

Prepared by: Steve Schwabauer, General Manager
Robert Granberg, Project Manager

RECOMMENDATION:

Motion: Award a Phase 1 Progressive Design-Build Agreement with Garney Pacific, Inc. of Tracy, California for the North Pump Station Improvements Project

DISCUSSION:

On August 28, 2023, the Board approved the release of a Progressive Design-Build Request for Qualifications to Design-Build entities for the North Pump Station Improvements Project, substantially in the form presented and directed the Interim General Manager to work with Board Counsel to finalize the solicitation process. On November 3, 2023, a Request for Qualifications was advertised via direct communication with interested Design-Build entities, the District's website and through Public Purchase™, a nationwide government bid advertising service. Three Statements of Qualifications (SOQ's) were received on February 1, 2023.

The selection committee consisting of two Board members, the General Manager, the Project Manager, and one external reviewer unanimously agreed that Garney Pacific, Inc. was the most qualified team to meet the District's need to deliver the Progressive Design-Build project.

On March 25, 2024, the Board directed the General Manager to negotiate with Garney Pacific, Inc. on scope and price to complete Phase 1 services which include the following tasks:

- Phase 1a - Concepts Development
- Phase 1b - Basis of Design Report
- Phase 1c – Design Development and Guaranteed Maximum Price

At the conclusion of Phase 1c, Garney Pacific, Inc. will present bid results that will form a Guaranteed Maximum Price for construction services. If accepted, it is anticipated the District would negotiate a Phase 2 amendment to the Agreement for the Board's consideration for Garney Pacific, Inc. to construct and commission a new permanent North Pump Station.

Staff recommends the award of a Progressive Design-Build Agreement (attached) for Phase 1 services only in the amount of not-to-exceed \$623,655 with Garney Pacific, Inc.

FINANCIAL SUMMARY:

Replacement of the North Pump Station is included in the Eastern San Joaquin Groundwater Authority Sustainable Groundwater Management Act (SGMA)

Implementation Grant Agreement Number 4600014643. In addition, the District entered into a funding agreement in the amount of \$3,000,000 with the Department of Water Resources for assistance in financing Mokelumne River non-flow actions to support healthy rivers and watersheds known as the Voluntary Agreement Early Implementation for the Mokelumne River. That funding can be used for Project expenditures up to December 31, 2025.

To date, a significant portion of the SGMA grant has been spent on developing a temporary pumping system to supply surface water to the Reynolds property and Flood Managed Aquifer Recharge to the Lakso property as required by the grant. It is anticipated the grant will have remaining funds for this Phase 1 work but will be insufficient to fund construction services both in terms of available grant funds and the grant termination date of April 30, 2025. Construction services is anticipated to be in the form of an amendment to this Agreement for Board approval at which time staff will recommend a funding strategy to complete the project.

ENVIRONMENTAL DETERMINATION:

Environmental review is not necessary to award an agreement for Phase 1 services. In parallel with Phase 1 activities, the District will retain an environmental firm to work collaboratively with Garney Pacific, Inc. to identify the Phase 2 construction components for CEQA analysis.

AGREEMENT
BETWEEN OWNER AND DESIGN-BUILDER
FOR PROGRESSIVE DESIGN-BUILD

THIS AGREEMENT is by and between North San Joaquin Water Conservation District (“Owner”) and
Garney Pacific, Inc. (“Design-Builder”).

PROJECT INFORMATION

Project: North Pump Station Improvements Project

Owner’s Consultant: Granberg & Associates, Inc.

Engineer: Design-Builder has retained Dewberry (“Engineer”) for the performance of professional engineering services under this Contract.

Authorized Representatives: Owner and Design-Builder each hereby designates a specific individual authorized to act as representative with respect to the performance of responsibilities under this Contract. Such an individual shall have authority to transmit instructions, receive formal notices, receive information, and render decisions relative to this Contract on behalf of the respective party that the individual represents.

1. Owner’s Authorized Representative: Steve Schwabauer, General Manager, Steve@nsjwcd.com (209) 329-0250
2. Design-Builder’s Authorized Representative: Dan Eckdahl, Design-Build Manager, deckdahl@garney.com, (702) 210-6888

Owner and Design-Builder further agree as follows:

ARTICLE 1 – THE WORK

1.01 *General Description:* Design-Builder shall complete all Work as specified or indicated in the Contract. The Work is generally described as the design and construction of a river intake and pump station as described in Exhibit C – Project Criteria.

1.02 *Work Stages:*

- A. *Preliminary Stage:* As set forth in more detail in Exhibit A, which is attached and incorporated by reference, Design-Builder shall perform the following in the Preliminary Stage: Study and Report services; drafting of Preliminary Technical Documents; and Construction Planning services (including preparation of proposed Completion Stage Price).

- B. *Completion Stage:* If Owner and Design-Builder advance to the Completion Stage pursuant to Paragraph 3.03, then Design-Builder shall perform the following in the Completion Stage: Preparation of Construction Drawings and Construction Specifications, based on the Preliminary Technical Documents; Construction; Start-up, Testing, and Commissioning; and Correction Phase services.
- C. Regardless of stage, the Work is subject to the terms of the Standard General Conditions.

ARTICLE 2 – CONTRACT TIMES

2.01 *Time of the Essence*

- A. All time limits for Design-Builder’s attainment of Milestones, Substantial Completion, and completion and readiness for final payment, as stated in the Contract, are of the essence of the Contract.

2.02 *Contract Times: Preliminary Stage*

- A. Design-Builder shall complete the Work under the Preliminary Stage within 335 days of the Effective Date.
- B. In addition to Design-Builder’s Preliminary Stage completion commitment above, the parties shall meet the following Preliminary Stage Schedule:

<u>PRELIMINARY STAGE SCHEDULE</u>		
<u>Party</u>	<u>Action</u>	<u>Schedule</u>
Design-Builder	Furnish three (3) review copies of the Project Management Plan to Owner.	Within 30 days of the Effective Date.
Owner	Submit comments regarding the Project Management Plan to Design-Builder.	Within 15 days of the receipt of Project Management Plan from Design-Builder.
Design-Builder	Furnish three (3) copies of the initial Basis of Design Report to Owner.	Within 90 days of the Effective Date.
Design-Builder	Furnish three (3) copies of the 1 st draft BDR to Owner.	Within 180 days of the Effective Date.
Owner	Submit comments regarding the 1 st draft BDR to Engineer.	Within 30 days of the receipt of 1 st draft BDR from Engineer.
Design-Builder	Furnish 3 copies of the 2 nd draft BDR to Owner.	Within 270 days of the Effective Date.
Design-Builder	Furnish to Owner a final, binding Completion Stage Price based on the Stipulated Sum method of compensation.	Within 335 days of the Effective Date.

2.03 *Contract Times: Completion Stage*

- B. Design-Builder shall furnish the Work in order to achieve Substantial Completion on or before [TBD], and the Work will be completed and ready for final payment on or before [TBD], as these dates may be duly adjusted pursuant to the Contract.

2.04 *Liquidated Damages; Early Completion Bonus*

- A. *Preliminary Stage:* No liquidated damages or any delay-related damages shall be assessed by the Owner for the Preliminary Stage work; however, the Design-Builder is expected to execute the work diligently to the submission of a Completion Stage price and schedule to maintain overall work progress.
- B. *Construction:* Design-Builder and Owner recognize that time is of the essence as stated in Paragraph 2.01 and that Owner will suffer financial and other losses if the Work is not completed within the times specified in Paragraph 2.03, as such may be revised in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving, in a lawsuit or arbitration proceeding, the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Design-Builder agree that as liquidated damages for delay (but not as a penalty):
 1. *Substantial Completion:* Design-Builder shall pay Owner \$[TBD] for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 2.03.B for Substantial Completion, until the Work is substantially complete. Since the completion date is unknown at this time, liquidated damages for late completion will be addressed prior to the commencement of the Completion Stage.
 2. *Completion of Remaining Work:* After Substantial Completion, if Design-Builder shall neglect, refuse, or fail to complete the remaining Work within the Contract Time (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, as specified in Paragraph 2.03.D above, then Design-Builder shall pay Owner \$[TBD] for each day that expires after such until the Work is completed and ready for final payment.
 3. Liquidated damages for failing to timely attain Substantial Completion and Final Completion are not additive, and will not be imposed concurrently. Liquidated damages for failing to attain Substantial Completion shall take precedence. The liquidated damages provided herein shall be the sole and exclusive remedy for any unexcused delay in the performance of Design-Builder's obligations hereunder and shall be in lieu of any and all other liability to the Owner for extra costs, losses, expenses, claims, penalties and any other damages of whatever nature.
- C. *Bonus:* Design-Builder and Owner further recognize the Owner *may* realize financial and other benefits if the Work is substantially completed prior to the time specified for Substantial Completion. Accordingly, Owner and Design-Builder *may* agree that as a bonus for early completion, Owner shall pay Design-Builder \$[TBD] for each day prior to the time specified in Paragraph 2.03 for Substantial Completion as duly adjusted pursuant to the Contract that the Work is substantially complete. The maximum value of the bonus shall be limited to \$[TBD].

ARTICLE 3 – CONTRACT PRICE

3.01 Contract Price Definitions

- A. For purposes of this Agreement, the following definitions apply:
 - 1. Contract Price—The money that Owner has agreed to pay Design-Builder for performance and completion of the Work in accordance with the Contract Documents. Contract Price is comprised of the Preliminary Stage Price and the Completion Stage Price, and when applicable the Owner’s Completion Contingency. Contract Price is subject to and governed by any duly established Stipulated Sum.
 - 2. Preliminary Stage Price—the portion of the Contract Price established in Paragraph 3.02, as Design-Builder’s compensation for the performance of the Preliminary Stage Work.
 - 3. Completion Stage Price—the portion of the Contract Price established in Paragraph 3.03, as Design-Builder’s compensation for the performance of the Completion Stage Work.
 - 4. Owner’s Completion Contingency—When applicable, a contingent amount included in the Contract Price for use by Owner, at its sole discretion, in funding the Completion Stage Price.

3.02 Preliminary Stage

- A. For performance of the Preliminary Stage Work in accordance with the Contract Documents, Owner shall pay Design-Builder the Preliminary Stage Price (1) pursuant to the following compensation methods, and (2) in the amounts that follow, subject to adjustment under the Contract, and subject to the applicable terms of Exhibit B:

Category	Compensation Method	Amount
Study and Report Phase	Stipulated Price	\$ 175,547
Preliminary Technical Documents	Standard Hourly Rates NTE initial proposal	\$ 323,498
Construction Planning	Standard Hourly Rates NTE initial proposal	\$ 124,610
Total: Preliminary Stage Price		\$ 623,655

- B. Monetary amounts stated for portions of the work to be performed on a Stipulated Price basis are fixed and binding. For portions of the Work subject to the Direct Labor Costs Times a Factor or Standard Hourly Rates methods of payment, the stated monetary amounts are estimates of the amounts that will become payable for the specified services; such stated amounts are for planning purposes, are not binding on the parties, and are not the minimum or maximum amounts payable to Design-Builder under the Agreement.

3.03 Completion Stage

- A. As part of Construction Planning under the Preliminary Stage, Design-Builder is required to determine an estimate of the cost of completion of the Work, including completion of the design and all Construction labor, administration, equipment, materials, and subcontracts (“Completion Cost Estimate”). Any categories of Construction that are not included in the Construction Cost Estimate, because their price will be determined by competitive bidding as set forth in Exhibit B, should be noted. Design-Builder shall use the final Completion Cost

Estimate as the basis for developing and submitting to Owner a proposed Completion Stage Price based on the Stipulated Price (Lump Sum) method of compensation, as set forth in Exhibit B.

- B. The proposed Completion Stage Price shall be based on the Contract Times established in this Agreement; or if no Contract Times were established with respect to the Completion Stage when the Agreement was executed, then upon proposed or mutually-agreed Contract Times developed during the Preliminary Stage and expressly stated as an essential part of Design-Builder's Completion Stage Price submittal to Owner.
- C. The proposed Completion Stage Price submitted by Design-Builder to Owner constitutes an offer that is binding on Design-Builder for 30 days.
- D. After receipt of the proposed Completion Stage Price from Design-Builder, Owner shall either (1) accept the Completion Stage Price, in which case the Completion Stage Price is binding on both Owner and Design-Builder for the performance of the Completion Stage Work; or (2) enter into negotiations with Design-Builder regarding the Completion Stage Price and the corresponding scope of Work and schedule, or (3) reject the Completion Stage Price. If Owner accepts the Completion Stage Price, or an accord is reached through negotiations, the parties shall prepare and enter into a Change Order or special amendment to the Contract, memorializing the acceptance of such Completion Stage Price, as modified by any negotiations, and establishing an adjusted Contract Price or Guaranteed Maximum Price based upon such Completion Stage Price.

If Owner does not accept the proposed Completion Stage Price, and negotiations (if any) are not successful, then the Contract shall terminate for convenience. Under such a termination for convenience,

- 1. Design-Builder shall be entitled to full payment for all Preliminary Stage Work;
- 2. Owner shall be entitled to use of the Preliminary Technical Documents only if Owner pays a supplemental termination fee of \$[TBD]; and
- 3. Owner shall assume and discharge all remaining payment obligations for any equipment or materials that Design-Builder has ordered or purchased for the Project pursuant to express authorization from Owner, and Design-Builder shall assign to Owner all rights and interests in any such equipment and materials.

3.04 *Changes in Contract Price Based on Cost of the Work*

- A. If the price of Design Professional Services covered by a Change Order or an adjustment in the Contract Price is determined on the basis of Cost of the Work, then for such Design Professional Services (exclusive of reimbursable expenses, if any) the Engineer, Project Design Professional, or other design entity performing the Design Professional Services (regardless of tier) may invoice no more than the direct labor cost of each employee providing services multiplied by a factor of [2.85], which covers labor costs, overhead, and profit.
- B. If the value of Work covered by a Change Order or an adjustment in the Contract Price is determined on the basis of Cost of the Work, and involves Work performed under Construction Subcontracts or Design Agreements, the allowable mark-ups on lower tier invoices shall be limited as stated in Paragraph 11.05.D.2.c and d of the General Conditions.

ARTICLE 4 – PAYMENT PROCEDURES

4.01 *Submittal and Processing of Payments*

- A. Design-Builder shall submit Applications for Payment for processing by Owner in accordance with Article 14 of the General Conditions.

4.02 *Progress Payments; Retainage*

- A. During the Preliminary Stage the Owner shall make payment within 30 days of the receipt of Design-Builder's invoice for Preliminary Stage services. Owner shall not withhold any portion of such payment as retainage.
- B. During the Completion Stage the Owner shall make progress payments on account of the Completion Stage Price on the basis of Design-Builder's Applications for Payment on or about the 30th day of each month during construction as provided in Paragraphs 4.02.A.1 and 4.02.A.2 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.
 - 1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract.

Five percent (5%) percent of the value of Work completed each period will be withheld as retainage.
 - 2. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Design-Builder to 100 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 14.01.G of the General Conditions, and less 200 percent of Owner's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.
 - 3. Notwithstanding the provisions above, no retainage shall be withheld with respect to the portion of an Application for Payment pertaining to engineering, design, and other professional services.
- C. *For Design-Builder's fee:* Progress payments on account of the Design-Builder's fee will be made as follows:
 - 1. If Design-Builder's fee is a percentage fee, payments prior to Substantial Completion will be in an amount equal to the percent of work completed (less in each case payments previously made on account of such fee), and upon Substantial Completion in an amount sufficient to increase total payments to Design-Builder on account of that fee to 100 percent of Design-Builder's fee.
- D. Notwithstanding any provision above, no retainage shall be withheld with respect to the portion of a payment application pertaining to engineering, design, and other professional services.

4.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 14.06 of the General Conditions, Owner shall pay the final amount due.

ARTICLE 5 – INTEREST

5.01 *Interest Rate*

- A. All amounts not paid when due shall bear interest at the rate stated in a governing prompt payment statute.

ARTICLE 6 – INSURANCE AND BONDS

6.01 *Insurance*

- A. Design-Builder and Owner shall obtain and maintain insurance as required by the General Conditions and Supplementary Conditions.

6.02 *Performance, Payment, and Other Bonds*

- A. As part of the Work under the Completion Stage, the Design-Builder shall furnish a performance bond and a payment bond, each in an amount equal to the Completion Stage Price as duly established and modified under this Contract, as security for the faithful performance and payment of Design-Builder's obligations under the Completion Stage. These bonds shall be in the form prescribed by the Contract and governed by the provisions of Paragraph 6.01 of the General Conditions. Design-Builder shall also furnish such other bonds as are required by other specific provisions of the Contract.

ARTICLE 7 – DESIGN-BUILDER'S REPRESENTATIONS

7.01 *Representations*

- A. Design-Builder makes the following representations for Owner's reliance:
 - 1. Design-Builder has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
 - 2. Design-Builder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and visible Site conditions based upon its visual examination of the Site that may affect cost, progress, and performance of the Work.
 - 3. Design-Builder is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
 - 4. Design-Builder has considered the information known to Design-Builder itself, and to Construction Subcontractors and Project Design Professionals that Design-Builder has selected as of the Effective Date; information commonly known to design professionals, design-builders, and contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings (if any) identified in the Contract Documents or otherwise made available to Design-Builder, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques,

sequences, and procedures of construction to be employed by Design-Builder; and (3) Design-Builder's safety precautions and programs.

5. Based on the information and observations referred to in the preceding paragraph, Design-Builder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary prior to entry into the Contract at the Contract Price, subject to the Contract Times.
6. Design-Builder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
7. Design-Builder has given Owner written notice of all conflicts, errors, ambiguities, or discrepancies that Design-Builder has discovered in the Contract Documents, and the written response from Owner is acceptable to Design-Builder.
8. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
9. Design-Builder's entry into this Contract constitutes an incontrovertible representation by Design-Builder that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 8 – ACCOUNTING RECORDS

8.01 *Maintaining and Preserving Cost Records*

- A. Design-Builder shall keep such full and detailed accounts of materials incorporated and labor, services, and equipment utilized for the Work as may be necessary for proper financial management under this Agreement. Subject to prior written notice, Owner shall be afforded reasonable access during normal business hours to all Design-Builder's records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to cost-based or time-based compensation or reimbursement of any type or description, including but not limited to direct labor hours, standard rate hours, reimbursable expenses, change order pricing, and the Cost of the Work (if applicable). Design-Builder shall preserve all such documents for a period of three years after the final payment by Owner.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

- A. The Contract Documents consist of the following:
 1. This Agreement (pages 1 to 11, inclusive).
 2. General Conditions (pages 1 to 59, inclusive).
 3. Supplementary Conditions (pages 1 to [REDACTED], inclusive).
 4. Exhibit A, Preliminary Stage Work.
 5. Exhibit B, Compensation.

6. Exhibit C, Project Criteria
7. Addenda (numbers [] to []).
8. Design-Builder's Proposal.
9. Proposal Amendment.
10. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Performance Bond (in the form attached).
 - b. Payment Bond (in the form attached).
 - c. Other Bonds.
 - d. Work Change Directives.
 - e. Change Orders.
 - f. Record Drawings and Record Specifications.
11. Other Exhibits to this Agreement (enumerated as follows):
 - a. *[List]*.
 - B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
 - C. There are no Contract Documents other than those listed above in this Article 9.
 - D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and Supplementary Conditions.

10.02 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract.

10.03 *Successors and Assigns*

- A. Owner and Design-Builder each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract.

10.04 *Severability*

- A. Any provision or part of the Contract held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Design-Builder, who agree that the Contract shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Design-Builder's Certifications*

- A. Design-Builder certifies that it has not engaged in corrupt, fraudulent, collusive or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 15.05:
 - 1. "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the bidding process or in the Contract execution;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

IN WITNESS WHEREOF, Owner and Design-Builder have signed this Agreement.

This Agreement will be effective on [] (which is the Effective Date of the Contract).

OWNER:

DESIGN-BUILDER:

North San Joaquin Water Conservation District

Garney Pacific, Inc.

By: _____

By: _____

Title: _____

Title: _____

[If Design-Builder is a corporation, partnership, LLC, or a joint venture, attach evidence of authority to sign. In the case of a joint venture, expand the signature section to accommodate execution of the Agreement by an authorized representative of each joint venturer.]

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

P.O. Box 334

17510 W. Bethany Rd.

Victor, CA 95253

Tracy, CA 95391

License No.: 999415 A – General Engineering Contractor
(where applicable)

[If Owner is a corporation, partnership, or LLC, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.]

[State a license number in those states or other jurisdictions where applicable or required.]

This is **EXHIBIT A**, consisting of 5 pages, referred to in and part of the **Agreement between Owner and Design-Builder for Progressive Design-Build** dated [], [].

EXHIBIT A – PRELIMINARY STAGE WORK

ARTICLE 1 –BASIC SERVICES: Preliminary Stage

A1.01 Study and Report Phase

- A. In the Study and Report Phase of the Preliminary Stage, the Design-Builder shall:
1. Review the Conceptual Documents, if any, and other information furnished by Owner.
 2. Consult with Owner as needed to define and clarify Owner’s requirements for the Project, as set forth in the Conceptual Documents or otherwise, including design objectives and constraints; space, capacity and performance requirements; flexibility and expandability needs; quality standards; and Owner’s budgetary limitations.
 3. Identify available data, information, reports, facilities plans, and site evaluations; obtain such items from Owner or others; review.
 4. Request that Owner obtain data or services that are not part of Design-Builder’s Preliminary Stage Services and are reasonably required to enable Design-Builder to complete its Preliminary Stage Services.
 5. If Owner has already identified one or more potential solutions to meet its Project requirements, in the Conceptual Documents or otherwise, then proceed with the study and evaluation of such potential solution(s).
 6. If Owner has not identified one or more potential solutions for study and evaluation, or if the Owner’s proposed solutions are not feasible, then identify one or more potential solutions to meet Owner’s Project requirements, and study and evaluate such potential solution(s).
 7. Identify and analyze relevant requirements of governmental authorities having jurisdiction over the Project; consult with such governmental authorities as necessary.
 8. Visit the Site(s) to review existing conditions and facilities, unless such visits are not necessary or applicable to meeting the Study and Report objectives.
 9. Review any environmental assessments and impact statements furnished by Owner, and analyze the effect of any such environmental documents (including any mitigation measures identified in the documents) on the Project, including the contemplated design and construction.
 10. Recommend to Owner those solutions which in Design-Builder’s judgment meet Owner’s requirements for the Project.
 11. Prepare a report (the “Report”) which will, as appropriate, contain schematic layouts, sketches and conceptual design criteria, and appropriate exhibits; and indicate the applicable requirements, considerations involved, and Design-Builder’s recommended solutions. This Report will be accompanied by Design-Builder’s estimate of Design-Build Cost for each recommended solution. This Report shall include descriptions of any

EXHIBIT A – Preliminary Stage Work.

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deviations from the Contract Documents, particularly the Conceptual Documents and excerpts from Design-Builder's Proposal.

12. In the Report, advise Owner of any limitations on the use or applicability of the Report.
 13. If requested to do so by Owner, assist Owner in identifying opportunities for enhancing the sustainability of the Project.
 14. Use ASCE 38, "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data" as a means to develop a scope of work and procedure for the identification and mapping of existing utilities, consistent with the provisions of Paragraph 5.05 of the General Conditions regarding Underground Facilities.
 15. Develop a scope of work and survey limits for any topographic and other surveys necessary for design.
 16. If Owner and Design-Builder have not already stipulated that certain Work will be performed by Construction Subcontractors selected on a competitive-bid basis (or by Design-Builder if it bids on such work and is the successful bidder), identify Construction Subcontract bid packages that in Design-Builder's judgment should be let by competitive bidding.
 17. Perform or furnish the following additional Study and Report Phase tasks or deliverables: [TBD].
 18. Furnish 5 review copies of the Report (and any other deliverables) to Owner pursuant to the Preliminary Stage Schedule and review it with Owner.
 19. Revise the Report (and any other deliverables) in response to Owner's comments, as appropriate, and furnish 5 copies of the revised Report (and any other deliverables) to the Owner pursuant to the Preliminary Stage Schedule.
- B. Design-Builder's Work under the Study and Report Phase of the Preliminary Stage will be considered complete on the date when Design-Builder has delivered the copies of the revised Report (and any other deliverables) to Owner.

A1.02 *Preliminary Technical Documents*

- A. After acceptance by Owner of the Report, selection by Owner of a recommended solution and indication of any specific modifications or changes in the scope, extent, character or design requirements of the Project desired by Owner, and upon written authorization from Owner, Design-Builder shall:
1. Conduct necessary field surveys and topographic and utility mapping for the purpose of preparing Preliminary Technical Documents. Comply with the scope of work and procedure for the identification and mapping of existing utilities selected during the Study and Report phase based on ASCE 38, "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data," consistent with the provisions of Paragraph 5.05 of the General Conditions.
 2. Visit the Site as needed to prepare the Preliminary Technical Documents.
 3. Make measured drawings and conduct additional investigation of the Site.

EXHIBIT A – Preliminary Stage Work.

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4. Prepare or furnish Preliminary Technical Documents (including but not limited to final design criteria, preliminary drawings, outline specifications, and written descriptions of the Project) that show or describe the character, scope, and intent of, the Construction to be performed or furnished by Design-Builder in the Completion Stage. The Preliminary Technical Documents shall be based on or consistent with the Report unless noted otherwise. The Preliminary Technical Documents will be taken to a point of [TBD] percent of the final design.
 5. Provide in writing to Owner descriptions of any deviations in the Preliminary Technical Documents from the Contract Documents, particularly the Conceptual Documents and the excerpts from the Design-Builder's proposal, or the Report.
 6. Furnish to Owner 5 final copies of the Preliminary Technical Documents according to the Preliminary Stage Schedule, and review them with Owner.
 7. Revise the Preliminary Technical Documents in response to Owner's comments, as appropriate, and furnish 5 copies of the revised Preliminary Technical Documents to the Owner pursuant to the Preliminary Stage Schedule.
- B. Design-Builder's Work under the Preliminary Technical Documents Phase of the Preliminary Stage will be considered complete on the date when Design-Builder has delivered final copies of the Preliminary Technical Documents to Owner.

A1.03 *Construction Planning*

- A. *Planning Tasks:* Concurrent with Design-Builder's development of the Preliminary Technical Documents, Design-Builder shall begin to plan and organize anticipated construction activities. Tasks shall include (but are not limited to) the following:
1. Identification of potential Construction Subcontractors and Suppliers.
 2. Constructability reviews, with ongoing feedback to the design professionals.
 3. Development and refinement of the construction schedule, with the addition of greater scheduling detail as the design and construction planning progresses.
 4. Identification of potential for phased or fast-track construction.
 5. Consideration of off-site fabrication options.
 6. Identification of the need for or advantage in making long lead-time equipment and materials purchases.
 7. Development of Subcontract bid packages that will be let by competitive bidding.
- B. *Development of Completion Cost Estimate:* Throughout the Preliminary Stage, Design-Builder shall develop and refine the Completion Cost Estimate, based on Site information, square-foot or similar estimated costs, the draft design, budget considerations, construction planning, projected schedule, quantity estimates, unit prices, cost of materials and labor, anticipated allowances, permits and taxes, storage and transportation costs, insurance costs, information from prospective Subcontractors and Suppliers, construction-phase engineering services, standard contingencies, administrative costs, Contract terms and conditions, and other relevant factors. Design-Builder shall conduct the development and refinement of the Completion Cost Estimate using a transparent "open book" process. Under the open book process:

EXHIBIT A – Preliminary Stage Work.

1. Owner and Design-Builder shall meet as needed to review the status of the draft Completion Cost Estimate, including detailed line item components and supporting data and information.
 2. Owner may at any time during the Preliminary Stage indicate to Design-Builder ways in which the draft Completion Cost Estimate might be improved, including opportunities for Owner to furnish materials or equipment, access to improved information regarding the Site or local conditions, changes in scope or schedule, and enhancing competition.
- C. *Final Completion Cost Estimate:* After delivering the final Preliminary Technical Documents, as duly reviewed and revised, to Owner, as required in Paragraph A1.02 above, Design-Builder shall prepare a final Completion Cost Estimate, based on such final Preliminary Technical Documents and all other relevant factors relevant to cost.
- D. *Completion Price:* Pursuant to the Preliminary Stage Schedule, Design-Builder shall submit to Owner proposed Completion Price(s) as set forth in Paragraph 3.03 of this Agreement. The proposed Completion Price(s) shall indicate the Contract Times applicable to each specific Contract Price.

A1.04 *Initial Equipment and Materials Procurement*

- A. As Design-Builder develops the Preliminary Technical Documents, it shall:
1. identify equipment to be installed during construction that (a) requires early procurement to allow sufficient time for manufacture or customization, and delivery to the Site, or (b) will not be readily available, or will be inordinately expensive if not procured well in advance of construction.
 2. Identify materials needed for construction that (a) should be procured and stockpiled to avoid potential shortages, (b) are currently priced advantageously and should be procured or ordered to avoid possible price fluctuations, (c) require early procurement to give sufficient time for shipment and delivery.
- B. In the case of any such item, Design-Builder shall propose to Owner early procurement, prior to completion of the Preliminary Technical Documents. Owner shall at its option (1) procure the item itself, and make the item available to Design-Builder during construction, (2) authorize Design-Builder to purchase the item, for mutually agreed compensation or reimbursement based on cost and standard mark-ups, or (3) inform Design-Builder that the item is not to be procured until a later point, with acknowledged acceptance by Owner of the risk of adverse price or schedule impacts.

ARTICLE 2 – ADDITIONAL SERVICES

A2.01 *Owner's Authorization in Advance Required*

- A. If authorized in writing by Owner, during the Preliminary Stage the Design-Builder shall furnish or obtain from others Additional Services of the types listed below. These services will be paid for by Owner as indicated in Article 4 of the Agreement.
1. Prepare applications and supporting documents (in addition to those furnished under Basic Services) for private or governmental grants, loans, or advances in connection with the Project; prepare or review environmental assessments and impact statements; review and evaluate the effects on the design requirements for the Project of any such

EXHIBIT A – Preliminary Stage Work.

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- statements and documents prepared by others; and assist in obtaining approvals of authorities having jurisdiction over the anticipated environmental impact of the Project.
2. Verify the accuracy of drawings or other information furnished by Owner.
 3. Perform services resulting from significant changes in the scope, extent or character of the portions of the Project presented or specified by Design-Builder or its design requirements including, but not limited to, changes in size, complexity, Owner's schedule, character of construction, or method of financing; and revise previously accepted studies, reports, technical exhibits, or other Contract Documents when such revisions are required by changes in Laws or Regulations enacted subsequent to the Effective Date of the Agreement, or are due to any other causes beyond Design-Builder's control.
 4. Perform services required as a result of Owner's providing incomplete or incorrect Project information.
 5. Provide renderings or models for Owner's use.
 6. Undertake investigations and studies of Owner's operations including, but not limited to, detailed consideration of operations, maintenance, and overhead expenses; prepare feasibility studies, cash flow and economic evaluations, rate schedules, and appraisals; assist in obtaining financing for the Project; evaluate processes available for licensing, and assist Owner in obtaining process licensing, audits, or inventories required in connection with construction performed by Owner.
 7. Perform services requiring out-of-town travel by Design-Builder, other than for visits to the Site or Owner's office.
 8. Prepare for, coordinate with, participate in, and respond to structured independent review processes, including, but not limited to, construction management, cost estimating, project peer review, value engineering, and constructibility review requested by Owner; and perform or furnish services required to revise studies, reports, Technical Documents or other Proposal Documents as a result of such review processes.

EXHIBIT A – Preliminary Stage Work.

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This is **EXHIBIT B-1**, consisting of 1 page, referred to in and part of the **Agreement between Owner and Design-Builder for Progressive Design-Build** dated [], [].

B-1: PRELIMINARY STAGE—STIPULATED PRICE

Article 3 of the Agreement is supplemented as follows:

B3.01 Preliminary Stage Work Subject to Stipulated Price Compensation

- A. For each phase of Work under the Preliminary Stage that is subject to Stipulated Price compensation under Paragraph 3.02 of the Agreement, Owner shall pay Design-Builder for performance of such Work the Stipulated Price indicated in that paragraph.
- B. The Stipulated Price includes compensation for the subject Work and the services, labor, and materials furnished by Design-Builder's Project Design Professionals and Construction Subcontractors, if any. Appropriate factors have been incorporated into the Stipulated Price to account for labor, overhead, profit, and expenses.
- C. The portion of the Stipulated Price billed will be based upon Design-Builder's estimate of the proportion of the total Work actually completed during the billing period to the Stipulated Price for the phase.

This is **EXHIBIT B-2**, consisting of 1[] pages, referred to in and part of the **Agreement between Owner and Design-Builder for Progressive Design-Build** dated [], [].

B-2: PRELIMINARY STAGE—DIRECT LABOR COSTS TIMES A FACTOR – NOT USED

This is **EXHIBIT B-3**, consisting of 1[] pages, referred to in and part of the **Agreement between Owner and Design-Builder for Progressive Design-Build** dated [], [].

B-3: PRELIMINARY STAGE—STANDARD HOURLY RATES

Article 3 of the Agreement is supplemented as follows:

B3.01 *Preliminary Stage Work Subject to Standard Hourly Rates Compensation*

- A. For each phase of Work under the Preliminary Stage that is subject to Standard Hourly Rates compensation under Paragraph 3.02 of the Agreement, Owner shall pay Design-Builder for performance of such Work an amount equal to cumulative hours devoted to the Work under the specific phase by each class of design and construction professionals engaged directly in providing such services, regardless of the contractual tier of such design professionals' employers, times Standard Hourly Rates for each applicable billing class for all services rendered, plus reimbursable expenses, if any.
- B. Design-Builder's Standard Hourly Rates Schedule is attached to this Exhibit B as Appendix 1.

This is **EXHIBIT B-4**, consisting of 1 page, referred to in and part of the **Agreement between Owner and Design-Builder for Progressive Design-Build** dated [], [].

B-4: PRELIMINARY STAGE—ADDITIONAL SERVICES

Article 3 of the Agreement is supplemented as follows:

B3.02 Preliminary Stage—Additional Services

A. Owner shall pay Design-Builder for Additional Services as follows:

For Work performed by design and construction professional personnel engaged directly in providing services pursuant to Article A2 of Exhibit A, regardless of the contractual tier of such design and construction professionals' employers, an amount equal to the cumulative hours devoted to such services by each class of design and construction professionals times hourly rates for each applicable billing class for all Additional Services, plus Reimbursable Expenses, if any. The Design-Builder's Standard Hourly Rates and Reimbursable Expenses Schedule are attached to this Exhibit B as Appendix 1 and Appendix 2. ***[Notes: 1. Prepare or furnish a schedule of standard hourly rates for the categories of professionals likely to contribute to the subject Preliminary Stage Work. 2. User may wish to use Exhibit B-5 as starting point for preparation of an appendix that lists agreed-upon rates for common reimbursable expenses.]***

1. Standard Hourly Rates set forth in Appendix 1 to this Exhibit B include salaries and wages paid to personnel in each billing class plus the cost of customary and statutory benefits, general and administrative overhead, non-project operating costs, and operating margin or profit.
2. The amounts payable to Design-Builder for Reimbursable Expenses will be the internal expenses actually incurred or allocated by Design-Builder with respect to the Additional Services; plus all invoiced external Reimbursable Expenses allocable to the Additional Services.

EXHIBIT B-4: Preliminary Stage—Additional Services.

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This is **EXHIBIT B-5**, consisting of 1 page, referred to in and part of the **Agreement between Owner and Design-Builder for Progressive Design-Build** dated [], [].

B-5: PRELIMINARY STAGE—REIMBURSABLE EXPENSES

Article 3 of the Agreement is supplemented as follows:

B3.03 Preliminary Stage—Reimbursable Expenses

- A. For all Preliminary Stage Work, other than Initial Equipment and Materials Procurement, in addition to other compensation as set forth in the Agreement including this Exhibit B, Owner shall also reimburse Design-Builder for specified expenses at the rates set forth in Table 1 below.
- B. Reimbursable expenses include the expenses identified in Table 1 and the following: transportation (including mileage), lodging, and subsistence incidental thereto; providing and maintaining field office facilities including furnishings and utilities; toll telephone calls, mobile phone charges, and courier charges; reproduction of reports, Technical Documents, and similar Project-related items; and Subcontractor’s charges. In addition, if authorized in advance by Owner, reimbursable expenses will also include expenses incurred for the use of highly specialized equipment. ***[Revise this paragraph to suit the specific needs of the Project’s Preliminary Stage Work. If expenses are to be covered by the ordinary compensation for Preliminary Stage Work (for example by a Stipulated Price) delete the text of this exhibit, and the table, and indicate “Reimbursable Expenses: None.”***
- C. The amounts payable to Design-Builder for reimbursable expenses will be the Project-related internal expenses actually incurred or allocated by Design-Builder, plus all invoiced external reimbursable expenses allocable to the Project, the latter multiplied by a factor of [].
- D. **Table 1: Reimbursable Expense Rates**

8"x11" Copies/Impressions	\$ []/page
Copies of Drawings	\$ []/sq. ft.
Mileage (auto)	\$ []/mile
Air Transportation	at cost
CAD Charge	\$ []/hour
Laboratory Testing	at cost
Health and Safety Level D	\$ []/day
Health and Safety Level C	\$ []/day
Meals and Lodging	at cost

This is **EXHIBIT B-6**, consisting of 1[] pages, referred to in and part of the **Agreement between Owner and Design-Builder for Progressive Design-Build** dated [], [].

B-6: COMPLETION STAGE—COST OF COMPLETION OF THE WORK PLUS A FEE, SUBJECT TO A GUARANTEED MAXIMUM PRICE – NOT USED

EXHIBIT B-7: Completion Stage Price—Stipulated Price.

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This is **EXHIBIT B-7**, consisting of 1 page, referred to in and part of the **Agreement between Owner and Design-Builder for Progressive Design-Build** dated [], [].

B-7: COMPLETION STAGE PRICE—STIPULATED PRICE

ARTICLE 1 – STIPULATED PRICE

1.01 Owner shall pay Design-Builder for performance of the Completion Stage Work in accordance with the Contract Documents the following stipulated amount: [TBD] (Completion Stage Price).

ARTICLE 2 – COMPETITIVE BIDDING OF SPECIFIED SUBCONTRACTED WORK

2.01 *Work to be Subcontracted After Competitive Bidding*

- A. As part of Construction Planning services during the Preliminary Stage, Design-Builder shall prepare bid packages for the following categories of Construction, together with any other categories of Construction that the parties mutually agree shall be competitively bid as a result of Study and Report Phase or Construction Planning Phase tasks:
 - 1. *Site civil package*
 - 2. *Structural package*
 - 3. *Mechanical package*
 - 4. *Electrical package*
- B. The Completion Stage Price agreed to under Paragraph 3.03 shall not include compensation for the performance of the packages of Construction to be competitively bid. The Completion Stage Price agreed to under Paragraph 3.03 shall include anticipated administrative costs associated with such Construction.
- C. Design-Builder or a Construction Subcontractor shall solicit bids from subcontractors for the bid packages. The bidding procedures, including advertisements for bids and instructions to bidders, shall be consistent with public bidding practices in the jurisdiction in which the Project is located. Design-Builder or Construction Subcontractor shall award each bid package to the responsible bidder submitting the best value bid.
- D. The Completion Stage Price shall be subject to increase (when applicable funded by using the Owner's Completion Contingency, at Owner's discretion) based on the amount of each subcontract awarded, and the parties shall enter into a change order adjusting the Contract Price.

EXHIBIT B-7: Completion Stage Price—Stipulated Price.

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North San Joaquin Water Conservation District North Pump Station Improvements Project

Exhibit C

Project Criteria

OVERVIEW

The District hereby sets forth the criteria required by the North Pump Station Improvements Progressive Design Build (PDB) Project to achieve a reliable means for diverting surface water from the Mokelumne River under the District's water right and any other condition that may apply. Water diverted is intended to be used to provide in-lieu recharge by providing pressurized irrigation water and off-season direct recharge through field flooding, also known as Flood Managed Aquifer Recharge (FloodMAR).

Once completed, the river intake and pump station must be able to divert surface water under all river conditions at any time of the year.

