DATE: January 31, 2023

TO: Mayor and Council Members

FROM: Public Works Department

SUBJECT: Agreement with Ardurra Group, Inc. for Feasibility Study on the Inglewood New Morningside Reservoir Design Project (RFP-0183)

RECOMMENDATION:
It is recommended that the Mayor and Council Members award a contract and approve an agreement with Ardurra Group, Inc. (Consultant), in a total amount not to exceed $85,076.20 (includes City controlled and directed ten percent (10%) contingency in an amount not to exceed $7,734.20), for a feasibility study on the Inglewood New Morningside Reservoir Design Project, per RFP-0183. (Water Fund)

BACKGROUND:
The City of Inglewood’s (City) water service area covers approximately 4,600 acres within its corporate boundaries. The City’s system provides water to approximately 80 percent of the residents and businesses in the City. The remaining residences and businesses receive water services from either Golden State Water Company or the Cal-American Water Company. The City’s water system infrastructure includes approximately 152 miles of pipeline (varying in diameter from three (3) inches to thirty (30) inches); four (4) active groundwater wells; two (2) booster pump stations; two (2) reservoirs, one (1) groundwater treatment plant; and two (2) imported water connections to the Metropolitan Water District (MWD).

The existing Morningside Reservoir and its booster pump stations were constructed around 1954, and they are situated within a 288-foot by 860-foot City-owned lot (5.6 acres) near the southwest corner of Crenshaw Boulevard and Pincay Drive.

Since the summer of 2009, the Morningside Reservoir has been out of service because of structural issues; replacing the existing structure with a new 5-million-gallon reservoir is recommended as the best option. The estimated cost of constructing a new 5-million-gallon reservoir is approximately $13 million. Since the reservoir was out of service, water services in Inglewood Pressure Zone 1 required adding a pressure-reducing valve for each household because the Morningside Reservoir has a pressure-reducing feature for water that comes out, so there have been no adverse consequences.

Distribution system storage is required in water systems to balance variations in demand above and below normal operational storage. In addition, fire storage is required to provide water for
firefighting and emergency storage in case the City loses feed from the Metropolitan Water District.

Currently, Public Works staff is working with the US Army Corps to obtain a grant of $19.5 million for Water Capital Improvements. This new 5-million-gallon reservoir is the City’s priority for such funding.

If the US Army Corp grant funding fails, Public Works staff will seek other federal funding in Fiscal Year 2024-2025, such as the “Small Storage Program” from the US Bureau of Reclamation (USBR). However, a feasibility study report is required for submission with future USBR program funding.

DISCUSSION:
On March 3, 2022, Public Works staff completed a request for proposal (RFP) to seek professional services to perform the Inglewood New Morningside Reservoir Design Project. The RFP was sent to the Purchasing Division and City Attorney’s Office for review.

On June 23, 2022, after review by the City Attorney, the Purchasing Division approved the final Request for Proposal (RFP-0183). The RFP was posted in the PlanetBids.com bid services portal, and Public Works staff also notified two prospective Consultants via email about the new RFP.

On July 20, 2022, Public Works staff conducted a mandatory job walk meeting via Zoom. Twelve (12) attendees from seven (7) prospective consulting/design companies and four (4) City staff members attended the pre-proposal meeting.

On August 10, 2022, the Purchasing Division received proposals with fee statements from the following two (2) Consultants:

<table>
<thead>
<tr>
<th>Consultant</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arduira Group, Inc.</td>
<td>El Segundo, CA 90245</td>
</tr>
<tr>
<td>Richard Brady &amp; Associates</td>
<td>San Diego, CA 92108</td>
</tr>
</tbody>
</table>

On September 15, 2022, staff reviewed the two proposals. Each firm’s proposal was evaluated and discussed based on the following criteria stated in the RFP: 1) Qualification and experience; 2) Available resources of Project Manager and key staff; 3) Local experience, accomplishments, and references; and 4) Cost proposal. Upon completion of the evaluation, Arduira Group, Inc. was ranked first, and Richard Brady & Associates was ranked second.

On November 2, 2022, staff determined that it is best to proceed only with the Feasibility Study portion on the Inglewood Morningside Reservoir, which is enough to apply for any future federal grants.
On November 18, 2022, Public Works staff sent a message to the Consultant requesting a new quote, which included only the Feasibility Study portion of the Inglewood New Morningside Reservoir Project.

On December 1, 2022, the Ardurra Group, Inc. (Consultant) replied with a proposed quote that included a new scope of work for the feasibility study.

On December 6, 2022, after reviewing the feasibility study proposal, Public Works staff accepted the proposal with the proposed fee. Therefore, staff requests that the Mayor and Council Members award a contract and approve an agreement with Ardurra Group, Inc. to perform the Feasibility Study portion of the Inglewood New Morningside Reservoir Project.

**FINANCIAL/FUNDING ISSUES AND SOURCES:**
Adequate funds are available in the Fiscal Year 2022-2023 Budget under Account Code No. 110.100.P816.44860 (Water Fund – Capital Projects – Morningside Pump Station Imp – Contract Services). Upon approval of the Agreement, staff will request issuance of the following purchase orders:

**Purchase Order Issuance for Professional Service:**

<table>
<thead>
<tr>
<th>Account Code No.</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>110.100.P816.44860</td>
<td>Water Fund – Capital Projects – Morningside Pump Station Imp – Contract Services</td>
<td>$77,342.00</td>
</tr>
</tbody>
</table>

**Purchase Order Issuance for Project Contingency:**

<table>
<thead>
<tr>
<th>Account Code No.</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>110.100.P816.44860</td>
<td>Water Fund – Capital Projects – Morningside Pump Station Imp – Contract Services</td>
<td>$7,734.20</td>
</tr>
</tbody>
</table>

**DESCRIPTION OF ANY ATTACHMENTS:**
Attachment No. 1 – Agreement

**PREPARED BY:**
Thomas C. Lee, P.E., Principal Engineer-Water Resources
Rae Aldridge, Acting Management Assistant to the Director
Robert M. Braden, Management Consultant

**COUNCIL PRESENTER:**
Louis A. Atwell, P.E., Assistant City Manager/PW Director
APPROVAL VERIFICATION SHEET

DEPARTMENT HEAD/ASSISTANT CITY MANAGER APPROVAL:
 Louis A. Atwell, PW Director/Asst. City Mgr.

CITY MANAGER APPROVAL:
 Artie Fields, City Manager
ATTACHMENT NO. 1

Agreement
AGREEMENT NO.: ______

THIS AGREEMENT is made and entered into this ______ day of ________, 2023, by and between the CITY OF INGLEWOOD (the "City"), a municipal corporation, One Manchester Boulevard, Inglewood, California 90301; and ARDURRA GROUP INC., (the "Consultant") a Florida Corporation with a California corporate number of C4151400 and with its principal and mailing addresses listed as 4921 Memorial Highway, Suite 300, Tampa, Florida 33634.

RECITALS

WHEREAS, the City’s Water Service area covers approximately 4,600 acres within its corporate boundaries and water is provided by the City’s system to approximately 80% of the residents and business; and

WHEREAS, the remaining residences and businesses receive water services from either Golden State Water Company or the Cal-American Water Company; and

WHEREAS, the City’s water system infrastructure includes approximately 152 miles of pipeline varying in diameter from three inches to thirty inches, four active groundwater wells, two booster pump stations, two reservoirs, one groundwater treatment plant and two imported water connections to the Metropolitan Water District (MWD); and

WHEREAS, the existing Morningside Reservoir and its booster pump stations were built around 1953 and were situated near the Southwest Corner of Crenshaw Boulevard and Pincay Drive; and

WHEREAS, since the summer of 2009, the Morningside Reservoir has been out of service because of structural problems that have resulted in concrete roof leakage and base floor infiltration; and

WHEREAS, on March 3, 2022, Public Works staff completed a request for proposal to seek professional services to perform the Inglewood New Morningside Reservoir Design Project; and

WHEREAS, on August 10, 2022, Inglewood Purchasing Division received and opened two proposals and the Consultant was ultimately selected; and
WHEREAS, between October 25, 2022, and November 18, 2022, the City re-evaluated its need for a detailed design of the Project and concluded that it would reduce the proposed Scope of Services to include only a feasibility study (the “Project”); and

WHEREAS, the RFP granted the City the option to “... reject one part of a proposal and accept the other ...” the City sought a more limited Scope of Services; and

WHEREAS, the Consultant subsequently submitted a proposal that contemplated only the Project; and

WHEREAS, the Consultant represents that it is validly registered with the California Department of Industrial Relations as required by law with a PWC Registration Number of 1000392146; and

WHEREAS, the Consultant represents that all listed subcontractor), if any, are in good standing in the State of California and validly registered as required by law; and

WHEREAS, the Consultant represents that it and any subcontractor, if any, will remain validly licensed as required by law; and

WHEREAS, the Consultant represents that it has the background, knowledge, experience and expertise to perform the obligations set forth in this Agreement; and

NOW, THEREFORE, the City and the Consultant (hereinafter collectively referred to as the “Parties”) hereto mutually agree as follows:

ARTICLE 1 – RECITALS INCORPORATED

The abovementioned recital are true and correct and are incorporated herein by this reference as if set forth in full.

ARTICLE 2 – SCOPE OF SERVICES

The Consultant shall:

1. Provide Services, as identified in Exhibit “A,” the Inglewood New Morningside Reservoir Design project, RFP No. RFP-0183, dated July 20, 2022; and Exhibit “B,” the Consultant’s proposal and fee dated December 1, 2022 and Exhibit “C,” the Consultant’s proposal and fee dated August 10, 2022. Each Exhibit is incorporated herein by this reference as if set forth in full. Consultant shall perform the Services
contemplated by this Agreement in a professional manner customarily exercised by
reputable members of Consultant's profession practicing in the Metropolitan Southern
California Area. In the event of ambiguity, conflict, or inconsistent language, the order
of precedence shall be:

a. Change orders and Amended Agreements (whichever occurs last);
b. This Agreement;
c. Exhibit "A;"
d. Exhibit "B;"
e. Exhibit "C."

2. Provide all labor, transportation, materials, tools, machinery, equipment, and other
items and services necessary to properly perform the services contemplated by this
Agreement.

3. Ensure that all personnel engaged by the Consultant to perform the services
contemplated by this Agreement shall be properly licensed.

4. Agree to comply with and be bound by all applicable federal, state, county and local
laws, rules and regulations.

5. Obtain, at its own expense, all necessary licenses and permits, including but not limited
to those required by the City of Inglewood, to perform the services contemplated by
this Agreement.

6. Secure the payment of workers' compensation to its employees as provided in
California Labor Code Sections 1860 and 3700 and agree, that pursuant to California
Labor Code Section 1810, that eight (8) hours' labor constitutes a legal day's work.

7. If applicable, abide by California Public Contract Code Section 7104 and California
Labor Code Section 6705 whenever such Codes are relevant.

8. If applicable, agree to comply with the applicable provisions of California Labor Code
Section 1777.5 relating to employment by the Consultant and all subcontractors under
it, of journeymen, or apprentices, or workmen in any apprentice craft or trade. The
Consultant agrees, if applicable, to comply with the applicable provisions of California
Labor Code Section 1770 through and including Section 1776 relating to compliance monitoring and enforcement, payment of prevailing wages to all workmen employed in the performance of the services contemplated by this Agreement by the Consultant and all subcontractors under it and to keep and maintain accurate certified payment records.

ARTICLE 3 – CITY’S DUTIES

The City hereby promises to provide all access, data, records, and documents reasonably within its possession or control as are necessary for the Consultant to perform the services contemplated by this Agreement.

ARTICLE 4 – TERM

Time is of the essence with respect to all time limits set forth in this Agreement. The Consultant has twelve (12) months from the City’s Notice to Proceed (“NTP”) to complete the Services contemplated by this Agreement.

ARTICLE 5 – COMPENSATION

1. The Consultant shall be paid: 1) pursuant to Exhibit “B,” of the Consultant’s proposal and fee dated, December 1, 2022; and 2) in the regular course of the City’s Business, a not-to-exceed amount of Seventy-seven Thousand Three Hundred and Forty-two dollars ($77,342.00) for work faithfully performed.

2. The Consultant shall invoice the City every thirty (30) calendar days for services contemplated hereunder and which have been completed within that thirty (30) day period.

3. Fees in Article 5 of this Agreement represent full compensation for the Consultant’s services rendered and include all compensation for any expenses incurred by the Consultant for providing services including but not limited to travel, lodging, food, clerical, photo copying, telephone, and any other related expenses.

4. The Consultant shall invoice the City within ten (10) working days after the termination of this Agreement. The City shall pay the Consultant in the ordinary course of the City
business, and agrees that it will use its best efforts to avoid all unnecessary delays in
processing the Consultant’s invoices.

5. All invoices shall contain:
   a. date of invoice;
   b. sequential invoice number;
   c. City Agreement number;
   d. project code number and title;
   e. description of services billed under this invoice;
   f. position title and hours worked;
   g. total amount for invoiced services;
   h. total amount billed to date;
   i. total amount remaining on the Agreement, and total Agreement
      amount.

6. The Consultant shall be responsible for the cost of supplying all documentation
   necessary to verify the monthly billings to the satisfaction of the City and shall certify,
   on each invoice, that it is entitled to receive the amount invoiced.

7. The Consultant agrees that cost shall not be the overriding factor when assigning its
   personnel to a task. However, the Consultant shall nevertheless provide the services
   contemplated by this Agreement in a cost effective manner when and where
   reasonable.

8. The Consultant agrees that, should work be performed outside the Scope of Services
   without the prior written approval of the City, such work shall be deemed a gratuitous
   effort on the part of the Consultant, and the Consultant shall have no claim against the
   City for reimbursement.

   ARTICLE 6 – CONSULTANT’S RESPONSIBLE PERSONNEL

   The parties hereto agree that, unless otherwise specifically designated or agreed to by the
   City, Robert S. Weber, Southwest Water Practice Director, shall be responsible for and
   supervise all matters assigned to and handled by the Consultant. City shall have the right to
designate or reject the assignment of other employees or others associated with the Consultant. The Consultant represents and warrants that every individual charged with the performance of the services under this Agreement has sufficient skill and experience and is duly licensed or certified to the extent such licensing or certification is required by law. The City expressly relies on the Consultant’s representations regarding its skills, knowledge, and certifications. The Consultant agrees to perform all work in accordance with generally accepted business practices and performance standards of the industry, including federal, state, and local operation and safety regulations.

ARTICLE 7 - CITY SUPERINTENDENT

All work of the services contemplated by this Agreement will be supervised on behalf of the City by Thomas Lee, (the “Superintendent”). The Superintendent shall have the authority to approve a contingency of up to ten percent (10%) of Article 5 of this Agreement and to give such general directions and exercise such control as may be necessary to ensure that Services contemplated by this Agreement are in strict compliance with the Contract Documents.

ARTICLE 8 – TERMINATION

This Agreement shall be subject to termination by the City upon its own discretion, or when conditions encountered during the work contemplated hereunder make it impossible or impracticable to proceed, or when the City is prevented from proceeding with the Agreement by law or by official action of a public authority, or if the City fails to authorize the necessary funds in any fiscal year budget covering the term of the Agreement.

In the event of such termination, the City shall pay the Consultant an amount which equitably reflects the proportion of work completed by the Consultant, provided that in no event shall the compensation paid pursuant to this paragraph exceed the amount which would have been payable pursuant to Article 5 of this Agreement.

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ARTICLE 9 – NOTICES

Any notice given pursuant to this Agreement shall be deemed received and effective on the date personally delivered or, if mailed, five (5) days after deposit of the same in the custody of the United States Postal Service, when properly addressed, posted and deposited in the United States mail addressed to the respective Parties as follows:

CITY:
Aisha L. Thompson, City Clerk
City of Inglewood
One Manchester Boulevard
Inglewood, California 90301-1750

CONSULTANT:
Carmen Kasner, Vice-President
Ardurra Group Inc.
4921 Memorial Highway, Suite 300
Tampa, Florida 33634

WITH COPY TO:
Public Works Director
One Manchester Boulevard
Inglewood, California 90301

The Consultant may from time to time designate another address, addressee or Agent for Service of Process and shall, in such instances, notify the City in writing within ten (10) calendar days of such designation.

ARTICLE 10 – INSURANCE REQUIREMENTS

The Consultant shall procure and maintain for the duration of the Contract, insurance 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 Consultant, his agents, representatives, employees, or subcontractors. The cost of such insurance shall be borne by the Consultant. Failure to maintain or renew coverage or to provide evidence of renewal may be treated by the City as a material breach of Contract.

MINIMUM SCOPE AND LIMIT OF INSURANCE

Coverage shall be at least as broad as:

1. Commercial General Liability (CGL): Insurance Services Office Form CG 00 01 covering CGL on an “occurrence” basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than $2,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate
limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general
aggregate limit shall be twice the required occurrence limit.

2. **Automobile Liability**: Insurance Services Office Form Number CA 0001 covering,
Code 1 (any auto), or if Consultant has no owned autos, Code 8 (hired) and 9 (non-owned),
with limit no less than **$2,000,000** per accident for bodily injury and property damage.

3. **Workers’ Compensation** insurance as required by the State of California, with
Statutory Limits, and Employer’s Liability Insurance with limit of no less than **$1,000,000** per
accident for bodily injury or disease.

4. **Professional Liability** (Errors and Omissions) Insurance appropriates to the
Consultant’s profession, with limit no less than **$2,000,000** per occurrence or claim,
$4,000,000 aggregate.

If the Consultant maintains broader coverage and/or higher limits than the minimums
shown above, the City requires and shall be entitled to the broader coverage and/or the
higher limits maintained by the Consultant. Any available insurance proceeds in excess of the
specified minimum limits of insurance and coverage shall be available to the City.

**Other Insurance Provisions**

The insurance policies are to contain, or be endorsed to contain, the following
provisions:

**Additional Insured Status**

The City, its officers, officials, employees, and volunteers are to be covered as
additional insureds on the CGL policy with respect to liability arising out of work or
operations performed by or on behalf of the Consultant including materials, parts, or
equipment furnished in connection with such work or operations. General liability coverage
can be provided in the form of an endorsement to the Consultant’s insurance (at least as
broad as ISO Form CG 20 10 11 85 or both CG 20 10, CG 20 26, CG 20 33, or CG 20 38; and CG
20 37 forms if later revisions used).

**Primary Coverage**

For any claims related to this contract, the **Consultant’s insurance coverage shall be**
primary insurance primary coverage at least as broad as ISO CG 20 01 04 13 as respects the
City, its officers, officials, employees, and volunteers. Any insurance or self-insurance
maintained by the City, its officers, officials, employees, or volunteers shall be excess of the
Consultant’s insurance and shall not contribute with it.

Notice of Cancellation

Each insurance policy required above shall state that coverage shall not be canceled,
except with notice to the City.

Waiver of Subrogation

Consultant hereby grants to the City a waiver of any right to subrogation which any
insurer of said Consultant may acquire against the City by virtue of the payment of any loss
under such insurance. Consultant agrees to obtain any endorsement that may be necessary to
affect this waiver of subrogation, but this provision applies regardless of whether or not the
City has received a waiver of subrogation endorsement from the insurer.

Self-Insured Retentions

Self-insured retentions must be declared to and approved by the Office of the City
Attorney. The City Attorney may require the Consultant to purchase coverage with a lower
retention or provide proof of ability to pay losses and related investigations, claim
administration, and defense expenses within the retention. The policy language shall provide,
or be endorsed to provide, that the self-insured retention may be satisfied by either the
named insured or the City.

Acceptability of Insurers

Insurance is to be placed with insurers authorized to conduct business in the state
with a current A.M. Best’s rating of no less than A:VI, unless otherwise acceptable to the City.

Claims Made Policies

If any of the required policies provide coverage on a claims-made basis:

1. The Retroactive Date must be shown and must be before the date of the contract or
the beginning of contract work.

2. Insurance must be maintained and evidence of insurance must be provided for at
least five (5) years after completion of the contract of work.

3. If coverage is canceled or non-renewed, and not replaced with another claims-
made policy form with a Retroactive Date prior to the contract effective date, the Consultant
must purchase "extended reporting" coverage for a minimum of five (5) years after
completion of contract work.

Verification of Coverage

Consultant shall furnish the City with original Certificates of Insurance including all
required amendatory endorsements (or copies of the applicable policy language effecting
coverage required by this clause) and a copy of the Declarations and Endorsement Page of the
CGL policy listing all policy endorsements to the Office of the City before work begins.
However, failure to obtain the required documents prior to the work beginning shall not
waive the Consultant's obligation to provide them. The City Attorney reserves the right to
require complete, certified copies of all required insurance policies, including endorsements
required by these specifications, at any time.

Subcontractors

Consultant shall require and verify that all subcontractors maintain insurance meeting
all the requirements stated herein, and Consultant shall ensure that the City is an additional
insured on insurance required from subcontractors.

Special Risks or Circumstances

The City reserves the right to modify these requirements, including limits, based on
the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

ARTICLE 11 – INDEMNIFICATION

The Consultant shall indemnify and hold harmless the City and its officers, employees
and volunteers from and against all claims, damages, losses and expenses including attorney
fees arising out of the performance of the work described herein, to the extent caused in
whole or in part by any negligent act or omission, recklessness or willful misconduct of the
Consultant, any subcontractor, anyone directly or indirectly employed by any of them or
anyone for whose acts any of them may be liable, except where caused by the active
negligence, sole negligence, or willful misconduct of the City.

If any action or proceeding is brought against Indemnites by reason of any of the matters against which the Consultant has agreed to indemnify Indemnites as provided above, the Consultant, upon notice from the City, shall defend Indemnites at the Consultant’s expense by counsel acceptable to the City, such acceptance not to be unreasonably withheld. Indemnites need not have first paid for any of the matters to which Indemnites are entitled to indemnification in order to be so indemnified. The insurance required to be maintained by the Consultant under this Article shall ensure the Consultant’s obligations under this section, but the limits of such insurance shall not limit the liability of the Consultant hereunder. The provisions of this Article shall survive the expiration or earlier termination of this Agreement and shall exist for four (4) years beyond the termination or completion of the Consultant’s work.

ARTICLE 12 – AUDIT

The Consultant shall maintain any and all records or documents pursuant to this Agreement, and the same shall be made available for inspection, audit and copying, at any time during regular business hours, upon written request by the City or its designated representatives. Copies of such documents or records shall be provided directly to the City for inspection, audit and copying when it is practical to do so; otherwise, unless an alternative is mutually agreed upon, such documents and records shall be made available at the City’s address indicated for receipt of notices in this Agreement.

ARTICLE 13 – BOOKS AND RECORDS

The Consultant shall maintain any and all documents and records demonstrating or relating to the Consultant’s performance of services pursuant to this Agreement. The Consultant shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks or other documents or records evidencing or relating to work, services, expenditures and disbursements charged to the City pursuant to this Agreement. Any and all such documents or records shall be maintained in accordance with generally accepted accounting principles and shall be sufficiently complete and detailed so as to permit an accurate
evaluation of the services provided by the Consultant pursuant to this Agreement. Any and all such documents or records shall be maintained to the extent required by laws relating to audits of public agencies and their expenditures.

ARTICLE 14 – OWNERSHIP OF DOCUMENTS

“Documents” as used in this Article means original studies, surveys, reports, data, substantive notes, and other evidence used in preparation of various reports, whether existing as electronic files or in hard copy. “Documents” does not refer to informal communications such as emails and staff notes, whether those communications are internal to the Consultant’s staff or between the Consultant and any subconsultant(s). All documents prepared, developed, or discovered by the Consultant in the course of providing any services pursuant to this Agreement shall remain the sole property of the City and may not be used, reused, or otherwise disposed of without the permission of the City. Upon completion, expiration, or termination of this Agreement, the Consultant shall give the City all such documents within ten (10) days of delivery of termination notice, completion or expiration of this Agreement, at no cost to the City. In the event the City requires or desires other information in the control of the Consultant that is not a document as described above (such as informal communications, staff notes, and other correspondence), the Consultant shall provide any requested information to the City within thirty (30) days. The City acknowledges that its alteration of documents without the consent of the Consultant, or use of the documents for any purpose other than the project, is at the City’s own risk and without liability to the Consultant.

ARTICLE 15 – INDEPENDENT CONTRACTOR

The Consultant enters into this Agreement as an independent contractor and not as an employee of the City. The Consultant shall have no power or authority by this Agreement to bind the City in any respect. Nothing in this Agreement shall be construed to be inconsistent with this relationship or status. All employees, agents, contractors or subcontractors hired or retained by the Consultant are employees, agents, contractors or subcontractors of the Consultant and not of the City. The City shall not be obligated in any way to pay any wage claims or other claims made against the Consultant by any such employees, agents,
contractors, or subcontractors, or any other person resulting from performance of this Agreement. The City shall not have the right to direct and control the manner and means in which the Consultant carries out the work contemplated by this Agreement. The City shall not train nor provide instruction to the Consultant for the carrying out of the services contemplated by this Agreement.

ARTICLE 16 – NON-ASSIGNABILITY

The expertise and experience of the Consultant are material considerations for this Agreement. The City has an interest in qualifications of and capability of the Consultant which will fulfill the duties and obligations imposed under this Agreement. In recognition of that interest, the Consultant shall not assign or transfer this Agreement or any portion of this Agreement or the performance of any of the Consultant’s duties or obligations under this Agreement without the prior written consent of the City. Any attempted unauthorized assignment shall be ineffective, null and void, and shall constitute a material breach of this Agreement entitling the City to any and all remedies at law or in equity, including summary termination of this Agreement. The Consultant shall not assign any interest in this Agreement and shall not transfer any interest in the same whether by assignment or novation, without prior written approval of the City.

ARTICLE 17 – EQUAL EMPLOYMENT

The Consultant agrees that during the performance of this Agreement, it will not discriminate against any employee or applicant for employment because of race, color, religious creed, national origin, ancestry, sex, sexual orientation, age, physical handicap, medical condition or marital status.

ARTICLE 18 – CHANGES, AMENDMENTS AND MODIFICATIONS

No change, amendment or modification to this Agreement shall be effective unless in writing and signed by the Parties hereto.

ARTICLE 19 – SEVERABILITY

In the event that any condition or covenant herein is held to be invalid or void by any court of competent jurisdiction, the same shall be deemed severable from the remainder of
the Agreement and shall in no way affect any other covenant or condition herein contained as long as the invalid provision does not render the Agreement meaningless with regard to a material term in which event the entire Agreement shall be void. If such condition, covenant, or other provision shall be deemed invalid due to its scope or breadth, such provision shall be deemed valid to the extent the scope or breadth is permitted by law.

ARTICLE 20 – WAIVER

Waiver by any party to this Agreement of any term, condition, or covenant of this Agreement shall not constitute a waiver of any other term, condition, or covenant. Waiver by any party of any breach of the provisions of this Agreement shall not constitute a waiver of any other provision, nor a waiver of any subsequent breach or violation of any provision of this Agreement. Acceptance by the City of any work or services by the Consultant shall not constitute a waiver of any of the provisions of this Agreement.

ARTICLE 21 – ENTIRE AGREEMENT

This Agreement is the entire, complete, final and exclusive expression of the Parties with respect to the matters addressed therein and supersedes all other Agreements or understandings, whether oral or written, entered into between the Consultant and the City prior to the execution of this Agreement. No statements, representations or other Agreements, whether oral or written, made by any party which are not embodied herein shall be valid and binding unless in writing and duly executed by the Parties or their authorized representatives.

ARTICLE 22 – GOVERNING LAW; VENUE

This Agreement shall be interpreted, construed and governed according to the laws of the State of California. In the event of litigation between the Parties, venue in state trial courts shall lie exclusively in the County of Los Angeles, Superior Court, Southwest District, located at 825 Maple Avenue, Torrance, California 90503-5058. In the event of litigation in the United States District Court, venue shall lie exclusively in the Central District of California, in Los Angeles.

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ARTICLE 23 – MISCELLANEOUS

The Parties waive any benefits from the principle of contra proferentem and interpreting ambiguities against drafters. No party shall be deemed to be the drafter of this Agreement, or of any particular provision or provisions, and no part of this Agreement shall be construed against any party on the basis that the particular party is the drafter of any part of this Agreement.

This Agreement may be executed in counterparts, and when each party hereto has signed and delivered at least one such counterpart, each counterpart shall be deemed an original and, when taken together with the other signed counterparts, shall constitute one Agreement, which shall be binding upon and effective as to all Parties hereto.

Article titles, paragraph titles or captions contained herein are inserted as a matter of convenience and for reference, and in no way define, limit, extend, or describe the scope of this Agreement or any provision hereof.
IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the date and year first above written.

CITY OF INGLEWOOD

James T. Butts, Jr.,
Mayor

ARDURRA GROUP, INC.

Carmen Kasner,
Vice-President

ARDURRA GROUP, INC.

Catherine Cahill,
Chief Financial Officer

ATTEST:

Aisha L. Thompson,
City Clerk

APPROVED AS TO FORM:

Kenneth R. Campos,
City Attorney
EXHIBIT “A”

Original Request for Proposal
No. RFP-0183
CITY OF INGLEWOOD, CALIFORNIA

REQUEST FOR PROPOSAL
RFP–0183

INGLEWOOD NEW MORNINGSIDE RESERVOIR DESIGN

PROPOSALS DUE: August 10, 2022, BY 12:00 P.M.

AT THE PURCHASING AND CONTRACT SERVICES DIVISION
LOCATED ON THE 8TH FLOOR OF INGLEWOOD CITY HALL
ONE MANCHESTER BLVD.
INGLEWOOD, CA 90301

PRE-PROPOSAL MEETING:
Wednesday, July 20, 2022 at 10:00 a.m.
At ZOOM Meeting:
https://zoom.us/j/92405072192?pwd=Z2Rjd2RYVM5OW82dFY0T1pPMEFFdz09

Contact Person During Bid Period:
Rocio Nunez, Purchasing Assistant
(310) 412-5266
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REQUEST FOR PROPOSAL
CITY OF INGLEWOOD
INVITATION TO SUBMIT PROPOSAL

The City of Inglewood invites and will receive proposals duly filed herein for the furnishing of qualified “INGLEWOOD NEW MORNINGSIDE RESERVOIR DESIGN,” as specified in this document.

Each proposal shall be submitted and completed in all particulars and must be enclosed in a sealed package addressed to the City of Inglewood, Purchasing and Contract Services Division 8th floor, One Manchester Blvd., Inglewood, CA 90301 with the designation of the project, Inglewood New Morningside Reservoir Design appearing thereon.

Proposals will be opened in public on Wednesday, August 10, 2022 at 12:00 P.M. in the Purchasing and Contract Services Division and will be announced then and there to all persons present. Specifications and other proposal documents for the above service are on the City’s PlanetBids portal.

The City reserves the right to waive any irregularity within any proposal, and to take proposals under advisement for a period of ninety (90) calendar days from and after the date proposals are opened and announced.

The following conditions and terms apply:

1) The City Council reserves the right to reject any or all proposals.
2) Attached are detailed specifications and conditions for proposal submission.
3) You must execute your contract within ten (10) days after the City mails it. If the contract is not executed within ten (10) days, the City reserves the unilateral right to cancel it.
4) If any provision of the contract is violated, the City, after suitable notice, may cancel the contract and make arrangements to have the products and or services supplied by others. Any extra cost to the City will be paid by the vendor.
5) Proposals may be obtained from the Purchasing and Contract Services Division located on the 8th floor of City Hall, or call (310) 412-5266.
6) All proposals with pricing must be for specific amounts. Any attempt to qualify prices with an 'escalation clause' or any other method of making a price variable, is unacceptable. Proposal shall be valid for ninety (90) calendar days from and after the date proposals are opened and announced.
7) The City reserves the right to add or subtract quantities and/or services based on the unit prices/unit sum so indicated as its budgetary needs may require.
8) All request for proposal documents can be located on the City of Inglewood's Planet Bids Portal. https://www.planetbids.com/portal/portal.cfm?CompanyID=45619

Date: 6/23/2022

Louis Atwell Asst. City Manager/Public Works Director
QUESTIONS CONCERNING PROPOSAL REQUIREMENTS
All questions and issues related to proposal requirements or information expected for each statement package should be made on City’s Planet Bids portal:

https://www.planetbids.com/portal/portal.cfm?CompanyID=45619

The City of Inglewood will only communicate with one person per proposal. It is the responsibility of the Proposer to ensure that the City has the correct name and address of the contact person, phone number, and e-mail address. All changes to instructions to this RFP will be done through written addendum and posted on the City’s Planet Bids portal.

NO QUESTIONS WILL BE RECEIVED OR RESPONDED TO AFTER
Wednesday, August 3, 2022 BY 2:00 P.M.

SUBMISSION OF PROPOSAL
Written responses to the RFP must be prepared as specified below. Respondents should follow the Proposer Checklist on page 26 to ensure that all requirements are met. No changes to responses may be made after the submittal deadline.

- One original and (2) two copies, for Inglewood New Morningside Reservoir Design. ATTN: Rocio Nunez, received on or before, but no later than Wednesday, August 10, 2022 at 12:00 P.M. at the Purchasing and Contract Services Division. Any responses received after the specified date and time will not be considered by the City.

- One Proposal Fee & Schedule (hours & rates of personnel) shall be in a sealed envelope with the name and address of the respondent in the upper left-hand corner and marked “Fee for INGLEWOOD NEW MORNINGSIDE RESERVOIR DESIGN”

- The response shall be signed by an officer, or officers, authorized to execute legal documents on behalf of the respondent and submitted to:

  Rocio Nunez
  8th Floor Purchasing and Contract Services Division
  City of Inglewood
  One Manchester Blvd.
  Inglewood, CA 90301

The City reserves the right to waive informalities in any proposal, to reject any or all proposals, to reject one part of a proposal and accept the other, except to the extent that proposals are qualified by specific limitations, and to make awards to the proposer whose proposal is most beneficial to the needs of the City. Each firm is responsible for the timely delivery of any response. Additionally, the City will not be responsible for the delivery of any proposal to the wrong address or City department. Each firm assumes all risks and/or consequences of an incorrect delivery or an untimely delivery of a proposal.
RFP-0183

SCOPE OF SERVICES

INGLEWOOD NEW MORNINGSIDE RESERVOIR DESIGN

SECTION 1. INTRODUCTION

The City of Inglewood (City) invites qualified Consultants to submit proposals for the new “INGLEWOOD NEW MORNINGSIDE RESERVOIR DESIGN”. Interested persons are invited to submit their proposals in conformance with the criteria outlined below. Please see Scope of Services for task details.

SECTION 2. BACKGROUND

The City is located in the central portion of Los Angeles County, California and encompasses an area of approximately 9.2 square miles. The City is bordered by the City of Los Angeles on the East, North and West sides and the County of Los Angeles and the City of Hawthorne on the South side. According to Census Bureau 2020 Data, the City’s population is approximately 107,762. The City provides water services to approximately 86,854 customers within its service area of 7.2 square miles. The remaining customers are serviced by the Golden State Water Company (GSWC) or Cal America Water Company.

The City’s water production system consists of four (4) wells, two (2) reservoirs, and the Sanford T. Anderson Water Treatment Plant (WTP). The City provides approximately 8,760 acre-feet of potable water to its customers last year, of which, approximately 2,500 ac-feet per year is produced by the City wells and 6,260 ac-feet per year is purchased from Metropolitan Water District (MWD) through West Basin Municipal Water District (WBMWD). The City service area is divided into three pressure zones for elevation differences that vary from 60 to 247 feet above mean sea level.

