,000,000 or the amount customarily carried by the contractor, whichever is greater, combined single limit per accident for bodily injury and property damage. No aggregate limit may apply.

The Additional Insured Endorsements for General Liability shall be at least as broad as the unmodified ISO CG 20 10 04 13 and ISO CG 20 37 04 13 endorsements, or equivalent. The certificate shall confirm Excess Liability is following form.

*Coverages may be excluded only with prior approval of the CLIENTS' Risk Managers.

Professional Errors and Omissions Liability applying to all activities performed under this Agreement in a form acceptable to CLIENT. ENGINEER will maintain professional liability insurance during the term of this Agreement and for a period of six (6) years from the date of substantial completion of the project unless waived by the CLIENT. In the event the ENGINEER goes out of business during the term of this Agreement or the six (6) year period described above, ENGINEER shall purchase Extended Reporting coverage for claims arising out of ENGINEER's negligence acts, errors and omissions committed during the term of the Professional Liability Policy.

MINIMUM LIMITS OF INSURANCE

ENGINEER shall maintain limits no less than:

1. General Liability: \$2 million minimum combined single limit per occurrence for bodily injury, personal injury and property damage and \$4 million annual aggregate.

2. ENGINEER's Errors and Omissions Liability: \$2 million per claim and \$4 million as an annual aggregate during the term of this Agreement and for six years after the completion of the project, with each subsequent renewal having a retroactive date which predates the date of this Agreement. The ENGINEER may purchase project insurance or obtain a rider on her normal policy in an amount sufficient to bring ENGINEER's coverage up to minimum requirements, said additional coverage to be obtained at no cost to the CLIENT. Should the CLIENTS' Risk Managers require project insurance, project insurance shall be purchased and premium costs

shall be borne by the CLIENT. CLIENT retains option to purchase project insurance through the ENGINEER's insurer or through its own source.

DEDUCTIBLES OR SELF-INSURED RETENTIONS

Any deductibles or self-insured retentions must be declared to and approved by the CLIENT Risk Management Divisions. The CLIENT reserves the right to request additional documentation, financial or otherwise prior to giving its approval of the deductibles or self-insured retention. Any changes to the deductible or self-insured retention made during the term of this Agreement or during the term of any policy, must be approved by the CLIENTS' Risk Managers.

OTHER INSURANCE PROVISIONS

General Liability Coverages

The CLIENT, its officers, officials, employees and volunteers are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of the ENGINEER including the insured's general supervision of the ENGINEER; products and completed operations of the ENGINEER; or premises owned, occupied or used by the ENGINEER. The coverage shall contain no special limitations on the scope of protection afforded to the CLIENT, its officers, officials, employees or volunteers.

The ENGINEER's insurance coverage shall be primary insurance as respects the CLIENT, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the CLIENT, its officers, officials, employees or volunteers shall be excess of the ENGINEER's insurance and shall not contribute with it in any way.

Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the CLIENT, its officers, officials, employees or volunteers.

The ENGINEER's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

Endorsements for General Liability, Auto, and Excess/Umbrella Liability listing all additional insureds are required. The endorsement for Excess/Umbrella Liability can be accomplished by the ENGINEER'S production of a letter from the insurance company stating that Excess/Umbrella Liability will "follow form."

The ENGINEER'S insurance coverage shall be endorsed to state that coverage shall not be suspended, voided, canceled or non-renewed by either party, reduced in coverage or in limits except after at least thirty (30) days prior written notice for reasons other than non-payment of premium and at least ten (10) days for non-payment of premium mail has been given to the CLIENT.

ACCEPTABILITY OF INSURERS

Insurance is to be placed with an A.M. Best and Company rating level of A - Class VII or better, or otherwise approved by the CLIENT in its sole discretion. CLIENT reserves the right to require that ENGINEER'S insurer be a licensed and admitted insurer in the State of Nevada, or on the Insurance Commissioner's approved but not admitted lists.

VERIFICATION OF COVERAGE

ENGINEER shall furnish the CLIENT with certificates of insurance, including but not limited to the Certificate of Compliance in NRS 616B.627 and with original endorsements affecting coverage required by this article. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf and must be countersigned by a duly appointed and licensed agent in this state. The certificates are to be on forms approved by the CLIENT. All certificate and endorsements are to be received and approved by the CLIENT before work commences. The CLIENT reserves the right to require complete, certified copies of all required insurance policies, at any time. ENGINEER can request that confidential information be redacted.

SUBCONSULTANTS

ENGINEERS shall require all subconsultants to be insured on their own or under its policies and shall furnish separate certificates and endorsement for each subconsultant. Coverages for subconsultants shall be subjected to all of the requirements stated herein.

Miscellaneous Conditions

If the ENGINEER or any Subconsultant fails to maintain any of the insurance coverages required, the CLIENT may terminate this Agreement for cause.

ENGINEER shall be responsible for and remedy all damage or loss to any property, including property of CLIENT, caused in whole or in part by the ENGINEER, any subconsultant, or any employee, directed or supervised by ENGINEER, except damage of loss attributable to faulty drawings or specifications.

Nothing herein contained shall be construed as limiting in any way to the extent to which the ENGINEER may be held responsible for payment for damages to persons or property resulting from her operations or the operations of any subconsultant under her.

If ENGINEER's failure to maintain the required insurance coverage results in a breach of this Agreement, CLIENT may purchase the required coverage, and without further notice to ENGINEER, deduct from sums due to ENGINEER any premium cost advanced by CLIENT for such insurance.

ARTICLE XVII - LITIGATION

This Agreement does not require the ENGINEER to prepare for or appear in litigation on behalf of The CLIENT, or as agent of the CLIENT, other than specified herein, except in consideration of additional reasonable compensation.

ARTICLE XVIII - TERMINATION OF WORK

Either party to this Agreement may terminate the Agreement for cause upon giving the other party thirty (30) days prior written notice. Cause may include, failure to perform through no fault of the party initiating the termination. In addition, CLIENT may terminate the Agreement for any one of the following causes: performance by ENGINEER which CLIENT deems unsatisfactory in CLIENT's sole judgment; and CLIENT's lack of funds to complete the work. Cause for ENGINEER may include, failure of CLIENT to make timely payment to ENGINEER without good cause, following a demand for payment.