WATER RIGHTS

NSJWCD has an appropriative Permit 10477 to divert up to 20,000 cfs from the Mokelumne River. The North Pump Station is an existing authorized point of diversion under Permit 10477, for diversions of up to 40 cfs from that point of diversion.

San Joaquin County (SJC) has a pending water right application to divert more water from the Mokelumne River during wet years. The North Pump Station is a proposed point of diversion under the pending SJC application.

CAPACITIES AND PHASING

The existing North Pump Station and Intake does not serve the current or future needs of the district because it was designed to deliver low head water during only the irrigation season and is currently inoperable. To meet current irrigation demand, most growers along the system need pressurized water for drip and micro-sprinkler irrigation systems to serve vineyards and orchards. Also, water is only available in about half of years for the irrigation season. Due to climate variability and increased environmental flow obligations on the river, there is more water available to NSJWCD in the non-irrigation season for recharge. Therefore, the system needs to be modernized to (1) allow the district to maximize the low head delivery of water for recharge in both the irrigation and non-irrigation seasons, and (2) provide pressurized surface water in the irrigation season.

The current pump station and fish screen is also prone to maintenance issues due to its location on the river and problematic access. The fish screen is covered with sand after high flow events, and the entire system is not always operational at the widely varying river elevations that occur at the intake location. The new system needs to address these challenges.

The district envisions modernizing the system in at least three phases as follows:

Phase I (Initial, currently under development)

- 12 cfs diversion using interim pump/screen
- Accomplish up to 4,000 acre-feet annually (afa) of direct recharge through recharge basins and/or Flood MAR
- 5-10 acre direct recharge basin (Assumed operation: average delivered flow rate of 5 cfs (10 af/day) over 200 days for 2,000 afa)
- 400 acres of land under seasonal FloodMAR Agreements (Assumed operation: average delivered flow rate of 7 cfs (14 af/day) rotating between 10 different 40 acre blocks for 90 days between October 1st and March 1st (28 x 90 = 2520))
- Accomplish up to 2,000 af of in-lieu recharge through deliveries of pressurized surface water to approximately 600 acres of irrigated farmland

Phase II (2026-2033, the Progressive Design Build Project)

- 40 cfs diversion using new pump/screen to accomplish up to 10,000 afa of direct recharge through recharge basins and/or Flood MAR
- 5-10 acre direct recharge basin (Assumed operation: average delivered flow rate of 5 cfs (10 af/day) over 200 days for 2,000 afa).
- 1,000 acres of land under seasonal Flood MAR Agreements (Assumed operations: average delivered flow rate of 30 cfs (60 af/day) rotating between 25 different 40-acre blocks for 90 days between October 1st and March 1st (120 x 90 = 10,800))
- See Figure 3 - Flood MAR lands (Lakso, Reynolds, Cranston, Fuso, Graffigna – which others are good candidates?) with new pipelines (note sizes and flow rates) to deliver water to these lands) – Note we have the maps from Deverell that show that best recharge areas. We should mark the fields we think are best and have him evaluate the selections and provide input.
- Accomplish 6,000 af of in-lieu recharge through deliveries of surface water to approximately 2000 acres of irrigated farmland
- See Figure 4 – Lands that can be served with irrigation water from Phase I and Phase I pipes – chart with acres, crops, flow rate requirements, annual irrigation water demands)

Phase III (2034 on, accommodated through proper Progressive Design-Build Project design planning)

- 60 cfs diversion using new pump/screen to [NOTE – THE DESIGN/BUILD PROJECT NEEDS TO SPECIFY THAT IT HAVE IMMEDIATE CAPACITY OF 40 CFS AND ABILITY TO EXPAND TO 60 CFS] (Accomplish up to 20,000 afa of direct recharge through recharge basins and/or Flood MAR)

SUMMARY OF RECOMMENDED DESIGN PARAMETERS FOR PUMP STATION AND INTAKE

- Permitted fish screen that can handle/avoid sand build up and operate under wide variations in river level
- Initial pumping capacity of 40 cfs, expandable to 60 cfs through a combination of low head and pressurized delivery
- SCADA system, meters, remote operation that works with the District's existing SCADA system
- Design for access and ease of operations and maintenance
- Design that is environmentally sensitive and will have achievable permitting success
- Conveyance from pump station to District's distribution system capable of conveying 60 cfs

**STANDARD GENERAL CONDITIONS OF THE
CONTRACT BETWEEN OWNER AND DESIGN-BUILDER**

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STANDARD GENERAL CONDITIONS OF THE CONTRACT BETWEEN OWNER AND DESIGN-BUILDER

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Contract Documents and printed with initial capital letters, the following terms have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*: Written or graphic instruments issued by Owner prior to the opening of Proposals which clarify, correct, or change the Request for Qualifications, Request for Proposals, or the proposed Contract Documents, including the Conceptual Documents.
 2. *Agreement*: The written instrument, executed by Owner and Design-Builder, that sets forth the Contract Price and Contract Times, identifies the parties, and designates the specific items that are Contract Documents.
 3. *Application for Payment*: The form which is to be used by Design-Builder during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Authorized Representative*: The individual designated by a party to represent it with respect to this Contract, as indicated in the Agreement.
 5. *Change Order*: A document which is signed by Design-Builder and Owner and authorizes an addition, deletion, or revision in the Work, or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 6. *Claim*: A demand or assertion by Owner or Design-Builder seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A request or proposal for a Change Order is not a Claim.
 7. *Conceptual Documents*: The documents prepared by or for the Owner to describe the Work to be performed, issued to Proposers during the design-builder selection process, and expressly identified in the Agreement.
 8. *Constituent of Concern*: Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. (“CERCLA”); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5101 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. (“RCRA”); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other Laws or Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

9. *Construction*: The part of the Work that consists generally of making physical improvements at the Site, and is the result of performing or furnishing of labor, the furnishing and incorporating of materials and equipment into the Work (including any correction of defective Construction), and the furnishing of services (other than Design Professional Services) and documents, all as required by the Contract Documents and Construction Drawings and Construction Specifications, as duly modified.
10. *Construction Drawings*: Documents prepared by or for Design-Builder, and approved by Owner for purposes of allowing Design-Builder to proceed with the Construction or specific portions of the Construction, and consisting of drawings, diagrams, illustrations, schedules, and other data that graphically show the scope, extent, and character of the Construction (or specific portions of the Construction) to be performed by or for Design-Builder. Construction Drawings are not Contract Documents.
11. *Construction Specifications*: Documents prepared by or for Design-Builder, and approved by Owner for purposes of allowing Design-Builder to proceed with the Construction or a specific portion of the Construction, and consisting of written requirements for materials, equipment, systems, standards, workmanship, and administrative procedures as applied to the Construction (or a specific portion of the Construction). Construction Specifications are not Contract Documents.
12. *Construction Subcontract*: A written agreement between Design-Builder and a Construction Subcontractor for provision of all or a portion of the Construction, and any delegated Design Professional Services.
13. *Construction Subcontractor*: An individual or entity (other than a Supplier) having a direct contract with Design-Builder or with any other Construction Subcontractor for the performance of a part of the Construction, and any delegated Design Professional Services.
14. *Contract*: The entire and integrated written agreement between Owner and Design-Builder concerning the Work.
15. *Contract Documents*: Those items so designated in the Agreement, and which together comprise the Contract.
16. *Contract Price*: The money that Owner has agreed to pay Design-Builder for completion of the Work in accordance with the Contract Documents.
17. *Contract Times*: The numbers of days or the dates stated in the Agreement to (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
18. *Design-Builder*: The individual or entity with which Owner has contracted for performance of the Work, as designated in the Agreement.
19. *Design Professional Services*: That part of the Work comprised of the furnishing of engineering, surveying, architecture, and other design services, and including but not limited to providing research, analysis, and conclusions regarding engineering and related matters; exercising professional judgment with respect to technical issues; the preparation of plans, reports, calculations, models, schematics, drawings, specifications, Design Submittals, the Construction Drawings, Construction Specifications, and other instruments of service; other services included in the Contract Documents and required to be performed by or under the responsible charge of licensed design professionals; and

the review of shop drawings, observation of construction, response to requests for information or interpretation, analysis of the technical aspects of Change Orders, and other engineering and related professional services provided by or for licensed design professionals during Construction.

20. *Design Agreement*: A written agreement between Design-Builder and a design firm or entity for provision of Design Professional Services.
21. *Design Submittal*: A Submittal that pursuant to Laws and Regulations or this Contract must be prepared by or under the supervision of a licensed engineer or other licensed design professional, including drawings, specifications, Construction Drawings, Construction Specifications, and revisions to such documents (but not including Record Documents).
22. *Effective Date of the Contract*: The date indicated in the Agreement on which the Contract becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
23. *Engineer*: The Project Design Professional identified as Engineer in the Agreement, and engaged by Design-Builder to provide engineering and related professional services under a Design Agreement.
24. *Hazardous Environmental Condition*: The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.
25. *Laws and Regulations; Laws or Regulations*: Any and all applicable laws, statutes, rules, regulations, ordinances, binding resolutions, codes, decrees, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens*: Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
27. *Milestone*: A principal event in the performance of the Work that the Contract requires Design-Builder to achieve by an intermediate completion date or by a time prior to Substantial Completion of Construction.
28. *Notice of Award*: The written notice by Owner to a Proposer stating that Owner will enter into the design-build contract with the Proposer.
29. *Notice to Proceed*: A written notice by Owner to Design-Builder fixing the date on which the Contract Times will commence to run and on which Design-Builder shall start to perform the Work.
30. *Owner*: The individual or entity with which Design-Builder has contracted regarding the Work, and which has agreed to pay Design-Builder for the performance of the Work, pursuant to the terms of the Contract.
31. *Owner's Consultant*: An individual or entity with which the Owner has contracted to furnish services (typically including planning, preparation of Conceptual Documents, and

advisory services) to Owner with respect to the Project, and which is identified as such in the Agreement.

32. *Owner's Site Representative*: A representative of Owner at the Site, as indicated in Paragraph 10.05.
33. *Project*: The total undertaking to be accomplished for Owner by engineers, consultants, Design-Builder, subcontractors, and others, including planning, study, design, construction, testing, start-up, and commissioning, and of which the Work to be performed under the Contract Documents is a part.
34. *Project Design Professionals*: The Engineer and any other independent entities or individuals, or employees of Design-Builder, engaged by Design-Builder or a Construction Subcontractor to provide Design Professional Services with respect to a portion of the Work.
35. *Proposal*: The documents submitted by Design-Builder in response to the Request for Proposals, setting forth technical concepts, proposed prices, and other conditions for the Work to be performed, and stating any proposed revisions, modifications, clarifications, exceptions, or supplements to the proposed Contract Documents.
36. *Proposal Amendment*: A Contract Document that is prepared after submittal of Design-Builder's Proposal; identifies mutually agreed revisions, modifications, exceptions, supplements, and clarifications to the Proposal or proposed Contract Documents; and is executed by Owner and Design-Builder.
37. *Proposer*: An entity that submits a Statement of Qualifications or Proposal to Owner.
38. *Record Documents*: The record copy of all Construction Drawings, Construction Specifications, Addenda, Change Orders, Work Change Directives, and approved Submittals maintained by Design-Builder at the Site, including any annotations to such documents made by Design-Builder during Construction.
39. *Record Drawings and Record Specifications*: Documents depicting the completed Project, or a specific portion of the completed Project, based on or comprised of the Record Documents delivered to Owner by Design-Builder at the completion of the Construction.
40. *Request for Proposals*: The document prepared by or for Owner specifying and describing Owner's objectives, the procedures to be followed in preparing and submitting a Proposal, and the process for evaluating Proposals and awarding a contract.
41. *Request for Qualifications*: The document prepared by or for Owner requesting that Proposers submit a Statement of Qualifications with respect to their candidacy for selection as Design-Builder.
42. *Schedule of Values*: A schedule, prepared and maintained by Design-Builder, allocating portions of the Contract Price to various portions of the Work, and used as the basis for reviewing Design-Builder's Applications for Payment.
43. *Site*: Lands or areas indicated in the Contract Documents as being furnished by Owner upon which Construction is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for use of Design-Builder.
44. *Statement of Qualifications*: The document submitted by a Proposer in response to the Request for Qualifications, including any completed forms, attachments, and exhibits.

45. *Submittal*: A written or graphic document, prepared by or for Design-Builder, which the Contract Documents require the Design-Builder to submit to the Owner. Submittals may include reports, preliminary drawings and specifications, cost estimates, proposed Construction Drawings and Construction Specifications, progress schedules, cash flow projections, Schedules of Values, shop drawings, product data, samples, delegated designs, certifications, proposed modifications to the Construction Drawings and Construction Specifications, results of tests and evaluations, results of source quality control testing and inspections, results of field or Site quality control testing and evaluations, sustainable design information, information on special procedures, operations and maintenance data, sustainable design closeout information, record documents, records of spare parts and extra stock materials, and other such documents required by the Contract Documents. Submittals, whether approved or accepted by Owner or not, are not Contract Documents. Claims, notices, Change Orders, Applications for Payment, and requests for information/interpretation are not Submittals.
46. *Substantial Completion*: The time at which the Construction (or a specified part thereof) has progressed to the point where it is sufficiently complete, in accordance with the Contract Documents, so that the Construction (or the specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Construction refer to Substantial Completion thereof.
47. *Supplementary Conditions*: The part of the Contract Documents which amends or supplements these General Conditions.
48. *Supplier*: A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Design-Builder or with any Construction Subcontractor to furnish materials or equipment to be incorporated in the Work by Design-Builder or a Construction Subcontractor, and any lessor of rental equipment used by Design-Builder or a Construction Subcontractor during Construction at the Site.
49. *Technical Data*: Data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding (a) subsurface conditions at the Site, (b) physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), or (c) environmental conditions at the Site, that are set forth in any geotechnical or environmental report prepared for the Project and relied upon by Design-Builder in agreeing to a price (either stipulated, or a Guaranteed Maximum Price) that includes Construction.
50. *Underground Facilities*: All underground lines, pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems, including but not limited to those that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, fire or police signal systems, or traffic or other control systems; and any encasements containing such facilities or systems.
51. *Underground Facilities Data*: Information and data shown or indicated in the Contract Documents or otherwise provided to Design-Builder by Owner with respect to existing Underground Facilities at or adjacent to the Site.
52. *Unit Price Work*: Work to be paid for on the basis of unit prices.

53. *Work*: The entire design and construction or the various separately identifiable parts thereof required to be performed or furnished by Design-Builder under the Contract Documents. Work includes and is the result of performing or furnishing Design Professional Services and Construction required by the Contract Documents and all labor, services, and documentation necessary to produce such Design Professional Services and Construction; furnishing, installing, and incorporating all materials and equipment into such Construction; and related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
54. *Work Change Directive*: A written directive to Design-Builder, issued on or after the Effective Date of the Contract, signed by Owner, ordering an addition, deletion or revision in the Work.

1.02 Terminology

- A. The words and terms discussed in Paragraph 1.02.B are not defined terms that require initial capital letters, but when used in the Contract Documents have the indicated meanings.
- B. *Intent of Certain Terms or Adjectives*:
1. The word “day” shall constitute a calendar day of 24 hours measured from midnight to the next midnight.
 2. The word “defective,” when modifying the word “Construction” refers to Construction that is unsatisfactory, faulty, or deficient in that it does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to Owner’s final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion) provided that the defect was not caused by Owner.
 3. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 4. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials or equipment or equipment complete and ready for intended use.
 5. The words “perform” or “provide” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 6. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Design-Builder, “provide” is implied.
 7. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with that meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. *Bonds:* When Design-Builder delivers the executed Agreements to Owner, Design-Builder shall also deliver to Owner such Bonds as Design-Builder may be required to furnish in accordance with Paragraph 6.01.A.
- B. *Evidence of Insurance:* Before any Work is started, Design-Builder and Owner shall each deliver to the other those certificates of insurance that Design-Builder and Owner respectively are required to purchase and maintain in accordance with Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Design-Builder four printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract. Owner shall make such original printed record version of the Contract available to Design-Builder for review.

2.03 *Conceptual Documents*

- A. *Design-Builder's Review of Conceptual Documents:*
 - 1. Design-Builder acknowledges that the Conceptual Documents furnished by Owner are preliminary and incomplete, and subject to stated limitations and reservations.
 - 2. Design-Builder shall carefully review, analyze, and verify the contents and suitability of the Conceptual Documents before proceeding with the Work (including but not limited to the Design Professional Services).
 - 3. Design-Builder shall promptly report in writing to Owner any conflict, error, ambiguity, or discrepancy that Design-Builder may discover in the Conceptual Documents, whether during such review or at any later point.
 - 4. Upon receipt of a report from Design-Builder that there is a conflict, error, ambiguity, or discrepancy in the Conceptual Documents, Owner shall either provide a written interpretation, clarification, or correction to Design-Builder, or authorize Design-Builder to correct or resolve the issue under a Change Order providing an equitable adjustment in Contract Times or Contract Price, or both.
 - 5. Design-Builder shall not proceed with any Work affected by a reported conflict, error, ambiguity, or discrepancy in the Conceptual Documents until the issue is resolved.
- B. Owner shall not be responsible for any deficiency in the Conceptual Documents that Design-Builder does not discover or report to Owner.
- C. Subject to the foregoing review and reporting obligations, Design-Builder may use the Conceptual Documents as a partial basis for performing or furnishing Design Professional Services, including the preparation of Design Submittals such as the Construction Drawings and Construction Specifications, but despite any such use of the Conceptual Documents the Design-Builder nonetheless shall be responsible to Owner for the quality and soundness of the Design Professional Services.

2.04 *Before Starting the Work*

- A. *Preliminary Schedules:* Within 10 days after commencement of the Contract Times (unless otherwise specified in the Contract Documents), Design-Builder shall submit the following to Owner for Owner's timely review:
1. A preliminary progress schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
 2. A preliminary schedule of Submittals (including Design Submittals) which will list each required Submittal and the times for submitting, reviewing, and processing each Submittal;
 3. A preliminary Schedule of Values for all of the Work which will include quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work; and
 4. A preliminary cash flow projection estimating that portion of the Contract Price to be due during each month of performance.

2.05 *Authorized Representatives*

- A. The Authorized Representative for each party has been designated in the Agreement. A party may change its Authorized Representative at any time by giving notice to the other party of the name, mailing and delivery addresses, e-mail address, and telephone numbers of the new Authorized Representative.

2.06 *Initial Conference*

- A. Within 20 days after the Contract Times start to run, Design-Builder will arrange a conference attended by Owner and Design-Builder and others as appropriate to establish a working understanding among the parties as to the Work and to discuss the design concepts, schedules referred to in Paragraph 2.04.A, procedures for handling Submittals, processing Applications for Payment, maintaining required records, and other matters.

2.07 *Review of Schedules*

- A. Not less than 10 days before submission of the first Application for Payment (unless otherwise provided in the Contract Documents), Design-Builder will arrange a conference attended by Design-Builder, Owner, and others as appropriate to review and discuss the schedules submitted in accordance with Paragraph 2.04.A. Design-Builder shall have an additional 10 days after the conference to make corrections and adjustments and to complete and resubmit the schedules for Owner's acceptance. No progress payment shall be made to Design-Builder until Design-Builder submits schedules that comply with the following requirements:
1. Design-Builder's progress schedule shall provide an orderly progression of the Work to completion within any specified Milestones and the Contract Times.
 2. Design-Builder's schedule of Submittals shall provide a workable arrangement for submitting, reviewing, and processing Submittals in accordance with Article 8.
 3. Design-Builder's Schedule of Values shall provide a reasonable allocation of the Contract Price to component parts of the Work.

2.08 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner and Design-Builder may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Submittals, in electronic media or digital format, either directly, or through access to a secure Project website.
- B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner and Design-Builder shall jointly develop such protocols.
- C. Unless expressly stated otherwise elsewhere in this Contract, Design-Builder shall not be obligated to furnish documents (including but not limited to Construction Drawings, Construction Specifications, or Record Drawings and Record Specifications) to Owner in any executable, native-file format.
- D. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Contract Documents*

- A. The Contract Documents are complementary; what is called for by one is as binding as if called for by all.
- B. It is the intent of the Contract Documents to require the design and construction of a functionally complete project (or part thereof).
- C. Design-Builder shall prepare or furnish Construction Drawings and Construction Specifications that are in accord with the Contract Documents and that describe a functionally complete Project (or part thereof) to be constructed in accordance with such Construction Drawings and Construction Specifications, as duly modified.
- D. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.
- E. Design-Builder will furnish or perform all labor, documentation, services (including professional services), materials, and equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result whether or not specifically called, for at no additional cost to Owner.

3.02 *Reference Standards*

- A. *Standards, Specifications, Codes, Laws or Regulations:*
 - 1. Reference to standards, specifications, manuals or codes of any technical society, organization or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect on the Effective Date except as may be otherwise specifically stated in the Contract Documents.
 - 2. No provision of any such standard, specification, manual, or code, or instruction of a Supplier, shall be effective to change the duties and responsibilities of Owner, Design-

Builder, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor shall it be effective to assign to Owner or its officers, directors, members, partners, employees, agents, consultants, or subcontractors any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Resolving Discrepancies*

- A. If there is a discrepancy between (1) the Conceptual Documents or other Contract Documents issued with the Request for Qualifications or Request for Proposals and (2) the Proposal, the Proposal will control.
- B. If there is a discrepancy between (1) the Conceptual Documents, other Contract Documents issued with the Request for Qualifications or Request for Proposals, or the Proposal and (2) the Proposal Amendment, the Proposal Amendment will control.
- C. If there is a discrepancy between (1) the Contract Documents and (2) the Construction Drawings and Construction Specifications, the Contract Documents will control unless Design-Builder gave notice of the discrepancy in a Submittal, and Owner approved the Submittal, pursuant to the provisions of Article 8.

3.04 *Ownership and Reuse of Documents*

- A. All documents prepared for or furnished to Owner by Design-Builder pursuant to this Contract (including but not limited to Design Submittals) are instruments of service. With respect to such documents:
 - 1. Design-Builder shall have and retain the ownership, title, and property rights, including copyright, patent, intellectual property, and common law rights, in the documents.
 - 2. During the course of the Project, Design-Builder will provide copies of Design Submittals to Owner for purposes of review and comment. Owner may retain copies of such documents for its records.
 - 3. Owner may use its copy of the Record Drawings and Record Specifications for Owner's purposes in operating and maintaining the constructed facilities.
 - 4. Upon Owner's termination of this Contract for cause pursuant to Paragraph 15.02, Owner shall receive a limited, non-exclusive license to use any completed Design Submittals in continuing the Project, subject to the limitations in this Paragraph 3.04.
 - 5. The documents prepared or furnished by Design-Builder under this Contract, regardless of ownership, transfer, license, completion status, or termination of the Contract, are for Design-Builder's use, and are not intended or represented to be suitable for use on the Project by Owner or any party other than Design-Builder, or for reuse by Owner or others on extensions of the Project or on any other project, except as otherwise stated in this Contract. Any use or reuse by Owner or others on Owner's behalf will be at Owner's sole risk, and without liability or legal exposure to Design-Builder, the Project Design Professionals, or their subconsultants, and Owner shall indemnify and hold harmless Design-Builder, the Project Design Professionals, and their subconsultants from all claims, damages, losses and expenses, including attorneys' fees, arising out of or resulting from any such use or reuse.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times*

- A. The Contract Times will commence to run on the issuance of a Notice to Proceed from Owner to Design-Builder.

4.02 *Starting the Work*

- A. Design-Builder shall start to perform the Work upon issuance of a Notice to Proceed from Owner. No Construction shall be done at the Site prior to the Notice to Proceed.

4.03 *Progress Schedule*

- A. Owner may rely on the progress schedule established in accordance with Paragraph 2.04, as duly adjusted, in planning and conducting ongoing operations and other work at the Site.
- B. Design-Builder shall adhere to the progress schedule established in accordance with Paragraph 2.04 as it may be adjusted from time to time, as provided below:
 - 1. Design-Builder shall submit to Owner proposed adjustments in the progress schedule that will not change the Contract Times (or Milestones). Owner shall accept such adjustments provided that Owner, in planning and conducting ongoing operations and other work at the Site, has not reasonably relied on the schedule element that is proposed to be adjusted. If Owner has so relied, then Owner and Design-Builder shall promptly meet and seek a resolution that addresses the objectives of both parties, or adjust the Contract Price.
 - 2. Design-Builder shall submit proposed adjustments in the progress schedule that will change the Contract Times (including Milestones) in accordance with the requirements of Paragraph 11.06. Such adjustments may only be made by a Change Order.
- C. *Continuing the Work:* Design-Builder shall continue the Work and adhere to the progress schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as Design-Builder and Owner may otherwise agree in writing.

4.04 *Delays in Design-Builder's Progress*

- A. If Owner or anyone for whom Owner is responsible delays, disrupts, or interferes with the performance or progress of the Work, then Design-Builder shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Design-Builder's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Design-Builder's ability to complete the Work within the Contract Times.
- B. Subject to Paragraph 4.04.F, below, Design-Builder shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference within the control of Design-Builder. Delay, disruption, and interference attributable to and within the control of a Project Design Professional, Construction Subcontractor, or Supplier shall be deemed to be delays within the control of Design-Builder.
- C. If Design-Builder's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Design-Builder, and those for which they are responsible, then Design-Builder shall be entitled to an equitable adjustment in Contract Times. Design-Builder's entitlement to such an adjustment of the Contract Times is conditioned on such adjustment being essential to Design-Builder's ability

to complete the Work within the Contract Times. Such an adjustment shall be Design-Builder's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:

1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 2. Abnormal weather conditions;
 3. Acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 9); and
 4. Acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.
- E. Paragraph 9.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- F. Design-Builder shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Design-Builder. Design-Builder's sole remedy for any delay, disruption, or interference which is concurrent with a delay, disruption, or interference caused by or within the control of Design-Builder shall be an adjustment in the Contract Times.
- G. If Design-Builder seeks an adjustment in Contract Price or Contract Times under this paragraph, Design-Builder shall submit a request for a Change Order to Owner within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Design-Builder of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Design-Builder will have to comply in performing the Work.
- B. Upon reasonable written request, Owner shall furnish Design-Builder with a current statement of record legal title and legal description of the lands upon which the Construction is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws or Regulations.
- C. Design-Builder shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas:*

1. Design-Builder shall confine construction equipment, the storage of materials and equipment, and the operations of construction workers to the Site and other areas permitted by Laws or Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Design-Builder shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any adjacent land or areas, resulting from the performance of the Work.
 2. Should any claim be made by any such owner or occupant because of the performance of Work, Design-Builder shall promptly settle with such other party by negotiation, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law.
 3. To the fullest extent permitted by Laws or Regulations, Design-Builder shall indemnify and hold harmless Owner, Owner's consultants, and anyone directly or indirectly employed by any of them from and against all claims, costs, losses and damages (including, but not limited to, fees of engineers, architects, attorneys and other professionals and court and arbitration or other dispute resolution costs) arising out of or resulting from any claim brought by any such owner or occupant against Owner, or any other party indemnified hereunder to the extent caused by or based upon Design-Builder's negligent performance of the Construction.
- B. *Removal of Debris:* During the performance of the Construction, Design-Builder shall keep the premises free from accumulations of waste materials, rubbish, and other debris resulting from the Construction. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws or Regulations.
- C. *Cleaning:* Prior to Substantial Completion, Design-Builder shall clean the Site and make it ready for utilization by Owner. At completion of Construction, Design-Builder shall remove all tools, appliances, construction equipment, temporary construction and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading Structures:* Design-Builder shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Design-Builder subject any part of the Construction or adjacent property to stresses or pressures that will endanger it.

5.03 *Reference Points*

- A. Design-Builder shall be responsible for laying out the Work and shall protect and preserve reference points and property monuments established by Owner, and shall make no changes or relocations of such reference points or monuments without the prior written approval of Owner. Design-Builder shall report to Owner whenever any reference point or property monument is lost or destroyed, or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

5.04 *Differing Site Conditions*

- A. Design-Builder shall promptly, and before the conditions are disturbed, give a written notice to Owner of (i) subsurface or latent physical conditions at the Site (whether discovered during investigation of the Site or during Construction) which differ materially from those indicated in the Contract Documents, or in any Technical Data, or (ii) unknown physical conditions at the Site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character called for by the Contract Documents.
- B. Owner will investigate the Site conditions promptly after receiving the notice. Design-Builder shall supplement the notice by promptly submitting to Owner any additional information regarding schedule and cost impacts, and a specific request for a Change Order. Owner shall then make a determination regarding the site condition and the impact, if any, on Contract Price and Contract Times. If the conditions do materially so differ and cause an increase or decrease in the Design-Builder's cost of, or the time required for, performing any part of the Work, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this clause and the Contract Price or Times modified in writing by Change Order in accordance with Article 11. If Design-Builder disputes the Owner's determination herein, it shall be entitled to initiate a Claim in accordance with Article 16.
- C. No request by Design-Builder for an equitable adjustment under this Paragraph 5.04 shall be allowed unless Design-Builder has given the written notice required.
- D. The provisions of this Paragraph 5.04 are not intended to apply to a Hazardous Environmental Condition or Underground Facility uncovered or revealed at the Site.

5.05 *Underground Facilities*

- A. *Procedure for Identifying Underground Facilities:* Promptly after the Effective Date of the Contract, Design-Builder shall review the Underground Facilities Data furnished by Owner and use ASCE 38, "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data," as a basis for establishing a procedure ("Underground Facilities Procedure") for the further identification, investigation, and mapping of Underground Facilities at or adjacent to the Site. Design-Builder shall establish and use the Underground Facilities Procedure to aid in the provision of Design Professional Services and the performance of Construction, and to reduce and manage risks associated with Underground Facilities. Such Underground Facilities Procedure shall take into account the Site and the nature of the Project.
 - 1. The Underground Facilities Procedure shall include a plan to keep Underground Facilities information current as Design-Builder proceeds with the provision of Design Professional Services, and to add new or relocated Underground Facilities information to the base utility or Site drawings.
 - 2. To manage the potential impact of design changes on Underground Facilities, Design-Builder shall modify or reapply the Underground Facilities Procedure as the design progresses and changes.
- B. *Design-Builder's Responsibilities:* Unless otherwise expressly provided in the Contract, Design-Builder shall have full responsibility for the following; and, subject to the provisions of Paragraphs 5.05.C, D, and E, the cost of all of the following will be included in the Contract Price:

1. Establishing and executing the Underground Facilities Procedure referred to in Paragraph 5.05.A, including updating, modification, and reapplication duties;
 2. Coordinating the Work with the owners (including Owner) of such Underground Facilities, during the provision of Design Professional Services and Construction;
 3. Verifying the actual location of specific Underground Facilities through exposure, as needed for the Design Professional Services;
 4. Complying with applicable state and local utility damage prevention Laws and Regulations during Construction; and
 5. The safety and protection of all existing Underground Facilities at the Site, and repairing any damage to such Underground Facilities resulting from the Construction, subject to the provisions of Paragraph 5.05.D.
- C. *Results of Design-Builder's Execution of Underground Facilities Procedure:* If, during the execution of the Underground Facilities Procedure referred to in Paragraph 5.05.A, the Design-Builder identifies an Underground Facility that was not shown or indicated in the Underground Facilities Data, or was not shown or indicated with reasonable accuracy, causing an increase or decrease in the Design-Builder's cost of, or the time required for, providing Design Professional Services or performing the Construction, then Design-Builder shall submit to Owner a request for a Change Order seeking an equitable adjustment to the Contract Price or Times under this clause. Such request shall be made within 30 days of the identification of the Underground Facility in question.
- D. *Underground Facility Found During Construction:* If Design-Builder believes that an Underground Facility that is uncovered, exposed, or revealed at the Site during Construction was not shown or indicated in the Underground Facilities Data, or was not shown or indicated with reasonable accuracy, then Design-Builder shall promptly give written notice to Owner, and supplement the notice by submitting to Owner a request for a Change Order seeking an equitable adjustment to the Contract Price or Times under this clause. Such request shall be made within 30 days of the uncovering or revealing of the Underground Facility in question. If Design-Builder disputes the Owner's determination herein, it shall be entitled to initiate a Claim in accordance with Article 16.
1. *Owner's Review:* Owner will investigate the Underground Facility found during Construction promptly after receiving the notice. If Owner concurs with Design-Builder that the Underground Facility that is uncovered, exposed, or revealed at the Site was not shown or indicated in the Underground Facilities Data, or was not shown or indicated with reasonable accuracy, causing an increase or decrease in the Design-Builder's cost of, or the time required for, performing any part of the Work, whether or not changed as a result of the actual location, then an equitable adjustment shall be made under this clause and the Contract Price or Times modified in writing by Change Order in accordance with Article 11. If Owner does not concur with Design-Builder, then Owner shall so indicate in writing, with a specific explanation of the reason for non-concurrence.
 2. No request by Design-Builder for an equitable adjustment under Paragraph 5.05.D shall be allowed unless Design-Builder has given the written notice required.
- E. *Inadequate Establishment or Execution of Underground Facilities Procedure:* If Design-Builder does not establish an Underground Facilities Procedure that is (1) adequate for the Site and the nature of the Project and (2) consistent with the guidelines set forth in ASCE 38, "Standard

Guideline for the Collection and Depiction of Existing Subsurface Utility Data,” or Design-Builder does not adequately execute a duly established Underground Facilities Procedure, then Design-Builder shall bear all costs associated with the presence of an Underground Facility that was not identified or located with reasonable accuracy, including but not limited to delay, redesign, relocation, and increased Construction costs, if such Underground Facility would have been identified and located with reasonable accuracy by an adequate and properly executed Underground Facilities Procedure that was consistent with ASCE 38.

5.06 *Hazardous Environmental Conditions at Site*

- A. *Reliance by Design-Builder on Technical Data Authorized:* Owner is not providing Technical Data with respect to environmental conditions at the Site.
- B. Design-Builder shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- C. Design-Builder shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Design-Builder, Project Design Professionals, Construction Subcontractors, Suppliers, or anyone else for whom Design-Builder is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- D. If Design-Builder encounters, uncovers, or reveals a Hazardous Environmental Condition (whether during Site investigation or during Construction) whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Design-Builder or anyone for whom Design-Builder is responsible creates a Hazardous Environmental Condition, then Design-Builder shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.16); and (3) notify Owner (and promptly thereafter confirm such notice in writing). Owner shall promptly determine whether to retain a qualified expert to evaluate such condition or take corrective action, if any, and take such actions as are necessary to permit Owner to timely obtain required permits and provide Design-Builder the written notice required by Paragraph 5.06.E. If Design-Builder or anyone for whom Design-Builder is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
- E. Design-Builder shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Design-Builder either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- F. If after receipt of such written notice Design-Builder does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then the portion of the Work that is in the area affected by such condition shall be deleted from the Work, following the contractual change procedures in Article 11.

Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 9.

- G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Design-Builder, Project Design Professionals, Construction Subcontractors, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Contract Documents or the Technical Data, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Design-Builder or by anyone for whom Design-Builder is responsible. Nothing in this Paragraph 5.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- H. To the fullest extent permitted by Laws and Regulations, Design-Builder shall indemnify and hold harmless Owner and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the Design-Builder's failure to control, contain, or remove a Constituent of Concern brought to the Site by Design-Builder or by anyone for whom Design-Builder is responsible, or to a Hazardous Environmental Condition created by Design-Builder or by anyone for whom Design-Builder is responsible. Nothing in this Paragraph 5.06.H shall obligate Design-Builder to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Design-Builder shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Design-Builder's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due, or until completion of the correction period specified in Paragraph 14.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other specific provisions of the Contract. Design-Builder shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.
- B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

- C. Design-Builder shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Design-Builder is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Design-Builder shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.
- E. If Design-Builder has failed to obtain a required bond, Owner may exclude the Design-Builder from the Site and exercise Owner's termination rights under Article 15.
- F. Upon request to either Owner or Design-Builder from any Construction Subcontractor, Project Design Professional, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, the recipient of the request shall provide a copy of the payment bond to such person or entity.

6.02 *Insurance—General Provisions*

- A. Owner and Design-Builder shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Design-Builder shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. All insurance required by the Contract to be purchased and maintained by Design-Builder shall be primary and without contribution by insurance maintained by Owner.
- D. Alternative forms of insurance coverage, including but not limited to self-insurance and "Occupational Accident and Excess Employer's Indemnity Policies," are not sufficient to meet the insurance requirements of this Contract, unless expressly permitted in the Supplementary Conditions.
- E. Design-Builder shall require (a) its Construction Subcontractors and Engineer (and any other Project Design Professional that is an independent individual or entity) to purchase and maintain commercial general liability, automobile liability, workers' compensation, employer's liability, professional liability (as applicable), and umbrella or excess liability insurance, and (b) its Construction Subcontractors to purchase and maintain contractor's pollution liability insurance. All such required insurance shall meet the same requirements for the applicable category of insurance established in this Contract for Design-Builder, unless otherwise indicated in the Supplementary Conditions.
- F. Design-Builder shall deliver to Owner, with copies to each additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Design-Builder has obtained and is maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Design-Builder shall also furnish other evidence of such required insurance, including

but not limited to copies of policies and endorsements, documentation of applicable self-insured retentions (if permitted) and deductibles, and evidence of insurance required to be purchased and maintained by Design-Builder's Construction Subcontractors, Engineer, and any other Project Design Professional that is an independent individual or entity. Design-Builder may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

- G. Owner shall deliver to Design-Builder, with copies to each additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Design-Builder or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- H. Failure of Owner or Design-Builder to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Design-Builder to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- I. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- J. If Design-Builder has failed to obtain and maintain required insurance, Owner may exclude the Design-Builder from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 15.
- K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.
- L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Design-Builder or Design-Builder's interests.
- M. The insurance and insurance limits required herein shall not be deemed as a limitation on Design-Builder's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Design-Builder's Insurance*

- A. *Workers' Compensation and Employer's Liability:* Design-Builder shall purchase and maintain workers' compensation and employer's liability insurance for:
 - 1. Claims under workers' compensation, disability benefits, and other similar employee benefit acts.
 - 2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).

3. Claims for damages because of bodily injury, occupational sickness or disease, or death of Design-Builder's employees (by stop-gap endorsement in monopolist worker's compensation states).
 4. Foreign voluntary worker compensation (if applicable).
- B. *Commercial General Liability—Claims Covered:* Design-Builder shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Design-Builder, on an occurrence basis, against:
1. Claims for damages because of bodily injury, sickness or disease, or death of any person other than Design-Builder's employees.
 2. Claims for damages insured by reasonably available personal injury liability coverage.
 3. Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- C. *Commercial General Liability—Form and Content:* Design-Builder's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage:
 - a. Such insurance shall be maintained for three years after final payment.
 - b. Design-Builder shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Design-Builder's contractual indemnity obligations in Paragraph 7.19.
 3. Broad form property damage coverage.
 4. Severability of interests and no insured-versus-insured or cross-liability exclusions.
 5. Underground, explosion, and collapse coverage.
 6. Personal injury coverage.
 7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together). If Design-Builder demonstrates to Owner that the specified ISO endorsements are not commercially available, then Design-Builder may satisfy this requirement by providing equivalent endorsements.
 8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- D. *Commercial General Liability—Excluded Content:* The commercial general liability insurance policy, including its coverages, endorsements, and incorporated provisions, shall not include any of the following:
1. Any modification of the standard definition of "insured contract."

