

DESIGN-BUILD AGREEMENT FOR

Riverside Water Quality Control Plant Expansion Follow Up Design-Build Services

This Agreement for Construction ("Agreement") is entered into on this _____ day of _____, 20____, by and between the CITY OF RIVERSIDE, a California charter city and a municipal corporation ("City") and **CDM CONSTRUCTORS INC., a Massachusetts corporation authorized to do business in California, 600 Wilshire Blvd., Suite 750, Los Angeles, California 90017**, State Contractor's License No. 671513 ("Design-Build Entity"). Hereinafter, the City and the Design-Build Entity may be referred to collectively as the "Parties."

ARTICLE 1 – SCOPE OF WORK AND DESIGN SERVICES

1.1 Scope of Work. Design-Build Entity shall furnish all engineering design, labor, equipment and materials for, and perform the work of **Riverside Water Quality Control Plant Expansion Follow Up Design-Build Services** located at **Riverside Regional Water Quality Control Plant**, 5950 Acorn Street, Riverside, CA, 92504, which is covered in Design-Build Entity's Proposal (the "Work").

1.2 Contract Documents. Design-Build Entity shall perform the Work in accordance with the provisions and requirements of the following Contract Documents:

- (1) Scope of Services attached hereto as Exhibit "A" and incorporated herein;
- (2) Addenda with later Addenda having priority over earlier Addenda issued as follows:

N/A

- (3) Intentionally omitted.

(4) This Agreement, as signed by the Parties, including Exhibit "B" – Workers' Compensation Certification, and all documents, maps, texts and items referred to in the foregoing documents.

- (5) Change Orders and other modifications issued after execution of this Agreement;

(6) Permits from the City's Building, Fire, Planning, Public Works and Public Utilities Departments and similar governmental approvals for the Work required by applicable law;

(7) The 2012 Edition of the Standard Specifications for Public Works Construction ("Standard Specifications") written by Public Works Standards, Inc., and any special provisions;

These Contract Documents are incorporated herein and are intended to be correlative and constitute Design-Build Entity's performance obligations.

1.3. **Project Design.** City does not intend to contract for, pay for, or receive any design services which are in violation of any professional licensing laws, and by execution of this Agreement, Design-Build Entity acknowledges that City has no such intent. It is the intent of the Parties that Design-Build Entity is fully responsible for furnishing the design of the Project, although the fully licensed Design Consultant will perform the design services required by the Contract Documents. Nothing in this article shall create a contractual relationship between such persons and the City.

1.4. **Standard of Care.** All design Services to be performed by Design-Build Entity, its design consultant, subcontractors, and their employees identified by the Design-Build Entity or other persons approved by the City shall be performed in an expeditious and professional manner using architects, engineers and other professionals properly licensed and duly qualified in the jurisdiction in which the Project is located. The professional obligations of such persons shall be undertaken and performed in the interest of the Design-Build Entity. All design services performed pursuant to this Agreement shall be performed with the degree of skill and learning ordinarily possessed by architects and engineers in good standing in the community regularly engaged in the design and construction of an improvement such as this Project and must apply that knowledge with the diligence ordinarily exercised by reputable architects and engineers under similar circumstances ("Standard of Care").

1.5 **Interpretation.** In the event of any conflict between any of the Contract Documents, the document highest in the order of precedent shall control. The order of precedent shall be the same as that set forth in Section 2.5-2 of the 2012 Edition of the Standard Specifications for Public Works Construction, unless otherwise revised in the Special Provisions.

1.6 **Entire Agreement.** This Agreement together with all other Contract Documents represents the entire and integrated agreement between City and Design-Build Entity and supersedes any prior written or oral agreements between them concerning the subject matter contained in the Contract Documents. There are no representations, agreements, arrangements or understandings, oral or written, between the Parties hereto, relating to the subject matter contained in the Contract Documents, which are not fully expressed herein.

ARTICLE 2 – CONTRACT PRICE AND PAYMENT

2.1 **Contract Price.** City shall pay Design-Build Entity the Contract Price of **Three Million Six Hundred Forty Eight Thousand Four Hundred Sixty Dollars (\$3,648,460.00)** which includes all California sales or use tax and County and City taxes, in consideration for the Design-Build Entity's full, complete and timely performance of all of the Work required by the Contract Documents. The Contract Price includes any Alternative/Additive Bid Items which were awarded with the Contract.

Design-Build Entity agrees to allocate the use tax derived from contracts or subcontracts of \$5 million or more directly to the job site location by obtaining a sub-permit of the Design-Build Entity's seller's permit for the jobsite and allocating the local tax to the jobsite address on Schedule C of applicable sales tax returns, in accordance with State Board of Equalization Operations Memo 1023. Design-Build Entity shall provide City with proof of such filing prior to City's issuance of the Notice to Proceed.

In accordance with Section 22300 of the California Public Contract Code, Design-Build Entity may substitute securities for any monies withheld by City to ensure performance of the Contract. Such substitution shall be made at the request and expense of Design-Build Entity. Securities equivalent to the amount withheld may be deposited with City or with a state or federally chartered bank as escrow agent. Securities eligible for substitution shall include those listed in Section 16430 of the Government Code, bank or saving and loan certificates of deposit, interest bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by Design-Build Entity and City.

2.2 Changes to the Contract Price. Design-Build Entity shall not be compensated for any extra materials used or time expended over and above the Contract Price, unless prior written approval for the same has been granted by the City.

2.3 Payment Procedures.

Within sixty (60) calendar days after City accepts final completion of the work and issues the Notice of Completion, excluding Plant Establishment, if applicable, City shall pay Design-Build Entity the amounts City deducted and retained from Design-Build Entity's progress payments, except such sums which are required by applicable law or authorized by the Contract to be further retained. In the event of a dispute between City and Design-Build Entity concerning the amount of final payment due, the City may withhold from final payment an amount not to exceed 150% of the value of disputed amounts for incomplete or non-conforming work.

ARTICLE 3 – TIME FOR PERFORMANCE

3.1 Date of Commencement/Notice to Proceed. The date of commencement of the Work shall be established in a written Notice to Proceed issued by the City. The City will not issue a Notice to Proceed to the Design-Build Entity until this Agreement, bonds and insurance documents have been executed and/or approved by the City.

3.2 Contract Time. Design-Build Entity shall perform the Work in a diligent manner and shall complete all of the Work of the Contract, excluding any Plant Establishment, if applicable, within three hundred sixty (360) working days after the date specified to Design-Build Entity in the Notice to Proceed issued by City.

ARTICLE 4 – LIQUIDATED DAMAGES

4.1 INTENTIONALLY OMITTED

ARTICLE 5 – CLAIMS AND DISPUTES

5.1 **Notice of Claims.** Design-Build Entity acknowledges and agrees that its failure to submit any claim arising under this Contract in accordance with the Special Provisions, shall constitute a waiver of Design-Build Entity's right to additional compensation and/or extension of time.

5.2 **Government Code Claims Procedures.** Design-Build Entity further acknowledges that notwithstanding Design-Build Entity's compliance with the claims procedures set forth in the Special Provisions, Design-Build Entity must also comply with the claims procedures set forth in Government Code sections 900 et seq. prior to filing a lawsuit against the City for any such claim. Failure to submit a Government Code claim or comply with the claims provision contained in the Special Provisions shall bar Design-Build Entity from bringing and maintaining a valid lawsuit against the City.

ARTICLE 6 – LOCAL BUSINESS LICENSE, TAXES AND FEES

6.1 **Business Tax Certificate and Governmental Approvals.** As a condition of the Contract, Design-Build Entity and all subcontractors shall, during the term of this Agreement, secure and annually renew business tax certificates pursuant to Chapter 5.04 of the Riverside Municipal Code to operate in the City of Riverside, and shall also secure and maintain at all times during performance of the Work, any other licenses, fees, permits or similar Governmental Approvals required by Applicable law.

6.2 **Offsets.** Design-Build Entity acknowledges and agrees that with respect to any business tax or penalties thereon, utility charges, invoiced fee or other debt which is owed, or which becomes owed, by Design-Build Entity to City, City reserves the right to withhold and offset said amounts from any payments, refunds or reimbursements owed by City to Design-Build Entity under the Contract. Notice of such withholding and offset shall promptly be given to Design-Build Entity by City in writing. In the event of a dispute as to the amount owed or whether such amount is owed to City, City will hold such disputed amount until either the appropriate appeal process has been completed or until the dispute has been resolved.

ARTICLE 7 – BONDS

7.1 **Performance and Payment Bonds.** Prior to City's execution of this Agreement, Design-Build Entity shall furnish to the City two (2) duly executed surety bonds using the forms included within the Bidding Requirements, one (1) as security for the faithful performance of the Contract and one (1) as security for the payment of all persons performing labor and furnishing materials in connection with the Contract. Both bonds shall be in the amount of one hundred percent (100%) of the Contract Price and shall be subscribed by an Admitted Surety Insurer which is authorized to transact surety insurance business in the State of California with a policy holder's rating of A or higher and a Financial Class of VII or larger. Should any bond or surety become insufficient, Design-Build Entity shall furnish City a new bond within ten (10) days after receiving notice from City. No payments will be due or paid under the Contract until any and all bond deficiencies have been remedied. Design-Build Entity, by execution of this Agreement acknowledges that the bonds are not Contract Documents, but are separate obligations.