In addition, CLIENT may terminate any or all of the work covered by this Agreement by notifying ENGINEER in writing. In the event such termination occurs at the conclusion of services pursuant to an executed task order, then ENGINEER shall be entitled to receive compensation for all work satisfactorily completed and performed through the conclusion of that task order. No other changes or costs incurred for services or materials other than pursuant to an executed task order shall be reimbursed by CLIENT pursuant to this Agreement. In the event such termination occurs during the performance of services pursuant to an authorized task order, then ENGINEER and CLIENT shall need to determine what, if any additional services should be performed by ENGINEER in order to close out the work in progress and provide any such unfinished materials to CLIENT. ENGINEER and CLIENT shall agree upon the additional amount of work to be performed following the termination notice and the amount payable by CLIENT for such work. In the event that the parties cannot otherwise agree on the amount to be paid pursuant to this provision, then the matter may be referred to the Dispute Resolution Procedure in ARTICLE XXIII.

In the event the Agreement is terminated by CLIENT for cause, including performance deemed unsatisfactory by CLIENT, or ENGINEER failure to perform, or other cause created by ENGINEER, CLIENT may withhold and offset against any payments otherwise due and/or seek recovery from ENGINEER for amounts already paid, including without limitation: amounts paid for unsatisfactory work or work not done in accordance with this Agreement; value of CLIENT's time spent in correcting the work or problem; any increase in cost resulting from the problem or work; and any other costs which result from such termination. Subject to the terms herein, ENGINEER will be paid for services performed prior to termination.

ENGINEER expressly agrees that this Agreement shall be terminated immediately if for any reason local, federal and/or State Legislature funding ability to satisfy this Agreement is withdrawn, limited, or impaired.

ARTICLE XIX - PROFESSIONAL SERVICES

ENGINEER shall be responsible for the professional quality and technical accuracy of all services furnished by ENGINEER and their subconsultants under this Agreement. Without limiting the effect of any other provision of this Agreement and in addition to any other provision contained herein, ENGINEER shall, without additional compensation, correct or revise any errors or omissions in their services.

ENGINEER and their subconsultants retained pursuant to this Agreement are considered by CLIENT to be skilled in their profession to a degree necessary to perform the services and duties contained in this Agreement, and CLIENT hereby relies upon those skills and the knowledge of ENGINEER and their subconsultants. ENGINEER and their subconsultants shall perform such professional services and duties as contained in this Agreement in conformance to and consistent with the standards generally recognized as being employed by professionals of their caliber in the State of Nevada. ENGINEER makes no warranty, either expressed or implied, as to their findings, recommendations, specifications or professional advice other than as provided herein.

Neither CLIENTS' review, approval, or acceptance of nor payment for any of the professional services or work required under this Agreement shall be construed to operate as a waiver of any of CLIENTS' rights under of this Agreement. The rights and remedies of CLIENT provided for under this Agreement are in addition to any other rights and remedies provided by law.

Project information including but not limited to reports, written correspondence, and verbal reports will be prepared for the use of the CLIENT. The observations, findings, conclusions and recommendation made represent the opinions of the ENGINEER. Reports, records, and information prepared by others will be used in the preparation of the report. The ENGINEER has relied on the same to be accurate and does not make any assurances, representations, or warranties pertaining to the records or work of others, except for its subconsultants, nor does the ENGINEER make any certifications or assurances except as explicitly provided in writing. No responsibility is assumed by the ENGINEER for use of reports for purposes of facility design by others.

ARTICLE XX – PROPERTY: COPYRIGHTS

The ENGINEER shall furnish to the CLIENT all field notes, reports, data, and electronic or magnetic media, and original tracings of all drawings and plans, maps, photographs, and other materials (including, if requested by the Director, design computations, design sketches and review drawings) prepared pursuant to this Contract (hereinafter collectively referred to as "Documents"). The originals of such Documents shall be and remain the property of the CLIENT.

All of such Documents shall be deemed to be "works made for hire" prepared for the CLIENT. The ownership of all copyrights and all rights embodied in the copyrights in or to such Documents shall rest in the CLIENT when any such is subject to copyright. The ENGINEER

agrees that it, nor any of its employees, shall have any right to copyright any of such Documents. The ENGINEER further agrees that neither it nor any of its employees shall exercise any of the rights embodied in the copyrights in or to such Documents, unless authorized to do so by the Reno City Council. The ENGINEER shall place a conspicuous notation upon each Document which indicates that the copyright thereto is owned by the CLIENT.

Should it be finally determined, by a court or to her tribunal of competent jurisdiction, that any of such Documents is not a “works make for hire,” it is agreed that the provisions of this section shall be termed an assignment, sale, and transfer of the copyright in or to such Documents to the CLIENT for the longest term allowed by law. Notwithstanding the foregoing, the ENGINEER may retain copies of such Documents and such copies shall remain the property of the ENGINEER. The ENGINEER shall have the right to use such copies as it may desire, but the ENGINEER may not sell, license, or otherwise market such Documents.

Documents, including drawings and specification prepared by ENGINEER pursuant to this Contract, are not intended or represented to be suitable for reuse by CLIENT or others on extensions of the services provided for the Project or any other project. Any use of completed Documents for other projects and/or any use of uncompleted Documents without specific written authorization from ENGINEER will be at the CLIENT’s sole risk without liability or legal exposure to ENGINEER.

ARTICLE XXI - RIGHTS OF ENGINEERS AND EMPLOYEES

No personnel employed by ENGINEER shall acquire any rights or status in the CLIENT services and ENGINEER shall be responsible in full for payment of its employees, including insurance, deductions, and all the like.

ARTICLE XXII - SERVICES BY CLIENT

It is understood and agreed that the CLIENT shall, to the extent reasonable and practicable, assist and cooperate with the ENGINEER in the performance of ENGINEER’s services hereunder. Such assistance and cooperation shall include, but not necessarily be limited to, environmental approval, right of access to work sites; providing material available from the CLIENT’s files such as maps, As-Built drawings, records, and operation and maintenance information; serving all notices, holding all hearings, and fulfilling legal requirements in connection therewith; and rendering assistance in determining the location of existing facilities and improvements which may be affected by the project.

