PROFESSIONAL SERVICES CONTRACT BETWEEN
THE CITY OF HUNTINGTON BEACH AND
HDR ENGINEERING, INC.
FOR
ON CALL WATER AND ENGINEERING SERVICES

THIS AGREEMENT ("Agreement") is made and entered into by and between the City of Huntington Beach, a municipal corporation of the State of California, hereinafter referred to as "CITY," and HDR ENGINEERING, INC., a Nebraska corporation hereinafter referred to as "CONSULTANT."

WHEREAS, CITY desires to engage the services of a consultant to provide on call water and engineering services; and

Pursuant to documentation on file in the office of the City Clerk, the provisions of the Huntington Beach Municipal Code, Chapter 3.03, relating to procurement of professional service contracts have been complied with; and

CONSULTANT has been selected to perform these services,

NOW, THEREFORE, it is agreed by CITY and CONSULTANT as follows:

1. SCOPE OF SERVICES

CONSULTANT shall provide all services as described in **Exhibit "A,"** which is attached hereto and incorporated into this Agreement by this reference. These services shall sometimes hereinafter be referred to as the "PROJECT."

CONSULTANT hereby designates Aaron Meilleur who shall represent it and be its sole contact and agent in all consultations with CITY during the performance of this Agreement.

2. CITY STAFF ASSISTANCE

CITY shall assign a staff coordinator to work directly with CONSULTANT in the performance of this Agreement.

3. TERM; TIME OF PERFORMANCE

Time is of the essence of this Agreement. The services of CONSULTANT are to commence on May 21st, , 2018 (the "Commencement Date"). This Agreement shall automatically terminate three (3) years from the Commencement Date, unless extended or sooner terminated as provided herein. All tasks specified in **Exhibit "A"** shall be completed no later than three (3) years from the Commencement Date. The time for performance of the tasks identified in **Exhibit "A"** are generally to be shown in **Exhibit "A."** This schedule may be amended to benefit the PROJECT if mutually agreed to in writing by CITY and CONSULTANT.

In the event the Commencement Date precedes the Effective Date, CONSULTANT shall be bound by all terms and conditions as provided herein.

4. COMPENSATION

In consideration of the performance of the services described herein, CITY agrees to pay CONSULTANT on a time and materials basis at the rates specified in **Exhibit "B,"** which is attached hereto and incorporated by reference into this Agreement, a fee, including all costs and expenses, not to exceed One Million Dollars ($1,000,000).

5. EXTRA WORK

In the event CITY requires additional services not included in **Exhibit "A"** or changes in the scope of services described in **Exhibit "A,"** CONSULTANT will undertake such work only after receiving written authorization from CITY. Additional compensation for such extra work shall be allowed only if the prior written approval of CITY is obtained.

6. METHOD OF PAYMENT

CONSULTANT shall be paid pursuant to the terms of **Exhibit "B."**

7. DISPOSITION OF PLANS, ESTIMATES AND OTHER DOCUMENTS

CONSULTANT agrees that title to all materials prepared hereunder, including, without limitation, all original drawings, designs, reports, both field and office notices, calculations, computer code, language, data or programs, maps, memoranda, letters and other documents, shall belong to CITY, and CONSULTANT shall turn these materials over to CITY upon expiration or termination of this Agreement or upon PROJECT completion, whichever shall occur first. These materials may be used by CITY as it sees fit.

8. HOLD HARMLESS

CONSULTANT hereby agrees to protect, defend, indemnify and hold harmless CITY, its officers, elected or appointed officials, employees, agents and volunteers from and against any and all claims, damages, losses, expenses, judgments, demands and defense costs (including, without limitation, costs and fees of litigation of every nature or liability of any kind or nature) arising out of or in connection with CONSULTANT's (or CONSULTANT's subcontractors, if any) negligent (or alleged negligent) performance of this Agreement or its failure to comply with any of its obligations contained in this Agreement by CONSULTANT, its officers, agents or employees except such loss or damage which was caused by the sole negligence or willful misconduct of CITY. CONSULTANT will conduct all defense at its sole cost and expense and CITY shall approve selection of CONSULTANT's counsel. This indemnity shall apply to all claims and liability regardless of whether any insurance policies are applicable. The policy limits do not act as limitation upon the amount of indemnification to be provided by CONSULTANT.

9. PROFESSIONAL LIABILITY INSURANCE

CONSULTANT shall obtain and furnish to CITY a professional liability insurance policy covering the work performed by it hereunder. This policy shall provide coverage for CONSULTANT's professional liability in an amount not less than One Million Dollars

($1,000,000.00) per occurrence and in the aggregate. The above-mentioned insurance shall not contain a self-insured retention without the express written consent of CITY; however an insurance policy "deductible" of Ten Thousand Dollars ($10,000.00) or less is permitted. A claims-made policy shall be acceptable if the policy further provides that:

A. The policy retroactive date coincides with or precedes the initiation of the scope of work (including subsequent policies purchased as renewals or replacements).

B. CONSULTANT shall notify CITY of circumstances or incidents that might give rise to future claims.

CONSULTANT will make every effort to maintain similar insurance during the required extended period of coverage following PROJECT completion. If insurance is terminated for any reason, CONSULTANT agrees to purchase an extended reporting provision of at least two (2) years to report claims arising from work performed in connection with this Agreement.

If CONSULTANT fails or refuses to produce or maintain the insurance required by this section or fails or refuses to furnish the CITY with required proof that insurance has been procured and is in force and paid for, the CITY shall have the right, at the CITY's election, to forthwith terminate this Agreement. Such termination shall not effect Consultant's right to be paid for its time and materials expended prior to notification of termination. CONSULTANT waives the right to receive compensation and agrees to indemnify the CITY for any work performed prior to approval of insurance by the CITY.

10. CERTIFICATE OF INSURANCE

Prior to commencing performance of the work hereunder, CONSULTANT shall furnish to CITY a certificate of insurance subject to approval of the City Attorney evidencing the foregoing insurance coverage as required by this Agreement; the certificate shall:

A. provide the name and policy number of each carrier and policy;

B. state that the policy is currently in force; and

C. shall promise that such policy shall not be suspended, voided or canceled by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice; however, ten (10) days' prior written notice in the event of cancellation for nonpayment of premium.

CONSULTANT shall maintain the foregoing insurance coverage in force until the work under this Agreement is fully completed and accepted by CITY.

The requirement for carrying the foregoing insurance coverage shall not derogate from CONSULTANT's defense, hold harmless and indemnification obligations as set forth in this Agreement. CITY or its representative shall at all times have the right to demand the original or a copy of the policy of insurance. CONSULTANT shall pay, in a prompt and timely manner, the premiums on the insurance hereinabove required.

11. INDEPENDENT CONTRACTOR

CONSULTANT is, and shall be, acting at all times in the performance of this Agreement as an independent contractor herein and not as an employee of CITY. CONSULTANT shall secure at its own cost and expense, and be responsible for any and all payment of all taxes, social security, state disability insurance compensation, unemployment compensation and other payroll deductions for CONSULTANT and its officers, agents and employees and all business licenses, if any, in connection with the PROJECT and/or the services to be performed hereunder.

12. TERMINATION OF AGREEMENT

All work required hereunder shall be performed in a good and workmanlike manner. CITY may terminate CONSULTANT's services hereunder at any time with or without cause, and whether or not the PROJECT is fully complete. Any termination of this Agreement by CITY shall

be made in writing, notice of which shall be delivered to CONSULTANT as provided herein. In the event of termination, all finished and unfinished documents, exhibits, report, and evidence shall, at the option of CITY, become its property and shall be promptly delivered to it by CONSULTANT.

13. ASSIGNMENT AND DELEGATION

This Agreement is a personal service contract and the work hereunder shall not be assigned, delegated or subcontracted by CONSULTANT to any other person or entity without the prior express written consent of CITY. If an assignment, delegation or subcontract is approved, all approved assignees, delegates and subconsultants must satisfy the insurance requirements as set forth in Sections 9 and 10 hereinabove.

14. COPYRIGHTS/PATENTS

CITY shall own all rights to any patent or copyright on any work, item or material produced as a result of this Agreement.

15. CITY EMPLOYEES AND OFFICIALS

CONSULTANT shall employ no CITY official nor any regular CITY employee in the work performed pursuant to this Agreement. No officer or employee of CITY shall have any financial interest in this Agreement in violation of the applicable provisions of the California Government Code.

16. NOTICES

Any notices, certificates, or other communications hereunder shall be given either by personal delivery to CONSULTANT's agent (as designated in Section 1 hereinabove) or to CITY as the situation shall warrant, or by enclosing the same in a sealed envelope, postage prepaid, and depositing the same in the United States Postal Service, to the addresses specified below. CITY and CONSULTANT may designate different addresses to which subsequent notices, certificates or

other communications will be sent by notifying the other party via personal delivery, a reputable overnight carrier or U. S. certified mail-return receipt requested:

TO CITY:

City of Huntington Beach
ATTN: Duncan Lee
2000 Main Street
Huntington Beach, CA 92648

TO CONSULTANT:

HDR Engineering, Inc.
Attn: Aaron Meilleur
3230 El Camino Real, Suite 200
Irvine, CA 92602-1377
(213) 239-5840

17. CONSENT

When CITY's consent/approval is required under this Agreement, its consent/approval for one transaction or event shall not be deemed to be a consent/approval to any subsequent occurrence of the same or any other transaction or event.

18. MODIFICATION

No waiver or modification of any language in this Agreement shall be valid unless in writing and duly executed by both parties.

19. SECTION HEADINGS

The titles, captions, section, paragraph and subject headings, and descriptive phrases at the beginning of the various sections in this Agreement are merely descriptive and are included solely for convenience of reference only and are not representative of matters included or excluded from such provisions, and do not interpret, define, limit or describe, or construe the intent of the parties or affect the construction or interpretation of any provision of this Agreement.

20. INTERPRETATION OF THIS AGREEMENT

The language of all parts of this Agreement shall in all cases be construed as a whole, according to its fair meaning, and not strictly for or against any of the parties. If any provision of this Agreement is held by an arbitrator or court of competent jurisdiction to be unenforceable, void, illegal or invalid, such holding shall not invalidate or affect the remaining

covenants and provisions of this Agreement. No covenant or provision shall be deemed dependent upon any other unless so expressly provided here. As used in this Agreement, the masculine or neuter gender and singular or plural number shall be deemed to include the other whenever the context so indicates or requires. Nothing contained herein shall be construed so as to require the commission of any act contrary to law, and wherever there is any conflict between any provision contained herein and any present or future statute, law, ordinance or regulation contrary to which the parties have no right to contract, then the latter shall prevail, and the provision of this Agreement which is hereby affected shall be curtailed and limited only to the extent necessary to bring it within the requirements of the law.

21. DUPLICATE ORIGINAL

The original of this Agreement and one or more copies hereto have been prepared and signed in counterparts as duplicate originals, each of which so executed shall, irrespective of the date of its execution and delivery, be deemed an original. Each duplicate original shall be deemed an original instrument as against any party who has signed it.

22. IMMIGRATION

CONSULTANT shall be responsible for full compliance with the immigration and naturalization laws of the United States and shall, in particular, comply with the provisions of the United States Code regarding employment verification.

23. LEGAL SERVICES SUBCONTRACTING PROHIBITED

CONSULTANT and CITY agree that CITY is not liable for payment of any subcontractor work involving legal services, and that such legal services are expressly outside the scope of services contemplated hereunder. CONSULTANT understands that pursuant to *Huntington Beach City Charter* Section 309, the City Attorney is the exclusive legal counsel for

CITY; and CITY shall not be liable for payment of any legal services expenses incurred by CONSULTANT.

24. ATTORNEY'S FEES

In the event suit is brought by either party to construe, interpret and/or enforce the terms and/or provisions of this Agreement or to secure the performance hereof, each party shall bear its own attorney's fees, such that the prevailing party shall not be entitled to recover its attorney's fees from the nonprevailing party.

25. SURVIVAL

Terms and conditions of this Agreement, which by their sense and context survive the expiration or termination of this Agreement, shall so survive.

26. GOVERNING LAW

This Agreement shall be governed and construed in accordance with the laws of the State of California.

27. SIGNATORIES

Each undersigned represents and warrants that its signature hereinbelow has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify CITY fully for any injuries or damages to CITY in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.

28. ENTIRETY

The parties acknowledge and agree that they are entering into this Agreement freely and voluntarily following extensive arm's length negotiation, and that each has had the opportunity to consult with legal counsel prior to executing this Agreement. The parties also acknowledge and agree that no representations, inducements, promises, agreements or warranties, oral or otherwise, have been made by that party or anyone acting on that party's behalf, which are not embodied in this

Agreement, and that that party has not executed this Agreement in reliance on any representation, inducement, promise, agreement, warranty, fact or circumstance not expressly set forth in this Agreement. This Agreement, and the attached exhibits, contain the entire agreement between the parties respecting the subject matter of this Agreement, and supersede all prior understandings and agreements whether oral or in writing between the parties respecting the subject matter hereof.