The City is seeking a consultant to design a new 5-million gallon reservoir to replace the existing 16-million gallon Morningside reservoir.

SECTION 3. SCOPE OF SERVICES

The work shall generally include, but not be limited to the following:

- Design/Project Management,
- Field visit and investigation of Inglewood Morningside Reservoir including review of existing documents and current process schema.
- Professional Field survey.
- Perform design service for demolition of existing 16-million Morningside reservoir.
- Perform feasibility study and prepare required report per Federal Funding guideline in this RFP
- Prepare reports and applications/forms for the required Permits (NPDES, State Water
Resources Control Board, etc.) per California Code of Regulations Title 22 regulations Chapter 16 Article 6 Distribution Reservoirs. City will submit these report and applications/forms.

- Perform structural/geotechnical analysis and design of a new 5-million (approximately) gallon concrete reservoir, mixing tank, pump/motor equipment, accessories, and connecting utility pipelines per California Title 22 regulations Chapter 16 Article 6 Distribution Reservoirs.
- Prepare CEQA Mitigated Negative Declaration of Environmental Impacts (MNDEI) report with latest requirements/criteria per California Title 22 regulations Chapter 16 Article 6 Distribution Reservoirs.
- Prepare Construction Plans & Specifications.
- Cost Estimate of Construction.
- Prepare bid specification and bid documents.
- Provide 1) 60% submittal; 2) 90% submittal, 3) 100% submittal, and 4) submit final construction drawings & all documents/reports including all digital files in Word, Excel, PDF, and AutoCAD 2013 format in a USB flash drive or a digital downloadable link.

SECTION 4. QUALIFICATIONS

The Consultant should have experience of performing concrete reservoir design for cities or water districts, and have resources to provide all related deliverables required for its completion in a timely manner. The proposal shall include a comprehensive technical approach, methodology and specific tasks and activities required for the completion of the project.

If your firm is qualified and would like to be considered, please submit a formal proposal addressing the following items:

a. Identify name of your organization, address and telephone number. Indicate whether your firm is a Corporation, joint venture, partnership or sole proprietorship or a DBE. Indicate the name(s) of the owner(s) of your firm and number of years in business.

b. Identify all sub-consultants to be used by name of organization, address and telephone number and provide examples of experience of each sub-consultant and their key staff as related to the service they will perform.

c. Identify the designated Project Manager as well as key staff for this project along with their background, experience and project responsibilities.

d. Provide a concise statement for your understanding of the Project.

e. Provide a statement on limitation of liability, errors and omissions coverage for your firm and all sub-consultants.

f. Provide the scope of work with specific task description.

g. Provide a project schedule on a Gantt chart outlining the main tasks within the scope of work
and the projected timeline throughout the project. The schedule should be presented in MS-Project format.

h. Provide a list of clients for whom similar services were provided.

i. Project fees that cover the entire aspect of services and other costs to complete the project. *Provide the fee proposal in a separate sealed envelope.*

**SECTION 5. EVALUATION AND SELECTION PROCESS**

All Proposals will be evaluated on the basis of professional experience, qualifications and services to be performed. The City reserves the right to judge, appraise and reject any or all proposals, or to otherwise cancel the RFP process.

The proposals will be evaluated for the following rating criteria:

1) Experience of the Consulting Firm & Team ............................................. 20 pts
2) Understanding of State/Federal regulations & compliance ....................... 20 pts
3) Past Relevant References ............................................................................. 20 pts
4) Response to Scope of work ..................................................................... 20 pts
5) Depth of Resources to perform work ......................................................... 20 pts

**TOTAL .................................................................................. 100 pts**

The City has the option to invite short listed Consultants for presentation and interview.

**WAIVER AND RIGHTS OF THE CITY**

There is no guarantee that the City will decide to move forward with any proposer based on the RFP submittals. The City reserves the right to reject any or all submittals and proposals. The Consultant waives all rights to seek compensation and/or legal remedies regarding any aspects of the RFP and the City’s selection process, upon the submittal of a response to the RFP.

The City reserves the right, at its discretion, to pursue any or all of the following actions related to this RFP.

- Issue addenda to the RFP. Addendum or addenda will be put on PlanetBid.com and e-mailed to the prospective Consultant(s), if requested.
- Request additional information and/or clarification of the proposal.
- Negotiate an agreement solely on the basis of the original proposal.
- Negotiate an agreement on the basis of additional information supplied.
- Issue subsequent RFP(s) based on refinement of concepts proposed in response to this RFP.

**SECTION 5. TENTATIVE PROJECT SCHEDULE**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertise RFP and mail to Consultants</td>
<td>6/23/2022</td>
</tr>
<tr>
<td>Pre-Proposal meeting</td>
<td>7/20/2022</td>
</tr>
<tr>
<td>Event</td>
<td>Date</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Proposal Submittal</td>
<td>8/10/2022</td>
</tr>
<tr>
<td>Review Proposals</td>
<td>8/26/2022</td>
</tr>
<tr>
<td>Interview of shortlisted firms (if necessary)</td>
<td>8/29/2022</td>
</tr>
<tr>
<td>Negotiate Service Fee</td>
<td>8/30/2022</td>
</tr>
<tr>
<td>Council award</td>
<td>10/4/2022</td>
</tr>
<tr>
<td>Issue Notice to Proceed – Kick-off Meeting</td>
<td>10/11/2022</td>
</tr>
<tr>
<td>60% Drawings Submittal</td>
<td>3/1528/2023</td>
</tr>
<tr>
<td>City Review and Comments for 60% submittal</td>
<td>3/31/2023</td>
</tr>
<tr>
<td>90% Submittal &amp; draft bid specification and CEQA MNDEI report</td>
<td>4/15/2023</td>
</tr>
<tr>
<td>City Review and Comments for 90% submittal</td>
<td>4/30/2023</td>
</tr>
<tr>
<td>100% Submittal &amp; draft bid specification and CEQA MNDEI report</td>
<td>5/15/2023</td>
</tr>
<tr>
<td>City Review and Comments for 100% submittal</td>
<td>5/31/2023</td>
</tr>
<tr>
<td>Final drawings, bid documents, and CEQA MNDEI (including digital files)</td>
<td>6/15/2023</td>
</tr>
</tbody>
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**MEETINGS**

The selected Consultant shall be required to attend the following meetings:

- Kick-Off meeting
- Progress meetings
- Additional meetings may be required as needed for collaboration and information sharing among the Consultant, City Staff and outside agencies

**DELIVERABLES**

The Consultant shall at a minimum provide the following:

1. Progress report (60%, 90%, 100%, and final submittal).
2. Project schedule, and updated one if requested.

- Provide the digital copies of all final documents in PDF, Word & Excel files, and drawings in 2013 AutoCAD format in a USB flash drive or an online download link (Dropbox, or similar).
SECTION 6. ADDITIONAL INFORMATION & REQUIREMENTS

Section 1. Morningside Reservoir Aerial View

(Los Angeles County Parcel #4025-011-900)

Section 2. Small Surface Water & Groundwater Storage Feasibility Study Report Requirements.

(Original document is at website LINK: https://www.usbr.gov/smallstorage/).

A. Flexibility Concerning Format. Reclamation will accept for review a small surface water and groundwater storage feasibility study report prepared for other purposes (e.g., as part of an application for state funding programs). However, when Reclamation reviews a report prepared for other purposes, the project sponsor must provide a crosswalk that identifies the sections and page numbers that clearly address each element described in Paragraph 3.B of this D&S. Failure to provide a crosswalk that clearly addresses each of the required elements will result in the small surface water and groundwater storage feasibility study not passing the initial review and/or resulting in Reclamation finding the report incomplete.
B. Small Surface Water and Groundwater Storage Feasibility Study Report Contents. To ensure that a small surface water and groundwater storage feasibility study report complies with Pub. L. 117-58, Federal laws, and to otherwise allow Reclamation to assess the feasibility of the proposed project, at a minimum, the following information shall be included in the small surface water and groundwater storage feasibility study report. Analyses included in the small surface water and groundwater storage feasibility study report shall be commensurate with the level of risk, cost, complexity, and scope of the proposed small surface water and groundwater storage project.

(1) **Introductory Information.** Provide the following introductory information:

(a) Identification of the non-Federal project sponsor(s),

(b) A description of the study area and an area/project map (including a description of ground disturbance within the study area), and

(c) A definition of the study area in terms of both the site-specific project area where the water storage will be needed and developed.

(2) **Statement of Problems and Needs.** Describe key water resource management problems and needs for which small surface water and groundwater storage project will provide a solution, including the following information. All projections (including regarding climate) shall be reasonable and applicable for a minimum of 20 years from when the project is expected to provide benefits.

(a) Description of the problem and need for a small surface water and groundwater storage project.

(b) Description of current and projected water supplies, including water rights, potential sources of additional water other than the proposed small surface water and groundwater storage project, and plans for new facilities other than the proposed project, if any.

(c) Description of current and projected water demands, including a description of the current and projected water supply and demand imbalances.

(d) Description of any water quality concerns for the current and projected water supply.

(3) **Small Surface Water and Groundwater Storage Opportunities.** The small surface water and groundwater storage feasibility study report must address the opportunities for small surface water and groundwater storage in the study area and identify the sources of water that could be stored, including the following information.

(a) Description of all beneficial uses for surface and groundwater storage or categories of potential uses, including, but not limited to, water supply reliability, ecosystem benefits, groundwater management enhancements, and water quality improvements.
(b) An assessment of stakeholder support for the project.

(c) Description of the water market available to utilize stored water, including:

(i) identification of existing and potential users, expected use, peak use, onsite conversion costs if necessary, and desire to use stored water, including letters of intent if available,

(ii) Descriptions of any consultation with potential water customers, including letters of intent, if applicable, and

(d) Descriptions of the market assessment procedures used. Discussion of considerations (e.g., physical, public acceptance) which will prevent implementing a small surface water and groundwater storage project. The small surface water and groundwater storage feasibility study report must identify methods or community incentives to stimulate small surface water and groundwater storage demand and methods to eliminate obstacles which will inhibit the use of small surface water and groundwater storage, including pricing.

(e) Identification of all the water agencies that have jurisdiction in the potential service area or over the sources of surface water and/or groundwater.

(f) Description and location of potential sources of water to be stored, including a discussion of how the project meets the water supply needs of a specific geographic area, region, or watershed.

(g) Description of current and projected surface and groundwater storage projects other than the proposed small surface water and groundwater storage project, including projected costs, if any.

(4) **Description of Alternatives.** The following information is required:

(a) Statement of the specific planning objectives that all alternatives, including the small surface water and groundwater storage project are designed to address.

(b) Formulation of alternative plans for addressing the identified problems, needs, and opportunities. Alternative plans shall include:

(i) A description of the proposed small surface water and groundwater storage project including detailed project cost estimate; annual operation, maintenance, and replacement cost estimate; and life cycle costs shall be provided with feasibility-level detail consistent with RM D&S, Cost Estimating (FAC 09-01) to permit a more in-depth evaluation of the project, including non-contract costs. In this regard, the cost estimates shall clearly identify expenditures for major structures and facilities, as well as other types of construction and non-contract expenses and shall be based on calculated quantities and unit prices.
(ii) A description of other water supply alternatives, including those non-structural in nature, considered to accomplish the objectives to be addressed by the proposed small surface water and groundwater storage project, including benefits to be gained by each alternative, total project cost, life cycle cost, and corresponding cost of the project water produced expressed in dollars per acre-foot.

(c) Description of the non-Federal funding condition. The reasonably foreseeable future actions that the non-Federal project sponsor would take if Federal funding were not provided for the proposed small surface water and groundwater storage project, including estimated costs.

(d) The small surface water and groundwater storage feasibility study report shall also present estimated costs in terms of dollars per acre-foot of capacity, to facilitate comparison of alternatives described in Paragraph 4.B.(5) below. The small surface water and groundwater storage feasibility study report must identify references, design data, and assumptions.

(5) Economic Analysis. A small surface water and groundwater storage feasibility study report must include an economic analysis of the proposed small surface water and groundwater storage project relative to other water supply alternatives that the non-Federal project sponsor could implement in lieu of a small surface water and groundwater storage project. This assessment needs to identify the economic benefits that implementation would realize, relative to costs. The study lead must submit the following information for the economic analysis in a small surface water and groundwater storage feasibility study report.

(a) The economic analysis included in the small surface water and groundwater storage feasibility study report shall describe the conditions that exist in the area and provide future projections with, and without, the project. The analysis must emphasize the contributions that the plan could make toward alleviation of economic problems and the meeting of future water demands, such as enhanced water supply reliability for State, Indian Tribes, and local governments (including subdivisions of those entities), increased water management flexibility and reduced impacts on environmental resources from projects operated by Federal and State agencies, ecosystem benefits, and water quality improvements.

(b) A cost comparison of alternatives that would satisfy the same demand as the proposed small surface water and groundwater storage project. Alternatives used for comparison must be likely and realistic, and developed with the same standards, with respect to interest rates (see latest published Water Resources Planning rate), price level, and period of analysis (consistent with the anticipated useful life of the investment).

(c) The benefits of the project measured consistent with the methods described in Paragraph 7.B of the Department of the Interior’s Agency Specific Procedures For
Implementing the Council on Environmental Quality’s Principles, Requirements, and Guidelines for Water and Land Related Resources Implementation Studies (707 DM 1). If demonstrating the cost of the alternative most likely to be implemented in the absence of the project as a measure of benefit, it is assumed that the two alternatives would provide comparable levels of service. The small surface water and groundwater storage feasibility study report must provide this comparison, if applicable.

(d) Benefits shall be documented and described quantitatively wherever possible. If they cannot be quantified, benefits must be qualitatively described as completely as possible. These qualitative benefits can be considered as part of the justification for a small surface water and groundwater storage project in conjunction with the comparison of project costs described above.

(e) For more complex and/or higher risk small surface water and groundwater storage projects, benefits estimation should include the collection of primary economic data to the extent possible.

(6) Selection of the Proposed Small Surface Water and Groundwater Storage Project.

(a) The small surface water and groundwater storage feasibility study report must provide a justification of why the proposed small surface water and groundwater storage project is the selected alternative in terms of meeting objectives, demands, needs, benefits, and other criteria important to the decision.

(7) Risk and Uncertainty. Long-range planning efforts rely on assumptions about supply and demand, and the selection of an alternative depends on expected future conditions. Small surface and groundwater storage feasibility studies will account for the uncertainty of future conditions by incorporating risk and uncertainty analysis into the formulation, evaluation, and comparison of alternatives.

(8) Environmental Consideration and Potential Effects. The review of a small surface water and groundwater storage feasibility study report does not require National Environmental Policy Act (NEPA) compliance. The Department of the Interior categorical exclusion 1.11, “Activities which are educational, informational, advisory, or consultative to other agencies, public and private entities, visitors, individuals or the general public” applies to Reclamation’s consultative review, and preparation of the small surface water and groundwater storage feasibility study reports. Reclamation will not own, operate, or maintain the proposed small surface water and groundwater storage project, nor is Reclamation using the small surface water and groundwater storage feasibility study report to request authorization for construction from Congress.

(a) If Reclamation later provides funds for construction, a Reclamation NEPA/compliance practitioner must complete all appropriate NEPA, ESA, NHPA and other environmental and cultural compliance prior to any ground disturbing activities beginning for the project to be eligible.
(b) The small surface water and groundwater storage feasibility study report must include sufficient information on the small surface water and groundwater storage project to allow Reclamation to assess the potential measures and costs that will be necessary to comply with NEPA and any other applicable Federal law. Accordingly, the following information is required.

(i) Discussion whether, and to what extent, the proposed small surface water and groundwater storage project will have potentially significant (per 40 CFR 1501.3) impacts including but not limited to on endangered or threatened species, public health or safety, natural resources, regulated waters of the United States, Environmental Justice, Indian Sacred Sites, Indian Trust Assets, climate change, or cultural resources.

(ii) Discussion whether, and to what extent, the project will have potentially significant environmental effects, or will involve unique or undefined environmental risks.

(iii) Description of the status of required Federal, state, tribal, and/or local environmental compliance measures, and outreach or pertinent communication with affected stakeholders for the proposed small surface water and groundwater storage project, including copies of any documents that have been prepared, or results of any relevant studies or outreach/communication.

(iv) Any other information available to the study lead that would assist with assessing the measures that will be necessary to comply with NEPA, and other applicable Federal, state, and/or local environmental laws including the Endangered Species Act, the National Historic Preservation Act, and the Clean Water Act.

(v) Discussion of how the proposed small surface water and groundwater storage project will affect water supply and water quality from the perspective of a regional, watershed, aquifer, or river basin condition.

(vi) Discussion of the extent to which the public was involved in the small surface water and groundwater storage feasibility study and a summary of comments received, if any.

(vii) Description of the potential effects the project will have on historic properties as defined in the National Historic Preservation Act. Discussion must include potential mitigation measures, the potential for adaptive reuse of facilities, an analysis of historic preservation costs, and the potential for heritage education, if necessary.

(9) Legal and Institutional Requirements. The small surface water and groundwater storage feasibility study shall identify any legal or institutional requirements, or barriers to implementing the proposed project.
(a) Analysis of any water rights issues potentially resulting from implementation of the proposed small surface water and groundwater storage project. All proposed small surface water and groundwater storage projects must comply with state water law.

(b) Discussion of legal and institutional requirements (e.g., contractual water supply obligations, Indian trust responsibilities, water rights settlements, regional water quality control board requirements), state, and/or local requirements with the potential to affect implementation of the project.

(c) Discussion of the need for multi-jurisdictional or interagency agreements, any coordination undertaken, and any planned coordination activities.

(d) Discussion of permitting procedures required for the implementation of small surface water and groundwater storage projects in the study area, and any measures that the non-Federal project sponsor can implement that could speed the permitting process.

(e) Discussion of any unresolved issues associated with implementing the proposed small surface water and groundwater storage project, how and when such issues will be resolved, and how the project would be affected if such issues are not resolved.

(10) **Sufficient Non-Federal Funding.** At the small surface water and groundwater storage feasibility study stage, Reclamation must receive enough information to determine that sufficient non-Federal funding is available to cover the non-Federal share of project costs if the project moves to construction, as well as all necessary project operation, maintenance and replacement (OM&R) costs. A financial capability analysis consistent with RM D&S, Title XVI Financial Capability Determination Process (WTR 11-02) must be completed. Accordingly, Reclamation requires the following supporting information to be included in the small surface water and groundwater storage feasibility study report.

(a) Proposed schedule for project implementation.

(b) Discussion of the willingness of the non-Federal project sponsor to pay for its share of construction costs and the full OM&R costs.

(c) A plan for funding the proposed small surface water and groundwater storage project's construction, OM&R costs, including an analysis of how the non-Federal project sponsor will pay construction and annual OM&R costs.

(d) Description of all Federal and non-Federal sources of funding and any restrictions on such sources (e.g., minimum or maximum cost-share limitations). For small surface water and groundwater storage projects, the Federal cost share is limited to 25 percent of total project costs, or $30,000,000, whichever is less.
RFP-0183

GENERAL PROVISIONS

The City of Inglewood, California, hereby extends an invitation to submit a proposal, in accordance with this Request for Proposal (RFP), to provide labor and or and materials for the designated service. Furthermore the City makes no representation that any agreement will be awarded to any firm responding to this request. There are no expressed or implied obligations for the City to reimburse responding firms for any expense incurred in preparing a proposal in response to this request. All information submitted to the City of Inglewood shall become property of the City and will be returned to the proposer at the City’s option.

SECTION 1. PRICES

The proposal shall state the total cost for the service as specified in this document. Hourly rates are firm and fixed for the duration of this agreement.

SECTION 2. PAYMENT TERMS

Standard payment shall be made by City check.

SECTION 3. INGLEWOOD BUSINESS TAX CERTIFICATE

The vendor agrees to at all times during the performance of the agreement, to obtain and maintain an Inglewood City Business Tax Certificate. The purchase of said Certificate must be made prior to the purchase of product or rendering services and a copy said Certificate must be forwarded to the Purchasing and Contract Services Division.

SECTION 4. SALES TAX

The City of Inglewood is subject to the payment of sales tax. All suppliers will be required to include in your proposal/price quote the City of Inglewood sales tax rate of 10%. If a proposer fails to include the City’s sales tax rate in their bid, the City will add the 10% amount to the proposal for evaluation purposes.

SECTION 5. INSURANCE REQUIREMENTS

Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the
performance of the work hereunder and the results of that work by the Contractor, his agents, representatives, employees or subcontractors.

**MINIMUM SCOPE AND LIMIT OF INSURANCE**
Coverage shall be at least as broad as:

A. **Commercial General Liability (CGL):** Insurance Services Office Form CG 00 01 covering CGL on an “occurrence” basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than $2,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.

B. **Automobile Liability:** ISO Form Number CA 00 01 covering any auto (Code 1), or if the Contractor has no owned autos, hired, (Code 8) and non-owned autos (Code 9), with limit no less than $2,000,000 per accident for bodily injury and property damage.

C. **Workers’ Compensation:** as required by the State of California, with Statutory Limits, and Employer’s Liability Insurance with limit of no less than $1,000,000 per accident for bodily injury or disease.

D. **Professional Liability (Errors and Omissions):** Insurance appropriate to the Contractor’s profession, with limit no less than $2,000,000 per occurrence or claim, $2,000,000 aggregate.

If the Contractor maintains broader coverage and/or higher limits than the minimums shown above, the City requires and shall be entitled to the broader coverage and/or the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

**Other Insurance Provisions**
The insurance policies are to contain, or be endorsed to contain, the following provisions:

**Additional Insured Status**
The City, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts, or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Contractor’s insurance (at least as broad as ISO Form CG 20 10 11 85 or if not available, through the addition of both CG 20 10, CG 20 26, CG 20 33, or CG 20 38; and CG 20 37 if a later edition is used).
**Primary Coverage**
For any claims related to this contract, the Contractor’s insurance coverage shall be primary coverage at least as broad as ISO CG 20 01 04 13 as respects the City, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, or volunteers shall be excess of the Contractor’s insurance and shall not contribute with it.

**Notice of Cancellation**
Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to the City.

**Waiver of Subrogation**
The Contractor hereby grants to the City a waiver of any right to subrogation which any insurer of said Contractor may acquire against the City by virtue of the payment of any loss under such insurance. The Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the City has received a waiver of subrogation endorsement from the insurer.

**Self-Insured Retentions**
Self-insured retentions must be declared to and approved by the City. The City may require the Contractor to purchase coverage with a lower retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or the City.

**Acceptability of Insurers**
Insurance is to be placed with insurers authorized to conduct business in the state with a current A.M. Best’s rating of no less than A:VII, unless otherwise acceptable to the City.

**Verification of Coverage**
The Contractor shall furnish the City with original Certificates of Insurance including all required amendatory endorsements (or copies of the applicable policy language effecting coverage required by this clause) and a copy of the Declarations and Endorsement Page of the CGL policy listing all policy endorsements to the City before work begins. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor’s obligation to provide them.

**SECTION 6. INDEMNIFICATION**
Vendor shall indemnify, defend and hold harmless the City and its officers, officials, agents, employees, and volunteers (collectively “Indemnities”) from and against all claims, damages,
losses and expenses, including attorney fees, arising out of the performance of work described herein, caused in whole or in part by any negligent act or omission of the vendor's subcontractor or anyone directly or indirectly employed by any of them or anyone for whose act they may be liable, except where caused by the active, sole negligence, or willful misconduct of the Indemnities.

If any action or proceeding is brought against Indemnities by reason of any act of the matters against which vendor has agreed to indemnify Indemnities as provided above, vendors, upon notice from City, shall defend Indemnities at vendor's expense by counsel acceptable to City, such acceptance not to be unreasonably withheld.

SECTION 7. PAYMENT OF PREVAILING WAGE RATES AND PAYROLL RECORDS

This is a public works project subject to the requirements of California Labor Code section 1720 et seq. and Inglewood Ordinance No. 15-05, requiring the payment of prevailing wages, training of apprentices and compliance with other applicable requirements of the Labor Code. Prevailing wages apply to all projects over $1,000, which are defined as a "public work" in the Labor Code.

Contractors are reminded that the Labor Code requires a public works contract awarded by the City to contain language effectuating certain sections of the Code, including 1775, 1776, 1775.5, 1810, 1813, and 1860. Furthermore, any contract between a contractor and its subcontractors for the performance of work on a public works project shall include a copy of the provisions of Labor Code sections 1771, 1775, 1776, 177.5, 1813 and 1815.

Below is a summary of these requirements.

Prevailing Wage

Pursuant to Labor Code section 1773.2, the general prevailing rate of per diem wages for this project are on file in the City Clerk's Office and will be made available to any interested party upon request. Contractor shall post a copy of applicable prevailing wage determination at each job site.

The Contractor who is awarded a public works contract, and any subcontractor under the Contractor, shall pay not less than the specified prevailing rate of wages. Special prevailing wage rates generally apply to work performed on weekends, holidays and for certain shift work. Contractors and subcontractors are on notice that information about such special rates, holidays, premium pay, shift work and travel and subsistence requirements can be found on the Department of Industrial Relations website (www.dir.ca.gov).

Certified Payroll Records

Contractor and their subcontractors must maintain certified payroll records in compliance with Labor Code sections 1776 and 1812, and any implementing regulations promulgated by the Department of Industrial Relations. The payroll records shall include the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee
employed by the Contractor or Subcontractor in connection with the public work. Certified payroll records must be available for inspection at reasonable hours at the principal office of the Contractor with any personal identifying information redacted as required by law.

As a condition to receiving progress payments, final payment and payment of retention on any and all projects on which the payment of prevailing wages is required, the Contractor agrees to present to the City, along with its request for payment, all applicable and necessary certified payrolls (for itself and all applicable subcontractors) for the time period covering such payment request.

**Apprentices**

Pursuant to Labor Code section 1777.5(c), "only apprentices, as defined in Section 3077, who are in training under apprenticeship standards that have been approved by the Chief of the Division of Apprenticeship Standards and who are parties to written apprenticeship agreements under Chapter 4 (commencing with Section 3070) of Division 3 are eligible to be employed at the apprentice wage rate on public works."

Apprentices who are not properly supervised and employed in the appropriate ratio shall be paid the full journeyman wage for the classification of work performed. These apprentice requirements apply to any contract worth $30,000 or more. It is the prime Contractor's responsibility to comply with all of the requirements contained in section 1777.5 and any contract for public works awarded to a prime contractor shall include language effectuating this section.

**Work Day**

Pursuant to Labor Code section 1810, 8 hours of labor constitutes a legal day's work and 40 hours of labor constitute a legal week's work. Contractor and its subcontractors shall not permit any of their workers to perform more than 8 hours of work during any one calendar day or more than 40 hours of work during any one week, unless overtime is paid in accordance with Labor Code section 1815.

Contractor and each Subcontractor shall keep accurate records showing the name and actual hours worked each calendar day and each calendar week by each worker employed in connection with this public works project. These records shall be kept open at all reasonable hours for inspection by the City and the Division of Labor Standards Enforcement.

**Workers' Compensation**

In accordance with the provisions of Labor Code section 3700, every Contractor will be required to secure the payment of compensation to his or her employees. Each Contractor to whom a public works contract is awarded shall sign and file with the City the following certification prior to performing the work of the contract: "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 work of this contract."

**Penalties**
Penalties, including forfeitures and debarment, shall be imposed for any contractor or Subcontractor's failure to pay prevailing wages, failure to maintain and timely submit accurate certified payroll records upon request, failure to employ apprentices, and failure to pay employees for all hours worked at the correct prevailing wage, in accordance with Labor Code sections 1775, 1776, 1777.7 and 1813.

NOTICE OF REQUIREMENT TO REGISTER TO SUBMIT BID OR PERFORM WORK ON PUBLIC WORK PROJECT PURSUANT TO LABOR CODE SECTION 1771.1

Pursuant to Labor Code section 1771.1, a contractor or subcontract may not be qualified to bid on, be listed in a bid proposal, or engage in the performance of any contract for public work unless currently registered and qualified to perform public work pursuant to section 1725.5. Section 1725.5 does not apply to work performed on a public works project of $25,000 or less when the project is for construction, alteration, demolition, installation, or repair work or to work performed on a public works project of $15,000 or less when the project is for maintenance.

Unless otherwise exempt by state law, a bid shall not be accepted nor any contract or subcontract entered into without proof of the Contractor or Subcontractor's current registration to perform work pursuant to Section 1725.5 of the Labor Code.

Contractor and subcontractors who violate the requirements of Section 1771.1 shall be subject to penalties as prescribed therein. Contractor shall comply with all applicable laws prohibiting discrimination in the employment of persons and shall be subject to all punishment for any violation thereof. These prohibitions may be found in Labor Code sections 1735 and 1777.6, and Title VII of the Civil Rights Act of 1964, as amended.

Labor Code section 1735 provides that "Contractor shall not discriminate in the employment of persons upon public works on any basis listed in subdivision (a) of Section 12940 of the Government Code, as those bases are defined in Sections 12926 and 12926.1 of the Government Code, except as otherwise provided in Section 12940 of the Government Code. Every Contractor for public works who violates this section is subject to all penalties imposed for a violation of this chapter."

Labor Code section 1777.6 provides that an "employer or labor union shall not refuse to accept otherwise qualified employees as registered apprentices on any public works on any basis listed in subdivision (a) of Section 12940 of the Government Code, as those bases are defined in Sections 12926 and 12926.1 of the Government Code, except as provided in Section 3077 of this code and Section 12940 of the Government Code.

SECTION 8. "OR EQUAL" CLAUSE

Whenever a material, article, or piece of equipment is identified in the specifications or on the plans by reference to manufacturers' or vendors' names, trade names, catalogue numbers, etc., it is intended merely to establish a standard; and any materials, article, or equipment of other manufacturers and vendors which will perform adequately in the duties imposed by the general design will be considered equally acceptable provided the material, article, or equipment so
proposed is, in the opinion of the City of equal substance and function. Said materials, articles or equipment shall not be purchased or installed by the Contractor without the City’s written approval.

SECTION 9. NON-DISCRIMINATION

California State Labor Code §1735: Discrimination in Employment Because of Race, Color, etc. No discrimination shall be made in the employment of persons working on behalf of or as an agent for the City of Inglewood because of the race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, military and veteran status, or any other legally protected class except as provided in Section 12940 of the Government Code, and every vendor for the City of Inglewood violating this section is subject to all the penalties imposed for a violation of this chapter.

SECTION 10. AWARD OF PROPOSAL

Award of contract will be based on the proposal that meets all of the specified requirements.

SECTION 11. EXECUTION OF AGREEMENT

A proposer to whom award is made shall furnish all services in accordance with the provisions hereof and within the time stated in the proposal. If proposer to whom an award is made fails or refuses to enter into the contract as herein provided or to conform to any of the stipulated requirements in connection therewith, an award may be made to the proposer whose proposal is next most acceptable to the City. Such proposer shall fulfill every stipulation embraced herein as if he/she were the party to whom the first award was made. A corporation to which an award is made will be required, before the contract is finally executed, to furnish evidence of its corporate existence, of its rights to do business in California.

SECTION 12. TERMINATION OF AGREEMENT

The City may terminate the contract at its own discretion or when conditions encountered make it impossible or impracticable to proceed, or when the City is prevented from proceeding with the contract by law, or by official action of a public authority.

SECTION 13. RIGHT OF CITY TO WITHHOLD PAYMENT

a. Defective materials not remedied in accordance with provisions of specifications;

b. Claims or liens filed or reasonable evidence indicating probable filing of claims or liens, whenever the City shall, in accordance herewith, withhold any monies otherwise due the vendor. Written notice of the amount withheld and the reasons therefore shall be given the vendor, and, when the vendor shall remove the grounds for such withholding, the City will pay to the vendor, within thirty-five (35) calendar days, the amount so withheld.
SECTION 14. COST OF PROPOSAL

The proposer must present a concise list of the scope of services and the work products that the firm proposes to provide.

Expenses such as travel, postage, reproduction and related costs necessarily incurred by proposer are to be reflected. Such expenses will not be eligible for reimbursement unless approved by the City in advance. Any costs incurred by Contractor which are not specifically provided for herein shall be the sole expense of the Contractor. Any omissions or ambiguities will be construed most favorable to the City.

SECTION 15. PROPOSAL PREPARATION COST

The Proposer shall pay for all costs associated with a proposal preparation. The City shall not pay for or reimburse any costs relating to the proposal preparation.

SECTION 16. CHOICE OF LAW AND VENUE

This agreement shall be interpreted, construed and governed according to the laws of the State of California. In the event of litigation between the parties, venue in state trial courts shall lie exclusively in the County of Los Angeles, Superior Court, Southwest District, located at 825 Maple Avenue, Torrance, California 90503-5058. In the event of litigation in the United States District Court, venue shall lie exclusively in the Central District of California, in Los Angeles, California.

SECTION 17. ADDENDUMS (REVISIONS TO THIS DOCUMENT)

In the event that it becomes necessary to clarify or revise this RFP, such clarification or revision will be by Addendum. Any Addendum will become part of this RFP and part of any contract awarded as a result of this RFP.

ALL ADDENDA WILL BE ISSUED ON THE CITY OF INGLEWOOD “BID OPPORTUNITIES (PLANET BIDS)” WEB PAGE. CLICK ON THE PROFESSIONAL AUDITING SERVICES LISTED ON THE COVER PAGE OF THIS DOCUMENT.

TO ACCESS ADDENDA USE THE FOLLOWING WEB PAGE ADDRESS:

https://www.planetbids.com/portal/portal.cfm?CompanyID=45619

There are no designated dates for release of addenda. Therefore, interested proposers should check the Purchasing “Bid Opportunities (Planet Bids)” webpage on a daily basis. Vendors with no access to the internet should call the Purchasing and Contract Services Division to inquire about any issued addendums. It is the vendor’s responsibility to either check the city website or call the Purchasing and Contract Services Division to obtain any addendums.

The City encourages vendors to send a signed copy of each addendum with your proposal. If no signed addendum is returned with your quotation, the City will assume that all pricing submitted includes any and all costs associated with any addendums issued.
Answers to questions that do not require an addendum will also be posted on the City's Planet Bids portal.

**SECTION 18. DURATION OF AGREEMENT**

The duration of the agreement shall be Twelve (12) Months.

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RFP-0183

PROPOSER CHECKLIST

BEFORE SUBMITTING YOUR PROPOSAL, HAVE YOU PROPERLY COMPLETED THE FOLLOWING?

Please Check Here

1. PROPOSAL:
   a. Have you responded to the proposed scope of work? 
   b. Is the proposal properly signed and dated? 
   c. If the proposal is being submitted by a corporation, is the corporate seal affixed to the proposal? 
   d. Have you submitted all requirements per this Request for Proposal?

2. CONTRACT COMPLIANCE:
   a. Have you completed and signed the Declaration of the Proposer? 
   b. Have you completed the Extension of Contract to other Public Agencies? 
   c. Have you completed and signed the Non-Collusion Declaration? 
   d. Have you examined and understand the requirements and forms to be furnished on the project?

3. BUSINESS TAX CERTIFICATE:
   a. Are you aware of General Provisions Section 3, entitled Inglewood Business Tax Certificate?
REQUEST FOR PROPOSALS

DECLARATION OF THE PROPOSER

I declare, under penalty of perjury under the laws of the State of California, that I am an authorized agent or officer of the organization submitting this proposal and in such capacity I am empowered to submit this proposal on behalf of (organization):

________________________________________________________________________

I also verify that all information submitted and contained herein is true and correct to the best of my knowledge and belief.