ARTICLE XXIII - DISPUTE RESOLUTION PROCEDURE

1. If disputes arise under this Agreement, the parties agree to attempt to resolve such disputes through direct negotiations or if such negotiations are not successful, by non-binding mediation conducted in accordance with the rules and procedures to be agreed upon by the parties.

2. The prevailing party in an action to enforce the Agreement shall be entitled to recover its reasonable attorney's fees and costs. It is specifically agreed that a reasonable attorney's fee shall be \$125 per hour.

ARTICLE XXIV - NO UNFAIR EMPLOYMENT PRACTICES

1. In connection with the performance of work under this Agreement, Engineer agrees not to discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, sexual orientation or age. Such Agreement shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

2. ENGINEER further agrees to insert this provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials.

3. Any violation of these provisions by ENGINEER shall constitute a material breach of contract.

4. As used in this Article, sexual orientation means having or being perceived as having an orientation for heterosexuality, homosexuality or bi-sexuality.

ARTICLE XXV - AMERICANS WITH DISABILITIES ACT

1. To the extent applicable for the Project, ENGINEER and its subconsultants shall comply with the terms, conditions, and requirements of the Americans with Disabilities Act of 1990 (P.L. 101-136), 42 U.S.C. 12101, as amended, and regulations adopted thereunder contained in 28 C.F.R. 26.101-36.999, inclusive, and any relevant program-specific regulations.

ARTICLE XXVI - GENERAL PROVISIONS

1. Integration. This Agreement, including the Exhibits and the Recitals, all of which are true and correct and are incorporated by reference as a part of this Agreement, constitutes the complete and integrated Agreement between the parties with respect to the matters recited herein, and supersedes any prior or contemporaneous written or oral agreements or understandings with respect thereto.

2. Severability. The legality of any provision or portion of this Agreement shall not affect the validity of the remainder.

3. Amendment. This Agreement shall not be modified, amended, rescinded, canceled, or waived, in whole or in part, except by written amendment signed by duly authorized representatives of the parties.

4. No Third Party Benefit. This Agreement is a contract between CLIENT and ENGINEER and nothing herein is intended to create any third party benefit.

5. Governing Law and Jurisdiction. This Agreement shall be administered and interpreted under the laws of the State of Nevada. Any action at law, suit in equity or judicial proceeding for the enforcement of this Agreement or any provision thereof shall be instituted only in the district courts of the State of Nevada, County of Washoe.

ARTICLE XXVII - DUE AUTHORIZATION

Each party represents that all required authorizations have been obtained to execute this grant and for the compliance with each and every term hereof. Each person signing this Agreement warrants and represents to the other party that he or she has actual authority to execute this Agreement on behalf of the party for whom he or she is signing. A facsimile signature on this Agreement shall be treated for all purposes as an original signature.

Duplicate originals. This Agreement is executed in one duplicate original for each party hereto, and is binding on a party only when all parties have signed and received a duplicate original.

IN WITNESS WHEREOF, CLIENT has caused this Agreement to be executed by the City of Reno and ENGINEER have caused this Agreement to be executed, all as of the day and year first above written.

CITY OF RENO

ATTEST:

By: _____
Hillary L. Schieve, Mayor

By: _____
Ashley D. Turney, Reno City Clerk

CITY OF SPARKS

ATTEST:

By: _____
Geno Martini, Mayor

By: _____
Teresa Gardner, Sparks City Clerk

APPROVED AS TO FORM

By: _____
Susan Ball Rothe
Deputy City Attorney

By: _____
Chet Adams, Sparks City Attorney

ENGINEER

By: _____
Ron L. Ablin, P.E., Vice President



Exhibit A Scope of Work

City of Reno Truckee Meadows WRF Nitrification Tower 2 Rehabilitation and Improvements Project

December 13, 2017

Project Overview

The following scope of services has been prepared by Brown and Caldwell (BC) for the City of Reno (City) to complete the design for the Truckee Meadows Water Reclamation Facility (TMWRF) Nitrification Tower (NTF) 2 Rehabilitation Project (Project). The Project will include improvements recommended in the Truckee Meadows Water Reclamation Facility Nitrification Tower Rehabilitation and Improvements Project Report (October 2016) and further refined in the October 23, 2017 scoping meeting. The Project includes the following improvements summarized in Table 1.

Table 1. Major Project Elements		
Components	Category	Notes
Replace Media	Rehabilitation	Removing and disposing of the existing media in Nitrification Tower 2 as well as purchasing and installing new media.
Replace Distributer	Rehabilitation	Removal and disposal of the existing distributor arms as well as installing new distributor arms (HydroDoc or BioDoc) into Nitrification Tower 2.
Rehabilitate Walls	Rehabilitation	Based on BJG Report.
Evaluate Center Column Replacement	Rehabilitation	Evaluate existing condition and structural stability of center column with proposed update of distributor equipment.
Evaluate Nitrification Tower Structural Internals	Rehabilitation	Will inspect portions of the internal walls to determine if the internal weld plates need to be replaced and if the internal wall surfaces require a coating
Install Ammonia Analyzer	Optimization	Install one ammonia analyzer for process monitoring of Nitrification Tower 2 effluent.
Additional Automation	Optimization	This will be investigated in basis of design and the decision to add automation will be determined upon completion of BODR. This work will be conducted as a separate task item number 7.
Re-treatment Pumping Station	Startup Requirement	The need and the type of pumping station will be identified as part of the BODR. Design scope for this component will be prepared upon completion of BODR.

Media Replacement

Media replacement is recommended using the same type of modules that are currently installed, which are 4 feet x 2 feet x 2 feet modules of 68 ft²/cubic foot (ft³), cross-flow media.

Distributor Arm Replacement

Nitrification Towers 1 through 4 use an aging distributor arm system, which is approaching the end of its useful life and is in need replacement. It also has no automated control. Currently, TMWRF automates speed control for biomass flushing using WesTech BioDoc™ distributor arms for Nitrification Towers 5 and 6. TMWRF staff have indicated that they want to add such control to Nitrification Towers 1 through 4 when the arms are replaced.