29. EFFECTIVE DATE

This Agreement shall be effective on the date of its approval by the City Council. This Agreement shall expire when terminated as provided herein.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by and through their authorized officers.

CONSULTANT,

HDR Engineering, Inc.
COMPANY NAME
A Nebraska Corporation

By: _____
Aaron M. Meilleur
print name
ITS: *(circle one)* Chairman/President/Vice President

AND

By: Bonnie J. Kudron
Bonnie J. Kudron
print name
ITS: *(circle one)* Secretary/Chief Financial Officer/Asst. Secretary - Treasurer

CITY OF HUNTINGTON BEACH, a municipal corporation of the State of California

Michael Strang
Mayor

Robin Estanislao
City Clerk 5.24.18

INITIATED AND APPROVED:

Director of Public Works

REVIEWED AND APPROVED:

for City Manager

APPROVED AS TO FORM:

City Attorney MV

EXHIBIT "A"

A. STATEMENT OF WORK: (Narrative of work to be performed)

CONSULTANT shall provide consulting services on an 'as-needed' basis for projects to be determined during the term of the agreement. During the term of the agreement, CITY may elect to solicit proposals from CONSULTANT. CITY shall issue task order for each project based upon the scope of services, work schedule, and fee proposal submitted to CITY for its review and approval.

B. CONSULTANT'S DUTIES AND RESPONSIBILITIES:

CONSULTANT'S duties and responsibilities shall be per CONSULTANT'S Statement of Qualification (Exhibit A), consistent with the City of Huntington Beach Request for Qualifications for On Call Water and Engineering Consulting Services. Upon award, and the contract period, if CONSULTANT chooses to assign different personnel to the project, CONSULTANT must submit the names and qualifications of these staff to CITY for approval before commencing work.

C. CITY'S DUTIES AND RESPONSIBILITIES:

1. Furnish scope of work request for each project.

2. Furnish construction plans and specifications to the CONSULTANT.

D. WORK PROGRAM/PROJECT SCHEDULE:

A project schedule will be developed for each project assigned by CITY.

Statement of Qualifications

On-Call Water Engineering & Professional Consulting Services

Service Category A: Water Engineering

Public Works Department

January 11
2018

A Cover Letter

HDR

January 11, 2018
City Clerk's Office, 2nd Floor
City of Huntington Beach
2000 Main Street
Huntington Beach, CA 92648

RE: On-Call Water Engineering & Professional Consulting Services, Service Category A. Water Engineering

Dear Selection Committee,

HDR Engineering, Inc. (HDR) understands that the City of Huntington Beach (City) is a very complete and complex organization that provides a full spectrum of water services to a service area of over 200,000. HDR is excited to submit our qualifications for On-Call Water Engineering & Professional Consulting Services (Service Category A). We are currently working with your staff on several pipeline corrosion assessment projects bringing a history working with your staff. We are prepared to assist you in all aspects and areas of your organization and to work collaboratively with you and your staff to deliver efficient and implementable designs.

Selecting HDR will provide the City with the following benefits:

- Local team with similar experience – **Steve Friedman, PE**, our proposed Project Manager, has successfully managed similar on-calls in Southern California for 24 years including on-calls with the Metropolitan Water District of Southern California and Eastern Municipal Water District. He will lead a team of local experts who bring a wide variety of similar project experience. Our local task leads **Amy Omae, PE, LEED AP, Brien Clark, PE** and **Dan Ellison, PE** have served in similar roles and will leverage their lessons learned for successful project delivery.

- Proven approach to corrosion engineering – HDR has been and continues to be a leader in the field of tank inspections, cathodic protection evaluations, and condition assessments. HDR focuses on corrosion engineering, corrosivity studies, and coating-related services to assist architects/engineers and owners in designing, constructing, and operating structures with low maintenance costs and long trouble-free lives.

- A best-value approach to all task orders – As you may be aware from our previous work, we put the City's best interests first; either through our competitive rates, project approach, or collaborative approach with City staff. To help ensure a high quality, best value product, all of our work goes through an established and proven internal quality control process. This approach keeps project designs on track resulting in project savings.

hdrinc.com

3230 El Camino Real, Suite 200, Irvine, CA 92602-1377
T 714.730.2300 **F** 714.730.2301

We look forward to continuing our working relationship with the City. Please contact our project manager, Steve Friedman at (949) 533-6239, should you have any questions regarding our SOQ.

Sincerely,
HDR

Aaron Meilleur, PE
Vice President

Steve Friedman, PE, PMP, BCEE
Project Manager

Proposal At-A-Glance:

- Cover Letter — Page 1
- Vendor Application Form
- Pre-Qualification Form
- Firm Qualification — Page 3
- Appendix:
  - Amendment No. 1 Acknowledgement — Page 16
  - Key Staff Resume — Page 17
- Cost Proposal/Rate Sheet (included under separate cover)

Point of Contact/Project Manager:

Steve Friedman, PE, PMP, BCEE
3230 El Camino Real, Suite 200
Irvine, CA 92602-1377

Main: 714.730.2300
Direct: 714.368.5634
Cell: 949.533.6239
Email: steve.friedman@hdrinc.com

B Vendor Application Form

REQUEST FOR PROPOSAL

VENDOR APPLICATION FORM

TYPE OF APPLICANT: ☐ NEW ☒ CURRENT VENDOR

Legal Contractual Name of Corporation: HDR Engineering, Inc.

Contact Person for Agreement: Aaron Meilleur

Corporate Mailing Address: 3230 El Camino Real, Suite 200

City, State and Zip Code: Irvine, CA 92602-1377

E-Mail Address: aaron.meilleur@hdrinc.com

Phone: 213.239.5840 Fax: 714.730.2301

Contact Person for Proposals: Steve Friedman

Title: Project Manager E-Mail Address: steve.friedman@hdrinc.com

Business Telephone: 714.368.5634 Business Fax: 714.730.2301

Is your business: (check one)

☐ NON PROFIT CORPORATION ☒ FOR PROFIT CORPORATION

Is your business: (check one)

☒ CORPORATION
☐ INDIVIDUAL
☐ PARTNERSHIP
☐ LIMITED LIABILITY PARTNERSHIP
☐ SOLE PROPRIETORSHIP
☐ UNINCORPORATED ASSOCIATION

Names & Titles of Corporate Board Members
(Also list Names & Titles of persons with written authorization/resolution to sign contracts)

Names	Title	Phone
Kip Field	So. Cal Area Manager	714.730.2400
Aaron Meilleur	So. Cal Water Business Grp. Mgr.	213.239.5840

Federal Tax Identification Number: 47-0680568

City of Huntington Beach Business License Number: A295855
(If none, you must obtain a Huntington Beach Business License upon award of contract.)

City of Huntington Beach Business License Expiration Date: 04/30/2018

C Pre-Qualification Form

EXHIBIT A: PRE-QUALIFICATION FORM
ON-CALL WATER ENGINEERING & PROFESSIONAL CONSULTING SERVICES

SERVICE CATEGORY	PROPOSING? Y/N (circle)
A. Water Engineering	Yes / No

(Initial) Consultant is willing to execute the Agreement as drafted (See **Appendix B**).

(Initial) Consultant is able to provide the insurance as required (See **Appendix C**).

Firm Name: HDR Engineering, Inc.

Firm Address: 3230 El Camino Real, Suite 200, Irvine, CA 92602-1377

Signature: _____ Date: 01/09/2018

D Service Category

A. Water Engineering

At-a-Glance

- HDR Engineering, Inc. (HDR) is an employee-owned corporation.
- Founded in 1917 in Omaha, Nebraska
- California Secretary of State Registration: 06/18/1985 (#1279161)

Location of Company Office:

We consistently rank high in Engineering News-Record's (ENR's) Top 500 Water and Water Design firms in the nation.

- **# 8** Top 500 Design Firms
- **# 3** Dams & Reservoirs
- **# 6** Water
- **# 9** Top 20 in Water Treatment & Desalination Plants
- **# 6** Sewer & Waste
- **# 9** Top 25 in Wastewater Treatment Plants
- **# 6** Top 50 in Water Supply
- **# 10** Top 25 in Sanitary Storm Sewer
- **# 7** Top 20 in Water Transmission Lines/Aqueducts
- **# 18** Top 20 Water Treatment/ Supply Top Design Firms in Environment
- **# 9** Top 10 in Engineering/ Design Work
- **# 13** Top 200 Environmental Firms

Firm Qualifications

HDR specializes in meeting the varied water infrastructure needs of our clients worldwide. Since our inception in 1917, our teams have emphasized technical innovation, cost-effectiveness, and attentive client service for 100 years. We provide full service, multi-disciplinary services for a wide range of water infrastructure projects including treatment plants, distribution systems, conveyance storage facilities, and large equipment such as pumps, turbines, and control systems. We have worked with some of the nation's largest water agencies delivering complex engineering and business solutions.

As a Regional Business Enterprise providing engineering and architectural consulting in Southern California since 1960, HDR's services encompass planning, design, and construction management for water agencies throughout the City's service area. Over the years, HDR has expanded to seven Southern California offices: Riverside, Claremont, San Diego, Irvine, Los Angeles, Long Beach, and Ventura. HDR's Irvine office is located within 17 miles of the City's office. HDR's Water Group provides advanced expertise in the full cycle of water management, from water supply to treatment, and all manners of conveyance and storage.

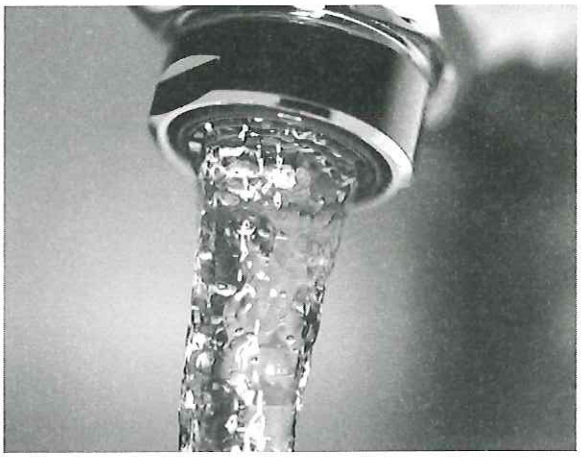
KEY PERSONNEL/ STAFFING

The key to efficient project delivery is assigning qualified professional staff who can deliver results. We have established good working relationships with many municipalities and will bring those resources to the City to support tasks under this contract. As specific tasks are defined, we will find the right technical staff, either from within our team, or by engaging the appropriate specialized staff.

The City requires a highly qualified, locally based, capable team of experts that can help the District define, plan, design, and implement your CIP projects. HDR is proposing an experienced team of fully committed staff and subconsultants that will work in partnership with the City staff. Our history of partnering with other agencies, such as Metropolitan Water District and the City of Los Angeles Bureau of Sanitation and Bureau of Engineering demonstrates commitment to provide the right talent at the right time to deliver your projects. HDR's team exceeds the RFP requirements and is organized around major deliverables and areas of

expertise. Our team has the resources, tools, experience, and commitment to be an effective partner for the City in implementing its CIP projects effectively.

The organization of our team, a table of qualifications of our key staff, and resumes for key team members are provided. Resumes for additional technical support staff are available upon request.