BY: __________________________

Signature: __________________________

Printed Name: __________________________

Position/Title: __________________________

Date of Execution: __________________________

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REQUEST FOR PROPOSALS

EXTENSION OF CONTRACT TO OTHER PUBLIC AGENCIES

The prices, terms, and conditions of this proposal may be extended to other governmental agencies at the mutual agreement of both the city and awarded vendor. All requirements of the specifications, purchase orders, invoices, and payments with other agencies would be directly with the successful contractor. The City of Inglewood does not warrant any additional use of the contract by such agencies. The vendor's response as requested below will in no way affect the City of Inglewood's consideration of this proposal.

Please indicate if this quote will be extended to other public agencies, and the length of time it will remain in effect from the opening date of this proposal.

Yes_______ No___________ Length of time _______________ Days/Months

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REQUEST FOR PROPOSALS
RFP-0183

NON-COLLUSION DECLARATION

The undersigned hereby declares and says:

I am the __________________ of __________________, the party making the foregoing bid. The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

(Full description of contract):

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

"I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on ____________________________ [date], at _____________ [city], _____________ [state].

________________________________________
Signature of Officer or Authorized Agent

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REQUEST FOR PROPOSALS
RFP-0183
NO PROPOSAL FORM

TO ALL PROPOSERS:

IF YOU DO NOT INTEND TO SUBMIT A PROPOSAL FOR THIS PROJECT, PLEASE INDICATE BELOW AND RETURN IMMEDIATELY TO THE PURCHASING AND CONTRACTS SERVICES DIVISION OF THE CITY OF INGLEWOOD.

_____ THE FIRM BELOW CANNOT PROVIDE THE SERVICES AS SPECIFIED,

PLEASE CHANGE THE CLASSIFICATION OF OUR FIRM TO THE FOLLOWING:

________________________________________________________________________

_____ THE FIRM BELOW CANNOT SUBMIT A PROPOSAL AT THIS TIME BECAUSE OF THE FOLLOWING: ______________________________________________________________

________________________________________________________________________

_____ THE FIRM BELOW IS NOT INTERESTED IN BEING ON THE CITY OF INGLEWOOD VENDOR LIST, PLEASE REMOVE OUR NAME

RFP NUMBER: __________

Name of Firm: ____________________________________________________________

Address: _________________________________________________________________

Phone: _________________________________________________________________

Name of Individual: _______________________________________________________

Signature: _______________________________________________________________

Date: __________________________
EXHIBIT “B”

Consultant’s New Proposal & Fee for
Feasibility Study Portion only
Dated December 1, 2022
December 1, 2022

Mr. Thomas Lee, P.E.
Principal Engineer – Water Resources
City of Inglewood Public Works – Water Utilities
1 West Manchester Boulevard #300
Inglewood, CA 90301

REFERENCE: Proposal to prepare a Feasibility Study for the new Morningside Reservoir

Dear Mr. Lee:

Thank you for the opportunity to provide this proposal to prepare a Feasibility Study for the new Morningside Reservoir project. Ardurra is excited to partner with the City of Inglewood (City) to provide professional engineering services for this important project.

Scope of Work

The existing 16 million gallon (MG) Morningside Reservoir and Booster Pump Station complex has reached the end of its useful life. The City desires to prepare a feasibility study, prepared generally in accordance with U.S. Bureau of Reclamation Small Storage Program guidance found at https://www.usbr.gov/recman/temporary_releases/cmptrmr-127.pdf. The intent of the Feasibility Study will be to address considerations in the guidance and assess feasibility of the proposed project. For the purposes of this proposal, we understand the desired size of the new Morningside Reservoir has been determined by City staff to be 5 MG. The following Scope of Work will be performed:

Task 1 – Kickoff Meeting and Site Visit
Key Ardurra team members will meet with City staff to review project goals, objectives, deliverables, and the schedule. Following this meeting a site visit will be performed to observe existing site conditions. Ardurra will prepare a meeting agenda prior to the meeting and written minutes within 5 business days of the meeting.

Task 2 – Document Review
Ardurra will review available City water planning documents to obtain pertinent information for the feasibility study. These include the Water Master Plan and Urban Water Management Plan with the objective to obtain critical background information pertinent to performing the feasibility study. This includes documentation of current and projected water sources, supplies, demands, and water quality.

Task 3 – Develop Feasibility Study Alternatives
Using the available information compiled and reviewed in Task 2 and the U.S. Bureau of Reclamation Small Storage Program guidance, Ardurra will develop potential project alternatives for the City’s consideration.
For the purposes of this proposal, we assume a maximum of four alternatives will be developed. Alternatives will be summarized in a matrix format and presented to the City and City input obtained in a virtual meeting/workshop format. The alternatives will be refined based on City input received at the workshop meeting.

**Task 4 – Prepare Feasibility Study Report**

Using the information developed in Tasks 1, 2, and 3 Ardurra will prepare a Feasibility Study report per U.S. Bureau of Reclamation guidance. The report will be prepared in draft form and submitted to the City for review and comment. City comments will be reviewed and discussed in a virtual meeting format. Upon incorporation of City comments, the Feasibility Study report will be finalized and final electronic (pdf) and six (6) hard copies will be provided.

**Schedule**

The Ardurra schedule is developed from a Notice to Proceed starting at “Week 0”. The estimated total duration of the Project is 16 weeks and is presented below.

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<th>Week</th>
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<tr>
<td>0</td>
<td>Notice to Proceed</td>
<td>8</td>
<td>City Review of Alternatives</td>
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<tr>
<td>1</td>
<td>Kickoff Meeting/Site visit</td>
<td>12</td>
<td>Draft Feasibility Study Report</td>
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<td>3</td>
<td>Document Review</td>
<td>14</td>
<td>City Review of Feasibility Study Report</td>
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<tr>
<td>6</td>
<td>Development of Alternatives</td>
<td>16</td>
<td>Final Feasibility Study Report</td>
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*We will expedite schedule to extent possible*

**Fee Estimate**

The total estimated fee for professional engineering design services is $77,342 and depicted in the attached itemized Fee Estimate.

We appreciate the opportunity to be of service to the City. Please reach out to me with any questions. We look forward to working with you on this Project.

Sincerely,

Robert S. Weber, P.E.
Southwest Water Practice Director
# Fee Proposal
City of Inglewood  
**New Morningside Reservoir Feasibility Study**

<table>
<thead>
<tr>
<th>Task/Task Description</th>
<th>Ardurra Personnel</th>
<th>Subconsultants</th>
<th>Sub-Markup %</th>
<th>Total Cost</th>
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**Table 1**: Kick-off Meeting and Site Visit  
- 1.5 Meetings  
- 2.0 Site Visit  
- 3.0 Preparation of Cube Planning Documents  
- 4.0 Feasibility Study Alternatives  
- 5.0 Feasibility Study Report  

**Table 2**:  
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**TOTAL NOT-TO-EXCEED FEE**: $77,362
EXHIBIT “C”

Consultant’s Proposal & Fee
Dated August 10, 2022
PROPOSAL FOR
INGLEWOOD
NEW MORNINGSIDE
RESERVOIR DESIGN

AUGUST 10, 2022
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- Project Schedule 23
- Experience 24
- Appendix: Resumes
  - Submitted
  - Separately
- Project Fees

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New Morningside Reservoir Design
City of Inglewood
August 10, 2022

Rocio Nunez  
City of Inglewood  
8th Floor Purchasing Department and Contract Services Division  
One Manchester Boulevard  
Inglewood, California 90301

PROPOSAL: INGLEWOOD NEW MORNINGSIDE RESERVOIR DESIGN

Dear Ms. Nunez and Selection Committee Members:

Ardurra Group is ideally suited to deliver a successful project to the City of Inglewood. We are reservoir and booster pump station planning and design experts and have a thorough understanding of the key project issues associated with the Morningside Reservoir project. Our team is in place and ready to begin work immediately. The enclosed proposal presents our approach to the work, project team and experience, record of past performance on several award-winning projects, and discussion of creative alternatives to accomplish the City’s goals. The following are key aspects of our approach:

- We will examine various reservoir type and configuration alternatives for the Morningside site to include circular concrete and rectangular concrete reservoirs in buried, partially buried, and exposed conditions in the City’s desired size of 5 million gallons (MG). Feasibility, cost, functionality, environmental issues, phasing, and aesthetics are factors that will be evaluated and recommendations developed for discussion with the City.
- The reservoir siting analysis will form the basis for the feasibility study required by the U.S. Bureau of Reclamation Small Storage Program. We will prepare the feasibility study in accordance with the Small Storage Program Guidance found at [https://www.usbr.gov/ss/index.html](https://www.usbr.gov/ss/index.html)
- The new 5 MG reservoir can be constructed at the same top elevation as the existing structure and the aesthetic impact to the community will be minimized. We will work with the City to determine the optimal location on the site for the new facilities consisting of the reservoir, mixing tank, and booster pump station.
- A Computational Fluid Dynamics (CFD) study is proposed to examine water circulation and water quality issues within the new reservoir(s). The CFD study will provide the design team with recommended measures for water quality maintenance which may include operational recommendations, separation and strategic configuration of inlets and outlets, baffle walls, recirculation pumping, and other facilities to provide the ability to control disinfectant residual throughout the reservoir.
- We will look at ways to phase the work if appropriate depending on funding availability.

The Ardurra team offers unmatched reservoir planning, design, and construction management experience. The proposed scope of services is comprehensive; however, we are open to discussions with the City concerning the specific work tasks. The proposed team members have all worked together on past reservoir projects of similar scope and size and have a complete understanding of the project issues and solutions and are enthusiastic about working with the City on this important project. Please contact me at 858.842.6978 should you have any questions.

Sincerely,

Robert S. Weber  
Southwest Water Practice Director

Carmen Kasner, PE  
Principia-In-Charge
<table>
<thead>
<tr>
<th><strong>IDENTIFICATION OF PROPOSER</strong></th>
</tr>
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<tr>
<td><strong>Legal Name</strong></td>
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</table>
| **Local Office** | 1960 East Grand Avenue, Suite 300, El Segundo, CA 90245  
| | 310.359.1203 |
| **Legal Form of Company** | C Corporation |
| **Name(s) of Owners** | Not Applicable |
| **Number of Years in Business** | 45 |
| **Proposal Contact** | Robert S. Weber, PE  | Direct: 858.842.6978  | rweber@ardura.com |

**FIRM INTRODUCTION AND HISTORY**

Ardura Group, Inc. (Ardura), formerly known as Infrastructure Engineering Corporation (IEC), is a full-service civil engineering firm. In May 2021, IEC merged with Ardura, the strategic partnership is an enhancement of IEC by expanding our service offerings to our clients.

Ardura provides full-spectrum services to assist our clients from preliminary planning through project completion. From our substantial experience in the planning, design, and management of public infrastructure undertakings, we understand that projects today are driven by a balance of economic, environmental, social, and political factors. We believe in working in partnership with our clients to meet these challenges. We offer our clients an unmatched commitment to responsiveness, quality, and exceptional professional opportunities to our staff.

Ardura is an Engineering News-Record Top 500 firm providing consulting and engineering services to public entities throughout the United States. With 1,000+ employees in 50 offices across the country, Ardura is a rapidly growing company of experts, engineers, and design professionals committed to delivering quality services and practical solutions.
Mr. Dhingra is a technical leader with more than 40 years of experience in the planning and management of water resources and water distribution projects. Responsibilities have included design and construction administration of various hydraulic structures, ranging from reservoirs, pumping stations, and water treatment plants. Mr. Dhingra has managed the design and construction of more than 85 reinforced and prestressed concrete reservoirs and more than 20 steel tanks and several rehabilitation projects. He has provided quality assurance/quality control oversight of major water and wastewater projects.

CPM Construction has a broad engineering background with a specialty in Construction Management and more than 30 years of experience with major design engineers and contractors. Mr. Ansari has served as a Claim Consultant, Project Controls Engineer, Construction Engineer, and Project Engineer during the construction of projects ranging from pre-cast housing, roads, railroads, subways, bridges, industrial buildings, steel mill upgrade, power plant modernization, to the design and construction of pump stations, water distribution systems, wastewater collection systems, water and sewage treatment plants including AWTP (MF, RO, & UV).

Guida Surveying, Inc. (Guida) is a multi-disciplined land surveying firm that has provided project-based and on-call geomatics services throughout California since 1995. Guida has a long history of providing skilled surveyors, field crews, and office personnel who have significantly contributed to this region's infrastructure growth. The firm offers a depth of staffing resources that can provide flexibility to accommodate working off hours, variable days, and locations, if needed. Guida believes in building positive and long-term relationships with clients; therefore, they make every effort to keep time commitments without sacrificing quality and accuracy. With a high return rate of satisfied clients, Guida continues to offer the latest industry technology while maintaining traditional company values. No matter the size of the project—big or small—they are confident in their ability to provide excellent services. Land surveying is a passion and they are proud to say they do it well.

Ninyo & Moore, a California Corporation, is a minority-owned, multidisciplinary consulting firm that provides high-quality geotechnical and environmental consulting services. The firm was incorporated in 1986 to provide consulting services in geotechnical engineering, construction inspection and testing, engineering geology, hydrogeology, hazardous waste remediation and environmental assessment.

The quality of Ninyo & Moore's personnel base of 500 employees is widely recognized. Their staff of professionals includes experienced and registered geotechnical engineers, civil engineers, environmental engineers, engineering geologists, hydrogeologists, environmental scientists, certified technicians and field inspectors, and hazardous waste and regulatory compliance specialists. The experience of Ninyo & Moore's geotechnical staff encompasses projects throughout the southwestern United States, including commercial and municipal structures, recreational, educational, and medical facilities, roads, bridges, and railroads, water treatment plants, reservoirs, pipelines, pump stations, sewers, power plants, dams, waste-to-energy facilities, tanks, transmission towers, harbors and offshore structures, airports, tunnels, low- and high-rise structures, landfills, and other public and private works. In addition, Ninyo & Moore has five fully-equipped, certified geotechnical laboratory facilities in California supervised by registered engineers. Their laboratories are certified by AASHTO, Caltrans, the Division of the State Architect, City of Los Angeles, and City of San Diego.

**EXAMPLE PROJECTS**
- Encinal Canyon Tank and Water Line Improvements, Malibu, California
- Cabrillo Reservoir Replacement, Beverly Hills, California
- San Clemente Water Master Plan for Four Reservoir Sites, San Clemente, California
- Big Canyon Reservoir Flow Metering Vault and Treatment Improvement, Newport Beach, California
- Rosemead Tank, Rosemead, California
- Moorpark Reservoir, Thousand Oaks, California
- R-3 Reservoir, Corona, California
- 1630 West Reservoir Project, Rancho Cucamonga, California

New Morningside Reservoir Design
City of Inglewood

ARURRADA
PETERSON STRUCTURAL ENGINEERS

Peterson Structural Engineers (PSE) is a structural engineering and consulting firm specializing in structural evaluations and design, particularly in high seismic and high wind zone regions. For more than 50 years, PSE has provided design and consulting services for water-related infrastructure projects. Their experience includes water storage tanks, reservoirs constructed of reinforced concrete and prestressed concrete, steel, elevated reservoirs, and specialized unique systems. PSE has an experience list of 300+ reservoir projects completed to date and continue to contribute to the evolution of reservoir design standards. There are few structural engineering firms that possess more experience and technical acumen in water storage tanks and reservoirs than PSE.

Concrete reservoir types include cylindrical and rectangular standard reinforced concrete (including base isolated versions), prestressed concrete reservoirs, and concrete domes. PSE’s concrete reservoirs are designed and evaluated per current AWWA D110 and ACI 350 guidelines. In addition to their extensive experience in reservoir design, the firm also performs evaluations and upgrades for concrete reservoirs. PSE’s long history with water containment and storage structures allows a deep understanding of the historic types of reservoir systems, as well as the construction methods used during different eras. They have provided design recommendations and repair documents to repair leaking or damaged reservoirs as well as seismic upgrades for at-risk structures constructed decades earlier.

Darrell Water Tank, Hillsborough, CA
New 2.0 MG prestressed concrete water reservoir to replace two existing aging 0.5 MG welded steel tanks

Clearwells Prestressed Concrete Tanks, Poway, CA
Two new 4.0 MG prestressed concrete tanks to replace existing 10 MG concrete basin reservoir

WATER QUALITY SOLUTIONS

Water Quality Solutions Inc. (WQS), partners with clients to analyze flow and improve water quality in reservoirs, lakes, estuaries, and the coastal ocean. They provide technical expertise in reservoir water quality management, including nutrient and algal growth assessments. WQS is experienced in evaluating hypolimnetic oxygenation systems and tracer studies.
PROJECT MANAGER
AND KEY STAFF

ARDURRA
COLLABORATE INNOVATE CREATE.
MEET OUR PROJECT MANAGER

"I am truly excited about this opportunity and as your Project Manager will be dedicated to the success of the project and will see it through from start to finish. I have spent my 32 year professional career designing water facilities, and buried and partially-buried concrete water tanks in particular. I will bring creative solutions to the project on Day 1 and will lead our project team to produce the design plans in an efficient yet thorough manner. You have my commitment to provide responsive service and be available to the City at all times throughout this project."

- Rob Weber, PE

ROB’S TANK DESIGN EXPERIENCE SPANS OVER THREE DECADES

Rob will serve as the Project Manager and will be the primary contact with the City. He has 32 years of civil engineering and project management experience on a variety of water, wastewater, and recycled water projects. His specific experience includes AWWA D110 Type I prestressed concrete and steel tanks, of which he was involved in the design of several award-winning projects including an 8.0 MG reservoir with a community sports courts on top. Many of his tank projects have been partially- or fully-buried. The thoroughness and thoughtfulness that he brings to his projects is a result of his dedication and commitment to providing the client with the best possible project. He is always looking forward to his next tank design or rehabilitation project.

ARDURRA

New Morningside Reservoir Design
City of Inglewood
Ardurra has assembled an integrated team with a long history of working together on similar reservoir projects. Our team's continuity and experience will allow us to deliver solutions to satisfy all stakeholders. An organization chart is on the next page that depicts the project team members and their roles to provide comprehensive services for the City. Brief biographies for key team members follow. Resumes for key personnel are provided in the Appendix.
# Meet Our Key Personnel

## Carmen Kasner, PE
**Project Director**

- **Years Experience:** 32

**Why Carmen?**
- Designed or managed more than two dozen new and rehabilitated reservoir projects
- Experienced City Engineer to understand Agency
- Previous City of Inglewood experience

## Patrick Mulvey, PE
**Design Manager**

- **Years Experience:** 19

**Why Patrick?**
- Led site civil design for 40 MG buried Twin Oaks Reservoir No. 2
- Design Manager for 3.1 MG partially buried La Jolla View Reservoir that required extensive community outreach
- Design manager with proven track-record of project delivery
- Site drainage and hydromodification expertise

## Rick Kennedy, PE
**Pump Station Lead**

- **Years Experience:** 46
- **Years with the Firm:** 7

**Why Rick?**
- 45 years of experience in designing pump stations
- Designed more than a dozen new and retrofit municipal pump stations
- Pump stations range in size between 400 gpm to 400 mgd
- Experienced in various types of pumps and pump station configurations

## Tom Bloomer, PE
**Structural Lead**

- **Years Experience:** 23

**Why Tom?**
- Depth and breadth of working on 350+ prestressed concrete tank projects, 100+ in Southern California
- Practical, cost-effective, and constructable designs are the result of time spent in the field during the construction phase
- Numerous tank design projects with Ardurra’s team

## Amy Czajkowski, PE, CCM, QSD/P
**QA/QC Manager**

- **Years Experience:** 28
- **Years with the Firm:** 19

**Why Amy?**
- Certified Construction Manager
- Led constructability review for District’s recent MVRWRF Plant 2B Project
- Assistant Project Manager on 40 MG Twin Oaks Reservoir No. 2

## Oscar Gonzalez, PE
**Technical Advisor**

- **Years Experience:** 35

**Why Oscar?**
- Provided engineering and construction phase services for water storage and conveyance projects for 30+ years
- Worked on 10 concrete reservoirs; 5 welded steel tanks; and 1 bolted steel tank
- Expert in reservoir testing, commissioning, and facility start-up
ASH DHINGRA, PE, SE  
TECHNICAL ADVISOR  
YEARS EXPERIENCE 40  
YEARS WITH THE FIRM: 11

WHY ASH?

✓ 40+ years of experience in water resources and water distribution projects
✓ Managed design and construction of 85+ reinforced and prestressed concrete reservoirs
✓ Provided QA/QC oversight of major water and wastewater projects

TRAVIS MCFERON, PE  
STRUCTURAL QA/QC  
YEARS EXPERIENCE 21  
YEARS WITH THE FIRM: 21

WHY TRAVIS?

✓ Brings 20+ years of technical knowledge and QA/QC experience to the team
✓ Successful track record of delivering high quality projects
✓ Deep reservoir experience—involved in the evaluation or design of 200+ reservoirs

BENEFITS OF THE ARDURRA TEAM

Team Continuity  
100% of Team has worked with our PM, Rob Weber

Local Knowledge  
86% of Team located in Southern California

Responsiveness  
5 Miles from our El Segundo office to City Hall
PROJECT UNDERSTANDING AND APPROACH
The City of Inglewood is in the central portion of Los Angeles County, California and encompasses an area of approximately 9.2 square miles. The City is bordered by the City of Los Angeles on the East, North, and West sides and the County of Los Angeles and the City of Hawthorne on the South side. According to Census Bureau 2020 Data, the City's population is approximately 107,762. The City provides water service to approximately 86,854 customers within its service area of 7.2 square miles. The remaining customers are serviced by the Golden State Water Company (GSWC) or Cal American Water Company.

The City’s existing water production system consists of four (4) ground water wells, two (2) reservoirs, and the Sanford T. Anderson Water Treatment Plant (WTP). The City provided approximately 8,760 acre-feet of potable water to its customers last year, of which, approximately 2,500 acre-feet per year (AFY) was produced by the City wells and 6,260 AFY purchased from Metropolitan Water District (MWD) through West Basin Municipal Water District (WBMWD). The City service area is divided into three pressure zones with elevation varying from 60 to 247 feet above mean sea level (MSL).

The City is seeking a consultant to design a new 5-million-gallon (MG) reservoir to replace the existing 16 MG Morningside Reservoir. The existing reservoir is a 16 MG rectangular concrete reservoir and is one of two reservoirs in the City's water system. The Morningside Reservoir is located at the intersection of Crenshaw Boulevard and 90th street and was constructed in 1954 and taken out of service in approximately 2009 due to several observed problems including roof leakage, liner leakage, nitrification, and general poor condition that compromised the City's ability to provide a safe and reliable supply of water from this facility.

The existing reservoir consists of two rectangular bays each with an approximate capacity of 5.35 MG and each containing separate 24-inch diameter inlet and outlet pipes. The reservoir's sidewalls are approximately 20-feet high and floor elevation is 199.67 ft. The east end of the reservoir is adjacent to the County's Fire Station 173 and shares a common wall with part of that structure. The reservoir can be supplied with either imported water from Metropolitan Water District (MWD) through Connection #17 (Colorado River), Connection #38 (State Water Project), or the City’s Water Treatment Plant (WTP) that produces treated water that is pumped from four local groundwater wells. MWD and WTP flow can be blended in a mixing tank prior to entering the reservoir. Currently the City receives about 71% of its supply from MWD and 29% from the City wells via the WTP. It’s understood that production capability of the WTP currently exceeds demand. Flow is currently bypassed around the reservoir and pump station and delivered to Zones 2 and 3 directly. Zones 2 and 3 are closed and pressure control valves regulate system pressure in each zone and allow flow back into the reservoir when demand drops and triggers specific set points on the valves.

It appears the pump station electrical equipment is of original (or close to original) vintage. As part of Ardura’s research during the 2012 RFP, City staff indicated the pumps have constant speed motors that are controlled by across the line starters. The adjacent chlorination building appears to have at one time housed a gaseous chlorine feed system; however, the equipment has been removed and the building is for the most part empty except for scale and feed pumps.

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<td>Morningside Total</td>
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TABLE 1. The adjacent Morningside Pump Station takes suction out of the reservoir and can pump to Zones 2 and 3 of the City's water system. Pump station characteristics are generally summarized as follows.
The City previously explored alternatives to rehabilitate the existing reservoir. However, concerns over the viability of that project have prompted the City to explore alternatives to demolish the existing structure and replace it with a new structure with a capacity of 5 MG. A new reservoir can allow the City to reduce dependence on imported water through maximized WTP production and use of the new Morningside Reservoir for storage.

The objective of this project will be to first perform a feasibility study to address key project issues in sufficient detail to confirm project viability and prepare the required documentation so the City may obtain Federal funding through the USBR’s Small Storage Program. The Feasibility Study will address USBR requirements found at https://www.usbr.gov/smal/storage/index.html and will establish a project direction for subsequent final design activities.

The project will present challenges including determining optimal reservoir type and configuration, phasing of the improvements, elevation of the new reservoir, earthwork issues, consideration of site aesthetics and view corridors, the mixing tank, hydraulic performance of the new reservoir within the City’s system, hydraulic balancing, configuration of the pump station, chemical feed/water quality/circulation issues, constructability, and temporary impacts to the community.

Arduurra and its team of specialty subconsultants are reservoir design experts and have successfully addressed these and other issues working together on past reservoir and tank projects throughout California. Our proven track record of success with past projects makes our team qualified to deliver a successful project to the City of Inglewood. Past projects similar in scope and size to the Morningside Reservoir project include the City of Poway’s dual 4 MG Clearwell project, the Pala Mesa Tank project for Rainbow MWD that was master planned for 12 MG of storage but 6 MG is being constructed in the first phase, 6.5 MG Gano Reservoir for Olivenhain MWD, the dual 3.5 MG North Twin Oaks Tanks for Vallecitos WD, the dual 10 MG 640 I and 2 Reservoirs for Otay WD, the 40 MG Twin Oaks Tank No. 2 for Vallecitos WD, and the 8 MG Graham Reservoir for the City of Mountain View. In addition, we have provided construction phase services for other high profile reservoir projects including the Cypress Street Reservoir for the City of Lomita and the Upper Chiquita Reservoir for Rancho Santa Margarita Water District. We will apply our substantial tank and reservoir project experience to make the Morningside Reservoir project an unqualified success for the City.

We have developed a comprehensive approach to identify and address key issues for the Morningside Reservoir project. Key to our approach is the early evaluation of reservoir alternatives and the ultimate site configuration including a recommended phasing of improvements. Depending on available funding, it may be appropriate to phase certain improvements; however, master planning and preparing the site for the ultimate project will be considered and recommendations brought forward for discussion with the City.

Figure 1. The overall tasks and sequence of activities is graphically depicted as follows:

**Phase I — Preliminary Engineering & Environmental Services**
- Kick-off Meeting
- Data Collection & Records Research
- Coordinate for Utility Mark Out
- Aerial Topography & Design Survey
- Geotechnical Investigation
- Transient Analysis
- Computational Fluid Dynamics Study
- Hazardous Materials Assessment
- Environmental Review
- Preliminary Drawings
- Preliminary Design Report/Feasibility Study

**Phase II — Final Design Engineering Services**
- Draft Existing Utilities, Easements, & Right-of-Way
- Field Investigations
- Progress Meeting to Discuss Alignment
- Prepare 60%, 90%, & 100% PS&E
- City Review & Progress Meetings
- Coordinate Potholing
- Provide Final PS&E Ready For Bid

**Phase III — Construction Phase**
- Questions During Bidding/Addenda
- Pre-Construction Meeting
- Review Shop Drawings
- Review PCOs
- Construction Progress Meeting
- Prepare Record Drawings
- Claims Avoidance/Conflict Resolution

Future Work
Key design issues and how the Ardurra team will address them include the following:

Reservoir and Site Alternatives
Early determination of the proposed reservoir and site layout will be of utmost importance and definition of the tank High Water Level (HWL) and Low Water Level (LWL) are critical to analyze site configurations and costs. Matching the HWL of the existing Morningside Reservoir (approximately 220 ft) will minimize the impact to the community. Equally important will be the proposed reservoir LWL, which will be determined in connection with the hydraulic analysis and will be considered in conjunction with the pump station reconfiguration and the impacts to earthwork quantities and constructability.

Consideration of reservoir height, pad elevation, dimensions/diameter, accessibility, views from the surrounding community, and earthwork and grading are all considerations that will be thoroughly evaluated, and recommendations provided to the City as part of the Feasibility Study. Major considerations will include:

Reservoir Dimensions
For this size project, rectangular or circular concrete tanks are viable options at this initial planning stage. Ardurra will evaluate rectangular and circular reservoir alternatives to recommend the most viable and cost-effective storage configuration for the Morningside Reservoir.

Circular concrete reservoirs of this size in California are customarily designed and constructed pursuant to AWWA D110 Type I or Type III standards. Both are pre-stressed concrete with the Type I reservoir mechanically pre-stressed and the Type III reservoir pre-stressed using a die-drawn process. Each type has its opportunities and constraints that will be considered and evaluated.

For the Morningside Reservoir site, the limiting factor for the use of circular tanks is the north-south dimension of the existing reservoir (approximately 200 ft). Keeping the new reservoir(s) within the footprint of the existing facility will minimize the impact on the community and allow for adequate working space for construction. A new circular concrete reservoir with a diameter of approximately 200-feet would obtain the City's desired storage capacity of 5 MG for the site. There may be the potential for providing additional storage on the site if desired and our team can consider this in discussions with the City.

The dimensions of the site lend themselves to a rectangular configuration similar to the existing reservoir. Rectangular reservoirs are customarily constructed of conventionally reinforced concrete and have a straight wall with a hopper bottom. This configuration may be constructed within the limits of the existing reservoir.

As part of the Feasibility Study, Ardurra will further develop and refine both circular and rectangular reservoir configuration alternatives and present them to the City for discussion. This will be one of the first orders of work to establish the direction of the remainder of the project.

Grading and Earthwork
Our experience has been that constructing the reservoir in cut versus cut/fill minimizes potential for differential settlement, which is highly undesirable. Based on the possible reservoir configurations, it is highly likely the new reservoir will be entirely in cut. This will be further developed and explored in the Feasibility Study.

Structural Design – Rectangular Reservoir
If a rectangular hopper bottom reservoir is ultimately selected for design, the design will conform to the latest CBC, ASCE, and ACI requirements. The reservoir will be designed for seismic events including impulsive (restrained bottom content) and convective (slashing top content) stresses of hydrodynamic effects. Freeboard will be considered when determining the height of the walls. The roof will be a two-way slab with drop panels supported by columns. The roof will have ample axial strength such that no additional concrete will be needed to provide the support for the walls. The floor slab will be cost-effectively designed as a membrane type slab to transfer the water bearing loads to the soil below. Structural design shall also consider the adjacent fire station and common wall and measures to protect the existing structure in place during construction if the Feasibility Study suggests locating the new reservoir on the east side of the site.

Structural Design – Circular Reservoir
For a circular concrete reservoir, the design approach will consist of a strand-wound, circular, prestressed concrete reservoir designed according to site-specific response spectrum. The roof slab system is a two-way reinforced concrete slab with drop panels supported with circular concrete columns on upturn spread footings. The reservoir bottom will be comprised of a reinforced concrete slab-on-grade system. The circular wall is a two-part component system consisting of an interior reinforced core wall and an exterior strand-wound, prestressed wall with gunite overcoat. The wall system utilizes primarily hoop action to resist hydrostatic and hydrodynamic stresses generated under gravity and seismic loading conditions. The core wall is also prestressed with vertical dowels to achieve a complete orthogonal compression condition for the reservoir perimeter wall. The circular reservoir hoop stress action eliminates the typical bending stresses in traditional wall, providing substantial economy to the reservoir wall. The perimeter wall is anchored to the perimeter footing with sets of stainless steel cables so the reservoir can deform into oval shapes if needed to provide the necessary ductility, flexibility, and energy dissipation in a seismic event.

Department of Safety of Dams Issues
From an agency jurisdiction standpoint, the circular reservoir of the size contemplated herein can be constructed without oversight from the California State Department of Safety of Dams (DSOD). A rectangular reservoir, depending on wall height and volume, could be subject to DSOD review however the proposed wall height and volume of Morningside Reservoir is not expected to fall into the DSOD's jurisdiction but this is an issue that will be confirmed in the Feasibility Study.
PROJECT UNDERSTANDING AND APPROACH

Computational Fluid Dynamics Study
A Computational Fluid Dynamics (CFD) study is recommended to evaluate water age and the flow of water through the reservoir. This may suggest an internal mixer or other measures to be recommended for inclusion in the final design. Water Quality Solutions, a nationally recognized leader for this type of work, will perform this work. As the City experienced with the existing facility, high water age in a storage tank may result in nitrification or loss of chlorine residual. The best solution to prevent nitrification is a design that minimizes dead spots within the tank and reduces water age. To address the circulation patterns in the proposed tank(s), we propose using CFD for the detailed determination of velocity distributions. CFD will be very helpful in defining the flow characteristics and particle paths in the reservoirs and in reducing or even eliminating “dead spots”. To address water quality concerns, we will also compute the water age in the tank for the proposed flow scenario. Furthermore, if the disinfectant inflow concentration and decay rates are known, we can compute the chlorine distribution in the tank.

Disinfection Facilities
The preliminary design will provide recommendations for new disinfection facilities to be co-located with the new Morningside Booster Station. The disinfection facilities are anticipated to consist of liquid sodium hypochlorite and aqua ammonia storage and feed and control systems. We will also evaluate the potential for on-site generation of sodium hypochlorite versus bulk storage facilities. On-site hypochlorite generation systems have become favorable over bulk storage facilities due to their ease of operation and ability to minimize bulk storage of hypochlorite.

Morningside Booster Station
The existing booster station will be evaluated, and a new booster station configuration recommended. Issues that will be considered include the number and capacity of the pumps, reuse of the existing facilities to the extent possible, incorporation of programmable soft starters or variable frequency drives (VFD’s) into the design, accessibility, noise, aesthetics, and security. A new booster station layout and configuration, to include a description of the recommended Supervisory Control and Data Acquisition (SCADA) facilities will be provided as part of the Feasibility Study.

Aesthetics
The existing Morningside Reservoir is in a predominantly residential area with the existing reservoir being non-descript due to its low profile and long-term presence in the neighborhood. Aesthetics of the new facilities should be considered as well as the community’s potential reaction to any eventual project at the site. Reservoir configurations that have roughly the same HWL as the existing reservoir will present less of an issue aesthetically; however, the project may still present concerns to the community. We will provide up to two photo simulations of the new reservoir to aid the evaluation of aesthetic impacts and support the City in the community relations process. Other aesthetic considerations may include tank coatings and strategically placed and low maintenance, drought tolerant landscaping.

Reservoir Appurtenances
Appurtenances will include stairs or ladders to access the reservoir roof, sampling ports, roof manways, and vents. These will be discussed with City Operations staff during the preliminary design phase so Operator input is maximized.

Site Security
Our approach will evaluate site security measures such as intrusion alarms, replacing existing fencing and gates where required, or the installation of security cameras if desired by the City.

Site Piping and Connections
Arduura will master plan the site piping in consideration of constructability and phasing. Inlet, outlet, and overflow pipes, as well as control valves and seismic protection controls (if desired) will be addressed. Inlets and outlets will be located apart where feasible to assist in water circulation through the reservoir as determined in conjunction with the CFD study. Yard piping material is proposed to be cement mortar lined and coated steel on the inlet and either steel or possibly PVC on the outlet depending on pressure conditions. Overflow piping may be PVC or Reinforced Concrete Pipe (RCP) for gravity applications.