2. Any exclusion for water intrusion or water damage.
 3. Any provisions resulting in the erosion of insurance limits by defense costs.
 4. Any exclusion of coverage relating to earth movement.
 5. Any exclusion for the insured's vicarious liability, strict liability, or statutory liability.
 6. Any limitation or exclusion based on the nature of Design-Builder's work.
 7. Any professional liability exclusion broader in effect than ISO form CG 22 79 07 98.
- E. *Automobile liability*: Design-Builder shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.
- F. *Umbrella or excess liability*: Design-Builder shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall be procured on a "follow the form" basis as to each and every one of the underlying policies. Design-Builder may meet the combined limits of insurance (underlying policy plus applicable umbrella or excess) specified for employer's liability, commercial general liability, and automobile liability through the primary policies alone, or through combinations of the primary insurance policies and an umbrella or excess liability policy that follows the form of the underlying policy, as specified herein.
- G. *Contractor's pollution liability insurance*: Design-Builder shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result of pollution conditions arising from Design-Builder's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.
- H. *Additional insureds*: The Design-Builder's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and any individuals or entities identified as required additional insureds in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Design-Builder shall obtain all necessary endorsements to support these requirements.
- I. *Professional liability insurance*:
1. Design-Builder shall be responsible for purchasing and maintaining professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which Design-Builder is legally liable.
 2. If in the performance of this Contract any Design Professional Services, or other professional engineering or similar services, are to be performed by an independent design professional, under direct contract to Design-Builder or at any lower contractual tier, then Design-Builder shall be responsible for assuring that such independent design

professional purchases and maintains professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the independent design professional is legally liable.

3. If a Construction Subcontractor at any tier will provide or furnish design, engineering, or other similar professional services under this Contract, as the result of a delegation of professional design responsibilities or otherwise, then Design-Builder shall assure that such Construction Subcontractor purchases and maintains applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable.
 4. Any professional liability insurance required under this Contract shall be maintained throughout the duration of the Contract and for a minimum of three years after Substantial Completion. For each claims-made professional liability policy furnished and maintained to satisfy the requirements of this Paragraph 6.03.I, the retroactive date on the policy shall pre-date the commencement of furnishing services on the Project.
- J. *General provisions:* The policies of insurance required by this Paragraph 6.03 shall:
1. Include at least the specific coverages provided in this Article.
 2. Be written for not less than the limits of coverage provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.
 3. Contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days' prior written notice has been given to Design-Builder. Within 3 days of receipt of any such written notice, Design-Builder shall provide a copy of the notice to Owner and each other insured under the policy.
 4. Remain in effect at least until final payment and Design-Builder's departure from the Site (and longer if expressly required elsewhere in this Contract), and at all times thereafter when Design-Builder may be correcting, removing, or replacing defective Construction as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.
 5. Provide applicable protection from claims that may arise out of or result from the performance of the Work, whether such performance is by Design-Builder, a Project Design Professional, any Construction Subcontractor or Supplier, or anyone directly or indirectly retained by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.

6.04 *Owner's Liability Insurance*

- A. In addition to the liability insurance required to be provided by Design-Builder, the Owner, at Owner's option and expense, may purchase and maintain Owner's own liability insurance to protect Owner against claims which may arise with respect to the Project.
- B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Design-Builder, and Design-Builder cannot rely upon Owner's liability policies for any of Design-Builder's obligations to the Owner or third parties.

6.05 *Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Design-Builder shall purchase and maintain builder's risk insurance upon the Construction on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
1. Include the Owner and Design-Builder as named insureds, and all Construction Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."
 2. Be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Construction, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Design-Builder.
 3. Cover, as insured property, at least the following: (a) the Construction (including but not limited to all buildings, structures, foundations, excavations, underground property, pilings, underground pipes, flues, drains, wiring, cables, and the like) and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into the Construction, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent Construction but which are intended to provide working access to the Site, or to the Construction, or which are intended to provide temporary support for the Construction, including scaffolding, form work, fences, shoring, lighting, cribbing, falsework, and temporary structures.
 4. Cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).
 5. Extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
 6. Extend to cover damage or loss to insured property while in transit.

7. Allow for partial occupation or use of the Construction by Owner, such that those portions of the Construction that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
 8. Provide for the waiver of claims and waiver of the insurer's subrogation rights, as set forth in Paragraph 6.06.
 9. Provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
 10. Not include a co-insurance clause.
 11. Include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
 12. Include performance/hot testing and start-up.
 13. Be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Construction by Owner, until the Construction is complete.
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days' prior written notice has been given to the purchasing policyholder. Within 3 days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.
- C. *Deductibles:* The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Construction prior to Substantial Completion of all the Work as provided in Paragraph 14.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Design-Builder) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Construction that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Construction not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- E. *Additional Insurance:* If Design-Builder elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Design-Builder's expense.
- F. *Insurance of Other Property:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Design-Builder, a Construction Subcontractor, or an employee of Design-Builder or a Construction Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

- G. *Loss of Use and Delay in Start-up*: Unless otherwise expressly stated elsewhere in this Contract, the Owner is responsible, at its option, for purchase and maintenance of insurance to protect Owner against the loss of use or delays in start-up caused by property damage.

6.06 *Waiver of Rights*

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against any Project Design Professional or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Design-Builder waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Construction; and, in addition, waive all such rights against the Project Design Professionals, their consultants, all Construction Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Design-Builder as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Owner waives all rights against Design-Builder, the Project Design Professionals, and the Construction Subcontractors, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:
1. Loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Construction caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 2. Loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 14.04, after Substantial Completion pursuant to Paragraph 14.03, or after final payment pursuant to Paragraph 14.06.
- C. Any insurance policy maintained by Owner covering any loss, damage, or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that the insured is allowed to waive the insurer's rights of subrogation against Design-Builder, Project Design Professionals, Construction Subcontractors, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, in a written contract executed prior to the loss, damage, or consequential loss.
- D. Design-Builder shall be responsible for assuring that each Construction Subcontract contains provisions whereby the Construction Subcontractor waives all rights against Owner, Design-Builder, all individuals or entities identified in the Supplementary Conditions as insureds, the Project Design Professionals, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages

caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Project.

6.07 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall maintain such funds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, the damaged Construction shall be repaired or replaced, the money so received applied on account thereof, and the Construction and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – DESIGN-BUILDER'S RESPONSIBILITIES

7.01 *Design Professional Services*

- A. Design-Builder shall provide the Design Professional Services needed to successfully perform and complete the Work required under this Contract.
- B. *Standard of Care:* The standard of care for all Design Professional Services performed or furnished by Design-Builder under this Contract will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality.

7.02 *Construction*

- A. Design-Builder shall perform and furnish the Construction pursuant to the Contract Documents, the Construction Drawings, and the Construction Specifications, as duly modified.
- B. Design-Builder shall keep Owner advised as to the progress of the Construction.

7.03 *Supervision and Superintendence of Construction*

- A. Design-Builder shall supervise, inspect, and direct the Construction competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to provide the Construction in accordance with the Contract Documents. Design-Builder shall be solely responsible for the means, methods, techniques, sequences, and procedures of Construction.
- B. At all times during the progress of Construction, the Design-Builder shall assign a competent resident superintendent who shall not be replaced without written notice to Owner except under extraordinary circumstances.

7.04 *Labor; Working Hours*

- A. Design-Builder shall provide competent, suitably qualified personnel to perform the Work as required by the Contract Documents. Design-Builder shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise indicated in the Contract Documents, and in the absence of any Laws or Regulations to the contrary, Design-Builder may perform the Construction on legal holidays, during any or all hours of the day, and on any or all days of the week, at Design-Builder's sole discretion.

7.05 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Design-Builder shall furnish or cause to be furnished and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified by Owner or in the Construction Drawings or Construction Specifications, and unless specified otherwise shall be new and of good quality. All warranties and guarantees specifically called for by the Contract Documents shall expressly run to the benefit of Owner. If required by Owner, Design-Builder shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise provided in the Contract Documents.

7.06 *"Or Equals" and Substitutions*

- A. If an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, then during the preparation of the proposed Construction Drawings and Construction Specifications, the Design-Builder may request that Owner authorize the use of other items of material or equipment, or items from other proposed suppliers, by including the proposed items in the proposed Construction Drawings or Construction Specifications, with required notice to Owner that the Submittal contains a variation from the Contract Documents. Owner in its sole discretion may approve the use of the item if Owner determines that the item is functionally equal to that named and sufficiently similar so that no change in related Work will be required, taking into consideration whether the item:
 - 1. Is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2. Will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3. Has a proven record of performance and availability of responsive service; and
 - 4. Is not objectionable.

- B. *Effect of Owner's Determination:* Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- C. *Substitutes:* During the preparation of the proposed Construction Drawings and Construction Specifications, the Design-Builder may propose a substitute to an item of material or equipment that is required to be furnished by the Contract Documents. Any such proposal shall be made in a transmittal to Owner that is separate from and independent of any Design Submittals. The proposal shall describe the advantages, disadvantages, and changes in Contract Price or Contract Time associated with the proposed substitute. Approval of the proposed substitute shall be at Owner's sole discretion. If approved, the substitute item shall be incorporated in the Construction Drawings and Construction Specifications.
- D. *Design Professional Review:* Before Design-Builder transmits its proposal to Owner, the Project Design Professional that designed the portion of the Work affected by the proposed "or equal" or substitute shall review and approve the proposal.
- E. *Construction Drawings and Construction Specifications:* "Or equal" or substitute proposals with respect to items of material or equipment that are required in the Construction Drawings and Construction Specifications shall be considered proposed modifications of the Construction Drawings and Construction Specifications, and shall be governed by the provisions of Paragraph 8.02.H.

7.07 *Concerning Project Design Professionals, Construction Subcontractors, Suppliers, and Others*

- A. Design-Builder may retain Project Design Professionals, Construction Subcontractors, and Suppliers for the performance of parts of the Work. Such Project Design Professionals, Construction Subcontractors, and Suppliers must be acceptable to Owner.
- B. Design-Builder shall retain specific Project Design Professionals, Construction Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required to do so by the Contract Documents (including but not limited to the Proposal Amendment) as of the Effective Date.
- C. Prior to entry into any binding Design Agreement, Construction Subcontract, or purchase order, Design-Builder shall submit to Owner the identity of the proposed Project Design Professional, Construction Subcontractor, or Supplier (unless Owner has already deemed such proposed contractual party acceptable, during the bidding process or otherwise). Such proposed contractual party shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.
- D. Owner may require the replacement of any Project Design Professional, Construction Subcontractor, Supplier, or other entity retained by Design-Builder to perform any part of the Work solely on the basis of substantive, reasonable objection after due investigation. Design-Builder shall submit an acceptable replacement for the rejected Project Design Professional, Construction Subcontractor, Supplier, or other entity.
- E. If Owner requires the replacement of any Project Design Professional, Construction Subcontractor, Supplier, or other entity retained by Design-Builder to perform any part of the Work, then Design-Builder shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement.

- F. No acceptance by Owner of Engineer or of any Project Design Professional, Construction Subcontractor, Supplier, or other entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.
- G. Design-Builder shall be fully responsible to Owner for all acts and omissions of the Project Design Professionals, Construction Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work, just as Design-Builder is responsible for Design-Builder's own acts and omissions.
- H. Design-Builder shall be solely responsible for scheduling and coordinating the services and work of the Project Design Professionals, Construction Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- I. Design-Builder shall restrict all Project Design Professionals, Construction Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating directly with Owner, except in case of an emergency or a matter involving public health, safety, or welfare, or as otherwise expressly allowed herein.
- J. Owner may furnish to any Project Design Professional, Construction Subcontractor, or Supplier, to the extent practicable, information about amounts paid to Design-Builder on account of Work performed for Design-Builder by the requesting party.
- K. Nothing in the Contract Documents:
 - 1. Shall create for the benefit of any Project Design Professional, Construction Subcontractor, Supplier, or other third-party individual or entity any contractual relationship between Owner and such third-party individual or entity; nor
 - 2. Shall create any obligation on the part of Owner to pay or to see to the payment of any money due any Project Design Professional, Construction Subcontractor, Supplier, or other third-party individual or entity except as may otherwise be required by Laws and Regulations.

7.08 *Patent Fees and Royalties*

- A. Design-Builder shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Conceptual Documents or other Contract Documents for use in the performance of the Construction, and if to the actual knowledge of Owner its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, then Owner has disclosed the existence of such rights to Design-Builder in the Conceptual Documents or other Contract Documents.
- B. To the fullest extent permitted by Laws or Regulations, Design-Builder shall indemnify and hold harmless Owner and Owner's Consultant, and the officers, directors, partners, employees or agents, and other consultants of each and any of them from and against all claims, costs, losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs) arising out of or resulting from any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the

specification or incorporation in the Work of any invention, design, process, product or device, except those required by the Contract Documents.

- C. To the fullest extent permitted by Laws or Regulations, Owner shall indemnify and hold harmless Design-Builder and its officers, directors, members, partners, employees or agents, Project Design Professionals, Construction Subcontractors, and Suppliers from and against all claims, costs, losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs) arising out of or resulting from any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product or device required by the Contract Documents, but not identified by Owner as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

7.09 *Permits and Utility Charges*

- A. The Contract Documents allocate responsibility for obtaining and paying for specified permits, licenses, certificates of occupancy, and approvals of governmental authorities having jurisdiction over the Work. Each party shall assist the other, when necessary, in obtaining such permits, licenses, certificates, and approvals. Design-Builder shall not be liable or responsible for any delays or additional costs, or both, in securing such permits, licenses, certificates of occupancy, and approvals not caused by or due to the fault of Design-Builder. Further, Design-Builder shall be entitled to request an equitable adjustment to the Contract Price and/or Contract Time(s) to compensate Design-Builder for any delays or additional costs incurred in obtaining such permits, licenses, certificates of occupancy, and approvals, provided that such delays or additional costs were not caused by or due to the fault of Design-Builder.
- B. Design-Builder shall pay all charges of utility owners for temporary service to the Work. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work, and for capital costs related thereto.

7.10 *Taxes*

- A. Design-Builder shall pay all sales, consumer, use, and other similar taxes required to be paid by Design-Builder in accordance with the Laws or Regulations of the place of the Project which are applicable during the performance of the Work.

7.11 *Laws and Regulations*

- A. Design-Builder shall give all notices required by and comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, Owner shall not be responsible for monitoring Design-Builder's compliance with any Laws or Regulations.
- B. If Design-Builder performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Design-Builder shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work.
- C. Changes in Laws or Regulations that occur after the date on which the Design-Builder committed to the Contract Price (whether by negotiation or making an offer or proposal) and

affect the cost or time of performance shall be the subject of an equitable change in Contract Price or Contract Times.

7.12 *Record Documents*

- A. Design-Builder shall maintain the Record Documents in good order, in a safe place at the Site. Design-Builder shall annotate the Record Documents to show all changes and clarifications made (whether in the field or otherwise) during performance of Construction. The Record Documents, as annotated, will be available to Owner for reference. Upon completion of the Construction, Design-Builder shall deliver the Record Documents, as annotated, to Owner.
- B. After receipt and review of the Record Documents from Design-Builder upon completion of Construction, the Owner may comment on any possible inaccuracies. After Owner and Design-Builder collaboratively address any such comments, the Record Documents shall be deemed to be Record Drawings and Record Specifications.
- C. The Record Drawings and Record Specifications are Contract Documents, and are binding upon Design-Builder with respect to its obligations to comply with the Contract Documents, including but not limited to correction period responsibilities and warranty obligations.

7.13 *Safety and Protection*

- A. Design-Builder shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Construction Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Design-Builder shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. All persons on the Site or who may be affected by the Work;
 - 2. All the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. Other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and Underground Facilities not designated for removal, relocation, or replacement in the course of Construction.
- B. Design-Builder shall comply with applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Design-Builder shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- C. Design-Builder shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Design-Builder shall inform Owner of the specific requirements of Design-Builder's safety program with which Owner and its employees and representatives must comply while at the Site.

- E. All damage, injury, or loss to any property referred to in Paragraph 7.13.A.2 or 7.13.A.3 caused, directly or indirectly, in whole or in part, by Design-Builder, any Construction Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Design-Builder.
- F. Design-Builder's duties and responsibilities for safety and for protection of the Construction shall continue until such time as all the Work is completed, Owner has issued a notice to Design-Builder in accordance with Paragraph 14.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion), and Design-Builder has left the Site.
- G. Design-Builder's duties and responsibilities for safety and protection shall resume whenever Design-Builder or any Construction Subcontractor, Supplier, or other representative returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 *Safety Representative*

- A. Design-Builder shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

7.15 *Hazard Communication Programs*

- A. Design-Builder shall be responsible for coordinating any exchange of safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.16 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Design-Builder is obligated to act to prevent threatened damage, injury or loss. Design-Builder shall give Owner prompt written notice if Design-Builder believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If a change in the Contract Documents is required because of the action taken by Design-Builder in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.17 *Post-Construction Phase*

- A. Design-Builder shall:
 1. Provide assistance in connection with the start-up and testing of any equipment or system.
 2. Assist Owner in training staff to operate and maintain the Work.

7.18 *Design-Builder's General Warranty and Guarantee*

- A. Design-Builder warrants and guarantees to Owner that Design-Builder will perform and complete the Construction as required by the Contract Documents, and that all Construction will be in accordance with the Contract Documents, the Construction Drawings, and the Construction Specifications (as duly modified in accordance with the Contract), and will not be defective.

- B. Design-Builder’s warranty and guarantee hereunder excludes defects or damage caused by:
 - 1. Abuse, modification or improper maintenance or operation by persons other than Design-Builder, Construction Subcontractors, or Suppliers or any other individual for whom Design-Builder is responsible; or
 - 2. Normal wear and tear under normal usage.
- C. None of the following will constitute an acceptance by Owner of Work that is not in accordance with the Contract Documents or a release of Design-Builder’s obligation to perform the Work in accordance with the Contract Documents, unless expressly stated otherwise in writing:
 - 1. Observations by Owner;
 - 2. The making of any progress or final payment;
 - 3. The issuance of a certificate of Substantial Completion;
 - 4. Use or occupancy of the Work or any part thereof by Owner;
 - 5. Any review and approval of a Submittal;
 - 6. Any inspection, test, or approval by others; or
 - 7. Any correction of defective Construction by Owner.

7.19 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, Design-Builder shall indemnify and hold harmless Owner, Owner’s Consultant, and their officers, directors, members, partners, employees, agents, consultants, and subcontractors, from losses, damages, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, damages, or judgment is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), but only to the extent caused by any negligent act or omission of Design-Builder, a Project Design Professional, any Construction Subcontractor, any Supplier, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors.
- B. In any and all claims or actions against Owner, Owner’s Consultant, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Design-Builder, a Project Design Professional, any Construction Subcontractor, any Supplier, any individual or entity directly or indirectly employed or retained by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.19.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Design-Builder, a Project Design Professional, or any Construction Subcontractor, Supplier, or other individual or entity under workers’ compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Design-Builder under Paragraph 7.19.A shall not extend to the liability of Owner’s Consultant, other consultants or design professionals of Owner, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors

arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, designs, or specifications.

ARTICLE 8 – SUBMITTALS

8.01 *Design-Builder's Preparation of Submittals*

- A. Design Submittals shall be prepared by Project Design Professionals, on behalf of Design-Builder.
- B. The appropriate Project Design Professional shall review and approve each Submittal (including but not limited to all Design Submittals), other than those Submittals not involving technical or engineering matters, before Design-Builder's transmittal of such Submittal to Owner. Such review and approval shall account for the following, as appropriate:
 - 1. That any items covered by such Submittal will, after installation or incorporation in the Construction, comply with the information and requirements in the Contract Documents and the Construction Drawings and Construction Specifications, as duly modified, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents, Construction Drawings, and Construction Specifications, as duly modified.
 - 2. That if the Submittal includes any proposed modification of the Contract Documents, Construction Drawings, or Construction Specifications, or any proposed variation from the requirements of such documents, such proposed modification or variation is acceptable based on the standards of the engineering profession (or other applicable design profession), and if implemented will be supported by signing or sealing by a licensed design professional, as necessary.
- C. Before Design-Builder's transmittal of a Submittal to Owner, the Design-Builder shall, as applicable:
 - 1. Review and coordinate the Submittal with other Submittals and with the requirements of the Work, the Contract Documents, the Construction Drawings, and the Construction Specifications, as duly modified;
 - 2. Determine and verify all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal, and confirm that the Submittal is complete with respect to all related data included in the Submittal;
 - 3. Determine and verify the suitability of proposed materials and equipment with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation; and
 - 4. Determine and verify all information relative to Design-Builder's responsibilities for the means, methods, techniques, sequences, and procedures of construction, and for safety precautions and programs incident thereto.
- D. Design-Builder shall give Owner specific written notice of any proposed modification of the Contract Documents, Construction Drawings, or Construction Specifications, and any variations that a Submittal may have from the requirements of the Contract Documents, Construction Drawings, and Construction Specifications, as duly modified. This notice shall be

set forth in a written communication separate from the Submittal; and, in addition, in the case of a Submittal in drawing form, by a specific notation made on the drawing itself.

- E. Each Submittal shall bear a stamp or specific written certification by Design-Builder that it has satisfied its obligations under the Contract Documents with respect to preparation of the Submittal, and that Design-Builder approves the Submittal.
- F. All Submittals must be acceptable based on compliance with form and content requirements of the Contract Documents. Design-Builder shall submit Design Submittals for Owner's review and approval. Other Submittals shall not require express approval, except as indicated in the Supplementary Conditions or elsewhere in the Contract Documents.

8.02 *Owner's Review of Submittals*

- A. Owner will review all Submittals, and may comment on any Submittal. Any response to a Submittal by Owner shall be in accordance with the schedule of required Submittals accepted by Owner as required by Paragraph 2.07, and the provisions of the Contract Documents.
- B. For those Submittals requiring Owner's review and approval, Owner's response will be in writing and will indicate either that Owner approves the Submittal or rejects the Submittal. Owner may also include comments regarding the approved or rejected Submittal. For those Submittals that do not require approval, the Submittal shall be deemed acceptable to Owner unless Owner responds with a timely objection or adverse comment.
- C. Unless a specific provision of the Contract Documents expressly provides otherwise, Owner's review of a Submittal will be to determine if the Submittal complies with and is consistent with the Contract Documents. If Owner concludes that a Submittal requiring approval complies with and is consistent with the Contract Documents, the Owner shall approve such Submittal.
- D. Owner's approval, rejection, or acceptance of a Submittal will not extend to the means, methods, techniques, sequences, or procedures of Construction, or to safety precautions or programs incident thereto.
- E. Owner's review, comments, approval, rejection, or acceptance of Submittals shall not relieve Design-Builder from responsibility for (1) performance of the Work in accordance with the Contract Documents, (2) the scheduling and progress of the Work, (3) the means, methods, sequences, techniques, and procedures of Construction, and safety precautions and programs incident thereto, or (4) any variation from the requirements of the Contract Documents, unless Design-Builder has in a separate written communication at the time of submission called Owner's attention to each such variation, and Owner has given written approval of each such variation; nor shall Owner's review, comments, approval, rejection, or acceptance of a Submittal impose any such responsibility on Owner.
- F. Construction tasks and expenditures by Design-Builder prior to Owner's review and approval or acceptance of any Submittal will be at the sole risk of Design-Builder.
- G. In reviewing, approving, rejecting, accepting, or commenting on any Design Submittal, Owner does not assume responsibility for the design, for any deficiencies in the Design Submittal or in the Design Professional Services by which they were prepared, or for constructability, cost, or schedule problems that may arise in connection with the Design Submittal.
- H. The parties acknowledge that Design-Builder's design responsibilities continue after commencement of Construction. During the course of Construction, the Design-Builder may

propose modifications to the Construction Drawings and Construction Specifications. Owner shall approve such proposed modifications if (1) they comply with and are consistent with the Contract Documents, (2) Design-Builder has demonstrated that the modification is minor in character, or will not be detrimental to the quality and function of the Work, (3) the appropriate Project Design Professional has reviewed and approved the proposed modification with respect to any technical or engineering matters, and (4) Owner has not relied on the previously-approved Construction Drawings and Construction Specifications, such that the proposed modification would be detrimental to the Owner's interests. At its option, Owner may also approve more substantial or divergent proposed modifications, provided that the appropriate Project Design Professional has reviewed and approved the proposed modification with respect to any technical or engineering matters.

ARTICLE 9 – OTHER CONSTRUCTION

9.01 *Other Work*

- A. In addition to and apart from the Work to be performed and furnished by Design-Builder under the Contract Documents, the Owner may perform other construction work at or adjacent to the Site during the course of the Project. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Design-Builder written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work at or adjacent to the Site, Owner shall provide such information to Design-Builder.
- C. Design-Builder shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and to Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Design-Builder shall do all cutting, fitting, and patching of the Construction that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Design-Builder shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Design-Builder may cut or alter others' work with the written consent of Owner and the others whose work will be affected.
- D. If the proper execution or results of any part of the Construction depends upon work performed by others under this Article 9, Design-Builder shall inspect such other work and promptly report to Owner in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of the Construction. Design-Builder's failure to so report will constitute an acceptance of such other work as fit and proper for integration with the Construction, except for latent defects and deficiencies in such other work.

9.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to

arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Design-Builder prior to the start of any such other work:

1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 2. An itemization of the specific matters to be covered by such authority and responsibility; and
 3. The extent of such authority and responsibilities.
- B. If the Supplementary Conditions do not identify the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors, Owner shall have sole authority and responsibility for such coordination.

9.03 *Legal Relationships*

- A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Construction or to the property of Design-Builder or the Construction Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Construction, through actions or inaction, then Design-Builder shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Design-Builder in the Contract Documents, and any provisions in Laws or Regulations concerning utility action or inaction, or related remedies. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Design-Builder assigning to Owner all Design-Builder's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Design-Builder's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Design-Builder's ability to complete the Work within the Contract Times.
- B. Design-Builder shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Design-Builder fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Design-Builder, and assign to such other contractor or utility owner the Owner's contractual rights against Design-Builder with respect to the breach of the obligations set forth in this paragraph.
- C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Design-Builder shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Design-Builder's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Design-Builder.
- D. If Design-Builder damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through

Design-Builder's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Design-Builder's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Design-Builder or Owner, then Design-Builder shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and its officers, directors, members, partners, employees, agents, consultants and subcontractors from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 10 – OWNER'S RESPONSIBILITIES

10.01 General

- A. Owner shall do the following in a timely manner so as not to delay the services of Design-Builder:
1. If requested in writing by Design-Builder, furnish reasonable evidence satisfactory to Design-Builder that sufficient funds are available and committed for the entire cost of the Project. Unless such reasonable evidence is furnished, Design-Builder is not required to commence or continue any Work, or may, if such evidence is not presented within a reasonable time, stop Work upon 15 days' notice to the Owner;
 2. Make payments to Design-Builder promptly when they are due, as provided in Paragraph 14.01 and 14.06;
 3. Furnish the Site as set forth in Paragraph 5.01; arrange for safe access to and make all provisions for Design-Builder to enter upon public and private property as may reasonably be required for Design-Builder to perform Work under the Contract.
 4. Furnish to Design-Builder, as required for performance of the Work, the following, all of which Design-Builder may use and rely upon in performing services under this Agreement:
 - a. Environmental assessment and impact statements;
 - b. Property, boundary, easement, right-of-way, and other special engineering surveys or data;
 - c. Property descriptions;
 - d. Zoning, deed, and other land use restrictions;
 - e. Utility and topographic mapping and surveys;
 - f. Explorations and tests of subsurface conditions at or adjacent to the Site; geotechnical reports and investigations; drawings of physical conditions relating to existing surface or subsurface structures at the Site; any information or data known to Owner concerning underground facilities at the Site; hydrographic surveys, laboratory tests and inspections of samples, materials, and equipment; with appropriate professional interpretation of such information or data;
 - g. Any other available information pertinent to the Project including reports and data relative to previous designs, or investigation at or adjacent to the Site;

- h. Engineering surveys to establish reference points which in Owner's judgment are necessary to enable Design-Builder to proceed with the Work;
 - i. Assistance to Design-Builder in filing documents required to obtain necessary permits, licenses, and approvals of governmental authorities having jurisdiction over the Project; and
 - j. Permits, licenses, and approvals of government authorities that the Contract Documents expressly require Owner to obtain.
5. Provide information known to Owner relating to the presence of materials and substances at the Site that could create a Hazardous Environmental Condition.
- B. If an obligation ascribed to Owner in Paragraph 10.01.A is expressly assigned to Design-Builder, in the description of the Work or elsewhere in the Contract Documents, then such express assignment to Design-Builder shall supersede the provision in Paragraph 10.01.A.
- C. Recognizing and acknowledging that Design-Builder's services and expertise do not include the following services, Owner shall furnish or obtain, as required for the Project:
- a. Accounting, bond and financial advisory (including, if applicable, "municipal advisor" services as described in Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (2010) and the municipal advisor registration rules issued by the Securities and Exchange Commission), independent cost estimating, and insurance counseling services.
 - b. Legal services with regard to issues pertaining to the Project as Owner requires, or Design-Builder reasonably requests.
 - c. Such auditing services as Owner requires to review cost submittals or ascertain how or for what purpose Design-Builder has used the money paid.
- D. Examine all studies, reports, alternate solutions, sketches, drawings, specifications, proposals, Submittals (including Design Submittals), and other documents presented by Design-Builder (including obtaining advice of an attorney, insurance counselor, and other consultants as Owner deems appropriate with respect to such examination), and if a decision is required with respect to any such document, render such decision in writing pursuant to any specific schedule, or if no specific schedule pertains, within a reasonable time after receipt of the document.

10.02 *Insurance*

- A. Owner's responsibilities with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

10.03 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Design-Builder's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Design-Builder to comply with Laws or Regulations applicable to the furnishing or performance of the Work. Owner will not be responsible for Design-Builder's failure to perform the Work in accordance with the Contract Documents.

10.04 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility with respect to undisclosed Hazardous Environmental Conditions uncovered or revealed at the Site is set forth in Paragraph 5.06.

10.05 *Owner's Site Representative*

- A. Owner may furnish an Owner's Site Representative to observe the performance of Construction. The duties, responsibilities and limitations of authority of any such Owner's Site Representative and assistants will be as provided in the Supplementary Conditions.

10.06 *Owner's Consultants and Managers*

- A. Owner's Consultant, if any, is identified in the Agreement.
- B. Owner shall advise Design-Builder of the identity and scope of services of any other independent consultants or managers retained by Owner to perform or furnish services in regard to the Project, including, but not limited to, cost estimating, project peer review, value engineering, constructability review, program management, project management, or contract administration.
- C. Neither Owner's Consultant, Owner's Site Representative, nor any other consultant or manager retained by Owner, has any duties, responsibilities, or authorities with respect to Design-Builder, unless expressly provided in this Contract. Owner's Consultant and such other consultants and managers shall not supervise, direct, or have control or authority over, nor be responsible for, Design-Builder's means, methods, techniques, sequences, or procedures of construction or the safety precautions and programs incident thereto, or for any failure of Design-Builder to comply with Laws or Regulations applicable to the furnishing or performance of the Work; and will not be responsible for Design-Builder's failure to perform the Work in accordance with the Contract Documents.

10.07 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Design-Builder's safety programs of which Owner has been informed pursuant to Paragraph 7.13.D.
- B. Owner shall inform Design-Builder of any specific requirements of safety or security programs that are applicable to Design-Builder while at the Site.

10.08 *Permits and Approvals*

- A. Owner shall obtain reviews, approvals, certificates, and permits from governmental authorities having jurisdiction over the Project as indicated in the Contract Documents.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended or supplemented by a Change Order or a Work Change Directive.
 - 1. *Change Orders:* If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.

2. *Work Change Directives*: The Work modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order. When a Work Change Directive is issued, the parties will promptly meet to attempt to negotiate the Work Change Directive's effect, if any, on the Contract Times and Contract Price. The effect, if any, on Contract Times and Contract Price, together with the Work Change Directive's addition, deletion, or revision to the Work, will be set forth in a subsequently issued Change Order.
- B. Either Owner or Design-Builder may propose or request a Change Order. With respect to certain events, this Contract may indicate specific times in which such requests or proposals must be submitted to the other party. With respect to all other events, the request or proposal shall be submitted to the other party within 30 days of the event giving rise to the request or proposal.
 - C. Notwithstanding anything other provision in this Contract, if Design-Builder incurs or sustains any increase in the Contract Time or the Contract Price, or both, which was not caused by Design-Builder or under Design-Builder's control, then Design-Builder shall be entitled to an equitable adjustment to the Contract Time or the Contract Price, or both, which shall be authorized by a Change Order. To the extent the parties cannot agree the amount of any such adjustment, then Design-Builder shall be entitled to initiate a Claim in accordance with the Article 16.

11.02 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, and notwithstanding any other provision of the Contract, Owner may, at any time or from time to time, order or authorize additions, deletions, or revisions in the Work within the general scope of the Contract. Such changes may be accomplished by a Change Order, if Owner and Design-Builder have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Design-Builder shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Design-Builder to undertake work that Design-Builder reasonably concludes cannot be performed in a manner consistent with Design-Builder's safety or professional obligations under the Contract Documents or Laws and Regulations.

11.03 *Unauthorized Changes in the Work*

- A. Design-Builder shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any Work performed that is not required by the Contract Documents, as duly amended, except in the case of an emergency as provided in Paragraph 7.16, or in the case of uncovering Construction as provided in Paragraph 13.03.A.3.

11.04 *Changes Involving the Design*

- A. To the extent a change, whether proposed by Design-Builder or Owner, ordered by Owner, or set forth in a proposed Change Order or in a Work Change Directive, involves the design (as set forth in the Construction Drawings, Construction Specifications, or otherwise) or other engineering or technical matters, such changes must be reviewed and approved by the applicable Project Design Professional. The review and approval may occur at the time the

change occurs, or as part of Design-Builder's provision of Professional Design Services in response to the change.

11.05 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Claim regarding an adjustment in the Contract Price shall be presented by written notice to the other party in accordance with Paragraph 16.01.
- B. If the Contract Price is based on Cost of the Work, then the provisions in the Agreement regarding Cost of the Work and changes in the Design-Builder's fee, Contract Price, Guaranteed Maximum Price, and Guaranteed Maximum Fee, apply.
- C. The value of any Work covered by a Change Order or of any adjustment in the Contract Price will be determined as follows:
 - 1. Where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 12.02); or
 - 2. Where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.05.D); or
 - 3. Where the Work involved is not covered by unit prices contained in the Contract Documents, and agreement to a lump sum is not reached under Paragraph 11.05.C.2, then on the basis of the Cost of the Work for price adjustments (determined as provided in the Cost of the Work provisions in the Agreement, if applicable, or in Paragraph 12.01), plus a Design-Builder's Fee for overhead and profit (determined as provided in Paragraph 11.05.D).
- D. *Design-Builder's Fee:* The Design-Builder's fee for overhead and profit on Change Orders shall be determined as follows:
 - 1. A mutually acceptable fixed fee; or
 - 2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. For costs incurred under Paragraphs 12.01.B.1.a. and 12.01.B.2, the Design-Builder's fee shall be 15 percent;
 - b. For costs incurred under Paragraph 12.01.B.3, 12.01.B.4, 12.01.B.5, and 12.01.B.6, the Design-Builder's fee shall be 5 percent;
 - c. With respect to Construction Subcontracts, where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of this Contract is that the Design-Builder's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraph 12.01 by the subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Design-Builder itself, and to any Construction Subcontractors of a tier higher than that of the Construction Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Construction Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent

of the costs incurred by the Construction Subcontractor that actually performs the Work;

- d. With respect to Design Agreements, the Engineer or other invoicing Project Design Professional under a Design Agreement may add a fee of 5 percent to an invoice from a lower tier design entity , and Design-Builder may add a fee of 5 percent to an invoice from Engineer or other invoicing Project Design Professional; Owner shall not be responsible for any other mark-up at any tier (other than those incorporated in a factor, multiplier, hourly rate, or stipulated sum from the entity performing the subject Design Professional Services);
- e. No fee will be payable on the basis of costs itemized in Paragraph 12.01.B.7 or 12.01.C;
- f. The amount of credit to be allowed by Design-Builder to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Design-Builder's fee by an amount equal to 5 percent of such net decrease; and
- g. When both additions and credits are involved in any one change, the adjustment in Design-Builder's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.05.D.2.a through 11.05.D.2.e., inclusive.

11.06 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim regarding an adjustment of the Contract Times shall be presented by written notice to the other party pursuant to Paragraph 16.01.
- B. Design-Builder's entitlement to an adjustment of the Contract Times under this Contract is conditioned on such adjustment being essential to Design-Builder's ability to complete the Work within the Contract Times.

11.07 *Execution of Change Orders*

- A. Owner and Design-Builder shall execute appropriate Change Orders covering:
 - 1. Changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 - 2. Changes in Contract Price resulting from an Owner set-off, unless Design-Builder has duly contested such set-off;
 - 3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's correction of defective Work under Paragraph 13.05 or Owner's acceptance of defective Work under Paragraph 13.07, or (c) agreed to by the parties (all subject to the need for review and approval by the applicable Project Design Professional pursuant to Paragraph 11.04); and
 - 4. Changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Article 16.

11.08 *Notice to Sureties*

- A. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be Design-Builder's responsibility. The amount of each applicable Bond will be adjusted to reflect the effect of any such change.

ARTICLE 12 – COST OF THE WORK ADJUSTMENTS; UNIT PRICE WORK

12.01 *Cost of the Work*

- A. *Costs of the Work Adjustment:* When the price of Work covered by a Change Order or an adjustment in Contract Price is to be determined on the basis of Cost of the Work, the Cost of the Work adjustment means the sum of all costs necessarily incurred and paid by Design-Builder in the proper performance of the specific portion of the Work. The costs to be reimbursed to Design-Builder will be only those additional or incremental costs required because of the change of the Work or because of the event giving rise to the adjustment. If the Agreement contains Cost of the Work provisions, such provisions shall govern in determining the Cost of the Work for Change Order or adjustment purposes. If the Agreement does not contain Cost of the Work provisions, then the provisions in Paragraph 12.01 shall apply.
- B. *Costs Included:* The Cost of the Work adjustment does not include any of the costs itemized in Paragraph 12.01.C, and shall include only the following items with respect to the subject Work:
 - 1. Payroll costs for employees in the direct employ of Design-Builder in the performance of the subject Work, under schedules of job classifications agreed upon by Owner and Design-Builder in advance of such performance.
 - a. Such employees shall include without limitation superintendents, foremen, and other personnel employed full-time at the Site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the subject Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation, and holiday pay applicable thereto. The expenses of performing the subject Work outside the hours or days permitted by this Contract shall be included in the above to the extent such performance of Work is authorized by Owner.
 - b. Such employees shall also include engineers, engineering technicians, architects, and others providing Design Professional Services as employees of Design-Builder. For purposes of this Paragraph 12.01.B.1.b, Design-Builder shall be entitled to payment for such employees an amount equal to salary costs times a factor, as designated in the Agreement, for services in the performance of the subject Work.
 - 2. Cost of all materials and equipment furnished and incorporated in the subject Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Design-Builder unless Owner deposits funds with Design-Builder with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and

returns from sale of surplus materials and equipment shall accrue to Owner, and Design-Builder shall make provisions so that they may be obtained.

3. Cost of permits obtained by Design-Builder.
4. Payments made by Design-Builder to Construction Subcontractors for subject Work performed or furnished by such Construction Subcontractors. If any subcontract provides that the Construction Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Construction Subcontractor's Cost of the Work and fee shall be determined in the same manner as Design-Builder's Cost of the Work and fee.
5. Payments made by Design-Builder for Design Professional Services provided or furnished with respect to the subject Work under a Design Agreement.
6. Costs of special consultants (not including Project Design Professionals), including but not limited to testing laboratories, attorneys, and accountants, retained for services specifically related to the subject Work.
7. Supplemental costs including the following items:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Design-Builder's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the Site and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed that remain the property of Design-Builder.
 - c. Rentals of all construction or engineering equipment and machinery, and their parts, whether rented from Design-Builder or from others in accordance with rental agreements approved by Owner, and the costs of transportation, loading, unloading, installation, dismantling and removal of such equipment, machinery, and parts. All such costs shall be in accordance with the terms of such rental agreements. The rental of any such equipment, machinery, or parts shall cease when its use is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the subject Work, and for which Design-Builder is liable, imposed by Laws or Regulations.
 - e. Deposits lost for causes other than negligence of Design-Builder, any Construction Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses, damages, and related expenses caused by damage to the subject Work not compensated by insurance or otherwise, sustained by Design-Builder in connection with the furnishing and performance of the Work provided they have resulted from causes other than the negligence of Design-Builder, any Construction Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Design-Builder's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site, as applicable to the subject Work.
 - h. Minor expenses such as long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
 - i. Cost of premiums for all Bonds and insurance Design-Builder is required by the Contract Documents to purchase and maintain.
- C. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:
1. Payroll costs and other compensation of Design-Builder's officers, executives, principals (of partnerships and sole proprietorships), general managers, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Design-Builder whether at the Site or in Design-Builder's principal or a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 12.01.B.1, all of which are to be considered administrative costs covered by the Design-Builder's fee.
 2. Expenses of Design-Builder's principal and branch offices other than Design-Builder's office at the Site.
 3. Any part of Design-Builder's capital expenses, including interest on Design-Builder's capital employed for the subject Work and charges against Design-Builder for delinquent payments.
 4. Costs due to the negligence of Design-Builder, any Construction Subcontractor, Engineer or other Project Design Professionals, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
 5. Other overhead or general expense costs of any kind, and the costs of any item not specifically and expressly included in Paragraph 12.01.B.
- D. *Design-Builder's Fee:* When the value of the Work covered by a Change Order is determined on the basis of Cost of the Work, Design-Builder's fee shall be determined as set forth in Paragraph 11.05.D.
- E. *Documentation:* Whenever the cost of any Work is to be determined pursuant to Paragraph 12.01.B and 12.01.C, Design-Builder will establish and maintain cost records in accordance with generally accepted accounting practices and submit in a form acceptable to Owner an itemized cost breakdown together with supporting data.