The BioDoc is a rotary distributor arm which is a mechanically driven unit with a motor that can be programmed to operate at customized speeds. This motor controls the rotational speed of the unit to maintain a constant rotation. This distributor can also be programmed to incorporate flushing cycles (i.e., temporarily change the

rotating speed). If the power is disconnected to this unit for any reason, the gears will automatically disengage so that the arm will be able to rotate hydraulically until power is restored. WesTech HydroDoc™ is another distributor arm option that will be considered. The selection of the distributor arm system will be made as part of the Basis of Design Report (BODR) development.

Wall Rehabilitation

The concrete walls for Nitrification Tower 2 have deteriorated over 30 years of operation and require rehabilitation and repair. The following recommendations were provided by Blakely Johnson & Ghushn (BJG):

- Repair cracks and spall in the double-T exterior base with epoxy injection and/or repair mortar;
- Replace caulk between wall panel segments. Caulking should be repaired from both the interior and exterior; and
- Inspect, repair or replace the interior welded plates that connect the wall panels.

Center Column Evaluation

The center column supports a Nitrification Tower rotary distributor and four radial distributor arms. The drive mechanism is situated approximately 14 feet above the center, concrete-encased, steel-pipe column. It is proposed to use a similar mechanism as was installed in Nitrification Towers 5 and 6 in the year 2000. The decision to replace the center will be made as part of the Basis of design report based on physical inspection and structural analysis of the center column incorporating the weight of the new distributor arm.

Rehabilitation of Nitrification Tower Structural Support

The original BJB report recommended that additional investigation is needed to determine if the interior welded plates need to be repaired or replaced. Additionally, the condition of the internal walls is not well-defined. TMWRF staff will remove sections of the tower media to expose the upper sections of the internal walls and structural supports. Once the upper section tower walls have been exposed and cleaned, BJB will conduct the inspection to determine what type of rehabilitation is needed for the walls (coating) and the structural internal supports. Additionally, a project scheduling analysis will be conducted as part of the BODR to evaluate project phasing and bidding alternatives to address known uncertainties associated with the internal rehabilitation scope of work.

Install Ammonia Analyzer

A new ammonia analyzer will be installed to monitor the effluent ammonia from Nitrification Tower 2. TMWRF staff has a preferred analyzer that will be specified. This will be a permanent installation and will require new power and controls.

Additional Automation for Nitrification Towers

Several valves were installed with motorized actuators, but there is no communication to the Distribution Control System (DCS). The new distributor arms will most likely have power and controls that will be routed back to the DCS. There is an opportunity to automate the existing motorized valves along with adding motorized actuators and automation to additional manual valves. The valve controls will be investigated as part of the basis of design as a separate task. The decision to move forward with the valve automation will not be made until after completion of the BODR. A scope for this design has been included in task 7.

Re-Treatment Pumping Station

Upon start-up of Nitrification Tower 2, the effluent from the tower will need to be conveyed upstream for re-treatment until sufficient biomass has been established in the tower. This will require pumping the rehabilitated tower effluent back to the NTF influent. As part of the BODR, options will be developed for either a temporary pumping system or a permanent pumping system that will be used for the subsequent NTF rehabilitation work. If a temporary pumping system is selected then this will be specified in the construction contract. If TMWRF

decides that a permanent facility provides the best overall value, a future amendment will be prepared to incorporate the new pumping station into the design.

Miscellaneous Improvements

Several smaller improvements will be evaluated as part of BODR and may be included in the final design and are summarized below:

- Installation of grating on the new media to allow access to the tower roof without stepping on media
- Installation of new handrail on tower walls
- Replacement of the louvers and dampers located in the moats
- Replacement of air duct expansion joints with lower maintenance expansion joints

The existing sampling ports will be modified in the tower and will be similar to the ports used in Towers 5 and 6.

The Project scope consists of preparation of a BODR, 60% design submittal, 90% design submittal, 100% design submittal and final Bid Document submittal as detailed in the following sections. An estimated cost to complete preliminary design scope of services is summarized in Table 2. The estimated time for design is approximately 8 months, and active construction of 6 months and commissioning duration is approximately 16 months.

Task 1 – Prepare BODR

BC will prepare a BODR that presents applicable design criteria for the recommended rehabilitation and improvements for Nitrification Tower 2 and approach. The BODR is considered about a 10 percent complete design.

Project Management

The basis of design scope includes project administration and coordination with the City and design team members during this phase of the Project.

- Project Coordination - Conference calls will be scheduled with City staff and BC's Project Manager and one Project team member to discuss Project schedule and budget, work elements accomplished, upcoming work items, and Project issues. Two conference calls are assumed for this task;
- Prepare health and safety plan; Plan will be prepared for BC staff involved with field visits to TMWRF;
- Prepare meeting and conference call agenda and distribute to anticipated attendees 2 days prior to the conference call;
- Prepare and distribute meeting minutes/notes to attendees within 1 week after the meeting;
- Prepare conference call notes and distribute to attendees via email, within 3 days after the conference call;
- Maintain and update project Action Items Log and Decision Log; and
- A Project Risk Register will be initiated and updated as the design progresses through the development of the basis of design.

In addition, the task will include management and coordination of technical resources to a level of service and responsiveness consistent with the project scope, schedule and budget. The activities that will be performed under this task are conducting internal project initiation meeting, preparing project management plan, preparing sub-consultant agreements, management and monitoring of the documentation system, monitoring Project progress, and managing the Project team.

Review Existing Information and Project Kick-off Workshop

The purpose of this task is to review the information on the existing facilities and kick off the project. BC will review the existing information available.

Prior to the Project kick off workshop, we will review this information with Plant staff to identify other documents that will be relevant to our work.

BC will conduct a workshop with the City to define project needs and confirm our approach. We will work with the City to define other helpful information that will improve the design. At the kick-off workshop, we will define the Project objectives, confirm alternatives to be considered, and confirm the approach and schedule. We will prepare a detailed agenda, PowerPoint discussion and meeting notes.