Control Valves
The reservoir inlet and outlet pipes will have isolation valves, and the need or preference for a seismic valve on the outlet will be discussed. The control valve configuration that currently regulates flow in and out of the existing reservoir will be reviewed and discussed with City staff and modifications, if any, will be recommended.

Overflow Piping
Overflow from the reservoir will be directed to a common site overflow box that will daylight to a bio retention basin and an appropriate gravity discharge point and be discharged to the southeast side of the site consistent with the existing reservoir’s overflow.

Geotechnical Issues
The reservoir site is in relatively flat terrain of the Los Angeles Basin. Regional geologic maps indicate the site is underlain by Pleistocene-age old alluvial deposits that are typically comprised of moderately well consolidated gravel, sand, silt, and clay. The depth to groundwater is estimated to be approximately 50 feet. The site is not located in a State of California Seismic Hazard Zone for soil liquefaction. The site is not crossed by known active faults and is not located in a State of California Earthquake Fault Zone. The Poltroo fault (part of the active Newport Inglewood fault zone), however, is located 1,000 feet west-southwest of the site. Nimco & Moore will perform an initial geotechnical investigation of the site. A geotechnical investigation plan will be provided to the City ahead of the field investigation work. The investigation will consist of two borings constructed to a depth of 50 feet or refusal, whichever comes first. Key information to be developed will include recommendations for site grading, over-excavation if necessary, and development of pertinent geotechnical recommendations for consideration in the Feasibility Study and design.
PROJECT UNDERSTANDING AND APPROACH

Storm Water Pollution Prevention
Due to the size of the project and scale of anticipated earth moving operations, the need for a project-specific storm water pollution prevention plan (SWPPP) will be evaluated and a recommendation made. The project-specific SWPPP plan is required to be prepared by a registered Qualified SWPPP Developer (QSD) and will be more prepared as part of final design.

Corrosion Issues
Buried metallic piping will be provided with corrosion protection. A Soil Corrosivity Assessment will be performed as part of preliminary design, followed by a corrosion control design as part of final design. Corrosion control for buried steel pipe, where utilized, is anticipated to consist of cement mortar coating and cathodic protection test stations. This will be further evaluated, and a recommendation provided in the preliminary design.

Electrical and Instrumentation Design/SCADA
The electrical and instrumentation design will consider City preferences for the pump station and SCADA equipment and provide for integration of reservoir into the City's system. The pump station control building will house the programmable logic controller (PLC) and provide a centralized and easy to access location for communications, security, and electrical equipment. Reservoir level and security information (hatch intrusion, security cameras) will be reported through the SCADA system.

Environmental Review
Once the recommended reservoir configuration is developed and discussed with the City, we will conduct a preliminary review of potential environmental issues associated with the project and a recommendation for further studies and work for compliance with the California Environmental Quality Act (CEQA).

Community Issues
Ardurra will support the City through preparation of exhibits for meetings with the community, and attendance at community meetings to present project details and answer questions. A specific community outreach program is not planned at this time however may be added later if desired or deemed necessary by the City.

Opinion of Probable Construction Cost
A cost opinion will be prepared at the draft and final preliminary design phases. The cost opinion shall also consider localized market conditions as we have seen on bids and construction pricing for our recent reservoir projects.

Project Scheduling and Phasing
We will identify a proposed project phasing plan as part of the preliminary design. This will consider the potential to construct one reservoir now and a potential future reservoir at a later time depending on funding availability and need.
# Certificate of Liability Insurance

**Date (MM/DD/YYYY):** 12/28/2021

**Producer:** Ames & Gough

**Insured:** Ardurra Group, Inc.

**Insurer A:** Valley Forge Insurance Company

**Insurer B:** National Fire Insurance Company of Hartford

**Insurer C:** Continental Insurance Company

**Insurer D:** Berkshire Hathaway Specialty Insurance Company

## Coverages

**Certificate Number:** 6075640222

### A: Commercial General Liability

- **Type:** Occurrence
- **Limits:** $1,000,000

### B: Automobile Liability

- **ANY AUTO OWNED:**
  - **Limits:** $1,000,000
- **COMBINED SINGLE LIMIT:**
  - **Physical Damage/Bodily Injury:** $1,000,000

### C: Umbrella Liability

- **EXCESS UMBRELLA:**
  - **Limits:** $15,000,000

### D: Professional Liability

- **Limits:** $10,000,000

## Evidence of Coverage

**Evidence of Coverage:**

**Cancellation:**

**Authorization:**

**Firm Name:** Ardurra

**City, State, ZIP Code:** McLean, VA 22102

**Address:** 8309 Greensboro Drive

**Fax:** (703) 827-2279

**Email:** admin@amesgough.com

**Naic:**

**REVISION NUMBER:**

**INSTRUCTIONS:**

- **Description of Operations/Locations/Vehicles:**
- **Additional Information:**

**New Morningside Reservoir Design**

**City of Inglewood**

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SCOPE OF WORK
The following is a detailed scope of services for the delivery of Ardurra's unique approach to the project. The tasks in this section are based on the requirements stated in the Request for Proposal, our understanding of the project, the pre-proposal meeting, review of materials, and our experience with similar projects.

The design schedule, submitted in separate envelope, illustrates how Ardurra will meet the City's scope and timeline provided in the Request for Proposal. Based on this schedule, the design can be completed within eight calendar months.

**TASK 1 – PROJECT MANAGEMENT AND COORDINATION**

Ardurra will provide project management, coordination, proposed project schedule, quality management, and progress meetings for the City to ensure adherence to project scope, schedule, and budget. We propose four (4) meetings: kickoff meeting/site visit followed by three (3) virtual progress meetings. Ardurra will attend additional meetings as needed for collaboration and information sharing among the Consultant, City Staff, and outside agencies.

**TASK 1 DELIVERABLES:**

- Project schedule
- Meeting agendas and minutes

**TASK 2 – SURVEY**

In the preliminary design phase, Ardurra will collect and assemble information for incorporation into the development of construction drawings and documents. Ardurra will conduct a field visit and investigation of Inglewood Morningside Reservoir including review of existing documents and current process schema. A professional field survey and utilities research will be completed. The Ardurra team will thoroughly review the existing layout, physical conditions and available data for the reservoir site including record drawings, shop drawings, current process schema, past investigations, site pictures, new reservoir layout exhibit, existing utilities map, Inglewood Water Master Plan 2015, and other available information and reports.

Ardurra’s comprehensive review of information, field investigation, and discussions with the City’s Operations and Engineering teams will aid the design process.

**Survey and Mapping**

Guida Surveying will provide professional Land Surveying Services of the project site for Ardurra and the City. Guida understands that the Morningside Reservoir will initially be demolished, and a Topographic Survey will be performed after demo is complete (Figure 2). Guida will Field Establish Survey Control, perform a conventional topographic survey, and provide a Topographic Map with 1' contours.

**SCOPE OF WORK #1: FIELD ESTABLISH CONTROL**

Guida will field establish control based upon the California Coordinate System and Local County/City Benchmarks (unless otherwise directed by the City).

**SCOPE OF WORK #2: PERFORM DESIGN SURVEYS**

Guida will collect spot elevations, back of walk, top of curb, sidewalks, Driveway depressions, grade breaks, visible utilities (gravity flow opened and dipped for Invert Elevations), Building Corners, FFE of buildings, trees, planters, curb islands, and other features for the purposes of Civil Design.

**SCOPE OF WORK #3: UTILITY SURVEYS (POST DEMOLITION)**

Guida will field data collect visible utilities within the project limits. Facilities will be drafted into the base mapping and labeled. Gravity flow utilities (Sewer & Storm Drain) will be opened and dipped for Invert Elevations and pipe sizes if accessible.

The following assumptions have been made:

1. Client will provide access to the property
2. Surveys will commence once demolition is complete
3. Client will notify if Pre-Demolition condition survey is required

Figure 2. Aerial view of project site with Limits of Survey (Pre-Demolition) shown with red line
The following are excluded from scope of work:
1. Legal Descriptions and Plats
2. Boundary Surveys
3. Record of Survey

**TASK 2 DELIVERABLES:**
- AutoCAD Civil 3D dwg file containing 1’ contours, DTM
- Surface, visible utilities (post demolition)

**TASK 3 - GEOTECHNICAL INVESTIGATION**

Ninyo and Moore will perform a geotechnical evaluation of the project site for Ardurra and the City. The purpose of the geotechnical services will be to evaluate the soil, geologic, and groundwater conditions at the site in order to develop geotechnical recommendations for the design and construction of the new reservoir and associated improvements. The primary geotechnical considerations for the project include evaluating proposed grading that will be involved in demolishing the existing reservoir and backfilling the void space, evaluating appropriate remedial grading depths to prepare the subgrade for the new reservoir and associated improvements, developing site-specific seismic design criteria for the new reservoir, and providing appropriate geotechnical foundation design recommendations to support the new structures. Due to site access constraints, Ninyo and Moore will utilize a specialty limited-access track-mounted hollow-stem auger drill rig for performing two exploratory borings. One boring is planned to be drilled on the access road that leads to the reservoir roof from the south side of the reservoir and the second boring is planned between the sidewalk on Pinay Drive and the toe of the slope that descends from the north side of the reservoir.

**Geotechnical Design Services**

Based on Ninyo and Moore’s understanding of the project, the scope of services will consist of a geotechnical evaluation of the site and will include the following:
- Project coordination, planning, and scheduling for the subsurface exploration.
- Review of readily available existing geotechnical information pertinent to the project. These records may include existing geotechnical reports, field tests, boring logs, structure drawings, or other written documents pertaining to the subsurface conditions at the site. Ninyo & Moore will review documents that are made available by the City of Inglewood.
- Review and consultation with the project engineer regarding the existing structures, planned demolition, site grading, new structures, and the geotechnical aspects of the project.
- Acquisition of a County of Los Angeles Environmental Health Department permit for drilling deeper than 10 feet below the ground surface.
- Perform a site reconnaissance to mark the proposed boring locations and coordinate with Underground Service Alert and the City for underground utility location.

- Subsurface exploration consisting of the drilling, logging, and sampling of two small-diameter hollow-stem auger borings with a limited-access track-mounted drill rig. The borings will be drilled to depths up to approximately 50 feet, or refusal, whichever is shallower. Relatively undisturbed and bulk samples will be obtained at selected intervals, and the soil samples will be transported to our laboratory for testing. The borings will be backfilled with grout in accordance with Los Angeles County guidelines. Borings drilled in paved areas will be patched with rapid-set concrete. If soil cuttings from the borings cannot remain onsite, they will be drummed and disposed of offsite.
- Laboratory testing of representative samples to evaluate in-situ moisture and density, gradation, Atterberg limits, shear strength, consolidation, and corrosivity, as appropriate.
- Data compilation and geotechnical analysis of the field and laboratory data, including analyses to evaluate and provide recommendations pertaining to the following:
  - Suitability of the site for the proposed construction from a geotechnical standpoint.
  - Description of the geology and on-site soils anticipated at the site, including an evaluation of the geologic hazards at the site.
  - Evaluation of the depth to groundwater based on our subsurface exploration and review of regional groundwater data.
  - Excavation and compaction recommendations, including general site grading following demolition of the existing reservoir, remedial grading recommendations to prepare the pad for the new reservoir and associated equipment.
  - Site excavation characteristics including potential for difficult excavations, such as caving and the presence of over-size material (i.e., cobbles and boulders).
  - General earthwork and grading considerations, including compaction requirements and suitability of on-site material for use as fill/trench backfill.
  - Analysis of the temporary stability of excavations and shoring pressures, including allowable lateral earth pressures and allowable passive pressures, if needed.
  - Evaluation of suitable foundation types, as well as allowable bearing capacities, friction coefficient, allowable passive pressures, and anticipated differential settlement.
  - Evaluation of the corrosion potential of the site soils and the appropriate type of concrete to be utilized during construction.
**SCOPE OF WORK**

- Preparation of a "Draft" Geotechnical Report for the project. The report will be fully illustrated with site plans and boring locations, boring logs, and laboratory test results. The report will present findings, conclusions, and recommendations for the design and construction of the proposed improvements.
- Following receipt of review comments, Ninyo and Moore will prepare a final geotechnical report that incorporates revisions based on comments received. They will review and respond to one round of review comments.

The following assumptions have been made:

1. Site access will be granted and drilling equipment will be able to mobilize to the proposed exploration locations during normal working hours (Monday through Friday, 7:00 a.m. to 5:00 p.m).
2. Ninyo and Moore will contact USA prior to performing subsurface evaluation. Ninyo and Moore will not be responsible for utilities encountered during subsurface exploration that have not been marked out or shown on the plans.
3. If post-report consultation is needed such as meeting attendance or to perform a geotechnical review of the construction drawings and specifications, the additional services will be performed on a time-and-materials basis.
4. Field exploration does not include sampling, testing, or chemical analysis of soil, groundwater, surface water, or other materials for the purpose of evaluating possible environmental hazards or risks. These services can be provided, if requested, as an additional scope of work.

**TASK 3 DELIVERABLES:**
- Draft Geotechnical Report
- Final Geotechnical Report

**TASK 4 – FEASIBILITY STUDY**

Ardurra will perform a feasibility study and prepare required report per Federal Funding guidelines from the Bureau of Reclamation Small Storage Program outlined in the RFP. These requirements are for feasibility studies conducted under the Bureau of Reclamation's Small Surface Water and Groundwater Storage Projects Program. The purpose of Reclamation's review is to determine if a small surface water and/or groundwater storage feasibility study report meets the requirements of a small surface water and groundwater storage feasibility study as defined under section 40903 of Pub. L. 117-58.
(Source: [https://www.usbr.gov/re/reference temporary releases/cmg/1rmr-127.pdf](https://www.usbr.gov/re/reference temporary releases/cmg/1rmr-127.pdf))

Feasibility Study Report will include the following contents:
- Introductory Information
- Statement of Problems and Needs
- Small Surface Water and Groundwater Storage Opportunities
- Description of Alternatives
- Economic Analysis
- Selection of the Proposed Small Surface Water and Groundwater Storage Project
- Risk and Uncertainty
- Environmental Consideration and Potential Effects
- Legal and Institutional Requirements
- Sufficient Non-Federal Funding

Ardurra will conduct independent research, utilize the PDR, and review City documents—including the Inglewood Water Master Plan 2015—to execute the feasibility study and report.

**TASK 4 DELIVERABLES:**
- Feasibility Study and Report per Bureau of Reclamation's Small Storage Program requirements

**TASK 5 – PREPARE CEQA DOCUMENTATION**

Understanding: The City of Inglewood's plan to demolish the existing 16-million-gallon reservoir and replace it with one 5-million-gallon reservoir requires discretionary approval and is therefore considered a "Project" under the California Environmental Quality Act (CEQA). Compliance with CEQA will require a thorough and unbiased report which clearly explains the type and extent of reasonably anticipated environmental impacts for all phases of the project. Any project impact considered significant or cumulatively significant will require mitigation measures pursuant to CEQA. Significant project impacts and proposed mitigation must be disclosed to the public for review and comment prior to project approval and construction.

It will be important to identify potentially significant environmental impacts for feasibility analysis of alternatives and during initial project design. At this stage, plan modifications can be incorporated into the project to reduce and/or eliminate impacts. Mitigation measures will be identified later during CEQA analysis to lessen impacts that exceed CEQA thresholds of significance, for significant impacts that are not sufficiently reduced through design modifications. Mandatory Findings of Significance that must be made with an Initial Study/Mitigated Negative Declaration (IS/MND) require that all project impacts are shown to be reduced to levels that are less than significant with mitigation. A Mitigation Monitoring and Reporting Program (MMRP) will be prepared as part of the Final IS/MND pursuant to Public Resources Code Section 21081.6. The MMRP will identify responsible party and timing for each mitigation measure and will be a recordkeeping document for proper implementation of each mitigation measure for CEQA compliance.

An IS/MND has been requested by city staff for CEQA clearance. The IS/MND will be reviewed with improvement plans and certified for CEQA compliance by city decision makers with their consideration of discretionary project approvals. The IS/MND analysis will be tiered from the City's General Plan analysis and incorporate input from stakeholders, information from previously approved technical reports and pertinent data from technical analysis completed for the project.
SCOPE OF WORK

Approach: Ardurra's environmental project manager will oversee the daily progress of all environmental deliverables and will meet with design engineers, city staff and sub consultants on an as-needed basis throughout the CEQA process. The environmental project manager will attend project meetings with City staff to facilitate efficient flow of information and progress toward maintaining the contract schedule and budget requirements. This approach will include ongoing QA/QC by the environmental project manager for CEQA compliance on all environmental deliverables prior to City review.

Ardurra's environmental team will thoroughly research and document environmental issues for the project. Previous relevant technical analysis from studies of the site will be reviewed. Information on projects in the local vicinity will be obtained, reviewed, and incorporated into the CEQA analysis. Ardurra will identify any gaps in analysis of existing available studies and will perform technical studies to fill data gaps for environmental due diligence on the reasonably anticipated project impacts from implementation of proposed design depicted in 60 percent plans. Significant project impacts will be described both quantitatively and qualitatively for demolition, construction, long-term operations and maintenance.

Ardurra will prepare an IS/MND that thoroughly evaluates all issue areas listed in the 2019 Appendix G Environmental Checklist. Ardurra will provide the City with technical studies, which quantify impacts and recommend mitigation to reduce impacts for each key environmental issue triggered by the project. Key issues for technical analysis are anticipated to be:

- **Changed Views from Public Vantage Points, Surrounding Neighborhoods, and Residential Parcels:** Demolition, grading, vegetation removal/replacement and modified height and massing of the new reservoir may result in changed views that could be considered significant in the local vicinity and on adjacent parcels. Ardurra will provide a photo reconnaissance of existing conditions from the site and surrounding vantage points. Site sections depicting before and after views of the project site from nearby vantage points will be developed for use in the IS/MND and at public hearings.

- **Soils, Geology and Geotechnical:** Mostly fill and some natural alluvial soils may occur at the project site. It is anticipated that demolition and grading will significantly change the topography of the site. Due to the proximity of the site to known active faults, special requirements on site preparation, foundations and the design of the reservoir will be required to sufficiently address these issues. A preliminary soils, geology and geotechnical analysis must be done to evaluate the project for potentially significant impacts and recommendations on site preparation and foundation treatments to mitigate impacts. The analysis will be incorporated into the IS/MND to document the level of significant impacts with mitigation measures recommended by a geotechnical engineer to reduce risk and maximize safety.

- **Hazards and Hazardous Materials:** Existing tanks and soils on site may contain hazardous coatings. Therefore, demolition, grading and construction may involve the release of hazardous materials into the environment and the transport and disposal toxic. For these reasons, materials testing for environmental assessment of hazardous materials, remediation and disposal will be necessary. Soils testing would confirm if contaminated soils are found on site or if any of the existing tank coating or structural materials used in the existing tanks would pose risk of exposure to potentially harmful constituents. This analysis will include recommendations for mitigation to reduce risk to human health which will be incorporated into the IS/MND.

- **Hydrology, Drainage, and Water Quality:** Proposed modification of existing topography and drainage with project implementation and compliance with the City's NPDES storm water quality program for construction and long-term operation will be described qualitatively. The ISMND will document receiving waters, pollutants of concern, and beneficial uses and will summarize changes to the reservoir site with the project and the potential need for off-site improvements to the City's storm drain system. Best Management Practices that could reasonably be incorporated into the Storm Water Pollution Prevention Plan and Water Quality Management Plan for the Project will be identified.

- **Traffic and Circulation:** Demolition and site preparation for construction of the project will generate additional truck trips to and from the project site. These larger, slower moving vehicle trips could affect the operations of nearby intersections roadways, access to the adjacent park and fire station, as well as safety on evacuation routes and at the point of ingress and egress from the site. Vehicular circulation in the local vicinity may be temporarily changed due to project construction. In addition, roadway level of service and intersection operations in the local vicinity could be temporarily affected during demolition and construction. Operations at freeway on- and off-ramps may be slowed during some phases of construction when materials import and export occurs. It will be necessary to evaluate access locations, demolition and grading quantities, haul routes, and construction phasing to determine significance of impacts. Mitigation measures will be recommended to minimize temporary traffic and circulation impacts to less than significant levels.

- **Cultural Resources and Tribal Consultation:** Due to the original construction date of 1954, the existing reservoir is of historically significant age and the surrounding neighborhoods and buildings may also be considered potentially significant in this regard; therefore, an assessment of the existing site and structures and the surrounding neighborhoods is required for compliance with CEQA and the National Historic Preservation Act. Archival and background research from local and state agencies will be conducted to document the potential for and the presence and location of buried deposits and features of historic and/or archaeological significance that could be affected by the project. Towards this goal, existing reports, literature, maps, aerial photos, and other relevant data will be reviewed to develop historic contexts for evaluation of cultural
resources. A records search will be conducted at the Northwest Information Center of the California Historical Resources Information System at Sonoma State University (NWIC). Existing site records, a list of cultural resources reports within a 1/4-mile radius of the project, a list of previous surveys within the local vicinity, and relevant historic maps will be obtained and reviewed. A records search for paleontological resources will be completed. As an optional task, Ardurra will assist the City with tribal consultation that is required for environmental clearance pursuant to AB 52 if necessary. A report will be generated which summarizes this research and the potential impacts to cultural resources will be written and summarized in the IS/MND.

**Air Quality and Greenhouse Gases**

Baseline conditions will be documented using existing available meteorological data, project-related emissions will be calculated and compared with the goals of the City of Inglewood Energy and Climate Action Plan. Project contribution to regional criteria pollutant emissions associated with demolition and construction activities will be quantified utilizing the most recent CalEEMod Model. If significant emission levels are found to be created from construction activities, feasible mitigation will be developed and quantified. If the traffic study data deems it necessary, prepare a micro-scale CO screening analysis of the study area intersections based on anticipated intersection operations will be conducted in accordance with the SCAQMD requirements as described in their CEQA Air Quality Guidelines. As per the SCAQMD CEQA Air Quality Guidelines, construction related GHG emissions will be quantified and disclosed (through the use of CalEEMod 2016.3.2), and a determination on the significance of the construction generated GHG emission impacts in relation to meeting AB 32, SB 374 GHG reduction goals will be provided. If necessary and applicable, best management practices to reduce GHG emissions during construction will be incorporated into the report. Based on the conclusions of hazardous materials studies and air quality modeling, a construction-phase Health Risk Assessment will be done for the project as an optional task.

**Noise**

The project will result in temporary, intermittent short-term noise on the project site and within the local vicinity from trucks and the operation of construction equipment. It will be important to identify the closest sensitive receptors so that existing noise levels can be measured at these locations. Project noise can be calculated based on the project phasing plan and noise impacts can be modeled and quantified for each phase. Modeling will show the effectiveness of mitigation measures if necessary.

**5.1 Environmental Baseline and Constraints**

The environmental team will conduct field investigations and research of the project site and local vicinity to document existing conditions and the environmental baseline for CEQA analysis. This work will result in a map and a technical memo describing existing conditions and environmental constraints which will be incorporated in the CEQA Initial Study and used for development of 30 percent conceptual plans for the project.

**5.2 CEQA Project Description**

A CEQA project description will be written based on review 60 percent project plans by the environmental team. The Project Description and will identify metrics, equipment, activities and duration of demolition, grading, construction phases, as well as long-term operations and maintenance associated with the project. Upon approval by city staff, the CEQA Project Description will become the basis of the IS/MND and technical analysis.

**5.3 Initial Study and Technical Studies**

Ardurra will complete the Environmental Checklist, Appendix G for the project. This work will include summarizing information generated in Tasks 4.1 and 4.2 to complete checklist questions for the project. Technical studies prepared for the project will also be reviewed in relevant sections of the checklist and appended to the checklist. Ardurra will prepare figures that are required by CEQA and that supplement written text to clearly show the extent of anticipated impacts for each project phase.

**5.4 Draft Initial Study/Mitigated Negative Declaration**

The Draft IS/MND will summarize conclusions and recommendations for impact significance and mitigation using text and figures. The IS/MND will reference City standards and procedures, Codes and Ordinances as well as requirements set forth in CEQA Statutes and Guidelines on significance of Project impacts. The Draft IS/ MND will fully describe why impacts are deemed to be less than significant as well as systematically document changes on the Project site and in the local vicinity leading to potentially significant impacts requiring mitigation. The levels of Project impacts both with and without mitigation will be documented. The Draft IS/ MND will be sent to the City for review and comment in a format requested by the City. Ardurra will meet with the City to receive and discuss comments for revisions, which will be incorporated into these documents to finalize the IS/MND for public circulation and public review and comments.

**5.5 Final Initial Study/Mitigated Negative Declaration**

Response to Comments

Ardurra will revise the IS/MND and technical studies to incorporate staff comments. Once all documents are deemed compliant with the City's requirements, Ardurra will provide public review documents to the City to initiate the public review period. There will be a 30-day public review period once the document has been made public. Prior to Public Hearings on the Project, Ardurra's environmental team will draft Response to Comments (RTC) for City review and approval. Each comment received during the public review period for the IS/MND will be bracketed and labeled according to City format requirements. A draft response corresponding to each labeled comment will be provided in a matrix or other agreed upon format for City review and approval. Ardurra will finalize RTC by incorporating one combined set of City comments into the RTC document.
Mitigation Monitoring and Reporting Program
Ardurra will draft a Mitigation Monitoring and Reporting Program (MMRP) pursuant to Public Resources Code Section 21081.6 for City review and comment. The MMRP will be in a format approved by the City and will list each mitigation measure and provide timing, implementation methodology and responsible parties.

5.6 CEQA Notices and Forms
Prior to Public Hearings on the Project, Ardurra will prepare draft Findings of Fact for City use based on conclusions from the IS/ MND for each potentially significant impact and mitigation measure identified during the CEQA process. Findings of Fact will document potentially significant levels of Project impacts and levels of significance with mitigation for the City's administrative record.

Ardurra's scope and fee includes two public hearings before Planning Commission and/or City Council on the Project if needed for environmental support. Ardurra scope and fee includes weekly progress meetings on the phone with the City and two team meetings (in addition to Scoping and Kick-off Meetings) at City Hall with staff and the Applicant if necessary.

Upon our receipt of the final CEQA Determination from the City, Ardurra will draft a Notice of Determination. If necessary, a Notice of Completion (NOC) will be drafted for City approval and filed with the State Clearinghouse. Once deemed final by City Staff, within three days of the City's decision on the Project, a NOC will be distributed to the County Clerk's Office and posted pursuant to CEQA Guidelines §15075 to reduce the Statute of Limitations for an appeal on the IS/MND from 190 days to 30 days.

TASK 5 DELIVERABLES:
- State Water Resources Control Board DDW report/applications/forms
- CEQA Mitigated Negative Declaration of Environmental Impacts (MNDEI) report

TASK 6 – PREPARE DESIGN PS&E
Ardurra will perform design service for demolition of existing 16-million Morningside reservoir and the design of a new approximately 5-million-gallon concrete reservoir, mixing tank, pump/motor equipment, accessories, and connecting utility pipelines per California Title 22 regulations Chapter 16 Article 5 Distribution Reservoirs.

Ardurra will prepare and furnish bidding documents (plans, specifications, and estimate) for review by the City and relevant agencies. Ardurra will revise in accordance with comments and instructions from the City and provide final documents and signed plan deliverables.

Ardurra engineering design will be submitted at 60%, 90%, 100%, and as a Final Submittal. A list of drawings can be found on page 21.

Structural Engineering
Peterson Structural Engineers (PSE) will provide structural engineering services for Ardurra and the City. PSE's work is contingent on the provision of a preliminary design plan that includes the proposed site plan, as well as plans and sections for the new pump station and mixing chamber. This proposal was prepared with the assumption that the existing exterior pump station would be replaced with 6 to 8 new pumps housed in a masonry building. It is our understanding that the mixing chamber tank is used to blend MET and the City's water and is currently a horizontal steel tank. PSE's design for the new mixing chamber would include the slab on grade and supports for the mixing chamber and exclude the design and sizing of the horizontal steel tank. PSE assumes the slab for the mixing chamber will be approximately 15-ft by 40-ft.

While the City has presented a site layout showing a rectangular tank for the replacement tank, PSE completed a preliminary site layout for a 5 MG tank or two 2.5 MG tanks with an approximate water depth of 20-ft and found that both options will fit on the site. A circular prestressed concrete tank will benefit the City because it is more structurally efficient tank, cost effective, and watertight than compared to a rectangular tank. If the City still prefers a rectangular tank following our team's presentation of the benefits in a PDR, PSE is able to design the rectangular tank but at an increased cost noted in scope of work below. PSE understands that the new reservoir will be partially backfilled but will not have soil on the roof and the roof will not be used as a park setting requiring additional roof load and features.

PSE proposes the following scope of work:

1. **Project Management and Meetings**
   - PSE to attend up to three (3) virtual meetings
   - PSE will perform QA/QC of all deliverables

2. **Document Review**
   - Geotechnical Investigation Report: PSE will support the field investigation for the Geotechnical Report by providing a structural design parameter sheet for the Geotechnical Engineer to incorporate into their findings and review the draft report

3. **Design and Contract Documents**
   - PSE will support the development of the preliminary design, which will become the basis of design for the project and the information shared may be used by Ardurra to support the feasibility study for the Federal Funding. PSE will provide the following type of information and typical details, by email or short memos, during this preliminary phase. PSE assumes the proposed reservoir is a circular, prestressed concrete tank.
     a. Dimensions for the reservoir: Inside wall diameter and operating water depths with corresponding volumes of water stored
     b. Column layout
c. Details unique to prestressed concrete reservoirs, such as wall base and top details and prestressing (circular and vertical)

d. Details for reservoir appurtenances: ladders, stairs, and handrail

e. Pipe penetration details: through floor and core wall

f. Construction cost for the reservoir

- PSE will coordinate with the architectural, geotechnical, electrical, civil and/or other disciplines, as needed, to ensure deliverables for each design phase (60%, 90%, 100%, and Final Submittal)

- Should the City determine that a rectangular concrete reservoir is preferred for the project, an additional design fee will be required (see Proposal Fee, Optional Services). The additional fee is to account for a finite element analysis of the reservoir and a divider wall.

4. Bid Support

- PSE will provide up to 12 hours of support during the Bid Phase

**Electrical and Instrumentation Design/SCADA:**

The new pump station will be designed in accordance with all local, state, and national codes. The electrical room will host the proposed electrical distribution equipment while a separate controls room will be provided for the PLC panel and communication equipment. This will limit access to the electrical room to authorized personnel only and will provide a safer working environment for controls technician keeping them away from potential arc flash hazards.

**Computational Fluid Dynamics (CFD) Study:**

Water Quality Solutions (WQS) will perform a Computational Fluid Dynamics (CFD) evaluation for Arduura and the City to determine residence time and identify potential dead spots in the proposed tank. To address this issue, it is proposed that three-dimensional CFD modeling of the tank be performed to evaluate mixing in the tank. The mixing strategies could include 1) PAX Water Mixer, 2) mixing using air bubbles, 3) enhanced momentum for inflows, 4) relocating inflow, 5) adjusting tank geometry, 6) or some other system determined by Arduura’s team. Furthermore, modeling will aid in sizing the preferred mixing system.

In particular, it is proposed that the ANSYS Fluent model or equivalent be used. Such a model will provide the necessary level of accuracy and detail at a reasonable level of effort. Aside from modeling the flow in the tank, the movement of a conservative tracer will also be evaluated to identify possible dead zones and short-circuiting.

**SCOPE OF WORK 1: CFD MODELING**

**Gather Data and Set Up CFD Model**

It is understood that the project team will develop tank design and provide mixing alternatives to WQS. This information includes:

- Tank drawings and specifications
- Peak and minimum inflow/outflow rates
- Operational volume range of tank

After gathering the data, an analysis will be performed to determine the salient hydrodynamic features of the tank. Based on the available data, WSEL and inflow/outflow rates will be determined. Typically, the circulation modeling setup reflects conditions whereby the tank is at maximum operating capacity with lowest inflow/outflow rates, resulting in the longest average hydraulic residence time.

**Model Tracer Dynamics for Up to Four Configurations**

In conjunction with Arduura and the City, identify up to four configurations for evaluation. These may include modifying the geometry, inlet and outlet configuration, or increasing the mixing using various means. Set up model grid based on design drawings, inlet/outlet dimensions, and geometry of 5 MG tank, as provided by Arduura. Set up model inflow/outflow files. Model injection of conservative tracers to determine water age distribution and identify any short-circuiting or dead zones in the tank flow.

**SCOPE OF WORK 2: REPORTING**

Prepare a short DRAFT summary technical memorandum of modeling, including alternatives evaluation and summary table. Obtain comments from team and finalize memo.

**Cost Estimating**

CPM Construction Inc (CPMC) will perform Cost Estimating Services for development of the Opinion of Probable Construction Cost for Arduura and the City. CPMC will utilize WinEstimator software using Means database and CSI format based on 108 drawings. Operation and Maintenance cost will not be part of the estimate. It is assumed the work will be done under a single contract with one general contractor.

The following are excluded from Arduura’s scope of work:

- Stormwater Pollution Prevention Plan (SWPPP), Traffic Control Plans, Stormwater Pollution Prevention Plan, and Utility Potholing – The contractor will be responsible for these tasks, which will be required in the technical specifications for the project.

**TAKE 6 DELIVERABLES:**

- 60%, 90%, 100%, and Final Submittal of construction drawings and all documents/reports
- Provided for Final Submittal: Digital copies of all final documents in PDF, Word & Excel files, and drawings in 2013 AutoCAD format in a USB flash drive or an online download (Dropbox, or similar)
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<td>P&amp;ID - Ammonia Bulk Storage</td>
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<td>CP-2</td>
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<td>106.</td>
<td>L-2</td>
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### City of Inglewood

#### Inglewood New Morningside Reservoir Design

#### Overall Project Schedule

<table>
<thead>
<tr>
<th>ID</th>
<th>Task Name</th>
<th>Duration</th>
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<td>1</td>
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<td>282 days</td>
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AS THE PRIME CONSULTANT, OUR EXPERIENCE ENCOMPASSES AT GRADE, PARTIALLY BURIED, AND BURIED CONCRETE TANKS, RANGING FROM 0.4 MG TO 40.0 MG.
EXPERIENCE

HOMELANDS TANK | HELIX WATER DISTRICT

Ardura prepared plans, specifications, and estimates for the design of the Homelands Tank and Pipeline Replacement project for Helix Water District. The project included replacing the existing 0.3 MG Homelands Tank with a new 0.80 MG storage tank and raising the tank's high water elevation. The project also included replacing approximately 3,700 linear feet of 6-10 inch diameter distribution water mains.

A detailed alternative analysis was performed to evaluate various reservoir designs, including circular prestressed concrete tanks, rectangular conventionally reinforced concrete tanks, and steel tanks. The concrete tank options included buried or partially buried alternatives. The final design included a 0.9 MG rectangular conventionally reinforced concrete tank. Challenges included minimizing grading operations and developing a site layout given a limited property size and existing shear slopes.

Reference
Chris McRae | 619 667.6278 | Chris.McRae@helixwater.org

Total Project Value
$3,020,000

Team Members
Rob Weber

Project Highlights
- Rectangular concrete reservoir
- Existing facilities replacement

MIRAMAR CLEARWELLS | CITY OF SAN DIEGO

This project involves major upgrades to the Miramar Water Treatment Plant, the largest City of San Diego water treatment plant with an existing capacity of 215 MGD. The primary elements of the upgrade are the replacement of two existing outdated clearwell structures, a new chlorine contact chamber, and a new maintenance building.