PRINCIPAL-IN-CHARGE
Aaron Meilleur, PE

PROJECT MANAGER
Steve Friedman, PE, PMP, BCEE ★

QA/QC
Kevin Calderwood, PE
John Koreny, PE, PHG, PEG
Graham Bell, PhD, PE, FNACE
Lee Frederiksen, PE

TASK ORDER MANAGERS
Steve Friedman, PE, PMP, BCEE
Amy Omae, PE, LEED AP ★
Brien Clark, PE ★
Dan Ellison, PE ★

WATER PIPELINE ENGINEERING
Steve Friedman, PE, PMP, BCEE
Dan Ellison, PE

PUMP/BOOSTER STATIONS
James Wang, PE ★
Steve Friedman, PE, PMP, BCEE

CONDITION ASSESSMENT & REHAB
Dave Spencer, PE ★
Dan Ellison, PE
Eric Scherch, PE

CORROSION CONTROL/ CATHODIC PROTECTION
Brien Clark, PE ★
Erika Perez, EIT ★

WELLS
Andrew Cherene, PG, CHG ★
Steve Friedman, PE, PMP, BCEE

RESERVOIRS/TANKS
Janelle Moyer, PE, CFM, ENV SP
James Wang, PE

ELECTRICAL/I&C
Ray Genato, PE
Adam Nichols, PE

STRUCTURAL
Tom Hamlin, PE

CEQA/NEPA ENVIRONMENTAL
Ingrid Eich

CADD
Daniel Celaya

ARCHITECTURAL
Martin Ramirez, RA

CONSTRUCTION
Len Bystrum, PE
Jon Rohrer, PE

CONSTRUCTION
Len Beystrum, PE
Jon Rohrer, PE

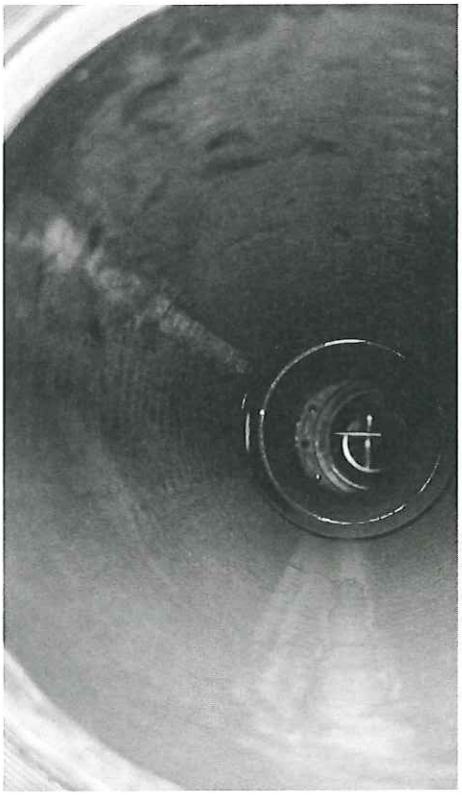
RIGHT-OF-WAY
Jennifer Cole

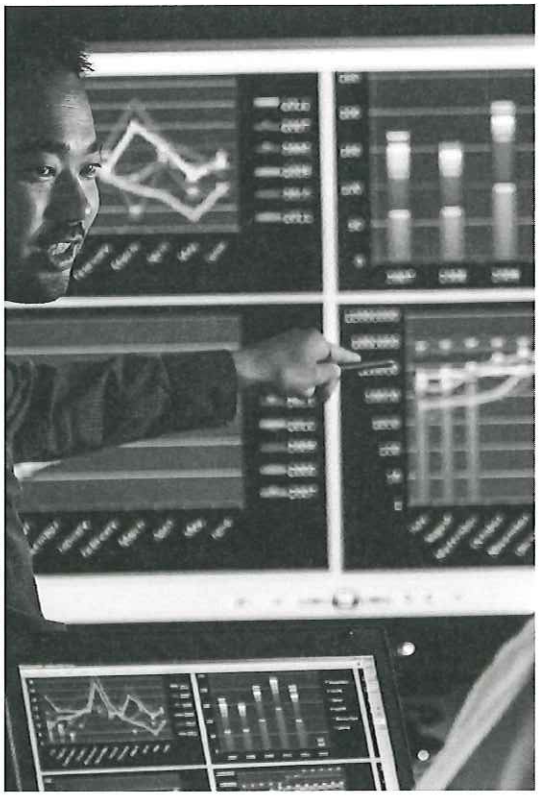
★ *Resume included in appendix*

Staff	Education and Professional Registration	Skill Set Fit	Experience
Principal-in-Charge			
Aaron Meilleur, PE Years of Experience: 22	• Professional Engineer - Civil C62473 California • Professional Engineer - 38518 Washington • Professional Engineer - 15215 Hawaii • Bachelor of Science Civil Engineering United States Military Academy, West Point Naval Academy	• Principal-in-Charge	• Pure Water Program's North City Conveyance System (NCCS) Civil Engineering Services, San Diego, CA • Michelson Water Reclamation Plant Biosolids and Energy Recovery Facilities Construction Management Support, Irvine, CA • Valley Sanitary District Requa Interceptor Design, Indio, CA
Project Manager/Point of Contact			
Steve Friedman, PE, PMP, BCEE Years of Experience: 24	• Professional Engineer - Civil 055566 California • Project Management Professional 293170 California • Master of Science Civil Engineering University of California, Berkeley • Bachelor of Science Civil Engineering University of California, Berkeley	• Project Manager/ Point of Contact, Task Order Manager, Water Pipeline Lead, Pump/ Booster Stations Lead	• Metropolitan Water District - Water Treatment and Pipeline On-Call Services • City of Corona Mangular Blending Facility • P-1045: New Potable Water Conveyance On-Board Marine Corps Base • Southeast Recycled Water Pipeline - Central Basin Municipal Water District
Task Order Managers			
Amy Omae, PE, LEED AP Years of Experience: 13	• Professional Engineer - Civil 76824 California • LEED Accredited Professional 10328834 • Master of Science Environmental Engineering University of Miami • Bachelor of Science Chemistry University of Miami	• Task Order Manager	• Mesa Water District - Pipeline Integrity Program • Irvine Ranch Water District - Water Reliability Study • P-1046: New Potable Water Conveyance On-Board Marine Corps Base

Staff	Education and Professional Registration	Skill Set Fit	Experience
Task Order Managers			
Brien Clark, PE Years of Experience: 17	• Professional Engineer - Chemical CH 6291 California • NACE Cathodic Protection Specialist 17978 • Bachelor of Science Chemical Engineering California Polytechnic State University, Pomona	• Task Order Manager, Corrosion Control/ Cathodic Protection Lead	• City of Huntington Beach - 30-inch Yorktown Transmission Main Rehabilitation • Eastern Municipal Water District - Winchester Recycled Water Transmission Pipeline Corrosion Assessment • Western Municipal Water District - Nondestructive Condition Assessment alternatives for the Mills Gravity Pipeline
Dan Ellison, PE Years of Experience: 36	• Professional Engineer - Civil C38094 California • Structural Engineer S3020 California • Bachelor of Science Civil Engineering University of Utah • Master of Business Admin Finance Univer of Southern California	• Task Order Manager	• California Water Service Company - Rancho Dominguez Groundwater Optimization Study • As-Needed Wastewater Condition Assessment of Wastewater Facilities, City of San Diego • WRF 4471 Leveraging Data from Non-Destructive Examinations to Help Select Ferrous Water Mains for Renewal
Key Team Members			
Dave Spencer, PE Years of Experience: 16	• Professional Engineer C66885 California • Bachelor of Science Civil Engineering California Polytechnic State University, San Luis Obispo	• Condition Assessment & Rehab	• WRF 4471 Leveraging Data from Non-Destructive Examinations to Help Select Ferrous Water Mains for Renewal • City of San Diego Metropolitan Wastewater Department (MWWD) Emergency Engineer • County of San Diego Inflow and Infiltration Study San Diego County CA
Andrew Cherene, PG, CHG Years of Experience: 14	• Registered Professional Geologist 8580 California • Hydro-Geologist 974 California • Master of Science Earth Sciences University of California, San Diego • Bachelor of Science Earth Sciences University of California, San Diego	• Wells	• Antelope Valley Water Bank – Willow Springs Aquifer Storage and Recharge • City of Santa Monica, Olympic Well Field • Port of Long Beach - Pier B Pump Station Upgrade/North Harbor District Storm Drain Improvement

Staff	Education and Professional Registration	Skill Set Fit	Experience
Key Team Members			
James Wang, PE Years of Experience: 21	• Professional Engineer - Civil 81123, California • Master of Science, Environmental Engineering, University of Windsor, Ontario, Canada • Bachelor of Civil Engineering, Civil & Environmental Engineer	• Pump/Booster Stations • Reservoirs/Tanks • Pipelines	• Goleta Wastewater Treatment Plant Upgrade, Goleta Sanitary District, CA • Edward C. Little Water Recycling Facility Expansion Design-Build Services, West Basin Municipal Water District • Project P-1046, Waste Water Conveyance Marine Corps Base, Camp Pendleton, CA
Erika Perez, EIT Years of Experience: 8	• Engineer in Training, California • Bachelor of Science Chemical Engineering California State Polytechnic University, Pomona	• Corrosion Control/ Cathodic Protection	• City of Huntington Beach - Pipeline Annual Corrosion Survey • Western Municipal Water District - Nondestructive Condition Assessment alternatives for the Mills Gravity Pipeline • Eastern Municipal Water District - Winchester Recycled Water Transmission Pipeline Corrosion Assessment





PROJECT EXPERIENCE AND REFERENCES

The following references and associated project descriptions demonstrate innovative solutions that may be applied to your projects' challenges. These projects represent successful partnerships with our clients—reaching performance goals and delivering within the required schedule. For each reference project, we have included a project description detailing the services provided, as well as an organization contact name, phone number, and e-mail address.

Annual Corrosion Pipeline Survey (2013-2017)

City of Huntington Beach, *Huntington Beach, CA*

HDR has provided condition assessment and corrosion engineering services for the City of Huntington Beach's five (5) pipeline systems.

The five (5) systems, include eleven (11) pipelines, 138 test stations, 34 insulating joint (IJ) test stations, 35 cathodic protection sacrificial anode beds, and 3 rectifiers. In addition to the facilities tested in 2012, HDR included new facilities that were subsequently added including the Huntington Beach Utility Yard, the 12-inch Harbor Crossing, and the 30-inch Yorktown Pipeline cathodic protection systems. In 2017, the City added five additional pipelines to the annual survey, which included the 6-inch and 12-inch Algonquin Sewer List Stations, two (2) 8-inch Welded Steel Pipelines at Huntington Harbor Channel, and the Warner Avenue GCP.

Scope of services included records review; pipeline condition assessment survey of all corrosion monitoring test stations, CP rectifiers, performing instant Off survey of all impressed current systems, minor repairs at rectifiers and corrosion monitoring test stations, monitoring Slip Lined 30-inch DIP within the 42-steel pipeline (special CP probes), coordinating with City on locating missing CP test stations, and performing minor maintenance and cleaning of all CP test stations; provide a written report with findings and recommendations for future corrosion control.

Reference

City of Huntington Beach
Mr. Andrew Ferrigno
714.536.5511
aferrigno@surfcity-hb.com

Key Team Members

Brien Clark (Project Manager/ Project Engineer); Erika Perez (EIT)

Mangular Blending Facility (2012)

City of Corona, California Dept. of Water & Power, *Corona, CA*

The City of Corona (City) selected HDR to design the new Mangular Blending Facility which includes a dual zone Booster Pumping Station (BPS) with a total firm capacity of 5000 gpm using five pumps (two 100 HP and three 150 HP). Additional components include provisions for emergency power; chemical facilities to inject sodium hypochlorite and ammonia to produce monochloramines for disinfection; and improvements to the existing facility blend well water with treated water. Energy saving components are also incorporated such as a micro-turbine at the blending location and solar panels on the neighboring dual reservoir roofs.

Reference

City of Corona, Dept. of Water & Power
Mr. Vernon Weisman PE
951.739.4912
vernon.weisman@ci.corona.ca.us

Key Team Members

Steve Friedman (PM); James Wang (PE)

P-1045 New Potable Water Conveyance (2012-2015)

Navy Facilities Engineering Command (NAVFAC) Southwest, *Camp Pendleton, CA*

HDR served as Designer-of-Record for Project P-1045, which included installation of new water conveyance, pumping, and storage facilities at Marine Corps Base Camp Pendleton (MCBCP). The new facilities provide enhanced infrastructure throughout the MCBCP. HDR provided preliminary and final design, along with engineering services during construction. The project was completed as design-build with Filanc as the P1045 contractor.

The project included:

- 136,000 feet of 14 and 24-inch HDPE potable water pipe
- Five separate Horizontal Directional Drill locations under environmental and cultural boundaries and beneath Caltrans and Railroad rights-of-way with a total distance of about 10,000 feet.
- Two potable water pumping stations with capacities of 670,000 gallons per day and 2 million gallons per day
- 2 MG potable water storage tank

HDR's pipeline design work included alignment design, pipeline sizing calculations, scour analysis, hydraulic analyses, valve location determinations, trench design, alignment design, multiple horizontal directional drilling designs, and permit application support.

Reference

(Both Projects: P-1045 and P1046)
NAVFAC Southwest
Mr. Steve Rosenstein
619.532.1500
Steve.Rosentein@navy.mil

Key Team Members

Steve Friedman (PM for both projects); Amy Omae (Task Lead); Ray Genato (Electrical/I&C); James Wang (Pump Stations and Pipelines)

P-1046A North Area Wastewater Conveyance (2014-2016)

Navy Facilities Engineering Command (NAVFAC) Southwest, *Camp Pendleton, CA*

HDR also served as Designer-of-Record for Project P-1046A, which included installation of new wastewater conveyance and pumping facilities at MCBCP. HDR provided preliminary and final design, along with engineering services during construction. The P-1046A project was completed as design-build with Reyes.