12.02 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all of Unit Price Work an amount equal to the sum of the established unit prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of

determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Design-Builder will be made by Owner.

- B. If Design-Builder's compensation is based on Cost of the Work, this Contract will not include compensation under unit prices unless expressly stated otherwise.
- C. Each unit price will be deemed to include an amount considered by Design-Builder to be adequate to cover Design-Builder's overhead and profit for each separately identified item.
- D. Design-Builder or Owner may seek an adjustment in the Contract Price if:
 - 1. The quantity of any item of Unit Price Work performed by Design-Builder differs materially and significantly from the estimated quantity of such item indicated in the Agreement;
 - 2. Such an adjustment would not duplicate, and is coordinated with, any other related adjustments of Contract Price; and
 - 3. Design-Builder has incurred additional expense, or less expense, as a result of the variation in quantity.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE CONSTRUCTION

13.01 Access to Construction

- A. Owner, Owner's Consultant, Owner's Site Representative, and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Construction at reasonable times for their observation, inspecting, and testing. Design-Builder shall provide them proper and safe conditions for such access and advise them of Design-Builder's Site safety procedures and programs so that they may comply therewith as applicable.

13.02 Tests, Inspections, and Approvals

- A. Design-Builder shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
 - 1. By the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 - 2. By Laws and Regulations, unless the Contract Documents or Laws and Regulations expressly allocate responsibility for a specific inspection or test to Owner;
 - 3. To attain Owner's acceptance of materials or equipment to be incorporated in the Construction;
 - 4. By manufacturers of equipment furnished under the Contract Documents;
 - 5. To meet the requirements of the Construction Drawings and Construction Specifications;
 - 6. For testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Construction; and
 - 7. For acceptance of materials, mix designs, or equipment submitted for approval prior to Design-Builder's purchase thereof for incorporation in the Construction.

- B. Owner shall be responsible for arranging, obtaining, and paying for all inspections and tests expressly required by the Contract Documents or Laws and Regulations to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Construction shall be governed by the provisions of Paragraph 13.03.
- C. All inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Design-Builder.
- D. If the Contract Documents require the Construction (or part thereof) to be approved by Owner or another designated individual or entity, then Design-Builder shall assume full responsibility for arranging and obtaining such approvals.
- E. Design-Builder shall give Owner reasonable notice of the planned schedule for all required inspections, tests, and approvals.
- F. Design-Builder shall give Owner timely notice of readiness of the Construction (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- G. Each party shall provide the other with copies of any certificates of inspection or approval obtained with respect to tests and inspections.
- H. Both parties may rely on the results of inspections and tests, performed pursuant to this paragraph and the governing provisions of the Contract Documents, Laws and Regulations, and the Construction Drawings and Construction Specifications.
- I. If any Construction (or the construction work of others) that is required to be inspected, tested, or approved is covered by Design-Builder without written concurrence of Owner, then Contractor shall, if requested by Owner, uncover such Construction for observation. Such uncovering shall be at Design-Builder's expense unless Design-Builder has given Owner timely notice of Design-Builder's intention to cover the same and Owner has not acted with reasonable promptness in response to such notice.

13.03 *Uncovering Construction*

- A. If Owner considers it necessary or advisable that covered Construction be observed by Owner or inspected or tested by others, then Design-Builder, at Owner's request, shall uncover, expose or otherwise make available for observation, inspection, or testing, as Owner may require, that portion of the Construction in question, furnishing all necessary labor, material, and equipment.
 - 1. If the Construction had been covered contrary to the written request of Owner or a requirement of the Contract Documents, then uncovering it for Owner's observation and re-covering it shall be at Design-Builder's expense, regardless of whether it is defective.
 - 2. If it is found that the covered Construction is defective, Design-Builder shall pay all costs and damages caused by or resulting from such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement, re-covering, or reconstruction (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals, all court or arbitration or other dispute resolution costs, and all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price.

3. If the covered Construction is not found to be defective, Design-Builder shall be allowed an increase in the Contract Price or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, re-covering, and reconstruction, subject to the provisions of Paragraph 13.03.A.1.

13.04 *Defective Construction*

- A. It is Design-Builder's obligation to assure that the Construction is not defective.
- B. Owner shall give Design-Builder prompt written notice of all defective Construction of which Owner has actual knowledge. Owner may reject, accept, or correct defective Construction.
- C. Promptly after receipt of written notice of defective Construction, unless Owner expressly indicates that it will accept the defective Construction, Design-Builder shall correct all such defective Construction, whether or not fabricated, installed, or completed; or, if Owner has rejected the defective Construction, remove it from the Project and replace it with Construction that is not defective.
- D. When correcting defective Construction, Design-Builder shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Construction.

13.05 *Owner May Correct Defective Construction*

- A. If Design-Builder fails within a reasonable time after written notice from Owner to correct defective Construction or to remove and replace rejected Construction, or if Design-Builder fails to perform the Construction in accordance with the Contract Documents, or if Design-Builder fails to comply with any other provision of the Contract Documents, Owner may, after 7 days' written notice to Design-Builder, correct and remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.05 Owner shall proceed expeditiously. In connection with such corrective and remedial action, Owner may exclude Design-Builder from all or part of the Site, take possession of all or part of the Construction, and suspend Design-Builder's services related thereto, and incorporate in the Construction all materials and equipment stored at the Site or for which Owner has paid Design-Builder but which are stored elsewhere. Design-Builder shall allow Owner, Owner's Consultant, Owner's Site Representative, and Owner's other representatives, agents, employees, and contractors, access to the Site to enable Owner to exercise the rights and remedies under this paragraph.

13.06 *Costs*

- A. Design-Builder shall bear all costs arising out of or relating to the correction, removal, or replacement of defective Construction, including but not limited to repair of adjacent Work or property; delay costs and impacts; fees and charges of engineers, architects, attorneys, and other professionals; and all court, arbitration, or other dispute resolution costs.
- B. All costs, losses, and damages (included but not limited to fees and charges of engineers, architects, attorneys and other professionals, all court or arbitration or other dispute resolution costs, and all costs of repair or replacement of work of others) incurred or sustained by Owner in exercising its rights and remedies arising from defective Construction under this Article will be charged against Design-Builder, by set-off against payment or otherwise.

- C. Design-Builder shall not be allowed an extension of the Contract Times (or Milestones) because of any delay in the performance of the Work attributable to defective Construction.

13.07 *Owner's Acceptance of Defective Construction*

- A. If, instead of requiring correction or removal and replacement of defective Construction, Owner prefers to accept it, Owner may do so. If such acceptance is proposed prior to final payment, it shall be subject to confirmation by the applicable Project Design Professional that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety. Design-Builder shall pay all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Construction. If any such acceptance occurs prior to final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents, and Owner shall be entitled to an appropriate decrease in the Contract Price reflecting the diminished value of the Construction so accepted.

13.08 *Owner May Stop Construction*

- A. If Construction is defective, or Design-Builder fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform Construction in such a way that the completed Construction will conform to the Contract Documents, Owner may order Design-Builder to stop Construction or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop Construction will not give rise to any duty on the part of Owner to exercise this right for the benefit of Design-Builder or any other party.

ARTICLE 14 – PAYMENTS TO DESIGN-BUILDER; COMPLETION

14.01 *Progress Payments*

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Paragraph 2.04 will serve as the basis for progress payments. Progress payments on account of Unit Price Work will be based on the number of units completed.
- B. *Application for Progress Payment:* On or about the date established in the Agreement for submission of each application for progress payment (but not more often than once a month), Design-Builder shall submit to Owner for review an Application for Payment filled out and signed by Design-Builder covering the Work completed as of the date indicated on the Application and accompanied by supporting documentation as required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect Owner's interest therein, all of which will be satisfactory to Owner.
- C. *Payment of Obligations:*
 - 1. Beginning with the second Application for Payment, each Application shall include an affidavit of Design-Builder stating that all previous progress payments received on

account of the Work have been applied on account to discharge Design-Builder's legitimate obligations associated with prior Applications for Payment.

2. If Design-Builder contends that it has withheld payment of underlying obligations for good cause, then Design-Builder shall inform Owner of the identity of the entity from which Design-Builder has withheld payment, the amount of the withholding, and the reason for the withholding.
- D. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.
- E. *Review of Applications:*
1. Owner will, within 10 days of receipt of each Application for Payment, either indicate in writing its acceptance of the Application and state that the Application is being processed for payment, or return the Application to Design-Builder indicating in writing its reasons for refusing to accept the Application.
- F. Not more than 10 days after accepting such Application the amount will become due and when due will be paid by Owner to Design-Builder.
1. If Owner should fail to pay Design-Builder at the time the payment of any amount becomes due, then Design-Builder may, at any time thereafter, upon serving written notice that he will stop the Work within 7 days after receipt of the notice by Owner, and after such 7-day period, stop the Work until payment of the amount owing has been received. Written notice shall be deemed to have been duly served if sent by certified mail to the last known business address of Owner.
 2. Payments due but unpaid shall bear interest at the rate specified in the Agreement.
 3. No Progress Payment nor any partial or entire use or occupancy of the Project by Owner shall constitute an acceptance of any Work not in accordance with the Contract Documents.
- G. *Reduction in or Refusal to Make Payment:*
1. Owner may impose a set-off against the whole or any part of any such payment, or nullify any previous payment because of subsequently discovered evidence or the results of subsequent inspections or tests, to the extent that is reasonably necessary to protect Owner from loss because:
 - a. Claims have been made against Owner on account of Design-Builder's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Design-Builder's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from breach of warranty, workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Design-Builder has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Design-Builder has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Design-Builder is responsible;

- e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. The Construction is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Construction in accordance with Paragraph 13.05, or has accepted defective Construction pursuant to Paragraph 13.07;
 - h. The Contract Price has been reduced by Change Orders;
 - i. An event that would constitute a default by Design-Builder and therefore justify a termination for cause has occurred;
 - j. Liquidated damages, special damages, or performance damages have accrued under the Contract Documents as a result of Design-Builder's failure to achieve Milestones, Substantial Completion, final completion of the Work, or performance requirements, as applicable;
 - k. Liens have been filed in connection with the Work, except where Design-Builder has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such liens (provided, however, that Owner is not in breach of its obligations to make payment to Design-Builder for amounts properly due in accordance with this Agreement); or
 - l. There are other items entitling Owner to a set off against the amount recommended.
2. If Owner imposes any set-off against payment, Owner will give Design-Builder immediate written notice stating the reasons for such action and the specific amount of the reduction, and promptly pay Design-Builder any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Design-Builder the amount so withheld, or any adjustment thereto agreed to by Owner and Design-Builder, if Design-Builder remedies the reasons for such action. The reduction imposed shall be binding on Design-Builder unless it duly presents a written notice of Claim contesting the reduction.

14.02 *Design-Builder's Warranty of Title*

- A. Design-Builder warrants and guarantees that title to all Construction, materials, and equipment covered by any Application for Payment, whether already incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.03 *Substantial Completion*

- A. When Design-Builder considers the Work ready for its intended use Design-Builder shall notify Owner in writing that the Work is substantially complete (except for items specifically listed by Design-Builder as incomplete) and request that Owner issue a certificate of Substantial Completion. Promptly thereafter, Owner and Design-Builder shall make an inspection of the Work to determine the status of completion. If Owner does not consider the Work substantially complete, Owner will notify Design-Builder in writing giving the reasons therefor.
- B. If Owner considers the Work substantially complete:
 - 1. Owner and Design-Builder will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect

to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Design-Builder agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

2. Owner will prepare and deliver to Design-Builder a certificate of Substantial Completion which shall fix the date of Substantial Completion. Owner shall attach to the certificate a punch list of items to be completed or corrected before final payment.
- C. After Substantial Completion the Design-Builder shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Design-Builder may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- D. Owner shall have the right to exclude Design-Builder from the Site after the date of Substantial Final Completion subject to allowing Design-Builder reasonable access to remove its property and complete or correct items on the punch list.

14.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Construction which (1) has specifically been identified in the Contract Documents, or (2) Owner and Design-Builder agree constitute a separately functioning and usable part of the Construction that can be used by Owner for its intended purpose without significant interference with Design-Builder's performance of the remainder of the Construction, subject to the following:
 1. Owner at any time may request Design-Builder in writing to permit Owner to use or occupy any such part of the Construction that Owner believes to be ready for its intended use and substantially complete. If Design-Builder agrees that such part of the Work is substantially complete, Design-Builder and Owner will follow the procedures of Paragraph 14.03 for that part of the Construction.
 2. Design-Builder at any time may notify Owner in writing that Design-Builder considers any such part of the Work ready for its intended use and substantially complete and request Owner to issue a certificate of Substantial Completion for that part of the Work.
 3. Within a reasonable time after either such request, Owner and Design-Builder shall make an inspection of that part of the Work to determine its status of completion. If Owner does not consider that part of the Work to be substantially complete, Owner will notify Design-Builder in writing giving the reasons therefor. If Owner considers that part of the Work to be substantially complete, the provisions of Paragraph 14.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 4. No use or occupancy of part of the Construction will be accomplished prior to compliance with the requirements of Paragraph 6.05 regarding property insurance.
- B. In the event Owner uses or occupies any part of the Construction of the Work deemed substantially complete as set forth in this Paragraph 14.04, then: (i) the applicable Correction Period for the part of the Work as set forth in Paragraph 14.08 shall commence as of the date of such use or occupancy and will end within one year thereafter, and (ii) liquidated damages,

if any, shall cease to accrue for the part of the Work so used or occupied, and any remaining liquidated damages available shall be reduced on a pro rata basis.

14.05 *Final Inspection*

- A. Upon written notice from Design-Builder that the entire Work or an agreed portion thereof is complete, Owner will make a final inspection with Design-Builder and will notify Design-Builder in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Design-Builder shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.06 *Final Payment*

A. *Application for Payment:*

1. After Design-Builder has completed all such corrections to the satisfaction of Owner and delivered in accordance with the Contract Documents all maintenance and operating instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance, certificates of inspection, and Record Documents, Design-Builder may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (unless previously delivered) by:
 - a. All documentation called for in the Contract Documents;
 - b. Consent of the surety, if any, to final payment;
 - c. Satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment;
 - d. A list of all disputes that Design-Builder believes are unsettled; and
 - e. Complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of such releases or waivers of Liens specified in Paragraph 14.06.A.2, and as approved by Owner, Design-Builder may furnish receipts or releases in full and an affidavit of Design-Builder that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed, and (b) all payrolls, material and equipment bills and other indebtedness connected with the Work for which Owner might in any way be responsible, or which in any way might result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Project Design Professional, Construction Subcontractor, or Supplier fails to furnish such a release or receipt in full, Design-Builder may furnish a Bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

- B. *Final Payment and Acceptance:* If Owner is satisfied that the Work has been completed and Design-Builder's other obligations under the Contract Documents have been fulfilled, Owner will, within 10 days after receipt of the final Application for Payment, give written notice to Design-Builder that the Work is acceptable. Otherwise, Owner will return the Application to Design-Builder, indicating in writing the reasons for refusing to process final payment, in which case Design-Builder shall make the necessary corrections and resubmit the Application.

- C. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment.

- D. *Payment Becomes Due*: The amount will become due and will be paid by Owner to Design-Builder 30 days after the presentation to Owner of the acceptable Application and accompanying documentation, in appropriate form and substance and with Owner's notice of acceptability.

14.07 *Waiver of Claims*

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Design-Builder. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.05, from Design-Builder's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from unresolved disputes or Claims presented by Owner, or from Design-Builder's continuing obligations under the Contract.
- B. The acceptance of final payment by Design-Builder will constitute a waiver by Design-Builder of all claims and rights against Owner other than those pending matters that have been duly submitted to dispute resolution under the provisions of Article 16.

14.08 *Correction Period*

- A. If within one year after the date of Substantial Completion of the entire Work or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Construction is found to be defective, Design-Builder shall promptly, without cost to Owner and in accordance with Owner's written instructions, (1) correct such defective Construction, or, if it has been rejected by Owner, remove it from the Site and replace it with Construction that is not defective, and (2) satisfactorily correct or remove and replace any damage to other Construction or the work of others resulting therefrom. If Design-Builder does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Construction corrected or the rejected Construction removed and replaced, and all costs, losses, and damages caused by or resulting from such removal and replacement (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals, all court or arbitration or other dispute resolution costs, and all costs of repair or replacement of work of others) will be paid by Design-Builder. Notwithstanding the foregoing, if Design-Builder disputes the existence, nature, or cause of such Construction which Owner claims to be defective, it shall be entitled to initiate a Claim in accordance with Article 16.
- B. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Conceptual Documents.
- C. Where defective Construction (and damage to other Construction resulting therefrom) has been corrected, or removed or replaced, under this Paragraph 14.08, the correction period hereunder with respect to such Construction will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 days in the aggregate by notice in writing to Design-Builder, which will fix the date on which Work will be resumed. Design-Builder shall resume the Work on the date so fixed. Design-Builder shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension.

15.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events justifies termination for cause:
 - 1. Design-Builder's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the progress schedule as duly adjusted).
 - 2. Design-Builder's disregard of Laws or Regulations of any public body having jurisdiction.
 - 3. Design-Builder's violation in any substantial way of provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occurs, Owner may, after giving Design-Builder (and the surety, if any) 7 days' written notice, terminate the services of Design-Builder, take possession of any completed Design Submittals prepared by or for Design-Builder (subject to the limited license and indemnification provisions of Paragraph 3.04), exclude Design-Builder from the Site, take possession of the Work, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Design-Builder but which are stored elsewhere, and finish the Work as Owner may deem expedient. In such case Design-Builder shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all costs, losses and damages sustained by Owner arising out of or resulting from completing the Work (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs) such excess will be paid to Design-Builder. If such costs, losses and damages exceed such unpaid balance, Design-Builder shall pay the difference to Owner. Such costs, losses and damages incurred by Owner will be incorporated in a Change Order. When exercising any rights or remedies under this paragraph Owner shall not be required to obtain the lowest price for the Work performed.
- C. Notwithstanding Paragraph 15.02.B, Design-Builder's services will not be terminated if Design-Builder begins, within 7 days of receipt of notice of intent to terminate, to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice (or such other time necessary to cure such failure in Owner's reasonable discretion).
- D. Where Design-Builder's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Design-Builder then existing or which may thereafter accrue. Any retention or payment of moneys due Design-Builder by Owner will not release Design-Builder from liability.

15.03 *Owner May Terminate for Convenience*

- A. Upon 7 days' written notice to Design-Builder, Owner may, without cause and without prejudice to any other right or remedy of Owner, elect to terminate the Contract. In such case, Design-Builder shall be paid (without duplication of any items) for:
 - 1. Completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. Expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
 - 3. Amounts paid in settlement of terminated contracts with Project Design Professionals, Construction Subcontractors, Suppliers and others (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs incurred in connection with such terminated contracts); and
 - 4. Reasonable expenses directly attributable to termination.
- B. Design-Builder shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Design-Builder May Stop Work or Terminate*

- A. If, through no act or fault of Design-Builder, the Work is suspended for a period of more than 90 days by Owner or under an order of court or other public authority, Owner fails to act on any Application for Payment within 30 days after it is submitted, or Owner fails for 30 days to pay Design-Builder any sum finally determined to be due, then Design-Builder may, upon 7 days' written notice to Owner, and provided Owner does not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.A. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Owner has failed for 30 days to pay Design-Builder any sum finally determined to be due, Design-Builder may upon 7 days' written notice to Owner stop the Work until payment is made of all such amounts due Design-Builder, including interest thereon. The provisions of this paragraph are not intended to preclude Design-Builder from obtaining an increase in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Design-Builder's stopping Work as permitted by this paragraph.

ARTICLE 16 – DISPUTES

16.01 *Methods and Procedures*

- A. *Notice of Claim:* If Owner and Design-Builder are not in agreement regarding a proposed or requested Change Order, other proposed adjustment of Contract Price or Contract Times, a Work Change Directive issued by Owner, or any other relief proposed or requested under the Contract, then either party may provide written notice of a Claim to the other party. Such notice of Claim shall be given within 90 days of: the proposal or request for a Change Order; such other proposed adjustment of Contract Price or Contract Times; the issuance of the Work Change Directive; or the proposal or request for other relief under the Contract. The notice

of Claim shall be given within the 90 days regardless of whether the other party has responded to such proposal, request, or issuance, and regardless of whether discussions or negotiations are in progress; provided, however, that the parties may extend the time to give such notice of Claim by mutual written agreement. The notice of Claim shall include a statement of position, specification of the remedy sought, and supporting documentation.

- B. *Response:* Within 30 days of the date of notice of Claim, the receiving party shall respond with a written statement of position and any supporting documentation.
- C. *Direct Negotiations:* Owner and Design-Builder agree to directly negotiate all Claims between them in good faith for a period of 60 days from the date of notice of Claim.
- D. *Mediation:* If direct negotiations are unsuccessful in resolving a Claim, then Owner and Design-Builder shall submit the unsettled Claim to mediation by a mutually agreeable mediator or mediation service. Owner and Design-Builder agree to participate in the mediation process in good faith. The process shall be conducted on a confidential basis, and shall be completed within 120 days.
 - 1. The fees and expenses, including filing fees, of the mediator and any mediation service shall be shared equally by Owner and Design-Builder.
 - 2. The mediation shall be held in the locality where the Project is located, unless another location is mutually agreed upon by the parties.
 - 3. A settlement (if any) resulting from such mediation will be specifically enforceable under the prevailing law, by any court having jurisdiction.
 - 4. Participation in the mediation process in good faith is a condition precedent to commencing final or binding dispute resolution.
- E. If mediation is unsuccessful in resolving a Claim, then within 120 days of the completion of the mediation (1) the parties may mutually agree to a binding dispute resolution process of their choice, or (2) the claimant may give notice to the other that the claimant will seek to have the dispute resolved by a binding dispute resolution method established in this Contract, or if no such method has been established, by a court of competent jurisdiction. Failure by claimant to give such notice in a timely manner shall result in a waiver of the Claim.

ARTICLE 17 – MISCELLANEOUS

17.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice to the other party to this Contract, it will be deemed to have been validly given if delivered to the Authorized Representative of the other party:
 - 1. In person, by a commercial courier service or otherwise; or
 - 2. By registered or certified mail, postage prepaid; or
 - 3. By e-mail, with the words “Formal Notice” or similar in the e-mail’s subject line.

17.02 *Computation of Times*

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

- A. Unless expressly stated otherwise in this Contract, the duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, or waiver of, any rights and remedies available to any or all of them which are otherwise imposed or available by:
 - 1. Laws or Regulations; or
 - 2. Any special warranty or guarantee; or
 - 3. Other provisions of the Contract.
- B. The provisions of Paragraph 17.03.A will be as effective as if repeated specifically in the Contract in connection with each particular duty, obligation, right and remedy to which they apply.

17.04 *Limitation of Damages*

- A. With respect to this Contract and any and all Claims and other matters at issue, Owner and Design-Builder shall not be liable to each other for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner or Design-Builder on or in connection with any other project or anticipated project.

17.05 *No Waiver*

- A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

17.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties and guarantees made in, required by or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion and acceptance of the Work and termination or completion of the Contract.

17.07 *Controlling Law*

- A. The Contract Documents will be construed in accordance with the law of the place of the Project.

17.08 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

17.09 *Mutual Waiver of Consequential Damages.*

- A. NOTWITHSTANDING ANYTHING CONTAINED IN THIS CONTRACT TO THE CONTRARY, NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY TO THIS CONTRACT FOR ANY SPECIAL, INDIRECT, CONSEQUENTIAL DAMAGES (INCLUDING BUT NOT LIMITED TO, LOSSES OF USE, PROFITS, BUSINESS, REPUTATION OR FINANCING), OR PUNITIVE DAMAGES ARISING OUT OF, OR RELATING TO, THIS CONTRACT UNDER ANY CIRCUMSTANCES WHATSOEVER.

SUPPLEMENTARY CONDITIONS OF THE CONTRACT BETWEEN OWNER AND DESIGN-BUILDER

SC 5.04.A Add the following new paragraph immediately after Paragraph 5.04.A:

1. No reports of explorations or tests of subsurface conditions at or adjacent to the Site, or drawings of physical conditions relating to existing surface or subsurface structures at the Site, are known to Owner.

SC 5.06.A Delete Paragraph 5.06.A in its entirety and insert the following in its place:

- A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.

SC-6.03 Add the following new paragraph immediately after Paragraph 6.03.J:

- K. The limits of liability for the insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts, or greater where required by Laws and Regulations:

1. Workers' Compensation, and related coverages under Paragraph 6.03.A of the General Conditions:

State:	Statutory
--------	-----------

Federal, if applicable (e.g., Longshoreman's):	Statutory
--	-----------

Jones Act coverage, if applicable:

Bodily injury by accident, each accident	\$ _____
--	----------

Bodily injury by disease, aggregate	\$ _____
-------------------------------------	----------

Employer's Liability:

Bodily injury, each accident	\$ 500,000
------------------------------	------------

Bodily injury by disease, each employee	\$ 500,000
---	------------

Bodily injury/disease aggregate	\$ _____
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For work performed in monopolistic states, stop-gap liability coverage shall be endorsed to either the worker's compensation or commercial general liability policy with a minimum limit of:

	\$ _____
--	----------

Foreign voluntary worker compensation	Statutory
---------------------------------------	-----------

2. Design-Builder's Commercial General Liability under Paragraphs 6.03.B and 6.03.C of the General Conditions:

General Aggregate	\$ <u>2,000,000</u>
Products - Completed Operations Aggregate	\$ _____
Personal and Advertising Injury	\$ _____
Each Occurrence (Bodily Injury and Property Damage)	\$ <u>1,000,000</u>

3. Automobile Liability under Paragraph 6.03.E. of the General Conditions:

Bodily Injury:

Each person	\$ <u>1,000,000</u>
Each accident	\$ _____

Property Damage:

Each accident	\$ <u>1,000,000</u>
---------------	---------------------

[or]

Combined Single Limit of	\$ _____
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4. Excess or Umbrella Liability:

Per Occurrence	\$ _____
General Aggregate	\$ _____

5. Contractor's Pollution Liability under Paragraph 6.03.G of the General Conditions:

Each Occurrence	\$ _____
General Aggregate	\$ _____

6. Design-Builder's Professional Liability:

Each Claim	\$ <u>1,000,000</u>
Annual Aggregate	\$ _____

STATEMENT OF QUALIFICATIONS FOR:

NORTH PUMP STATION IMPROVEMENTS PROJECT

NORTH SAN JOAQUIN WATER
CONSERVATION DISTRICT



NORTH SAN JOAQUIN WATER
CONSERVATION DISTRICT
498 EAST KETTLEMAN LANE
LODI, CA 95240

GARNEY PACIFIC, INC.
17510 W BETHANY ROAD
TRACY, CA 95391



NORTH PUMP STATION IMPROVEMENTS PROJECT

NORTH SAN JOAQUIN WATER CONSERVATION DISTRICT

Dear Members of the Selection Committee,

Nationally recognized and locally trusted, Garney Pacific, Inc. (Garney) and Dewberry Engineers Inc. (Dewberry) hereby after referred to as the Garney + Dewberry design-build team is the most qualified team of experts to successfully deliver this project by December, 2026. Our team offers North San Joaquin Water Conservation District (the District) best practices in design-build delivery necessary for efficient project management of complex environmental factors and permitting. Garney + Dewberry has formed a strategic and diversified team of local experts that will bring innovative solutions, mitigate risk and optimize budget, and will maximize collaboration with the District and key project stakeholders. ***With a proven track record of success together and a highly specialized team ready to deliver, we provide the District with the following critical success factors that separate us from our competition:***

• PROGRESSIVE DESIGN-BUILD EXPERTS

Through Garney and Dewberry's 25 years of collaborative delivery experience together and execution of over \$6B of water and wastewater design-build projects, we offer the District the proven design-build management experience required to successfully deliver a complex water pump station. Through decades of partnership, we have formed an established foundation of trust and accountability that results in best-practice design-build strategies. These best-practices directly translate to schedule and budget certainty for the District through efficient execution of critical front-end design-build tasks including secured funding, design milestones, timely permitting approval, and accurate GMP price development.

• UNMATCHED TECHNICAL KNOWLEDGE

For the past few months, Garney + Dewberry has worked together and engaged with key subconsultants to assess various challenges on your project. We have intentionally formed a uniquely qualified team of exclusive engineers, builders, and consultants to deliver this project. ***Garney + Dewberry have engaged five subconsultants, all with unique knowledge of your project, including Cathy Avila and Ben Crawford who both have experience working on the Mokelumne River.***

Additionally, the Garney + Dewberry team's expertise as marine and pump station infrastructure designers and constructors allows us to understand the unique aspects of this pump station project, and we have developed several innovative alternatives that will support the successful execution of the North Pump Station Improvements Project, including a preferred alternative design that achieves the following:



- ◆ *Mitigates environmental impacts that seamlessly integrate into the design to preserve the surrounding environment.*
- ◆ *Addresses potential exposure of structural elements to water, emphasizing materials with chemical resistance.*
- ◆ *Incorporates accessibility features for ease of inspection and maintenance, particularly for steel structures in contact with water.*

◆ DEDICATED LOCAL RESOURCES

With over 67 projects completed in California alone, our team offers the District locally-based personnel with local experience in stakeholder coordination, obtaining complex permits, tackling challenging environmental obstacles, and delivering pump station projects. Our local experts give the District unmatched local knowledge of waterways and soil conditions that will be paramount to the project's permitting, design, and construction success.

The Garney + Dewberry design-build team will provide the District with a pump station that will be reliably operated and maintained for years to come. *As the nation's largest and most trusted water and wastewater design-builder, we look forward to providing the District with the best value and service in the industry throughout the delivery of this project.*



Dan Eckdahl will be the sole point-of-contact for Garney and is the signatory to any contract documents executed with the District.

Garney acknowledges receipt of Addendum #1 on November 22, 2023

Respectfully Submitted,

Dan Eckdahl, DBIA
Design-Build Manager
Garney Pacific, Inc.

17510 W Bethany Road, Tracy, CA 95391
deckdahl@garney.com
702.210.6888

BUILDING SUSTAINABLE FUTURES WITH THE WORLD'S MOST PRECIOUS RESOURCES WATER AND PEOPLE.™

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PART 7: COST PROPOSAL
Submitted in a Separate Sealed Envelope

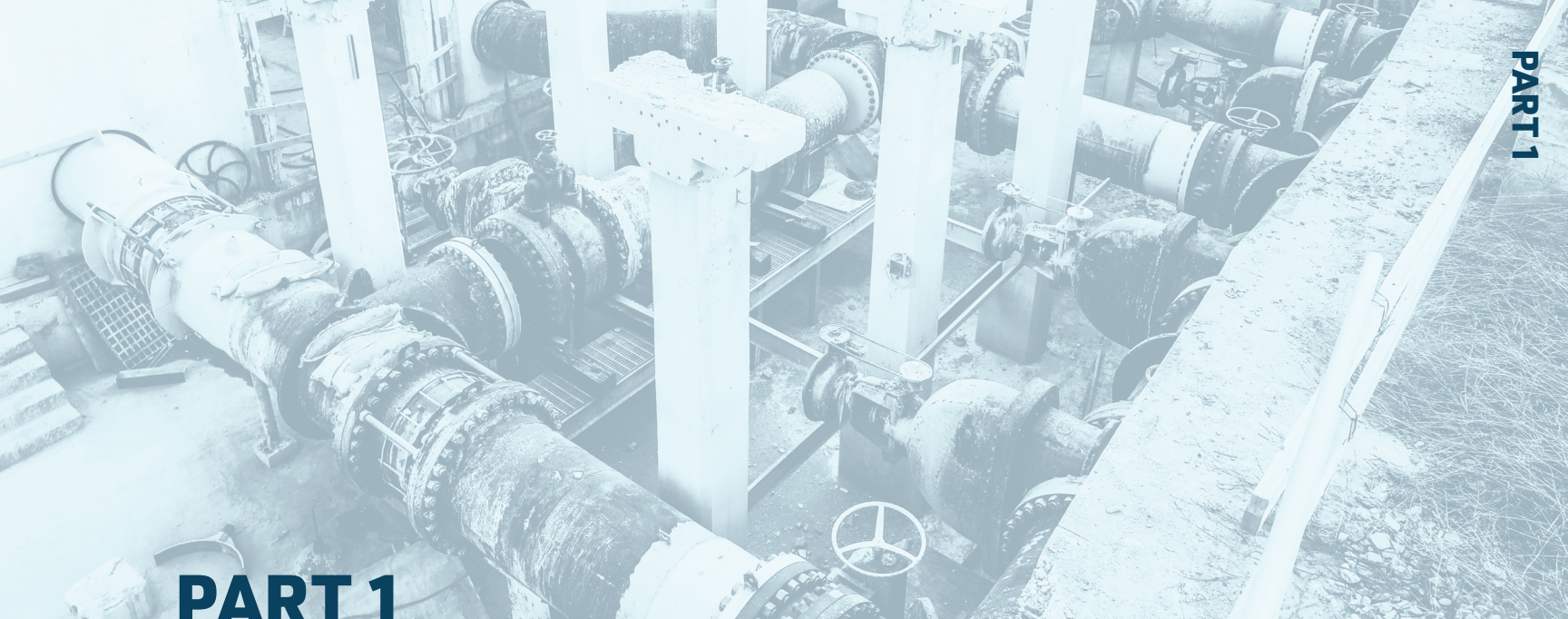
ATTACHMENT A: SOQ FORMS

ATTACHMENT B: RESUMES



PART 1

EXECUTIVE SUMMARY



EXECUTIVE SUMMARY

OVERVIEW OF KEY ELEMENTS

Our Progressive Design-Build (PD-B) team is led by **Garney Construction**—the national leader in delivery of water and wastewater infrastructure. Garney will be contracted with the District. As the Lead Design Engineer, **Dewberry's** strong local knowledge in both design and permitting will be paramount for the success of this project. Beyond Garney and Dewberry, this PD-B team intentionally couples nationwide experts with known local teammates to successfully execute this project, including the following subconsultants: Avila & Associates (Avila), EETS Inc., Crawford & Associates (Crawford), ICF International (ICF), NV5 Inc., and Unico. Garney + Dewberry stands as an experienced team of local pump station experts, bringing a collective wealth of experience in designing and constructing vital similar infrastructure. In developing this proposal, we have diligently researched and studied the complexities of the Project, cultivating a strategic approach that places collaboration at its core. The key elements of our team and approach are highlighted below.

UNMATCHED TEAM OF SPECIALISTS

GARNEY + DEWBERRY TEAMING WITH EXPERT SUBCONSULTANTS

What sets our team apart is our team of local experts in design and construction that will bring unique knowledge to your project. Our team of local experts in design and permitting bring recent and relevant experience in working within the boundaries of the Mokelumne River.

In addition, Garney is solely focused on delivering water and wastewater infrastructure projects in California and across the country. That comes with knowledge and resources locally as well as on a national level.

Garney + Dewberry have a 25-year history working together and will make an emphasis on being transparent partners with the District. In addition to our two trusted firms, we've partnered with several subconsultants who are experts at delivering projects similar to the North Pump Station Improvements.

Avila & Associates and Crawford & Associates both have experience working on the Mokelumne River and will bring a unique set of knowledge that will prove pivotal to your project.

PROGRESSIVE DESIGN-BUILD EXPERTS

LEADERS IN COLLABORATIVE DELIVERY

Our 25-year history of working on projects together has been highlighted by collaborative delivery projects across the country. Garney + Dewberry believe the most successful projects are completed using design-build and other collaborative delivery methods. Our two firms have completed over \$6B in design-build projects and pride ourselves on fostering an open and transparent environment to develop win-win solutions. This level of transparency allows the District to be involved from early in design through final completion.

Our team has developed a Phase I collaborative outline tailored for this project. The flow chart is provided on page 15.

INNOVATIVE SOLUTIONS BRINGING INNOVATIVE IDEAS TO DESIGN AND CONSTRUCTION

Because we understand the project's goal of increasing water supply for the District, we recommend an alternative location for the pump station to offset groundwater pumping. ***Garney + Dewberry provided two alternative locations and recommended the most suitable option***, shown on page 27. These designs are anchored in compliance with stringent safety, environmental, and structural regulations, ensuring a resilient, environmentally responsible, and operationally efficient raw water pump station.

ACHIEVING THE DISTRICT'S GOALS

GOAL 4: PROTECTING THE MOKELUMNE RIVER WATER RIGHT

The discussion of the preferred design alternative shared in the Project Concepts section is a result of extensive collaboration and analysis, and outlines a solution for a new North Pump Station that not only addresses the challenges presented by the site but also **prioritizes safety, environmental responsibility, and long-term performance while protecting the Mokelumne River.** The holistic approach encompasses site-specific considerations, rigorous design criteria, seismic resilience, hydraulic efficiency, mechanical simplicity, and strategic maintenance planning, creating a pump station that stands as a resilient and sustainable infrastructure for years to come.

GOAL 5: BUILDING FACILITIES TO DELIVER SURFACE WATER

We have assembled a team uniquely tailored for your project's needs. **All of our key personnel are local to the Northern California area, and many have worked on the Mokelumne River.**

We understand the complexities that come with designing and constructing infrastructure in and around a river, including critical environmental, geotechnical, and permitting considerations. With that knowledge, we chose to bolster our team with river expert subconsultants such as Avila & Associates, ICF Inc., NV5, and Crawford & Associates. These firms have already brought key insight into our innovative design concepts.

GOAL 7: INCREASING THE TOTAL WATER SUPPLY AVAILABLE TO THE DISTRICT

Our team understands the importance of this water infrastructure project to the District and its citizens. We've done our due diligence to ensure this project is successfully completed to the highest quality while staying within budget and on schedule through the following tasks:

- » Completed two site visits to identify constraints and opportunities.
- » Reached out to the manufacturer of the existing North Pump Station fish screen to obtain information on alternative screens and design criteria.
- » Obtained geotechnical borings for the Elliott Road Bridge over the Mokelumne River, less than one mile upstream of the North Pump Station site, to identify local soils characteristics.

OUR PROGRESSIVE DESIGN-BUILD (PD-B) TEAM

Our PD-B team has united with an unmatched national and local expertise in designing, permitting, and constructing pump station and other water infrastructure projects. Garney will serve as the Design-Builder and Dewberry will lead the design services, supported by highly qualified subcontractors including Avila & Associates, UNICO, EETS, ICF International, and Crawford & Associates. We are committing a comprehensive, local, and experienced PD-B team ready to make your project a success. As your ideal PD-B partner, we will bring you tremendous collaboration and unmatched experience to meet your project goals.

What differentiates our team is our project understanding, key stakeholder relationships, and recent experience together on prominent projects completed across the nation and Northern California.