As part of the project team, Ardura is the civil engineer responsible for the preliminary and final design of:

- Two 29.5 MG partially-buried, 28-ft deep rectangular cast-in-place concrete clearwell basins with hopper bottoms, 42" RCP overflow piping, and hanging curtain baffling system
- 2,200 ft of 54" - 84" welded steel inlet/outlet piping, cement mortar lined and concrete encased
- Five deep (30 ft) cast-in-place concrete inlet/outlet/drain vaults with 54" and 60" dual isolation butterfly valves and magnetic flow meters
- Basin drain system with 1,400 ft of 16" piping and submerged outlet control valves
- Site improvements including drainage design based on Standard Urban Stormwater Mitigation Plan (SUSMP) with underground piping, drains, gutters and bio retention basins

Ardura also provided engineering support services for the bid and construction phases of the project.

Reference
Julie Adam | 619.533.7412 | JAdam@sandiego.gov

Total Project Value
$90,000,000

Team Members
Rob Weber, Anders Egense

Project Highlights
- Rectangular concrete reservoir
- Interconnecting Piping
- Tank baffles for circulation
GRAHAM RESERVOIR | CITY OF MOUNTAIN VIEW, CA

Ardurra completed preliminary and final design documents for the City of Mountain View’s 8 MG Graham Reservoir and Pump Station. This complex and challenging project is a joint use facility located almost entirely within the limits of Graham Middle School, immediately adjacent to a single-family residential neighborhood. The full project includes an 8 MG buried reservoir, a 10,000 gpm pump station, 500 gpm well, offsite piping, and a new, high-end athletic field/sports complex. The project became controversial because of neighboring residents’ concerns about disturbance due to nighttime field lighting included in the original project proposal; spectator noise at athletic events; and increased traffic and parking. To address public concerns and deliver a project that would meet the City’s goals with the least possible disruption to the community, Ardurra worked closely with City staff and the City’s environmental consultant team to develop robust and verifiable CEQA mitigation measures addressing visual, noise, and traffic issues.

Reference
Ninh Le, PE* | 408.806.7187 | nle@icengineering.net (*Retired)

Total Project Value
$17,500,000

Team Members
Rob Weber, Patrick Mulvey, Galit Ryan

Project Highlights
- 8 MG prestressed concrete tank constructed on school site
- Fully buried to screen from neighbors
- Joint use sports facility with school district
- 10,000 gpm pump station with disinfection facility

AWARD WINNER!
Helen Putnam Award Award for Excellence, 2008
ACEC Engineering Excellence Award National Finalist, 2008
CELSOC Engineering Excellence Honor Award, 2008
ASCE San Francisco Section Outstanding Environmental Civil Engineering Project of the Year, 2007
APWA South Bay Area Chapter Award of Merit, 2006

640-1 (10-MG) & 640-2 (10-MG) RESERVOIRS | OTAY WATER DISTRICT, CA

Ardurra completed the design of the 640-1 (10-MG) & 640-2 (10-MG) Reservoirs for Otay Water District. The project included a detailed alternative analysis to consider alternative reservoir designs, including circular prestressed concrete tanks, rectilinear conventionally reinforced concrete tanks, and steel tanks. The concrete tank options included buried or partially buried alternatives.

The nature of the project and its visibility from surrounding communities required a comprehensive community outreach approach. Photo simulations and other presentation materials were prepared to help inform the community of the project.

The final design included twin 10-MG tanks, above and below ground valve vaults, pressure reducing stations, 42-inch inlet and outlet piping, over 11,000 ft of pipelines, access roads, and other civil site work. Challenges included steep topography and remedying an old fill dump site to accommodate the twin tanks.

Reference
Jim Peasley, PE* | 619.987.6365 | jpeasley@cox.net (*Formerly with Otay Water District)

Total Project Value
$25,000,000

Team Members
Rob Weber, Galit Ryan

Project Highlights
- Minimized aesthetic impacts of the reservoir, situating them in an ideal location and designing partially buried reservoirs
- Tailed design to meet District’s SCADA system requirements

AWARD WINNER!
APWA San Diego/Imperial Counties Chapter Project of the Year, 2010
ASCE San Diego Section Outstanding Civil Engineering Project, 2008

Prepared environmental impact report
Executed community involvement plan to gain public acceptance

New Morningside Reservoir Design City of Inglewood 26
PALA MESA TANK | RAINBOW MUNICIPAL WATER DISTRICT, CA

Ardurra delivered a cost-effective and functional design for a 6.0 MG prestressed concrete reservoir and grading/piping for a future reservoir on a challenging hilltop site situated above 3.1 feet (horizontal to vertical), or steeper slopes, in close proximity to San Diego County Water Authority (SDCWA) facilities. Close coordination with the SDCWA was required to expedite approval of anticipated blasting activities within 400 feet of SDCWA Aqueducts. The layout of the tanks and the reservoir inlet and outlet piping and valves achieved balanced hydraulics for reservoir filling operations via a SDCWA flow control facility and with secondary provision for filling via a higher pressure zone. Low pressures within a portion of the existing pipeline system were mitigated by designing a new transmission main in a new alignment and proper siting of the reservoir control valves. The reservoir outlet valve was instrumented with an electric actuator and seismic safety switch for isolation of the reservoir following a large seismic event. The project also included a 0.5 acre foot stormwater detention and water quality basin designed to mitigate the increase in site runoff and for compliance with San Diego Regional Water Quality Control Board and National Pollutant Discharge Elimination System (NPDES) requirements.

Reference
Brian Lee, PE | 909.982.4107 | blee@sawaterco.com
("Now with San Antonio Water Company")

Total Project Value
$6,800,000

Team Members
Rob Weber, Patrick Mulvey, Gailt Ryan

Project Highlights
- 6 MG prestressed concrete tank
- Rock removal requiring blasting
- Located in close proximity to rural/estate homes

GANO RESERVOIR | OLIVENHAIN MUNICIPAL WATER DISTRICT, CA

Ardurra prepared the conceptual and final design for the 6.5 MG Gano Reservoir. The project involved a creative grading scheme to hide the reservoir from the surrounding upscale communities while meeting the elevation requirements for the reservoir. Approximately 120,000 cubic yards of rock was removed from the reservoir site. Most of this material was used on an adjacent site by a developer as an engineered fill, so virtually no soil export from the project area was required. This greatly minimized disturbance to the local community.

Ardurra also provided full construction management and inspection services for the project. In addition to meeting the need for future water use, the project—located adjacent to the Black Mountain Ranch and Santana developments—required extensive coordination with surrounding projects.

Reference
George Brest, PE | 619 851.5918 | brestconsulting@gmail.com

Total Project Value
$8,000,000

Team Members
Rob Weber, Anders Egense, Patrick Mulvey

Project Highlights
- 6.5 MG prestressed concrete tank
- Partially buried to screen tank from high end homes
- 120,000 CY of rock excavation

AWARD WINNER!
APWA San Diego/Imperial Counties Chapter Merit Award, 2006

CELSOC
Engineering Excellence Merit Award, 2006

Coordination with adjacent developer for rock transfer/stockpiling
Work done in phases to expedite project and foster competition

New Morningside Reservoir Design
City of Inglewood
TWIN OAKS RESERVOIR TANK NO. 2 | VALLECITOS WATER DISTRICT

Originally planned as twin 33 MG tanks at the Twin Oaks Reservoir site. The first 33 MG tank was constructed beginning in 1998 and completed in early 2001. However, due to updates to the District’s Master Plan, it was determined that additional storage beyond the planned 33 MG was going to be needed. Ardurra completed a planning study and alternative analysis to maximize storage on the existing site. The study recommended construction of a 40 MG circular prestressed concrete tank on the site for a combined reservoir capacity of 73 MG. Ardurra prepared construction documents for the mass grading, tank construction, and final site improvements. In order to expedite the construction schedule and to help control costs, the tank construction was completed utilizing a negotiated design/build approach. The remaining work was completed using the traditional design-bid-build method. Ardurra also provided construction management and inspection services for all phases of construction.

AWARD WINNER!
ASCE - Region 9
Project of the Year, 2008
Structural Engineers Association of California
Certificate of Merit, 2008
ACI
Big Tank Award, 2007
ASCE - San Diego Section
Outstanding Civil Engineering Project, 2007

>100,000 CY of excavation requiring rock removal and soil stockpiling
Internal baffe wall system to promote water circulation

Reference
James Gumpel, PE | 760.744.0480 | jgumpel@vwd.org
Total Project Value
$23,000,000
Team Members
Rob Weber, Patrick Mulvey, Cait Ryan, Amy Czajkowski
Project Highlights
- 40 MG prestressed concrete tank with a diameter of 432’
- Fully buried with landscaping to screen from neighbors

CALIFORNIA TANK AND PUMP STATION | CITY OF REDWOOD CITY

Design a new 0.75 MG potable water tank and a new, 1,600 gallon per minute (gpm) pump station and related improvements including yard piping, transmission main pipeline, access road, drainage detention basin, electrical/SCADA/security improvements and landscaping and fencing improvements.

Ardurra conducted engineering analyses and design related to the following:
- Tank siting and tank type evaluation (including life-cycle cost analysis) for 0.75 MG of new storage
- 1,100 linear foot transmission main pipeline alignment and pipe materials evaluation
- 640’ of 12-inch diameter yard piping (cemement motor lined and coated)
- Pump station with three 533 gpm vertical turbine pumps and variable frequency drives to meet a wide range of pumping conditions (operational, fire and emergency interconnection) into three different pressure zones
- Storm runoff detention basin to attenuate post-project runoff to existing conditions

Reference
Phong Du, PE | 650.780.7385 | pdu@redwoodcity.org
Total Project Value
$12,000,000
Team Members
Rob Weber
Project Highlights
- Concrete reservoir design on congested site
- Pipeline design
- Booster pump station design
- SCADA and controls design
APPENDIX: RESUMES
ROBERT S. WEBER, PE
PROJECT MANAGER

PROFESSIONAL REGISTRATION
Registered Professional Engineer
California No. C59312

EDUCATION
State University of New York at
Buffalo
B.S. Civil Engineering, 1990

AFFILIATIONS
American Society of Civil Engineers
American Water Works Association
American Consulting Engineers
Council – California (Water
Resources Committee)

QUALIFICATIONS
Mr. Weber has 32 years of civil engineering and project management experience on a variety of municipal and public works water, wastewater, and recycled water projects. Specific project experience includes conveyance pipelines, reservoirs and tanks, water pump stations, and sewer lift stations. He has also successfully managed several as-needed services contracts for municipalities and water/wastewater utilities. Mr. Weber is thoroughly familiar with design standards, techniques, and analytical methods, bid specifications, and cost estimating. His experience extends beyond civil engineering to include securing required project permits, fostering cooperative interagency approvals, and gaining community project acceptance.

Mr. Weber’s project success is based on his ability to understand the client’s needs and objectives and translate them into actions during execution of the project. He prides himself in involving the client in the project, and ensuring the technical staff understands the critical issues of the project. His engineering decisions and designs are based on careful considerations of project needs and specific site characteristics. His dedication to quality effectively manages project risks and controls construction and operational costs.

PROJECT EXPERIENCE
Homelands Tank, Helix Water District. Principal-in-Charge prepared plans, specifications, and estimates for the design of the project that included replacing the existing 0.3 MG Homelands Tank with a new 0.80 MG storage tank and raising the tank’s high water elevation.

Miramar Water Treatment Plant 58 MG Clearwell, City of San Diego. Principal-in-Charge for civil design of water storage facility comprised of two 29 MG partially-buried basins to replace existing outdated structures. The project includes 2,200 ft of 54”-84” welded CML&C steel inlet and outlet pipes, five deep inlet/outlet/drain vaults with isolation valves and flow meters, 200 ft of 42” RCP overflow piping, basin drain system with 16” piping, leak detection piping system, and underdrain piping to address local groundwaters. Also providing bid & construction phase support services.

Clearwells Replacement, City of Poway. Project Manager for a replacement clearwell facility consisting of two 4 MG prestressed concrete reservoirs, providing reliable and redundant storage for the Lester J. Berglund Water Treatment Plant. The two replacement reservoirs will be constructed in the footprint of the existing lined earthen berm reservoir with floating cover. The project involves significant grading and construction of hundreds of linear feet of retaining wall to create the space for the unburied tanks. Another project component is a backup connection to the San Diego County Water Authority’s treated water aqueduct that can provide the City with water during an emergency or if the WTP needs to be taken out of service for maintenance. A supplemental disinfection system will ensure water quality from the treated water connection is consistent with the effluent from the WTP.

Pala Mesa Tank, Rainbow Municipal Water District. Project Manager for award winning cost-effective and functional design on a challenging hilltop site situated above 31 (horizontal to vertical) or steeper slopes, in close proximity to San Diego County Water Authority (SDCWA) facilities, and in an area of low pipeline pressures resulting from the high site elevation. Design included Demolition of an existing 8 MG embankment reservoir, Site grading for two tanks (one slated for future construction) and construction of a 6.0 MG prestressed concrete tank, 400’ of 24-inch steel diameter transmission main, 550’ of 18- and 16-inch diameter steel reservoir inlet and outlet pipelines, and Preparation of an environmental initial study and Mitigated Negative Declaration for compliance with California Environmental Quality Act.

New Morningside Reservoir Design
City of Inglewood
Graham Reservoir and Athletic Field, City of Mountain View. Deputy Project Manager for an 8 MG buried concrete reservoir, pump station and athletic fields on the site of Graham Middle School. Other project elements include over 2,600 lf of new water pipeline along City and Caltrans streets, civil site improvements, utility relocations, and permitting requirements from the Division of State Architect (DSA), Fire Department, and Caltrans District 4. The major project issues include community involvement, traffic issues, conflicts with existing utilities, and coordination between the City, Mountain View Whisman School District, Division of State Architect, and the Middle School.

Gano Reservoir, Olivenhain Municipal Water District. Deputy Design Manager. Design of a partially buried 6.5 MG prestressed concrete reservoir and 10,000 lf of 24-inch welded steel pipe and access road. The project included preparation of bid documents for phased construction of mass grading and access roads followed by a reservoir and pipeline improvements bid package.

Darrell Tank, Town of Hillsborough. Project Manager for Darrell Water Tanks Replacement Project is a new 120-foot diameter circular prestressed 2-MG concrete water tank proposed near the western jurisdictional limits of the Town of Hillsborough. The project will replace existing Darrell Tanks #1 and #2, which have seriously degraded coatings, and will improve overall efficiency, effectiveness, safety, and reliability of the town’s water system.

Spyglass Reservoir Replacement, Lake Arrowhead Community Services District. Served as Project Manager for final design services for replacement of the District’s existing 0.3-MG Spyglass reservoir with a new 0.4-MG circular prestressed concrete tank that would be constructed in place of the existing steel tank.

California Tank and Pump Station, City of Redwood City. Project Manager for Design a new 0.75-MG potable water tank and a new, 1,600 gallon per minute (gpm) pump station and related improvements including yard piping, transmission main pipeline, access road, drainage detention basin, electrical/SCADA/security improvements and landscaping and fencing improvements.

640-1 and 640-2 Reservoirs, Otay Water District. Served as Project Manager for design of twin 10 MG tanks, above and below ground valve vaults, pressure reducing stations, 42-inch inlet and outlet piping, over 11,000 lf of pipelines, access roads, and other civil site work. Challenges included steep topography and remedying an old fill dump site to accommodate the twin tanks.

La Jolla View Reservoir and Pipeline Replacement, City of San Diego. Principal-in-Charge. PDR and PS&E for 3.1 MG reservoir, 3,000 ft of 30-inch welded steel pipe, and demolition of two outdated reservoirs. Reservoir is comprised of prestressed concrete tank that is fully buried with limited surface features. Project includes extensive habitat restoration and public outreach support due to the tank location in a scenic, hilltop park in coastal La Jolla area.

Calavo Pump Station Replacement and El Cajon Tank Modifications, Helix Water District. Principal-in-Charge. Replacement of an existing pump station and the replacement of an existing steel tank roof with an aluminum geodesic dome roof. The project included a new pump station building with new pumps, motors, control valves, and mechanical piping, 16-inch waterline replacement, new dome roof for the adjacent reservoir, extensive coordination and phasing to maintain service to the existing pump station and miscellaneous site improvements consisting of grading and drainage improvements. The new pump station was successfully put into service along with the retrofitted tank.

Twin Oaks Reservoir No. 2, Vallecitos Water District. Deputy Project Manager for construction of a buried 40-MG prestressed concrete reservoir, including mass grading operations, connections to existing facilities and miscellaneous site improvements. This complex project involved coordination with the existing facilities, originally planned for a smaller tank, and development of the new reservoir and piping layouts to fit within the existing constraints. Project construction documents were developed in three phases: Phase I Mass Grading, Phase II Reservoir Improvements, and Phase III Site Improvements.

North Twin Oaks Steel Reservoirs No. 2 & No. 3, Vallecitos Water District. Design Reviewer/Quality Manager. Oversees quality management and reviewed plans, specifications, and estimates for the design of the twin 3.5-MG North Twin Oaks Reservoirs No. 2 and 3. The project consisted of design of twin circular steel reservoirs in accordance with AWWA D100 with Reservoir No. 2 being constructed in this initial phase of work. A piping and valving scheme was developed to separate the tank inlet and outlet lines to encourage water circulation within each tank and to help maintain water quality. The piping is also such that the tanks are hydraulically balanced so they will experience equal turnover when future Reservoir No. 3 is constructed. These design features related to water quality are particularly important due to the remote nature of the tanks. Being a remote site, the use of solar power for the electrical needs of the site is being performed until SDG&E extends the electrical system in the future.

Station 119 & 120, California Water Service Company. Project Manager. Design of two 0.4-MG conventionally reinforced concrete water reservoirs, associated site piping, and grading. Project included obtaining a building and public works permit from the City of San Carlos.
CARMEN KASNER, PE
PROJECT DIRECTOR

QUALIFICATIONS
Carmen has 32 years of experience in municipal services focusing on civil design of capital improvement program (CIP) projects including water, sewer and storm drain facilities; pipelines; street improvements; and site development. She offers vast insight into public participation, permitting and coordination, project and design standards and site and access constraints. Carmen's experience includes extensive levels of inventory development and condition assessment of agency assets, with projects ranging from sanitary to storm to roadway systems. Her experience also includes extensive work and coordination with various agencies in southern California involving flood control, development, transportation issues, water system capacities, sewer conditions and public meetings.

PROJECT EXPERIENCE
Hollywood Park Plan Check Services, City of Inglewood. Principal-in-charge for plan checking services contract for redevelopment of Hollywood Park, Phase A, Phase 1, and a portion of Phase 2 Infrastructure improvements for the City of Inglewood. Plan reviews are conducted in accordance with city, county, state, and federal ordinances and standards, conditions of approval, mitigation monitoring reporting plan, specific plan, and general plan.

Boca Raton and Sky Ridge Reservoir Rehabilitation, City of Poway. Project manager responsible for bringing both reservoirs up to current seismic standards, enhancing their reliability. With new adjacent reservoirs at both sites, these reservoirs were able to be taken out of service for repair. Worked closely with City staff in evaluating the required improvements. She oversaw detailed pipe layouts for the revised inlet/outlet piping and incorporated details for new hatches, level gages, flex couplings, new wall penetrations, interior and exterior ladder replacements, and vents for both reservoirs. Maintaining full reservoir capacity required additional bracing for sloshing issues. Pavement rehabilitation and a new concrete swale were evaluated at Boca Raton to address drainage needs.

Crest and Torrey Pines Reservoir Rehabilitation, City of Del Mar. Project engineer on the project, which involved the seismic upgrade to 0.25 MG and 0.75 MG steel tanks. Improvements included on-site piping modifications, rock anchors, hazardous waste disposal, access constraints, and operational constraints. This project also involved recoating of both the interior and exterior of the tanks.

Five Reservoirs, Padre Dam Municipal Water District. Project engineer on the project, which included preliminary and final design of reservoirs ranging in size from 3.5 MG to 9 MG, plus piping layout, valving, vault design, reclaimed water lines, environmental mitigation areas, site layout and drainage, access road design, quantities and specifications. Final design included one 3 MG steel tank, one 6.0 MG cast-in-place partially buried concrete tank, and two prestressed, partially buried concrete tanks 3.5 MG and 9 MG, respectively.

Lindley Reservoir and Pipeline Improvements, City of Escondido. Project engineer for the design of the rehabilitation of the 2-mgd reservoir, associated piping, and storm drain improvements.

Park Hill Reservoir Design, City of Escondido. Project engineer for the 3 MG Park Hill Reservoir. This project included extensive resident involvement in the preliminary design to fit the project into a small residential neighborhood lot. A two-basin trapezoidal shaped reservoir was ultimately designed with a flat roof. The pump station that replaced a 1927 pump station, was put in a building with architectural treatment. The pump station required the installation of one to three duty pumps and a fire flow pump to handle the larger flows with aging pipeline in the system that could not handle higher pressures. A hydropneumatic tank was also integrated into the design to accommodate the low flows in the system.
Zone 24 Reservoir, City of Prescott, AZ. Engineer performed quality assurance review and final project approval for the city’s new Zone 24 reservoir, which was a 0.5-million-gallon tank. This project was bid with alternatives for either a welded tank or a glass fusion-bonded bolted-steel tank. The City elected to award the contract for the glass fusion-bonded alternative due to life cycle costs and very similar bid prices. The project also included pipeline and site improvement work.

Zones 4 and 5A Water System Improvements, City of Lake Havasu City, AZ. Project manager for water system improvements involving a feasibility study, preliminary design, and final design for the City of Lake Havasu City. The improvements included 1.0-MG tank for Zone 4, 0.75 MG tank for Zone 5A, 20-inch PVC McCulloch pipeline, and 8-inch PVC including necessary backup generators for their two largest water pump stations. Engineering services including planning, designing, and obtaining additional lands for future tanks 6 and 6A to improve overall system reliability and enhance pump station hydraulics. The project included assisting City staff with acquiring the properly sized land parcel and right-of-way for the water infrastructure improvements and access roads.


Lake Boulevard Sewer Replacement Design, City of Oceanside. Principal-in-charge for this project which involved preparation of construction documents for a gravity sewer line replacement along Lake Boulevard and College Avenue. The project included rerouting existing 8-inch and 12-inch gravity sewers, a 16-inch force main, and a 6-inch lateral from an adjacent senior community center, and reconnecting these pipelines to a new 15-inch sewer along a new alignment.

San Vicente Road Pipelines Relocation, Ramona Municipal Water District. Principal-in-charge for preparation of a predesign report, and construction drawings and specifications for the relocation of distribution and transmission pipelines. Services included potholing, surveying, mapping of existing utilities, connection details, demolition plans, developing a construction sequence to maintain the existing pipelines operational during road construction, and extensive coordination with other utilities that needed relocation.

Upper and Lower San Luis Rey Water Reclamation Facility (SLRWRF) Recycled Water Conveyance Systems, City of Oceanside. Principal-in-charge for this project that included utility research and mapping, development of alignment alternatives, and an alignment study for 32-miles of reclaimed water distribution pipelines to be constructed in the next few years. The project will supply reclaimed water from the San Luis Rey Water Reclamation Facility to major users throughout the City to offset the use of potable water use for irrigation. Final construction documents for Phase I were completed and are under construction and final plans for Phase 2 of the proposed reclaimed water distribution system are being prepared. Proposed alignments include congested utility corridors, high traffic volume roads, trenchless crossing of NCTD tracks, the San Luis Rey River, and major intersections. Pipelines will range in size from 20-inch to 6-inch in diameter. Construction is anticipated to begin in 2019 through 2022.

Pump Station 4 and 5 Rehabilitation, City of Imperial Beach. Contract Engineer for preparation of final construction plans, specifications, and estimates, for the rehabilitation of two sewer pump stations. Pump Station No. 4 is a dry pit/wet well configuration that was built in the 1950s, still operating with the original pumps, motors, and piping. Pump Station No. 6 is also a dry pit/wet well configuration put in operation in the 1950s, with outdated valves, piping, supports, and electrical switchgear. The project includes replacement of suction piping and valves, pumps and motors for Pump Station No. 4, discharge piping, discharge isolation valves and check valves, installation of bypass pumping connection, replacement of pressure transducer stilling wells, lighting improvements, installation of a transfer switch, and replacement of outdated electrical switchgear. The improvements to Pump Station No. 4 include relocation of the electrical service and meter from an existing power pole to a concrete pad. The project also included a structural assessment of the condition of concrete and placement of steel reinforcement in Pump Station’s No. 6 dry pit, utilizing Ground Penetrating Radar (GPR) technology.

Construction Communication Services for Water Utilities Department, City of Oceanside Water Utilities Department. Principal-in-charge providing support to the public relations team managing community relations services on a variety of projects that support the city’s infrastructure improvement projects. They include water and sewer pipeline replacement projects, desalination testing and reservoir rehabilitation.
QUALIFICATIONS
Mr. Mulvey has 20 years of civil engineering design experience with a range of projects including, but not limited to pump stations, pipelines, and reservoirs. Project challenges have included pumping station replacements and upgrades, complicated horizontal and vertical pipeline alignment design, through congested utility corridors, site planning for replacement facilities, development of plans, specifications, and cost estimates, and various engineering calculations.

PROJECT EXPERIENCE
Gano Reservoir, Olivenhain Municipal Water District. Design Engineer for the design of a partially buried 6.5-MG prestressed concrete reservoir and 10,000 ft of 24-inch welded steel pipe and access road. The project included preparation of bid documents for phased construction of mass grading and access roads followed by a reservoir and pipeline improvements bid package.

Gano Reservoir Alternatives Analysis, Olivenhain Municipal Water District. Design Engineer for an alternatives analysis to examine options for 6.5-MG of new potable water storage adjacent to the future Black Mountain Ranch community in San Diego. Developed and compared alternatives for twin steel and concrete tanks and partially buried single concrete tank.

Clearwells Replacement, City of Poway. Design Manager for a replacement clearwell facility consisting of two 4 MG prestressed concrete reservoirs, providing reliable and redundant storage for the Lester J. Berglund Water Treatment Plant. The two replacement reservoirs will be constructed in the footprint of the existing lined earthen berm reservoir with floating cover. The project involves significant grading and construction of hundreds of linear feet of retaining wall to create the space for the unburied tanks. Another project component is a backup connection to the San Diego County Water Authority's treated water aqueduct that can provide the City with water during an emergency or if the WTP needs to be taken out of service for maintenance. A supplemental disinfection system will ensure water quality from the treated water connection is consistent with the effluent from the WTP.

La Jolla View Reservoir and Pipeline Replacement, City of San Diego. Project Engineer for PDR and PS&E for 3.1-MG reservoir, 3,000 ft of 30-inch welded steel pipe, and demolition of two outdated reservoirs. Reservoir is comprised of pre-stressed concrete tank that is fully buried with limited surface features. Project includes extensive habitat restoration and public outreach support due to the tank location in a scenic, hilltop park in coastal La Jolla area.

Graham Reservoir and Athletic Field, City of Mountain View. Design Engineer for an 8-MG buried concrete reservoir, pump station and athletic fields on the site of Graham Middle School. Other project elements include over 2,600 ft of new water pipeline along City and Caltrans streets, civil site improvements, utility relocations, and permitting requirements from the Division of State Architect (DSA), Fire Department, and Caltrans District 4. The major project issues include community involvement, traffic issues, conflicts with existing utilities, and coordination between the City, Mountain View Whisman School District, Division of State Architect, and the Middle School.

Twin Oaks Reservoir No. 2, Vallecitos Water District. Design Engineer for construction of a buried 40-MG prestressed concrete reservoir, including mass grading operations, connections to existing facilities and miscellaneous site improvements. This complex project involved coordination with the existing facilities, originally planned for a smaller tank, and development of the new reservoir and piping layouts to fit within the existing constraints. Project construction documents were developed in three phases; Phase I Mass Grading, Phase II Reservoir Improvements, and Phase III Site Improvements.

New Morningside Reservoir Design
City of Inglewood
Reservoir Rehabilitation, Vallecitos Water District. Design Engineer for rehabilitation of 3 existing steel reservoirs, including re-coating, valve vault reconfigurations, and miscellaneous improvements. Prepared plans, specifications, and cost estimates for various projects.

Zorro Reservoir Rehabilitation, Olivenhain Municipal Water District. Design Engineer for the rehabilitation of a 1.3-MG steel reservoir and demolition of a smaller, obsolete tank. The project involved the construction of a pressure reducing/altitude valve vault so that one reservoir on the project site could be taken out of service while the other reservoir was removed. The project also involved consolidating the complex yard piping into one inlet and outlet pipeline for the site for ease of future operation. A complex Sequence of Construction for the Yard Piping construction was prepared to bring the pressure reducing station on-line while keeping the reservoir in service. Demolition of the existing steel tank required a detailed set of specifications for dealing with old lead-based coatings to provide an appropriate level of environmental protection for the community during the work.

Calavo Pump Station Replacement and El Cajon Tank Modifications, Helix Water District. Design Engineer for the replacement of an existing pump station and the replacement of an existing steel tank roof with an aluminum geodesic dome roof. The project included a new pump station building with new pumps, motors, control valves, and mechanical piping, 16-inch waterline replacement, new dome roof for the adjacent reservoir, extensive coordination and phasing to maintain service to the existing pump station and miscellaneous site improvements consisting of grading and drainage improvements. The new pump station was successfully put into service along with the retrofitted tank.

Batiquitos Pump Station, Leucadia Wastewater District. Project Engineer. Preliminary and final design of the rehabilitation of a 1000 hp sewer lift station. Project included pump and valve replacement, wet well lining, station bypassing, site piping, installation of emergency bypass vaults, modifications to the existing valve vault, reroofing, modification of the HVAC system and other miscellaneous repairs.

Neighborhood 1 Pump Station Rehabilitation, Olivenhain Municipal Water District. Project Engineer. Preliminary and final design for replacement of 550 gpm custom designed wet pit/dry pit sewer lift station with duplex pumps in series. Project re-sled the existing wet well and constructed a new dry well with above grade electrical building for new MCC’s and controls.

Crest Canyon Park Storm Drain Replacement, Burtech Pipeline, City of San Diego. Project Manager. The project replaced approximately 4,000-linear-feet of large diameter storm drain and rehabilitated approximately 900-linear-feet of storm drain within the Crest Canyon Park just west of Del Mar in the City of San Diego. The project was designed and constructed as part of an emergency replacement project due to storm drain failure leading to massive sinkholes that formed during a large storm, causing a public safety hazard. Mass grading was performed to repair the sinkholes and install temporary drainage measures prior to replacement of the storm drain system.

Bluebird Booster Station (Vern Gillett) Upgrade and Bluebird Road Water Improvements, City of Glendora. Project Engineer for the design of a new pump station to supply Zone 28, a new pipeline, and modifications to the existing Zone 28 tanks. Project challenges include a narrow site that is constrained by trees and a large storm drain channel and the pipeline alignment is on a narrow private road with various undocumented utilities that need to be design around.

Sewer Replacement Nevada Avenue and Bogder Street Area (CIP No. 005), City of El Monte. Project Engineer. The City’s existing sewer mains and manholes within the area of Nevada Avenue and Bogder Street were constructed in 1938 and are approaching the end of their useful life. In addition, many of the mains and manholes are in easements located in the back yards of private residential properties, making it difficult for the City to access and conduct maintenance. As a result, approximately 4,500-linear-feet of existing small diameter (8- and 12-inch) sewer is being replaced and relocated into the public ROW. The project also includes construction of new sewer laterals for each of the affected properties, approximately 140 in total. This was particularly challenging because the existing sewer connections are in the back yard, requiring realignment of laterals from the rear of properties to the street.
QUALIFICATIONS
In his 47 years of experience, Mr. Kennedy has managed the design of more than 15 new and retrofit pump station projects ranging in size from 400 gpm to over 400 MGD, with a variety of types of pumps and drive configurations. He has managed the design of new and retrofit water treatment plant projects. He is a specialist in mechanical process equipment of all types, piping, and valves. He prides himself in working closely with his clients, and ensuring the design team understands the critical issues of the project. He is dedicated to delivering detailed and quality bid packages.

PROJECT EXPERIENCE
Trask Reservoir Site Water Improvements, City of Garden Grove. Project manager for this project which was conceived in conjunction with the water distribution master plan development. Usable capacity of the 5-MG reservoir on the site was limited due to severe pump suction and cavitation problems associated with the existing pumping station. This project included construction of a new 13-MGD pumping station utilizing two natural-gas-powered engine-driven 2,250-gpm three stage vertical turbine pumps (150-HP each), two, 2,250-gpm electric motor-driven three stage vertical turbine pumps (150-HP each), and a 600-gpm motor-driven four stage vertical turbine pump (50-HP). The pumping station also housed separate 14 and 18-inch above grade metering runs and two, 12-inch hydraulically operated altitude/pressure sustaining valves, a control room and a bathroom. A new 5-MG prestressed concrete partially buried reservoir matching the existing, and a new well building with well piping modifications and a 10-pound per day chlorine system with an emergency chlorine scrubber meeting the U.C. Article 80 requirement were also part of this project.

Lampson Reservoir Site Water Improvements, City of Garden Grove. Project Engineer for the design layout of this 16,000-gpm pump station that included two, 200 horsepower natural gas engine driven 4,000-gpm vertical turbine pumps and two, 200 horsepower constant speed electrical motor driven 4,000 horsepower vertical turbine pumps. The design included a central control room, laboratory, elevated engine room, and utilized cement mortar lined and coated steel pipe for the 16-inch pump discharges, 42-inch suction header, and 30-inch discharge header. Designed 25-pdp chlorine system, which was part of the upgrade to the overall pumping station and 8-MG reservoir expansion project. Chlorine system included manual feed control, four, 50-pound chlorine cylinders, emergency chlorine gas scrubber, and emergency electrical generator in compliance with Article 80 of the Uniform Fire Code.

Trask Risk Management and Prevention Program, City of Garden Grove. Project manager for Risk Management and Prevention Program (RMPP) Chlorination Facility Design. Assisted the City in development of an RMPP for their Well No. 29 project. Prior to final design of the system, provided HazOp team leadership and reviews of procedures and programs with regards to the OSHA PSM standard and the proposed EPA RMP regulation compliance.

Well 29 Facility, City of Garden Grove. Project Engineer for effort that provided four, 150-pound chlorine cylinders for feeding well water as it's pumped into the distribution system. Chlorine feed was flow paced. Protection was provided by a new chlorine scrubber meeting the requirements of UFC Article 80.

Reservoir Condition Assessments, City of San Diego. Mechanical Quality Control review of twelve major City water reservoir condition assessment reports. Verified mechanical condition information, improvement and maintenance recommendation, and life cycle analysis, and estimated years of remaining life. Provided overall review of all elements or the reports in including clarity of presentation and cost estimating.
Miramar Water Treatment Plant Clearwell Improvements, City of San Diego. Project manager for the design of a 215 mgd low lift pump station and chlorine contact chamber. The treatment plant had two issues in need of resolution. One, a recent upgrade to the plant included a new ozone system functioning as the primary disinfectant, but in order to allow the conventional downstream gravity filters to go biological to further reduce TOC in the treated water, CDPH required that emergency chlorine disinfecting facilities be provided. Two, at high flows and high levels in the on-site clearwells the plant's 215 mgd design capacity could be limited to only 80 mgd even when peak distribution demands could reach 260 mgd. The solution was twofold, first, designing downstream of the filters a 2 MG dual-train concrete chlorine contact chamber (CCC) - each train equipped with concrete wall baffles and 72-inch venturi meters and accompanying modulating control valves. SCADA disinfection CT calculations were used to vary the water surface elevation in the CCC to assure compliance with CDPH CT requirements at all flowrates, while at the same time minimizing pump station energy usage, accommodating gravity flow without pumping to flows up to 170 mgd. The second part of the resolution was the installation of 215 mgd low lift pump station between the filters and the CCC consisting of a 4 duty and 1 standby configuration utilizing VFD driven vertical propeller pumps controlled to keep the wet well water surface low enough so the filters could continually match distribution demands including 215 mgd when the clearwells are at the highest levels.