ARTICLE 8 – WORKERS' COMPENSATION INSURANCE

8.1 **Workers' Compensation Insurance Certificate.** By executing this Agreement, Design-Build Entity certifies that Design-Build Entity is aware of and will comply with Section 3700 of the Labor Code of the State of California requiring every employer to be insured against liability for workers' compensation or to undertake self-insurance before commencing any of the Work. Design-Build Entity shall comply with Labor Code Section 1861 by signing and filing the workers' compensation certification attached hereto as Exhibit "A" and incorporated herein by reference.

8.2 **Evidence of Coverage.** Prior to the City's execution of this agreement, Design-Build Entity shall file with the City either 1) a certificate of insurance or self-insurance evidencing that such insurance is in effect, or that Design-Build Entity is self-insured for such coverage; or 2) a certified statement that Design-Build Entity has no employees, and acknowledging that if Design-Build Entity does employ any person, the necessary certificate of insurance will immediately be filed with City. Any Certificate filed with the City shall provide that City shall be given ten (10) days prior written notice before modification or cancellation thereof.

8.3 **Carrier Rating.** Design-Build Entity's workers' compensation insurance carrier shall be authorized to transact insurance business in the State of California with a policy holder's rating of A or higher and a Financial Class of VII or larger.

8.4 **Subcontractor Worker's Compensation Insurance.** Design-Build Entity shall require each of its Subcontractors to obtain and maintain for the duration of this Agreement, complete workers' compensation insurance, meeting or exceeding the coverage's and amounts that California law requires.

ARTICLE 9 – DESIGN-BUILD ENTITY'S LIABILITY INSURANCE

9.1 **Minimum Scope.** Prior to City's execution of this Agreement and Design-Build Entity's commencement of Work, Design-Build Entity shall secure, submit proof of and shall thereafter

maintain without interruption, until completion of the Design-Build Entity, such commercial general, automobile liability, professional liability, builders risk and/or installation floater insurance as shall protect Design-Build Entity, its Subcontractors and the Additional Insured's from any and all claims for damages for personal injury, including accidental death, as well as any and all claims for property damage which may arise from or which may concern operations under the Contract, whether such operations be by or on behalf of Design-Build Entity, any subcontractor or anyone directly or indirectly employed by, connected with or acting for or on behalf of any of them.

9.2 Carrier Ratings. All liability insurance shall be issued by an insurance company or companies authorized to transact liability insurance business in the State of California with a policy holder's rating of A or higher and a Financial Class of VII or larger.

9.3 Minimum Limits. Design-Build Entity shall maintain minimum limits of insurance as follows:

9.3.1 Commercial General Liability: Design-Build Entity's commercial general liability insurance policy shall cover both bodily injury (including death) and property damage (including, but not limited to, premises operations liability, products-completed operations liability, independent contractor's liability, personal injury liability, and contractual liability) in an amount not less than \$1,000,000 per occurrence, an aggregate limit for products/completed operations in the amount not less than \$2,000,000.

Commercial General Liability. Insurance Services Office Commercial General Liability Coverage (occurrence Form CG 0001). This coverage shall include:

- i. Manufacturers and Contractors liability,
- ii. Broad form property damage in any case where the Design-Build Entity has any property belonging to the City in the Design-Build Entity's care, custody, or control,
- iii. Owners and Contractors' protective liability,
- iv. Blanket contractual liability,
- v. Products and completed operations coverage, and
- vi. Coverage for collapse, explosion, and excavation.

9.3.2 Automobile Liability Insurance: Design-Build Entity's automobile liability policy shall cover both bodily injury and property damage in an amount not less than \$1,000,000 per occurrence and an aggregate limit of not less than \$1,000,000. All of Design-Build Entity's automobile and/or commercial general liability insurance policies shall cover all vehicles used in connection with Design-Build Entity's performance of this Agreement, which vehicles shall include, but are not limited to, Design-Build Entity owned vehicles, Design-Build Entity leased vehicles, Design-Build Entity's employee vehicles, non-Design-Build Entity-owned vehicles and hired vehicles.

Automobile Liability. Insurance Services Office Automobile Liability Coverage (Form CA 0001), covering Symbol 1 (any auto). This coverage shall include:

i. Coverage for owned, non-owned, and hired automobiles

9.3.3 Builder's Risk Insurance. Unless otherwise set forth in the special provisions, during the term of this contract, Contractor shall maintain in force, at its own expense, Builder's Risk insurance on all risks of direct physical loss basis, excluding damage caused by an act of God, pursuant to California Public Contract Code § 7105, for an amount equal to the full completed value of the covered structure or replacement value of alterations or additions. The policy shall include as loss payee, the City of Riverside, the Contractor, and its sub-contractors as their interest may appear. The City shall not be responsible for the theft of any materials, equipment in the possession and control of Contractor.

9.3.4. Installation Floater Insurance. Contractor shall obtain, at Contractor's expense, and keep in effect during the term of this Agreement, a Builder's Risk Installation Floater for coverage of Contractor's labor, materials and equipment to be used for completion of the work performed under this Agreement. The minimum amount of coverage to be carried shall be equal to the full amount of the Contractor's labor, equipment, materials, or fixtures to be installed, in transit, or stored off-site or on-site during the performance of this Agreement. The policy shall include as loss payee, the City of Riverside, the Contractor, and its sub-contractors as their interest may appear. The City shall not be responsible for the theft of any materials, equipment in the possession and control of Contractor.

9.3.5 Professional Liability.

9.3.5.1 The Design-Build Entity's professional liability policy must 1) Include professional malpractice, errors and omissions; and 2) Provide coverage for claims arising from acts, errors or omissions from professional services performed by or on behalf of Design-Build Entity, its Design Consultants, Subcontractors, or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, including liability assumed under and arising from the Agreement.

The Design-Build Entity's professional liability policy must provide limits of liability in an amount not less than: one million dollars (\$1,000,000) per claim; and two million dollars (\$2,000,000) in the aggregate. Design-Build Entity shall be responsible for the full amount of all deductibles/self-insured retention per claim for coverage under the Professional Liability Insurance policy. These minimum amounts of coverage shall not constitute any limitation or cap on Design-Build Entity's indemnification obligation.

The Design-Build Entity shall require that each Design Consultant maintain professional liability coverage. Each Design-Consultant's professional liability policy must provide coverage for claims arising from the negligent acts, errors or omissions from professional design services performed by Design Consultant, including liability assumed under and arising from the Agreement.

Each Design-Consultant's professional liability policy must provide limits of liability in an amount not less than: one million dollars (\$1,000,000) per claim; and two million dollars (\$2,000,000) in the aggregate. Design Consultant shall be responsible for the full amount

of all deductibles/self-insured retention per claim for coverage under the Professional Liability Insurance policy.

9.3.6 Pollution Liability and Excess Liability Insurance. Prior to City's execution of the Agreement Design-Build Entity shall secure, and shall thereafter maintain without lapse of coverage until completion of the Agreement, pollution liability insurance and/or Excess/Umbrella Liability coverage in the minimum amount of \$1,000,000. Design-Build's Pollution Liability and Excess/Umbrella Liability coverages shall be maintained continuously for a minimum of five (5) years after final completion and acceptance of all Work under this Agreement.

9.4 **Notice of Cancellation and Renewals.** The policies shall not be canceled unless thirty (30) days prior written notification of intended cancellation has been given to City by certified or registered mail (this obligation may be satisfied in the alternative by requiring such notice to be provided by Design-Build Entity's insurance broker and set forth on its Certificate of Insurance provided to City). Design-Build Entity agrees that upon receipt of any notice of cancellation or alteration of the policies, Design-Build Entity shall procure within five (5) days, other policies of insurance similar in all respects to the policy or policies to be cancelled or altered. Design-Build Entity shall furnish to the City copies of any endorsements that are subsequently issued amending coverage or limits within fourteen (14) days of the amendment.

9.5 **All Coverage's.** The insurance policy or policies shall also comply with the following provisions:

- a. Policies shall include premises/operations, products completed operations, independent contractors, owners and contractors' protection, explosion, collapse, underground hazard, broad form contractual, personal injury with employment exclusion deleted, and broad form property damage.
- b. The policy shall be endorsed to waive any right of subrogation against the City and its subconsultants, employees, officers, agents and directors for work performed under this Agreement.
- c. If policies are written on a claims made basis, the certificate should so specify and the policy must continue in force for **five (5) years** after completion of the Project. The retroactive date of the coverage must also be listed.
- d. The policy shall specify that the insurance provided by Design-Build Entity will be considered primary and not contributory to any other insurance available to the City of Riverside. Design-Build Entity shall provide Form No. CG 20010413 to City.
- e. All policies of insurance shall name the City as an Additional Insured and shall contain the following language: "Solely with respect to work done by and on behalf of the name insured for the City of Riverside, it is agreed that the City of Riverside, and its officers and employees are added as additional insureds under this policy."

9.6 Certificates of Insurance, Additional Insured Endorsements and Deductibles. Prior to execution of the Agreement, and thereafter upon City's request, Design-Build Entity shall furnish City with original certificates of insurance and additional insured endorsements setting forth evidence of all insurance coverage required by this Article. Each certificate and endorsement is to be signed by a person authorized by that insurer to bind coverage on its behalf. The City of Riverside, its City Council and all of its respective officials, officers, directors, employees, managers, commission members, representatives, agents and council members shall be named as additional insured's under each policy.