AWARD-WINNING TEAM

EVANS CONSOLIDATED WWTP (CMAR)

Garney + Dewberry successfully partnered on the \$39M WWTP in Evans, Colorado to deliver an ENR Mountain States Best Water/Environment Project. Our team overcame unique challenges and mitigated significant risks throughout building a state-of-the-art treatment facility on budget and within schedule.



WATER EXPERTS

We have built a hard-earned reputation as a top water/wastewater contractor through our unparalleled experience, quality, and safety. This is evident by more than a decade of top industry rankings. Garney holds the following 2023 ENR Rankings.

- #1 WATER SUPPLY
- #5 ALL-ENVIRONMENTAL FIRMS
- #6 ENVIRONMENTAL FIRM IN WATER TREATMENT/SUPPLY

LEADERSHIP YOU CAN TRUST

Garney + Dewberry has assembled a team full of local individuals dedicated to completing your project within budget and on schedule. This team is lead by the following industry experts:



Dan Eckdahl, DBIA DESIGN-BUILD MANAGER

- » 11 D-B projects managed
- » 34 years of water/wastewater experience



Feliciano Mata PROJECT MANGER/VE/ CONSTRUCTABILITY

- » 27 years of water/wastewater experience
- » Entire career spent in California



Dave Richard, PE DESIGN LEAD

- » 45 years of water/wastewater engineering
- » Extensive local experience



Wayne O'Brien PRINCIPAL-IN-CHARGE

- » 40 years of water/wastewater experience
- » \$1.7B wastewater/water projects delivered

PART 2

DESIGN-BUILDER PROFILE



DESIGN-BUILDER PROFILE

GENERAL

Since Garney's inception in 1961, our sole focus has been water and wastewater infrastructure. We specialize in the construction of pump stations, sewer and water piping systems, treatment facilities, and storage tanks. We service the public, private, federal, and industrial sectors. **As the nation's largest water and wastewater contractor**, we have built a well-earned reputation through unparalleled experience, quality, and safety.

For more than 20 years, collaborative delivery projects have been a focus of Garney and account for \$8.7 billion worth of our projects.

We have successfully completed 256 PD-B projects valued at \$5.1B and an additional 303 projects totaling \$6.8B using other collaborative delivery methods.

Garney is a 100% employee-owned firm, which separates us from our competition. Ownership is a powerful tool—those who have it hold a vested interest to work harder and smarter, resulting in a safe project executed at the highest quality level possible.

Number of Employees: Garney has 1,986 employees across 18 offices nationwide, including local offices in Temecula and Tracy, California.

- » 718 Salary
- » 1,268 Hourly

Required Licenses: Garney is licensed to do business in California and holds the following licenses:

- » A General Contractor License: State of CA (CSLB): 999415 "A" - General Engineering Contractor



PROJECT OFFICE LOCATION

Our team has offices located in close proximity to the project site. While design components will be provided by personnel located in both of these offices, our primary project office, where the leadership team and majority of design work will be performed, will be the Dewberry office at 903 West Center Street, Manteca, CA. This office is conveniently located adjacent to Garney's office and will serve as a hub for the project team from preliminary design through the start of construction. Garney's entire project team will be located in the primary Garney project office in Tracy, just 20 minutes from the Dewberry office and 45 minutes from your project site.

Once construction begins, Feliciano Mata, Jimmy Stirrat, and resident engineering support will be located at the construction site office to coordinate with the District and their representatives on a daily basis.

LEGAL STRUCTURE

Garney is organized as a corporation. As an employee-owned company with broad-based ownership, no employee-owner owns 10 percent or more of the company.

We have used this business structure to construct more than 2,575 water/wastewater projects worth \$19.7B, providing us with expertise in virtually every water and wastewater treatment process and conveyance system available.

Garney will serve as Design-Builder and has teamed with Dewberry as the Lead Design Engineer, as well as other key firms on this Project.

PAYMENT AND PERFORMANCE BONDS

A letter from our surety verifying their availability to provide performance and payment bonds of at least \$15 million is provided in Attachment A - SOQ Forms.

INSURANCE

A letter from our insurance company indicating that we can comply with the insurance requirements as defined in the General Conditions is provided in Attachment A - SOQ Forms.

MATERIAL ADVERSE CHANGES IN FINANCIAL POSITION

Garney has no material historical, existing or anticipated changes in financial position, including mergers, acquisitions, takeovers, joint ventures, bankruptcies, divestitures, or any material changes in the mode of conducting business.

LEGAL PROCEEDINGS AND JUDGMENTS

Within the normal course of business, Garney

is periodically subject as a party to a lawsuit or participates in dispute resolution. Most actions are not brought forth by Garney and are amicably settled before reaching a level of legal action. While Garney is occasionally engaged in claims and disputes involving subcontractors, suppliers, and the engineering and construction professions, it rarely results in litigation. At present, none of these cases are against Owners. Most actions are dismissed without contribution from Garney or result in no finding of liability of our company. No actions are currently pending that will materially impact our financial standing or our ability to perform on a project of any size. At no time has Garney ever been assessed liquidated damages or been debarred from bidding.

A sworn statement from Garney's General Counsel reflecting this response is attached in Attachment A - SOQ Forms.

COMPLETION OF CONTRACTS

Has the Design-Builder failed to complete any contract, or has any contract been terminated due to alleged poor performance or default within the past 10 years?

No.

VIOLATION OF LAWS

Has the Design-Builder been convicted of any criminal conduct or been found in violation of any federal, state, or local statute, regulation, or court order concerning antitrust, public contracting, employment discrimination or prevailing wages within the past 10 years?

No.

DEBARRED FROM BIDDING

Has the Design-Builder been debarred within the past 10 years, or is it under consideration for debarment, on public contracts by the federal government or by any state?

No.

PART 3

TEAM ORGANIZATION



TEAM ORGANIZATION

DESIGN-BUILDER/OTHER FIRMS

The Garney + Dewberry design-build team is a contractor-led design-build team with Garney as the responsible party for the delivery of the North Pump Station Improvements Project, streamlining all services and activities into a single point-of-contact for the District. This expertise, coordination, and understanding will benefit the District in the delivery of this technically challenging pump station project. Our teaming structure includes the following:

- » **Garney** as the Design-Builder team lead and primary constructor, specializing in pump station installation. Garney will lead the team in preconstruction and construction, and drive the overall schedule through project completion.
- » **Dewberry** as Lead Design Engineer, supported by additional subconsultants Avila & Associates, EETS Inc., ICF International, Unico Engineering, and Crawford & Associates. Dewberry will drive all design and permitting efforts, and will provide services through construction and commissioning.

DESIGN-BUILDER MANAGEMENT APPROACH

As the design-builder on this project, our team’s communication with the District will be streamlined through our single point-of-contact, Dan Eckdahl. With our PD-B experience, we value working collaboratively with all stakeholders from the onset of project award. We will successfully integrate all stakeholders early in design through the following activities:

Project Kickoff Meeting: This meeting will establish roles, communication protocols, and the big picture of how the team will work together. We will finalize a communication plan, identify key project risks, review the design preconstruction

tools and deliverables, and the project breakdown structure for cost estimates and schedule.

Collaboration Workshops: During these workshops, we will discuss critical scopes such as the site layout, pump station and structural plan, and electrical & controls configuration. We encourage the District’s staff to be involved in early decisions as we set the path for design progression.

Bi-Weekly Leadership Meetings: We recommend these meetings to discuss overall project progress with a small group to ensure we are meeting the project goals. Topics will include safety, schedule, project challenges, executed and pending decisions, permitting updates, risk items, and potential changes. These meetings are important to advance the project and ensure the team is moving in the right direction. We will bring challenges to the team to discuss and provide solutions together.

TEAMING ORGANIZATIONAL CHART



DESCRIPTION OF FIRM/TEAM

GARNEY

DESIGN-BUILDER

(District's Single Point-of-Contact)

Garney will serve as the prime entity and perform the role of Progressive Design-Builder and Single Point-of-Contact for the District. We will manage the project from design kickoff through construction in close collaboration with the District, key stakeholders, and landowners.

INDUSTRY SELF-PERFORMING LEADER

For over six decades, Garney has led the industry in building water and wastewater infrastructure. Routinely self-performing an average of 70% of the work in-house allows for better control over safety, schedule, cost, and quality. We will also engage trusted specialty subcontractors to perform the required sheeting/piling and electrical & instrumentation work. **Garney proudly holds the top rank nationally for water supply and fifth-ranked environmental firm, according to Engineering News-Records 2023.**

COLLABORATIVE DELIVERY EXPERIENCE

Garney successfully manages 90% of projects through collaborative methods, including PD-B. This expertise brings exceptional value to clients through effective teamwork and eliminates the PD-B learning curve.

Our commitment to working closely with clients has resulted in collaborative partnerships with 90+ owners on their first collaborative delivery project.

DESIGN-BUILDER RESPONSIBILITIES:

Phase I: Provide VE, constructability, risk assessments, scheduling, and cost evaluations throughout design and ensure collaboration and integration between all stakeholders is maintained.

Phase II: Lead daily construction activities of pump station, ensuring safety, quality, schedule, and budget are all met.

DEWBERRY

LEAD DESIGN ENGINEER

Dewberry will serve as the Lead Design Engineering firm for this project and brings over 60 years of experience and a wide range of engineering services. They serve municipal, county, state, institutional, and private clients, providing efficient and innovative solutions.

LOCAL EXPERIENCE AND HISTORY

Dewberry holds an office in Manteca, less than 30 minutes from the project site. Dewberry is deeply connected to the community through committed staff members who call the area home and are deeply committed to preserving and enhancing the assets they rely on. This investment in the surrounding communities motivates them to want to be part of the team that builds upon demonstrated performance and forward thinking.

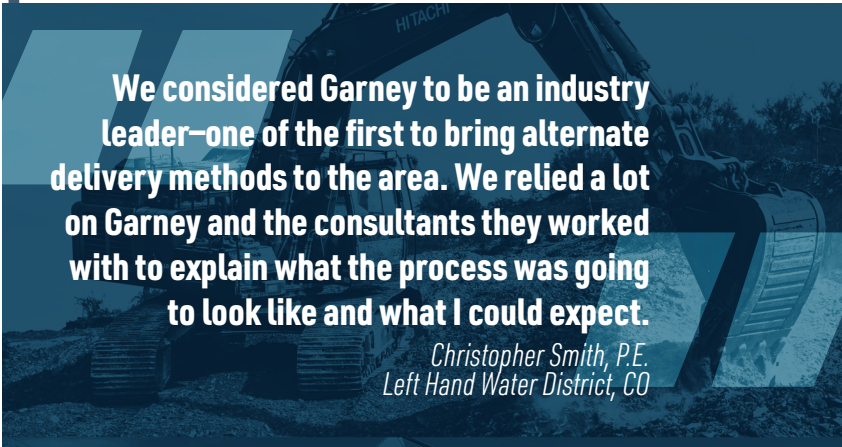
COMPREHENSIVE CAPABILITIES

Dewberry's water practice includes over 300 water professionals with the expertise to deliver projects covering the full spectrum of water and wastewater infrastructure, including expertise around environmentally-sensitive areas.

LEAD DESIGN ENGINEER RESPONSIBILITIES:

Phase I: Lead all aspects of design and permitting, supported by subconsultants.

Phase II: Support Garney with on-site office engineer and commissioning support personnel.



We considered Garney to be an industry leader—one of the first to bring alternate delivery methods to the area. We relied a lot on Garney and the consultants they worked with to explain what the process was going to look like and what I could expect.

*Christopher Smith, P.E.
Left Hand Water District, CO*

SUBCONSULTANTS

AVILA & ASSOCIATES

RIVER HYDRAULICS

Avila & Associates will provide design support in river hydraulics and will assess potential changes in sweeping velocities and other hydraulic attributes that can affect fish passage at the diversion facility. ***Catherine Avila provided the hydrology, hydraulic, scour, and bank protection analysis for the Pletier Road Bridge over the Mokelumne River and has a deep understanding of the river.***

CRAWFORD AND ASSOCIATES

GEOTECHNICAL

Crawford and Associates will be providing geotechnical services for this project. ***Ben Crawford completed the geotechnical borings for the Elliot Road bridge over the Mokelumne River, located just three-quarters of a mile upstream of the project site.*** Ben has a deep understanding of the local geography and geological strata that will prove to be pivotal in shaping the design of this pump station. Ben has already provided insight into the surrounding area during the preliminary design concepts shown in Section 5 - Project Concepts.

NV5 INC.

HYDROGEOLOGY/WELL DEVELOPMENT

NV5 will provide hydrogeologic services to support the evaluation and development of alluvial wells to augment river diversions during low water levels. Historical groundwater data and geology will be reviewed to create a conceptual model to guide a subsequent drilling program and to help predict yields from future well

development. NV5 will also provide support to the District in documenting the benefits of alluvial well construction in helping to meet overall groundwater recharge goals for the basin.

EETS INC.

ELECTRICAL/SCADA

EETS Inc. (EETS) will be providing electrical/SCADA services for the duration of this project. ***EETS has been providing design services for water and wastewater pump stations, treatment plants, and distribution/collection systems since 1981.*** For over 40 years, they have been at the forefront of electrical design engineering. They are a ***certified SBE enterprise*** with an office in Citrus Heights.

ICF INTERNATIONAL

GEOMORPHOLOGY, FISHERIES BIOLOGY

ICF International (ICF) will provide design support on the geomorphology and fisheries biology aspects of the project. They will provide recommendations and conceptual sketches for any necessary mitigation components based on the geomorphic assessment.

UNICO ENGINEERING

MAPPING/RIGHT-OF-WAY

Unico Engineering (Unico) will conduct mapping, right-of-way, and bathymetric surveying for the Project. Unico is a California based company with an office in Folsom, offering construction management and land surveying services. ***They are DBE, SBE, and MBE Certified.***

THIS TEAM WORKS WELL TOGETHER.

Collaboration and communication between Garney, Dewberry, and our subconsultants is integral to the success of your project. An established relationship between firms is usually the difference between success and ongoing obstacles that affect cost and schedule.

All subconsultants we've selected have been involved on recent projects with Dewberry and they're partners we can trust.

TEAM ORGANIZATIONAL CHART

To successfully deliver your project, we have assembled a team of specialists to design and construct the North Pump Station Improvements Project. The personnel below are critical to ensuring the highest quality and overall success for your project. The core of our team will be involved during both phases of the project, preconstruction and construction, to ensure a seamless knowledge transfer between phases.

The specific responsibilities for each individual listed below are provided on the following pages along with a percentage of time committed to this project.

Resumes are provided in Attachment B.

LEGEND

- GARNEY PERSONNEL
- DEWBERRY PERSONNEL
- SUBCONSULTANT FIRMS



NORTH SAN JOAQUIN
WATER CONSERVATION DISTRICT



Design-Builder



Lead Design Engineer

Dan Eckdahl, DBIA
Design-Build Manager

Wayne O'Brien
Principal-In-Charge

Neal Timmons, CSP, SMS
Safety Manager

PHASE 1 | DESIGN & PRECONSTRUCTION



Dave Richard, PE
Design Manager

Max Hardy, PE
Structures Engineer

Chad Weaver, PE
Civil Engineer

Feliciano Mata
Preconstruction Manager

KT Tran
Process Engineer

Jeff Bray
Permitting

Jimmy Stirrat
Constructability/VE

Ben Crawford, PE, GE
Geotechnical
Crawford & Associates

Koosha Toofan, PE
Electrical/SCADA
EETS Inc.

Chad Hulan
Cost Estimator

Cathy Avila, PE
River Hydraulics
Avila & Associates

Pat Dunn, PHG
Hydrogeologist
NV5, Inc.



Feliciano Mata
Project Manager

Jimmy Stirrat
Superintendent

Jefferson Lewis, ENV SP
Start-Up & Commissioning

Max Hardy, PE
On-Site Engineer

Chad Weaver, PE
Commissioning Support

"GARNEY AND DEWBERRY COLLABORATED ON A SOLUTION THAT THEY BROUGHT TO THE DISTRICT. THIS SOLUTION WAS EXECUTED PERFECTLY AND THE PROJECT WAS AGAIN ON TRACK TO BE CONSTRUCTED AS PLANNED. THIS IS A GREAT EXAMPLE OF THE TEAMWORK, COMMUNICATION, AND COLLABORATION THAT THE DESIGN-BUILD CONCEPT WILL INSPIRE."

David Irish, General Manager | Southgate Water and Sanitation Districts | Centennial, CO

KEY PERSONNEL | Garney



Dan Eckdahl, DBIA Design-Build Manager

Phase I: 50% Committed
Phase II: 100% Committed

As the Design-Build Manager, Dan Eckdahl will serve as the primary point-of-contact for the District and will oversee the execution of this project. He will develop and maintain client relations, support the project team in all aspects of the project requirements, and ensure adequate resources are dedicated to the project as work progresses through both preconstruction and construction phases.

Dan has led three projects that won the AGC Marvin M. Black Excellence in Partnering Award. He will use this same proven partnering approach when implementing the PD-B process on your project.

ROLE	RESPONSIBILITY
 <p>Feliciano Mata Preconstruction/Project Manager</p> <p>Phase I: 100% Committed Phase II: 100% Committed</p>	<p>Feliciano brings you 27 years of industry experience focusing on pump station, pipeline, treatment plant, and sewer projects. With Feliciano's extensive local experience, he will bring his knowledge and experience from managing and constructing similar pump station projects to drive collaboration and bring innovative VE and constructability ideas to your project. Feliciano will support our team through the overall delivery of the project through design, construction, and start-up & commissioning.</p>
 <p>Jimmy Stirrat Superintendent/Constructability/VE</p> <p>Phase I: 50% Committed Phase II: 100% Committed</p>	<p>Jimmy will be the on-site Superintendent and will be responsible for all field construction operations. His responsibilities will focus on the means and methods used, crew and equipment composition, quality control, and site safety. Jimmy's ability to coordinate efforts between disciplines will be critical to this project's success. Beyond the construction execution, Jimmy will also be involved in the Phase I design process giving critical constructability/VE feedback.</p>
 <p>Chad Hulan Cost Estimator</p> <p>Phase I: 50% Committed Phase II: 10% Committed</p>	<p>Chad's expertise is invaluable during preconstruction. With estimating experience on water and wastewater infrastructure projects throughout California, Chad will use his experience and knowledge to make timely and economical decisions in favor of the project, the District, and all stakeholders. He will be involved during the design phase to provide continuity into construction and will develop preconstruction estimates and the Project Cost Model throughout the planning, design, construction, testing, commissioning, and start-up of the project.</p>
 <p>Wayne O'Brien Principal-In-Charge</p> <p>Phase I: 20% Committed Phase II: 20% Committed</p>	<p>Wayne brings 40 years of managing water and wastewater projects and a high-level knowledge to the PD-B process that will prove invaluable to the allocation of resources and communication on your project. As Principal-In-Charge, Wayne will assist with allocating adequate project resources and be responsible for the overall success of the project. He will provide support through both preconstruction and construction and will ensure that the District's expectations are met.</p>
 <p>Neal Timmons, CSP, SMS Safety Manager</p> <p>Phase I: 20% Committed Phase II: 20% Committed</p>	<p>Neal has extensive experience in the construction safety field where he has held various safety positions. As Safety Manager, Neal oversees safety on various water and wastewater infrastructure projects across California. Neal will be responsible for project safety and development and implementation of a project safety plan. He will ensure that your project is completed safely.</p>
 <p>Jefferson Lewis, ENV SP Start-Up & Commissioning</p> <p>Phase I: 20% Committed Phase II: 20% Committed</p>	<p>Jefferson brings 15 years of water/wastewater experience with a recent history of starting up collaborative delivery projects in California. During construction, with Chad Weaver's support, he will manage all start-up, testing, and commissioning of the WWTP. He will train all operations staff before turning the plant over to the District.</p>

KEY PERSONNEL | Dewberry & Subconsultants



Dave Richard, PE
Design Manager

Phase I: 50% Committed
Phase II: 20% Committed

As Principal Engineer and leader of Dewberry's Northern California water/wastewater group, Dave has 45 years of experience in water resources and wastewater engineering, specializing in water supply and distribution; wastewater conveyance, treatment, reuse, and disposal; and stormwater conveyance. As Design Manager, Dave will lead day-to-day oversight of the design team with a particular focus on fish screen/inlet structure, interdisciplinary coordination, quality control for all deliverables, schedule management, and technical support for the permitting team.

ROLE

RESPONSIBILITY



Max Hardy, PE
Structures Engineer/
On-Site Engineer

Phase I: 50% Committed
Phase II: 30% Committed

Max has over nine years of structural design experience specializing in the design of water and wastewater treatment plants. Max will lead the structural design of the pump station platform including wet well enclosure, pump supports, fish screen/inlet structure, and pipeline appurtenances.



Chad Weaver, PE
Civil Engineer/
Commissioning Support

Phase I: 40% Committed
Phase II: 20% Committed

Chad is a project manager and design engineer with experience in planning, modeling, and design of pump stations and water and wastewater treatment facilities. Chad will be responsible for the design of pump discharge manifold including piping configuration, valves, and fittings with the goal of maximizing operational flexibility while minimizing the required footprint.



KT Tran
Process Engineer

Phase I: 60% Committed

KT is a Project Engineer providing hydraulic design, process calculations, system modeling, plans and specifications, assistance with technical memoranda, and AutoCAD support on water, wastewater, and storm drainage projects. KT will be responsible for the design of pump station fish screen/inlet structure/wet well and selection of raw water supply pumps.



Jeff Bray
Permitting

Phase I: 60% Committed

Jeff has 30 years of experience which includes biological resource and wetland projects for transportation, energy, and mining clients. Jeff will oversee technical studies and permit application packages and coordination with resource agencies.



Koosha Toofan, PE
Electrical/SCADA
EETS, Inc.

Phase I: 60% Committed

Koosha is a professional engineer with over 18 years of experience in electrical, controls and instrumentation, and SCADA and telemetry-based systems for water, wastewater, and stormwater distribution and pumping plants. Koosha will design pump station electrical and instrumentation systems and coordinate with PG&E for new electrical service.



Cathy Avila, PE
River Hydraulics
Avila and Associates

Phase I: 50% Committed

Cathy has over 35 years of public and private sector experience in many areas including hydrologic and hydraulic modeling, environmental assessments, and structure hydraulics. Cathy will develop river hydraulic modeling to assess potential changes in sweeping velocities and other hydraulic attributes that can affect fish passage and sand deposition at the diversion facility.



Ben Crawford, PE, GE
Geotechnical
Crawford & Associates

Phase I: 50% Committed

Ben has already completed the geotechnical borings for the Elliot Road bridge over the Mokelumne River. His deep understanding of the local geography and geological strata will be pivotal. He has managed complex projects including bridges, roadways, pavement rehabilitation, water and wastewater, parks, and trails.



Pat Dunn, PHG
Hydrogeologist
NV5

Phase I: 25% Committed

Pat has over 33 years of hydrogeology water supply and environmental permitting experience. He has already reviewed the local geology and confirmed the feasibility of alluvial wells. He will develop a hydrogeologic model to support a well drilling program.

PERSONNEL RELEVANT EXPERTISE

The following personnel were chosen specifically to design and build your project and have unique experience that directly relates to the North Pump Station Improvements Project. Each individual listed will be involved in either design or construction.

RELEVANT PROJECT EXPERIENCE

PERSONNEL	ROLE	Design-Build	Pump Station	Environmental Permitting	Local to CA	Garney/Dewberry Team Experience	River Experience
Dan Eckdahl Garney	Design-Build Manager	✓	✓	✓	✓	✓	✓
Feliciano Mata Garney	Preconstruction/Project Manager	✓	✓	✓	✓		✓
Jimmy Stirrat Garney	Superintendent/VE/Constructability	✓	✓		✓		✓
Chad Hulan Garney	Cost Estimator	✓	✓			✓	
Wayne O'Brien Garney	Principal-In-Charge	✓	✓			✓	
Neal Timmons Garney	Safety Manager	✓	✓		✓	✓	✓
Dave Richard Dewberry	Design Lead	✓	✓	✓	✓		✓
Max Hardy Dewberry	Structural Engineer	✓	✓		✓	✓	✓
Chad Weaver Dewberry	Civil Engineer	✓	✓			✓	
Mike Pugh Dewberry	Structural Engineer	✓	✓		✓	✓	✓
Steven Jones Dewberry	Civil Engineer	✓	✓				
KT Tran Dewberry	Process Engineer	✓	✓		✓		✓
Jeff Bray Dewberry	Permitting	✓	✓	✓	✓		✓
Lindsay Tisch Dewberry	Permitting	✓		✓	✓		✓
Koosha Toofan EETS, Inc.	Electrical/SCADA	✓	✓		✓	✓	
Cathy Avila Avila & Associates	River Hydraulics	✓		✓	✓	✓	✓
Jeff Kozlowski ICF International	Senior Fish Biologist	✓		✓	✓	✓	✓
Jeff Peters ICF International	Geomorphologist and Restoration Specialist	✓		✓	✓	✓	✓
Ben Crawford Crawford & Associates	Geotechnical	✓	✓		✓	✓	✓
Pat Dunn NV5, Inc.	Hydrogeologist	✓		✓	✓	✓	✓



Lindsay Tisch, Cathy Avila, and Ben Crawford all have experience on the Mokelumne River. They provide key knowledge of the unique challenges and aspects of working on the river.



PART 4

EXPERIENCE

PART 4



PART 4. EXPERIENCE

REFERENCE PROJECTS

Garney's design-build experience includes 255 projects totaling \$5.2B in value, making Garney an industry leader in the collaborative delivery of water and wastewater projects. Likewise, Dewberry is an industry leader in the collaborative delivery market with more than 55 design-build projects for their water business line totaling over \$600M. Throughout our 25-year partnership, Garney + Dewberry have partnered together on 67 projects with 26 of those delivered via collaborative delivery, offering the District a team with

established team synergy. Key Garney + Dewberry team members have recent and relevant experience in planning, permitting, design, construction, installation, and start-up & commissioning of pump station projects similar in scope.

We will leverage this experience together to provide the District innovative solutions throughout your project life-cycle.

Below, we have featured design-build and other relevant projects of Garney + Dewberry demonstrating our proven record of successful performance. Our experience displays our proven ability to ensure timeliness of project delivery, quality of workmanship, cost control, and safety. Further, our project experience illustrates our ability to work collaboratively with Owners and other teaming partners.

GARNEY + DEWBERRY Water/Wastewater Collaborative Experience Together

Evans Consolidated Wastewater Treatment Plant	CMAR
Southern Delivery System Raw Water Pipeline Segment South 4A Central	DB
Coltsman Tunnel Rehabilitation Project	PD-B
Homestake Suction Pipeline Replacement	CM/GC
Pikeview to Mesa Raw Water Pipeline	PD-B
Post-Fire Mitigation for Stanley Canyon Road and Pipeline Rehabilitation	PD-B
Little Mesa Tank Replacement Project	DB
Kettle Creek Flow Control Valve Project	DB
Replace Potable Well No. 27	DB
Pine Valley Pump Station Refurbishment	PD-B
Tesla Energy Dissipating Structure Phase 2 & Stanley Canyon Tunnel Inspection & Repairs	DB
Repair Well 3B and Well 5A	DB
Repair Well 12A	DB
Spinney Line Turnout Isolation Valve	CM/GC
Fountain Valley Authority Pumping Plant #2 Pump/Motor Replacement Project	DB



 **2019 ENR Mountain States Water/Environment Best Projects Award**

Collaboration Success Story Evans Consolidated WWTP (CMAR)

Historic floods that hit the Front Range in 2013 left one of the City of Evan's treatment facilities completely submerged and forced a "no flush" order for 12,000 residents. Garney was selected as the general contractor for this challenging project along with Dewberry as the lead design firm for the WWTP. Throughout the design phase, close coordination among team members drove the creation of cohesive specifications for each package and created a uniform set of documents. The challenging nature of completing a project with high risk elements and an aggressive schedule require early coordination between all stakeholders. Our project management team was successfully able to identify and pre-plan alternatives or resolutions for prospective challenges while maintaining a site-specific QC management program. The overall success on this award-winning project can be credited to early planning and collaboration with all design firms and the City, exceptional attention to meeting stringent quality standards, and coordination with subcontractors during construction.

PD-B COLLABORATIVE APPROACH

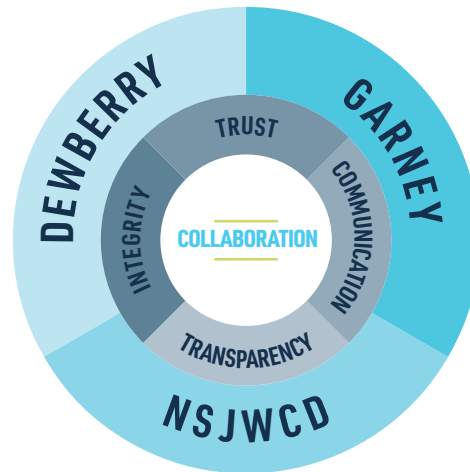
The complexity and location of your project requires a local and trusted team with proven experience. Garney + Dewberry understand the District's need for a team to coordinate, organize, develop, design, permit, procure, and construct the North Pump Station Improvements project while prioritizing long-lasting, high-quality materials and construction, and minimal impact and inconvenience to the surrounding community.

Garney's collaborative approach starts with a single point-of-contact, Dan Eckdahl, who will work with the team to ensure team member's voices are heard and communicated. This approach will create an environment where ideas are shared and the team will collaborate in the best interest of the District.

True collaboration allows individuals to work together to achieve the goals and objectives outlined within the project. It also allows the team to successfully deliver the project in terms of 100% safety, schedule, cost controls, while developing and maintaining relationships built on accountability and trust. Collaboration will begin as soon as we receive a notice of award and will continue until the project has been successfully constructed, commissioned, and turned over to the District. It is a collaborative atmosphere that maximizes innovation, operability, and efficiency.

PRINCIPLES OF COLLABORATION

True collaboration can only be achieved through these four principles.



Design

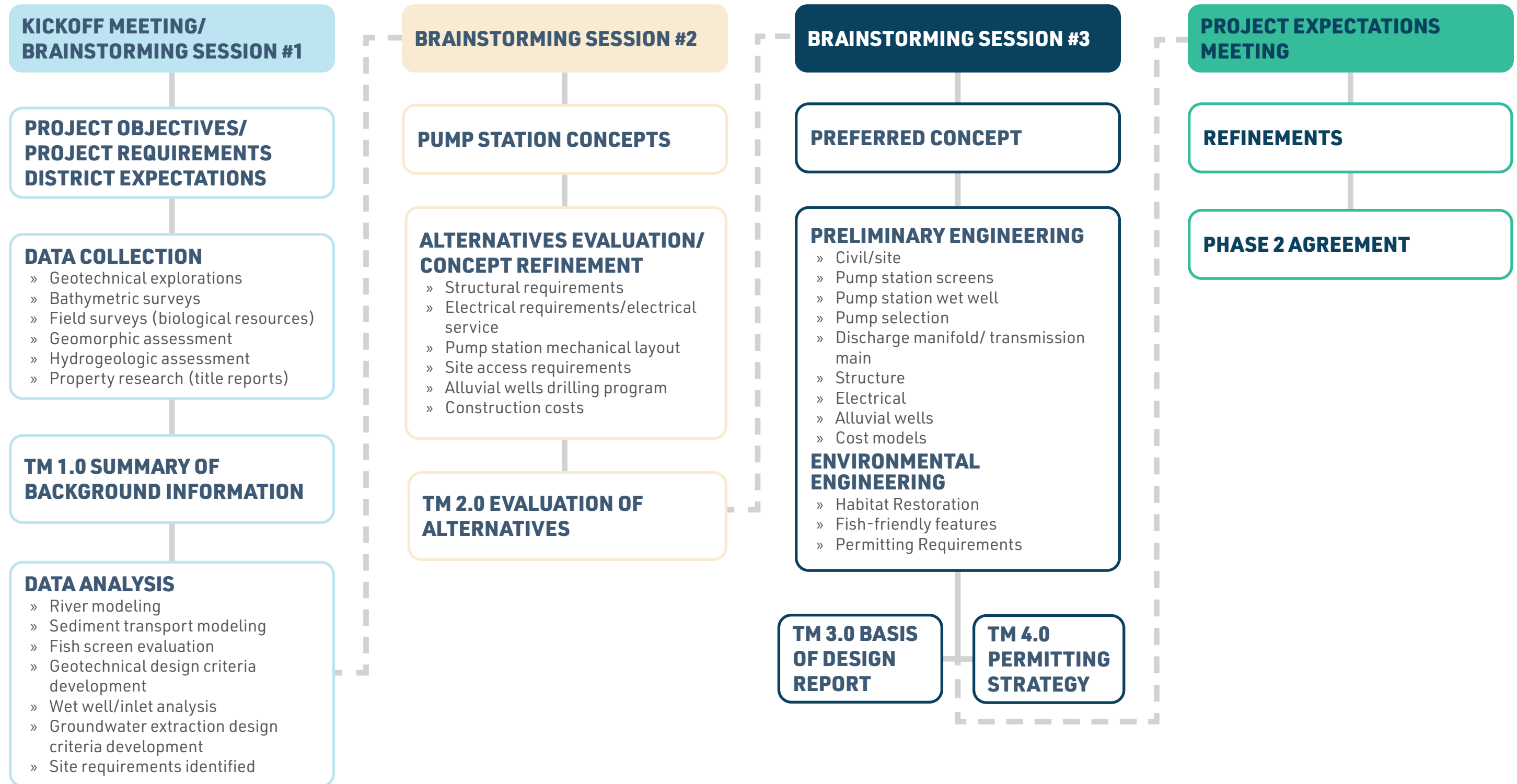
During the design phase, the project team will integrate the District into the process and will have meetings and collaboration workshops to review specific ideas, challenges, and solutions. Team huddles will occur weekly at the beginning of the project and will be held in person or virtually to stay on schedule. Information and data will be shared using CMiC, a collaborative construction management software that will streamline communication and collaboration between all parties. ***A graphic breaking down our Progressive Design-Build process during Phase I is provided on the following page.***

OUR PD-B PROCESS WILL ASSURE THE FOLLOWING OBJECTIVES ARE ACHIEVED:





COLLABORATION DURING PHASE 1

In PD-B, effective communication and collaboration between the Garney + Dewberry team and the District is essential for the success of the project. The Garney + Dewberry team fosters this relationship by establishing open lines of communication, heavily involving the District in the preconstruction process, maintaining transparency, and using technology to improve collaboration. These philosophies are reflected in the following Phase 1 teaming activities:



TM = Technical Memorandum

YOUR PROVEN TRUSTED PARTNER THAT YOU KNOW CAN DELIVER

-  CURRENT WORK IN CALIFORNIA
-  GARNEY OFFICES

Garney currently has **26 ACTIVE PROJECTS** in the state of California being built by a growing workforce of over 100. Many of these projects are within an easy drive to the project site and much of the skilled craft workforce building those projects will be available in time to build your Project. ***We won't need to relocate or hire a new workforce because our team is already here building water and wastewater projects near you.***



OUR TEAM WORKS WELL TOGETHER...

Garney and Dewberry have collectively completed **67 PROJECTS** together throughout California and the nation. Our team works well together and have shared experiences that will allow us to hit the ground running on your project and seamlessly transition from design to construction and start-up.

CALIFORNIA WATER/WASTEWATER EXPERIENCE VALUE

CALIFORNIA WATER/WASTEWATER EXPERIENCE	VALUE
Monterey Peninsula Water Supply Project	\$76M
Hesperia Wastewater Treatment Plant (PD-B)	\$65M
Conveyance Infrastructure Project of the Pure Water Soquel Program (Progressive Design-Build)	\$40M
Carbon Canyon Water Recycling Facility Asset Management and Improvements Project	\$21M
Castenada No. 1 & No. 2 Reservoirs Rehabilitation Glen Reservoir Rehabilitation and Mulholland Reservoirs Roof Maintenance	\$19M
Canal Levee Elimination and Flood Control Segments 3 and 4	\$15M
1 2 3-Trichloropropane Removal Treatment Plant	\$13M
Faria Ranch Backbone and Village 1	\$12M
Lemoore NAS Repair WTP Filter Gallery	\$10M
Ceres River Bluff Reservoir and Pump Station	\$10M
Lemoore WTP Inlet Works	\$9M
Main WWTP Secondary Clarifier Rehab Phase 3 SD-446	\$8M
SD-413 MWWTP Power Generation Reliability Improvements Phase 3	\$7M
Communication Hill Phase 2 Offsite Utilities	\$6M
Pardee Recreation Area and Pardee Center Water Treatment Plant Improvements	\$5M
Main WWTP Secondary Reactors Rehabilitation Phase 1	\$5M
Southtown Phase III	\$5M

PINE VALLEY PUMP STATION REFURBISHMENT (PD-B)

COLORADO SPRINGS, CO

DESCRIPTION

This project for Colorado Springs Utilities is a Progressive Design-Build project that involved operation and maintenance improvements, miscellaneous site work, HVAC equipment improvements, and electrical improvements. Work included replacement of the Medium Voltage Load Units (MVLU), and the replacement of pumps, motors, and control valves of pumps 1 - 4. The pumps were replaced with four 300 hp horizontal split case pumps rated at 2,200 GPM each for a station capacity of 12.7 MGD.

During the replacement of the MVLU, temporary electrical gear was set up requiring only a short shutdown of the facility which eliminated bypass pumping on the project. Once the system was running on the temporary gear, demolition of the existing electric gear took place followed by the installation of the new MVLU gear. **Upon installation of the new MVLU gear, each pump was energized with the new gear individually as to not shut down the facility.** The Pine Valley Pump Station supplies water to the north side of Colorado Springs and is the only source of water feeding the United States Air Force Academy.

INTEGRATION OF DESIGN AND CONSTRUCTION

The PD-B delivery method and integration of the design and construction team allowed for a phased implementation of the project over a span of three years to prioritize the most critical improvements, manage long lead times, and accommodate the Owner's annual capital improvement plan.

ROLE ON PROJECT

Garney: Design-Builder

Dewberry: Lead Designer

OWNER

Colorado Springs Utilities

Jackie Chambers

(719) 668-4667 | jmchambers@csu.org

DELIVERY METHOD

Progressive Design-Build

KEY TEAM MEMBERS

Wayne O'Brien, Principal-In-Charge

Chad Weaver, Design Manager & Technical Lead

CONTRACT PRICE

Initial: \$2,759,139

Final: \$2,759,139

Completed within Budget

SCHEDULE

Initial Completion Date: 05/18/2021

Final Completion Date: 05/28/2021

Completed on Schedule

RELEVANCE

- » Pump station
- » Garney + Dewberry
- » Progressive Design-Build
- » Key personnel involved
- » Early procurement
- » Constructability/VE
- » Start-up & commissioning

WET UTILITIES MACC (D-B)

TWENTYNINE PALMS, CA

CONTRACTS

REPAIR WELL 12A (D-B)

This project provided design and construction for repair of raw water Well 12A including physical security of Building 2346. It included replacing the 175 hp well pump motor and wiring with a high efficiency 175 hp motor rated at 880 GPM, replacing bubble system with a transducer system, designed and provided new surge protective device, integrated everything into the existing SCADA system, new emergency auxiliary generator with transfer switch, new variable frequency drives for motor control, and programmable logic controller integration. Additional work included thermal overload protection, quick trip ambient compensated overload protection on all three electrical phases, and replaced existing fencing and gates.

REPAIR WELL 3B AND WELL 5A (D-B)

This project is to provide design and construction for repair of raw water Well 3B within Building 2327 and Well 5A within Building 2331. It includes replacing the 125 hp well pump motors and wiring with high efficiency 125 hp motors rated at 950 and 1,000 GPM, replacing bubbler system with a transducer system, design and provide new surge protective device, integrate everything into the existing SCADA system, new variable frequency drives for motor control, and programmable logic controller integration. Additional work includes thermal overload protection, quick trip ambient compensated overload protection on all three electrical phases, and replacing existing fencing and gates.

DELIVERY METHOD

Design-Build

INTEGRATION OF DESIGN AND CONSTRUCTION

Garney and Dewberry worked together during design and throughout construction to streamline communication with the Owner. Having the same personnel from preconstruction to construction helped ease the transition and led to a successful project.