Santa Margarita Conjunctive Use Project Facilities, Fallbrook Public Utilities District (FPUD). Project Manager for the design of treatment facilities associated with an agreement between FPUD and the federal government that settled a century long dispute over water rights of the Santa Margarita River. The agreement included Camp Pendleton providing approximately 8 mgd of ground water to FPUD, actual flowrates being dependent on the month of the year and rainfall of the previous year; that was high in iron, manganese, and TDS. The treatment train included 8 mgd of iron and manganese utilizing greensand media within six 12-inch diameter and 30-foot-long pressure vessels. A side stream treated with RO membranes was remixed to create a product water to match the water quality of FPUD's imported water. The product water was pumped directly in the distribution systems. Distribution system improvements included two miles of 24-inch CML&C steel pipe, a remote 8 mgd pump station and 6 MG steel water storage tank. Project services included: 1.) distribution system modeling, 2.) establishment of water quality goals, 3.) evaluation of potential process treatment trains and configurations, 4.) preliminary design, 5.) final design, 6.) design service during construction phases, 7.) public outreach, and 8.) permitting assistance.

Overland Trail Lift Station Rehabilitation, Fallbrook Public Utilities District. Project Manager for the rehabilitation of a high head (two pumps-in-series) wastewater lift station. The project includes a permanent diversion of the District's Anthony Corner's Lift Station flow to the Overland Trail Lift Station with a subsequent increase in pump capacity and overall footprint of the station. The electrical service will be increased due to larger pumps and the existing control building reconfigured for larger electrical gear. Other improvements include an increase in the size of the dry pit and a new cast-in-place top of the wet well. The flow from Anthony's Corner Lift Station will flow to an existing diversion box on Mission Road in Fallbrook. One 8-inch sewer, the Mission Oaks sewer, will be relocated to connect with Mission Road trunk sewer and the lift station demolished.

Rainbow Heights Pump Station, Rainbow Municipal Water District. Project Manager to either renovate or replace the existing pump station. The existing pump station included two natural gas engines driven and two electric driving vertical turbine pumps. Increasing maintenance costs, related Air Pollution Control Board permitting equipment compliance costs, the 40-years plus age of the gas driven pumps, and structural integrity issues with the building prompted the decision to replace the pump station. Effort included easement evaluation, preliminary design, and final design. The preliminary design evaluated the potential use of other sites, site layouts, hydraulics, pre-engineered pump station cost versus conventional pump station building cost, type check valves and isolation valves to be utilized to accommodate 400-psi pressure, electrical design. Final design included a unique pre-engineered pump station building with three vertical turbine pumps, buried pump cans and suction header, meter on the suction side of the pumps station due to high discharge pressures, emergency generator, electrical coordination with SDG&E, new PLC and control descriptions and design modifications to the District’s SCADA and telemetry system. Temporary pumping and associated electrical requirements to facilitate operations during construction were detail within the contract documents.

Orange County Sanitation District Disaster Preparedness Plan, Orange County Sanitation District. Project engineer for mechanical portion of a disaster preparedness plan, Orange County Sanitation District, CA. A 400-page plan including specific mechanical sections, included: 1.) inventory of city water equipment, natural gas equipment, emergency fuel storage and emergency generating equipment; 2.) earthquake vulnerability analysis; and 3.) risk reduction programs.
PROFESSIONAL REGISTRATION
Registered Professional Engineer
California No. C64361

EDUCATION
San Diego State University
B.S., Civil Engineering, 1999

AFFILIATIONS
American Water Works Association (AWWA); Standard D110 Voting Member
AWWA; Standard D108 Voting Member
Tau Beta Pi Life Member

QUALIFICATIONS
With 22 years of water/wastewater industry experience, Tom serves as a Senior Associate Engineer at PSE. Tom brings the depth and breadth of working on planning, specifications, estimating, design, and/or construction of more than 350 circular prestressed concrete tanks in the Western United States including new tank designs, tank rehabilitations, and tank assessments. Tom is especially well versed with designs in high seismic regions. As a voting member of American Water Works Association’s Standard D110, Wire- and Strand-Wound, Circular, Prestressed Concrete Water Tanks he is able to keep current on requirements for the design and constructability and ensure our clients benefit from this information. Additionally, Tom’s familiarity with how contractors approach projects allows him to quickly identify issues and provide proven solutions in a timely manner.

PROJECT EXPERIENCE
4 Reservoir Evaluations, Vista Irrigation District. Project Manager. PSE provided a seismic and structural analysis of four of the District’s reservoirs ranging in capacities from 0.6MG to 1.3MG. Three of the reservoirs are reinforced concrete with wood roofs and constructed in the mid 1920’s. The fourth reservoir is the Deodor Reservoir, a circular prestressed concrete reservoir constructed in 1978. Our evaluation consisted of a combination of dry and wet inspections of the reservoir, a full structural analysis based on current code provisions and subsequent recommendations for structural improvements, repairs and/or replacements. PSE’s findings were summarized in a technical report which included respective construction cost estimates. PSE is currently providing the design of seismic and other improvements to the Deodor Reservoir.

4 Prestressed Concrete Reservoirs Seismic Analysis, Olivenhain Municipal Water District. Project Manager. PSE was hired by OMWD to complete condition assessments and structural seismic analyses on 4 of their circular, prestressed concrete storage tanks. The four tanks included two 3.0 MG tanks, a 2.5 MG tank and a 6.5 MG tank. The oldest tank was completed in 1976 and the most recent tank was completed in 2008. All of the tanks have cast-in-place core walls with vertical and circumferential prestressing, meeting the requirements of a Type 1 core wall defined in AWWA D110. In order to cost effectively obtain the required seismic design parameters, PSE worked with a local Geotechnical firm that could conduct a Re-Mi survey to determine the shear wave velocity (Vs,30) for the soil site classification. PSE utilized ASCE 7, ACI 350 and AWWA D110 standards to determine the loads on each of the reservoir’s structural elements: roof design, column design, footing bearing pressures, roof to wall shear, hoop loads on the wall, and wall base shear. PSE summarized the findings in a comprehensive report with prioritized recommendations with accompanying budget level construction estimates.

Larrick (6.0 MG) Reservoir Assessment, Santa Fe Irrigation District. Technical Advisor. To assist with planning for operation and maintenance of aging infrastructure for the SFID, PSE performed a visual condition assessment of the interior and the exterior above grade portions of the District’s 6.0 MG circular, prestressed, concrete reservoir. The reservoir was designed in 1963, constructed between 1963 and 1965 and has an inside wall diameter and wall height of 220-ft and 22-ft, respectively. The purpose of the assessment was to observe the general structural condition of the reservoir, identify areas of deterioration and/or visible deficiencies, and make recommendations for improvements or repairs with accompanying rough order budget level estimates. Ultimately the report presented to the District provided a plan on when to implement recommendations that could be incorporated into the District’s Master Plan.
(2) 4.0 MG Prestressed Concrete Tanks, City of Poway. Project Manager. PSE was contracted for the design of two new 4.0 MG circular, prestressed concrete tanks for the City of Poway to replace an aging 10 MG concrete lined hopper style clearwell reservoir constructed in 1964. A floating cover was added to the existing reservoir in 1983 and replaced with a new floating cover in 1998. The new tanks are at-grade, have an inside wall diameter of 204-ft, wall height of 20.5-ft, and will have a concrete column supported two-way concrete slab roof. The tank design will be in conformance with AWWA D110 - Type I Core Wall, ACI 350, and ASCE 7-22. In addition to design of the prestressed concrete tanks, PSE is also designing two cast-in-place concrete vaults and retaining walls.

Darrell (2.0 MG) Prestressed Concrete Tank, Town of Hillsborough. Project Manager. PSE was contracted for the design of a new 2 MG prestressed concrete tank to replace two existing, aging 0.5 MG welded steel tanks for the Town of Hillsborough. The new tank is an at-grade prestressed concrete structure (AWWA D110, Type I) located adjacent to the San Andreas Fault. The large seismic accelerations expected at the site resulted in a calculated slosh wave height of 9-feet and required the tank design to incorporate a deep keyway to address global sliding stability. The new tank is in a residential neighborhood which limited the overall height of the tank to 24-feet to minimize visibility, requiring tie-down cables between the wall top and roof to address the uplift pressure from the slosh wave.

Spyglass (0.4MG) Prestressed Concrete Tank, Lake Arrowhead CSD. Project Manager. PSE was contracted for the design of a new 0.4MG prestressed concrete tank for LACSD to replace an existing aging 0.3MG steel tank which was constructed in 1972. The new tank is prestressed concrete (AWWA D110, Type I) and partially backfilled on one side to minimize retaining wall construction. As such, design of the tank required sliding stability measures.

Tunnel Hill Reservoir Upgrades, Helix Water District. Technical Advisor. PSE performed a seismic evaluation of the existing Tunnel Hill welded steel reservoir including an options analysis for upgrading the existing roof or replacing it with a new aluminum dome roof. PSE provided a structural evaluation and roof upgrade options, as well as seismic slosh, anchorage requirements and fall arrest systems. Following the District's preferred upgrade option, PSE designed the tank modifications to include a new aluminum dome roof and increased shell height for slosh.

Henie Hills (3.0 MG) and John Paul Steiger (3.0 MG) Reservoir Improvements, City of Oceanside. Project Manager. PSE was part of the Construction Management team, providing expertise in the design and construction of circular, prestressed concrete water tanks. The project required the implementation of seismic and general structure improvements on two of the City's prestressed concrete tanks. The Henie Hills and John Paul Steiger Reservoirs were constructed in 1960 and 1976, respectively. Both tanks have circumferentially prestressed concrete core walls, similar to the requirements described in AWWA D110. The Henie Hills Reservoir has a clearspan concrete dome that is circumferentially prestressed to counteract the dome thrust and the John Paul Steiger Reservoir has a concrete column supported two-way concrete flat slab roof. Improvements for the Henie Hills Reservoir included the addition of new circumferential prestressing on the dome ring and core wall and wall base and top connections to meet current seismic design requirements, and a new cast-in-place floor. Improvements for the John Paul Steiger Reservoir include changing the roof slope to improve drainage and patching spalled areas of concrete.

Rialto #1 (3.0 MG) Reservoir Structural Analysis, City of Colton. Project Manager. PSE completed a seismic structural analysis of the City's 3.0 MG concrete reservoir that was constructed in 1934. The reservoir is constructed of conventionally reinforced, cast-in-place concrete and has an inside wall diameter of 115-ft, wall height of 42-ft, a 6-inch-thick floor with a 19-degree slope to the center of the tank, and a 6-inch-thick dome that has a dome to rise ratio of 1:10. The analysis was based on minimum code values and considered 3 different earthquake return periods: 2,475, 475 and 200 years. PSE utilized ASCE 7, ACI 350 and AWWA D110 standards to determine the loads on each of the reservoir's structural elements: dome thrust, dome to wall shear, hoop loads on the wall, and wall base shear. PSE also provided input on the reservoir's ability to perform during each of the seismic events.

Fire Mountain (3.0 MG) & Guajome (5.0 MG) Reservoirs Seismic Upgrade, City of Oceanside. Engineering Project Manager. Following a detailed evaluation of all its water reservoirs, the City developed a plan to implement seismic upgrades. Fire Mountain and Guajome #1 were two of the identified tanks and required the complete removal of the existing circumferential prestressing and gunite on the corewall and replacement with new hot dipped galvanized strand and shotcrete cover coat. Both tanks also required wall base seismic restraint cables that were cast into a new wall footing attached to the existing wall footing. Tom worked as the Engineering Project Manager and performed QA/QC on all documents prior to submittal. He oversaw the preliminary design details, improvement options, and rough order budget level construction costs. The evaluation considered rehabilitation and new construction to ensure a cost-effective solution was achieved at each site. During construction, Tom visited the site to address new findings related to floor and wall footings and offered ideas to remedy the situation that included epoxy injection and full coating.
PROFESSIONAL REGISTRATION
Registered Professional Engineer
California No. C59082
CMCI Certified Construction Manager
(A1762)

EDUCATION
Virginia Polytechnic Institute and
State University
B.S. Civil Engineering, 1992

CERTIFICATIONS
California Stormwater Quality
Association (CASQA) Qualified
SWPPP Developer (QSD) &
Qualified SWPPP Practitioner (QSP)
Certification #24758

AFFILIATIONS
Construction Management
Association of America Member
American Water Works Association
San Diego County Water Works
Group
American Council of Engineering
Companies of California
American Society of Civil Engineers,
Pipeline and Environmental Group,
President, 2002-2003

QUALIFICATIONS
In her 29 years of serving water districts, municipalities, and purveyors, Ms. Czajkowski has gained recognition for system planning, design engineering, and construction management of public water and wastewater infrastructure projects. An additional specialty of Ms. Czajkowski is Stormwater Management including both design services, assisting with permitting compliance, and performing inspection for effectiveness of BMP systems during construction. She has conducted master plans for water and sewer services, assessed impact fees, and developed capital improvement programs to ensure adequate service. Ms. Czajkowski’s engineering design experience includes conveyance systems, pump and lift stations, reservoir storage, and treatment facilities. Her on-site construction experience, combined with her extensive research of material and equipment performance allows her to avoid constructability problems and reduce costs. In addition to being a Certified Construction Manager, Ms. Czajkowski is both a certified QSD and QSP giving her the experience and flexibility to make changes in the field and ensure the project specific or overall plans such as SUSUMPs, HMPs, etc. are effectively implemented.

PROJECT EXPERIENCE
Twin Oaks Reservoir No. 2, Vallecitos Water District. Assistant Project Manager for construction of a buried 40-MG prestressed concrete reservoir, including mass grading operations, connections to existing facilities and miscellaneous site improvements. This complex project involved coordination with the existing facilities, originally planned for a smaller tank, and development of the new reservoir and piping layouts to fit within the existing constraints. Project construction documents were developed in three phases; Phase I Mass Grading, Phase II Reservoir Improvements, and Phase III Site Improvements.

Clearwells Replacement, City of Poway. QA/QC Manager for a replacement clearwell facility consisting of two 4 MG prestressed concrete reservoirs, providing reliable and redundant storage for the Lester J. Berglund Water Treatment Plant. The two replacement reservoirs will be constructed in the footprint of the existing lined earthen berm reservoir with floating cover. The project involves significant grading and construction of hundreds of linear feet of retaining wall to create the space for the unburied tanks. Another project component is a backup connection to the San Diego County Water Authority’s treated water aqueduct that can provide the City with water during an emergency or if the WTP needs to be taken out of service for maintenance. A supplemental disinfection system will ensure water quality from the treated water connection is consistent with the effluent from the WTP.

511 Pump Station, City of Oceanside. QA/QC Manager for the preliminary design of a 4.5 MGD pump station and discharge pipeline to pump from the Mission Basin Groundwater Purification Facility (RO Plant) directly to the 511 pressure zone. The preliminary design included development of the Design-Build Contract Documents, including technical specifications and 30% drawings. The pump station includes 3 vertical turbine pumps installed in an existing clearwell, control valves, flow meter, surge protection system, expansion of the existing site power capacity and a standby power system.

Upas Street Pipeline Replacement, City of San Diego. QA/QC Manager. Design details include; 14,580 lf of 8-inch through 12-inch PVC distribution main, 8,160 lf of 24-inch cement mortar lined and tape coated steel pipe with impressed current cathodic protection, 1,640 lf of 30-inch high density polyethylene (HDPE) transmission main to be installed via horizontal directional drilling, 210 lf of 18-inch HDPE transmission main to be installed via slip-lining, 4 pressure reducing stations (3 replacement and 1 new) with flow metering and SCADA telemetry, and 4.9 miles of trench paving and street resurfacing.
Temescal Canyon Road Improvements - Water Main Relocations, Elsinore Valley Municipal Water District. Principal-in-Charge/QA/QC Manager for the preparation of plans and specifications to relocate approximately 100 linear feet of this major 42-inch diameter CML&C potable water main. The complexities of relocating such a major facility required the installation of an access manway for maintenance, an extensive dewatering plan to discharge 400,000 gallons of chlorinated water to drain the line, and oversized casing to avoid point loading the water main. Some key project challenges included expediting the preparation of the plans and specifications since the Project had already been advertised for bid. Ardurra quickly executed the project, preparing calculations for the steel pipe design per AWWA M11, loading calculations for casing plate thickness, sizing air/vacuum release valve and blowoffs, and dewatering. Ardurra provided construction management and inspection services during the construction phase for this segment and other relocations along the entire roadway project where EVMWD’s facilities were impacted.

Moreno Valley Regional Water Reclamation Facility (MVRWRF) Plant 2B Equipping Project, Eastern Municipal Water District. The project is currently at the 100% design phase and as the Construction Manager performed two constructability reviews of the bid documents for bidability, constructability, and identified changes to the bid documents needed to mitigate potential conflicts of change orders during construction of the Plant 2B Equipping Project components and Centrale and RAS Reaeration Basin (CaRRB) project components.

San Luis Rey Water Reclamation Facility (SLRWRF) Effluent Pump Station, City of Oceanside Water Utilities Department. Construction Manager for the repairs and rehabilitation of the effluent pump station which takes the effluent from the SLRWRF to the Land Outfall.

Equipping of Well Commission 22A, Long Beach Water Department. Construction Manager. This project is part of a program to enhance and expand the use of local water supplies to meet the increasing demands within Long Beach Water Department’s (LBWD/Department) service area. Commission 22A water well is a replacement well for Commission 22 in El Dorado Park North. The project is divided into the following phases: demolition; well equipping; conveyance pipeline; and ultimately, start up and testing phase. (2021 – Ongoing)

Near Term Water Supply CIP, Elsinore Valley Municipal Water District. CIP Construction Manager/Program Manager over 40 CIP projects ranging in construction value from $300K to $10M. The CIP execution rate was over 90% and all projects were completed on time and with an overall 2% change order rate. The projects, totaling $25M, encompass a wide range of work and are identified in the District’s Fiscal Year 2015-2018 budgets.

New Mission Basin Groundwater Purification Facility (MBGPF) Operations Building, City of Oceanside. Construction Manager and Inspection Coordinator for the new City of Oceanside Water Utilities Department Mission Basin Groundwater Purification Facility (MBGPF) Operations Building, which is a key asset to the City of Oceanside and to the operations of the Mission Basin Groundwater Purification Facility. As part of a long-term vision, the new building supported the continued efforts of the treatment facility to address the City’s ongoing water supply needs. The new building is approximately 5,000 square feet and includes open “bullpen” offices, restrooms, locker rooms, private offices, a laboratory for basic water testing needs, staff kitchen, conference room, a SCADA equipment room, and a control room for monitoring plant operations. Additionally, Ms. Czaikowski aided in the coordination of all the elements to obtain a Gold LEED Certification for New Construction. This included close coordination with the Architects - HB&A Architects, LEED Consultant - Innovative Workshop Consulting, LLC, Utility for Electrical and Gas – SDG&E, and the Water Utilities Department Staff.

As-Needed Program Management, City of Oceanside Water Utilities Department. CIP Manager for Program the City of Oceanside Water Utilities Department. This contract included the preparation of more than 15 in house designs, Request for Proposal preparation, managing consultant contracts, preparation of Staff Reports and other Council documents, and all other functions to complete all of the projects listed on the Year 15/16 Capital Improvement Program.

Downtown Sewer Replacement, Elsinore Valley Municipal Water District. Technical Review. Project includes evaluating the condition of approximately 7,700 linear feet of 6 and 8-inch diameter sewer mains via CCTV, site inspections, input from operators and maintenance crews. The project is located in the downtown area of the City of Lake Elsinore. The project replaced and upsized approximately 4,000 linear feet of sewer mains, reconnected approximately 60 sewer laterals, replaced approximately 14 manholes, and repaired the streets with grind and overlay.

Loretta Street Waterline Replacement, City of Oceanside. Project Manager for the final design of 3,900 lf of 12-inch HDPE water pipeline including a 1,200 foot directional drill under the San Luis Rey River and State Route 76. The pipeline was a replacement for a previous steel line that was located under the river and formed a critical supply link to Oceanside harbor. The project included base mapping, development of horizontal and vertical profiles, research of existing utilities, Caltrans permitting and coordination, and connection details for HDPE and asbestos cement pipe.
OSCAR GONZALEZ, PE
CONSTRUCTABILITY REVIEW

PROFESSIONAL REGISTRATION
Registered Professional Engineer
California No. C66241

EDUCATION
California Polytechnic University, Pomona
M.S., Environmental Engineering (Water/Wastewater), 1998
California State University, Los Angeles
B.S., Mechanical Engineering, 1994

QUALIFICATIONS
Oscar Gonzalez, PE, has an extensive background in program and project leadership, construction management, and civil engineering in his 35-year career. His public works expertise consists of public facilities, wet and dry utilities, street improvements, recreation centers, and landscaping and masonry. He has successfully delivered water and wastewater infrastructure for treatment, conveyance, storage, and alternate delivery facilities throughout Southern California. Oscar has managed various phases in the water/wastewater practice, ranging from planning and design to construction management and facility operations start-up.

As a project management consultant for water/wastewater clients in the public sector and director of construction in the land development industry, Oscar has delivered successfully on programs for new water and wastewater facilities and for new infrastructure in planned communities. His tasks for such programs have included coordination with city staff; budget and cash flow development; schedule development; management of professional consultants and review of deliverables; permitting with cities and dry/wet utilities; procurement of construction contractors; and construction management. As the first point of contact at construction sites, Oscar was the primary source for public outreach and information for such projects. As the Chair of the Finance Committee at Cucamonga Valley Water District, Oscar oversaw and gave direction for grant application to FEMA/Cal EMA, California Prop 1, and California Prop 50; Cucamonga received approximately $8 Million from such funding agencies.

PROJECT EXPERIENCE
968 Reservoir and Pump Station Replacement, City of Glendale Water and Power Department. Project/Construction Manager, and resident engineer for the replacement of the 968 Reservoir and Pump Station, located at Chevy Chase Country Club. The project included demolition, construction of a 14.5-MG concrete reservoir, the construction of a new pump station, yard piping, concrete work, pumps and motors, modifications to the existing irrigation system, and electrical work. The project also involved HVAC, electrical, and instrumentation; electrical and instrumentation wiring and interconnections; all structural, architectural, mechanical, electrical, plumbing, and yard piping, site grading and paving, utilities, drainage, yard structures; permitting; and operation and maintenance manuals covering all equipment. Provided outreach to contentious residents who ultimately championed the project.

Evan’s Reservoir and Inlet/Outlet System, City of Riverside Public Utilities Department. Construction manager and resident engineer for this ASCE award-winning project that involved the replacement of a reinforced concrete reservoir and inlet/outlet system (72-inch and 60-inch-diameter steel cement-mortar lined and coated (CML&C)). The project included demolition and construction of a 16-MG concrete reservoir, yard piping, site concrete work, electrical work, start-up and operation, and maintenance manuals covering all equipment. Construction and construction management fees totaled over $14 million.

Garfield Reservoir Replacement Project, South Pasadena Water Department. Project Management/Inspection/Technical Assistance. Mr. Gonzalez provided specialized inspection, change order management, and technical assistance for the demolition and construction of a new 7 MG concrete reservoir, 6,500 GPM pump station, 2 story Building, and related pipeline and mechanical facilities.

Wilson Reservoir Replacement Project, South Pasadena Water Department. Project Management/Technical Assistance. Mr. Gonzalez provided services for the construction of a new 1.3 MG concrete reservoir, clearwell, 6,500 GPM pump station, and related pipeline and mechanical facilities. Services also included schedule review, change management, and cost estimates.
Concrete Reservoir and Pump Station Project, Burbank Water Department. Resident Engineer/Lead Inspector for the City of Burbank’s Water Department for construction of a 1-million gallon reinforced concrete reservoir, a 650,000 gallon reinforced concrete reservoir, and pump stations and all related pipeline and facilities in Burbank, California. His responsibilities included construction oversight, schedule review, and client interface.

Concrete Drying Beds, South San Joaquin Irrigation District. Construction manager for this $4 million project that involved the construction of two new concrete drying beds and related earthwork, piping, and appurtenances. The project expands the sludge drying capacity at the Nick C. Degroot Water Treatment Plant. The project required diligent change order negotiation and potential claims avoidance.

Plant 143 Improvements, East Valley Water District. Construction manager and resident engineer for the Plant 143 Improvements, which included construction of a new 5,300 gpm booster pump station and a 1-million-gallon (MG) welded steel storage break tank for air dissipation treatment and distribution of groundwater from the District’s existing wells, as well as from future groundwater sources from other pressure zones. Developed a sequence plan with District staff and the contractor for connecting to the existing system. The project included furnishing, installing, start-up and testing of mechanical piping, thermal insulation and appurtenances; flow meters and valves; motor control centers, variable frequency drives and controls; raw water bypass and meter and control valve; emergency generator connection provisions; fire protection systems; building support systems including plumbing, HVAC, electrical, and instrumentation; electrical and instrumentation wiring and interconnections; all structural, architectural, mechanical, electrical, plumbing, and distribution piping – including installation by mining and jacking, site grading and paving, utilities, drainage, yard structures; permitting; and operation and maintenance manuals covering all equipment. Duties included construction inspection; public outreach, change order negotiation, and contractor payment request review.

Reservoir Project, Southgate Water Department. Served as Resident Engineer/Lead Inspector. He provided construction oversight, schedule review, pay requests, and client interface for two two-million gallon welded metal reservoir facilities and a new pump station. They included system pipeline, pumps, generator, compressor, chemical feed system, and all related electrical and instrumentation.

Malibu Mesa Water Reclamation Plant, Los Angeles County Department of Public Works. Project manager for the 50% design effort of a new wastewater membrane treatment facility. The new plant will have the capacity to treat up to 200,000 gallons per day. The plant designer is Jacobs. The project includes installation of temporary filters, demolition of existing filter equipment, installation of a Parshall flume, pump station with diversion structure, fine screens, anaerobic/aerobic bioreactors, membrane tanks, and permeate pumps; membrane thickening tank, new UV system, installation of new structural members in the existing building to support new electrical equipment; installation of a new standby generator, new process equipment and pump replacement; demolition of the existing generator and fuel tank; refurbishment of the existing round activated sludge process structure, refurbishment of the existing building; relocation of Southern California Edison equipment; and a paved parking area.

Replacement of Marina Del Rey Pump Station (MDRPS), Los Angeles County Department of Public Works. Project manager for design of the replacement and relocation of MDRPS and rehabilitation or replacement of the existing forcemain. The facility designer is Stanlec. Project includes odor control for MDRPS system, minimization of impacts to stakeholders and public, pump station equipment, dewatering/managing tidal influence, decommissioning of existing pump station, electric systems, and site security.

Belmont Plaza Pool Rebuild/Revitalization Project, City of Long Beach. Project manager for this new, $103 million aquatics center that replaces the now-demolished Belmont Olympic Pool. The new facility will host swimming, water polo, and platform diving events at the local, regional, and national levels. Ardurra represents the City and its interests in all negotiations, meetings, community outreach, entitlements, permitting, design management and related activities throughout the project. Oscar is assisting with the construction management RFP/consultant selection process as well as with administering an application from the Los Angeles County Flood Control District (LACFCD) DNAP program. He is also coordinating the design and permitting of the Olympic Plaza Storm Drain upgrade.
ASHOK DHINGRA, PE, SE  
TECHNICAL ADVISOR

PROFESSIONAL REGISTRATION
Registered Professional Engineer  
California No. C24656
Registered Structural Engineer  
California No. 2134

EDUCATION
Loyola University, Los Angeles  
M.S., Environmental Engineering
California State University, Los Angeles  
M.S., Structural Engineering
Panjab University, Chandigarh, India  
B.S., Civil Engineering

AFFILIATIONS
American Concrete Institute
American Water Works Association
American Concrete Institute Committee 350 - Environmental Engineering Concrete Structures
American Concrete Institute Committee 372 - Prestressed Concrete Structures
American Concrete Institute Committee 364 - Rehabilitation of Concrete Structures
American Water Works Association Committee on Waterproofing

QUALIFICATIONS
Mr. Dhingra is a technical leader with more than 40 years of experience in the planning and management of water resources and water distribution projects. Responsibilities have included design and construction administration of various hydraulic structures, ranging from reservoirs, pumping stations, and water treatment plants. Mr. Dhingra has managed the design and construction of more than 85 reinforced and prestressed concrete reservoirs and more than 20 steel tanks and several rehabilitation projects. He has provided quality assurance/quality control oversight of major water and wastewater projects. As a national expert in the design and construction of reservoirs, Mr. Dhingra has provided services throughout the U.S. for clients such as Manchester Water Works, New Hampshire on the East to Seattle Water Department, Washington in the West. He was actively involved in the development of the National Code for "Environmental Engineering Structures" published in 2001 by American Concrete Institute (ACI) Committee 350. He also provided guidance and technical direction, through his active and continuous involvement, to subcommittees for Seismic Design as well as Water Tightness of Environmental Engineering Structures. He is an active Member of the ACI Committee 372 Circular Prestressed Concrete Structures.

PROJECT EXPERIENCE
Managed the Design of Concrete Reservoirs. Ranging in capacity from 1 MG to 100 MG with circular, rectangular, or square shapes and various roof framing systems for the cities of Torrance, Riverside, Montebello, Upland, Corona, Westminster, Santa Maria and Anaheim, California, and for the Las Vegas Valley Water District, Yorba Linda Water District, Contra Costa Water District, and San Diego County Water Authority. Selected prestressed concrete tanks experience includes projects ranging in size from 1 MG to 32 MG for Irvine Ranch Water District, Los Angeles Department of Water and Power, Seattle Water Department, Massachusetts Water Resources Authority, and cities of Banning, Chino, Whittier, and Riverside.

Rehabilitation of Reservoirs. As Project Director or Project Manager completed the following rehabilitation projects in California: 16 MG Linden Reservoir, Riverside; 5 MG Kewen Reservoir, Altamira; Foothill Reservoir No. 4, San Fernando; Reservoir No. 2, Cal Poly, Pomona; 10 MG Walleria Reservoir, Torrance; and Helix No. 2 Tank, Helix Water District, La Mesa. Rehabilitation was required to comply with seismic provisions of current codes. Project Manager responsible for the rehabilitation of Campus Street Reservoir, Upland, roof following a fire.

3 MG University Reservoir, City of Riverside. As Project Manager, responsible for the preparation of the preliminary design report, design and construction management services for the 3.0 million gallon complete buried wire-wound prestressed concrete reservoir in the Lusk-Highlander Development. The preliminary engineering report presented the geotechnical and seismic findings, the plan for site access and grading, structural design criteria, reservoir piping hydraulics and alignment analysis, site drainage amount and discharge evaluation, instrumentation and controls, landscape preliminary plan, construction schedule evaluation, and construction cost estimate.

32 MG Eastside Reservoir, Seattle Public Utilities, Washington. Structural Design Engineer responsible for this 32 MG buried, circular, prestressed concrete reservoir was the largest of its kind in the world, when it was built in early 1990’s. The conical floor is divided into two compartments to allow the continual storage of 6 MG of water for fire flows within one compartment, while the tank is drained for cleaning. A unique interlocking wall to roof connection not only allows for a “freed” movement during stressing, backfilling, and water level fluctuations, but also effectively transfers seismic-induced shear.
forces. This type of shear transfer connection is unique to this facility as it was especially designed for this project. This reservoir has won the Portland Cement Association's "Award of Excellence for Distinguished Environmental Consideration in Prestressed Concrete Tank Construction."

2-30 MG Toyon Tanks, Hollywood Water Quality Improvement Project, Los Angeles Department of Water & Power. As a Project Manager and Structural Engineer responsible for conducting a peer review of two 30 MG Prestressed Concrete Toyon Tanks for the Hollywood Water Quality Improvement Project for the Los Angeles Department of Water and Power. Also provided services for bid analysis and construction support during construction.

2-12.5 MG Nash Hills Reservoirs, Massachusetts Water Resources Authority, Boston, Massachusetts. Directed the design of the Massachusetts Water Resources Authority’s Nash Hill Reservoirs, which consisted of two 12.5 MG prestressed, precast concrete reservoirs to replace the existing open 25 MG reservoir.

14.7 MG Chevy Chase Reservoir, City of Glendale. Responsible for the peer review of PDR and provided input to the City in the selection of shape, siting, and material of the reservoir, and during design involved in the review of 30%, 60%, 90% design submittals and Constructability Review as a Construction Director. Mr. Dhingra provided these services as an employee of AECOM with a role of Project Director at the time of planning, design, and construction of this facility.

16 MG Evans Reservoir Replacement, City of Riverside. As a Project Director, responsible for the preparation of a detailed PDR (30% design) addressing site considerations such as location of existing reservoirs on the property, maximum possible storage capacity at the site, construction staging area and access. The alternative designed was a partially buried cast in place reinforced concrete reservoir at the same site following the demolition of existing reservoir. Design was reviewed by Division of Safety of Dams and placed Not in Jurisdiction.

Powell Butte Reservoir No 1, Portland Water Bureau, Oregon. Responsible as the Design Project Manager for the design of 50 MG, 2 cells, buried reinforced concrete reservoir. This was the first phase of a water storage project which involved the ultimate construction of 200 MG of storage for the City of Portland on Powell Butte. This storage facility was tied to the Bull Run source and controlled from the existing Mt. Tabor control center. Several alternative types of reservoirs including steel, precast concrete, buried concrete, and reinforced concrete with a floating membrane cover were considered during the preliminary design phase. The alternative selected for design was a buried reinforced concrete reservoir concept when considering first cost and maintenance costs and it was also judged the best in terms of aesthetics and as protection of the natural beauty of Powell Butte. The design of the facility was completed in eight months following a six month pre-design. Recently involved in the second phase of the 50 MG, 2 cells Reservoir that is under construction now.

Jordan Aqueduct 100 MG Terminal Storage, Central Utah Water Conservancy District, Salt Lake City, Utah. Responsible for the pre-design and site planning of the 100 MG reservoir facility located adjacent to the 78-inch Jordan Aqueduct. Once the pre-design study was complete, the design and Construction Management Services of Phase I, a 33.3 MG reservoir was completed. The design used a conventional reinforced concrete design concept, rectangular in shape, with a concrete roof supported on circular reinforced concrete columns. Remaining work was involved during the second phase of an additional 67 MG with the existing common wall built about eight years later; responsible as the Technical Advisor to the structural design engineer and provided services during construction including site visits.

Grossmont Reservoir, Helix Water District, La Mesa. Responsible for the structural design of the 30 MG Grossmont Reservoir, located in a park like setting the reservoir was buried with different mounding contours to preserve the natural look.

18 MG Flow Regulatory Structure, San Diego County Water Authority. As a Project Engineer, responsible for the final design plans and specifications of the 18 MG buried, cast-in-place reinforced concrete flow regulatory structure, which also included an access building, valve vaults, energy dissipating structure, yard piping and electrical and instrumentation work. The original site was located in Mission Trails Park and a number of meetings were held with the Mission Trails Task Force and Citizens Advisory Committee to mitigate their concerns regarding minimizing any above ground features of the facility. The project won an ASCE San Diego Section, Outstanding Civil Engineering Project Award for Water Supply Category.