9.7 Design-Build Entity's Failure to Provide Required Insurance. Failure to maintain required insurance at all times shall constitute a default and material breach. In such event, Design-Build Entity shall immediately notify City and cease all performance under this Contract until further directed by the City. In the absence of satisfactory insurance coverage, City may, at its discretion and sole option: (a) procure insurance with collection rights for premiums, attorneys' fees and costs against Design-Build Entity by way of set-off or recoupment from sums due Design-Build Entity; (b) immediately terminate or suspend Design-Build Entity's performance of the Contract; (c) pay Design-Build Entity's premiums for renewal of Design-Build Entity coverage; or (d) self-insure the risk, with all damages and costs incurred, by judgment, settlement or otherwise, including attorneys' fees and costs, being collectible from Design-Build Entity, by way of set-off or recoupment from any sums due Design-Build Entity. Upon demand, Design-Build Entity shall repay City for all sums that City paid to obtain, renew, reinstate or replace the insurance, or City may offset the cost against any monies that the City may owe Design-Build Entity.

9.8 Verification of Coverage. City shall have the right to obtain complete and certified copies of Design-Build Entity's and Subcontractors' insurance policies (including, but not limited to, the declarations page, form list and riders), endorsements or certificates required under the Design-Build Entity Documents, upon request (including, but not limited to, the declarations page, form list and riders).

9.9 Reassessment of Insurance Requirements. At any time during the duration of this Contract, the City may require that Design-Build Entity obtain, pay for, and maintain more or less insurance depending on the City's assessment of any one or more of the following factors: (1) the City's risk of liability or exposure arising out of, or in any way connected with, Design-Build Entity's services under this Contract; (2) the nature or number of accidents, claims, or lawsuits arising out of, or in any way connected with, Design-Build Entity's services under this Contract; or (3) the availability, or affordability, or both, of increased liability insurance coverage.

9.10 Design-Build Entity's Insurance for Other Losses. The Design-Build Entity and its Subcontractors of every tier shall assume full responsibility for all loss or damage from any cause whatsoever to any tools, Design-Build Entity's (or Subcontractors') employee owned tools, machinery, equipment, or motor vehicles owned or rented by the Design-Build Entity, or the Design-Build Entity's agents, suppliers or Subcontractors as well as to any temporary structures, scaffolding and protective fences.

9.11 **No Limitation.** Design-Build Entity's maintenance of insurance as required by the Contract Documents shall not be construed to limit the liability of the Design-Build Entity's or its Subcontractors of any tier to the coverage provided by such insurance, or otherwise limit the City's recourse to any remedy available at law or in equity.

9.12 **Subcontractors' Insurance.** The Design-Build Entity's shall include in all subcontracts a requirement that the Subcontractors of every tier shall obtain and maintain, at a minimum, all insurance required by Articles 9 and 10 of this Agreement except that the limits of liability and deductibles shall be in amounts determined by the Design-Build Entity, based on the degree of hazardous exposure according to the Work performed by each Subcontractor and the size of each subcontract.

Design-Build Entity's shall ensure that any professional engineer retained on its behalf to provide supplemental plans and engineering calculations required in conjunction with the Work, maintains professional liability insurance during the entire term of this Agreement. Such insurance shall be in the minimum amount of \$1,000,000 to protect City from claims resulting from the engineer(s) activities. This minimum amount of coverage shall not constitute any limitation or cap on Design-Build Entity's indemnification obligations set forth herein.

The City reserves the right to request certificates of insurance from the Design-Build Entity for each Subcontractor. The Design-Build Entity acknowledges that regardless of insurance obtained by its Subcontractors, the Design-Build Entity will be responsible to the City for any and all acts of its Subcontractors.

ARTICLE 10 - INDEMNITY/DUTY TO DEFEND

10.1 **Indemnity.** Except as to the sole negligence, active negligence or willful misconduct of the City, Design-Build Entity assumes liability for and agrees, at Design-Build Entity's sole cost and expense, to promptly and fully indemnify and hold the City, its City Council, and all of its respective officials, officers, directors, employees, managers, commission members, representatives, agents, council members, ("Indemnitees"), harmless from and against any and all loss, damage, claims, allegations, actions, suits, arbitrations, administrative proceedings, regulatory proceedings, or other legal proceedings, causes of action, demands, costs, judgments, liens, stop notices, penalties, damages, losses, anticipated losses of revenue, expenses (including, but not limited to, any fees of accountants, attorneys, experts or other professionals, or investigation expenses), costs, including attorneys' fees, or losses of any kind or nature whatsoever, whether actual, threatened or alleged, arising out of, resulting from or is in any way (either directly or indirectly) related to, or is in any manner connected with, the performance of Work, the Project, activities, operations or duties of Design-Build Entity, or anyone employed by or working under Design-Build Entity, and from all claims by anyone employed by or working under Design-Build Entity for services rendered to Design-Build Entity in the performance of this Agreement ("Indemnity Claims"), notwithstanding that the City may have benefited from their services. This indemnification provision shall apply to any acts or omissions, willful misconduct or negligent conduct, whether active or passive, on the part of Design-Build Entity or of anyone employed by or working under Design-Build Entity.

The parties expressly agree that any payment, attorneys' fees, costs or expense that the City incurs or makes to or on behalf of an injured employee under the City's self-administered workers' compensation is included as a loss, expense or cost for the purposes of this Section, and that this Section shall survive the expiration or early termination of the Agreement.

10.2 Duty to Defend. Design-Build Entity agrees, at its sole cost and expense, to promptly defend the Indemnitees from all Indemnity Claims. The duty of the Design-Build Entity to indemnify and hold harmless the Indemnitees includes the separate and independent duty to defend the Indemnitees, which duty arises immediately upon receipt by Design-Build Entity of the tender of any Indemnity Claim from an Indemnatee. The Design-Build Entity's obligation to defend the Indemnitees shall be at Design-Build Entity's sole expense, and not be excused because of Design-Build Entity's inability to evaluate liability or because the Design-Build Entity evaluates liability and determines that the Design-Build Entity is not liable. This duty to defend shall apply whether or not an Indemnity Claim has merit or is meritless, or which involves claims or allegations that any or all of the Indemnitees were actively, passively or concurrently negligent, or which otherwise assert that the Indemnitees are responsible, in whole or in part, for any Indemnity Claim. Design-Build Entity agrees to provide this defense immediately upon written notice from the City, and with well qualified, adequately insured and experienced legal counsel acceptable to the City. Design-Build Entity will reimburse City for reasonable defense costs for claims arising out of Design-Build Entity's professional negligence based on the percentage of Design-Build's liability.

10.3 Subcontractor Requirements. In addition to the requirements set forth hereinabove, Design-Build Entity shall ensure, by written subcontract agreement, that each of Design-Build Entity's Subcontractors of every tier shall protect, defend, indemnify and hold harmless the Indemnitees with respect to Indemnity Claims arising out of, in connection with, or in any way related to each such Subcontractors' Work on the Project in the same manner in which Design-Build Entity is required to protect, defend, indemnify and hold the Indemnitees harmless. In the event Design-Build Entity fails to obtain such defense and indemnity obligations from others as required herein, Design-Build Entity agrees to be fully responsible to the Indemnitees according to the terms of this Article.

10.4 No Limitation or Waiver of Rights. Design-Build Entity's obligations under this Article are in addition to any other rights or remedies which the Indemnitees may have under the law or under the Contract Documents. Design-Build Entity's indemnification and defense obligations set forth in this Article are separate and independent from the insurance provisions set forth in the Agreement and do not limit, in any way, the applicability, scope, or obligations set forth in such insurance provisions. The purchase of insurance by the Design-Build Entity with respect to the obligations required herein shall in no event be construed as fulfillment or discharge of such obligations. In any and all claims against the Indemnitees by any employee of the Design-Build Entity, any Subcontractor, any supplier of the Design-Build Entity or Subcontractors, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the obligations under this Article shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Design-Build Entity or any Subcontractor or any supplier of either of them, under workers' or

workmen's compensation acts, disability benefit acts or other employee benefit acts. Failure of the City to monitor compliance with these requirements imposes no additional obligations on the City and will in no way act as a waiver of any rights hereunder.

10.5 Withholding to Secure Obligations. In the event an Indemnity Claim arises prior to final payment to Design-Build Entity, the City may, in its sole discretion, reserve, retain or apply any monies due Design-Build Entity for the purpose of resolving such Indemnity Claims; provided, however, the City may release such funds if the Design-Build Entity provides the City with reasonable assurances of protection of the Indemnitees' interests. The City shall, in its sole discretion, determine whether such assurances are reasonable.

10.6 Survival of Indemnity Obligations. Design-Build Entity's obligations under this Article are binding on Design-Build Entity's and its Subcontractors' successors, heirs and assigns and shall survive the completion of the Work or termination of the Design-Build Entity's performance of the Work.

10.7 Independent Contractor. Design-Build Entity shall at all times during its performance of the Work retain its status as an independent contractor. Design-Build Entity's employees and agents shall under no circumstances be considered or held to be employees or agents of City and City shall have no obligation to pay or withhold state or federal taxes or provide workers' compensation or unemployment insurance for or on behalf of Design-Build Entity or its employees and agents.