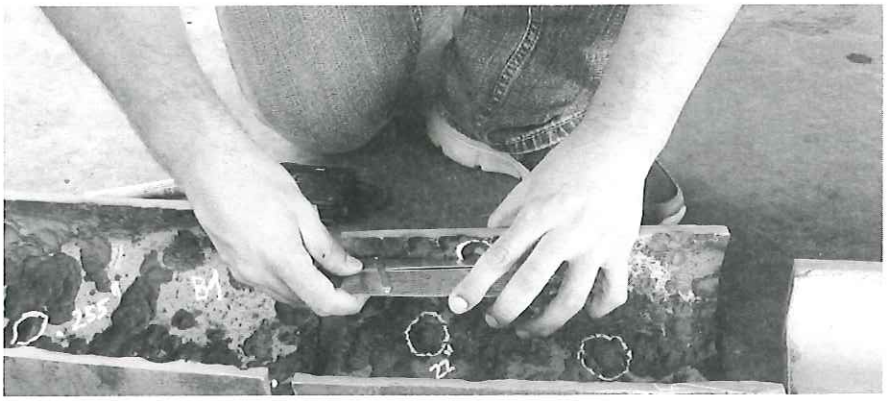
The project included:

- 28,500 feet of 6-inch through 20-inch HDPE wastewater forcemain
- 7,000 feet of gravity sewer manhole and pipe capacity increase from 8-inch to 10-inch; approximately 2,500 feet was upsized by pipe bursting.
- Four new lift stations and one lift station upgrade with capacities ranging from 500,000 gallons per day up to nearly 2 mgd
- Emergency overflow storage for four lift stations
- Demolition of existing lift stations and a 1.5 mgd wastewater treatment plant.

Similar to the P-1045 project, HDR's pipeline design work for P-1046A included alignment design, pipeline sizing calculations, hydraulic analyses, valve location determinations, trench design, alignment design, and permit application support.

WRF 4471: Leveraging Data from Non-Destructive Examinations to Help Select Ferrous Water Mains for Renewal (2014-2016)

Various Agencies including Los Angeles DWP, *United States*



Under a tailored collaboration effort, HDR recently completed WRF Project 4471 with project sponsors Los Angeles Department of Water and Power (LADWP), Seattle Public Utilities, Fairfax Water, Denver Water, and DC Water. The goal of the project is to leverage current NDE (Non-destructive Examination) technology to help determine when select ferrous water mains should be renewed. Traditionally, water utilities relied on pipeline leak and break data to determine when pipeline renewal was needed. In recent years, several devices have been introduced that can find structural defects or pinpoint leaks. However, the cost of using these tools can be relatively expensive and the results can be varied. The project included the testing of five different inspection technologies side-by-side on cast iron main in Los Angeles. Technologies included:

- Push-in video/audio probe (Wachs Water Service)
- In-pipe remote field electromagnetic scanning
- Acoustic velocity pipe wall analysis (Echologics)
- External scanning with broadband electromagnetic tool (Rock Solid)
- Internal scanning with broadband electromagnetic tool (Rock Solid)

Following data collection of the technologies, portions of the mains were exhumed, visually inspected, photographed and cataloged as to its actual condition, including taking corrosion pit and wall thickness measurements, and compared to the NDE technology inspection results. Initial results showed that 75% of the main had no appreciable corrosion. Only a portion of unlined pipe dating to 1933 needed to be replaced.

Reference

Water Research Foundation (WRF)
Mr. Frank Blaha, Sr. Account Manager
303.347.6244

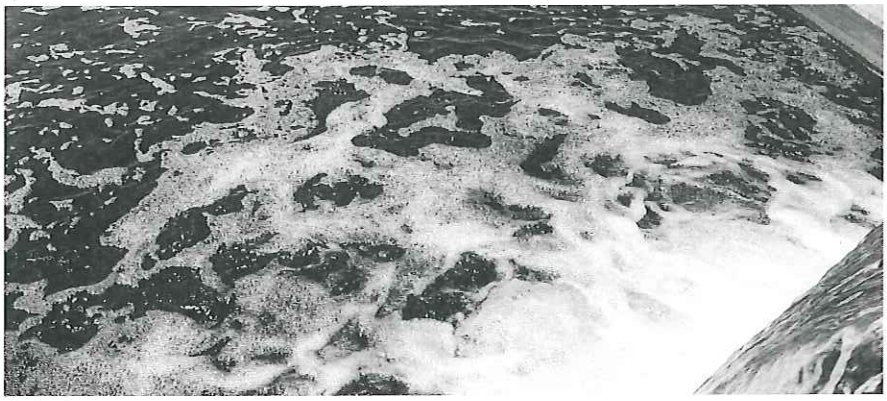
Key Team Members

Dave Spencer (Technical Lead); Dan Ellison (PM); Brien Clark (Corrosion/Cathodic Protection), Eric Scherch (Analyst)

Beginning in May 2015, HDR applied the technologies on mains within the five sponsoring utilities (LA, Seattle, Denver, Fairfax, and DC). In the final phase of the project, the benefits of the testing were assessed by comparing the projected life expectancies of mains, both with and without the field test data. The differences in confidence provided by the various models were also assessed.

Water Reliability Study (2014-2017)

Irvine Ranch Water District (IRWD), *Irvine, CA*



Reference

IRWD
Mr. Paul Cook, General Manager
949.453.5300
cook@irwd.com

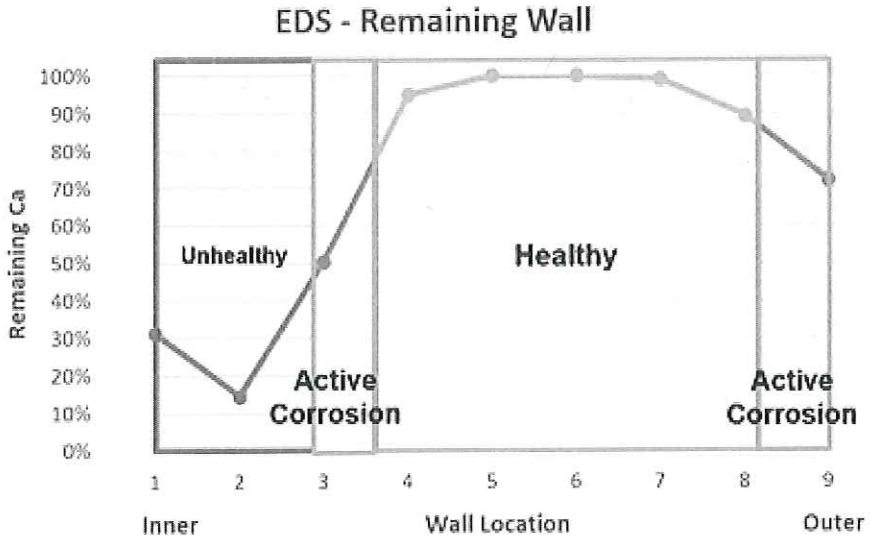
Key Team Members

Amy Omae (Project Engineer), John Koreny (QAQC)

Irvine Ranch Water District (IRWD) takes a diligent approach to developing a reliable and resilient water supply system to serve its growing community. Assuming that planned capital improvement projects are constructed, IRWD has secured a surplus of water that provides sufficient supply under normal operating conditions through build-out. Through the Water Reliability Study, IRWD sought to identify and evaluate a variety of drought and emergency scenarios that could threaten the IRWD's ability to deliver water to its customers and put into place a prioritized portfolio of sound and cost-effective responses. The Water Reliability Study focuses on IRWD's ability to maintain a minimum level of service under various emergency scenarios based on a rigorous and transparent risk analysis. With recent findings in climate change research and the projected reliability of imported water sources the district needed to reassess its definition of risk and level of service expectations to develop improved and robust mitigation strategies. With the potential for emergency conditions to be more severe than historic data could predict an updated model was required. HDR provided modeling and evaluation of local and imported water supply reliability under a variety of emergency scenarios. The comprehensive resource and supply distribution model simulates and optimizes deliveries and storage of potable water taking into account hydraulic constraints associated with the delivery system. Using an indexed sequential Monte Carlo simulation and 83 years of historical hydrology the model projects demands supply and storage needs based on an assumed pattern of future climate. Recent climate change research and projected reliability of imported water resources were incorporated into the analysis. Level of service expectations were established and mitigation strategies developed. This analysis provides justification for future operational and capital water reliability improvements and investments from both a local and regional perspective.

Mesa Water District (Mesa) Pipeline Integrity (2017-2022)

Mesa Water District, *Costa Mesa, CA*



Reference

Mesa Water District,
Ms. Karyn Igar, PE
949.207.5452
Karynl@mesawater.org

Key Team Members

Dave Spencer (Condition Assessment), Amy Omae (PM) Dan Ellison (PE), Eric Scherch (PE), Brien Clark (Cathodic Protection)

Mesa Water District (Mesa Water) owns 317 miles of water main pipelines. As the system continues to age and deteriorate, investments will be required to sustain desired levels of service. In 2013, Mesa Water completed a Master Plan which used an age-based analysis that estimated approximately $300 million of pipeline replacement would be needed over the next 30 years. Historically, Mesa Water has not needed to replace considerable quantities of pipeline. Therefore, such an investment level would result in a significant increase in water rates.

Mesa Water pipelines have performed well with break rates similar to other water systems in Southern California and approximately four times better than the national average. Therefore, even though some pipes have been operating for over 90 years, it is believed that substantial portions of the system may still have significant remaining useful life.

In 2014, Mesa Water began collecting and testing water mains using both destructive and non-destructive technologies. In 2017, Mesa Water hired HDR to:

- Estimate the remaining useful life of Mesa Water's pipelines based on measured pipeline properties, rather than using an age-based approach,
- Identify specific pipes that require replacement, and
- Continuously refine the testing program to provide the most value to the ratepayers.

Based on the results of this analysis, **it was determined that most of the system has significant remaining useful life saving approximately $230 million in capital investments.** A condition based decision making process was developed to identify pipeline that warranted near term renewal or more detailed condition assessment. **Mesa Water's pipeline testing program was also refined to focus on more cost effective opportunity condition assessment techniques which will save Mesa Water approximately $100,000 per year in pipeline testing.** Over the next four years, HDR will continue to work with Mesa Water to refine the Pipeline Integrity Program to focus limited resources on the right pipe, at the right time, using the right technology.

UNDERSTANDING AND METHODOLOGY

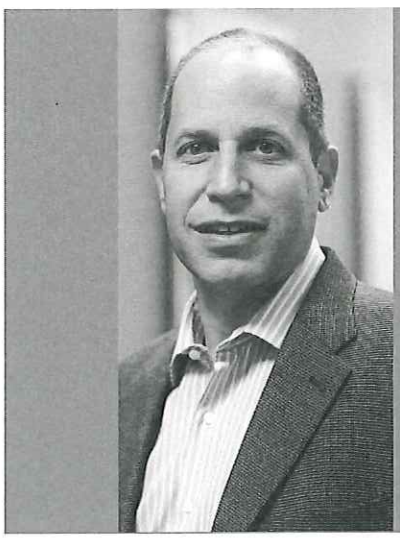
The City of Huntington Beach (City) serves over 200,000 residents with safe and reliable drinking water. The City's potable water infrastructure consists of groundwater wells, storage reservoirs, pump stations, pressure regulating facilities, and about 500 miles of pipeline. New groundwater wells are being constructed to increase the City's available drinking water supply. Existing storage and pressure regulating facilities as well as the pipeline distribution system must be maintained, upgraded, and if necessary, replaced.

The majority of the City's pipe distribution system is asbestos cement (AC) material that is over 50 years old, portions of which are buried in corrosive soils below sea level and in contact with saltwater. The condition of the City's aging pipelines should be assessed to determine whether it needs to be rehabilitated or replaced. For the past 6 years, HDR's worked closely with City staff to conduct corrosion assessment surveys on the City's existing cathodic protection system and recommend corrosion protection work to maintain distribution system integrity. In these surveyed areas, we are familiar with your existing system, pipe condition, and potential work needed to begin right away.

HDR has a proven track record of providing custom and collaborative solutions to complex projects. We will work closely with City staff to ensure the correct and efficient action is implemented. The City will furnish a task order or scope of work request for each project, and HDR is prepared to start immediately upon your Notice to Proceed. We have assigned one of HDR's most capable Project Managers, Steve Friedman, PE, to lead this effort. He has worked on past as-needed engineering contracts and has extensive experience on a variety of drinking water projects as HDR's Southern California Water Market Sector Leader.

Steve is based locally in the HDR Irvine office, which is only 17 miles from the City's office. As the Project Manager, he will oversee a team of task leaders to effectively manage the as-needed engineering services required by the City. Steve has managed large design teams from planning, design, and construction. He is an experienced Project Manager and devoted to providing a quality product by implementing necessary quality assurance procedures for successful delivery.

Based on our experience with other as-needed contracts, we understand that projects can vary widely in size, complexity, and scope. Our approach, effort, and fee will reflect the need for flexibility. Close coordination and communication with the City and the project team is required for successful delivery



Steve Friedman, PE, PMP, BCEE

Project Manager and Point of Contact

With 24 years of experience, Steve brings the following benefits to the City:

- Led A&E teams in the planning and design of over $250M worth of water infrastructure
- Designed 50 miles of pipeline ranging between 6-inches and 66-inches in diameter.
- Career emphasis in the heavily-urbanized areas of Southern California
- Managed nearly 20 water system and conveyance design projects

"Steve Friedman has personally always done the utmost to provide excellent client service. His organized, straightforward approach and responsiveness to requests have been a cornerstone to his performance. His assistance with our public outreach program really made a difference in advancing a high profile project. I personally look forward to working with Steve on other projects in the near future."