ROLE ON PROJECT

Garney: Design-Builder

Dewberry: Lead Designer

OWNER

Naval Facilities Engineering Command, SW

Layton Matthews

(760) 830-7483 | layton.d.matthews.civ@us.navy.mil

KEY TEAM MEMBERS

Wayne O'Brien, Principal-In-Charge

Dan Eckdahl, Design-Build Manager

CONTRACT PRICE

Initial: \$2,294,258

Final: \$2,294,258 (combined value)

Completed within budget.

SCHEDULE

Initial Completion Date: 11/28/2021

Final Completion Date: 01/13/2022

Delays were due to supply chain issues and late startup of the generator due to Covid.

RELEVANCE

- » **Pump station**
- » **Garney + Dewberry**
- » **Local**
- » **System hydraulics focus on minimizing energy use**
- » **Constructability/VE**

LA GRANGE WATER SYSTEM IMPROVEMENTS, PHASES 1 AND 2

LA GRANGE, CA

DESCRIPTION

Raw water from the Turlock Irrigation District (TID) Upper Main Canal is routed to the French Pit Retention Reservoir (FPRR) as a source of drinking water for La Grange. A raw water pump station (RWPS) draws from the FPRR for conveyance to a surface water treatment plant (SWTP) for filtration and disinfection prior to storage and distribution to the community.

The RWPS was in poor condition making operation and maintenance problematic. Access to the site was also difficult; and a nearby hillside had experienced significant erosion, raising questions of long-term stability and creating a potential risk to the station. Additionally, the SWTP had two 40,000 gal finished water storage tanks (clearwells) that were over 20 years old, had experienced significant corrosion, and were leaking. An alternatives analysis was undertaken to: confirm existing conditions; evaluate replacement/rehabilitation options including potentially a new RWPS location; perform a comparison of tank materials; prepare conceptual layouts/site plans; develop design criteria; and provide probable costs, advantages, and disadvantages for each alternative.

Phase 1 consisted of two new 40,000 welded steel finished water storage tanks and appurtenances. The tanks included internal baffles to improve water circulation. Demolition of the existing tanks and construction of the new tanks were staged to keep one tank in service at all times.

Phase 2 consisted of replacement of the RWPS. The pump station was constructed on piles because of poor soil conditions. The pump station consists of four vertical turbine pumps and a chlorine handling system. A bypass system was installed to pump raw water from the FPRR to the SWTP during demolition and construction of the new RWPS.

INTEGRATION OF DESIGN AND CONSTRUCTION

Dewberry provided construction engineering services during Phase 1 and Phase 2 of water system improvements and worked closely with

the contractor to implement value engineering suggestions from the Phase 1 work into the Phase 2 design resulting in an accelerated construction schedule.

ROLE ON PROJECT

Dewberry: Prime Consultant

OWNER

Turlock Irrigation District
Bill Penney, Civil Engineer
(209) 883-8385

DELIVERY METHOD

Progressive Design-Build

KEY TEAM MEMBERS

Dave Richard, Project Manager
KT Tran, Project Engineer
Mike Pugh, Structures Engineer
Crawford & Associates, Geotechnical
EETS, Electrical/SCADA

CONTRACT PRICE

Design/Bid Assistance/ESDC:

Initial: \$360,000

Final: \$360,000

Project design was completed on budget.

SCHEDULE

Initial Completion Date: 01/15/2019

Final Completion Date: 05/28/2021

The schedule was extended due to pump manufacturer challenges and delays.

RELEVANCE

- » **Pump station constructed on piles**
- » **Design of new wet well based on varying water levels for reservoir**
- » **Permitting**
- » **Difficult site conditions for pump station construction**
- » **Site improvements to facilitate access**
- » **Alternative pump station site evaluations**

WALNUT GROVE ROAD BRIDGE REPLACEMENT PROJECT

SAN JOAQUIN, CA

DESCRIPTION

Dewberry is providing engineering and environmental support to San Joaquin County for the replacement of the Walnut Grove Road Bridge over the Mokelumne River. The existing Walnut Grove Road Bridge is classified as functionally obsolete due to insufficient deck width.

The purpose of the project is to improve safety, correct nonstandard roadway geometrics at the bridge site and accommodate both current and future traffic demands. The existing bridge will be replaced with a new bridge that is wide enough to accommodate two lanes of vehicular traffic with shoulders to meet safety and design requirements.

The movable span of the bridge will be located along the east side of the river with the bascule pier located on the east bank of the river. A pair of bascule girders supporting the leaf will be outboard of the bridge deck and will extend up above the roadway surface. The front arm tips of the two girders will be supported by a rest pier on the west side of the Mokelumne River navigation channel. The bridge will have a constant depth over the entire navigation channel and therefore provide a constant vertical clearance over the channel width.

A counterweight will be situated above the roadway and span between and be attached to the heel portions of the bascule girders. The clear distance between the front faces of the bascule pier and rest pier will be approximately 112 feet, providing a 100-foot navigational channel.

INTEGRATION OF DESIGN AND CONSTRUCTION

As design of the project has progressed, Dewberry designers are working closely with their construction management division to highlight and resolve potential constructability challenges, conflicts between plans and specifications, permitting challenges, and work in the water requirements.

ROLE ON PROJECT

Dewberry: Prime Consultant

OWNER

San Joaquin County Dept. of Public Works
Michael Chung, P.E., Bridge Engineering
(209) 468-3586 | mchung@sjgov.org

DELIVERY METHOD

Design-Bid-Build

KEY TEAM MEMBERS

Lindsay Tisch, Permitting
Jeff Bray, Permitting

CONTRACT PRICE (DESIGN FEE)

Initial: \$2,000,000

Final: \$2,000,000

Project design was completed on budget.

SCHEDULE

Initial Completion Date: In Progress

Final Completion Date: In Progress

The project is on track to be completed on schedule.

RELEVANCE

- » **In-water work along Mokelumne River**
- » **Cofferdam construction**
- » **Environmental permitting**
- » **Limited construction window**

SABINE RIVER PUMP STATION PROJECT (CMAR)

ORANGE, TX

DESCRIPTION

The proposed pump station was, at a minimum, able to meet the demand for the Sabine River Authority (SRA) of 85 MGD. Construction included a new 285 MGD intake and 85 MGD raw water vertical turbine pump station on the Sabine River near Deweyville, Texas, and the relocation of Camp House Road which runs through the pump station site and was relocated west to allow for the construction of the pump station facilities.

Scheduling the pipeline installation and pump station construction was a major concern for the project. Due to rising and falling river elevations controlled by the water released from Toledo Bend Reservoir, the pump station's substructure construction, the river slough/swamp crossings, and the two oxbow crossings near the river were of major concern.

The CMAR team, led by Garney, studied river elevation data to determine the best time to cross the swamp and oxbows. This required pipe installation starting in a location almost 10,000 linear feet from the river and mobilizing to the river in November 2019 to execute the river slough/swamp and oxbow crossings from November 2019 to January 2020. **Concerning the pump station's substructure construction, opening up the deep excavation was scheduled around lower river elevation times to help lessen the impact of high waters until the lower slab could be built.** These strategies proved to be a vital component of the project's success.

INTEGRATION OF DESIGN AND CONSTRUCTION

Garney was heavily involved as the CMAR in the design process. **Our team led VE & Constructability meetings which proved pivotal to construction phase.**

Through close collaboration, our team saved nearly 6 months of schedule and over \$6M.

ROLE ON PROJECT

Garney: CMAR

OWNER

Sabine River Authority of Texas

Travis Williams, Asst. General Manager of Operations
(409) 746.2192 | twilliams@sratx.org

DELIVERY METHOD

CMAR

KEY TEAM MEMBERS

N/A

CONTRACT PRICE

Initial: \$63,850,000

Final: \$63,850,000

Completed within budget.

SCHEDULE

Initial Completion Date: 06/12/2020

Final Completion Date: 06/18/2021

Schedule extended due to COVID-19 delays, change orders and added scope issued by the owner, and weather delays.

RELEVANCE

- » Pump station
- » Completed within budget
- » Environmental challenges
- » Constructed on river
- » Collaborative delivery
- » Cost savings
- » Schedule Savings



LANE CITY RESERVOIR PROJECT

WHARTON, TX

DESCRIPTION

Garney's \$42.5 million scope of the \$178 million project included modifications to two existing river pump stations, the installation of a new river outfall structure, four miles of irrigation canal modifications, a new 363 million gallon per day (MGD) reservoir re-lift pump station including 60-foot deep excavations with four 700 hp and one 500 hp vertical turbine pumps, 144" and 120" raw water piping, multiple civil structures including two bridges, cast-in-place Parshall Flume, canal check structure, 13-billion-gallon earthen reservoir surrounded by a 70-foot deep slurry wall with 40' high berm walls, eight 60" manholes, electrical and instrumentation, and associated civil work. Individual cofferdam systems were used to divert the river for the rehabilitation of one of the pump stations on the Colorado River and construction of the new river outfall structure.

The size of this project presented several challenges the team overcame. Working around existing operations was challenging including providing uninterrupted existing water supply, having defined irrigation windows where much of the work had to be completed within the dry season, and a tight five-month window to replace the bridge and flume. Major scope challenges included working around large power lines found in the middle of the job site, and extensive marine/river work on the two existing pump stations.

Historical and environmental challenges consisted of working on a designated historical building built in 1931, working with U.S. Fish and Wildlife Services, working in environmentally sensitive areas such as the nearby restricted bald eagle nesting zone, working around protected species including the timber rattler snake, horn toad, and zebra mussels, as well as other potential wildlife hazards to workers including snakes, alligators, and wild pigs.

INTEGRATION OF DESIGN AND CONSTRUCTION

As lead contractor, Garney worked diligently with Jacobs Engineering to identify and plan ahead for challenges during construction. On a project with environmental risks, proper planning was critical to keeping the project on schedule.

ROLE ON PROJECT

Garney: CMAR

OWNER

Lower Colorado River Authority
John McLeod, Site Project Manager
(512) 294-4387 | john.mcleod@lcra.org

DELIVERY METHOD

Best Value

KEY TEAM MEMBERS

N/A

CONTRACT PRICE

Initial: \$38,920,000

Final: \$42,519,707

The change orders were owner-initiated for construction of an emergency spillway, construction of the highway 60 siphon and box culvert, and demolition and construction of the Jarvis Creek Flume.

SCHEDULE

Initial Completion Date: 08/29/2018

Final Completion Date: 02/20/2019

The schedule was extended due to rain.

RELEVANCE

- » Completed within budget
- » Environmentally sensitive area
- » River pump station

CORPORATE SAFETY PROGRAM

SAFETY MANAGEMENT

Safety is Garney’s number one company goal—it is a value above all else. In all operations, Garney is guided by an established accident prevention policy.

This policy is based on a sincere desire to eliminate occupational injuries and illnesses, damage to equipment and property, and to protect the general public. This is evident in our safety record and current experience modification rate (EMR) of 0.61. Factors that contribute to Garney’s sound safety culture and program include:

SAFE START TO OWNERSHIP PROGRAM (SSTOP)

The SSTOP provides structured onboarding, training, and education for both hourly and salary employee-owners to perform their jobs safely as well as support the perpetuation of Garney’s safety culture. Each new hire is assigned a mentor to assist with the SSTOP process. This mentor typically has a similar work classification and is assigned to the same project site, allowing for daily contact and interaction. For the first 180 days of employment, the new employee-owner will complete a series of basic safety items with their mentor in addition to completing key trainings.

SITE-SPECIFIC SAFETY COMMITTEE

At the beginning of the project, a site safety committee will be developed that includes members of the project staff, safety advisors, and key trade subcontractors that have been properly trained to recognize and correct any unsafe conditions.

PRE-JOB SAFETY CONFERENCE

Garney invites key stakeholders and requires all subcontractors to attend a meeting to identify potential safety risks that may be encountered during the project. At this meeting, risks are discussed and proper procedures for handling are determined.

SAFETY TASK ANALYSIS CARD (STAC)

Each day, Garney requires the field craft to prepare potential hazard analysis on the tasks that will be performed that day. These meetings are intended to break down tasks, identify and analyze hazards, and provide mitigation or control for given hazards.

WEEKLY TOOLBOX TALKS

Each Monday, Garney holds safety meetings on-site. A specific topic is addressed by the Superintendent, near misses are discussed, and new hires are trained for the week’s events. Records of these meetings are kept by the Safety Manager, Neal Timmons, and the Project Engineer.

GOSHA INSPECTIONS

Garney’s leadership and safety professionals perform periodic mock OSHA (GOSHA) inspections of all our projects. These inspections are conducted unannounced.

CERTIFIED SAFETY PROFESSIONALS

Garney employs certified safety professionals who ensure work environments are optimized for health and safety. This project will be under the direction of our Neal Timmons, Feliciano Mata, and Jimmy Stirrat.

CRAFT, SUBCONTRACTOR, AND SUPERVISION TRAINING

Early in the project, Garney identifies safety training that will be required and schedules this training based on operational requirements. Training is presented to Garney’s field craft and subcontractor personnel.

SAFETY RATINGS





PART 5

PROJECT CONCEPTS



PART 5



PROJECT CONCEPTS

OVERVIEW OF CONCEPTS

The Garney + Dewberry team have a proven track record of providing innovative project concepts and constructability ideas for projects as complex as yours.

PROVEN INNOVATORS

25 YEARS OF COLLABORATING TOGETHER

During the Colman Tunnel Rehabilitation Project for the Southgate Water & Sanitation Districts in Centennial, Colorado, the project team presented three different options during design to address the deteriorating condition of the tunnel: rehabilitation, replacement, or refurbishment. The team worked closely with the District to identify tunnel refurbishment as the best option, a solution that saved \$1.2M. **Lower costs, reduced footprints, and continuous sewage flow around the HDPE pipe allowed for no impacts to the District's operations.**

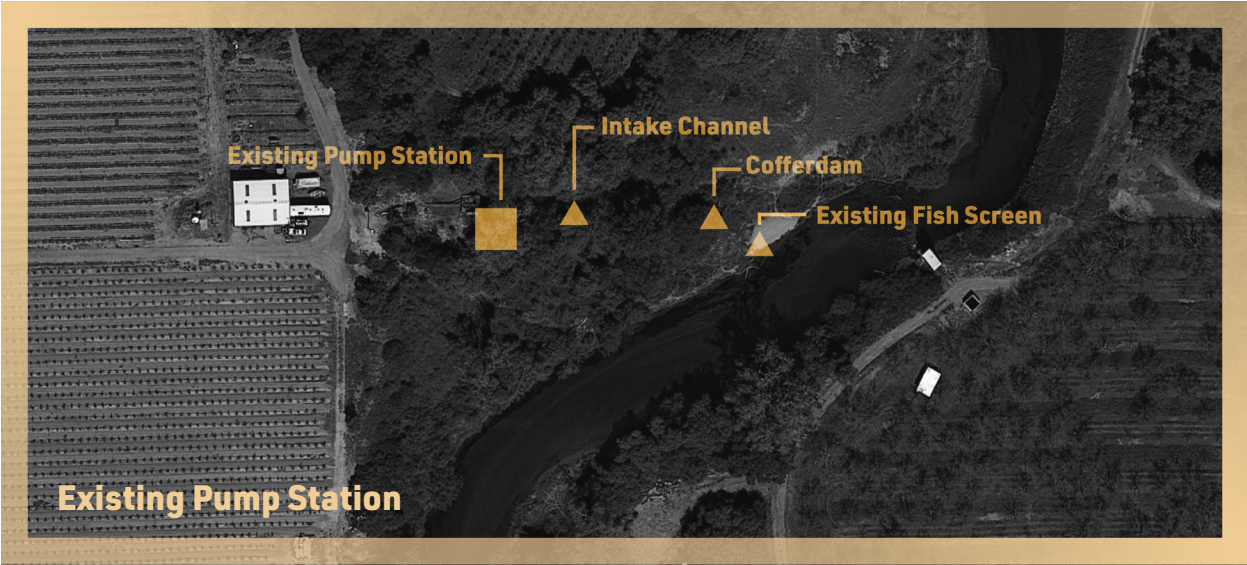


This same level of ingenuity and creative thinking will be at the forefront of discussions on your project. Our team has taken the initiative on the following activities:

- » Visited the site twice to identify project constraints, opportunities, and to collaborate with District staff.
- » Reviewed the conditions in the District Water Right Permit #10477 to identify project requirements.
- » Reached out to Russell Berry of Intake Screens, Inc., manufacturer of the existing North Pump Station fish screen, to obtain information on alternative screens and design criteria.
- » Obtained geotechnical borings for the Elliott Road Bridge over the Mokelumne River, less than one mile upstream of the North Pump Station site to identify local soils characteristics.
- » Gathered river data including flow and water surface elevations for the Mokelumne River based on previous hydraulic studies prepared in support of the Walnut Grove Bridge Replacement Project to determine likely water levels at the pump station site under multiple hydrologic conditions.
- » Summarized permitting requirements and likely timelines based on experience in obtaining permits for the Walnut Grove Road Bridge Replacement Project.
- » Reviewed historical aerial images to assess changes in the Mokelumne River alignment over time and to identify sites less likely to experience sand deposition.
- » Established the feasibility of alluvial groundwater wells and developed preliminary design criteria.
- » Prepared preliminary hydraulic calculations including system curves for the potential pumping station/discharge pipeline.
- » Reached out to pump suppliers to obtain an initial pump selection for use in pump station inlet/wet well design.
- » Developed multiple pump station layout options considering fish screen type and pump station site alternatives.
- » Researched property records to identify land ownership.
- » Prepared a preliminary Phase 1 and Phase 2 schedule.

DESIGN CONCEPTS

The following pages will review our understanding of the project site and our evaluation of the existing pump station, our two alternative solutions, and an in-depth analysis of our preferred alternative.



ASSESSMENT OF EXISTING SITE FOR RIVER DIVERSION AND PUMP STATION

The existing diversion structure, intake channel, and pump station for the North System are located east of Tretheway Road, as shown in the above graphic. The fish screen/diversion structure is constructed approximately 10 ft into the Mokelumne River, with piping connected to the intake channel inlet structure.

After analyzing the existing site for the pump station and the pros and cons, our team developed a list of challenges below that would be encountered if we were to stick with the original location:

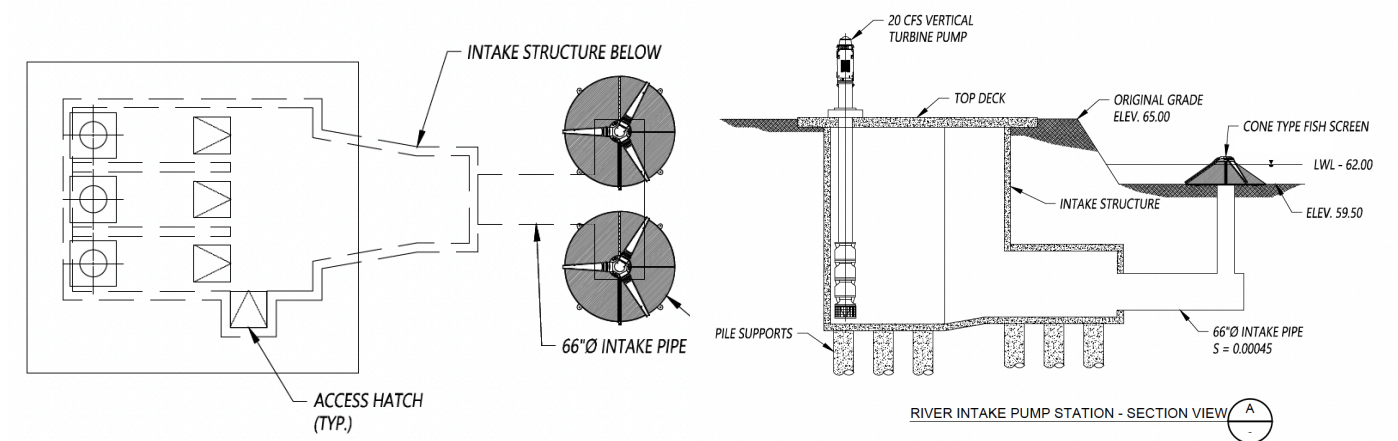
- » Fish screen/inlet structure are located in shallow reaches of the river, prone to high degrees of sedimentation and siltation.
- » Long channel between new diversion and pump station is susceptible to clogging from debris/vegetation.
- » Frequent flooding of the channel and subsequent drying has likely created habitat for migratory fish that can trigger permitting challenges for future construction.
- » Low water levels at the outlet of the channel make year-round pumping challenging, necessitating a deep wet

- well structure and long pump columns.
- » Pump station site at toe of levee creates access challenges for vehicles and heavy equipment.
- » The river will continue to experience sand/silt deposition because of the long-term, future alignment of the Mokelumne River. Future mitigation at this site would likely include locating the fish screen further out in the river in deeper water.
- » Use of the current intake location would require dredging of sand and silt materials. The dredged materials would require a suitable site for stockpiling that would not impact future river water surface elevations or habitat. Dredging would also likely trigger the need for a 404 Permit from the Corps of Engineers.
- » Because the natural intake channel floods during storm and high-water events and empties during other times of the year, the area has become habitat for salmonids.
- » Existing sheet piles and cofferdam may be difficult to incorporate into a modified intake structure.

Considering these challenges, we have proposed two alternative site locations along with river diversion and pump station design concepts discussed on the following pages.



RIVER DIVERSION/PUMP STATION ALTERNATIVE #1



1. DISCUSSION OF ALTERNATIVE SITE AND PUMP STATION #1

The first alternative site location shown on the above graphic benefits your project by its proximity to already disturbed areas and a more central location in relation to the District's North Irrigation System.

The pump station design concept, shown on the right, relies on two cone-type fish screens, similar to the existing fish screen. Each screen would be sized for a diversion of 40 cfs, with the combined flow from the screens routed to the pump station wet well through a 66-in diameter intake pipe. The pipeline would be sloped from the screens to the wet well. Three vertical turbine pumps would be installed in the wet well, each with a capacity of 20 cfs.

Initially, two pumps would serve as duty pumps with the third pump as a standby. Should the District be allowed to increase the diversion rate to 60 cfs, all three pumps would be in operation. Pump motors and discharge piping would be installed on a concrete deck at the original grade, set back from the riverbank. The pump station structure would be supported on piles.

Shown below is a list of considerations that our team has determined critical should the District decide to select this alternative.

GEOTECHNICAL

As noted earlier, Crawford completed the geotechnical borings for the Elliot Road Bridge over the Mokelumne River located less than a mile upstream of the project site. The borings show the presence of coarse-grained sands, non-plastic silts, and gravels within 60 ft of the surface. The borings do not indicate the presence of fine-grained clays or plastic silt layers. The borings indicate that the sands and silts are loose and will be susceptible to liquefaction and generally lack the capacity to support structures within 12 ft of the bottom of the river.

Due to the presence of coarse grain soils and gravels, the previous borings show very little drop in the water elevation beyond the river. In general, borings 200 ft away from the river show no drop in the water elevation.

Open excavations will be nearly impossible to complete due to the lack of fine-grained layers located within 30 to 40 ft of the river. A cofferdam

required for work in the river for Alternative 1 would have no plastic fine grain layers to tie into to prevent water from running into the excavation. The addition of dewatering wells would have to pump the entire river section down and would prove to be a challenge, and highly unlikely. Installation of a "rat slab" could be attempted in the excavation, but construction would be difficult and dangerous. In addition, the lack of soil support will require the structure to be supported on deep foundations.

CONSTRUCTABILITY

Working in the water will be a challenge considering soil conditions, wide variations in river levels, dewatering activities, limited construction windows, and stringent permitting requirements. Working in the water will require the successful construction of a cofferdam which adds more risk. Alternative 1 requires extensive construction in the river to place fish screens and to install a large intake pipeline. The bottom up construction technique for the wet well/approach channel in Alternative 1 could be impacted by excavation and dewatering. The conveyance pipeline from the pump station across sensitive habitat will also need risk analysis and creative problem solving, depending on mitigations required by resource agencies.

MAINTAINABILITY

Convenient access and the ability to inspect and service equipment are key for effective maintenance of a river diversion pump station. The ability to maintain a pump station contributes to the overall sustainability of the facility. In this alternative, the cone type fish screens installed on the river thalweg will be difficult to inspect visually without the use of divers, and any preventative maintenance work may prove challenging.

RELIABILITY

For both concepts, the number of pumps and piping configuration would be similar, suggesting comparable reliability. In terms of system operation, the primary difference between the two concepts is the type of fish screen. With the cone type screen under Alternative 1, the location of the screen within the river is critical to avoid loss of capacity due to sand deposition. With greater flexibility in the design of T-Drum

screens, the number and size can be customized to align with project requirements, resulting in more reliable performance. Adjustment of the vertical position of the screen in the river can also mitigate the impact of sand deposition. Although the T-Drum screens include a mechanical component in the retrieval system, regular maintenance/inspection should minimize any potential reliability challenges.

HYDRAULIC EFFICIENCY

The intake structure/wet well for each pumping station under Alternative 1 and Alternative 2 will be sized and configured based on guidelines in the HI standards, resulting in comparable hydraulic efficiency. Discharge piping configurations/appurtenances will also be similar, with the goal of minimizing headloss while maximizing operational flexibility. In terms of overall hydraulic efficiency and less pumping requirements, Alternative 1 has a slight advantage compared to Alternative 2 because the pumping system is closer to the proposed point of connection to the District North System.

PROS AND CONS OF ALTERNATIVE #1

PROS

Proximity of pumping system to the District North System provides slight hydraulic advantage.

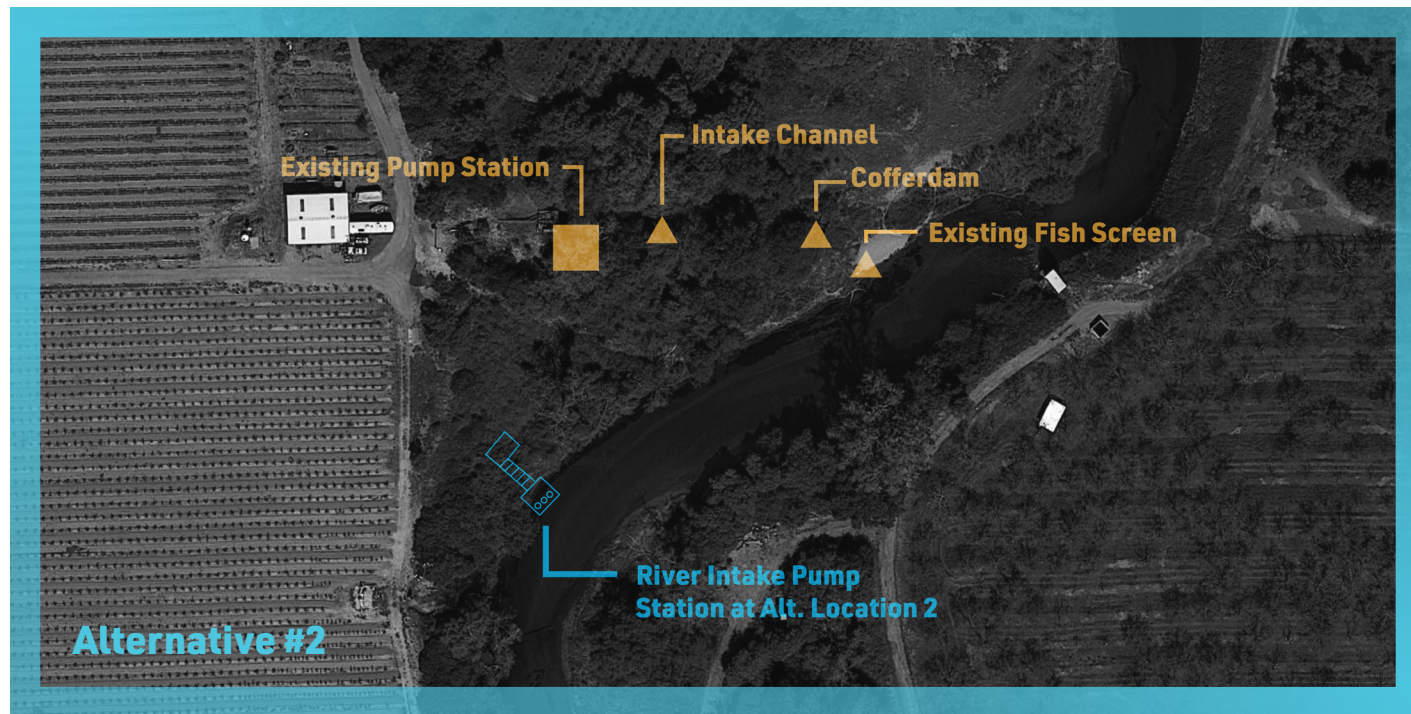
Ease of site acquisition due to proximity of existing pump station.

CONS

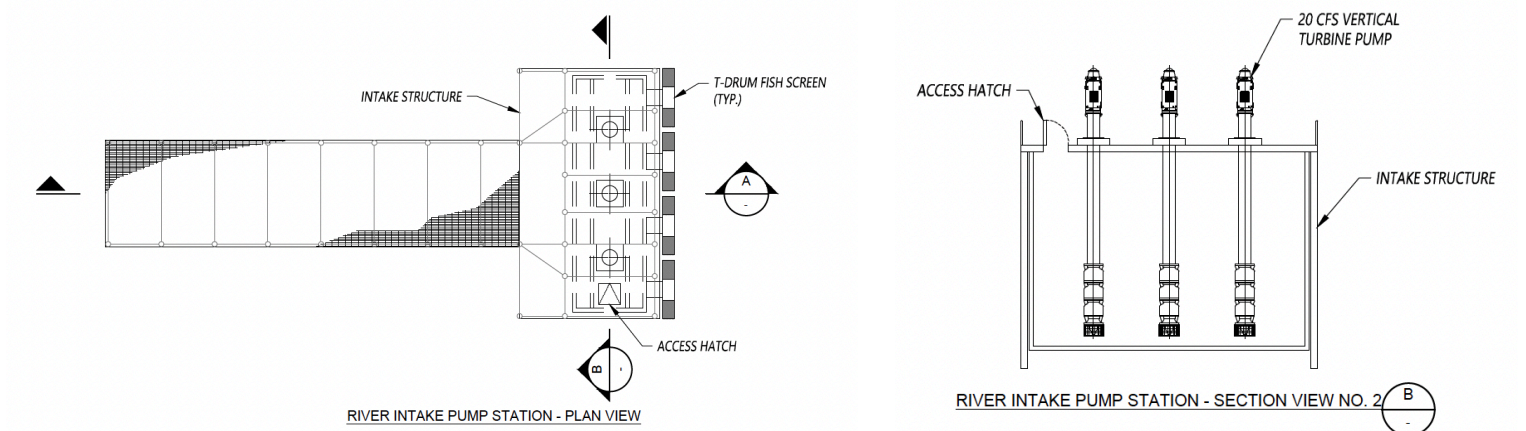
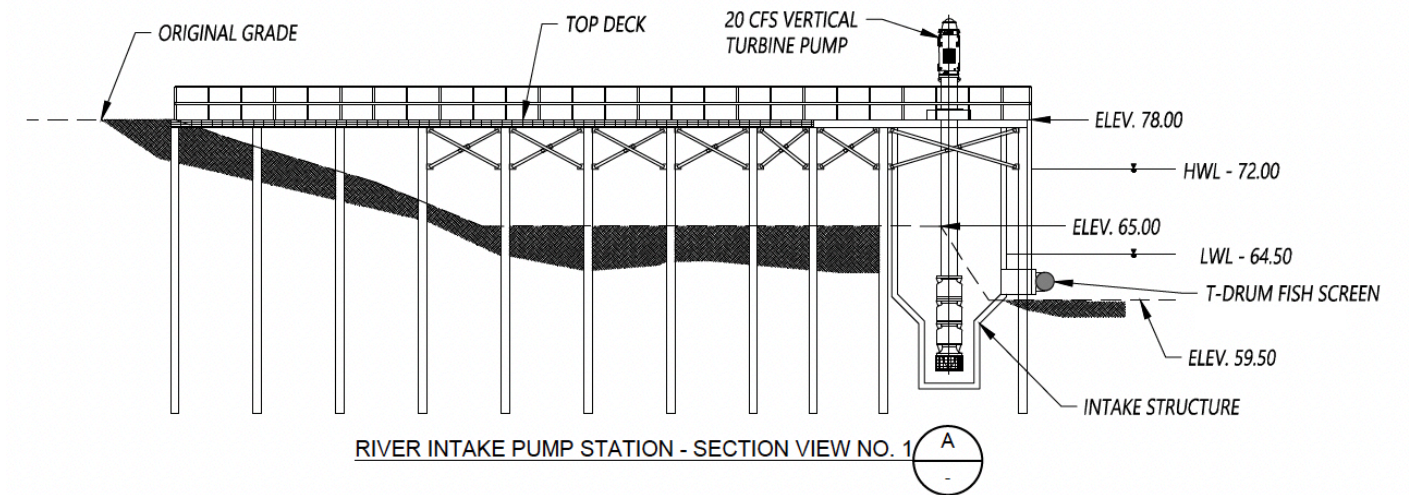
Because it is built at grade under the high water mark, there's a higher risk of flooding.

Extensive construction in the river to place fish screens and to install large intake pipeline.

The cone type fish screens installed on the river thalweg will be difficult to inspect



RIVER DIVERSION/PUMP STATION ALTERNATIVE #2



2. DISCUSSION OF ALTERNATIVE SITE AND PUMP STATION #2

A more suitable location for the river diversion, less likely to be impacted by siltation, is approximately 300-400 ft further downstream of the current location as shown in the above graphic. This is an area where the river is removing material rather than depositing sand/silt. Geotechnical explorations will be required to confirm the stability of the bank for pump station construction. In evaluating suitability, velocities perpendicular to the river direction will also be analyzed based on river modeling. While avoiding sand deposition setbacks, the site will have the benefit of being closer to the levee, reducing piping and site development requirements.

This concept incorporates T-Drum type fish screens on a common manifold header. Screened water will be routed to a wet well equipped with three 20 cfs vertical turbine pumps. Pump motors and discharge piping will be mounted on a steel deck that extends toward the flood control levee for vehicle and personnel access. The steel deck would be supported from piles and would overhang the river. For inspection and maintenance purposes, the T-Drum screens could be retrieved from the pump deck level.

Shown below is a list of considerations that our team has determined critical should the District decide to select this alternative.

GEOTECHNICAL

A top-down construction approach as shown in Alternative 2 will be easier/safer to construct. Driven piles installed below the loose sands and liquefiable layers would provide support for the above-grade pump system in axial and lateral. The pump station and wet well could be

supported from the deck, minimizing bearing support and excavation. In addition, based on what our team has heard from the District, nearby alluvial wells could be installed to capture low-flow conditions. Wells are easier to construct than excavations.

CONSTRUCTABILITY

In contrast to Alternative 1, this design would encounter far fewer constructability challenges and have more cost-saving opportunities considering the limited work in the river, minimal dewatering requirements, "top down" construction technique with many elements fabricated offsite prior to installation, and reduced conveyance pipeline work in undisturbed areas.

MAINTAINABILITY

Alternative 2 holds many advantages, beginning with a location that is closer to the existing levee road compared to the proposed pump station location envisioned under Alternative 1. The access platform under Alternative 2 can be extended towards the levee and combined with an all-weather ramp to provide a path for vehicles and personnel to reach the diversion pumps easily. With the ability to rotate the T-Drum fish screens out of the water to the pump deck level, inspection and maintenance of the screens is facilitated.

PROS AND CONS OF ALTERNATIVE #2

PROS

Top-down approach leads to easier and safer construction.

Limited work in the river, limiting constructability challenges and minimal dewatering requirements.

Reduced conveyance pipeline work and increased cost-saving opportunities.

Increased maintainability through close proximity to the existing levee road.

Retractable fish screen facilitates inspection and maintenance.

CONS

Recoating of exposed steel structure every 10 years

New site required for pump station

PREFERRED ALTERNATIVE

A summary comparison table of Alternative 1 and Alternative 2 is presented below. Based on our analysis, Alternative 2 could be slightly less efficient hydraulically than Alternative 1, however based on the other three criteria, ***we believe Alternative 2 provides the most value to the District and is our suggested approach for the North Pump Station Improvements Project. A detailed site plan for Alternative 2 is shown below the table.***

ALTERNATIVE COMPARISON TABLE

CHARACTERISTIC	ALTERNATIVE 1	ALTERNATIVE 2
Constructability	Difficult because of extensive in-water work.	Top-down construction improves constructability.
Maintainability	Submerged fish screens make maintenance challenging.	Convenient access as retractable screens facilitates maintenance.
Reliability	Cone screens installed on river thalweg can be compromised by sand deposition.	Design flexibility with T-Drum screens and operational adjustments improve reliability.
Hydraulic Efficiency	Better connectivity to District North System.	Increased pumping to District North System considering pump station site.

ALTERNATIVE 2 SITE LAYOUT



DESIGN CONSIDERATIONS FOR PREFERRED ALTERNATIVE

Our preferred design alternative not only addresses the challenges presented with the current site location, but also meets your objectives shown below while prioritizing safety, environmental responsibility, and long-term performance.

THE PREFERRED ALTERNATIVE WILL BE DESIGNED TO MEET THE FOLLOWING DISTRICT GOALS AND OBJECTIVES:

1. Divert 20,000 ac-ft/yr of water from the Mokelumne River for groundwater recharge and discharge to District irrigation system supply for flood irrigation. Potential diversion could increase to 100,000 ac-ft/yr.
2. Divert water at any time during the year including low-water levels in the Mokelumne River.
3. Diversion and pumping facilities should operate reliably in compliance with federal and state regulations, and consistent with contractual requirements.
4. Desired pump station delivery capacity of 40 cfs, expandable to 60 cfs.

This holistic approach encompasses site-specific considerations, rigorous design criteria, seismic resilience, hydraulic efficiency, mechanical simplicity, and strategic maintenance planning—creating a pump station that stands as a resilient and sustainable infrastructure for years to come.

Our team has diligently broken down this design alternative through collaborative team meetings and analysis. **Our key takeaways are outlined below.**

A. STRUCTURAL

The selection of the pump station site is intricately tied to ensuring optimal access to water for the foreseeable future. With input from our geotechnical subconsultant, Ben Crawford, a mat foundation structure was seen as not necessary due to cost concerns. Consequently, our initial design adopts a top-down approach, using top structural steel to support the deck, pumps, and pump well housing, transferring the load through driven metal pipes. The decision is based on the successful longevity of similar structures observed in smaller existing pump stations along the Mokelumne River.

The structural design of the metal array accommodates dead and live loads, including truck loading for pump maintenance, while also factoring in seismic lateral loading. Recognizing the likelihood of liquefaction in the event of an earthquake, a top-down design approach is employed, working closely

with the geotechnical team to design driven piles that mitigate liquefaction risks. The lateral resisting system employs braces, forming a portal frame between column bays, ensuring resilience against seismic events, with the clear distance designed above the high-water elevation. **To safeguard against corrosion of the submerged steel and extend the pump station lifecycle to 50 years, a coating system is proposed.**

B. RIVER HYDRAULICS

In establishing elevations for the pump station deck to assure year-round operation, determination of water surface elevations in the river will be critical. The pump station site is located in a FEMA floodplain with a floodway overlay. The levee along the Mokelumne River is a non-federal levee, therefore no USCOE 408 Permission Section approval is required as jurisdiction falls to the Central Valley Flood Protection Board (CVFPB).