ARTICLE 11 – PREVAILING WAGES

11.1 Public Work Project.

This Project is a public work as defined in California Labor Code Section 1720. Design-Build Entity and all Subcontractors of any tier are required to pay all workers employed in the execution of the Work not less than the general prevailing wage rates of per diem wages and overtime and holiday wages determined by the Director of the Department of Industrial Relations ("DIR") under Section 1720 et seq. of the California Labor Code and implemented by Resolution No. 13346 of the City Council of the City of Riverside. The Director's determination of prevailing rates is available on-line at www.dir.ca.gov/dlsr/DPreWageDetermination.htm and is referred to and made a part hereof; the wage rates therein ascertained, determined and specified are referred to and made a part hereof as though fully set forth herein. Per Senate Bill 854 (2014), Design-Build Entity and subcontractors shall register with the Department of Industrial Relations (DIR) in order to bid and perform public works projects. Design-Build Entity and subcontractors on all public works projects shall submit electronic certified payrolls to the Labor Commissioner and City unless excused from this requirement.

11.2 California Labor Code. Design-Build Entity is aware of and stipulates that Design-Build Entity will also comply with the following sections of the California Labor Code:

- a. Section 1775 prescribing sanctions for failure to pay prevailing wage rates;

- b. Section 1776 requiring the making, keeping and disclosing of detailed payroll records and prescribing sanctions for failure to do so;
- c. Section 1777.5 prescribing the terms and conditions for employing registered apprentices;
- d. Section 1810 providing that eight hours of labor shall be a day's work; and
- e. Section 1813 prescribing sanctions for violations of the provisions concerning eight-hour work days and forty-hour work weeks.
- f. Sections 1725.5 and 1771.1 requiring all general contractors and subcontractors to be registered with DIR. Registration can be accomplished through the DIR website by using this link: <http://www.dir.ca.gov/PublicWorks/PublicWorks.html>.

ARTICLE 12 – MISCELLANEOUS

12.1 Non-Discrimination. Except as provided in Section 12940 of the California Government Code, during Design-Build Entity's performance of the Agreement, Design-Build Entity shall not discriminate on the grounds of race, religious creed, color, national origin, ancestry, age, physical handicap, medical condition including the medical condition of Acquired Immune Deficiency Syndrome (AIDS) or any condition related thereto, marital status, sex or sexual orientation, genetic information, gender, gender identity, or gender expression, in the selection and retention of employees and subcontractors and the procurement of materials and equipment. Contractor shall also comply with the requirements of the Americans with Disabilities Act in the performance of the Agreement.

12.2 Notice. Whenever any provision of the Contract Documents requires the giving of written notice, including notices, bills, invoices or other documents required or permitted under this Agreement, service shall be sufficient if sent by one party to the other by overnight courier, or by registered, certified or United States first class mail, postage prepaid and addressed as follows:

City

City of Riverside
Attn: Public Works Director
3900 Main Street
Riverside, CA 92522

Design-Build Entity

CDM Smtih, Inc.
Attn: David Jensen
600 Wilshire Bld., Suite 750
Los Angeles, CA 90017

12.3 City's Right to Access and Audit Design-Build Entity's Project Documents.

12.3.1 If the Design-Build Entity submits a claim to the City for additional compensation, the City shall have the right, as a condition to considering the claim, and as a basis for evaluation of the claim, and until the claim has been settled, to audit the Design-Build Entity's books to the extent they are relevant. This right shall include the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to discover and verify all direct and indirect costs of whatever nature claimed to have been incurred or anticipated to be incurred and for which the claim has been submitted.

The right to audit shall include the right to inspect the Design-Build Entity's plant, or such parts thereof, as may be or have been engaged in the performance of the Work. The Design-Build Entity further agrees that the right to audit encompasses all subcontracts and is binding upon Subcontractors. The rights to examine and inspect herein provided for shall be exercisable through such representatives as the City deems desirable during the Design-Build Entity's normal business hours at the office of the Design-Build Entity. The Design-Build Entity shall make available to the City for auditing, all relevant accounting records and documents, and other financial data, and upon request, shall submit true copies of requested records to the City.

12.3.2 The City and/or its authorized auditors or representatives, shall have access to and the right to examine, audit, excerpt, transcribe, and reproduce any of the Design-Build Entity's records for a period of at least three (3) years after termination of the Design-Build Entity and/or Final Payment. Such records include without limitation, journals, ledgers, records of accounts payable and receivable, profit and loss statements, bank statements, invoices, receipts, subcontracts, agreements, notes, correspondence, memoranda, and any documents generated and received in Design-Build Entity's performance of this Contract. Upon written notice by the City, Design-Build Entity shall promptly make all such records available to Owner and/or its authorized auditors or representatives and cooperate with the Owner and its authorized auditors or representatives in examining, auditing, excerpting, transcribing and reproducing the records.

12.4 **Venue.** Any action at law or in equity brought by either of the parties hereto for the purpose of enforcing a right or rights provided for by this Agreement shall be tried in a court of competent jurisdiction in the County of Riverside, State of California, and the parties hereby waive all provisions of law providing for a change of venue in such proceedings to any other county.

12.5 **No Estoppel or Waiver by City.** No action or failure to act by the City shall constitute a waiver of any right or duty afforded City under this Agreement, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically provided in this Agreement or as may be otherwise agreed in writing. The waiver by the City of any breach or violation of any term, covenant or condition of this Agreement or of any provision, ordinance, or law shall not be deemed to be a waiver of any other term, covenant, condition, ordinance, or law or of any subsequent breach or violation of the same or of any other term, covenant, condition, ordinance, or law. The subsequent payment of any monies or fee by the City which may become due hereunder shall not be deemed to be a waiver of any preceding breach or violation by Design-Build Entity or any term, covenant, condition of this Agreement or of any applicable law or ordinance.

12.6 **Signature Authority.** The individuals executing this Agreement and the instruments referenced herein on behalf of Design-Build Entity each represent and warrant that they have the legal power, right and actual authority to bind Design-Build Entity to the terms and conditions hereof and thereof.

12.7 **Severability.** Each provision, term, condition, covenant and/or restriction, in whole and in part, in this Agreement shall be considered severable. In the event any provision, term, condition, covenant and/or restriction, in whole and/or in part, in this Agreement is declared invalid, unconstitutional, or void for any reason, such provision or part thereof shall be severed from this Agreement and shall not affect any other provision, term, condition, covenant and/or restriction of this Agreement and the remainder of the Agreement shall continue in full force and effect.

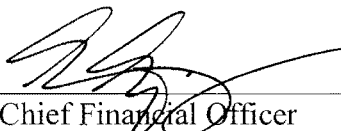
IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed on the day and year first above written.

CITY OF RIVERSIDE, a California and
municipal corporation

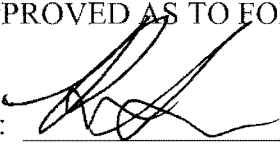
By: _____
City Manager

Attest: _____
City Clerk

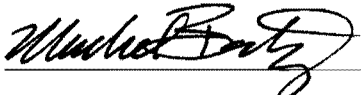
Certified as to Availability of Funds:

By:  _____
Chief Financial Officer

APPROVED AS TO FORM:

By:  _____
Ruthann M. Salera
Deputy City Attorney

**CDM CONSTRUCTORS INC., a
Massachusetts corporation authorized to do
business in California**

By:  _____
Michael Bantz, Vice President
[Printed Name and Title]

By: _____
[Printed Name and Title]

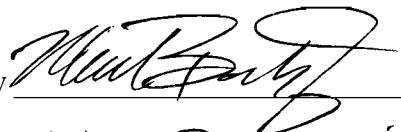
Exhibit "B"

WORKERS' COMPENSATION CERTIFICATION

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.

DATED: 2/28/2019

CDM CONSTRUCTORS INC.

By 
Michael Bantz, Vice President
Printed Name and Title

CERTIFICATE

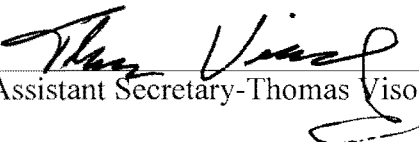
STATE OF Massachusetts)
) SS:
COUNTY OF Suffolk)

I, HEREBY, CERTIFY that during a meeting of the Board of Directors of CDM Constructors Inc., a corporation existing under the laws of the State of Massachusetts, held on February 26, 2019, the following resolution was duly passed and adopted:

“RESOLVED that Michael Bantz, as Vice President of the Corporation, be and is hereby authorized to execute the Agreement for Expansion Follow Up Design-Build Services for the Riverside Water Quality Control Plant between the City of Riverside and this corporation and that his execution thereof and with the Corporate Seal affixed, shall be the official act and deed of this Corporation.”

I further certify that said resolution is now in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the corporation this 26th day of February 2019.