- Erik Jorgensen, PE
Eastern Municipal Water District
Senior Civil Engineer

Work plan for task orders.

of any task order, particularly multi-disciplinary projects. We believe it is important to have those who will ultimately own and operate the facilities to be involved in the project during its development. Our methodology to address and execute each task order will follow the work plan shown above.

We have extensive experience with performing multiple, simultaneous task orders for on-call contracts. Upon receipt of each task order, our Project Manager, Steve Friedman, will meet with the City's key stakeholders to understand the needs, drivers, schedules, and issues related to the task order to clearly define the project objectives. For small projects, this may accomplished with a phone call or a few email exchanges. For more complex tasks, in-person meetings are generally best for a clear, direct understanding.

Steve will then identify the appropriate Task Order Manager, technical staff, and QA/QC team members. We will develop a detailed task order scope, schedule, and fee that are understandable and achievable. Our scope of work assumptions will be discussed with the City's project manager to so that deliverable and performance expectations are transparent and agreed upon. Schedule is often critical to fast-tracked projects and a detailed project schedule will be prepared for each task order in a format acceptable to the City to complete projects on time and within budget. The task order proposal will be submitted to the City for review and negotiated to finalize the scope, fee, and schedule.

For as-needed task orders, flexibility and adaptability is critical for successful execution. Our team includes professionals locally-based in southern California with a wide range of experience and qualifications that are dedicated to providing high-level service and being responsive to your needs. A few of the key team members are identified.

- Amy Omae, PE (Irvine, CA) is currently managing a project for the City's neighbor, Mesa Water District, to determine the remaining useful life of their existing pipeline infrastructure as part of the Pipeline Integrity Program. She has also been involved in the design of several pump stations and pipelines.
- James Wang, PE (Irvine, CA) has managed several projects and been the lead designer to rehabilitate several pump stations and develop design plans, specifications, and cost estimates (PS&E) documents for pipelines, groundwater wells, and storage reservoirs.
- Brien Clark, PE (Claremont, CA) has familiarity with the City of Huntington Beach. He has worked on projects with the City including the Yorktown Transmission Main Rehabilitiation and is currently working with the annual corrosion assessment surveys along side Erika Perez, EIT (Claremont, CA)
- Dave Spencer, PE (San Diego, CA) is a contributing author for American Water Works Association (AWWA) M77: Condition Assessment of Water Mains and a technical lead for Water Research Foundation (WRF) studies on condition assessment for metallic and asbestos cement pipe.
- Andrew Cherene, PG, CHG (Long Beach, CA) has effectively managed several drilling programs and designs for installation of groundwater wells and test water supply wells.

Each proposal will identify those individuals that will be made available to the City for the duration of each task order. Our team will be tailored to each task order to optimize efficient execution and successful completion. Steve will assign Task Order Managers, who will identify the needed skills and obtain the commitment from team members, including specialized subconsultants, to prepare an organizational chart for approval by the City's project manager.

At each project kick-off meeting, we will identify relevant stakeholders, review procedures and design requirements, and establish clear lines of communication and authority. During project execution, HDR staff will be present for all necessary meetings and prepare detailed notes, progress reports, and interim work products as required. All deliverables will be reviewed by HDR's independent QA/QC team to verify accuracy and completeness prior to submission to the City for review.

HDR strives to provide the City with excellent service and exceed expectations. Our intent is to remain with the project until its implementation and beyond so that we confirm the work was successfully delivered. Our commitment to your project and involvement through its development and implementation will allow us to address any issues or discrepancies that should arise in design, construction, or operation.

Example scopes of work are shown in the figure below for typical task orders for engineering services provided during planning/preliminary design, design, and construction.

EXAMPLE SCOPE OF WORK FOR TYPICAL TASK ORDERS

Our task order scope of services are detailed and thorough, outlining exactly what will be accomplished.

A typical outline for a preliminary design report may include:

- Basis of Design (Design Criteria)
- Preliminary Alternatives
  - Identify Potential Major Utility Conflicts
  - Identify Traffic and Transit Concerns
  - Identify Construction Concerns
  - Identify Local Agency and Stakeholder Concerns
- Pipeline Material Selection
- Identify type of specifications
- Construction Methods
- Environmental Concerns
- Schedule
- Preliminary Construction Cost Estimate

For a design project, a typical scope of work may include the following tasks:

- Project Management and Meetings
- Survey Work
- Basemap Preparation: datum, basis of bearing, utility locations, potholing, right-of-way
- Geotechnical Investigation (provided by the District)
- Environmental Documentation
  - CEQA Process (provided by the District)
  - Stormwater Pollution Prevention Plan & Permitting
- Preparation of Contract Drawings and Specifications for 30%, 60%, 90% and Final Plans
- Coordination with Stakeholders and Local Agencies
- Easement Acquisition and Permitting
- Bidding Assistance
- Preparation of As-Built Drawings

For a construction management or engineering services during construction project, a typical scope of work may include the following tasks:

- Project Management and Construction Progress Meetings
- Bidding Assistance
- Inspection
- Field Engineering
- Submittal Reviews
- RFI Responses
- Change Order Review
- As-Built Development
- O&M Manuals
- Warranty Inspection

Appendix: Addendum 1

(Acknowledgement)

Key Staff Resumes

City of Huntington Beach
Public Works Department
2000 Main Street
Tel. (714) 960-8820

ADDENDUM NUMBER ONE

For
RFQs – Water, Plan Check, Ocean, Architectural, Transportation, Construction Management, Materials, Civil
in the
CITY OF HUNTINGTON BEACH

November 29, 2017

Notice To All:

City of Huntington Beach has extended the due date from January 4th, 4:00 pm 2018 to January 11th, 4:00 pm 2018 for eight (8) Request For Qualifications (RFQ) for various professional services (Water, Plan Check, Ocean, Architectural, Transportation, Construction Management, Materials, Civil).

This is to acknowledge receipt and review of Addendum Number One, dated November 29, 2017.

HDR Engineering, Inc
Company Name

By

01/09/2018
Date

All bidders must acknowledge and include the receipt of this Addendum with your RFQ packages.

Steve Friedman, PE, PMP, BCEE

Project Manager, Point of Contract

Steve has 22 years of experience in engineering planning and design of water, recycled water, industrial waste, and wastewater facilities. His background includes a variety of project types that consist of transmission and distribution system piping, wastewater treatment plant upgrades, pumping stations, pressure control stations, and water treatment. He has provided a wide range of services during construction including office engineering, observation and construction management.

His project management skills have been honed through the successful delivery of multidiscipline infrastructure projects in southern California and across the US — he is one of HDR's most experienced project managers. He will provide consistent guidance to HDR project teams, and manage the overall contract to deliver on the scope objectives while maintaining schedule and budget.

EDUCATION

Master of Science, Civil Engineering, University of California at Berkeley, 1994

Bachelor of Science, Civil Engineering, University of California at Berkeley, 1993

REGISTRATIONS

Professional Engineer - Civil, California, United States, No. 055566

Project Management Professional, California, United States, No. 293170

Risk Assessment Methodology for Water, California

PROFESSIONAL MEMBERSHIPS

California Water Environment Association

Water Environment Federation

American Water Works Association, Water Reuse Committee/Secretary

WateReuse Association

RELEVANT EXPERIENCE

Metropolitan Water District, Water Treatment and Pipeline On-Call Services, Los Angeles, CA

Project Manager. Steve has managed this on-call contract for Metropolitan since the end of 2013. Since that time, he has selected the appropriate project team and managed the contract for four different task orders. He is currently the project manager for one task order; providing UPS replacement at all five Colorado River Aqueduct Pumping Stations.

NAVFAC Camp Pendleton, P-1045: New Potable Water Conveyance On-Board Marine Corps Base, San Diego, CA

Project Manager. This projects connect the north and south base systems to increase the overall reliability of the MCB Camp Pendleton water systems. The project is comprised of over 31 miles of new pipelines, 3 pumping stations, and a storage reservoir.

City of Corona Department of Water and Power, Mangular Blending Facility, Corona, CA

Project Manager. Designed a new 5,000 gpm dual zone booster pumping station, which included a building to house 1060- and 1220-Zone pumps, and emergency generator, site security, chemical facilities to inject sodium hypochlorite and ammonia to produce monochloramines for disinfection, blending station improvements, and noise abatement. Energy saving components were incorporated, which included a micro-turbine at the blending location and solar panels on the neighboring dual reservoir roofs.

City of Newport Beach, Industrial Way Water Transmission Main Replacement, Newport Beach, CA

Managed the routing study, design, bidding, and construction engineering services for the replacement of a 2,000 linear feet

STEVE FRIEDMAN (CONTINUED)

(LF) of 14-inch-diameter water main located in Industrial Way between Superior Avenue and Newport Boulevard, and a 30-inch-diameter water main that traverses the city's general services department. The two existing water mains were replaced with a single 36-inch-diameter water main within the Caltrans and City of Costa Mesa public street right-of-way. The project also consisted of designing a new 8-inch-diameter water main to connect from the replaced water main to an existing water main.

City of Pomona, Perchlorate Treatment System, Pomona, CA
Project Manager. Managed the design, construction, start up, acceptance testing and permitting assistance for a 16.6 MGD perchlorate anion exchange treatment plant. Design included providing intermediate pumping to deliver the finished water to Reservoir 6, redundancy of process equipment, security for the facility, and incorporation of the system operation into the City's SCADA network and with the existing AEP processes.

Irvine Ranch Water District, IRWD-Shady Canyon Offsite Pipelines (Bonita Canyon), Irvine, CA
Project manager for design, bidding, and construction engineering services for four miles of 24-inch-diameter and one mile of 36-inch-diameter recycled water transmission mains, two miles of 16-inch-diameter domestic water transmission main, and a half mile of 15-inch-diameter sewer line. The design required close coordination with The Irvine Company, City of Newport Beach, City of Irvine, and several other consulting firms. Developer driven schedules required three separate bid packages that further complicated the project. The total estimated construction cost for this project is approximately $9 million.

Poseidon, Carlsbad Desalination Plant Intake Facilities Preliminary Design, Carlsbad, CA
Project Manager. Steve oversaw a diverse design team to prepare preliminary design and contract documents for design build procurement of the Carlsbad Desalination Plant's new intake facility. It consists of a new 198 mgd (368 cfs) water pumping station, modifications to the existing 127 mgd (235 cfs) process water pumping station, a new fish screening structure with a 1,000 feet long 24-inch diameter fish return pipeline, and two large diameter pipeline designs: 500 feet of 72-inch pipeline and 100 feet of 84- inch pipe. Special features include a shoring design for deep excavation and high groundwater, an electrical building for the 1,000 horsepower pumping system, ingress/egress modifications to the existing plant, and environmental. The team also prepared twenty conceptual alternatives under client direction for permitting approval in accordance with the Ocean Plan Amendment.

Amy Omae, PE, LEED AP

Task Order Manager

Amy is a proven project manager with extensive experience in water and wastewater master planning, design, and engineering services during construction projects throughout Southern California. Her expertise is in the design of treatment plant processes, pipeline alignments, mechanical pumping systems, pilot testing and research, alternative technology evaluations, mass balance and financial model development, data analysis for technically based local limits, quality assurance, and field engineering services during construction.

EDUCATION

Master of Science, Environmental Engineering (Civil Engineering with Environmental Emphasis), University of Miami, 2006

Bachelor of Science, Chemistry (Chemistry and Environmental Health Science), University of Miami, 2004

REGISTRATIONS

Professional Engineer - Civil, California, United States, No. 76824

LEED Accredited Professional, United States National Registration, No. 10328834

PROFESSIONAL MEMBERSHIPS

American Society of Civil Engineers (ASCE), Associate Member, 2007-2017

Water Environment Federation, Member, 2011-2017

Asian American Architects / Engineers Association (AAa/e), Member, 2014-2017

WateReuse, Member, 2015-2017

RELEVANT EXPERIENCE

NAVFAC P1046 North Area Waste Water Conveyance Project Design and Construction Services, Camp Pendleton, CA

Responsible for the design of the Tributary Area Pump Station 9 (TAPS9), decommissioning and demolition of the Sanitation Treatment Plant 9 (STP9), and QA/QC review. HDR served as Designer-of-Record for the installation of new wastewater conveyance, pumping, and storage facilities at Marine Corps Base Camp Pendleton (MCBCP) in San Diego. The new facilities provide enhanced infrastructure to convey increased sewage flows throughout the camp and convey wastewater to the Southern Regional Tertiary Treatment Plant (SRTTP). HDR provided preliminary and final design along with engineering services during construction. The P-1046A project includes 28,500 feet of 6-inch through 20-inch HDPE wastewater force main, 7,000 feet of gravity sewer manhole and pipe capacity increase from 8-inch to 10-inch, approximately 2,500 feet is upsized by pipe bursting, five separate Horizontal Directional Drill locations under environmental and cultural boundaries and beneath Caltrans and Railroad rights-of-way with a total distance of about 10,000 feet, four new lift stations and one lift station upgrade with capacities ranging from 500,000 gpd up to nearly 2 mgd, emergency overflow storage for four lift stations, demolition of existing lifts stations and a 1.5 mgd wastewater treatment plant.