Nitrification Tower Structural Inspection

TMWRF will remove sections of tower media and expose and clean portions of the internal wall sections. BJC will conduct an inspection of the exposed wall sections and provide recommendations on the type of rehabilitation needed.

Nitrification Tower Startup Evaluation

Options for starting up the Nitrification Tower will be evaluated in this task. To build up the biomass on the Nitrification Tower, flow needs to be constantly routed through the Nitrification Tower, but the effluent needs to be recirculated back to the other Nitrification Towers to minimize the risk of effluent violations for ammonia. BC will look at several alternatives to create this flow configuration for Nitrification Tower startup. Alternatives evaluated will include the following:

- Gravity flow return via existing drain system;
- Intercepting the Nitrification Tower 2 effluent line and providing a new permanent sump and pumps to convey effluent back to the Nitrification Tower influent pumping station. Pumps to be relocated as needed for future Nitrification Tower startup; and
- Provide temporary pumps to take effluent from the bottom of Nitrification Tower 2 and pump to the Nitrification Tower influent pumping station. The temporary pumps may be City-operated or contracted out to a specialized bypass pumping contractor.

Pumping Power and controls for each alternative will also be evaluated to determine the impact on the existing TMWRF power and control infrastructure. New control descriptions will also be included for each alternative. The results of the evaluation will be presented to the City in a workshop and a technical memorandum (TM) which will be prepared documenting the recommendations for the Nitrification Tower startup along with a planning-level cost estimate and design scope of work.

Project Phasing and Bidding Analysis

BC will develop project phasing and bidding alternatives to address uncertainties associated with the internal wall rehabilitation. The goal of the evaluation is to reduce risk and contingency associated with any uncertainties with the structural rehabilitation. The following scenarios will be evaluated:

- Project is bid without internal wall coating and no coating is required
- Project is bid with internal wall coating included in the base bid
- Project is bid without coating and coating is required during construction and added via change order
- Project is bid in two phases. Phase A would include the removal of tower media and cleaning of tower internals and construction of the re-treatment pumping. This would allow for a comprehensive internal inspection to determine the specific rehabilitation requirements. Phase B would include tower media installation and internal rehabilitation

The task will include a workshop with TMWRF to discuss the options, advantages and disadvantages of each alternative and ultimately come up with a final recommendation for bidding the project. A technical memorandum (TM) will be prepared documenting the results of the workshop. If required, an amendment will be prepared based on the recommended project phasing and bidding alternative.

Asbestos and Lead Paint Evaluation

There is a possibility that asbestos-containing materials were used in the original construction of the Nitrification Towers. It is also possible that lead-based paint was used on the Nitrification Tower distributor equipment. To assess whether there is any asbestos or lead in the structure, Converse Consultants will perform asbestos and

lead sampling on Nitrification Tower 2. Converse will summarize the results which will be included as an appendix in the BODR and bid documents.

Opinion of Probable Construction Costs

A conceptual-level opinion of probable construction costs will be prepared for the Project improvements. Costs will be broken out for various project elements so that the City can determine what project elements will be included in the final design.

Quality Control Review

BC will perform quality checking of the BODR, preliminary design calculations, and preliminary drawings during development and at each project deliverable.

Prepare Draft BODR and Review Workshop

Basis-of-design development will consist of stakeholder meetings, site investigation (field visit), evaluation of Nitrification Tower start-up alternatives, and a BODR.

The BODR will include a summary of the recommended project and process description; design criteria; preliminary facility sizing; equipment sizing and selection; process operation and control philosophy; construction sequencing and constraints; and a planning-level opinion of probable construction costs. It will also include a list of drawing sheets and specifications for the project, and major equipment and critical instrument cut sheets. BC will meet with the City to review the draft BODR. After incorporation of review comments, BC will prepare the final BODR. Key subjects that will be discussed and confirmed in basis-of-design development meetings and documented in the BODR include:

- Finalizing design criteria;
- Investigation of additional control valve automation of Nitrification Towers and other automation improvements including control descriptions/loops (included as part of task 7)
- Evaluation and recommendation of distributor arm technology;
- Determine and locate existing power sources and available capacity;
- Determine and locate points of connection to plant DCS;
- Development of preliminary process and instrumentation diagrams (P&IDs) and process schematic; and
- Provide a draft load study to indicate additional power requirements for the new equipment being connected.

The following will be included as BODR appendices:

- BJG Inspection Report
- Nitrification Tower Startup Evaluation
- Project Bidding and Phasing Analysis
- Asbestos and Lead Paint Evaluation

Prepare Final Basis of Design Report

BC will incorporate review comments on the draft BODR and prepare a final BODR. The report will also include the Nitrification Tower startup evaluation as an appendix.

BODR Assumptions

- BC will organize and lead up to 5 formal meetings (Kick-off Meeting and field visit, Nitrification Tower Startup Meeting, Project Phasing and Bidding Analysis workshop, BODR Presentation Meeting and BODR Review Meeting). We assume up to 2 hours for each meeting.
- BC meeting attendees will include the Project Manager, the local leader, and up to one technical expert; others will participate by teleconference if needed.
- City attendees will include Plant management, and operations, maintenance and engineering staff, as needed. The workshop meeting room will be selected and provided by the City.

- BJG will conduct a field visit to inspect Nitrification Tower 2 internal wall sections.
- BC will conduct a field visit with the Kickoff meeting to investigate the existing site condition. We assume 3 BC Project team members, up to 4 hours per field visit.
- BC will organize and lead up to 2 conference calls. We assume 1 hour for each conference call.

BODR Phase Deliverables

Draft and final BODR that summarize the design development and recommendations for Project elements (electronic version in pdf format and 4 hard copies, spiral-bound);

Draft and final TM on Nitrification Tower Startup Alternatives (electronic version in pdf format and 4 hard copies, spiral-bound);

Draft and final TM on Project Phasing and Bidding Analysis (electronic version in pdf format and 4 hard copies, spiral-bound);

Responses to draft BODR review comments (BODR);

Responses to draft Nitrification Tower Startup Alternatives TM (BODR);

Responses to draft Project Phasing and Bidding Analysis TM (BODR);

Opinion of Probable Construction Costs for recommended project (BODR);

Preliminary list of drawings and specifications (BODR);

Meeting agendas and minutes for 4 meetings (BODR);

Risk Register (ongoing);

Action Item Log (ongoing); and

Decision Log (ongoing).