Assistant Secretary-Thomas Visosky

(SEAL)

EXHIBIT "A"
SCOPE OF SERVICES
AS REFERED IN THE
DESIGN-BUILD AGREEMENT

**Riverside Water Quality Control Plant
Follow Up Design-Build Services
October 31, 2018**

Introduction

The Phase 1 project consisted of design and construction of plant upgrades required for the expansion of plant capacity, primarily related to Plant 1 improvements. Phase 1 upgrades increased RWQCP capacity from 40 MGD to 46 MGD. The Plant No. 1 liquid process improvements included: new primary clarifiers; primary equalization basins serving both Plant No. 1 and 2; an additional aeration basin; membrane biological reactors (MBR) and associated facilities; and expansion of chlorine contact tank No. 2. The proposed sludge treatment processes included: new anaerobic digesters; a digester gas holder; wasted activated sludge (WAS) disintegration process (deleted from the project during construction); and co-digestion grease receiving and processing facility. In addition, odor control and biofilter treatment facilities to replace the Headworks biofilter and for the Plant No. 1 and 2 primary clarifiers.

CDM Smith, in association with several subconsultants, performed the design of the Phase 1 project, as well as the engineering services during construction. Construction of the expansion was performed by PCL and their work was completed in July 2017. At the completion of the construction phase, there were several outstanding issues, and additional improvements, the City wanted to address. As CDM Smith was involved in the evaluation of several of these issues, the City requested CDM Smith assist in addressing the outstanding issues and installation of the desired improvements. The scope of work for these items are described below and shown in the attached site plan.

Scope of Work

1. MBR Concrete Divider Walls and Gate removal. This work element includes the construction of two concrete divider walls for the influent channels for Trains 1 and 2 at column rows C and E between column rows 8 and 9. It is our understanding that the divider walls at column rows G and J were constructed by PCL as part of the previous construction work. The new walls divider walls will match those already constructed.

This element also includes removal of four (4) gates on Column Row 9 between the Influent Channel and the Feed Channel on Trains 1 and 2 (SLG-401-3 and 4; SLG-402-3 and 4): two (2) gates are between Columns B and C; and two (2) gates are between column row C and D. The gates will be removed, and the openings will be filled with grout. It is assumed that all required flow diversions and channel dewatering will be achieved by plant operations staff.

2. MBR Fine Screen Building Roof/Ventilation Rehabilitation: This work element includes adding architectural roofs at selected buildings and installation of new packaged odor control system as described below.

A. Architectural Roofs: architectural roofs will be added on top of the existing structural roofs at Buildings 104 (Fine Screen Facility), 107 (MBR), and 111 (Chemical Storage and Feed). To allow for improved rainwater drainage, the roof's upper deck will be oriented with ribs parallel to the slope of the roof. The roofing details include:

- A self-adhering rubberized, polymer or synthetic underlayment. This type of underlayment does not require mechanical fasteners and are more resistant to UV and heat degradation,
- An upper layer of roof deck on the structural deck by fastening a roof panel directly on the structural deck, using self-tapping screws,
- Flashing around the existing openings on the roof for Buildings 104 and addition of tie-off points for personnel when removing the covers
- For Building 104, replace the existing corroded structural roof in addition to the new upper deck layer.

B. Packaged Odor Control Facility: a new package odor control facility will be installed for the Fine Screen Facility. A new odor control duct will be connected to the existing upstream and downstream channels at the facility. The proposed odor control unit is sized for 6 air changes in the channels. The duct work will be routed below grade and across the street just to the west of the facility to a new odor control scrubber consisting of one blower, one bio-scrubber sized for 750 cfm, and ancillary electrical equipment. The package will have local control system and a spare 20 amp 3 pole breaker in MBD-PDP-003 will be used to feed the new odor control system.

It was noted during the site visit that there is some corrosion on the Huber fine screens. We are assuming that the City will work with Huber on rehabilitation of the fine screens.

3. Heat Loop Expansion Tank: a new, 396-gallon expansion tank will be installed in Building 301 to replace the existing 211-gallon expansion tank. The existing tank will be removed and disposed of. The new tank will be a TACO Model CA800-125 and will be place in the same location as the existing one. A new pad will not be required or installed. The new tank will be connected to the piping that is already in place for the existing tank. In addition, no controls are required, and none will be installed, for the operation of the new tank and that the existing piping for the existing tank will be reconnected to the new tank. During installation, the outage of the hot water system will be coordinated with plant staff. When bringing the hot water system back on line, water will need to be bled from the system while it is raised from ambient temperature up to system operating temperature. This work will also be coordinated with plant staff.

4. Biogas System Improvements: this work element consists of four items: installation of a new system to remove humidity from the boiler feed gas, adding an oil separator, add a pressure booster upstream of the flare, and an analysis and rebalancing of the gas pressure set points. Each of these items is described in more detail below.

A. Humidity Removal: a new system to remove the humidity from the boiler digester feed gas (biogas) will be installed at the Digester Control Building, Area 301. The new system will direct the biogas to a new heat exchanger and a new chiller to reduce the temperature to 80 °F and the relative humidity to 24%. Power to the new heat exchanger and chiller will be provided from the existing MCC-DCB. During the installation, we will work with plant staff regarding the tie-ins required.

B. Oil Separator: Plant staff have noticed oil carryover to the boiler. Additionally, the existing oil separator is collecting more oil than was anticipated and a bucket has been placed at the separator to capture the oil. This project will replace the existing bucket with a new additional oil separator with tank at the chiller connection to collect additional oil out of the digester feed gas.

C. Gas Pressure Booster at Flare: Additional pressure is needed to allow the flares to operate at full capacity. A pressure booster will be added upstream of the flare to increase the pressure to 13 in wc from approximately 10 in wc. The gas booster will be located adjacent to the flare. Power and signal will be installed in existing conduit to the electrical room at Digesters 3 and 4. The design criteria for the booster skid is as follows:

- 1 duty + 1 standby
- 1500 scfm
- 95F inlet temperature
- Inlet pressure of 10" wc
- Discharge of 14" wc
- Coalescing filter on the discharge side
- pressure relief bypass valve on the discharge side
- Vacuum pressure cut out on suction side
- Welded 316 stainless steel piping

D. Gas Set Point Analysis: an additional study will be performed to analyse the operational performance of the biogas vent and flare systems associated with the digesters and to make recommendations for new gas pressure setpoints at gas flare and gas vent valves at the digesters. This analysis will include the collection of operational data history for venting pressures at the digester gas vents to the carbon canisters and gas vents to the atmosphere, review of plant operational data and flare setting requirements, and discussions with plant staff regarding operational performance. Based on this review, a Technical Memorandum (TM) will be prepared to document the analyses performed and to provide recommendations for new gas pressure set point for the flares. A draft TM will be provided to the City for review, City comments will be incorporated into the TM, and a final TM will be provided.

5. Outfall line SBS Injection: this work element includes the installation of a new concrete pad and associated SBS tank. The new pad will be located at Junction Box 17. A new double wall 9,100-gallon SBS tank will be provided by the City for installation by CDM Smith. The new SBS injection point will be located inside Junction Box 17 above the highwater level. Shop drawing information for weight of the tank as well as anchorage and lifting points will be provided by the City.

6. Gas Storage Dome Modification: this work element consists of removing the existing 4" stub vent and replacing it with two (2) 4" SS gas vent pipes that place the discharge point at 12' above grade. Each new vent will be furnished complete with a gooseneck and bird screen. In addition, appropriate pipe supports will be provided.

7. Odor Control Duct Supports: Provide duct supports for odor control duct connections at primary clarifiers. A total of eight (8) supports as shown in details G and E of 000-S-016, called out on 006-H-003, detail 1. Supports are noted to be galvanized steel with stainless steel bolts, bolted to the side of the clarifiers, as shown in the contract details.

8. MBR Influent Channel Air Connection and Diffusers: Provide air connection and diffusers for MBR influent channel. The existing air piping connection that was disconnected during construction will be reconnected and the header that was removed will be replaced. Diffusers below the water surface will

be PVC, air piping added above the water surface will be stainless steel. The existing header supports are still in place and will be reused. Existing controls will be used.

9. MBR Influent Channel Water Connection and Spray Nozzles: Provide plant water connection for existing spray nozzles in MBR influent channel. The plant water connection to the south of the MBR will be used. Potholing will be performed to find the location and will be confirmed with plant staff.

10. SCADA Updates: This proposal does not include the design and implementation of any SCADA updates associated with the defined scope of work. In discussions with the City, it was agreed that the City would evaluate its anticipated SCADA needs and these would be incorporated by a mutually agreeable change order.

Schedule

The following is our understanding of the City's priorities for completing this scope of work:

- Gas Booster Skid
- Biogas System Improvements
- Gas Storage Dome Modifications
- Outfall Line SBS Injection
- Ventilation/Odor Control System
- MBR Fine Screen Building Roof/Ventilation Rehabilitation
- MBR Concrete Divider Walls
- MBR Gates Demolition
- MBR Influent Channel Diffusers
- Connection of Existing Spray Nozzles
- Heat Loop Expansion Tank
- Odor Control Duct Supports

CDM Smith will work with the City to complete the work in a timely manner while minimizing disruptions to existing operations. Prior to initiating the work, a more detailed project schedule will be developed in consultation with City staff. It is anticipated that the work will be completed in six to nine months from receipt of an NTP from the City.

Cost

CDM Smith will complete this scope of work using the design-build delivery method for a lump sum fee of \$3,648,460. As agreed with the City, CDM Smith will provide these services at a discounted price from its standard bid amount. The following table provides the base bid amount and the subsequent discounts negotiated with the City. As indicated in the table, the discount provided to the City is \$349,787, which is an 8.7% reduction. This discount reflects: a 60/40 split of the engineering costs; a 2.5% reduction in overhead and profit; and a \$81,942 reduction in general conditions. A more detail breakdown of project costs is provided with this scope of work.