Irvine Ranch Water District, Water Supply Reliability Evaluation, Irvine, CA

Project Engineer. Prepared a Water Supply Reliability Evaluation report for the Irvine Ranch Water District (IRWD). HDR evaluated several potential future water supply scenarios. Provided modeling and evaluation of local and imported water supply reliability under a variety of emergency scenarios based on a rigorous and transparent probability of risk analysis. Recent climate change research and projected reliability of imported water resources were incorporated into the analysis. Level of service expectations were established and mitigation strategies developed.

AMY OMAE (CONTINUED)

Mesa Water District, Pipeline Integrity Testing Program, Costa Mesa, CA
Responsible for managing the overall project and defined tasks for this as-needed consulting services contract. Mesa Water District performed an age-based assessment for over 300 miles of water distribution piping, which resulted in an estimated replacement cost of $300 million within the next 30 years. Because their break rates were not consistent with this forecast, HDR was selected to assist Mesa Water in the determining the remaining useful life of their water main pipeline by evaluating historical data, identifying the appropriate test methodology, and continuously refining the testing program to focus Mesa Water's rehabilitation and replacement efforts and provide the most value to customers. The scope expanded to include performing a survey of the cathodic protection system and a close-interval survey.

Irvine Ranch Water District, Michelson Water Reclamation Plant Phase 2 Expansion, Design and Engineering Services During Construction, Irvine, CA
Responsible for developing the financial model to evaluate biosolids and sludge handling alternatives analysis, design of the agitation aeration distribution system for the influent junction structure, headworks, primary splitter box, and primary distribution channel, managing and performing QA/QC review of submittal reviews and requests for information (RFIs), change orders, civil site grading design, and field engineering. HDR performed the conceptual design, preliminary design, and final design, and provided engineering services during construction of the Michelson Water Reclamation Plant Phase 2 expansion to 33 mgd. Improvements included influent sewers, headworks, expansion of the primary sedimentation tanks, new primary effluent pumping station and flow control, modified flow equalization basins, secondary treatment expansion with membrane bioreactors (MBR), new high-rate clarifier to treat filter backwash, effluent filtration, new ultraviolet (UV) disinfection system, reclaimed water pumping, modifications to chlorine contact basins, chemical feed systems, new pumping and other ancillary facilities, and electrical modifications.

City of San Mateo, Clean Water Program, Nutrient Removal and Wet Weather Flow Management Upgrade and Expansion Project, San Mateo, CA
Project Engineer and DUCT Design Lead. Responsible for design of the dual use contact tank and flow split structure and assist the design of the biological nutrient removal (BNR) system. HDR performed the conceptual design and is in the process of developing the preliminary design and final design of the San Mateo/Estero Municipal Improvement District (EMID) Wastewater Treatment Plant.

Brien Clark, PE

Task Manager, Corrosion Control/Cathodic Protection Lead

Brien Clark is the Manager of Technical Services for HDR Engineering, Inc. He has been with HDR Engineering since 2000. Brien has performed condition assessments, external direct assessments, failure analyses, soil corrosivity studies, water aggressivity studies, cathodic protection surveys, cathodic protection/corrosion control designs, and construction checkouts.

EDUCATION

Bachelor of Science - Chemical Engineering, California Polytechnic University, Pomona

REGISTRATIONS

State of California, Professional Chemical Engineer - #6291

State of Arizona, Professional Chemical Engineer - #48417

State of Idaho, Professional Chemical Engineer - #15476

State of New Mexico, Professional Chemical Engineer - #21879

NACE International Cathodic Protection Technologist CP-3 #17978

Cathodic Protection Specialist CP-4 #17978

Cathodic Protection Interference

NCCER Corrosion Prevention Field Technician 1

NCCR Abnormal Operating Conditions - Field Ops

RELEVANT EXPERIENCE

City of Huntington Beach, Yorktown Transmission Main Rehabilitation - 30"

Project Manager/Project Engineer. The project entailed the installation of corrosion test stations, three impressed current cathodic protection deep wells and rectifiers, pipeline internal and external joint bonding, and electrical isolation joints for an existing 30-inch cement mortar lined and coated (CML&C) steel water transmission main. Technical construction management services were provided including interpreting design document intent for the City, responding to contractor RFIs and RFCs, and performing construction witnessing and check-out testing. Field testing included performing electrical continuity measurements along the pipeline; witnessing and testing the installation of the cathodic protection systems including deep well drilling, anode conformance and inspection, cable inspection, anode loading, well logging, and rectifier installation and testing; confirming the installation and effectiveness of electrical isolation devices; performing a pipe-to-soil potential survey of existing test stations to establish a potential baseline; and performing a pipe-to-soil potential survey after rectifiers were energized and the pipeline had polarized to verify the effectiveness of the impressed current cathodic protection systems. Troubleshooting with respect to unusual potential fluctuation was also investigated for stray current activity.

City of Huntington Beach | Annual Corrosion Survey, Huntington Beach, CA

Cathodic Protection Design Reviewer. HDR provided condition assessment and corrosion engineering services for the City of Huntington Beach's five (5) pipeline systems. The five (5) systems, include eleven (11) pipelines, 138 test stations, 34 insulating joint (IJ) test stations, 35 cathodic protection sacrificial anode beds, and 3 rectifiers. In addition to the facilities tested in 2012, HDR included new facilities that were subsequently added including the Huntington Beach Utility Yard, the 12-inch Harbor Crossing, and the 30-inch Yorktown Pipeline cathodic protection systems. Scope of services included records review; pipeline condition assessment survey of all corrosion monitoring test stations, CP rectifiers, performing instant Off survey of all impressed current systems, minor repairs at rectifiers and

BRIEN CLARK (CONTINUED)

corrosion monitoring test stations, monitoring Slip Lined 30-inch DIP within the 42-steel pipeline (special CP probes), coordinating with City on locating missing CP test stations (16 each), and performing minor maintenance and cleaning of all CP test stations; provide a written report with findings and recommendations.

City of Huntington Beach | Feeders OC-9 and OC-35, Huntington Beach, CA
Project Manager, Project Engineer. The two pipelines were approximately 53 and 43 years old, respectively. Feeder OC-9 is a 14- to 30-inch diameter cement mortar lined and coated (CML&C) steel, PVC, and ductile iron pipeline, running approximately 46,000 feet (8.72 miles). Feeder OC-35 is a 27- to 36-inch diameter CML&C Steel pipeline, running approximately 31,300 feet (5.93 miles). HDR provided recommendations for controlling corrosion on the two pipelines based on documentation provided by the city.

Inland Empire Utilities Agency District | As-Needed Corrosion Assessment Services, Chino, CA
Contract/Project Manager. The Inland Empire Utilities Agency (IEUA) is a regional wastewater facility in southern California that operates five regional plants and processes 60 mgd. HDR was selected as a consultant to provide corrosion assessment services as-needed on this 5-year contract. Since inception, condition assessments have been conducted on numerous headworks, wet wells, influent pump stations, grit chambers, diversion structures, primary clarifiers, secondary clarifiers, digesters, aeration basins, and various process piping across the five treatment facilities. Mr. Clark is the contract manager and has served as the project manager on the majority of the task orders to date. He is also the quality reviewer and engineer of record for the final reports.

Lower Busch Tank Cathodic Protection Design, Los Angeles Department of Public Works (LADPW), Malibu, CA.
Contracted through the tank designer, Cannon Corporation, services provided included cathodic protection design to protect the interior of a proposed welded steel 0.47 MG water reservoir. Deliverables included plan, elevation, and detail drawings, and a technical specification. Design Reviewer.

Southeast Water Reliability Project (SWRP), Central Basin Municipal Water District (CBMWD), Pico Rivera, CA.
This project entailed the design of approximately 70,000 linear feet of 42-inch diameter recycled water transmission pipeline and booster pump station. Corrosion-related deliverables included a 30% pre-design report, cathodic protection calculations, plan and detail sheet drawings, and technical specifications. Report Reviewer and Design Reviewer.

Dan Ellison, PE

Task Order Manager

Dan has gained national and international recognition as an expert on pipe assessment, rehabilitation, and trenchless construction, having authored several books on the subject. He is the former Chair of the Water Main Rehabilitation Committee of AWWA. Dan has managed groups with more than 40 employees and programs with annual budgets up to $40 million. Projects have ranged from record-setting trenchless river crossings, to published research, to power plant retrofits, even a fish ladder. This diversity of projects along with superior management skills of people and programs make Dan tremendously flexible and creative. With more than 35 years of civil and structural engineering experience, Dan has design and construction experience in both the energy and water supply fields on projects ranging to the multi-billion dollar range.

EDUCATION

Master of Business Admin, Finance, University of Southern California (USC), 1994

Bachelor of Science, Civil Engineering, University of Utah, 1981

Bachelor of Arts, English Language & Literature, University of Utah, 1978

REGISTRATIONS

Structural Engineer, California, US, #S3020

Professional Engineer - Civil, California, US, #C38094

PROFESSIONAL MEMBERSHIPS

American Public Works Association (APWA), Member

American Society of Civil Engineers (ASCE) Member

American Water Works Association, California Nevada, Pipeline Rehabilitation Committee, Former Chair

American Water Works Association, Member

American Water Works Association, National AWWA, Water Main Rehabilitation Committee, Former Chair

RELEVANT EXPERIENCE

Otay Water District, Annual Corrosion Surveys San Diego, California

The OWD has an ongoing Cathodic Protection (CP) Program. The program consists of monitoring and maintaining 60 separate pipelines and 29 reservoirs as well as providing design services for future projects. As part of the Scope of Work HDR is responsible for repairing cathodic protection systems having deficiencies on 29 steel reservoirs.

City of San Diego, California, As-Needed Engineering Wastewater Facilities Condition Assessment San Diego, California

Provided as-needed corrosion engineering and condition assessment services for city's sewer pipeline system which includes pipelines ranging from eight- to 120-inches in diameter force mains and trunk sewers. Task orders have included a rigorous evaluation of the consequence of failure and a thorough analysis of the likelihood of failure combining both field condition data and statistical analysis. Work included the use of closed circuit television (CCTV) to gather review and validate all available data and update the existing CCTV Tool Box. Other tasks performed included preparation of a condition assessment work plan field data collections and preparation of a repair/rehabilitation and replacement (R&R) action plan that included a comprehensive financial analysis projected timeline and cost estimate for each pipeline implementation.

City of Buena Park, Pipe Criticality Assessment Buena Park, California

The city was concerned about the system's remaining useful service life and was interested in developing a plan for future replacement of their distribution piping. HDR conducted a criticality assessment of the city313436s asbestos concrete (AC), ductile iron, and steel pipes to prioritize assets requiring immediate attention by means of replacement or repair. Over 40 percent of the existing pipelines were over 50 years old, with the oldest in service for approximately 65 years. HDR performed analysis of available break data and compared to industry norms, field corrosion survey, and acoustic velocity testing.

DAN ELLISON (CONTINUED)

Long Beach Water Department, Sewer Lift Station S-1 Claremont, Los Angeles, California
HDR was selected by Long Beach Water Department to provide engineering design and bid/ construction phase services for the S-1 Sewer Lift Station Rehabilitation project. Work includes numerous lift station improvements needed to address issues with structural mechanical electrical and instrumentation components address the current condition of SLS S-1 develop rehabilitation alternatives and develop plans and specifications to implement the rehabilitation and construction bidding assistance through contract award.

Western Municipal Water District, - Nondestructive Condition Assessment alternatives for the Mills Gravity Pipeline Claremont, Los Angeles, California
Nondestructive Condition Assessment (NDA) for Western Municipal Water District (Western) on the Mills Gravity Pipeline (MGL) to determine existing and probable future conditions develop rehabilitation plans to reduce failure risks (if determined needed) to maximize the life of the MGL.

Water Research Foundation, WRF 4471 Leveraging Data from Non-Destructive Examinations to Help Select Ferrous Water Mains for Renewal Denver, Colorado,
The objective of this project is to demonstrate that NDE can be used cost effectively on some mains and the results can be used to infer the condition of similar mains. Tailored Collaboration partners: DC Water Denver Water Los Angeles Department of Water and Power Fairfax Water and Seattle Public Utilities.

WRF 4034 Failure of Pre-stressed Concrete Cylinder Pipe
Dan characterized PCCP failure rates in the U.S. investigating the past 65 years. The research used an actuarial approach to PCCP pipe segments and identified and predicted based on manufacturing installation and design dates portions of the population that have the highest likelihood of failure. In addition the project developed a general evaluation matrix to help utilities identify prestressed concrete cylinder pipe (PCCP) with the highest risk of failure in their systems.

Tahoe Keys Property Owners Association, Water Distribution Piping Condition Assessment South Lake Tahoe, El Dorado, California
The purpose of this project is to provide waterline assessment of AC and galvanized iron pipe at four of the worse anticipated locations in the system to determine pipeline condition. HDR expects to conduct a series of laboratory and field tests to determine the corrosivity of the soil and transported water and the remaining strength of the pipe material in the distribution system by evaluating the mechanical strength and the depth of deterioration to the pipe wall.