SKETCH-UP RENDERING OF ALTERNATIVE SITE #2

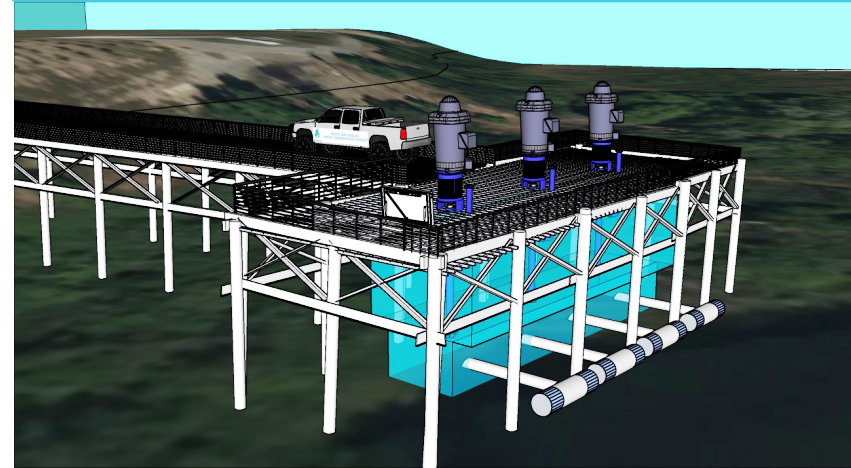
The water surface elevation for the 100-yr flood event is approximately 74 ft. However because there is a flood overlay designation, no increase in water surface elevation created by the project will be permitted. To confirm no impacts to water surface elevations and to provide design recommendations for the pump station including any required scour protection, river models will be created and executed for pre- and post-project conditions by our River Hydraulics subconsultant, Cathy Avila, using the results of a survey conducted of the river 1,000 ft upstream and downstream of the pump station site by UNICO. In addition to generating critical information for the pump station design, the results of the river modeling effort will be an integral element in the encroachment permitting process with the CVFPB and approval process with the San Joaquin County Water Resources Department (local FEMA floodplain administrator).

C. SEDIMENTATION MITIGATION

Sediment deposition and bar development can affect the ability of the water intake and its associated fish screen to function properly. For this Project, our Geomorphology subconsultant, ICF, proposes to confirm the main geomorphic processes that are operating and map the existing landforms that are present in the vicinity of the proposed fish screen. Geomorphic conditions of the Project area will be described, including channel migration, bank erosion potential, hydrodynamics at the site, and sedimentation risk. The geomorphic assessment will serve as a basis for the recommended screen location.

The geomorphic assessment may also include evaluation of the following indicators:

- » Channel Classification: the river's predicted behavior based on its position in the watershed and the relative balance of transport capacity to sediment supply
- » Local Watershed Inputs: identification of major inputs of sediment and runoff into the river



- » Riparian Vegetation Condition: abundance, structure, and type
- » Bankfull Width and Depth
- » Channel Bed Substrate Composition and Embeddedness
- » Channel Complexity: instream habitats
- » Degree of Channel Incision
- » Stage of Channel Evolution

Based on the geomorphic assessment, ICF will provide recommendations and conceptual sketches for any necessary mitigation components to offset project impacts. Mitigation may include abandonment of the existing intake channel, riparian enhancement of the shoreline in the vicinity of the proposed intake, and/or habitat enhancement on the north bank of the Mokelumne River upstream or downstream of the project area.

D. FISH SCREEN

Any potential solution that involves relocating the existing intake and fish screen will require compliance from current National Marine Fisheries Service (NMFS) and California Department of

Fish and Wildlife (CDFW) fish screen criteria and fish passage guidelines for design, maintenance, and operation of water intake facilities. An assessment of the diversion facility on the safe and effective passage of fish will rely on river hydraulic modeling prepared by Avila to assess potential changes in sweeping velocities and other hydraulic attributes that can affect fish passage at the diversion facility.

Based on earlier assessments prepared for projects on the Mokelumne River, hydraulic modeling will be conducted for 50% of the 10-yr discharge flow for the river, or approximately 5,000 cfs. In addition to hydraulic modeling, a habitat assessment will be completed to evaluate existing conditions and fish habitat in the project area to accomplish the following:

1. Identify the potential for fish species to use these habitats.
2. Identify any construction/operational related impacts on fish habitat.
3. Develop mitigation measures to avoid, substantially reduce, and/or compensate for construction/operational related impacts.

Based on the hydraulic modeling, the preferred T-Drum fish screens will be designed to meet the following NMFS and CDFW criteria:

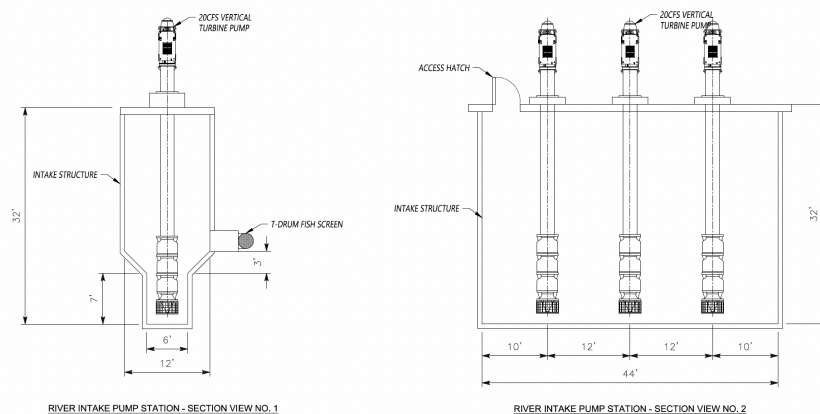
- » Approach velocity shall not exceed 0.33 ft/sec (NMFS) for fry and 0.8 ft/sec (CDFW) for fry.
- » Sweeping velocity (water velocity component parallel to the screen face) shall be greater than the approach velocity.
- » Screen face shall be parallel to the river flow and aligned with the adjacent bankline.
- » Percent of open area for any screen material shall be at least 27%.

Possible mitigations may include habitat enhancements as described earlier under Sedimentation Mitigation.

Design and selection of the fish screen are critical to the project success and will result in regulatory scrutiny. Recognizing the importance of accuracy from the beginning, we reached out to the screen manufacturer who supplied the screen for the existing pump station to catalog lessons learned and to solicit recommendations for screen replacement. These recommendations, detailed river hydraulic analyses by Avila, and input from experienced fishery biologists from ICF will provide the technical and practical expertise needed for the screen selection approach.

DISCHARGE PIPING CONFIGURATION

Based on an initial pump selection described earlier, the discharge piping from each pump will be 24-in diameter. Each discharge line will include an air release valve, ball check valve, and butterfly isolation valve as shown in the figure on the following page. A ball check valve is recommended to minimize space requirements on the discharge line. Slow closing of the valve would also provide mitigation of potential transients during pump shut-down. The three 24-in lines will be connected to a common manifold and then increased in size to 48-in diameter. The conveyance pipeline will be supported from the top of the pump station deck, providing convenient access for inspection and maintenance.



E. PUMP STATION INTAKE STRUCTURE

Screened water from the river will be hard-piped to the pump station intake structure from connections to the T-Drum screen manifold. The intake structure to be fabricated of welded steel components will be supported from the top deck as shown below.

The intake structure will be designed as a trench-style wet well with pump spacing and sump configurations consistent with recommendations found in the HI standards. An access hatch will be installed in the top deck to allow for inspection and preventative maintenance.

F. PUMP SELECTION

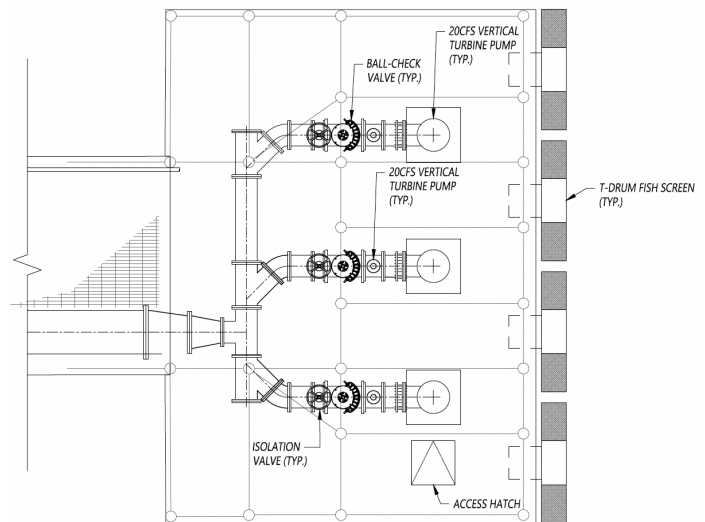
Three vertical turbine pumps, each with a capacity of 20 cfs, are planned for the pump station to provide an ultimate capacity of 60 cfs. Assuming 24-in diameter discharge pipelines from each pump and a combined discharge force main of 48-in diameter, a preliminary system curve was developed for high and low water levels in the intake structure and a force main routed to a discharge location at an existing irrigation structure near the intersection of Acampo Road and Tretheway Road.

In selecting a potential pump, to maximize system efficiencies, units that would operate within 70-120% of the best efficiency point (BEP) were considered.

G. ELECTRICAL

Electrical work includes obtaining a new 600 Amp, 480V electrical service from PG&E to serve three duty 125 horsepower vertical motors, each driven by 6-pulse VFDs, along with additional ancillary loads. The proposed new equipment comprises an outdoor-rated main switchboard, an Automatic Transfer

PUMP STATION DISCHARGE MANIFOLD



Switch (ATS) with a receptacle for a roll-in generator provision, a motor control center with a step-down transformer, a 120/240V panelboard, and a control panel.

Instrumentation requirements will be thoroughly investigated to assure the District obtains the necessary status and control signals for remote operation and monitoring of the site. This includes a level transmitter inside the wet well and vibration and pressure switches for each of the vertically installed motors.

The overarching design concept aims to provide the District with a robust electrical and control setup, streamlining operations for District operators while assuring equipment reliability and serviceability. This will be achieved through specifying only reputable vendors, assuring manufacturer representatives are accessible for troubleshooting.

The entire Garney team was great during start-up. Their customer service was second to none and raised my expectations regarding future projects. They were quick to resolve problems and even worked around-the-clock with our team during some key events of the start-up process.

- Martin Kimmes
City of Thornton, CO

Additionally, equipment selection will be closely coordinated with the District to maintain uniformity of equipment inventory across all District sites, optimizing operations. This coordination will also identify specific District requirements to be integrated into the design. For example, the decision to include a junction box with a receptacle mounted on the rear of the ATS for a roll-in generator provision will depend on the generator and plug available in District inventory.

H. SITE ACCESS

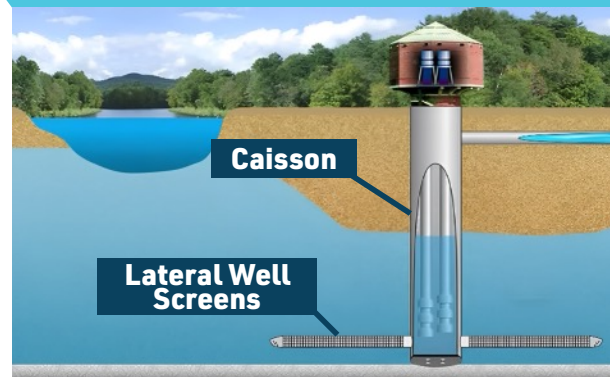
Based on topographic information available from San Joaquin County, the elevations of the top of the flood control levee and the edge of the river are approximately 90 ft and 65 ft, respectively. The planned access to the pump station platform will be via a private road along the top of the levee with an all-weather ramp.

Retaining walls are anticipated on either side of the ramp down to a proposed landing, adjacent to the pump station platform/deck. Electrical switchgear will be installed at the concrete landing with parking available for District vehicles. Access to proposed alluvial groundwater wells would be via stairs from the referenced landing as shown in the graphic below.

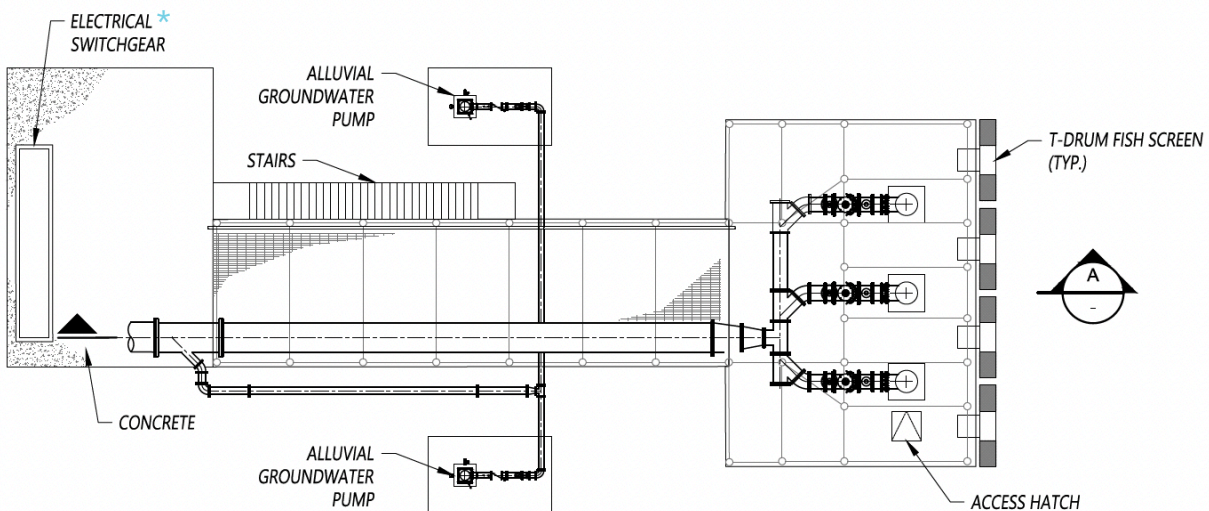
I. ALLUVIAL WELLS

To allow for limited pumping at low water levels in the river, alluvial wells will be considered. The principal aquifer hydrogeologic conceptual model is favorable for well development in the Lockeford Area, especially along riverbeds. The surface geology is dominated by highly permeable sand and gravel alluvium. The principal aquifer system is separated into the shallow, intermediate, and deep aquifer zones. The high aquifer transmissivities vary with depth from 90,000 gpd/ft, 60,000 gpd/ft, and 250,000 gpd/ft for the shallow, intermediate, and deep aquifer zones, respectively. The use of horizontal collection wells for the shallow system to improve well yields and lessen water level impact is recommended.

ALLUVIAL WELL WITH HORIZONTAL COLLECTOR



ALTERNATIVE PUMP STATION #2 PLAN VIEW



*Electrical Switchgear to be sited above 100-year flood elevation

J. CONCLUSION

For the new raw water pump station, importance is given to the structural integrity with a strong emphasis on safety and environmental considerations. The design prioritizes seismic resilience, integrating a robust structural framework capable of withstanding potential earthquakes. A comprehensive geotechnical investigation guides foundation design, ensuring stability and mitigating settlement risks.

High-quality, corrosion-resistant materials are meticulously selected to withstand harsh environmental conditions, aligning with or surpassing industry standards. The structural design incorporates redundancy and reliability factors, providing a fail-safe system and enhancing overall dependability. Safety protocols during construction safeguard workers, including fall protection systems for elevated work areas. ***Environmental impact mitigation measures are seamlessly integrated into the design to preserve the surrounding environment.***

The design will also address the potential exposure of structural elements to water, emphasizing materials with chemical resistance. Public safety features, such as protective barriers and signage, are integrated into the design without compromising operational efficiency. The entire design is anchored in compliance with stringent safety, environmental, and structural regulations, ensuring a resilient, environmentally responsible, and operationally efficient raw water pump station.

In designing for the long-term durability and operational efficiency of the pump station, the emphasis extends to maintenance considerations. The design incorporates accessibility features for ease of inspection and maintenance, particularly for steel structures in contact with water. A proactive corrosion control strategy involves the application of protective coatings, chosen for durability and ease of maintenance. The use of modular structural components further simplifies maintenance processes, minimizing downtime and optimizing long-term performance.

Other factors that contribute to reduced

operating and maintenance requirements include:

- » Ample space provided around pumps and piping to facilitate access and to minimize safety concerns.
- » Pumps selected to optimize efficiency and to minimize power requirements.
- » Piping configured to minimize operational flexibility.
- » Fish screens that allow for convenient access/inspection.

5. PERMITTING

A summary of permits and a suggested permitting strategy are presented below.

A. SUMMARY OF PERMITS

Based on Dewberry's experience obtaining permits for the Walnut Grove Bridge Replacement Project over the Mokelumne River, the following permits/permissions will likely be required for the North Pump Station Improvements Project:

Section 401 Water Quality Certification from the Central Valley Regional Water Quality Control Board.

- » **Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife.**
- » **Section 404 Nationwide Permit from the USACOE.**
- » **Biological Opinions from National Marine Fisheries Service and the California Department of Fish and Wildlife for Consistency Determination.**
- » **Levee Encroachment Permit from Central Valley Flood Protection Board.**
- » **FEMA compliance acknowledgment from San Joaquin Water Resources Department.**
- » **Modification of Permit 10477 Regarding Diversion by North San Joaquin Water Conservation District from State Water Resources Control Board.**

Submission of permit applications will require the completion of CEQA documents and technical studies in support of the project. Permitting requirements may include the following:

- » In water work window: June – October
- » No work in floodplain: November – April 15
- » Pile driving and post-drilling will occur from 8 am – 5 pm to allow for relaxation periods and movement windows for special status fish
- » Vibrational pile driving or padded hammer techniques to prevent acoustic impacts to fish species consistent with Interim Criteria for Injury of Fish to Pile Driving Operations

A permitting and construction schedule for the project considering these requirements is detailed on page 39.

B. PERMITTING STRATEGY

Early and frequent communication with permitting agencies is critical to streamline subsequent processing of permit applications. Onsite meetings with regulators will be scheduled to introduce the project, to explain the approach to mitigating impacts, to describe the environmental benefits of the Project in terms of habitat restoration/enhancement, and to solicit feedback on key challenges to be addressed in the permit applications.

6. CONSTRUCTION CONSIDERATIONS

As outlined in this section, the alternate design concepts our team has presented will prove to be valuable when developing the Basis of Design Report (BODR) for the District. As the design progresses, it is important to have a design-builder efficiently identify and solve challenges. ***Our team has identified the following five challenges that we will mitigate through solutions provided.***

CHALLENGE #1

PG&E Schedule Constraints

Challenge: Electrical will be a primary challenge for construction of the North Pump Station Improvements Project and will drive a portion of the schedule. Our knowledge and experience working with Pacific Gas and Electric Company (PG&E) on past local projects has provided us with many lessons learned on how delays can occur, especially in more remote areas.

Solution: Because of our past experience with PG&E, we understand the schedule constraints that can be caused and we will be diligent and proactive in our communication with them. We will always have a backup plan in place should they delay construction on the project.

COMMITTED TO BEING A GOOD NEIGHBOR

Garney's expertise in water facility construction was a key factor in the success of the project. It was very impressive to see Garney transform what had become a 2.5 acre city dumping yard into a beautiful 5 MGD water distribution plant. This was an extremely tight design requiring every inch of free space with the added obstacle of businesses and residents on all sides. Without the benefit of an offsite laydown yard, Garney welcomed the challenge and masterfully maneuvered the obstacles to construct a plant that received praise from the local residents. This new facility will be pivotal as it will provide a maintained finished water system pressure for the City's residents, business, and visitors.

- Clece Aurelus, PE, Engineering Support Services Manager
City of Hollywood, FL

CHALLENGE #2

Working in the Mokelumne River

Challenge: Working in and around the river will require a clear understanding of all design, permitting, and construction requirements.

Solution: We've assembled a trusted team with specific and recent team experience in working on the Mokelumne River. This will ensure that river hydrology, geotechnical data, and permitting requirements are clearly identified, considered, and executed in a timely, accurate, and systematic approach.

CHALLENGE #3

Weather

Challenge: Working in and around water, the weather always poses a challenge. Rainfalls and flooding could greatly impact the core construction of the pump station work which occurs within the Floodplain and River.

Solution: Through our initial design concept efforts, we have determined a pump station solution that will minimize the duration of work to be performed within the floodplain and river. This approach will lead to potential schedule savings and ultimate, reduces costs for the District.

CHALLENGE #4

Site Accessibility

Challenge: Site accessibility for power, construction, and long-term pump station operation and maintenance may impact the adjacent landowners.

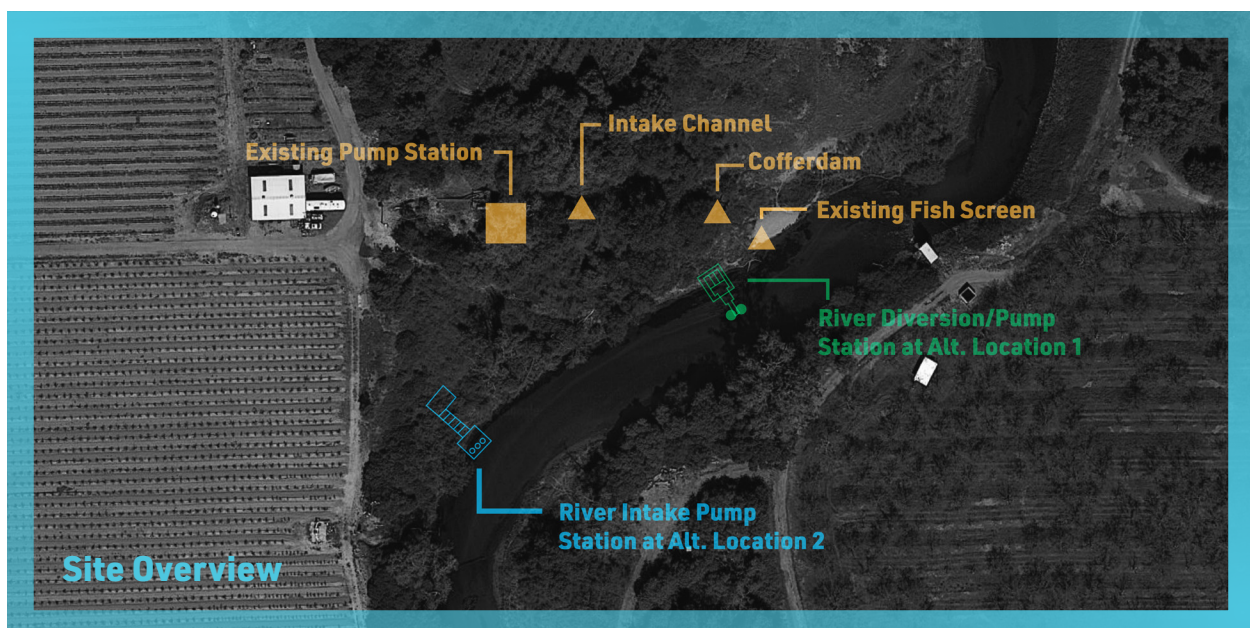
Solution: Positioning the pump station in a more desirable reach of the river pulls the majority of construction further away from the adjacent landowner's home. **We will engage in early, constant, and transparent communication with the landowner(s) to ensure we understand and meet each other's needs.**

CHALLENGE #5

Long-Lead Material Procurement

Challenge: Supply chain delays continue to impact projects in consideration of customized pumps, specialty valves, and electrical/I&C equipment.

Solution: We will expedite pump, valve, and electrical/I&C design to allow for early solicitation, selection, and procurement upon completion of 60% design or sooner. We will leverage our local and national relationships to ensure we select manufacturers and vendors that have a track record of meeting their commitments and our schedules.



COST CONTROL

BUDGETING, COST CONTROL, AND SHARED SAVINGS

Chad Hulan, Cost Estimator, and his team of seasoned estimators will provide accurate, transparent estimates, and will identify ways to align the design scope with the project cost. The estimating team will manage Garney's estimating process in the development of our detailed and open-book cost estimate. Dan Eckdahl, Design-Build Manager, and Feliciano Mata, Project Manager, supported by the estimating team, will continue identifying VE ideas and share constructability savings with the District.

OPEN-BOOK COST ESTIMATE

True open-book estimating is transparent, familiar, and accessible. Garney uses Microsoft Excel for our estimating so that the District can see cost breakdowns as well as detailed subcontractor and supplier quote comparisons. At each design milestone, our

estimating team will review a detailed Work Breakdown Structure (WBS) worksheet with the District. The WBS supports an open-book approach and is completely searchable and sortable providing breakdowns of the current cost estimate showing the total bare cost and total cost with burden and markups applied. The WBS is sortable by bid item, structure, construction disciplines, and description. As design milestones are reached, the cost estimate will be provided and reviewed with the District.

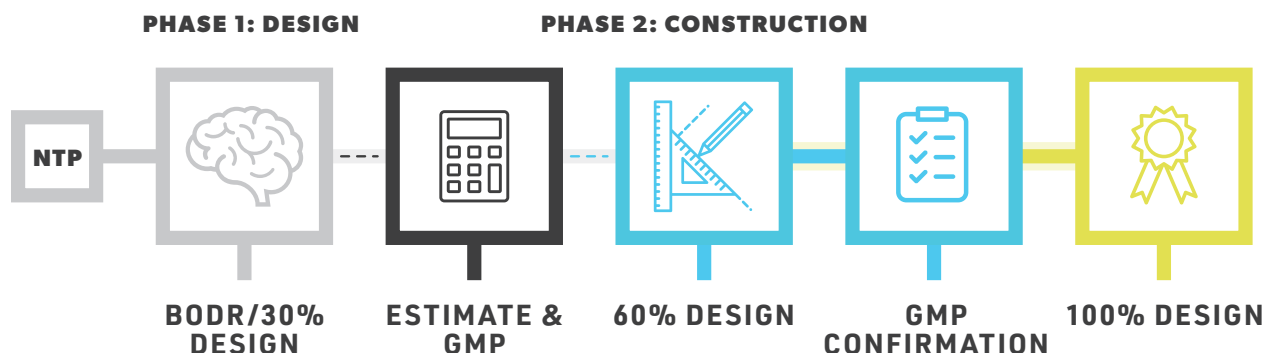
CONTROLLING & TRACKING COSTS

The cost estimate format will be consistent throughout the process, with changes clearly identified under each bid component, allowing for efficient review across the team. As a living document, we can quickly analyze design considerations and provide cost impacts to assist with the overall evaluation. Garney prefers to use real-time data, involving key subcontractors from the start to ensure cost estimates align with the current market conditions.

GMP DEVELOPMENT

During the development of the GMP, the cost contingencies will be identified by critical path and in evaluating risk. While maintaining transparency and using our open-book estimating method, we will coordinate these items with the District to ensure contingencies and allowances are properly accounted for.

*Dewberry will develop a BODR and 30% design which will become the basis of the GMP. As the design advances to 60%, our team will continue to evaluate the GMP and confirm the budget meets the District's expectations. **The graphic below visually represents this process.***



SCHEDULING

PRELIMINARY SCHEDULE AND SCHEDULE CONTROL

The key advantage of a contractor-led, PD-B team is schedule control and management. Garney + Dewberry will first develop a better understanding of the District's schedule drivers, and will engage both design and construction personnel to develop an overall agreeable schedule time frame. Once agreed upon, Garney will manage this schedule and will ensure all team members remain on track through each task from Phase 1 notice to proceed through final acceptance.

PLANNING/MANAGING DESIGN AND CONSTRUCTION

During the preconstruction phase, Garney will use a storyboarding process at the onset of the project as a planning tool. This process includes all of the management team assigned to this project. Storyboarding gets the team together in a common location to brainstorm on all tasks that need to happen from the beginning to the end of the project. All tasks will be written on a post-it note and stuck to the wall.


Once all initial ideas are shown, the project team will begin moving the post-it notes into a timeline organizing from the most critical tasks to the least critical tasks. At the end of

this process, we will have developed a project plan, schedule, and assigned tasks. This plan will then be shown on a conventional bar chart schedule showing the critical path simply and to easily share with a broader group.

Upon notice of award, the project management team will meet to discuss the intricacies of building a successful project within the given time frame. Close coordination with the District is crucial to identifying and coordinating constraints and critical activities. Feliciano will work with Jimmy to further develop, finalize, and manage the comprehensive schedule that encompasses all phases of the project. The level of detail and format will be coordinated with the team for forecasting, updating their respective boards, and constituents.

Bi-monthly meetings will be held with all subcontractors and suppliers to identify potential challenges early, prevent delays, and maintain the overall schedule.

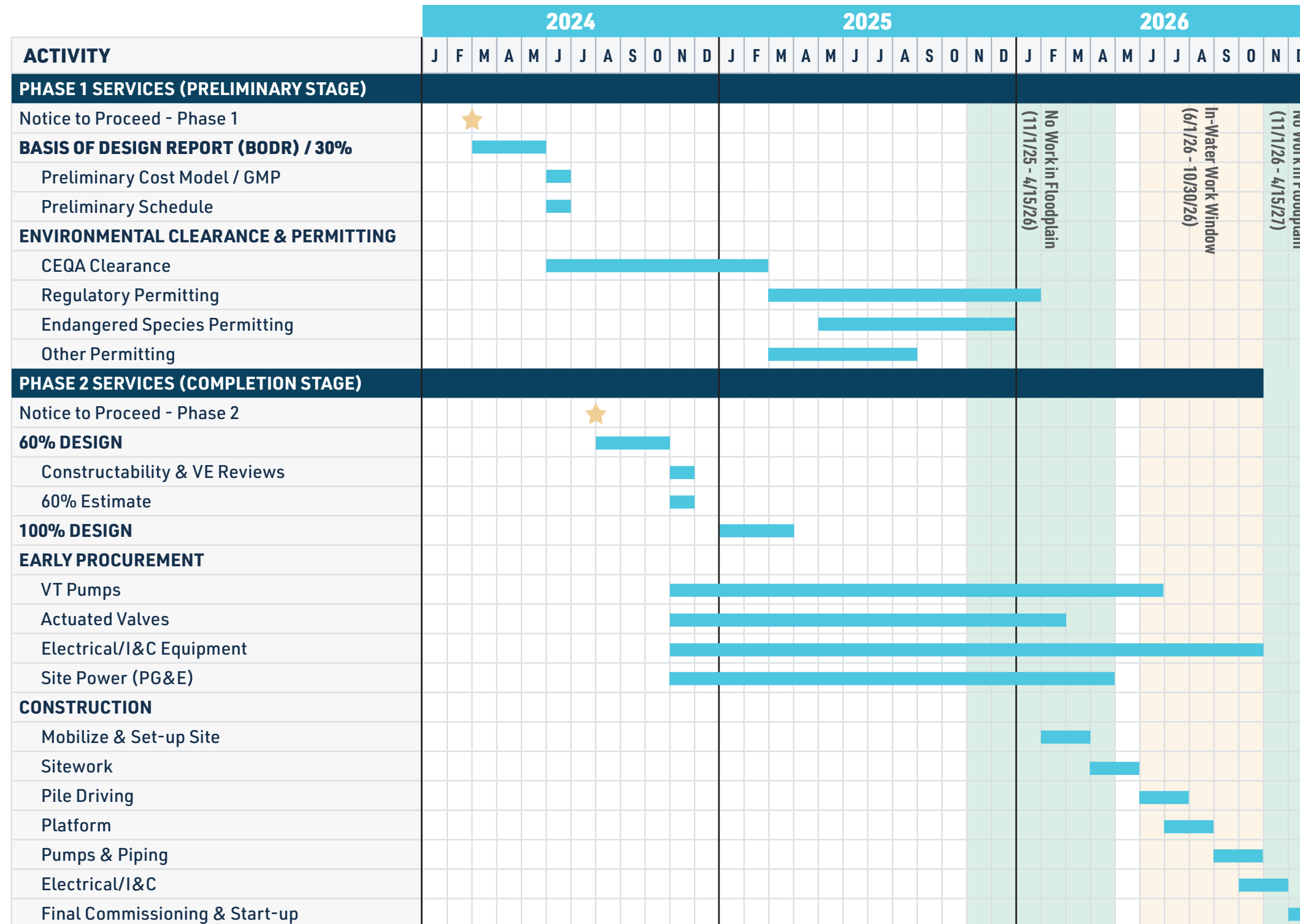
To focus on smaller and more immediate time frames, three-week look-ahead schedules will be maintained and reviewed at weekly team meetings which will be attended by all team members. Should the project schedule begin to slide, these meetings will be revised to weekly meetings at which recovery plans will be discussed and managed to assure we deliver the project on time.



Garney was tasked with meeting an extremely tight schedule for a pump station and force main project where the design of the project had to be completed within three months of project award and construction had to be finished within one year of design. Through collaboration with the County, our stakeholders, and the strategies Garney employed, the team was able to keep the original GMP intact and improve substantial completion date by more than 20 days.

**- Reginald D. Wells, Director
DeKalb County, GA**

PRELIMINARY SCHEDULE



SCHEDULE HIGHLIGHTS

Garney + Dewberry have considered the schedule provisions as provided by the District in the RFP. Once selected, our priority will be to better understand the District's needs and expectations, focus on schedule, and determine the best solutions for the project.

Phase 1 Services (Preliminary Stage): In our schedule, we are taking an aggressive approach to work through design concepts and to complete a Basis of Design Report (BODR)/30% Design by early June 2024. This is necessary to begin the overall permitting process which will drive the start of construction. As shown in our schedule, the CEQA clearance process must first occur to allow for the ensuing permitting that follows. Our goal is to clear all permitting and start construction in February 2026.

Phase 2 Services (Completion Stage): Phase 2 services will proceed in August 2024, following GMP development and approval, and will complete upon final commissioning of the project, currently targeted for December 31, 2026. Transparency will be of utmost importance during both phases with our focus on proactively tracking both permitting and long-lead procurement items, and in providing NSJWCD with an up-to-date and realistic schedule. We will hold schedule workshops throughout the duration of the project. During the first schedule workshop, we will focus on the following:

- 1) Schedule Drivers:** Permitting and long-lead procurements are going to drive this schedule. Other potential drivers we want to better understand is project funding and securing site power.
- 2) Design Phase:** Develop a plan for how we will work together as a collaborative team and with the various permitting agencies to ensure we hit all design deliverables on or ahead of schedule.
- 3) Long-Lead Procurement:** In building out our initial schedule, this reinforces that early procurement will be key to delivering your project on-time. We are aware that pumps and valves, and electrical/I&C procurement will be drivers of project schedule. We will discuss what we can do to expedite the design of these critical components so we can solicit, select, and begin procurement of these items upon the 60% design deliverable milestone or sooner.
- 4) Pump Station Construction:** Floodplain and In-Water work constraints require that construction cannot start before April 16, 2026. With a targeted completion date of December 31, 2026, this allows for a construction window of 8.5 months. Initially, we feel this construction schedule is achievable if the seasonal weather conditions and river level is favorable to allow for this early start date. The advantage of our current design concept is that it allows for the pump station structure and framework to complete efficiently, so once in place, the balance of mechanical and electrical work can be completed without concern of the Floodplain and In-Water work constraints. This approach lessens the impact of potential procurement and weather challenges.

The Garney + Dewberry team understands the overall schedule is both sequential and dependent on multiple third-party partners. We look forward to our team's collaborative efforts with NSJWCD to understand your needs and successfully deliver your project.



PART 6

**PROGRESSIVE
DESIGN-BUILD
DRAFT CONTRACT
COMMENTS**



PART 6



PROGRESSIVE DESIGN-BUILD DRAFT CONTRACT COMMENTS

Garney has reviewed the Draft Contract documents as provided in Attachment B of the RFP. In general, we find this standard EJCDC Agreement, Standard General Conditions, and Owner's provided Supplementary Conditions to be fair to both Owner and Progressive Design-Builder. If selected, we would like the opportunity to further discuss the following items:

A. DRAFT AGREEMENT (EJCDC D-512):

1) Article 2 (Contract Times) – We suggest further clarity be provided to identify both Substantial Completion and Final Completion, along with potential liquidated damages.

2) Article 4 (Payment Procedures) – Language may need to be modified to meet California payment and retainage requirements.

3) Article 7 (Design-Builder's Representations) – Some language may require modification to ensure Design-Builder's risk aligns with the current information regarding Site conditions that are made available to Garney.

B. GENERAL CONDITIONS (EJCDC D-700):

1) Article 4 (Commencement and Progress of the Work) – It may be more appropriate for the Contract Times commenced to run upon issuance of the Notice to Proceed as opposed to the "Effective Date." Additionally, concurrent delays are typically compensable in time, but not for additional money.

2) Article 5 (Site; Subsurface and Physical Conditions; Hazardous Environmental Conditions) – Under 5.05 (Underground Facilities), we believe further clarification may be necessary, to more reasonably understand the risks between the Owner and Design-Builder regarding unknown or subsurface conditions.

3) Article 6 (Bonds & Insurance) – We would like to confirm that payment and performance bond and builder's risk insurance will only be applicable to Phase 2 Services.

4) Article 7 (Design Builder's Responsibilities) – Under 7.09 (Permits and Utility Charges), we would like to discuss adding language to protect the Design-Builder against potential delays and additional costs in securing of permits, licenses, certificates of occupancy, and approvals not caused by or due to the fault of the Design-Builder.

5) Article 7 (Design Builder's Responsibilities) – Under 7.13 (Safety and Protection), Paragraph E, we would suggest a change in language here and in similar context elsewhere, from "in whole or in part" to "to the extent caused".

6) Article 7 (Design Builder's Responsibilities) – Under 7.18 (Design-Builder's General Warranty and Guarantee), we would suggest modifying this language here and throughout this document to eliminate reference to "guarantee(s)" and to only reference "warranty," "warrant(s)," etc.

7) Article 7 (Design Builder's Responsibilities) – Under 7.19 (Indemnification), we would suggest modifying language to eliminate references to "agents" in this provision and as used elsewhere throughout this document.

8) Article 11 (Amending the Contract Documents; Changes in the Work) – Under 11.01 (Amending and Supplementing Contract Documents), we would like to discuss including language clarifying that, if the Design-Builder encounters any impact to its schedule or an increase in its costs, due to circumstances that were not caused by or attributable to the Design-Builder, the Design-Builder should be entitled to request a Change Order for such adjustment; to the extent that such increase or delay was not caused by the Design-Builder.

9) Article 11 (Amending the Contract Documents; Changes in the Work) – Under 11.07 (Execution of Change Orders), we would like to further discuss the necessity of Paragraph B.

10) Article 14 (Payments to Design-Builder; Completion) – There are a handful of items we would like to discuss under this article which we believe will add further clarity to the benefit of both Owner and Design-Builder.

11) Article 15 (Suspension of Work and Termination) – Under 15.01 (Owner May Suspend Work) and 15.04 (Design-Builder May Stop Work or Terminate), we would suggest modifying “90 days” to “90 days in the aggregate.”

12) Article 15 (Suspension of Work and Termination) – Under 15.02 (Owner May Terminate for Cause), Paragraph C, we would recommend changing “within no more than 30 days of receipt of said notice” to “within such reasonable time necessary to cure such failure as agreed upon by the Parties.”

13) Article 17 (Miscellaneous) – Under 17.04 (Limitation of Damages), we would suggest this language be modified to mutually protect both the Owner and Design-Builder.

14) Article 17 (Miscellaneous) – We would like to discuss consideration to add a mutual waiver of consequential damages.

C. SUPPLEMENTARY GENERAL CONDITIONS

1) We have no comments.

We look forward to working through this draft agreement in more detail once selected for your project.