**Riverside Water Quality Control Plant
Follow Up Design-Build Services Budget Summary**

Cost Element	Base Bid
Direct Costs	\$ 1,960,032
Engineering	\$ 375,000
General Conditions	\$ 525,833
Permits, Taxes, Ins, Bond	\$ 229,341
OH & Profit	\$ 618,041
Contingency	\$ 290,000
Total	\$ 3,998,247

Cost Savings

Engineering	\$ 150,000
General Conditions	\$ 10,600
Permits, Taxes, Ins, Bond	\$ 71,342
OH & Profit	\$ 117,845
Total Savings	\$ 349,787

Actual Fee	\$ 3,648,460
Percent Reduction	8.7%

Opinion of Probable Construction Cost, May 2018, Concept Design

Project name	Additional Scope Riverside CA
Client	City of Riverside
Estimator	NC
Labor rate table	CA18 29 Palms \$5 Sub
Equipment rate table	00 18 EquipRate BOF
Bid date	10/31/2018
Project Estimate Type	Additional Scope OPCC
Design Level	Conceptual
CDM Smith DB Ver.	V8
ENR 20 City CCI:	Dec 2017 10,870.06
Notes	<p>There are not any costs provided for: Change Orders, Client Costs, Finance or Funding Costs, Legal Fees, Land Acquisition or temporary/permanent Easements, Operations, or any other costs associated with this project that are not specifically part of the proposed scope.</p> <p>This OPCC shall remain valid for 120 days. Beyond this date, CDM Constructors should be notified of design changes. The estimate will also be reviewed to reflect current market conditions.</p> <p>Assumptions: No rock excavation is required. Only nominal dewatering is needed. No consideration for contaminated soils or hazardous materials is included (i.e. asbestos, lead, etc). Based on a normal 40 hour work week with no overtime. Escalation Cost are excluded All work areas are accessible to construction equipment. Client will provide temporary power and water for construction purposes. Client will provide parking for construction personnel. Client will provide washout area on-site for concrete trucks. Construction trailers, storage units, equipment and dumpsters shall be located inside RRWQCP facility. CDM Smith not responsible for existing spray nozzles that do not function. Structural steel beams and columns do not need cleaning or repainting.</p>
Report format	Sorted by 'Area/95CSI Sctn/Element' 'Detail' summary Allocate addons

Spreadsheet Level	Takeoff Quantity	Labor Man Hrs	Labor Amount	Material Amount	Sub Amount	Equip Amount	Other Amount	Total Amount
05 MBR Concrete Divider Wall - 2 Loc. GL-G and GL-J								
03112 Form Concrete Walls								
03112.05.10 Form Concrete Wall	260.00 sf	84.532	8,453	1,904		36		8,393
03112 Form Concrete Walls	260.00 sf	84.532	8,453	1,904		36		8,393
03210 Reinforcing Steel								
03210.05.10 Wall Rebars	0.72 tn	93.991	8,095	1,519		27		9,642
03210 Reinforcing Steel	0.72 tn	93.991	8,095	1,519		27		9,642
03310 Cast-in-Place Concrete								
03310.05.10 Cast-in-Place Concrete	4.82 cy	33.314	2,474	36				2,511
03310 Cast-in-Place Concrete	4.82 cy	33.314	2,474	36				2,511
03320 Redi-Mixed Concrete								
03320.05.10 Redi-Mixed Concrete	4.82 cy			809	14	963		1,786
03320 Redi-Mixed Concrete	4.82 cy			809	14	963		1,786
05 MBR Concrete Divider Wall - 2 Loc. GL-G and GL-J	2.00 loc	211.837	17,023	4,269	14	1,026		22,332
10 Demo Gates								
02220 Demolition								
02220.10.10 Demo/Removed Gates and Dispose Off-Site	4.00 ea	41.000	3,558		155	2,715		6,428
02220 Demolition	4.00 ea	41.000	3,558		155	2,715		6,428
03112 Form Concrete Walls								
03112.0400 Infill openings at removed gates	4.00 ea	64.218	5,262	1,446	505	15	13	7,241
03112 Form Concrete Walls	72.00 sf	64.218	5,262	1,446	505	15	13	7,241
10 Demo Gates	4.00 ea	105.218	8,820	1,446	660	2,730	13	13,669
15 New Metal Roof								
02220 Demolition								
02220.1510 Demo and Dispose Existing Metal Deck for MBR Fine Screen Facility	5,400.00 sf				16,652			16,652
02220 Demolition	1.00 ea				16,652			16,652
05300 Steel Deck								
05300.1510 New Metal Roof Deck for MBR Fine Screen Facility	5,400.00 sf	28.000	2,340		39,560	947		42,847
05300 Steel Deck		28.000	2,340		39,560	947		42,847
07410 Metal Roof Panel (Sub: RB Sheet Metal Inc.)								
07410.15.10 Citric Acid Feed and Bulk Storage Area	1,160.00 sf				14,034			14,034
07410.15.20 MBR Fine Screen Facility	5,400.00 sf				65,329			65,329
07410.15.30 MBR Facility	24,195.00 sf				292,711			292,711
07410 Metal Roof Panel (Sub: RB Sheet Metal Inc.)	30,755.00 sf				372,074			372,074
15 New Metal Roof	##### sf	28.000	2,340		428,286	947		431,573
20 Ventilation/Odor Control System - BioDan-750SM								
02220 Demolition								
02200.0400 Demo Asphalt	1.00 ls	20.667	1,776	155	773	1,273		3,977
02220 Demolition	1.00 ea	20.667	1,776	155	773	1,273		3,977
02300 Earthwork								
02300.20.10 Pipe Trench - for FRP Pipe and Water Line	30.00 lf	15.390	1,338	57		795		2,190
02300.20.20 Pipe Trench - for Drain Line	100.00 lf	28.349	2,422	893	117	1,036		4,469
02300 Earthwork	1.00 ls	43.739	3,761	951	117	1,831		6,659
02740 Asphalt Paving								
02740.0400 Patch Asphalt - for FRP Pipe and Water Line	1.00 ls	90.504	7,500	1,950	2,650	3,928		16,028
02740 Asphalt Paving	1.00 ls	90.504	7,500	1,950	2,650	3,928		16,028
03310 Cast-in-Place Concrete								
03310.20.10 Concrete Encasement	28.01 cy	198.924	15,719	10,192		563		26,474

Spreadsheet Level	Takeoff Quantity	Labor Man Hrs	Labor Amount	Material Amount	Sub Amount	Equip Amount	Other Amount	Total Amount
03310.20.20 Equipment Pad	6.25 cy	54.804	4,303	2,669		69		7,040
03310 Cast-in-Place Concrete	20.26 cy	253.728	20,022	12,861		632		33,515
15241 PVC Pipe & Fittings								
15241.20.10 Service Water Line	50.00 lf	9.690	860	635		27		1,522
15241.20.20 Drain Line	100.00 lf	18.390	1,654	1,790		27		3,471
15241 PVC Pipe & Fittings	5.00	28.080	2,514	2,425		53		4,993
15248 FRP Pipe								
15248.20.10 FRP Pipes, 14", 10", 8" dia.	83.00 lf	229.209	20,872	12,071		187		33,130
15248 FRP Pipe	83.00 lf	229.209	20,872	12,071		187		33,130
15900 Ventilation/Odor Control System								
15900.20.10 BioDan-750SM Odor Control System	1.00 ea	146.000	12,167	175,000		853	900	188,920
15900 Ventilation/Odor Control System	1.00 ea	146.000	12,167	175,000		853	900	188,920
16000 Electrical Allowance/Miscellaneous								
16000.20.10 Electrical Allowance (per Mark Martinez)	1.00 ls				18,340			18,340
16000 Electrical Allowance/Miscellaneous	1.00				18,340			18,340
20 Ventilation/Odor Control System - BioDan-750SM	1.00 ea	811.927	68,611	205,413	21,881	8,757	900	305,561
25 Heat Loop Expansion Tank - TACO CA1500-125								
02220 Demolition								
02220.25.10 Demo / Disposal of Existing Expansion Tank	1.00 ea	11.000	989		27	91		1,107
02220 Demolition	1.00 ea	11.000	989		27	91		1,107
15220 Steel Pipe								
15220.25.10 Pipe Connection	1.00 lot	14.400	1,163	77		53	0	1,294
15220 Steel Pipe	1.00 lot	14.400	1,163	77		53	0	1,294
15400 New 1320 Gal. Expansion Tank								
15400.25.10 New 396 Gal. Expansion Tank	1.00 ea	10.000	731	7,893		427		9,050
15400 New 1320 Gal. Expansion Tank	1.00 ea	10.000	731	7,893		427		9,050
25 Heat Loop Expansion Tank - TACO CA1500-125	1.00 ea	35.400	2,882	7,970	27	571	0	11,451
30 Biogas System								
03310 Cast-in-Place Concrete								
03310.30.10 Equipment Concrete Pad	3.56 cy	38.790	3,031	1,519		58		4,608
03310 Cast-in-Place Concrete	3.56 cy	38.790	3,031	1,519		58		4,608
15500 HVAC								
15500.30.10 Heat Exchanger with Chiller Package (Sub: McKenna/EWS)	1.00 ls				185,380			185,380
15500 HVAC	1.00 ls				185,380			185,380
16000 Electrical Allowance/Miscellaneous								
16000.30.10 Electrical Allowance (per Ty Keith)	1.00 ls				18,036			18,036
16000 Electrical Allowance/Miscellaneous	1.00				18,036			18,036
30 Biogas System	1.00 ls	38.790	3,031	1,519	203,416	58		208,025
35 Outfall Line SBS Injection - Concrete Pad								
02300 Earthwork								
02300.0400 Excavate for Concrete Pad	1.00 ls	15.583	1,343			1,125		2,468
02300 Earthwork	1.00 ls	15.583	1,343			1,125		2,468
03310 Cast-in-Place Concrete								
03310.3515 Concrete Slab on Grade (25' x 20' x 12" thick)	18.52 cy	108.740	8,660	6,944		77		15,681
03310.3520 Equipment Pad (Hexagonal Shape x 12" thick)	5.41 cy	43.364	3,410	2,361		70		5,842
03310 Cast-in-Place Concrete	29.63 cy	152.104	12,070	9,306		147		21,523
13200 Tanks								
13200.3510 Transfer / Install Double Wall 9100 gal. SBS Tank	1.00 ea	24.429	2,225	25,395		330	40	27,990