Task 2 – 60% Design Submittal

The Project described in the final BODR will be carried forward for 60% design. This task assumes a single project phase for design and construction and doesn't currently include design for valve automation and for the re-treatment pumping station. These will be included as a contract amendment prepared upon completion of BODR. Services provided under this task include Project management, opinion of probable construction costs, and preparing 60% plans and specifications.

Project Management

Scope includes project coordination with the City and design team members during this phase of the Project.

Project Risk Register will also be updated as the design progresses to the 60% level of completion.

- Project Coordination - Conference calls will be scheduled with City staff and BC's Project Manager and one Project team member to discuss Project schedule and budget, work elements accomplished, upcoming work items, and Project issues. Four (4) one-hour conference calls are assumed for this task;
- Prepare conference call agenda and distribute to anticipated participants 1 day prior to the conference call;
- Prepare conference call notes and distribute to attendees via email, within 1 day after the conference call;
- Update Project Action Items Log and Decision Log; and
- Update Project Risk Register.

In addition, the task will include managing and coordinating technical resources to a level of service and responsiveness consistent with the Project scope, schedule and budget established in this scope of services. The activities to be performed under this task are to monitor Project progress and manage the Project team.

Cost Estimate

An estimate of probable construction cost will be updated to Class III from the BODR estimate for the 60% design estimate. The estimate will be in accordance with the Association for the Advancement of Cost Engineering (AACE) criteria, with an approximate accuracy range from -20 to +30 percent.

Submittal Review Workshops

Upon completion of the 60% design submittal, a 60% submittal presentation workshop will be conducted to present the major elements of the design. The purpose of the initial workshop is to obtain buy-in on the major design elements of the Project and to facilitate discussion and review of the design submittal with a large group of stakeholders. The focus of the workshop will be on the mechanical elements of the design.

Approximately one week after receipt of review comments from TMWRF staff, BC will conduct a 60% submittal review workshop to go over any comments requiring further discussion.

Quality Control Review

BC will perform quality checking of 60% design submittal (plan and specifications), design calculations and drawings during development to verify that the deliverable and supporting documentation conform to applicable and reasonable standards relative to their intended purpose, and meet City and BC's requirements.

60% Plans and Specifications

60% plans and specifications will be prepared for the TMWRF Nitrification Tower 2 Rehabilitation and Improvements Project for the improvements and modifications mentioned above.

The drawings at this level of design will include, but not be limited to, cover sheet; general sheets; overall site plan with base mapping; survey controls and existing utilities; contractor access and staging area; site demolition; yard piping; process/mechanical plans; structural and electrical demolition plans; and process, structural and electrical modification plan, sections, and details. BC will provide P&IDs and draft control strategies as part of this submittal. The sheets to be included in the final deliverable will be started. The plans, sections and details will have title and callouts. The preliminary drawing list is included as Attachment A showing the drawings that will be provided as part of the 60% design submittal.

The available existing drawings (record or as-built) will be used to build the base three-dimensional model using REVIT software. The model will be used for the workshop review and to develop the two-dimensional drawings for the deliverable.

The technical specification at 60% design will be a master spec, with design criteria and performance requirements included, and will be in Construction Specification Institute (CSI) Master Format 2004, 50 divisions. City specifications (except for front-end specifications) will be incorporated into the specification submittal set.

Deliverables

Meeting agendas and minutes from 2 workshops with the City;

60% design submittal plans and specifications:

- Electronic version in pdf format of half-size and full-size drawings, and specifications; and
- 10 hard copies of half-size drawings and 5 hard copies of specifications, spiral-bound.

Risk Register (ongoing);

Action Item Log (ongoing); and

Construction cost estimate.

Task 3 – 90% Design Submittal

Services provided under this task include Project management, cost estimate and preparation of draft and final 90% plans and specifications

Project Management

Scope includes coordination with the City and design team members during this phase of the Project. The Project Risk Register will also be updated as the design progresses to the 90% level of completion.

Project Coordination – Conference calls will be scheduled, as needed, with City staff and BC's Project Manager and up to two Project team members to discuss Project schedule and budget, work elements accomplished, upcoming work items, and Project issues;

Prepare conference call agenda and distribute to anticipated participants 1 day prior to the conference call;

Prepare conference call notes and distribute to attendees via email, within 3 days after the conference call;

Update Project Action Items Log and Decision Log; and

Update Project Risk Register.

In addition, the task will include managing and coordinating technical resources to a level of service and responsiveness consistent with the Project scope, schedule and budget established in this scope of services. The activities to be performed under this task are to monitor Project progress and manage the Project team.

Cost Estimate

An estimate of probable construction cost will be updated from the 60% estimate for the 90% design estimate, Class II in accordance with AACE criteria, with an approximate accuracy range from -15 to +20 percent.

Submittal Review Workshops

Upon completion of the 90% design submittal, a 90% submittal presentation workshop will be conducted to present the major elements of the design. The purpose of the workshop is to review any the major design changes made since the 60% submittal. The focus of the workshop will be on structural, electrical and instrumentation elements of the design.

Approximately 1 week after receipt of review comments from TMWRF staff, BC will conduct a 90% submittal review workshop to go over any comments requiring further discussion. BC team attendance is based on comments that need to be discussed at the workshop.

Quality Control Review

BC will perform quality checking of the 90% design submittal (plan and specifications), design calculations and drawings during development to verify that the deliverable and supporting documentation conform to applicable and reasonable standards relative to their intended purpose, and meet City and BC's requirements.

90% and Final Plans and Specifications

BC will incorporate the City's 60% plans and specifications comments and will prepare 90% plans and specifications. In addition to incorporating City comments, the 90% package will incorporate the City front-end specifications and additional structural, electrical and mechanical details not included in the 60% submittal. The preliminary drawing list is included as Attachment A showing the drawings that will be provided as part of the 90% design submittal.