James Wang, PE

Pump/Booster Stations, Reservoirs/Tanks

James has more than 21 years of experience with municipal and industrial wastewater treatment, water treatment, mechanical pumping systems including storm, potable, irrigation and wastewater; water distribution and sewage collection, contaminant fate during sewage treatment, water quality modeling and AutoCAD 2012. In addition, James is proficient in innovative and cost effective design with operations a top priority. He is adept at coordinating project plans with multiple disciplines and consultants. Other responsibilities include field engineering, supervision and monitoring, particularly for pump stations, sewer lift stations and water quality testing.

EDUCATION

Master of Science, Environmental Engineering, University of Windsor, Ontario, Canada, 2004

Bachelor of Civil Engineering, Civil & Environmental Engineer, 1997

REGISTRATIONS

Professional Engineer - Civil, California, United States, No. 81123

NASSCO Pipeline Assessment and Certification Program, United States National Registration, No. U-1114-06022800

NASSCO Manhole Assessment Certification Program (MACP), United States National Registration, No. U-1114-06022800

RELEVANT EXPERIENCE

City of Corona Department of Water and Power, Mangular Blending Facility, Corona, CA

Project Engineer. Designed the new Mangular Blending Facility which includes a dual zone Booster Pumping Station with a total firm capacity of 5,000 gpm using five pumps. Additional components include provisions for emergency power; chemical facilities to inject sodium hypochlorite and ammonia to produce monochloramines for disinfection; and improvements to the existing facility blend well water with treated water.

P-1045: New Potable Water Conveyance On-Board Marine Corps Base, San Diego, CA

Design Manager. HDR served as Designer-of-Record for Project P-1045, installation of new potable water conveyance, pumping, and storage facilities at Marine Corps Base Camp Pendleton (MCBCP). Project P-1045 includes approximately 99,400 linear feet of 24-inch nominal diameter high density polyethylene (HDPE) pipeline; 26,600 linear feet of 14-inch nominal diameter HDPE pipeline; three pumping stations (160hp, 2.0 MGD capacity; 60hp, 1.4 MGD capacity; and 225 hp, 5.0 MGD capacity); a new three million gallon capacity AWWA D-110 Type III pre-stressed concrete reservoir; and a new pressure reducing station.

Project P-1046, Waste Water Conveyance Marine Corps Base, Camp Pendleton, CA

Design Manager. HDR served as Designer-of-Record for Project P-1046, installation of new waste water conveyance, pumping, and emergency overflow storage facilities at Marine Corps Base Camp Pendleton (MCBCP). Project P-1046 includes approximately 30,000 linear feet of high density polyethylene (HDPE) pipeline ranging from 4-inch to 10-inch; five lift station(120hp, 4.6MGD capacity; 120hp, 3.2 MGD capacity; 75hp, 1.5 MGD capacity; 30hp, 1.0 MGD capacity and 20 hp, 0.3 MGD capacity); a new emergency overflow storage structure.

JAMES WANG (CONTINUED)

Mountain House Development Tank and Booster Pump Station, Mountain House, CA
Project Engineer. Designed two twin 3.7 MG concrete tanks and a multi-zone multi-pump water booster pump station. The facility was required as part of the community's master water plan and provides pressure stabilization potable and emergency storage and inter-zone pressure regulation. The dual-zone pump station allows water from either storage tank to be boosted into either of two pressure zones. Chemical injection facilities located within the facility automatically maintain chlorine residuals within the tanks as well as water entering the distribution system. The facility serves both planned residential development and the Delta Community College.

City of Lathrop Tank and Booster Pump Station, Lathrop, CA
Project Engineer. Designed a new 3.6 MG welded steel water storage tank and booster pump station servicing the Central Lathrop Specific Planning (CLSP) area. The pump station consisted of multiple VFD controlled pumps with a domestic capacity of up to 5,500 gpm. In addition the station features a 2,500 gpm NFPA 20 certified fire pumping system. The station has a PLC based remote telemetry and SCADA control system with automated chlorine residual control. Project Engineer.

Goleta Wastewater Treatment Plant Upgrade, Goleta Sanitary District, CA.
After preparing the preliminary design report and validation study, HDR modified the headworks, upgraded the treatment plant to full secondary standards using a trickling filter/activated sludge system, designed a new blower building, expanded secondary sedimentation capacity, designed for new flow equalization, and designed a new thickening and dewatering building. Design also included site/civil work, paving and grading. The improvements expand the capacity of full treatment to approximately 9 mgd.

Edward C. Little Water Recycling Facility Expansion Design-Build Services, West Basin Municipal Water District, El Segundo, CA.
Conducted a feasibility study and provided engineering to support design-build services to increase the capacity of barrier water to 12.5 mgd total capacity and increase the capacity of Title 22 water to 40 mgd. Phase IV improvements included upgrades and expansion of the Title 22 treatment system, solids handling system, chemical systems, microfiltration treatment system (includes a new 10.8 mgd microfiltration system), reverse osmosis treatment process, ultraviolet (UV) disinfection treatment system, and site. Title 22 treatment system improvements included demolishing the flocculation basins, constructing a 20 mgd high-rate clarifier, extending the Title 22 treatment train No. 1 conventional gravity filter gallery, adding two chlorine contact basins, and adding two medium voltage variable frequency drives (VFDs) on the Title 22 product water pumps.

Dave Spencer, PE

Condition Assessment and Rehab

EDUCATION
Bachelor of Science Civil Engineering California Polytechnic State University, San Luis Obispo

REGISTRATIONS
Professional Engineer C66885 California

David Spencer developed and implemented asset management programs encompassing over 60,000 miles of pipelines in the U.S. David specializes in developing and implementing practical results-oriented programs for aging water, recycled water, and wastewater infrastructure. He is adept in interacting with all levels of a utility organization from field staff to management. David is currently engaged in the evaluation of several emerging condition assessment technologies including acoustic testing, non-destructive examinations, an ASCE Manual of Practice, and other Water Research Foundation projects. Proficient in ESRI and Microsoft analytical tools, David has supported many high performing utilities in building and refining asset management practices including the Cities of San Diego, Poway, Vista, Phoenix and Honolulu, Vista Irrigation District, Los Angeles Bureau of Sanitation, Johnson County Wastewater, and Seattle Public Utilities.

RELEVANT EXPERIENCE

Water Research Foundation, WRF 4471, Leveraging Data from Non-Destructive Examinations to Help Select Ferrous Water Mains for Renewal, Denver, CO.
The objective of this project is to demonstrate that NDE can be used cost effectively on some mains, and the results can be used to infer the condition of similar mains.

Mesa Water District Pipeline Integrity, Costa Mesa, CA.
Technical Lead. Scope of work for the project included estimating the remaining life of the pipelines based on measured pipeline properties, identify specific pipes that require replacement, and refine the testing program to provide the most value to the ratepayers. Thru this program, HDR was able to save Mesa Water approximately $100,000 per year in pipeline testing.

2016 Comprehensive Sewer Management Plan, City of Vista, CA.
David is developing an asset management program and plan that will close gaps in the asset registers for GIS/Cityworks/Pipelogix/hydraulic model. David will identify likelihood and consequence of failure for asset risk, replacement costs, renewal prioritization, and evaluation of levels of service and associated levels of investment. David will conduct workshops with operations staff on best practices and SOPs. The results of asset management analysis and asset information will be coordinated with GIS staff for inclusion in appropriate systems and the identification of asset management software. A continuous improvement plan will be developed that includes analysis of existing business processes and systems and identification of prioritized opportunities for improvement for policies, processes and systems.

DAVE SPENCER (CONTINUED)

Asset Management Plan, Otay Water District, Otay, CA.
Prepared a district-wide asset management plan as the framework for district staff to implement the ongoing condition assessment and associated service life estimates for all of the fixed assets. The project included the development of asset criticality criteria, condition assessment rating and ranking criteria, and asset valuation methodology that serve as the basis for future rates and bond financing.

City of Westminster, Westminster Distribution System Renewal Program Prioritization and Modeling, Denver, CO.
Evaluated the water distribution system and prioritized water main repair and replacement projects based on a number of criteria. A risk analysis and prioritization factors matrix was established and was used to develop an optimized pipe and valve replacement capital improvement program (CIP).

Vista Irrigation District, City of Vista, CA
HDR was selected by Vista Irrigation District (VID) to prepare an update to their 2000 Potable Water Master Plan. As part of that Master Plan, condition assessment of the District's reservoirs and pipelines is being conducted and prioritization of rehabilitation and replacement projects. David is leading the condition assessment and renewal prioritization components of the project which includes assessing and cleansing existing data, quantifying deterioration, identifying investment scenarios compared with level of service, and incorporating results into the master plan.

City of Poway, Utilities Operational Effectiveness Study (UOES), Poway, CA.
Project Manager who reviewed operational activities for the potable water, wastewater operations, and recycled water, then assessed their organizational efficiency and effectiveness to prepare an operational effectiveness report with competitive levels for (O&M) of the system with recommended cost savings and improvement strategies. Worked closely with the city's public works department's utilities manager and key representatives from labor, management and employees.

Andrew Cherene, PG, CHG

Wells

Andrew Cherene has 12 years of experience in the environmental field with expertise in groundwater monitoring, drilling, well installation, soil sampling, Phase I and Phase II environmental site assessments, soil vapor sampling, and groundwater resources. He manages drilling programs and designs, installs, develops, and tests water supply wells. He also conducts sampling and analysis field programs to support regulatory compliance, pre-construction site characterization, and aquifer modelling.

EDUCATION

Bachelor of Science – Earth Sciences, University of California, San Diego, June 2004.

Master of Science – Earth Sciences, University of California, San Diego, December 2005.

REGISTRATIONS

Registered Professional Geologist, California, United States, No. 8580

Certified Hydrogeologist, California, United States, No. 974

Drinking Water Treatment Operator, Level T2, California, United States, No. 30382

Drinking Water Distribution Operator, Level D2, California, United States, No. 39368

RELEVANT EXPERIENCE

City of Santa Monica, Olympic Well Field, Santa Monica, CA

Andrew Cherene was project manager and primary author of the quarterly groundwater monitoring report and manager of field tasks. Groundwater contamination surrounding the City Corporation Yard and the Bergamot Arts Center has been linked to a release of gasoline from underground storage tanks on the Corporation Yard property. Chlorinated solvents from former PaperMate and Douglas Aircraft Facilities have also migrated to the groundwater beneath this site, compromising water quality in the City's Olympic Well Field. Olympic is one of three major well fields that serve as the drinking water source for the City. The other two, Arcadia and Charnock, also have a recent history of impacts from leaking underground storage tanks.

City of Oxnard, Highway 101 at Rice Ave Reconstruction Project, Oxnard, CA.

Andrew Cherene was lead geologist for investigation and remediation activities associated with the Former Jim's Texaco service station and environmental support activities for the construction surrounding the interchange. Project tasks included site characterization of commingled fuel releases, well abandonment, development and implementation of a risk assessment sampling and analysis plan, and plume characterization for the protection of drinking water wells. This project required close coordination with regulatory agencies to obtain timely closure of the site under the schedule constraints of a major interchange and bridge reconstruction project.

ANDREW CHERENE (CONTINUED)

Antelope Valley Water Bank, Willow Springs Aquifer Storage and Recharge, Antelope Valley, CA.
Prior to initiating an aquifer storage and recovery (ASR) project, a groundwater basin and its aquifers must be adequately characterized with respect to potential yields, storage capacity, and water quality. Andrew Cherene managed a field sampling program that collected samples from idle irrigation supply wells and active domestic water supply wells to analyze for naturally occurring compounds that may present a challenge for the proposed ASR program.

Pier B On-Dock Rail Support Facility, Long Beach, CA.
HDR is providing engineering services for the project. Some key components of the project include realignment of Pier B Street to accommodate new yard tracks construction of approximately 80000 feet of new trackage at the Pier B Rail Yard design of classification yard facilities and/or a potential Near Dock Intermodal Cargo Transfer Facility (ICTF) in the North Harbor Area and feasibility studies and alternative analysis for potential grade separations at 9th Street and the North Harbor Area. Since 1996 HDR has provided engineering services to the Port of Long Beach under two separate on-call contracts. In total seven final design packages have been completed on budget and on schedule under this contract.

NextEra Energy, Blythe Solar Generating Station.
The design phase of the project required exploration for a source of cooling and cleaning water in California's Sonoran Desert. The program drilled a test well to a depth of over 1800 feet to sample discrete aquifer zones for water quality and test them for production potential. Separate zones were packed off to be tested for yield potential and water quality. Overdraft of near-surface drinking water source aquifers would have been met with regulatory opposition, while brackish deep zones would have provided very poor quality water. Andrew Cherene oversaw drilling and well installation activities for the test well.