Spreadsheet Level	Takeoff Quantity	Labor Man. Hrs	Labor Amount	Material Amount	Sub Amount	Equip Amount	Other Amount	Total Amount
13200 Tanks		24.429	2,225	25,395		330	40	27,990
15241 PVC Pipe & Fittings								
15241.3510 PVC Pipes and Fittings	24.00 lf	27.142	2,405	1,136	250	80	10	3,881
15241 PVC Pipe & Fittings		27.142	2,405	1,136	250	80	10	3,881
35 Outfall Line SBS Injection - Concrete Pad	1.00 ea	219.257	18,044	35,837	250	1,682	50	55,862
40 Gas Storage Dome - Vent Pipe and Drain Line								
15221 Stainless Steel Pipe								
15221.40.10 Stainless Steel Vent Pipe and Drain Line	1.00 lot	48.376	4,352	7,554		53		11,959
15221 Stainless Steel Pipe	1.00 lot	48.376	4,352	7,554		53		11,959
40 Gas Storage Dome - Vent Pipe and Drain Line	2.00 ea	48.376	4,352	7,554		53		11,959
45 Duct Supports for Odor Control Duct Connections								
05120 Structural Steel								
05120.4510 HSS Duct Supports	8.00 ea	160.311	13,353	28,937		2,242		44,532
05120 Structural Steel		160.311	13,353	28,937		2,242		44,532
45 Duct Supports for Odor Control Duct Connections	8.00 ea	160.311	13,353	28,937		2,242		44,532
50 Diffusers for MBR Influent Channel								
11375 Aeration Equipment								
11375.5010 Diffusers for MBR Influent Channel	1.00 ls	334.600	31,018	71,355		4,950		107,323
11375 Aeration Equipment		334.600	31,018	71,355		4,950		107,323
50 Diffusers for MBR Influent Channel	1.00 ls	334.600	31,018	71,355		4,950		107,323
55 Connection of Existing Spray Nozzles								
15120 Pipe Specialties								
15120.5510 Connection of Existing Spray Nozzles	1.00 ls	88.330	8,061	5,765		5		13,831
15120 Pipe Specialties		88.330	8,061	5,765		5		13,831
55 Connection of Existing Spray Nozzles	1.00 ls	88.330	8,061	5,765		5		13,831
60 Gas Booster Skid								
11000 Equipment								
11000.0400 Gas Booster Skid	1.00 ls				646,400		56,516	702,916
11000 Equipment					646,400		56,516	702,916
16000 Electrical Allowance/Miscellaneous								
16000.30.10 Electrical Allowance (per Ty Keith)	1.00 ls				31,000			31,000
16000 Electrical Allowance/Miscellaneous					31,000			31,000
60 Gas Booster Skid	1.00 ls				677,400		56,516	733,916

Estimate Totals

Description	Amount	Totals	Hours	Rate
Labor	177,534		2,082 hrs	
Material	370,064			
Subcontract	1,331,934			
Equipment	23,021		412 hrs	
Other	57,479			
Subtotal Direct Cost	1,960,032	1,960,032		
GC General Conditions	515,233			
Subtotal General Conditions	515,233	2,475,265		
Design & Engineering Fee	225,000			
Subtotal Engineering Fee	225,000	2,700,265		
Building Permits(% total cost)	36,485			1.00 %
Sales Tax (MEQ)	39,424			8.75 %
Bldr's Risk Ins (% total cost)	9,121			0.25 %
Gen Liab Ins (% total cost)	72,969			2.00 %
GC Bonds (% total cost)				
Subtotal Prior to OH&P	157,999	2,858,264		
Contractor Total OH&P	500,196			17.50 %
Subtotal with OH&P	500,196	3,358,460		
Construction Contingency	290,000			
Subtotal with Contingency	290,000	3,648,460		
Total		3,648,460		

Opinion of Probable Construction Cost, May 2018, Concept Design

Project name	Additional Scope Riverside CA
Client	City of Riverside
Estimator	NC
Labor rate table	CA18 29 Palms \$5 Sub
Equipment rate table	00 18 EquipRate BOF
Bid date	10/31/2018
Project Estimate Type Design Level CDM Smith DB Ver. ENR 20 City CCI:	Additional Scope OPCC Conceptual V8 Dec 2017 10,870.06
Notes	<p>There are not any costs provided for: Change Orders, Client Costs, Finance or Funding Costs, Legal Fees, Land Acquisition or temporary/permanent Easements, Operations, or any other costs associated with this project that are not specifically part of the proposed scope.</p> <p>This OPCC shall remain valid for 120 days. Beyond this date, CDM Constructors should be notified of design changes. The estimate will also be reviewed to reflect current market conditions.</p> <p>Assumptions: No rock excavation is required. Only nominal dewatering is needed. No consideration for contaminated soils or hazardous materials is included (i.e. asbestos, lead, etc). Based on a normal 40 hour work week with no overtime. Escalation Cost are excluded All work areas are accessible to construction equipment. Client will provide temporary power and water for construction purposes. Client will provide parking for construction personnel. Client will provide washout area on-site for concrete trucks. Construction trailers, storage units, equipment and dumpsters shall be located inside RRWQCP facility. CDM Smith not responsible for existing spray nozzles that do not function. Structural steel beams and columns do not need cleaning or repainting.</p>
Report format	Sorted by 'Area/95CSI Sctr/Element' 'Detail' summary Allocate addons

Spreadsheet Level	Takeoff Quantity	Labor Man Hrs	Labor Amount	Material Amount	Sub Amount	Equip Amount	Other Amount	Total Amount
05 MBR Concrete Divider Wall - 2 Loc. GL-G and GL-J								
03112 Form Concrete Walls								
03112.05.10 Form Concrete Wall	260.00 sf	84.532	6,453	1,904		36		8,393
03112 Form Concrete Walls	260.00 sf	84.532	6,453	1,904		36		8,393
03210 Reinforcing Steel								
03210.05.10 Wall Rebars	0.72 tn	93.991	8,095	1,519		27		9,642
03210 Reinforcing Steel	0.72 tn	93.991	8,095	1,519		27		9,642
03310 Cast-in-Place Concrete								
03310.05.10 Cast-in-Place Concrete	4.82 cy	33.314	2,474	36				2,511
03310 Cast-in-Place Concrete	4.82 cy	33.314	2,474	36				2,511
03320 Redi-Mixed Concrete								
03320.05.10 Redi-Mixed Concrete	4.82 cy			809	14	963		1,786
03320 Redi-Mixed Concrete	4.82 cy			809	14	963		1,786
05 MBR Concrete Divider Wall - 2 Loc. GL-G and GL-J	2.00 loc	211.837	17,023	4,269	14	1,026		22,332
10 Demo Gates								
02220 Demolition								
02220.10.10 Demo/Removed Gates and Dispose Off-Site	4.00 ea	41.000	3,558		155	2,715		6,428
02220 Demolition	4.00 ea	41.000	3,558		155	2,715		6,428
03112 Form Concrete Walls								
03112.0400 Infill openings at removed gates	4.00 ea	64.218	5,262	1,446	505	15	13	7,241
03112 Form Concrete Walls	72.00 sf	64.218	5,262	1,446	505	15	13	7,241
10 Demo Gates	4.00 ea	105.218	8,820	1,446	660	2,730	13	13,669
15 New Metal Roof								
02220 Demolition								
02220.1510 Demo and Dispose Existing Metal Deck for MBR Fine Screen Facility	5,400.00 sf					16,652		16,652
02220 Demolition	1.00 ea					16,652		16,652
05300 Steel Deck								
05300.1510 New Metal Roof Deck for MBR Fine Screen Facility	5,400.00 sf	28.000	2,340		39,560	947		42,847
05300 Steel Deck		28.000	2,340		39,560	947		42,847
07410 Metal Roof Panel (Sub: RB Sheet Metal Inc.)								
07410.15.10 Citric Acid Feed and Bulk Storage Area	1,160.00 sf					14,034		14,034
07410.15.20 MBR Fine Screen Facility	5,400.00 sf					65,329		65,329
07410.15.30 MBR Facility	24,195.00 sf					292,711		292,711
07410 Metal Roof Panel (Sub: RB Sheet Metal Inc.)	30,755.00 sf					372,074		372,074
15 New Metal Roof	##### sf	28.000	2,340		428,286	947		431,573
20 Ventilation/Odor Control System - BioDan-750SM								
02220 Demolition								
02220.0400 Demo Asphalt	1.00 ls	20.667	1,776	155	773	1,273		3,977
02220 Demolition	1.00 ea	20.667	1,776	155	773	1,273		3,977
02300 Earthwork								
02300.20.10 Pipe Trench - for FRP Pipe and Water Line	30.00 lf	15.390	1,338	57		795		2,190
02300.20.20 Pipe Trench - for Drain Line	100.00 lf	28.349	2,422	893	117	1,036		4,469
02300 Earthwork	1.00 ls	43.739	3,761	951	117	1,831		6,659
02740 Asphalt Paving								
02740.0400 Patch Asphalt - for FRP Pipe and Water Line	1.00 ls	90.504	7,500	1,950	2,650	3,928		16,028
02740 Asphalt Paving	1.00 ls	90.504	7,500	1,950	2,650	3,928		16,028
03310 Cast-in-Place Concrete								
03310.20.10 Concrete Encasement	28.01 cy	198.924	15,719	10,192		563		26,474