Foothill Ranch and Portola Hills Reservoirs, Irvine Ranch Water District. Served as program director for the design and construction of the Foothill Ranch and Portola Hills facilities including 6 MG and 2 MG prestressed concrete reservoirs for the Irvine Ranch Water District.

Forensic Investigation of 5 MG Prestressed Precast Tank, City of Westminster. Served as principal investigator for the evaluation and analysis of a structural failure at a 5 MG precast, prestressed reservoir.

Structural and Seismic Studies. Conducted structural and seismic studies to verify conformance to seismic design criteria of reservoirs for the cities of Arcadia (18 steel and concrete reservoirs), Santa Maria, Huntington Beach, San Buenaventura, and Monterey Park, California, and for California State Polytechnic University, Pomona.
QUALIFICATIONS
Travis is a Senior Vice President at PSE and has 21 years' experience, much of which is centered on PSE’s reservoir design and evaluation work in California and the Pacific Northwest. His experience includes a broad range of structural engineering disciplines involving experience within structural engineering design, structural analysis, forensic analysis, project management, and plan review services. He has worked on a variety of large scale projects including essential facilities such as municipal treatment plants, water storage reservoirs, and other essential structures. Travis’ tank design experience is extensive, ranging from new designs to existing tank rehabilitations of various tank types including prestressed concrete, reinforced concrete, welded steel and bolted steel. Travis’ experience includes over 200 reservoir assessment, retrofit and design projects.

PROJECT EXPERIENCE
Four Reservoir Evaluations, Vista Irrigation District. QA/QC. PSE provided a seismic and structural analysis of four of the District’s reservoirs ranging in capacities from 0.6MG to 1.3MG. Three of the reservoirs are reinforced concrete with wood roofs and constructed in the mid 1920’s. The fourth reservoir is the Deodar Reservoir, a circular prestressed concrete reservoir constructed in 1978. Our evaluation consisted of a combination of dry and wet inspections of the reservoir, a full structural analysis based on current code provisions and subsequent recommendations for structural improvements, repairs and/or replacements. PSE’s findings were summarized in a technical report which included respective construction cost estimates. PSE is currently providing the design of seismic and other improvements to the Deodar Reservoir.

Spyglass (0.4MG) Prestressed Concrete Tank, Lake Arrowhead CSD. QA/QC. PSE was contracted for the design of a new 0.4MG prestressed concrete tank for LACSD to replace an existing aging 0.3MG steel tank which was constructed in 1972. The new tank is prestressed concrete (AWWA D110, Type I) and partially backfilled on one side to minimize retaining wall construction. As such, design of the tank required sliding stability measures. Project scope includes work from predesign through to construction services.

Reservoir Upgrades, Helix Water District. QA/QC. PSE performed a seismic evaluation of the existing Tunnel Hill welded steel reservoir including an options analysis for upgrading the existing roof or replacing it with a new aluminum dome roof. PSE provided a structural evaluation and roof upgrade options, as well as seismic slosh, anchorage requirements and fall arrest systems. Following the District’s preferred upgrade option, PSE designed the tank modifications to include a new aluminum dome roof and increased shell height for slosh.

Pump and Well Building Evaluations, City of Garden Grove. QA/QC. As part of a master plan, PSE evaluated multiple pump station facilities spread over 12 sites, including 5 pump/booster station structures and 13 wells structures. Evaluations were in conformance with an ASCE 41 “Seismic Evaluation and Retrofit of Existing Buildings” Tier 1 deficiency screening, which involves rigorous checklists based on the performance objective, hazard level, and type of construction. The screenings were performed considering all structures as Risk Category IV and were based on the review of as-built drawing as well as on-site assessments at each site. Original construction eras for the structures ranged from 1966 to 1997, and the quality and condition of individual structures varied significantly. PSE provided a report that identified levels of deficiencies and corresponding risks as well as a detailed analysis meeting the ASCE 41 criteria.
Darrell (2.0 MG) Prestressed Concrete Tank, Town of Hillsborough, QA/QC. PSE was contracted for the design of a new 2 MG prestressed concrete tank to replace two existing, aging 0.5 MG welded steel tanks for the Town of Hillsborough. The new tank is an at-grade prestressed concrete structure (AWWA D110, Type I) located adjacent to the San Andreas Fault. The large seismic accelerations expected at the site resulted in a calculated slosh wave height of 8-feet and required the tank design to incorporate a deep keyway to address global sliding stability. The new tank is in a residential neighborhood which limited the overall height of the tank to 24-feet to minimize visibility, requiring tie-down cables between the wall top and roof to address the uplift pressure from the slosh wave.

Tunnel Hill Reservoir Upgrades, Helix Water District, QA/QC. PSE performed a seismic evaluation of the existing Tunnel Hill welded steel reservoir including an options analysis for upgrading the existing roof or replacing it with a new aluminum dome roof. PSE provided a structural evaluation and roof upgrade options, as well as seismic slosh, anchorage requirements and fall arrest systems. Following the District’s preferred upgrade option, PSE designed the tank modifications to include a new aluminum dome roof and increased shell height for slosh.

19th & Olympia Reinforced Concrete Reservoir Upgrade, City of Kennewick, WA, QA/QC. PSE evaluated two existing reservoirs: a buried, 2.1 MG, 2-cell, hopper bottom, reinforced concrete reservoir constructed in the 1950’s, and a buried 3.7 MG flat-bottom reinforced concrete reservoir constructed in the 1980’s. PSE evaluated both reservoirs for adequacy under the current code and developed potential retrofit upgrades. Deliverables were submitted on time and under budget, allowing the City to initiate a second phase to the project in which PSE gathered detailed information regarding structural retrofits and epoxy injection for cracks in the floors. As part of this phase, PSE contacted potential contractors on the City’s large on-call works list, wrote repair specifications, provided repair cost estimates, and worked with the City to develop a bid package for the project. PSE also provided construction services including structural observations, submittal review, and RFI review.

Canby Reinforced (2.0 MG) Reservoir Improvements, City of Canby, OR, QA/QC and Technical Advisor. PSE provided the condition assessment, structural analysis and design of improvements for a 2.0 MG standard reinforced concrete reservoir, constructed in the 1980’s. Our initial site evaluation showed immediate concrete cracking issues, were described as being present since reservoir construction. PSE performed a structural wall stress evaluation and analysis which determined that the original design, while in compliance with standard building codes of the era, did not take into account PCA and ACI crack control criteria, resulting in an under-reinforced wall system. Deliverables included a technical report of our findings and recommendations for upgrades to the reservoir by adding prestressing wrapping to the wall system. PSE provided design of these upgrades and provided support for structural observation, submittal, and RFI review.

South San Diego Reservoir Replacement, City of San Diego, QA/QC. PSE was contracted to provide the predesign of two 7.5 MG prestressed concrete reservoirs to replace the City of San Diego’s existing 15 MG South San Diego reservoir. The existing reservoir consists of a rectangular reinforced concrete structure with a deteriorating wood roof. PSE is providing detailing for the new reservoirs’ structural members including establishing design criteria and corresponding thicknesses for the floor, footings, walls, columns, roof, and freeboard as well as providing engineer’s estimates. Designed to be partially buried, each reservoir has an inside diameter of 231’ and a wall height of 26.5’.

South Magee 2.0 MG Water Storage Tank, Temecula, CA, QA/QC. PSE is serving as the Structural Engineer of Record for this new 2.0 MG welded steel water reservoir. Designed as a replacement for an existing 0.1 MG reservoir, the inside diameter will measure 125 ft with a maximum operating water level of 22 ft and a steel framed roof supported by steel pipe columns. The reservoir was designed in conformance with AWWA D100 and pertinent codes. PSE analyzed the main structural elements of the reservoir, accounting for seismic slosh wave effects amongst other considerations and provided a complete stamped calculations package for permitting and construction.

Pendleton Reservoir Evaluation, Pendleton, OR, QA/QC. PSE performed condition assessments and preliminary seismic evaluation for two of Pendleton’s water reservoirs: a 1.0 MG rectangular reinforced concrete reservoir in North Hill and a 1.1 MG steel reservoir. Our team reviewed the reservoirs for compliance with current code, made recommendations for upgrades, and also provided cost estimate support. The North Hill reservoir is buried with a tennis court on top.

Laguna Honda Hospital Water Tank Replacement, City of San Francisco, QA/QC. PSE has been contracted to provide structural design services for a new tank to serve the Laguna Honda Hospital, located in the Midtown Terrace neighborhood of San Francisco. The new tank will replace the existing Water Tank II and is designed to be an AWWA D100, ground-supported, welded steel storage tank with a capacity of 300,000 Gallons. PSE’s scope of work includes structural design of the steel tank, foundation, anchorage, and structural detailing support for appurtenances, life-safety equipment, and access equipment. PSE is also working closely with the project team to coordinate and provide structural design guidance related to the tank siting, dimensions, security and aesthetics.
REQUEST FOR PROPOSALS

DECLARATION OF THE PROPOSER

I declare, under penalty of perjury under the laws of the State of California, that I am an authorized agent or officer of the organization submitting this proposal and in such capacity I am empowered to submit this proposal on behalf of (organization):

Ardura Group

I also verify that all information submitted and contained herein is true and correct to the best of my knowledge and belief.

BY: ____________________________

Signature: ____________________________

Printed Name: ____________________________

Position/Title: ____________________________

Date of Execution: ____________________________

9-22-2022

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REQUEST FOR PROPOSALS

EXTENSION OF CONTRACT TO OTHER PUBLIC AGENCIES

The prices, terms, and conditions of this proposal may be extended to other governmental agencies at the mutual agreement of both the city and awarded vendor. All requirements of the specifications, purchase orders, invoices, and payments with other agencies would be directly with the successful contractor. The City of Inglewood does not warrant any additional use of the contract by such agencies. The vendor’s response as requested below will in no way affect the City of Inglewood’s consideration of this proposal.

Please indicate if this quote will be extended to other public agencies, and the length of time it will remain in effect from the opening date of this proposal.

Yes [ ] No [X] Length of time [N/A] Days/Months

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REQUEST FOR PROPOSALS
RFP-0183

NON-COLLUSION DECLARATION

The undersigned hereby declares and says:

I am the Practice Director of Aedaria Group, the party making the foregoing bid. The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

(Full description of contract):

New Morningside Reservoir Design

______________________________
Signature of Officer or Authorized Agent

29
1960 EAST GRAND AVENUE
SUITE 300
EL SEGUNDO, CA 90245
www.ARDURRA.com
Fee Proposal
City of Inglewood
New Morningside Reservoir Design

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<td>Row 7</td>
<td>Row 8</td>
<td>Row 9</td>
<td>Row 10</td>
</tr>
</tbody>
</table>

ARURRA
Contractor Information

Legal Entity Name: Arduro Group, Inc.
Legal Entity Type: Corporation
Status: Active
Registration Number: PW-LR-1000392146
Registration effective date: 07/01/22
Registration expiration date: 06/30/23
Mailing Address: 4921 Memorial Highway, Suite 300, Tampa, FL 33634
Physical Address: 4921 Memorial Highway, Suite 300, Tampa, FL 33634
Email Address:
Trade Name/DBA:
License Number(s):
Other:

Legal Entity Information

Corporation Entity Number: C4151400
Federal Employment Identification Number: 591782900
President Name:
Vice President Name:
Treasurer Name: Catherine Cahill
Secretary Name: Christopher Lee
CEO Name:

Agency for Service:
Agent of Service Name:
Agent of Service Mailing Address:
National Registered Agents, Inc.
330 North Band Blvd, Ste 700, Glendale, CA 91203, United States of America
Worker's Compensation

**Do you lease employees through Professional Employer Organization (PEO)?:** No

Please provide your current worker's compensation insurance information below:

<table>
<thead>
<tr>
<th>PEO</th>
<th>PEO</th>
<th>PEO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Phone</td>
<td>Email</td>
</tr>
</tbody>
</table>

**Insured by Carrier:** Ardura Group, Inc.

**Insurance Carrier:** Continental Insurance Company

**Policy Number:** 6075540267

**Inception date:** 01/01/22

**Expiration Date:** 01/02/23
Basic Search

- A basic search can be performed using an entity name or entity number. When conducting a search by an entity number, where applicable, remove "C" from the entity number.

Note: a basic search will search only ACTIVE entities (Corporations, Limited Liability Companies, Limited Partnerships, Cooperatives, Name Reservations, Foreign Name Reservations, Unincorporated Common Interest Developments, and Out of State Associations). The basic search performs a Contains Nearest Match search. The Advanced search allows for a Search with/without. To search entities that have a status other than active or to refine search criteria, use the Advanced search feature.

Advanced Search

- An Advanced search is required when searching for publicly traded disclosure information or a status other than active.

- An Advanced search allows for searching by specific entity types (e.g., Nonprofit Mutual Benefit Corporations) or by entity groups (e.g., All Corporations) as well as searching by filing dates as specific criteria.

Disclaimer: Search results are limited to the 500 entities closest matching the entered search criteria. If your desired search result is not found within the 500 entities provided, please refine the search criteria using the Advanced search function for additional results/entities. The California Business Search is updated as documents are approved. The data provided is not a complete or certified record.

Although every attempt has been made to ensure that the information contained in the database is accurate, the Secretary of State's office is not responsible for any loss, consequence, or damage resulting directly or indirectly from reliance on the accuracy, reliability, or completeness of the information that is provided. All such information is provided "as is." To order certified copies or certificates of status, (1) locate an entity using the search; (2) select Request Certificate in the right-hand detail drawer; and (3) complete your request online.

Ardurra

Initial Filing Date: 05/18/2019
Status: Active
Entity Type: Stock Corporation - Out of State - Stock
Incorporated in: FLORIDA
Registered Agent: NATIONAL REGISTERED AGENTS, INC.
1595 Corporation
333 N BRAND BLVD STE 700
GLENDALE, CA 91201

View History | Request Access

© 2022 CA Secretary of State
Form W-9

Request for Taxpayer Identification Number and Certification

Gross to www.irs.gov/FormW9 for instructions and the latest information.

Give Form to the requester. Do not send to the IRS.

1. Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.
   Ardurra Group, Inc.

2. Business name/disregarded entity name, if different from above

3. Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes.
   - Individual/corporate proprietor or single-member LLC
   - C Corporation
   - S Corporation
   - Partnership
   - Trust/estate

   Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶

   Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.

4. Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):
   - Exempt payee code (if any) ▶
   - Exemption from FATCA reporting code (if any) ▶

   (Applies to accounts maintained outside the U.S.)

5. Address (number, street, and apt., or suite no.) See instructions.
   4921 Memorial Highway, Suite 300
   Tampa, Florida 33634

6. City, state, and ZIP code

7. List account number(s) here (optional)

   Requester's name and address (optional)

---

Part I - Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see How to get a TIN, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see What Name and Number To Give the Requester for guidelines on whose number to enter.

---

Part II - Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest and dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certificate instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

---

Sign Here

Signature of U.S. person ▶

Date ▶ 05/05/2021

---

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.
CERTIFICATE OF LIABILITY INSURANCE

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

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

PRODUCER
Ames & Gough
8300 Greensboro Drive
Suite 980
McLean, VA 22102

INSURED
Ardurra Group, Inc.
4921 Memorial Highway
Suite 300
Tampa, FL 33634

INSURER(S) AFFORDING COVERAGE
INSURER A: Valley Forge Insurance Company A(XV)
INSURER B: National Fire Insurance Company of Hartford A(XV)
INSURER C: Continental Insurance Company A(XV)
INSURER D: National Fire & Marine Insurance Company

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

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

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<thead>
<tr>
<th>LETTER</th>
<th>TYPE OF INSURANCE</th>
<th>ADDED/RENEWAL</th>
<th>POLICY NUMBER</th>
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<td>PER CLAIM/AGGREGATE</td>
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DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
RE: MORNINGSIDE RESERVOIR

The City of Inglewood, CA is included as additional insured with respect to General Liability, Automobile Liability, and Umbrella Liability when required by written contract. General Liability includes Additional Insured coverage for Completed Operations as required by written contract. General Liability, Automobile Liability, and Umbrella Liability are primary and non-contributory over any existing insurance and limited to liability arising out of the operations of the named insured and when required by written contract. General Liability, Automobile Liability, Workers Compensation, and Umbrella Liability policies include a waiver of subrogation in favor of the additional insureds where permissible by state law and when required by written contract. Umbrella Liability coverage sits excess over General Liability, Automobile Liability and Employers’ Liability coverage.

CERTIFICATE HOLDER

City of Inglewood, CA
Public Works Dept/Water Division
1 West Manchester Boulevard #300
Inglewood, CA 90301

CANCELLATION

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

AUTHORIZED REPRESENTATIVE

© 1988-2015 ACORD CORPORATION. All rights reserved.

The ACORD name and logo are registered marks of ACORD
This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

It is understood and agreed as follows:

I. WHO IS AN INSURED is amended to include as an Insured any person or organization whom you are required by written contract to add as an additional insured on this coverage part, but only with respect to liability for bodily injury, property damage or personal and advertising injury caused in whole or in part by your acts or omissions, or the acts or omissions of those acting on your behalf:

A. in the performance of your ongoing operations subject to such written contract; or

B. in the performance of your work subject to such written contract, but only with respect to bodily injury or property damage included in the products-completed operations hazard, and only if:
   1. the written contract requires you to provide the additional insured such coverage; and
   2. this coverage part provides such coverage.

II. But if the written contract requires:

A. additional insured coverage under the 11-85 edition, 10-93 edition, or 10-01 edition of CG2010, or under the 10-01 edition of CG2037; or

B. additional insured coverage with "arising out of" language; or

C. additional insured coverage to the greatest extent permissible by law;

then paragraph I. above is deleted in its entirety and replaced by the following:

WHO IS AN INSURED is amended to include as an Insured any person or organization whom you are required by written contract to add as an additional insured on this coverage part, but only with respect to liability for bodily injury, property damage or personal and advertising injury arising out of your work that is subject to such written contract.

III. Subject always to the terms and conditions of this policy, including the limits of insurance, the Insurer will not provide such additional insured with:

A. coverage broader than required by the written contract; or

B. a higher limit of insurance than required by the written contract.

IV. The insurance granted by this endorsement to the additional insured does not apply to bodily injury, property damage, or personal and advertising injury arising out of:

A. the rendering of, or the failure to render, any professional architectural, engineering, or surveying services, including:
   1. the preparing, approving, or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; and
   2. supervisory, inspection, architectural or engineering activities; or

B. any premises or work for which the additional insured is specifically listed as an additional insured on another endorsement attached to this coverage part.

V. Under COMMERCIAL GENERAL LIABILITY CONDITIONS, the Condition entitled Other Insurance is amended to add the following, which supersedes any provision to the contrary in this Condition or elsewhere in this coverage part:

CNA75079XX (10-16)  Policy No: 6075640222
Page 1 of 2  Endorsement No: .13
The Continental Insurance Co.  Effective Date: 01/01/2023
Insured Name: ARDURRA GROUP, INC.
Copyright CNA All Rights Reserved. Includes copyrighted material of Insurance Services Office, Inc., with its permission.
Primary and Noncontributory Insurance

With respect to other insurance available to the additional insured under which the additional insured is a named insured, this insurance is primary to and will not seek contribution from such other insurance, provided that a written contract requires the insurance provided by this policy to be:

1. primary and non-contributing with other insurance available to the additional insured; or
2. primary and to not seek contribution from any other insurance available to the additional insured.

But except as specified above, this insurance will be excess of all other insurance available to the additional insured.

VI. Solely with respect to the insurance granted by this endorsement, the section entitled COMMERCIAL GENERAL LIABILITY CONDITIONS is amended as follows:

The Condition entitled Duties In The Event of Occurrence, Offense, Claim or Suit is amended with the addition of the following:

Any additional insured pursuant to this endorsement will as soon as practicable:

1. give the Insurer written notice of any claim, or any occurrence or offense which may result in a claim;
2. send the Insurer copies of all legal papers received, and otherwise cooperate with the Insurer in the investigation, defense, or settlement of the claim; and
3. make available any other insurance, and tender the defense and indemnity of any claim to any other insurer or self-insurer, whose policy or program applies to a loss that the Insurer covers under this coverage part. However, if the written contract requires this insurance to be primary and non-contributory, this paragraph 3. does not apply to insurance on which the additional insured is a named insured.

The Insurer has no duty to defend or indemnify an additional insured under this endorsement until the Insurer receives written notice of a claim from the additional insured.

VII. Solely with respect to the insurance granted by this endorsement, the section entitled DEFINITIONS is amended to add the following definition:

Written contract means a written contract or written agreement that requires you to make a person or organization an additional insured on this coverage part, provided the contract or agreement:

A. is currently in effect or becomes effective during the term of this policy; and
B. was executed prior to:
   1. the bodily injury or property damage; or
   2. the offense that caused the personal and advertising injury;
   for which the additional insured seeks coverage.

Any coverage granted by this endorsement shall apply solely to the extent permissible by law.

All other terms and conditions of the Policy remain unchanged.

This endorsement, which forms a part of and is for attachment to the Policy issued by the designated Insurers, takes effect on the effective date of said Policy at the hour stated in said Policy, unless another effective date is shown below, and expires concurrently with said Policy.
It is understood and agreed that this endorsement amends the COMMERCIAL GENERAL LIABILITY COVERAGE PART as follows. If any other endorsement attached to this policy amends any provision also amended by this endorsement, then that other endorsement controls with respect to such provision, and the changes made by this endorsement with respect to such provision do not apply.

<table>
<thead>
<tr>
<th>TABLE OF CONTENTS</th>
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<tr>
<td>1.  Additional Insureds</td>
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<td>2.  Additional Insured - Primary And Non-Contributory To Additional Insured's Insurance</td>
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<td>3.  Additional Insured – Extended Coverage</td>
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<td>4.  Boats</td>
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<td>5.  Bodily Injury – Expanded Definition</td>
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<td>6.  Broad Knowledge of Occurrence/ Notice of Occurrence</td>
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<td>7.  Broad Named Insured</td>
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<td>8.  Contractual Liability – Railroads</td>
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<td>9.  Estates, Legal Representatives and Spouses</td>
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<td>10. Expected Or Intended Injury – Exception for Reasonable Force</td>
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<td>11. General Aggregate Limits of Insurance – Per Location</td>
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<tr>
<td>12. In Rem Actions</td>
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<tr>
<td>13. Incidental Health Care Malpractice Coverage</td>
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<tr>
<td>14. Joint Ventures/Partnership/Limited Liability Companies</td>
</tr>
<tr>
<td>15. Legal Liability – Damage To Premises</td>
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<tr>
<td>16. Liquor Liability</td>
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<tr>
<td>17. Medical Payments</td>
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<tr>
<td>18. Non-owned Aircraft Coverage</td>
</tr>
<tr>
<td>19. Non-owned Watercraft</td>
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<td>20. Personal And Advertising Injury – Discrimination or Humiliation</td>
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<tr>
<td>21. Personal And Advertising Injury - Contractual Liability</td>
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<td>22. Property Damage – Elevators</td>
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<td>23. Retired Partners, Members, Directors And Employees</td>
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<td>24. Supplementary Payments</td>
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<td>25. Unintentional Failure To Disclose Hazards</td>
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<tr>
<td>26. Waiver of Subrogation – Blanket</td>
</tr>
<tr>
<td>27. Wrap-Up Extension: OCIP, CCIP or Consolidated (Wrap-Up) Insurance Programs</td>
</tr>
</tbody>
</table>
1. ADDITIONAL INSURED

a. **WHO IS AN INSURED** is amended to include as an insured any person or organization described in paragraphs A. through I. below whom a Named Insured is required to add as an additional insured on this Coverage Part under a written contract or written agreement, provided such contract or agreement:

   (1) is currently in effect or becomes effective during the term of this Coverage Part; and

   (2) was executed prior to:

      (a) the bodily injury or property damage; or

      (b) the offense that caused the personal and advertising injury,

      for which such additional insured seeks coverage.

b. However, subject always to the terms and conditions of this policy, including the limits of insurance, the Insurer will not provide such additional insured with:

   (1) a higher limit of insurance than required by such contract or agreement; or

   (2) coverage broader than required by such contract or agreement, and in no event broader than that described by the applicable paragraph A. through I. below.

Any coverage granted by this endorsement shall apply only to the extent permissible by law.

A. Controlling Interest

Any person or organization with a controlling interest in a Named Insured, but only with respect to such person or organization’s liability for bodily injury, property damage or personal and advertising injury arising out of:

1. such person or organization’s financial control of a Named Insured; or

2. premises such person or organization owns, maintains or controls while a Named Insured leases or occupies such premises;

provided that the coverage granted by this paragraph does not apply to structural alterations, new construction or demolition operations performed by, on behalf of, or for such additional insured.

B. Co-owner of Insured Premises

A co-owner of a premises co-owned by a Named Insured and covered under this insurance but only with respect to such co-owner’s liability for bodily injury, property damage or personal and advertising injury as co-owner of such premises.

C. Engineers, Architects or Surveyors Engaged By You

An architect, engineer or surveyor engaged by the Named Insured, but only with respect to liability for bodily injury, property damage or personal and advertising injury caused in whole or in part by the Named Insured’s acts or omissions, or the acts or omissions of those acting on the Named Insured’s behalf:

a. in connection with the Named Insured’s premises; or

b. in the performance of the Named Insured’s ongoing operations.

But the coverage hereby granted to such additional insureds does not apply to bodily injury, property damage or personal and advertising injury arising out of the rendering of or failure to render any professional services by, on behalf of, or for the Named Insured, including but not limited to:
1. the preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or

2. supervisory, inspection, architectural or engineering activities.

D. Lessor of Equipment

Any person or organization from whom a Named Insured leases equipment, but only with respect to liability for bodily injury, property damage or personal and advertising injury caused, in whole or in part, by the Named Insured's maintenance, operation or use of such equipment, provided that the occurrence giving rise to such bodily injury, property damage or the offense giving rise to such personal and advertising injury takes place prior to the termination of such lease.

E. Lessor of Land

Any person or organization from whom a Named Insured leases land but only with respect to liability for bodily injury, property damage or personal and advertising injury arising out of the ownership, maintenance or use of such land, provided that the occurrence giving rise to such bodily injury, property damage or the offense giving rise to such personal and advertising injury takes place prior to the termination of such lease. The coverage granted by this paragraph does not apply to structural alterations, new construction or demolition operations performed by, on behalf of, or for such additional insured.

F. Lessor of Premises

An owner or lessor of premises leased to the Named Insured, or such owner or lessor's real estate manager, but only with respect to liability for bodily injury, property damage or personal and advertising injury arising out of the ownership, maintenance or use of such part of the premises leased to the Named Insured, and provided that the occurrence giving rise to such bodily injury or property damage, or the offense giving rise to such personal and advertising injury, takes place prior to the termination of such lease. The coverage granted by this paragraph does not apply to structural alterations, new construction or demolition operations performed by, on behalf of, or for such additional insured.

G. Mortgagee, Assignee or Receiver

A mortgagee, assignee or receiver of premises but only with respect to such mortgagee, assignee or receiver's liability for bodily injury, property damage or personal and advertising injury arising out of the Named Insured's ownership, maintenance, or use of a premises by a Named Insured.

The coverage granted by this paragraph does not apply to structural alterations, new construction or demolition operations performed by, on behalf of, or for such additional insured.

H. State or Governmental Agency or Subdivision or Political Subdivisions – Permits

A state or governmental agency or subdivision or political subdivision that has issued a permit or authorization but only with respect to such state or governmental agency or subdivision or political subdivision's liability for bodily injury, property damage or personal and advertising injury arising out of:

1. the following hazards in connection with premises a Named Insured owns, rents, or controls and to which this insurance applies:
   a. the existence, maintenance, repair, construction, erection, or removal of advertising signs, awnings, canopies, cellar entrances, coal holes, driveways, manholes, marquees, hoistway openings, sidewalk vaults, street banners, or decorations and similar exposures; or
   b. the construction, erection, or removal of elevators; or
   c. the ownership, maintenance or use of any elevators covered by this insurance; or
2. the permitted or authorized operations performed by a Named Insured or on a Named Insured's behalf.

The coverage granted by this paragraph does not apply to:

a. Bodily injury, property damage or personal and advertising injury arising out of operations performed for the state or governmental agency or subdivision or political subdivision; or

b. Bodily injury or property damage included within the products-completed operations hazard.

With respect to this provision's requirement that additional insured status must be requested under a written contract or agreement, the Insurer will treat as a written contract any governmental permit that requires the Named Insured to add the governmental entity as an additional insured.

I. Trade Show Event Lessor

1. With respect to a Named Insured's participation in a trade show event as an exhibitor, presenter or display, any person or organization whom the Named Insured is required to include as an additional insured, but only with respect to such person or organization's liability for bodily injury, property damage or personal and advertising injury caused by:

   a. the Named Insured's acts or omissions; or

   b. the acts or omissions of those acting on the Named Insured's behalf,

in the performance of the Named Insured's ongoing operations at the trade show event premises during the trade show event.

2. The coverage granted by this paragraph does not apply to bodily injury or property damage included within the products-completed operations hazard.

2. ADDITIONAL INSURED - PRIMARY AND NON-CONTRIBUTORY TO ADDITIONAL INSURED'S INSURANCE

The Other Insurance Condition in the COMMERCIAL GENERAL LIABILITY CONDITIONS Section is amended to add the following paragraph:

If the Named Insured has agreed in writing in a contract or agreement that this insurance is primary and non-contributory relative to an additional insured's own insurance, then this insurance is primary, and the Insurer will not seek contribution from that other insurance. For the purpose of this Provision 2., the additional insured's own insurance means insurance on which the additional insured is a named insured. Otherwise, and notwithstanding anything to the contrary elsewhere in this Condition, the insurance provided to such person or organization is excess of any other insurance available to such person or organization.

3. ADDITIONAL INSURED – EXTENDED COVERAGE

When an additional insured is added by this or any other endorsement attached to this Coverage Part, WHO IS AN INSURED is amended to make the following natural persons Insureds.

If the additional insured is:

a. An individual, then his or her spouse is an Insured;

b. A partnership or joint venture, then its partners, members and their spouses are Insureds;

c. A limited liability company, then its members and managers are Insureds; or

d. An organization other than a partnership, joint venture or limited liability company, then its executive officers, directors and shareholders are Insureds;
but only with respect to locations and operations covered by the additional insured endorsement's provisions, and only with respect to their respective roles within their organizations.

Please see the ESTATES, LEGAL REPRESENTATIVES, AND SPOUSES provision of this endorsement for additional coverage and restrictions applicable to spouses of natural person Insureds.

4. BOATS

Under COVERAGE, Coverage A – Bodily Injury And Property Damage Liability, the paragraph entitled Exclusions is amended to add the following additional exception to the exclusion entitled Aircraft, Auto or Watercraft:

This exclusion does not apply to:

Any watercraft owned by the Named Insured that is less than 30 feet long while being used in the course of the Named Insured's inspection or surveying work.

5. BODILY INJURY – EXPANDED DEFINITION

Under DEFINITIONS, the definition of bodily injury is deleted and replaced by the following:

Bodily injury means physical injury, sickness or disease sustained by a person, including death, humiliation, shock, mental anguish or mental injury sustained by that person at any time which results as a consequence of the physical injury, sickness or disease.

6. BROAD KNOWLEDGE OF OCCURRENCE/ NOTICE OF OCCURRENCE

Under CONDITIONS, the condition entitled Duties in The Event of Occurrence, Offense, Claim or Suit is amended to add the following provisions:

A. BROAD KNOWLEDGE OF OCCURRENCE

The Named Insured must give the Insurer or the Insurer's authorized representative notice of an occurrence, offense or claim only when the occurrence, offense or claim is known to a natural person Named Insured, to a partner, executive officer, manager or member of a Named Insured, or to an employee designated by any of the above to give such notice.

B. NOTICE OF OCCURRENCE

The Named Insured's rights under this Coverage Part will not be prejudiced if the Named Insured fails to give the Insurer notice of an occurrence, offense or claim and that failure is solely due to the Named Insured's reasonable belief that the bodily injury or property damage is not covered under this Coverage Part. However, the Named Insured shall give written notice of such occurrence, offense or claim to the Insurer as soon as the Named Insured is aware that this insurance may apply to such occurrence, offense or claim.

7. BROAD NAMED INSURED

WHO IS AN INSURED is amended to delete its Paragraph 3. in its entirety and replace it with the following:

3. Pursuant to the limitations described in Paragraph 4. below, any organization in which a Named Insured has management control:

   a. on the effective date of this Coverage Part; or

   b. by reason of a Named Insured creating or acquiring the organization during the policy period,

qualifies as a Named Insured, provided that there is no other similar liability insurance, whether primary, contributory, excess, contingent or otherwise, which provides coverage to such organization, or which would have
provided coverage but for the exhaustion of its limit, and without regard to whether its coverage is broader or narrower than that provided by this insurance.

But this BROAD NAMED INSURED provision does not apply to:

(a) any partnership, limited liability company or joint venture; or
(b) any organization for which coverage is excluded by another endorsement attached to this Coverage Part.

For the purpose of this provision, management control means:

A. owning interests representing more than 50% of the voting, appointment or designation power for the selection of a majority of the Board of Directors of a corporation; or
B. having the right, pursuant to a written trust agreement, to protect, control the use of, encumber or transfer or sell property held by a trust.

4. With respect to organizations which qualify as Named Insureds by virtue of Paragraph 3. above, this insurance does not apply to:

a. bodily injury or property damage that first occurred prior to the date of management control, or that first occurs after management control ceases; nor
b. personal or advertising injury caused by an offense that first occurred prior to the date of management control or that first occurs after management control ceases.

5. The insurance provided by this Coverage Part applies to Named Insureds when trading under their own names or under such other trading names or doing-business-as names (dba) as any Named Insured should choose to employ.

8. CONTRACTUAL LIABILITY – RAILROADS

With respect to operations performed within 50 feet of railroad property, the definition of insured contract is replaced by the following:

Insured Contract means:

a. A contract for a lease of premises. However, that portion of the contract for a lease of premises that indemnifies any person or organization for damage by fire to premises while rented to a Named Insured or temporarily occupied by a Named Insured you with permission of the owner is not an insured contract;

b. A sidetrack agreement;

c. Any easement or license agreement;

d. An obligation, as required by ordinance, to indemnify a municipality, except in connection with work for a municipality;

e. An elevator maintenance agreement;

f. That part of any other contract or agreement pertaining to the Named Insured’s business (including an indemnification of a municipality in connection with work performed for a municipality) under which the Named Insured assumes the tort liability of another party to pay for bodily injury or property damage to a third person or organization. Tort liability means a liability that would be imposed by law in the absence of any contract or agreement.

Paragraph f. does not include that part of any contract or agreement:
(1) That indemnifies an architect, engineer or surveyor for injury or damage arising out of:
(a) Preparing, approving or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
(b) Giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage;

(2) Under which the Insured, if an architect, engineer or surveyor, assumes liability for an injury or damage arising out of the insured’s rendering or failure to render professional services, including those listed in (1) above and supervisory, inspection, architectural or engineering activities.

9. ESTATES, LEGAL REPRESENTATIVES, AND SPOUSES
The estates, executors, heirs, legal representatives, administrators, trustees, beneficiaries and spouses of any natural person Insured or living trust shall also be insured under this policy; provided, however, coverage is afforded to such estates, executors, heirs, legal representatives, administrators, trustees, beneficiaries and spouses only for claims arising solely out of their capacity or status as such and, in the case of a spouse, where such claim seeks damages from marital community property, jointly held property or property transferred from such natural person Insured to such spouse. No coverage is provided for any act, error or omission of an estate, heir, legal representative, or spouse outside the scope of such person’s capacity or status as such, provided, however, that the spouse of a natural person Named Insured, and the spouses of members or partners of joint venture or partnership Named Insureds are Insureds with respect to such spouses’ acts, errors or omissions in the conduct of the Named Insured's business.