Erika Perez, EIT

Corrosion Control/Cathodic Protection

Erika Perez is the Field Services Supervisor with HDR Engineering, Inc. She has been with HDR since 2007. Erika has experience in soil analysis, soil corrosivity studies, corrosion condition assessments of wastewater facilities and potable water tanks, external corrosion direct assessments, cathodic protection (CP) system design for tanks, construction support services, field surveys for existing cathodic protection systems on pipelines and reservoirs.

EDUCATION

Bachelor of Science – Chemical Engineering

California State Polytechnic University, Pomona, CA

REGISTRATIONS

Engineer-In-Training (EIT), State of California #153360

NACE Cathodic Protection Technician (CP-2), #63436

Confined Space Certified

OSHA 30-Hours

PROFESSIONAL MEMBERSHIP

NACE International #673147

RELEVANT EXPERIENCE

City of Huntington Beach, Annual Corrosion Survey, Huntington Beach, CA

Corrosion EIT. The project was an annual corrosion survey of the City's 11 pipelines, consisting of 170 test stations, and providing recommendations for future corrosion control. Ms. Perez served as corrosion EIT. The survey was performed by the interruption of existing rectifiers and galvanic anodes and measuring the on/off potentials. A report was prepared documenting all the testing data with recommendations for general corrosion control.

Irvine Ranch Water District | Three Year Cathodic Protection Monitoring Program, Irvine, CA

Lead Field Engineer. HDR was recently awarded this cathodic protection project consisting of 35 impressed current and 4 galvanic systems, 40 rectifiers, approximately 500 corrosion test stations, and 17 reservoirs. Pipe sizes vary between 16-inches and 54-inches. Pipe materials include CCP, SCC, DIP, and CML&C. Ms. Perez performed the pipeline CP corrosion survey, including on and instant off pipe-to-soil potentials, rectifier readings, anode current output, and insulating flange and casing isolation testing.

Metropolitan Water District (MWD), Lake Mathews Forebay Condition Assessment, Riverside, CA

Erika Perez was the lead field engineer on the condition assessment of the concrete structure and rebar reinforcement at MWD's Lake Mathews Forebay. The structural assessment included exterior and interior visual inspections, concrete sounding, and pH testing. The rebar reinforcement assessment included potential mapping to determine areas of internal corroding rebar and electrical continuity testing. Concrete cores were also collected and analyzed by HDR's laboratory to determine the degree of concrete degradation. The condition assessment report included: tabulated test results, photo documentation of notable features observed during the assessment, and recommendations based on conditions found to be in need of repair, remediation, or corrosion monitoring.

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Irvine, CA 92602-1377
714.730.2300

hdrinc.com

We practice increased use of sustainable materials and reduction of material use.

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EXHIBIT "B"

Payment Schedule (Hourly Payment)

A. Hourly Rate

CONSULTANT'S fees for such services shall be based upon the following hourly rate and cost schedule:

B. Travel Charges for time during travel are not reimbursable.

C. Billing

1. All billing shall be done monthly in fifteen (15) minute increments and matched to an appropriate breakdown of the time that was taken to perform that work and who performed it.

2. Each month's bill should include a total to date. That total should provide, at a glance, the total fees and costs incurred to date for the project.

3. A copy of memoranda, letters, reports, calculations and other documentation prepared by CONSULTANT may be required to be submitted to CITY to demonstrate progress toward completion of tasks. In the event CITY rejects or has comments on any such product, CITY shall identify specific requirements for satisfactory completion.

4. CONSULTANT shall submit to CITY an invoice for each monthly payment due. Such invoice shall:

   A) Reference this Agreement;
   B) Describe the services performed;
   C) Show the total amount of the payment due;
   D) Include a certification by a principal member of CONSULTANT's firm that the work has been performed in accordance with the provisions of this Agreement; and
   E) For all payments include an estimate of the percentage of work completed.

   Upon submission of any such invoice, if CITY is satisfied that CONSULTANT is making satisfactory progress toward completion of tasks in accordance with this Agreement, CITY shall approve the invoice, in which event payment shall be made within thirty (30) days of receipt of the invoice by CITY. Such approval shall not be unreasonably withheld. If CITY does not approve an invoice, CITY shall notify CONSULTANT in writing of the reasons for non-approval and the schedule of performance set forth in **Exhibit "A"** may at the option of CITY be suspended until the parties agree that past performance by CONSULTANT is in, or has been brought into compliance, or until this Agreement has expired or is terminated as provided herein.

5. Any billings for extra work or additional services authorized in advance and in writing by CITY shall be invoiced separately to CITY. Such invoice shall contain all of the information required above, and in addition shall list the hours expended and hourly rate charged for such time. Such invoices shall be approved by CITY if the work performed is in accordance with the extra work or additional services requested, and if CITY is satisfied that the statement of hours worked and costs incurred is accurate. Such approval shall not be unreasonably withheld. Any dispute between the parties concerning payment of such an invoice shall be treated as separate and apart from the ongoing performance of the remainder of this Agreement.

Exhibit B

HDR

January 11, 2018

City Clerk's Office, 2nd Floor
City of Huntington Beach
2000 Main Street
Huntington Beach, CA 92648

RE: On-Call Water Engineering & Professional Consulting Services, Service Category A. Water Engineering - Cost Proposal/Rate Sheet

Dear Selection Committee,

HDR appreciates the opportunity to submit our fee schedule for the On-Call Water Engineering & Professional Consulting Services. We look foward to working with the City. Should you have any questions, please feel free to contact Steve Friedman at (714) 368-5634 or via email at steve.friedman@hdrinc.com

Sincerely,
HDR

Aaron Meilleur, PE
Vice President

Steve Friedman, PE, PMP, BCEE
Project Manager

hdrinc.com

3230 El Camino Real, Suite 200, Irvine, CA 92602-1377
T 714.730.2300 **F** 714.730.2301

E. Cost Proposal/Rate Sheet

Billing

HDR acknowledges that all billing for work done by the end of billing period be submitted to the City on a monthly basis. Each billing will be submitted with a status report describing progress made during the billing period on each task along with percent complete for each task. Final billing will be approved for payment only after a completed status report has been approved by the City.

HDR's accounting cycle typically coincides with the first of every month and we submit invoices no later than the 10th of every month.

Minimum Time Rate

Compensation terms are defined by Direct Labor Hours times an hourly billing rate for the services of HDR's personnel engaged, plus reimbursable expenses. HDR will not apply a minimum time rate for this project.

Procedures for Overtime Pay

HDR follows fair employment practices. Hours worked in excess of eight (8) per day or forty (40) hours per week will be billed in accordance with the rate schedule presented on the following page at straight time for professional personnel and at 1.5 times for inspector, technician, and clerical personnel. If applicable, prevailing wage requirements will need to be negotiated at the issuance of each task order.

Holidays

HDR recognizes the following seven (7) holidays per year where HDR staff does not conduct normal business hours:

- New Year's Day
- Memorial Day
- Independence Day
- Labor Day
- Thanksgiving Day
- Day after Thanksgiving
- Christmas Day

  - When a holiday falls on Sunday, the offices will be closed on the following Monday.
  - When a holiday falls on a Saturday, the offices will be closed on the previous Friday.
  - Business hours on December 24th will be 8:00 AM to 4:00 PM.

Travel Time

The City's office is only 17 miles from HDR's office in Irvine, wherethis project will be managed. Depending on the time of day, we can be at your office on Main Street office within 35 minutes. Our vehicle mileage will be billed as a Reimbursable Expense per Federal travel regulations, which currently allots $0.545 per mile driven.

Changes to the Rate Schedule if Contract is Extended

If the contract is extended beyond the three-year base period, the rates may be increased based on salary adjustments and changes in CPI.

Equipment, Miscellaneous Charges, and Subconsultants

Personnel charges include the indicating instruments commonly used in corrosion testing. Specialized instrumentation/test equipment and facilities may require and additional charge. Other direct costs (ODC), such as outside consultants or laboratories, rental equipment and, miscellaneous expenses (including vehicle usuage, photography, reproduction, binding, overnight mail or courier services, etc.) will be charged at cost plus ten percent (10%). Permits and fees required for projects will be charged at cost. Costs for subconsultants, if any, will be charged at cost plus ten percent (10%).

Rate Schedule

Our proposed hourly rate schedule by job classification is provided below which covers payroll costs, employee benefits, and HDR overhead and profit. The hourly rate schedule will be in effect during the course of the contract or three years from the notice-to proceed date, which-ever occurs first. Personnel time is billed in half-hour increments.

HDR RATE SCHEDULE	FROM $/HR	TO $/HR
Sr. Company Officer/Principal in Charge	$345.00	$420.00
Sr. Construction Manager	$212.00	$270.00
Sr. Engineer Mgr/Sr. Project Manager	$283.00	$353.00
Water Resources Sr. Engineer	$277.00	$335.00
Project Manager/Task Manager	$202.00	$271.00
Sr. Project Engineer	$190.00	$254.00
Construction Inspection	$185.00	$249.00
Database Programmer	$173.00	$230.00
Water Resources PE	$161.00	$219.00
CADD/BIM/Designer	$138.00	$197.00
Project Engineer	$114.00	$185.00
Project Administrator	$99.00	$161.00
Document Production Specialist	$93.00	$151.00
EIT	$86.00	$144.00
Technician	$70.00	$127.00
Intern	$58.00	$99.00

**Billing rates subject to 3.5% escalation (maximum) effective January 1st of each year.*

Bidder's List for Water & Engineering - 2018

Company Name	Phone
CivilSource, Inc.	949-585-0477
Civiltec Engineering, Inc.	626-357-0588
Dahl, Taylor & Associates	949-756-8654
DMc Engineering	949-753-9393
ERSC Inc.	951-765-6622
GEI Consultants, Inc.	916-912-4930
Geosyntec Consultants	310-957-6100
GHD Inc	949-585-5218
HDR Engineering, Inc.	213-239-5800 ext. 5817
LEE & RO, Inc.	626-667-5385
Lockwood Andrews and Newnam	714-620-6520
Michael Baker Intl	281-908-5335
Pacific Advanced Civil Engineering, Inc.	714-481-7203
Psomas	714-481-8026
Quantum Quality Consulting, Inc.	310-891-3994
SA Associates	626-821-3456
Tetra Tech	949-809-5208
West & Associates Engineering, Inc.	949-716-7670

ACORD®

CERTIFICATE OF LIABILITY INSURANCE

6/1/2018

DATE (MM/DD/YYYY) 3/26/2018

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

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must 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
Lockton Companies
444 W. 47th Street, Suite 900
Kansas City MO 64112-1906
(816) 960-9000

CONTACT NAME:
PHONE (A/C, No, Ext):
FAX (A/C, No):
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Lexington Insurance Company	19437
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
1429583
HDR ENGINEERING, INC.
8404 INDIAN HILLS DRIVE
OMAHA NE 68114-4049

COVERAGES *HDRIN01 CERTIFICATE NUMBER: 15288761 REVISION NUMBER: XXXXXXX

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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	COMMERCIAL GENERAL LIABILITY			NOT APPLICABLE			EACH OCCURRENCE	$ XXXXXXX
	CLAIMS-MADE / OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ XXXXXXX
							MED EXP (Any one person)	$ XXXXXXX
							PERSONAL & ADV INJURY	$ XXXXXXX
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ XXXXXXX
	POLICY / PRO-JECT / LOC						PRODUCTS - COMP/OP AGG	$ XXXXXXX
	OTHER:							$
	AUTOMOBILE LIABILITY			NOT APPLICABLE			COMBINED SINGLE LIMIT (Ea accident)	$ XXXXXXX
	ANY AUTO						BODILY INJURY (Per person)	$ XXXXXXX
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$ XXXXXXX
	HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$ XXXXXXX
								$ XXXXXXX
	UMBRELLA LIAB / OCCUR			NOT APPLICABLE			EACH OCCURRENCE	$ XXXXXXX
	EXCESS LIAB / CLAIMS-MADE						AGGREGATE	$ XXXXXXX
	DED / RETENTION $							$ XXXXXXX
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			NOT APPLICABLE			PER STATUTE / OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N (Mandatory in NH)	N / A					E.L. EACH ACCIDENT	$ XXXXXXX
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ XXXXXXX
							E.L. DISEASE - POLICY LIMIT	$ XXXXXXX
A	ARCH & ENG PROFESSIONAL LIABILITY	N	N	061853691	6/1/2017	6/1/2018	PER CLAIM: $1,000,000 AGGREGATE: $1,000,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
ON-CALL WATER ENGINEERING & PROFESSIONAL CONSULTING SERVICES

APPROVED AS TO FORM
By: [signature] 5/10/18
MICHAEL E. GATES
CITY ATTORNEY
CITY OF HUNTINGTON BEACH

CERTIFICATE HOLDER

15288761
City of Huntington Beach
Attention: Duncan Lee
2000 Main Street
Huntington Beach CA 92648

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
[signature]

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PROFESSIONAL SERVICES CONTRACT BETWEEN
THE CITY OF HUNTINGTON BEACH AND
HDR ENGINEERING, INC.
FOR
ON CALL WATER AND ENGINEERING SERVICES

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