Spreadsheet Level	Takeoff Quantity	Labor Man Hrs	Labor Amount	Material Amount	Sub Amount	Equip Amount	Other Amount	Total Amount
03310.20.20 Equipment Pad	6.25 cy	54.804	4,303	2,669		69		7,040
03310 Cast-in-Place Concrete	20.26 cy	253.728	20,022	12,861		632		33,515
15241 PVC Pipe & Fittings								
15241.20.10 Service Water Line	50.00 lf	9.690	860	635		27		1,522
15241.20.20 Drain Line	100.00 lf	18.390	1,654	1,790		27		3,471
15241 PVC Pipe & Fittings	5.00	28.080	2,514	2,425		53		4,993
15248 FRP Pipe								
15248.20.10 FRP Pipes, 14", 10", 8" dia.	83.00 lf	229.209	20,872	12,071		187		33,130
15248 FRP Pipe	83.00 lf	229.209	20,872	12,071		187		33,130
15900 Ventilation/Odor Control System								
15900.20.10 BioDan-750SM Odor Control System	1.00 ea	146.000	12,167	175,000		853	900	188,920
15900 Ventilation/Odor Control System	1.00 ea	146.000	12,167	175,000		853	900	188,920
16000 Electrical Allowance/Miscellaneous								
16000.20.10 Electrical Allowance (per Mark Martinez)	1.00 ls				18,340			18,340
16000 Electrical Allowance/Miscellaneous	1.00				18,340			18,340
20 Ventilation/Odor Control System - BioDan-750SM	1.00 ea	811.927	68,611	205,413	21,881	8,757	900	305,561
25 Heat Loop Expansion Tank - TACO CA1500-125								
02220 Demolition								
02220.25.10 Demo / Disposal of Existing Expansion Tank	1.00 ea	11.000	989		27	91		1,107
02220 Demolition	1.00 ea	11.000	989		27	91		1,107
15220 Steel Pipe								
15220.25.10 Pipe Connection	1.00 lot	14.400	1,163	77		53	0	1,294
15220 Steel Pipe	1.00 lot	14.400	1,163	77		53	0	1,294
15400 New 1320 Gal. Expansion Tank								
15400.25.10 New 396 Gal. Expansion Tank	1.00 ea	10.000	731	7,893		427		9,050
15400 New 1320 Gal. Expansion Tank	1.00 ea	10.000	731	7,893		427		9,050
25 Heat Loop Expansion Tank - TACO CA1500-125	1.00 ea	35.400	2,882	7,970	27	571	0	11,451
30 Biogas System								
03310 Cast-in-Place Concrete								
03310.30.10 Equipment Concrete Pad	3.56 cy	38.790	3,031	1,519		58		4,608
03310 Cast-in-Place Concrete	3.56 cy	38.790	3,031	1,519		58		4,608
15500 HVAC								
15500.30.10 Heat Exchanger with Chiller Package (Sub: McKenna/EWS)	1.00 ls				185,380			185,380
15500 HVAC	1.00 ls				185,380			185,380
16000 Electrical Allowance/Miscellaneous								
16000.30.10 Electrical Allowance (per Ty Keith)	1.00 ls				18,036			18,036
16000 Electrical Allowance/Miscellaneous	1.00				18,036			18,036
30 Biogas System	1.00 ls	38.790	3,031	1,519	203,416	58		208,025
35 Outfall Line SBS Injection - Concrete Pad								
02300 Earthwork								
02300.0400 Excavate for Concrete Pad	1.00 ls	15.583	1,343			1,125		2,468
02300 Earthwork	1.00 ls	15.583	1,343			1,125		2,468
03310 Cast-in-Place Concrete								
03310.3515 Concrete Slab on Grade (25' x 20' x 12' thick)	18.52 cy	108.740	8,660	6,944		77		15,681
03310.3520 Equipment Pad (Hexagonal Shape x 12" thick)	5.41 cy	43.364	3,410	2,361		70		5,842
03310 Cast-in-Place Concrete	29.63 cy	152.104	12,070	9,306		147		21,523
13200 Tanks								
13200.3510 Transfer / Install Double Wall 9100 gal. SBS Tank	1.00 ea	24.429	2,225	25,395		330	40	27,990

Spreadsheet Level	Takeoff Quantity	Labor Man Hrs	Labor Amount	Material Amount	Sub Amount	Equip Amount	Other Amount	Total Amount
13200 Tanks		24.429	2,225	25,395		330	40	27,990
15241 PVC Pipe & Fittings								
15241.3510 PVC Pipes and Fittings	24.00 lf	27.142	2,405	1,136	250	80	10	3,881
15241 PVC Pipe & Fittings		27.142	2,405	1,136	250	80	10	3,881
35 Outfall Line SBS Injection - Concrete Pad	1.00 ea	219.257	18,044	35,837	250	1,682	50	55,862
40 Gas Storage Dome - Vent Pipe and Drain Line								
15221 Stainless Steel Pipe								
15221.40.10 Stainless Steel Vent Pipe and Drain Line	1.00 lot	48.376	4,352	7,554		53		11,959
15221 Stainless Steel Pipe	1.00 lot	48.376	4,352	7,554		53		11,959
40 Gas Storage Dome - Vent Pipe and Drain Line	2.00 ea	48.376	4,352	7,554		53		11,959
45 Duct Supports for Odor Control Duct Connections								
05120 Structural Steel								
05120.4510 HSS Duct Supports	8.00 ea	160.311	13,353	28,937		2,242		44,532
05120 Structural Steel		160.311	13,353	28,937		2,242		44,532
45 Duct Supports for Odor Control Duct Connections	8.00 ea	160.311	13,353	28,937		2,242		44,532
50 Diffusers for MBR Influent Channel								
11375 Aeration Equipment								
11375.5010 Diffusers for MBR Influent Channel	1.00 ls	334.600	31,018	71,355		4,950		107,323
11375 Aeration Equipment		334.600	31,018	71,355		4,950		107,323
50 Diffusers for MBR Influent Channel	1.00 ls	334.600	31,018	71,355		4,950		107,323
55 Connection of Existing Spray Nozzles								
15120 Pipe Specialties								
15120.5510 Connection of Existing Spray Nozzles	1.00 ls	88.330	8,061	5,765		5		13,831
15120 Pipe Specialties		88.330	8,061	5,765		5		13,831
55 Connection of Existing Spray Nozzles	1.00 ls	88.330	8,061	5,765		5		13,831
60 Gas Booster Skid								
11000 Equipment								
11000.0400 Gas Booster Skid	1.00 ls				646,400		56,516	702,916
11000 Equipment					646,400		56,516	702,916
16000 Electrical Allowance/Miscellaneous								
16000.30.10 Electrical Allowance (per Ty Keith)	1.00 ls				31,000			31,000
16000 Electrical Allowance/Miscellaneous					31,000			31,000
60 Gas Booster Skid	1.00 ls				677,400		56,516	733,916

Estimate Totals

Description	Amount	Totals	Hours	Rate
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Material	370,064			
Subcontract	1,331,934			
Equipment	23,021		412 hrs	
Other	57,479			
Subtotal Direct Cost	1,960,032	1,960,032		
GC General Conditions	525,833			
Subtotal General Conditions	525,833	2,485,865		
Design & Engineering Fee	375,000			
Subtotal Engineering Fee	375,000	2,860,865		
Building Permits(% total cost)	39,982			1.00 %
Sales Tax (MEO)	39,424			8.75 %
Bldr's Risk Ins (% total cost)	9,996			0.25 %
Gen Liab Ins (% total cost)	79,965			2.00 %
GC Bonds (% total cost)	59,974			1.50 %
Subtotal Prior to OH&P	229,341	3,090,206		
Contractor Total OH&P	618,041			20.00 %
Subtotal with OH&P	618,041	3,708,247		
Construction Contingency	290,000			
Subtotal with Contingency	290,000	3,998,247		
Total		3,998,247		