10. EXPECTED OR INTENDED INJURY – EXCEPTION FOR REASONABLE FORCE
Under COVERAGES, Coverage A – Bodily Injury And Property Damage Liability, the paragraph entitled Exclusions is amended to delete the exclusion entitled Expected or Intended Injury and replace it with the following:

This insurance does not apply to:

Expected or Intended Injury

Bodily injury or property damage expected or intended from the standpoint of the Insured. This exclusion does not apply to bodily injury or property damage resulting from the use of reasonable force to protect persons or property.

11. GENERAL AGGREGATE LIMITS OF INSURANCE - PER LOCATION
A. A separate Location General Aggregate Limit, equal to the amount of the General Aggregate Limit, is the most the Insurer will pay for the sum of:

1. All damages under Coverage A, except damages because of bodily injury or property damage included in the products-completed operations hazard; and

2. All medical expenses under Coverage C,

that arise from occurrences or accidents which can be attributed solely to ongoing operations at that location. Such payments shall not reduce the General Aggregate Limit shown in the Declarations, nor the Location General Aggregate Limit of any other location.

B. All:

1. Damages under Coverage B, regardless of the number of locations involved;
2. Damages under Coverage A, caused by occurrences which cannot be attributed solely to ongoing operations at a single location, except damages because of bodily injury or property damage included in the products-completed operations hazard; and

3. Medical expenses under Coverage C caused by accidents which cannot be attributed solely to ongoing operations at a single location,

will reduce the General Aggregate Limit shown in the Declarations.

C. For the purpose of this GENERAL AGGREGATE LIMITS OF INSURANCE - PER LOCATION Provision, "location" means:

1. a premises the Named Insured owns or rents; or

2. a premises not owned or rented by any Named Insured at which the Named Insured is performing operations pursuant to a contract or written agreement. If operations at such a location have been discontinued and then restarted, or if the authorized parties deviate from plans, blueprints, designs, specifications or timetables, the location will still be deemed to be the same location.

For the purpose of determining the applicable aggregate limit of insurance, premises involving the same or connecting lots, or premises whose connection is interrupted only by a street, roadway, waterway or right-of-way of a railroad shall be considered a single location.

D. The limits shown in the Declarations for Each Occurrence, for Damage To Premises Rented To You and for Medical Expense continue to apply, but will be subject to either the Location General Aggregate Limit or the General Aggregate Limit, depending on whether the occurrence can be attributed solely to ongoing operations at a particular location.

E. When coverage for liability arising out of the products-completed operations hazard is provided, any payments for damages because of bodily injury or property damage included in the products-completed operations hazard, regardless of the number of locations involved, will reduce the Products-Completed Operations Aggregate Limit shown in the Declarations.

F. The provisions of LIMITS OF INSURANCE not otherwise modified by this GENERAL AGGREGATE LIMITS OF INSURANCE - PER LOCATION Provision shall continue to apply as stipulated.

12. IN REM ACTIONS

A quasi in rem action against any vessel owned or operated by or for the Named Insured, or chartered by or for the Named Insured, will be treated in the same manner as though the action were in personam against the Named Insured.

13. INCIDENTAL HEALTH CARE MALPRACTICE COVERAGE

Solely with respect to bodily injury that arises out of a health care incident:

A. Under COVERAGES, Coverage A – Bodily Injury And Property Damage Liability, the Insuring Agreement is amended to replace Paragraphs 1.b.(1) and 1.b.(2) with the following:

b. This insurance applies to bodily injury provided that the professional health care services are incidental to the Named Insured's primary business purpose, and only if:

(1) such bodily injury is caused by an occurrence that takes place in the coverage territory.

(2) the bodily injury first occurs during the policy period. All bodily injury arising from an occurrence will be deemed to have occurred at the time of the first act, error, or omission that is part of the occurrence; and
B. Under COVERAGE, Coverage A – Bodily Injury And Property Damage Liability, the paragraph entitled
Exclusions is amended to:

i. add the following to the Employers Liability exclusion:

This exclusion applies only if the bodily injury arising from a health care incident is covered by other
liability insurance available to the Insured (or which would have been available but for exhaustion of its
limits).

ii. delete the exclusion entitled Contractual Liability and replace it with the following:

This insurance does not apply to:

Contractual Liability

the Insured's actual or alleged liability under any oral or written contract or agreement, including but not
limited to express warranties or guarantees.

iii. to add the following additional exclusions:

This insurance does not apply to:

Discrimination

any actual or alleged discrimination, humiliation or harassment, including but not be limited to claims based
on an individual's race, creed, color, age, gender, national origin, religion, disability, marital status or sexual
orientation.

Dishonesty or Crime

Any actual or alleged dishonest, criminal or malicious act, error or omission.

Medicare/Medicaid Fraud

any actual or alleged violation of law with respect to Medicare, Medicaid, Tricare or any similar federal, state
or local governmental program.

Services Excluded by Endorsement

Any health care incident for which coverage is excluded by endorsement.

C. DEFINITIONS is amended to:

i. add the following definitions:

Health care incident means an act, error or omission by the Named Insured's employees or volunteer
workers in the rendering of:

a. professional health care services on behalf of the Named Insured or

b. Good Samaritan services rendered in an emergency and for which no payment is demanded or received.

Professional health care services means any health care services or the related furnishing of food,
beverages, medical supplies or appliances by the following providers in their capacity as such but solely to
the extent they are duly licensed as required:

a. Physician;
b. Nurse;
c. Nurse practitioner;
d. Emergency medical technician;
e. Paramedic;
f. Dentist;
g. Physical therapist;
h. Psychologist;
i. Speech therapist;
j. Other allied health professional; or

Professional health care services does not include any services rendered in connection with human clinical trials or product testing.

ii. delete the definition of occurrence and replace it with the following:

Occurrence means a health care Incident. All acts, errors or omissions that are logically connected by any common fact, circumstance, situation, transaction, event, advice or decision will be considered to constitute a single occurrence;

iii. amend the definition of Insured to:

a. add the following:

the Named Insured's employees are Insureds with respect to:

(1) bodily injury to a co-employee while in the course of the co-employee's employment by the Named Insured or while performing duties related to the conduct of the Named Insured's business; and

(2) bodily injury to a volunteer worker while performing duties related to the conduct of the Named Insured's business;

when such bodily injury arises out of a health care incident.

the Named Insured's volunteer workers are Insureds with respect to:

(1) bodily injury to a co-volunteer worker while performing duties related to the conduct of the Named Insured's business; and

(2) bodily injury to an employee while in the course of the employee's employment by the Named Insured or while performing duties related to the conduct of the Named Insured's business;

when such bodily injury arises out of a health care incident.

b. delete Subparagraphs (a), (b), (c) and (d) of Paragraph 2.a.(1) of WHO IS AN INSURED.

D. The Other Insurance condition is amended to delete Paragraph b.(1) in its entirety and replace it with the following:

Other Insurance
b. Excess Insurance

(1) To the extent this insurance applies, it is excess over any other insurance, self insurance or risk transfer instrument, whether primary, excess, contingent or on any other basis, except for insurance purchased specifically by the Named Insured to be excess of this coverage.

14. JOINT VENTURES / PARTNERSHIP / LIMITED LIABILITY COMPANIES

A. Past Joint Ventures, Partnerships, Limited Liability Companies

The following is added to WHO IS AN INSURED:

If the Named Insured was a joint venturer, partner, or member of a limited liability company and such joint venture, partnership or limited liability company terminated prior to or during the policy period, such Named Insured is an Insured with respect to its interest in such joint venture, partnership or limited liability company but only to the extent that:

a. any offense giving rise to personal and advertising injury occurred prior to such termination date, and the personal and advertising injury arising out of such offense, first occurred after such termination date;

b. the bodily injury or property damage first occurred after such termination date; and

c. there is no other valid and collectible insurance purchased specifically to insure the partnership, joint venture or limited liability company.

If the joint venture, partnership or limited liability company is or was insured under a consolidated (wrap-up) insurance program, then such insurance will always be considered valid and collectible for the purpose of paragraph c. above. But this provision will not serve to exclude bodily injury, property damage or personal and advertising injury that would otherwise be covered under the Architects, Engineers And Surveyors General Liability Extension Endorsement provision entitled WRAP-UP EXTENSION: OCIP, CCIP, OR CONSOLIDATED (WRAP-UP) INSURANCE PROGRAMS. Please see that provision for the definition of consolidated (wrap-up) insurance program.

B. Participation In Current Professional Joint Ventures

The following is added to WHO IS AN INSURED:

The Named Insured is also an Insured for participation in a current joint venture that is not named on the Declarations, but only if such joint venture meets all of the following criteria:

a. Each and every one of the Named Insured's co-venturers are architectural, engineering or surveying firms only; and

b. There is no other valid and collectible insurance purchased specifically to insure the joint venture.

However, the Named Insured is an Insured only for the conduct of such Named Insured's business within such a joint venture. The Named Insured is not insured for liability arising out of the acts or omissions of other co-venturers, nor of their partners, members or employees.

C. WHO IS AN INSURED is amended to delete its last paragraph and replace it with the following:

Except as provided under this Architects, Engineers And Surveyors General Liability Extension Endorsement or by the attachment of another endorsement (if any), no person or organization is an Insured with respect to the conduct of any current or past partnership, joint venture or limited liability company that is not shown as a Named Insured in the Declarations.
15. LEGAL LIABILITY - DAMAGE TO PREMISES / ALIENATED PREMISES / PROPERTY IN THE NAMED INSURED'S CARE, CUSTODY OR CONTROL

A. Under COVERAGES, Coverage A – Bodily Injury and Property Damage Liability, the paragraph entitled Exclusions is amended to delete exclusion J. Damage to Property in its entirety and replace it with the following:

This insurance does not apply to:

J. Damage to Property

Property damage to:

(1) Property the Named Insured owns, rents, or occupies, including any costs or expenses incurred by you, or any other person, organization or entity, for repair, replacement, enhancement, restoration or maintenance of such property for any reason, including prevention of injury to a person or damage to another's property;

(2) Premises the Named Insured sells, gives away or abandons, if the property damage arises out of any part of those premises;

(3) Property loaned to the Named Insured;

(4) Personal property in the care, custody or control of the Insured;

(5) That particular part of real property on which the Named Insured or any contractors or subcontractors working directly or indirectly on the Named Insured's behalf are performing operations, if the property damage arises out of those operations; or

(6) That particular part of any property that must be restored, repaired or replaced because your work was incorrectly performed on it.

Paragraphs (1), (3) and (4) of this exclusion do not apply to property damage (other than damage by fire) to premises rented to the Named Insured or temporarily occupied by the Named Insured with the permission of the owner, nor to the contents of premises rented to the Named Insured for a period of 7 or fewer consecutive days. A separate limit of insurance applies to Damage To Premises Rented To You as described in LIMITS OF INSURANCE.

Paragraph (2) of this exclusion does not apply if the premises are your work.

Paragraphs (3), (4), (5) and (6) of this exclusion do not apply to liability assumed under a sidetrack agreement.

Paragraph (6) of this exclusion does not apply to property damage included in the products-completed operations hazard.

Paragraphs (3) and (4) of this exclusion do not apply to property damage to:

i. tools, or equipment the Named Insured borrows from others, nor

ii. other personal property of others in the Named Insured's care, custody or control while being used in the Named Insured's operations away from any Named Insured's premises.

However, the coverage granted by this exception to Paragraphs (3) and (4) does not apply to:

a. property at a job site awaiting or during such property's installation, fabrication, or erection;

b. property that is mobile equipment leased by an Insured;
c. property that is an auto, aircraft or watercraft;

d. property in transit; or

e. any portion of property damage for which the Insured has available other valid and collectible insurance, or would have such insurance but for exhaustion of its limits, or but for application of one of its exclusions.

A separate limit of insurance and deductible apply to such property of others. See LIMITS OF INSURANCE as amended below.

B. Under COVERAGES, Coverage A — Bodily Injury and Property Damage Liability, the paragraph entitled Exclusions is amended to delete its last paragraph and replace it with the following:

Exclusions c. through n. do not apply to damage by fire to premises while rented to a Named Insured or temporarily occupied by a Named Insured with permission of the owner, nor to damage to the contents of premises rented to a Named Insured for a period of 7 or fewer consecutive days.

A separate limit of insurance applies to this coverage as described in LIMITS OF INSURANCE.

C. The following paragraph is added to LIMITS OF INSURANCE:

Subject to 5. above, $25,000 is the most the Insurer will pay under Coverage A for damages arising out of any one occurrence because of the sum of all property damage to borrowed tools or equipment, and to other personal property of others in the Named Insured's care, custody or control, while being used in the Named Insured's operations away from any Named Insured's premises. The Insurer's obligation to pay such property damage does not apply until the amount of such property damage exceeds $1,000. The Insurer has the right but not the duty to pay any portion of this $1,000 in order to effect settlement. If the Insurer exercises that right, the Named Insured will promptly reimburse the Insurer for any such amount.

D. Paragraph 6., Damage To Premises Rented To You Limit, of LIMITS OF INSURANCE is deleted and replaced by the following:

6. Subject to Paragraph 5. above, (the Each Occurrence Limit), the Damage To Premises Rented To You Limit is the most the Insurer will pay under Coverage A for damages because of property damage to any one premises while rented to the Named Insured or temporarily occupied by the Named Insured with the permission of the owner, including contents of such premises rented to the Named Insured for a period of 7 or fewer consecutive days. The Damage To Premises Rented To You Limit is the greater of:

a. $500,000; or

b. The Damage To Premises Rented To You Limit shown in the Declarations.

E. Paragraph 4.b.(1)(a)(ii) of the Other Insurance Condition is deleted and replaced by the following:

(ii) That is property insurance for premises rented to the Named Insured, for premises temporarily occupied by the Named Insured with the permission of the owner; or for personal property of others in the Named Insured's care, custody or control;

16. LIQUOR LIABILITY

Under COVERAGES, Coverage A — Bodily Injury and Property Damage Liability, the paragraph entitled Exclusions is amended to delete the exclusion entitled Liquor Liability.

This LIQUOR LIABILITY Provision does not apply to any person or organization who otherwise qualifies as an additional insured on this Coverage Part.
17. MEDICAL PAYMENTS

A. LIMITS OF INSURANCE is amended to delete Paragraph 7. (the Medical Expense Limit) and replace it with the following:

7. Subject to Paragraph 5. above (the Each Occurrence Limit), the Medical Expense Limit is the most the Insurer will pay under Coverage C for all medical expenses because of bodily injury sustained by any one person. The Medical Expense Limit is the greater of:

(1) $15,000 unless a different amount is shown here: $N,NNN,NNN,NNN; or

(2) the amount shown in the Declarations for Medical Expense Limit.

B. Under COVERAGES, the Insuring Agreement of Coverage C – Medical Payments is amended to replace Paragraph 1.a.(3)(b) with the following:

(b) The expenses are incurred and reported to the Insurer within three years of the date of the accident; and

18. NON-OWNED AIRCRAFT

Under COVERAGES, Coverage A – Bodily Injury and Property Damage Liability, the paragraph entitled Exclusions is amended as follows:

The exclusion entitled Aircraft, Auto or Watercraft is amended to add the following:

This exclusion does not apply to an aircraft not owned by any Named Insured, provided that:

1. the pilot in command holds a currently effective certificate issued by the duly constituted authority of the United States of America or Canada, designating that person as a commercial or airline transport pilot;

2. the aircraft is rented with a trained, paid crew to the Named Insured; and

3. the aircraft is not being used to carry persons or property for a charge.

19. NON-OWNED WATERCRAFT

Under COVERAGES, Coverage A – Bodily Injury and Property Damage Liability, the paragraph entitled Exclusions is amended to delete subparagraph (2) of the exclusion entitled Aircraft, Auto or Watercraft, and replace it with the following.

This exclusion does not apply to:

(2) a watercraft that is not owned by any Named Insured, provided the watercraft is:

(a) less than 75 feet long; and

(b) not being used to carry persons or property for a charge.

20. PERSONAL AND ADVERTISING INJURY – DISCRIMINATION OR HUMILIATION

A. Under DEFINITIONS, the definition of personal and advertising injury is amended to add the following tort:

Discrimination or humiliation that results in injury to the feelings or reputation of a natural person.

B. Under COVERAGES, Coverage B – Personal and Advertising Injury Liability, the paragraph entitled Exclusions is amended to:

1. delete the Exclusion entitled Knowing Violation Of Rights Of Another and replace it with the following:
This insurance does not apply to:

**Knowing Violation of Rights of Another**

Personal and advertising injury caused by or at the direction of the Insured with the knowledge that the act would violate the rights of another and would inflict personal and advertising injury. This exclusion shall not apply to discrimination or humiliation that results in injury to the feelings or reputation of a natural person, but only if such discrimination or humiliation is not done intentionally by or at the direction of:

(a) the Named Insured; or

(b) any executive officer, director, stockholder, partner, member or manager (if the Named Insured is a limited liability company) of the Named Insured.

2. add the following exclusions:

This insurance does not apply to:

**Employment Related Discrimination**

discrimination or humiliation directly or indirectly related to the employment, prospective employment, past employment or termination of employment of any person by any Insured.

**Premises Related Discrimination**

discrimination or humiliation arising out of the sale, rental, lease or sub-lease or prospective sale, rental, lease or sub-lease of any room, dwelling or premises by or at the direction of any Insured.

Notwithstanding the above, there is no coverage for fines or penalties levied or imposed by a governmental entity because of discrimination.

The coverage provided by this **PERSONAL AND ADVERTISING INJURY - DISCRIMINATION OR HUMILIATION** Provision does not apply to any person or organization whose status as an Insured derives solely from

Provision 1. ADDITIONAL INSURED of this endorsement; or

attachment of an additional insured endorsement to this Coverage Part.

**21. PERSONAL AND ADVERTISING INJURY - CONTRACTUAL LIABILITY**

A. Under COVERAGES, Coverage B - Personal and Advertising Injury Liability, the paragraph entitled Exclusions is amended to delete the exclusion entitled Contractual Liability.

B. Solely for the purpose of the coverage provided by this **PERSONAL AND ADVERTISING INJURY - LIMITED CONTRACTUAL LIABILITY** provision, the following changes are made to the section entitled SUPPLEMENTARY PAYMENTS - COVERAGE A AND B:

1. Paragraph 2.d. is replaced by the following:

   d. The allegations in the suit and the information the Insurer knows about the offense alleged in such suit are such that no conflict appears to exist between the interests of the Insured and the interests of the indemnitee;

2. The first unnumbered paragraph beneath Paragraph 2.f.(2)(b) is deleted and replaced by the following:

   So long as the above conditions are met, attorney's fees incurred by the Insurer in the defense of that indemnitee, necessary litigation expenses incurred by the Insurer, and necessary litigation expenses incurred...
by the indemnitee at the Insurer's request will be paid as defense costs. Such payments will not be deemed to be damages for personal and advertising injury and will not reduce the limits of insurance.

C. This PERSONAL AND ADVERTISING INJURY - LIMITED CONTRACTUAL LIABILITY Provision does not apply if Coverage B - Personal and Advertising Injury Liability is excluded by another endorsement attached to this Coverage Part.

This PERSONAL AND ADVERTISING INJURY - CONTRACTUAL LIABILITY Provision does not apply to any person or organization who otherwise qualifies as an additional insured on this Coverage Part.

22. PROPERTY DAMAGE – ELEVATORS

A. Under COVERAGES, Coverage A – Bodily Injury and Property Damage Liability, the paragraph entitled Exclusions is amended such that the Damage to Your Product Exclusion and subparagraphs (3), (4) and (6) of the Damage to Property Exclusion do not apply to property damage that results from the use of elevators.

B. Solely for the purpose of the coverage provided by this PROPERTY DAMAGE – ELEVATORS Provision, the Other Insurance conditions is amended to add the following paragraph:

This insurance is excess over any of the other insurance, whether primary, excess, contingent or on any other basis that is Property insurance covering property of others damaged from the use of elevators.

23. RETIRED PARTNERS, MEMBERS, DIRECTORS AND EMPLOYEES

WHO IS INSURED is amended to include as Insureds natural persons who are retired partners, members, directors or employees, but only for bodily injury, property damage or personal and advertising injury that results from services performed for the Named Insured under the Named Insured's direct supervision. All limitations that apply to employees and volunteer workers also apply to anyone qualifying as an Insured under this Provision.

24. SUPPLEMENTARY PAYMENTS

The section entitled SUPPLEMENTARY PAYMENTS – COVERAGES A AND B is amended as follows:

A. Paragraph 1.b. is amended to delete the $250 limit shown for the cost of bail bonds and replace it with a $5,000. limit; and

B. Paragraph 1.d. is amended to delete the limit of $250 shown for daily loss of earnings and replace it with a $1,000. limit.

25. UNINTENTIONAL FAILURE TO DISCLOSE HAZARDS

If the Named Insured unintentionally fails to disclose all existing hazards at the inception date of the Named Insured's Coverage Part, the Insurer will not deny coverage under this Coverage Part because of such failure.

26. WAIVER OF SUBROGATION - BLANKET

Under CONDITIONS, the condition entitled Transfer Of Rights Of Recovery Against Others To Us is amended to add the following:

The Insurer waives any right of recovery the Insurer may have against any person or organization because of payments the Insurer makes for injury or damage arising out of:

1. the Named Insured's ongoing operations; or

2. your work included in the products-completed operations hazard.

However, this waiver applies only when the Named Insured has agreed in writing to waive such rights of recovery in a written contract or written agreement, and only if such contract or agreement:

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CONTINENTAL CASUALTY COMPANY  Policy No: 6075640222
Effective Date: 01/01/2023

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1. is in effect or becomes effective during the term of this Coverage Part; and

2. was executed prior to the bodily injury, property damage or personal and advertising injury giving rise to the claim.

27. WRAP-UP EXTENSION: OCIP, CCIP, OR CONSOLIDATED (WRAP-UP) INSURANCE PROGRAMS

Note: The following provision does not apply to any public construction project in the state of Oklahoma, nor to any construction project in the state of Alaska, that is not permitted to be insured under a consolidated (wrap-up) insurance program by applicable state statute or regulation.

If the endorsement EXCLUSION – CONSTRUCTION WRAP-UP is attached to this policy, or another exclusionary endorsement pertaining to Owner Controlled Insurance Programs (O.C.I.P.) or Contractor Controlled Insurance Programs (C.C.I.P.) is attached, then the following changes apply:

A. The following wording is added to the above-referenced endorsement:

With respect to a consolidated (wrap-up) insurance program project in which the Named Insured is or was involved, this exclusion does not apply to those sums the Named Insured become legally obligated to pay as damages because of:

1. Bodily injury, property damage, or personal or advertising injury that occurs during the Named Insured’s ongoing operations at the project, or during such operations of anyone acting on the Named Insured’s behalf; or

2. Bodily injury or property damage included within the products-completed operations hazard that arises out of those portions of the project that are not residential structures.

B. Condition 4. Other Insurance is amended to add the following subparagraph 4.b.(1)(c):

This insurance is excess over:

(c) Any of the other insurance whether primary, excess, contingent or any other basis that is insurance available to the Named Insured as a result of the Named Insured being a participant in a consolidated (wrap-up) insurance program, but only as respects the Named Insured’s involvement in that consolidated (wrap-up) insurance program.

C. DEFINITIONS is amended to add the following definitions:

Consolidated (wrap-up) insurance program means a construction, erection or demolition project for which the prime contractor/project manager or owner of the construction project has secured general liability insurance covering some or all of the contractors or subcontractors involved in the project, such as an Owner Controlled Insurance Program (O.C.I.P.) or Contractor Controlled Insurance Program (C.C.I.P.).

Residential structure means any structure where 30% or more of the square foot area is used or is intended to be used for human residency, including but not limited to:

1. single or multifamily housing, apartments, condominiums, townhouses, co-operatives or planned unit developments; and

2. the common areas and structures appurtenant to the structures in paragraph 1. (including pools, hot tubs, detached garages, guest houses or any similar structures).

However, when there is no individual ownership of units, residential structure does not include military housing, college/university housing or dormitories, long term care facilities, hotels or motels. Residential structure also does not include hospitals or prisons.
This WRAP-UP EXTENSION: OCIP, CCIP, OR CONSOLIDATED (WRAP-UP) INSURANCE PROGRAMS Provision does not apply to any person or organization who otherwise qualifies as an additional insured on this Coverage Part.

All other terms and conditions of the Policy remain unchanged.

This endorsement, which forms a part of and is for attachment to the Policy issued by the designated Insurers, takes effect on the effective date of said Policy at the hour stated in said Policy, unless another effective date is shown below, and expires concurrently with said Policy.
THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

EXTENDED COVERAGE ENDORSEMENT – BA PLUS

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

I. LIABILITY COVERAGE

A. Who Is An Insured

The following is added to Section II, Paragraph A.1., Who Is An Insured:

1. a. Any incorporated entity of which the Named Insured owns a majority of the voting stock on the date of inception of this Coverage Form; provided that,

   b. The insurance afforded by this provision A.1. does not apply to any such entity that is an "insured" under any other liability "policy" providing "auto" coverage.

2. Any organization you newly acquire or form, other than a limited liability company, partnership or joint venture, and over which you maintain majority ownership interest.

The insurance afforded by this provision A.2.:

a. Is effective on the acquisition or formation date, and is afforded only until the end of the policy period of this Coverage Form, or the next anniversary of its inception date, whichever is earlier.

b. Does not apply to:

   (1) "Bodily injury" or "property damage" caused by an "accident" that occurred before you acquired or formed the organization; or

   (2) Any such organization that is an "insured" under any other liability "policy" providing "auto" coverage.

3. Any person or organization that you are obligated to provide Insurance where required by a written contract or agreement is an insured, but only with respect to legal responsibility for acts or omissions of a person for whom Liability Coverage is afforded under this policy.

4. An "employee" of yours is an "insured" while operating an "auto" hired or rented under a contract or agreement in that "employee's" name, with your permission, while performing duties related to the conduct of your business.

"Policy," as used in this provision A. Who Is An Insured, includes those policies that were in force on the inception date of this Coverage Form but:

1. Which are no longer in force; or

2. Whose limits have been exhausted.

B. Bail Bonds and Loss of Earnings

Section II, Paragraphs A.2.a.(2) and A.2.a.(4) are revised as follows:

1. In a.(2), the limit for the cost of bail bonds is increased from $2,000 to $5,000, and

2. In a.(4), the limit for the loss of earnings is increased from $250 to $500 a day.

C. Fellow Employee

Section II, Paragraph B.5 does not apply.

Such coverage as is afforded by this provision C. is excess over any other collectible insurance.

II. PHYSICAL DAMAGE COVERAGE

A. Towing

Section III, Paragraph A.2., is revised to include Light Trucks up to 10,000 pounds G.V.W.

B. Transportation Expenses

Section III, Paragraph A.4.a. is revised, with respect to transportation expense incurred by you, to provide:

   a. $60 per day, in lieu of $20, subject to

   b. $1,800 maximum, in lieu of $600.

C. Loss of Use Expenses

Section III, Paragraph A.4.b. is revised, with respect to loss of use expenses incurred by you, to provide:

   a. $1,000 maximum, in lieu of $600.

D. Personal Property

The following is added to Section III, Paragraph A.4.

c. We will pay up to $500 for loss to Personal Property which is:

   (1) Owned by an "insured"; and

   (2) In or on the covered "auto."

   This coverage applies only in the event of a total theft of your covered "auto."

   This insurance is excess over any other collectible insurance and no deductible applies.

E. Rental Reimbursement
The following is added to Section III, Paragraph A.4.:

d. We will pay for rental reimbursement expenses incurred by you for the rental of an "auto" because of "loss" to a covered "auto." Payment applies in addition to the otherwise applicable amount of each coverage you have on a covered "auto." No deductibles apply to this coverage.

1. We will pay only for those expenses incurred during the policy period beginning 24 hours after the "loss" and ending, regardless of the policy's expiration, with the lesser of the following number of days:

   (a) The number of days reasonably required to repair or replace the covered "auto"; or,
   
   (b) 15 days.

2. Our payment is limited to the lesser of the following amounts:

   (a) Necessary and actual expenses incurred; or,

   (b) $25 per day subject to a maximum of $375.

3. This coverage does not apply while there are spare or reserve "autos" available to you for your operations.

4. If "loss" results from the total theft of a covered "auto" of the private passenger type, we will pay under this coverage only that amount of your rental reimbursement expenses which is not already provided for under the Physical Damage Coverage Extension.

F. Hired "Autos"

The following is added to Section III, Paragraph A.:

5. Hired "Autos"

If Physical Damage coverage is provided under this policy, and such coverage does not extend to Hired Autos, then Physical Damage coverage is extended to:

a. Any covered "auto" you lease, hire, rent or borrow without a driver; and

b. Any covered "auto" hired or rented by your "employee" without a driver, under a contract in that individual "employee's" name, with your permission, while performing duties related to the conduct of your business.

c. The most we will pay for any one "accident" or "loss" is the actual cash value, cost of repair, cost of replacement or $75,000 whichever is less minus a $500 deductible for each covered auto. No deductible applies to "loss" caused by fire or lightning.

d. The physical damage coverage as is provided by this provision will be limited to the types of physical damage coverage(s) provided on your owned "autos."

e. Such physical damage coverage for hired "autos" will:

   (1) Include loss of use, provided it is the consequence of an "accident" for which the Named Insured is legally liable, and as a result of which a monetary loss is sustained by the leasing or rental concern.

   (2) Such coverage as is provided by this provision G.e.(1) will be subject to a limit of $750 per "accident."

G. Airbag Coverage

The following is added to Section III, Paragraph B.3.

The accidental discharge of an airbag shall not be considered mechanical breakdown.

H. Electronic Equipment

Section III, Paragraphs B.4.c and B.4.d. are deleted and replaced by the following:

c. Physical Damage Coverage on a covered "auto" also applies to "loss" to any permanently installed electronic equipment including its antennas and other accessories

d. A $100 per occurrence deductible applies to the coverage provided by this provision.

I. Diminution In Value

The following is added to Section III, Paragraph B.6.

Subject to the following, the "diminution in value" exclusion does not apply to:

a. Any covered "auto" of the private passenger type you lease, hire, rent or borrow, without a driver for a period of 30 days or less, while performing duties related to the conduct of your business; and

b. Any covered "auto" of the private passenger type hired or rented by your "employee" without a driver for a period of 30 days or less, under a contract in that individual "employee's" name, with your permission, while performing duties related to the conduct of your business.

c. Such coverage as is provided by this provision is limited to a "diminution in value" loss arising directly out of accidental damage and not as a result of the failure to make repairs; faulty or incomplete maintenance or repairs; or the installation of substandard parts.
d. The most we will pay for "loss" to a covered "auto" in any one accident is the lesser of:

(1) $5,000; or

(2) 20% of the "auto's" actual cash value (ACV)

III. Drive Other Car Coverage – Executive Officers

The following is added to Sections II and III:

1. Any "auto" you don't own, hire or borrow is a covered "auto" for Liability Coverage while being used by, and for Physical Damage Coverage while in the care, custody or control of, any of your "executive officers," except:

a. An "auto" owned by that "executive officer" or a member of that person's household; or

b. An "auto" used by that "executive officer" while working in a business of selling, servicing, repairing or parking "autos."

Such Liability and/or Physical Damage Coverage as is afforded by this provision will be:

(1) Equal to the greatest of those coverages afforded any covered "auto"; and

(2) Excess over any other collectible insurance.

2. For purposes of this provision, "executive officer" means a person holding any of the officer positions created by your charter, constitution, by-laws or any other similar governing document, and, while a resident of the same household, includes that person's spouse.

Such "executive officers" are "insureds" while using a covered "auto" described in this provision.

IV. BUSINESS AUTO CONDITIONS

A. Duties In The Event Of Accident, Claim, Suit Or Loss

The following is added to Section IV, Paragraph A.2.a.

(4) Your "employees" may know of an "accident" or "loss." This will not mean that you have such knowledge, unless such "accident" or "loss" is known to you or if you are not an individual, to any of your executive officers or partners or your insurance manager.

The following is added to Section IV, Paragraph A.2.b.

(6) Your "employees" may know of documents received concerning a claim or "suit." This will not mean that you have such knowledge, unless receipt of such documents is known to you or if you are not an individual, to any of your executive officers or partners or your insurance manager.

B. Concealment, Misrepresentation or Fraud

The following is added to Section IV, Paragraph B.2.

Your failure to disclose all hazards existing on the date of inception of this Coverage Form shall not prejudice you with respect to the coverage afforded provided such failure or omission is not intentional.

C. Policy Period, Coverage Territory

Section IV, Paragraphs 7.(5).a. is revised to provide:

a. 45 days of coverage in lieu of 30 days

IV. DEFINITIONS

Section V. Paragraph C. is deleted and replaced by the following:

"Bodily injury" means bodily injury, sickness or disease sustained by a person, including mental anguish, mental injury or death resulting from any of these
ADDITIONAL INSURED – PRIMARY AND NON-CONTRIBUTORY

It is understood and agreed that this endorsement amends the BUSINESS AUTO COVERAGE FORM as follows:

SCHEDULE

<table>
<thead>
<tr>
<th>Name of Additional Insured Persons Or Organizations</th>
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Any person or organization with whom you are required to add as additional insured or primary and non-contributory on this policy under a written contract or agreement. You must agree to these contracts prior to the date of loss.

1. In conformance with paragraph A.1.c. of Who Is An Insured of Section II – LIABILITY COVERAGE, the person or organization scheduled above is an insured under this policy.

2. The insurance afforded to the additional insured under this policy will apply on a primary and non-contributory basis if you have committed it to be so in a written contract or written agreement executed prior to the date of the "accident" for which the additional insured seeks coverage under this policy.

All other terms and conditions of the Policy remain unchanged.
THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the following:

AUTO DEALERS COVERAGE FORM
BUSINESS AUTO COVERAGE FORM
MOTOR CARRIER COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by the endorsement.

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

**Named Insured:** ARDURRA GROUP, INC.

**Endorsement Effective Date:** 01/01/2022

**SCHEDULE**

**Name(s) Of Person(s) Or Organization(s):**

ANY PERSON OR ORGANIZATION FOR WHOM OR WHICH YOU ARE REQUIRED BY WRITTEN CONTRACT OR AGREEMENT TO OBTAIN THIS WAIVER FROM US. YOU MUST AGREE TO THAT REQUIREMENT PRIOR TO LOSS.

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The **Transfer Of Rights Of Recovery Against Others To Us** condition does not apply to the person(s) or organization(s) shown in the Schedule, but only to the extent that subrogation is waived prior to the "accident" or the "loss" under a contract with that person or organization.
BLANKET WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS

This endorsement changes the policy to which it is attached.

It is agreed that Part One - Workers' Compensation Insurance G. Recovery From Others and Part Two - Employers' Liability Insurance H. Recovery From Others are amended by adding the following:

We will not enforce our right to recover against persons or organizations. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

PREMIUM CHARGE - Refer to the Schedule of Operations

The charge will be an amount to which you and we agree that is a percentage of the total standard premium for California exposure. The amount is 3%.

All other terms and conditions of the policy remain unchanged.

This endorsement, which forms a part of and is for attachment to the policy issued by the designated Insurers, takes effect on the Policy Effective Date of said policy at the hour stated in said policy, unless another effective date (the Endorsement Effective Date) is shown below, and expires concurrently with said policy unless another expiration date is shown below.