A review workshop will be conducted to review the 90% plans and specifications. BC will respond to the City's final comments and prepare the 100% submittal.

Deliverables

- Responses to 60% design submittal review;
- 90% design submittal plans and specifications (electronic version and 10 hard copies of half-size drawings and 5 hard copies of specifications);
- Meeting agendas and minutes for 2 meetings;
- Risk Register (ongoing);
- Action Item Log (ongoing); and
- Updated construction cost estimate.

Task 4 – 100% and Final Bid Set Submittal

Project Management

Scope includes coordination with the City and design team members during this phase of the Project. The Project Risk Register will also be updated as the design progresses to the 90% level of completion.

- Project Coordination - Conference calls will be scheduled, as needed with City staff and BC's Project Manager and one Project team member to discuss Project schedule and budget, work elements accomplished, upcoming work items, and Project issues;
- Prepare conference call agenda and distribute to anticipated participants 1 day prior to the conference call;
- Prepare conference call notes and distribute to attendees via email, within 3 days after the conference call;
- Update Project Action Items Log and Decision Log; and
- Update Project Risk Register.

In addition, the task will include managing and coordinating technical resources to a level of service and responsiveness consistent with the Project scope, schedule and budget established in this scope of services. The activities to be performed under this task are to monitor Project progress and manage the Project team.

Submittal Review Workshop

Upon completion of the 100% design submittal, a 100% submittal presentation workshop will be conducted to review any new design detail not shown in 90% submittal. A review workshop will not be conducted as it is assumed that the final Bid documents can be produced upon receipt of City comments.

100% Plans and Specifications

BC will incorporate the City's 90% plans and specifications comments and will prepare 100% and final plan and specifications. The design development assumed at this stage is minimal and limited to minor clarification changes to plans and specifications with no changes to the design concepts or Project elements.

A review workshop will be conducted to review the 100% plans and specifications. BC will respond to the City's 100% comments and prepare final plan and specifications for bidding.

Final Plans and Specifications

BC will incorporate the City's 100% plans and specifications comments and will prepare final plan and specifications. The final plans and specifications will be advertised by the City.

Deliverables

- Meeting agendas and minutes 1 one review meeting;
- Responses to 100% design submittal review;
- 100% design submittal plans and specifications (electronic version and 10 half-size copies of plans and 5 sets of specifications);
- Final design submittal plans and specifications ready for bidding (electronic version and 10 half-size copies, 4 full-size wet stamped originals, 8 sets of specifications);
- Risk Register (ongoing); and
- Action Item Log (ongoing).

Task 5 – Bid Services

Services provided under this task include Project management, bid period support, prepare addendum and prepare conformed drawings and specifications.

Project Management



Scope includes coordination with the City and design team members during this phase of the Project.

Bid Period Support

BC will assist the City with addressing contractor questions during the bidding period. BC will provide responses to contractor questions and will identify any responses that require an addendum. BC will track questions and answers on a spreadsheet that will be provided to the City as needed.

Prepare Addendum

Scope includes preparation of two addendums, as needed, to support the bidding process. We have estimated up to 48 hours engineering and CAD drafting for this effort.

Conformed Drawings and Specifications

BC will produce conformed drawings and specifications incorporating any addenda. We have estimated approximately 60 hours of engineering and CAD time to complete conformed drawings and specifications. Deliverables include electronic versions (WORD, CAD, PDF), and 10 sets of specifications, 10 half size plans, and 5 full size plans. Yellow paper shall be used for all hardcopies of plans and specifications.

Task 6 – Nitrification Tower Stress Testing Assistance

TMWRF will be conducting stress testing of Nitrification Tower 6 to determine performance of the other Nitrification Towers during the rehabilitation period. BC will provide assistance with data analysis and interpretation at the City's request. The maximum number of hours for this task is approximately 40 hours.

Assistance with Stress Testing

Scope includes assistance with data collection and review, and other services required by the City to complete the testing. We have estimated approximately 30 hours for this task.

Meeting with Nevada Division of Environmental Protection (NDEP)

BC process engineers will attend an NDEP meeting with the City to provide as-needed technical support upon the City's request. We have estimated approximately 10 hours for this task, including transportation, developing a meeting agenda, and preparing meeting minutes.

Task 7 – Valve Automation and Control

Task includes all preliminary and final design related activities associated with automating the existing valves including control design, preparation of control descriptions and preparation of P&ID drawing(s). Hours include work associated with the initial evaluation and subsequent preparation of 60%, 90%, 100% and final design submittals.

Task 8 – Contingency

A budget contingency of \$40,000 has been included to address additional or expanded scope items. These additional items are limited to activities that support completion of the project. Use of this contingency will require written or email authorization by the City to proceed on a time-and materials basis.

Overall Project Assumptions

- The City will provide safe access to all required areas of the site for the purposes of project preliminary design.
- The City will provide the site civil CADD files for the NTF site.
- The 60% and 90% submittal cost estimates will be prepared to industry standards based upon the level of detail available at the time of the estimate. The estimate will be subject to many influences including, but not limited to, unknowns and undefined details, price of labor and materials, schedule impacts, unknown or latent conditions of existing equipment or structures, and time or quality of performance by

others. Such influences may not be precisely forecasted and are beyond the control of BC, and actual costs incurred may vary substantially from the estimates prepared by BC. BC does not warrant or guarantee the accuracy of construction or development of an Engineer’s Estimate of Probable Cost.

- The design will rely on the accuracy of record drawings and historical records provided by the City. If drawings, data, or historical records are deemed to be inaccurate, additional field effort may be required. BC will alert the City if expanded field effort is required.
- Additional Project needs such as verification of data, sample collections, and detailed process analysis can be provided in a follow-up phase for any concepts that are determined to be of interest.
- City will review the BODR and design submittals for accuracy of understanding the issues and data assumptions. City will provide compiled written comments entered in excel spreadsheet from engineering, operations, and maintenance staff.
- BC is not responsible for any schedule or cost impacts related to delays caused by protracted reviews, changes in scope of work, or other situations outside of our control.
- Structural calculations are available upon request.
- The following systems are not included in this design: telephone or communications systems and security systems.
- Safety-related submittals or information will be reviewed to see if they meet the required administration of the Contract Documents but BC is not responsible for contractor safety.
- Programmable logic controller (PLC) and DCS programming to be completed by others.
- No Geotech work or reporting will be performed for design; TMWRF will provide any available Geotech reports that pertain to the work area.
- No field Surveying will be performed for the design. TMWRF will provide the correct elevation datum and basis of bearing to be used for the Project.

Cost Assumptions

- Labor Rate is in accordance with attached rate schedule
- No markups on expenses;
- Labor Rates will not be escalated unless project schedule is extended by at least 6 months
- 5 percent proposed markups on sub-consultant fees;
- Unspent budget on completed tasks can be reallocated; and
- Cost is managed at Project level and not phase level.

Fee Estimate

Table 2 provides a summary of the fee estimate by each Project Task.

Table 2. Summary of Fee Estimate	
Basis of Design Report	\$98,522
60% Submittal	\$98,750
90% Submittal	\$99,182
100% Submittal	\$48,242
Bid Services	\$36,416
Nitrification Tower Stress Testing	\$10,160
Valve Automation and Control	\$14,240
Contingency	\$40,000
Total	\$445,512

Work to be performed on a time and expense basis with a not to exceed project budget of \$445,512.

This budget includes the contingency task of \$40,000. The contingency task will not be used unless authorized by TMWRF staff. A supporting rate schedule is included as Attachment B

Attachment A: Drawing List

TMWRF NTF 2 Rehabilitation

List of Drawings

Drawing	Discipline			Description
		G	1	Cover Sheet
1	General	G	2	Location and Vicinity Map
2	General	G	3	Drawing Index
3	General	G	4	Abbreviations
4	General	G	5	Symbols
5	General	G	6	Process Flow Diagram
6	General	G	7	Site Plan- Staging and Access
7	General	C	1	Civil Legend and Notes
8	Civil	C	2	Civil Standard Details-1
9	Civil	C	3	Civil Standard Details-2
10	Civil	C	4	Civil Site Plan
11	Civil	C	5	Yard Piping Plan
12	Civil	C	6	Yard piping Profiles
13	Civil			
14	Demolition	D	1	Demolition Legend and Notes
15	Demolition	D	2	Demo Site Plan
16	Demolition	D	3	NTF 2 Demo Plan
17	Demolition	D	4	NTF 2 Dem Sections
18	Demolition	D	5	NTF 2 Demo Sections and Details
19	Demolition			
20		S		Structural Special Inspections
21	Structural	S		Structural Legend and Notes
22	Structural	S		Structural Standard Details-1
23	Structural	S		Structural Standard Details-2
24	Structural	S		Structural Standard Details-3
25	Structural	S		Nitrification Tower 2 Foundation Plan
26	Structural	S		Nitrification Tower 2 Top Plan
27	Structural	S		Nitrification Tower 2 Section and Details
28	Structural	S		Nitrification Tower 2 Details
29	Structural			
30		M		Mechanical Legend and Notes
31	Mechanical	M		Mechanical Details-1
32	Mechanical	M		Mechanical Details-2
33	Mechanical	M		Mechanical Details-3
34	Mechanical	M		NTF 2 Bottom Plan
35	Mechanical	M		NTF 2 Top Plan
36	Mechanical	M		NTF 2 Section
37	Mechanical	M		NTF 2 Details
38	Mechanical	I		Instrumentation Typical Details
39	Instrumentation	I		Instrumentation Legend
				Process and Instrumentation Diagram-
40	Instrumentation	I		Nitrification Tower No. 2
41	Instrumentation	E	1	Electrical Legend and Notes
42	Electrical	E	2	Electrical Standard Details-1
43	Electrical	E		Electrical Standard Details-2
44	Electrical	E		Electrical Standard Details-3
45	Electrical	E		Electical Site Plan
46	Electrical	E		One line Diagram
47	Electrical	E		NTF 2- Electrical Plan
48	Electrical	E		NTF Valve Actuator Plan
49	Electrical	E		MCC Elevation
50	Electrical	E		Control Diagrams - Nitrification Tower 2
51	Electrical			

Attachment B: Rate Schedule

Brown and Caldwell Schedule of Hourly Billing Rates

Level	Engineering	Technical/Scientific	Administrative	Hourly Rate
A			Office/Support Services I	\$53
B	Drafter Trainee	Field Service Technician I	Word Processor I Office/Support Services II	\$66
C	Assistant Drafter	Field Service Technician II	Word Processor II Office/Support Services III	\$75
D	Drafter Engineering Aide Inspection Aide	Field Service Technician III Geologist/Hydrogeologist I	Accountant I Word Processor III Office/Support Services IV	\$86
E	Engineer I Senior Drafter Senior Illustrator Inspector I	Scientist I Senior Field Service Technician	Accountant II Word Processor IV	\$103
F	Engineer II Inspector II Lead Drafter Lead Illustrator	Geologist/Hydrogeologist II Scientist II	Accountant III Area Business Operations Mgr Technical Writer Word Processing Supervisor	\$123
G	Engineer III Inspector III Senior Designer Supervising Drafter Supervising Illustrator Senior Engineer	Geologist/Hydrogeologist III Scientist III Senior Geologist/Hydrogeologist	Accountant IV Administrative Manager	\$146
H	Principal Designer Senior Construction Engineer Senior Engineer	Senior Scientist	Senior Technical Writer	\$165
I	Principal Engineer Principal Construction Engineer Supervising Designer	Principal Geologist/Hydrogeologist Principal Scientist	Corp. Contract Administrator	\$188
J	Supervising Engineer Supervising Constr. Engineer Supervising Engineer	Supervising Scientist Supervising Geologist/ Hydrogeologist	Assistant Controller	\$196
K	Managing Engineer	Managing Geologist/Hydrogeologist Managing Scientist	Area Bus Ops Mgr IV	\$219
L	Chief Engineer Executive Engineer	Chief Scientist Chief Geologist/Hydrogeologist	Corp Marketing Comm. Mgr.	\$237
M	Vice President			\$254
N	Senior Vice President			\$266
O	President/Executive Vice President			\$277
P	Chief Executive Officer			\$304