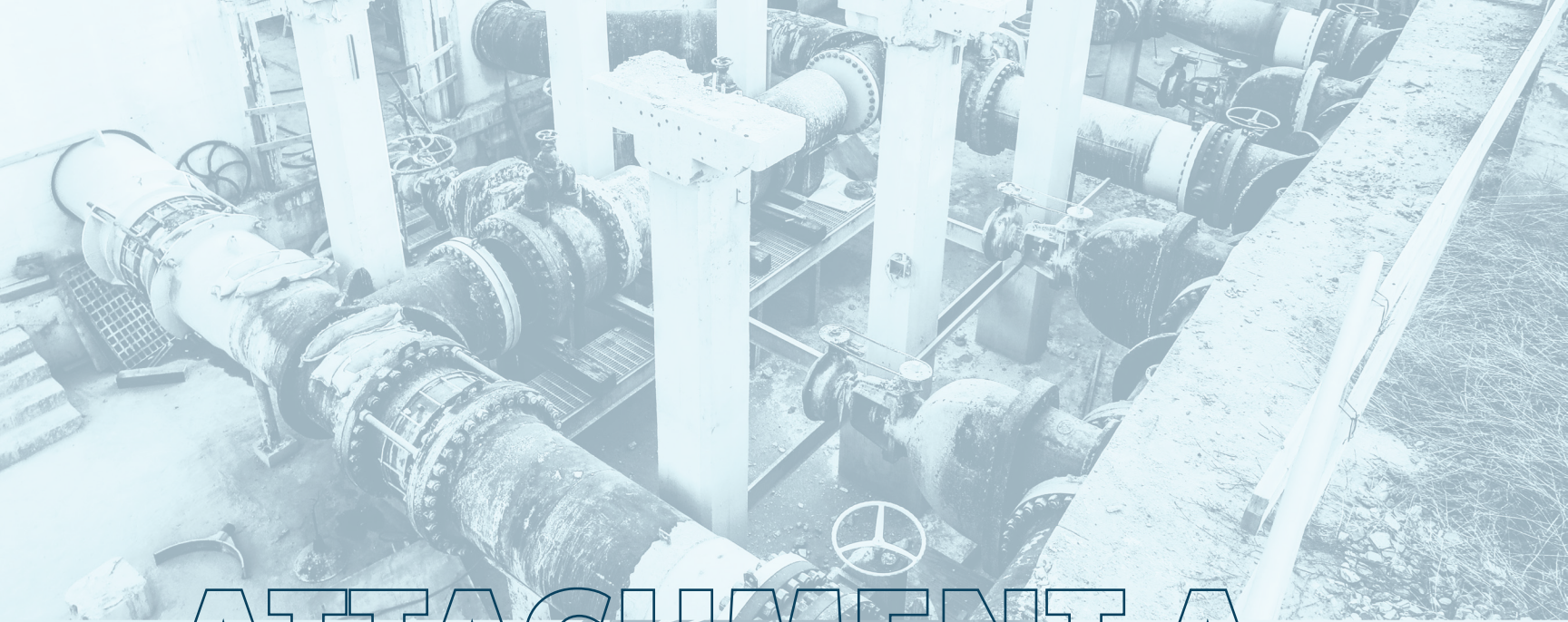
PART 7

COST PROPOSAL

SUBMITTED IN A SEPARATE SEALED ENVELOPE



PART 7



ATTACHMENT A

SOQ FORMS





North San Joaquin Water Conservation District
498 East Kettleman Lane
Lodi, CA 85240

February 1, 2024

SUBJECT: Sworn Statement from General Counsel

To Whom It May Concern:

This letter advises that I am the General Counsel for Garney Holding Company and all its subsidiaries, including Garney Pacific, Inc. In that capacity, I am not aware of any pending or past legal proceedings or judgments, nor any contingent liability that could adversely affect the financial position of Garney Pacific, Inc. or its ability to perform contractual commitments to North San Joaquin Water Conservation District.

Sincerely,

GARNEY HOLDING COMPANY

Michael D. Strong
General Counsel

STATE OF Missouri

COUNTY OF Jackson

Sworn to and subscribed before me this 05 day of January, 2024, Michael D. Strong is personally known to me.

RENAN A RAVEN
Notary Public - Notary Seal
STATE OF MISSOURI
Comm. Number 17739061
Jackson County
My Commission Expires: Aug. 3, 2025

NOTARY PUBLIC

My commission expires: 08/03/25



Insurance | Risk Management | Consulting

Arthur J. Gallagher Risk Management Services LLC
2121 N. California Blvd., Suite 350, Walnut Creek, CA 94596
CA Lic # 0D69293
United States

M 415.546.9300
F 415.536.8499

December 27, 2023

North San Joaquin Water Conservation District
498 East Kettleman Lane
Lodi, CA 95240

Re: RFQ - North Pump Station Improvements Project - Lodi, California

To Whom It May Concern,

Based upon its understanding of the Required Insurance set forth in Exhibit C and the Supplementary Conditions Article 6 Insurance and Bonds, all such coverages included as Required Insurance are currently available in the insurance marketplace or are presently addressed by the Proposer's corporate insurance program. As the Insurance Brokers for Garney Pacific, Inc., we (Arthur J. Gallagher Risk Management Services, LLC) hereby certify that the Proposer will provide all Required Insurance set forth in this RFQ as outlined in Exhibit C and the Supplementary Conditions Article 6 Insurance and Bonds in the event the Proposer is approved by the Owner for final negotiations and execution of the Contract.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Aaron Cosgrove'.

Aaron Cosgrove, CRIS, CLCS
Client Service Supervisor

Arthur J. Gallagher Risk Management Services LLC



CNA SURETY

December 19, 2023

North San Joaquin Water Conservation District
498 East Kettleman Lane
Lodi, CA 95240

Re: Garney Pacific, Inc.
Request for Qualifications for the North Pump Station Improvements Project

To Whom It May Concern:

In connection with the requirements of your request for proposal, you have requested information concerning Garney Pacific, Inc.'s bond program, we are pleased to respond in that regard.

Bonds have been written on a co-surety basis by The Continental Insurance Company, a member of the CNA Group of Insurance Companies, and Liberty Mutual Insurance Company, a member of the Liberty Mutual Insurance Companies, since 2006. A.M. Best currently rates The Continental Insurance Company "A", Class Size XV, and Liberty Mutual Insurance Company "A", Class Size XV. The Continental Insurance Company and Liberty Mutual Insurance Company are approved for federal projects as provided for in the current online edition of the Department of the Treasury – Circular 570 with underwriting limitations of \$1,065,455,000 and \$1,762,981,000 respectively. Both The Continental Insurance Company (NAIC #35289) and Liberty Mutual Insurance Company (NAIC #23043) are licensed to write bonds in all 50 states.

The largest project bonded by the sureties on behalf of Garney Pacific, Inc., totaled \$700,000,000. The sureties have committed a \$6,000,000,000 aggregate cost to complete program. At present, approximately \$4,000,000,000 of this facility remains available for use.

Garney Pacific, Inc. enjoys a national reputation as one of the premier contractors performing sewer and water line work, with particular expertise in large diameter installations, and constructing water and wastewater treatment facilities. The company's experience includes a broad range of alternative procurement methodologies. At no time during our history with the account have they been refused a bond nor have there been any bond claims. Garney Pacific, Inc. remains an account in good standing.

Should Garney Pacific, Inc., be awarded this contract and requests that we provide the necessary Performance and/or Payment bonds, we will be prepared to execute the bonds subject to our acceptable review of the contract terms and conditions, bond forms, appropriate contract funding and any other underwriting considerations at the time of the request.

Our consideration of issuance of bonds is a matter solely between Garney Pacific, Inc., and ourselves, and we assume no liability to third parties or to you by the issuance of this letter.

We trust that this information meets with your satisfaction. If there are further questions, please feel free to contact Brian Cooper, Managing Director, of Arthur J. Gallagher Risk Management Services, LLC, located at 595 Market Street, Suite 2100, San Francisco, CA 94105 - Telephone (415) 288-1620

The Continental Insurance Company
151 N. Franklin Street
Chicago, IL 60606
(312) 822-5000

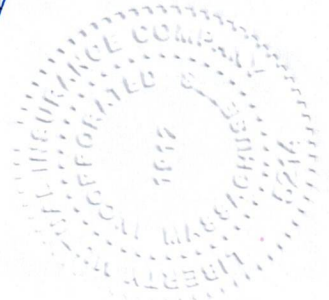


By: Thuyduong Le
Thuyduong Le, Attorney-in-Fact

Liberty Mutual Insurance Company
175 Berkeley Street
Boston, MA 02117
(617) 357-9500



By: Thuyduong Le
Thuyduong Le, Attorney-in-Fact



ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Alameda)

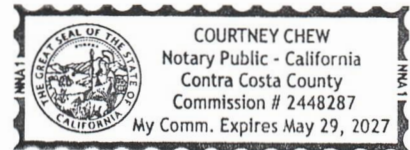
On December 19, 2023 before me, Courtney Chew, Notary Public
(insert name and title of the officer)

personally appeared Thuyduong Le,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing
paragraph is true and correct.

WITNESS my hand and official seal.

Signature C. CHEW (Seal)



POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That The Continental Insurance Company, a Pennsylvania insurance company, is a duly organized and existing insurance company having its principal office in the City of Chicago, and State of Illinois, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

M Moody, Susan Hecker, K Zerounian, Janet C Rojo, Betty L Tolentino, Kevin Re, Brian F Cooper, Robert P Wrixon, Virginia L Black, Maureen O'Connell, Susan M Exline, Julia Ortega, Thuyduong Le, Brittany Kavan, Misty R Hemje, Courtney Chew, Maria De Los Angeles Reynoso, Tina K Nierenberg

of Walnut Creek, CA, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind them thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the insurance company and all the acts of said Attorney, pursuant to the authority hereby given is hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the Authorizing By-Laws and Resolutions printed at the bottom of this page, duly adopted, as indicated, by the Board of Directors of the insurance company.

In Witness Whereof, The Continental Insurance Company has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 3rd day of November, 2023.



The Continental Insurance Company

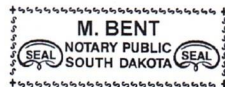
Handwritten signature of Larry Kasten in black ink.

Larry Kasten

Vice President

State of South Dakota, County of Minnehaha, ss:

On this 3rd day of November, 2023, before me personally came Larry Kasten to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is a Vice President of The Continental Insurance Company, a Pennsylvania insurance company, described in and which executed the above instrument; that he knows the seal of said insurance company; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said insurance company and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said insurance company.



My Commission Expires March 2, 2026

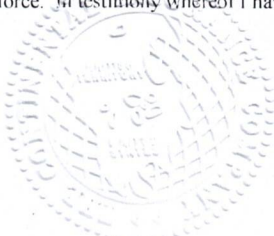
Handwritten signature of M. Bent in black ink.

M. Bent

Notary Public

CERTIFICATE

I, D. Johnson, Assistant Secretary of The Continental Insurance Company, a Pennsylvania insurance company, do hereby certify that the Power of Attorney herein above set forth is still in force, and further certify that the By-Law and Resolutions of the Board of Directors of the insurance company printed below this certificate are still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said insurance company this 19th day of December, 2023.



The Continental Insurance Company

Handwritten signature of D. Johnson in black ink.

D. Johnson

Assistant Secretary

Authorizing By-Laws and Resolutions

ADOPTED BY THE BOARD OF DIRECTORS OF THE CONTINENTAL INSURANCE COMPANY:

This Power of Attorney is made and executed pursuant to and by authority of the following resolution duly adopted by the Board of Directors of the Company at a meeting held on May 10, 1995.

"RESOLVED: That any Senior or Group Vice President may authorize an officer to sign specific documents, agreements and instruments on behalf of the Company provided that the name of such authorized officer and a description of the documents, agreements or instruments that such officer may sign will be provided in writing by the Senior or Group Vice President to the Secretary of the Company prior to such execution becoming effective.

This Power of Attorney is signed by Larry Kasten, Vice President, who has been authorized pursuant to the above resolution to execute power of attorneys on behalf of The Continental Insurance Company.

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company by unanimous written consent dated the 25th day of April, 2012.

"Whereas, the bylaws of the Company or specific resolution of the Board of Directors has authorized various officers (the "Authorized Officers") to execute various policies, bonds, undertakings and other obligatory instruments of like nature; and

Whereas, from time to time, the signature of the Authorized Officers, in addition to being provided in original, hard copy format, may be provided via facsimile or otherwise in an electronic format (collectively, "Electronic Signatures"), Now therefore be it resolved: that the Electronic Signature of any Authorized Officer shall be valid and binding on the Company."

This Power of Attorney may be signed by digital signature and sealed by a digital or otherwise electronic-formatted corporate seal under and by the authority of the following Resolution adopted by the Board of Directors of the Company by unanimous written consent dated the 27th day of April, 2022:

"RESOLVED: That it is in the best interest of the Company to periodically ratify and confirm any corporate documents signed by digital signatures and to ratify and confirm the use of a digital or otherwise electronic-formatted corporate seal, each to be considered the act and deed of the Company."

Go to www.cnasurety.com > Owner / Oblige Services > Validate Bond Coverage, if you want to verify bond authenticity.

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Alameda)

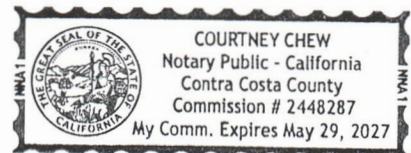
On December 19, 2023 before me, Courtney Chew, Notary Public
(insert name and title of the officer)

personally appeared Thuyduong Le,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature C. CHEW (Seal)





This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: 8210007-024125

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Virginia L. Black; Courtney Chew; Brian Cooper; Julia Ortega; Maria De Los Angeles Reynoso; Susan M. Exline; Susan Hecker; Misty R. Hemje; Brittany Kavan; Thuyduong Le; M. Moody; Tina K. Nierenberg; Kevin Re; Janet C. Rojo; Maureen O'Connell; Betty L. Tolentino; Robert P. Wrixon; K. Zerounian

all of the city of Walnut Creek state of CA each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 25th day of April, 2023.



Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: [Signature]
David M. Carey, Assistant Secretary

State of PENNSYLVANIA
County of MONTGOMERY ss

On this 25th day of April, 2023 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.



Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2025
Commission number 1126044
Member, Pennsylvania Association of Notaries

By: [Signature]
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII - Execution of Contracts: Section 5. Surety Bonds and Undertakings.

Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

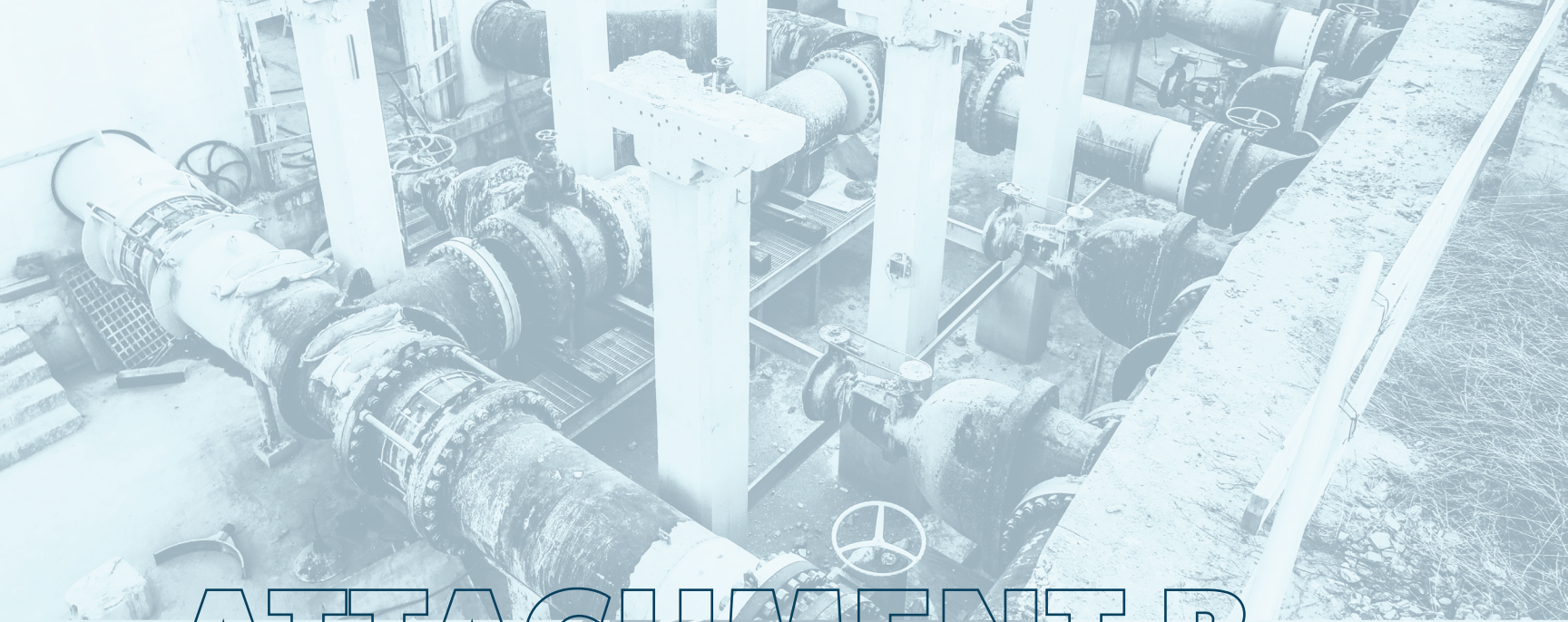
IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 19th day of December, 2023.



By: [Signature]
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.



ATTACHMENT B

RESUMES



Dan Eckdahl, DBIA

Design-Build Manager

As Director of California Plant Operations, Dan is responsible for pursuit acquisition and delivery of all municipal and federal plant work in California. He has managed more than \$500 million in collaborative delivery projects throughout his career as well as over \$700 million in traditional design-bid-build work. Dan has led three projects that won the AGC Marvin M. Black Excellence in Partnering Award, and he will use this same proven partnering approach when implementing the PDB process on your project. In this role, Dan is responsible for facilitating and administering multiple water and wastewater infrastructure construction projects.



Garney Experience: 8 years
Industry Experience: 34 years

PROJECT EXPERIENCE:

WET UTILITIES MACC (DESIGN-BUILD)

US NAVY // \$2,294,258

REGIONAL OPERATIONS MANAGER:

Repair Well 12A (D-B): Replaced the 125 hp well pump motors and wiring with high efficiency 125 hp motors rated at 950 and 1,000 GPM, replaced bubble system with a transducer system, designed and provided new surge protective device, VFDs, and SCADA and PLC integration. Additional work included thermal overload protection, quick trip ambient compensated overload protection, and fencing.

Repair Well 3B and Well 5A (D-B): Replaced the 175 hp well pump motor and wiring with a high efficiency 175 hp motor rated at 880 GPM, replaced bubble system with a transducer system, designed and provide new surge protective device, generator, VFDs, and SCADA and PLC integration. Additional work included thermal overload protection, quick trip ambient compensated overload protection, and fencing.

CERES RIVER BLUFF RESERVOIR AND PUMP STATION

CITY OF CERES, CA // \$9,989,675

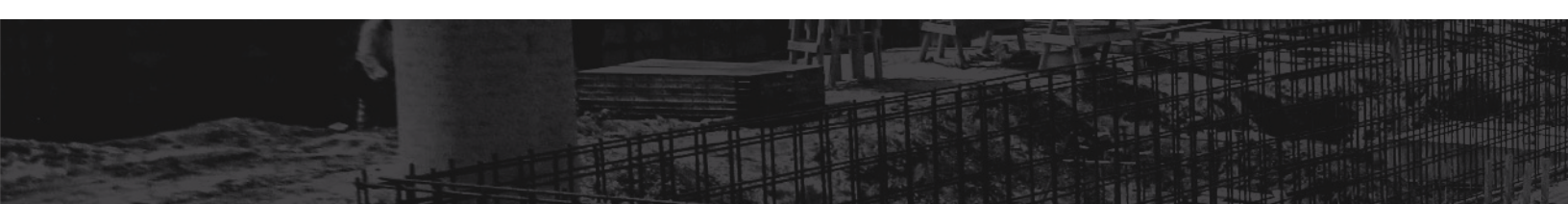
REGIONAL OPERATIONS MANAGER: Construction of a 3 MG D110 Type I buried concrete storage tank, a 10.1 MGD raw water pump station with two vertical turbine pumps, an electrical building, generator, and installation of 980 LF of 6" and 8" PVC sanitary gravity lines, 3,850 LF of 18" PVC waterline, 1,100 LF of 30" mortar-lined steel waterline, and 1,192 LF of 6" to 12" PVC stormwater lines. Other work included the installation of manholes, valves, vaults, grading, excavation, paving, and concrete curb, gutter, and sidewalk.

EDUCATION:

COLORADO STATE UNIVERSITY,
BS IN CONSTRUCTION
MANAGEMENT

REGISTRATIONS/CERTS:

CO CLASS A GENERAL
UNLIMITED 21CCP-GENA-2320
CO CLASS A - GENERAL
CONTRACTOR 22CCP-GENA-2320
CO CLASS A - CONTRACTOR 4296
CO CLASS B - GENERAL
CONSTRUCTION CL-0843
CO CLASS B GEN20-0796
CO CLASS A - GENERAL
CONTRACTOR LIC-00991416
CO RIGHT OF WAY LIC-00991473
FIRST AID, CPR & AED
FMI LEADERSHIP INSTITUTE
NCCER CERTIFICATION
OSHA 30-HOUR
STAGEN FOUNDATIONAL
LEADERSHIP PROGRAM
MEMBER OF DESIGN-BUILD
INSTITUTE OF AMERICA
MEMBER OF AMERICAN WATER
WORKS ASSOCIATION



REPLACE POTABLE WELL NO. 27 (DESIGN-BUILD)

US NAVY // \$4,509,000

REGIONAL OPERATIONS MANAGER: Replacement of raw water Well 27B including drilling a new bore and casing, the installation of 1,000 LF of 6" steel discharge pipe, bowl assembly, discharge head, column tube and shaft, a new motor combined with a bowl assembly, connections to the existing downstream pipeline, and capping and abandoning existing Well 27B.

FOUNTAIN VALLEY AUTHORITY TOC AND DBP INTERIM COMPLIANCE PROJECT (PROGRESSIVE DESIGN-BUILD)

COLORADO SPRINGS UTILITIES // \$1,067,352

SENIOR PROJECT MANAGER: Replacement of the existing alum feed system with a new ferric sulfate chemical feed system consisting of three new pumps, piping, electrical and controls, and re-using existing bulk storage tanks; the addition of a sodium hydroxide chemical feed system that included two new pumps, piping, electrical and controls, and is housed in a new prefabricated outdoor climate-controlled storage and feed building; and the installation of 1,250 LF each of 1" and 3" PVC process pipe.

NORTH WATER RECLAMATION FACILITY PHASE 1A IMPROVEMENTS (CMAR)

PARKER WATER & SANITATION DISTRICT // \$57,377,125

SENIOR PROJECT MANAGER: CMAR services for improvements and the 1.8 MGD expansion to an existing 2 MGD wastewater treatment plant which included headworks, chemical storage & feed, screening, grit removal, odor control, primary clarifier, polymer injection, primary sludge pump station, and AWT facility including flocculation, sedimentation, and filtration.

SOLDIER CANYON FILTER PLANT 15 MGD EXPANSION (CMAR)

SOLDIER CANYON WATER TREATMENT AUTHORITY // \$34,406,071

SENIOR PROJECT MANAGER: CMAR services for a 15 MGD expansion to the existing Soldier Canyon Water Treatment Plant for a finished capacity of 60 MGD. Construction phase included a new 30 MGD rapid mixing flocculation and sedimentation basin pretreatment facility, chlorine contact basin, replacement of the existing concrete solids handling decant pond, sludge pump station upgrades, chemical storage and feed facilities, pipeline improvements, electrical including a generator and I&C upgrades, paving, grading, and landscaping.

PREVIOUS EXPERIENCE:

CAMP CREEK WATER RECLAMATION FACILITY UPGRADE (DESIGN-BUILD-OPERATE)

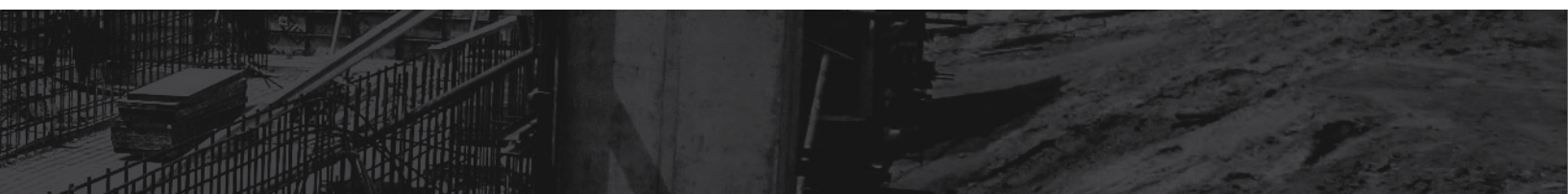
FULTON COUNTY, GA // \$85,000,000

PROJECT MANAGER: Design and construction to increase this plant from a 13 MGD to 24 MGD facility. Included new headworks, primary and secondary clarifiers, bioreactors, filters, ultra-violet disinfection, odor control, solids process facility and maintenance & operations center.

HEMPHILL AND CHATTAHOOCHEE WTP UPGRADES (DESIGN-BUILD)

CITY OF ATLANTA, GA // \$34,000,000

SITE MANAGER: Upgrades to the City's two major water treatment plants (195 MGD combined capacity) consisting of additions and replacement of all chemical storage, feed and conveyance systems, replacement of over 350 filter valves, actuators, motor control centers and electrical feeds.



Feliciano Mata

Preconstruction/Project Manager

Feliciano began working in the construction industry in 1997 with a focus in construction and rehabilitation projects on existing water and wastewater treatment plants, pump stations, and water reservoirs within the commercial and industrial industries, as well as building in the retail construction industry. He has experience installing vertical turbine pumps, valve vaults, and sewer, water, and storm pipelines. As Project Manager, Feliciano's responsibilities include daily management of operations in the field, client engagement, material procurement and approval, submittal development and management, site preparation, subcontractor management and documentation, scheduling deliveries, and attending progress meetings. Feliciano also oversees project administrative duties, including all safety and quality documentation and is fluent in English and Spanish.



Garney Experience: 4 years

Industry Experience: 26 years

EDUCATION:

CALIFORNIA STATE UNIVERSITY,
FRESNO, BS IN CONSTRUCTION
MANAGEMENT

REGISTRATIONS/CERTS:

CA CLASS A - ENGINEERING
CONTRACTOR QP 981056
FIRST AID & CPR

PROJECT EXPERIENCE:

KILROY OYSTER POINT PUMP STATION RELOCATION

KILROY REALTY CORPORATION // \$3,174,158

PROJECT MANAGER: Construction of a new sewer pump station which consisted of three submersible influent pumps, precast wet well, two grinders with slide gates in a new vault, and minor piping. The new pump station required deep excavation, hoe ramming, dewatering, a generator room, an electrical support building, fencing, and site concrete paving.

CANON STATION LAKE PUMP STATION

CANON STATION LLC // \$2,887,450

PROJECT MANAGER: Construction of a cast-in-place wet well measuring 14' x 8' x 15' deep housed by a new CMU building, two 20 hp vertical turbine influent lift pumps for re-circulation of lake water, a 16" pipeline and precast discharge structure, an irrigation pump skid with a 40 hp vertical turbine pump and controls, epoxy lined and coated steel pipe above ground, and DIP below slab. The connecting pipeline included 432 LF of 24" to 42" RCP storm drain, 1,900 LF of 15" and 8" PVC waterline, and five 48" x 48" precast storm vaults.

CASTENADA NO. 1 & NO. 2 RESERVOIRS REHABILITATION, GLEN RESERVOIR REHABILITATION, AND MULHOLLAND RESERVOIRS ROOF MAINTENANCE

EAST BAY MUNICIPAL UTILITY DISTRICT // \$19,001,000

STAFF TEAM: Rehabilitation of two Castenada 12 MG steel reservoirs by demolishing and



replacing roofs with an aluminum dome roof, raising the height of the tank walls, demolishing/replacing the reservoir valve vaults, recoating interiors/exteriors, new valves and flowmeter, fencing, and paving; demolishing the redwood tank at Glen Reservoir, fiberglass liner, valve pit, antennae, and solar panel; and replacing roof flashing, vent screens and vents, guard railing, and safety improvements at the Mulholland Reservoirs.

SD-413 MWWTP POWER GENERATION RELIABILITY IMPROVEMENTS PHASE 3

EAST BAY MUNICIPAL UTILITY DISTRICT // *\$7,093,673*

PROJECT MANAGER: Improvements made to existing voltage panel, heat exchangers, air compressors, control panel, flare ignition rods and pilot flame assemblies, boiler canopy coverage and sidewalks, heat recovery unit, pressure transmitters, radiator for turbine oil cooling, relocating buried digested gas line to above ground, and demolishing the existing low-pressure gas holder tank.

MAIN WWTP SECONDARY REACTORS REHABILITATION PHASE 1

EAST BAY MUNICIPAL UTILITY DISTRICT // *\$5,480,080*

PROJECT MANAGER: Concrete coatings including draft tubes and step feed piping, replacement and recoating of RAS and influent piping, replacement of valves, flow meters, and scum skimmer, construction of a new platform around the odor control station, demolition of the chlorine rail unloading station, installation of treated wastewater piping, the installation of mixers, and electrical.

HYPOCHLORITE PIPING AND LOX IMPROVEMENTS

EAST BAY MUNICIPAL UTILITY DISTRICT // *\$4,512,000*

PROJECT MANAGER: Improvements to process equipment including sodium hypochlorite, LOX storage tank, and wet weather storage basins. Work consisted of demolition and replacement of valves and piping, electrical, and the replacement of hatch covers and pump rails within the storage basin.

GRIT DEWATERING EQUIPMENT REPLACEMENT SD-417

EAST BAY MUNICIPAL UTILITY DISTRICT // *\$842,000*

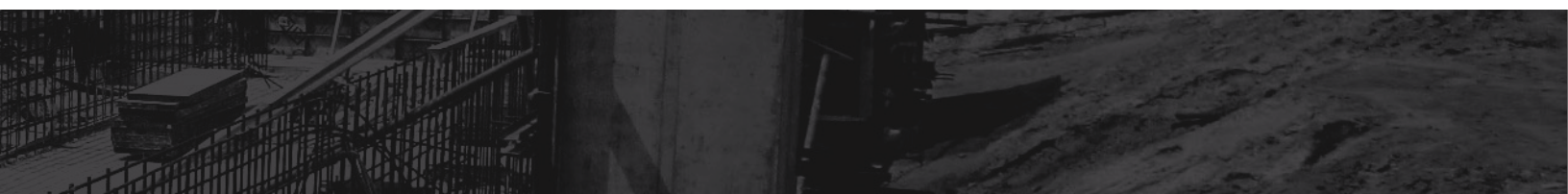
PROJECT MANAGER: Demolition and replacement of a grit classifier, three cyclone grit separators rated for 500 GPM, and the installation of 56 LF of 6" to 12" ductile iron glass-lined process pipe.

PREVIOUS EXPERIENCE:

PUMP & BLOWER BUILDING SEISMIC UPGRADES

CENTRAL CONTRA COSTA COUNTY SANITARY DISTRICT // *\$4,887,800*

PROJECT MANAGER / ESTIMATOR: Included demolition of existing walls, installation of reinforced concrete shear walls, installation of buckling restrained braces with associated foundations, and structural steel work.



Jimmy Stirrat

Superintendent/VE & Constructability

Jimmy began his career in the construction industry in 1995 working on commercial and heavy civil projects as a Craftsman. He has worked in a variety of project roles, including Assistant Superintendent, General Superintendent, Project Manager, and now a Senior Project Manager overseeing divisions of construction management. James has experience managing entire phases of heavy civil projects related to treatment plants, pump stations, and pipelines for a variety of owners including military, state, private, and local governments. As Senior Project Manager, James is responsible for providing on-site management and quality control. His responsibilities include project coordination between the owner, engineer, suppliers, and subcontractors, scheduling, material procurement, and startup and testing of new systems.



Garney Experience: 3 years

Industry Experience: 28 years

EDUCATION:

MODESTO JUNIOR COLLEGE,
COURSEWORK IN AGRICULTURE

PROJECT EXPERIENCE:

CERES RIVER BLUFF RESERVOIR AND PUMP STATION

CITY OF CERES, CA // \$9,989,675

SENIOR PROJECT MANAGER: Construction of a 3 MG D110 Type I buried concrete storage tank, a 10.1 MGD raw water pump station with two vertical turbine pumps, an electrical building, generator, and installation of 980 LF of 6" and 8" PVC sanitary gravity lines, 3,850 LF of 18" PVC waterline, 1,100 LF of 30" mortar-lined steel waterline, and 1,192 LF of 6" to 12" PVC stormwater lines. Other work included the installation of manholes, valves, vaults, grading, excavation, paving, and concrete curb, gutter, and sidewalk.

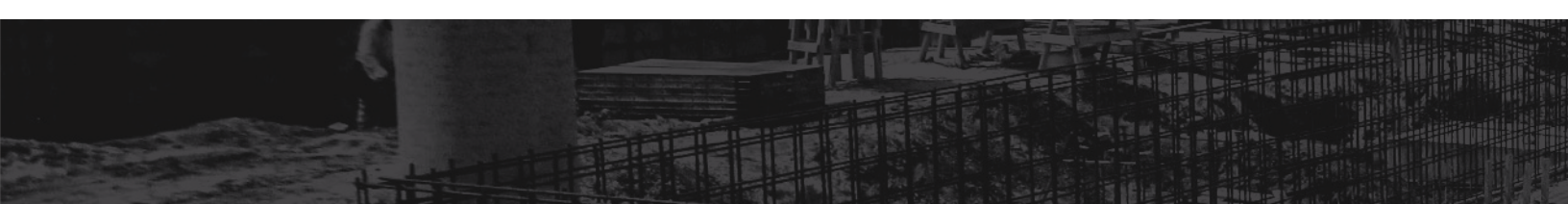
PARDEE RECREATION AREA AND PARDEE CENTER WATER TREATMENT PLANT IMPROVEMENTS

EAST BAY MUNICIPAL UTILITY DISTRICT // \$5,099,811

SENIOR PROJECT MANAGER: Replacement of the ultra-filtration and nano filtration water treatment systems including demolishing and replacing existing filtration skids and concrete, new electrical, new generators, and new chemical metering pumps.

REGISTRATIONS/CERTS:

NCCCO CERTIFIED CRANE
OPERATOR 140299335R
USACE CONSTRUCTION QUALITY
MANAGEMENT CERTIFICATION
SPK511701321
CONFINED SPACE ENTRY &
RESCUE
FIRST AID & CPR
OSHA 30-HOUR
OSHA COMPETENT PERSON -
TRENCHING & EXCAVATION



WHITE SLOUGH WPCF SOLIDS HANDLING IMPROVEMENTS

CITY OF LODI, CA // *\$2,424,725*

SENIOR PROJECT MANAGER: Installing a new digester pump mixing system, a new polymer feed system, rerouting the existing supernatant pipe, demolishing miscellaneous piping and concrete, installing a new screw press dewatering system, and modifying the existing dewatered cake horizontal conveyor electrical to tie into the new screw press system.

PREVIOUS EXPERIENCE:

MODESTO PHASE II BNR WWTP

CITY OF MODESTO, CA // *\$101,000,000*

PROJECT SUPERINTENDENT: Supervised the installation of fine screening, aeration basins, membrane tanks, UV disinfection, and chemical dosing, as well as managed the submittals processes for the work.

SOUTH BAY ADVANCED RECYCLED WTP

SAN JOSE MUNICIPAL WATER SYSTEM // *\$42,000,000*

PROJECT SUPERINTENDENT: Supervised the installation of chlorine contact basin modifications, microfiltration, reverse osmosis, UV disinfection, and multiple different chemical facilities for dosing, as well as managed the submittals processes for the work.

MALONEY PUMPING PLANT & EL SOBRANTE WATER TREATMENT FACILITY UPGRADES

EAST BAY MUNICIPAL UTILITY DISTRICT // *\$36,000,000*

PROJECT MANAGER/SUPERINTENDENT: Two project sites in El Sobrante, CA, and Contra Costa County. Included installing new 12KV electrical service at the Sobrante Water Treatment Facility and installing a new 12KV electric service, a La Honda Rate control valve, four 15 MGD and three 1.5 MGD pumps, a 500 hp vertical turbine pump and motor units, 75 hp motors on existing pumps at the Greenridge pumping plant, and all associated mechanical piping, electrical equipment, and controls at the Maloney pumping plant. This project had two major shutdowns to install a new 42" butterfly valve and replace a 42" ball valve.

LEYMEL HALL ARMY RESERVE CENTER PROJECT

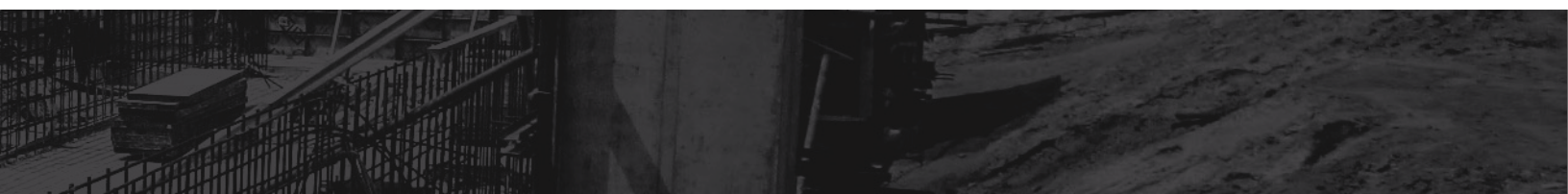
LEYMEL HALL UNITED STATES ARMY RESERVE CENTER // *\$28,000,000*

PROJECT SUPERINTENDENT: Building a new army reserve center for the United States Army. Responsibilities included overseeing the management of submittals for all structural, civil, and mechanical finishes.

SAN JOAQUIN FISH HATCHERY EXPANSION PROJECT

SAN JOAQUIN HATCHERY // *\$16,500,000*

PROJECT SUPERINTENDENT: Building a new salmon fish hatchery. Responsibilities included overseeing the management of submittals for all structural, civil, and mechanical work.



Wayne O'Brien

Principal-In-Charge

Wayne oversees Garney's treatment facility operations in the West. Working in the industry since 1983, he has years of experience in construction management, estimating, planning, and public process of water resource projects. Wayne brings a strong background of successful water resource project experience, but also has a broad range in the areas of water supply, delivery and conveyance systems, water treatment, wastewater collection and treatment, and water distribution. His success over the years can be attributed to his management style of being a team player and working closely with clients; his ability to quickly identify issues and problems and develop solutions; being responsive to changes in project direction with proactive leadership; and an in-depth and comprehensive knowledge of water and wastewater systems.

PROJECT EXPERIENCE:

PAR 1088 NORTHERN TREATMENT PLANT (PROGRESSIVE DESIGN-BUILD)

METRO WATER RECOVERY (FORMERLY METRO WASTEWATER RECLAMATION DISTRICT) // \$98,998,176

PRINCIPAL-IN-CHARGE: Construction of a new 24 MGD WWTP including an administration/visitors building, electrical buildings, odor control facilities, chemical storage facility, headworks building, primary splitter structure, primary clarifiers, primary pump station, bioreactors, aeration blower building, secondary clarifiers, a RAS/WAS pump station, tertiary pump station, tertiary flocculation sedimentation basins, tertiary filters, UV disinfection building, PRW/FBS pump station, effluent meter vault, gravity thickening basins and pump station, WAS thickening, digesters, dewatering building, centrate handling, cogeneration facility, and outfall structure.

NORTH WATER RECLAMATION FACILITY PHASE 1A IMPROVEMENTS (CMAR)

PARKER WATER & SANITATION DISTRICT // \$57,377,125

PRINCIPAL-IN-CHARGE: CMAR services for improvements and the 1.8 MGD expansion to an existing 2 MGD wastewater treatment plant which included headworks, chemical storage & feed, screening, grit removal, odor control, primary



Garney Experience: 24 years
Industry Experience: 40 years

EDUCATION:

NEW MEXICO STATE UNIVERSITY,
COURSEWORK IN ELECTRICAL
ENGINEERING
UNIVERSITY OF NEW
MEXICO, COURSEWORK IN
CONSTRUCTION MANAGEMENT

REGISTRATIONS/CERTS:

AZ GENERAL ENGINEERING -
CLASS A QP ROC074957
CA GENERAL ENGINEERING -
CLASS A QP 926314
CO PLUMBING 1802027
CO GENERAL CONTRACTOR
2101072
CO EXCAVATION 707745 (13404)
CO PUBLIC WAY CONTRACTOR -
CLASS D 90131006
CO BUSINESS LICENSE 9968
CO CLASS A A02074
CO MC-A GENERAL UTILITY
AEC7658
CO CONTRACTOR LICENSE CL-243
ID CONTRACTOR RCE-45317
NM JOURNEYMAN ELECTRICIAN
QP 06971
NM JOURNEYMAN PIPEFITTER
QP 371101
NM GENERAL CONTRACTOR
(EE98, GB98, GF09, MM04) QP
389726



clarifier, polymer injection, primary sludge pump station, and AWT facility including flocculation, sedimentation, and filtration. Also included UV disinfection, replacement of DAF thickeners with rotary drum thickeners, conversion of aerobic digesters to ATAD, and upgrades to primary power metering/distribution, standby power, I&C, and PLC.

THORNTON WATER TREATMENT PLANT REPLACEMENT (PROGRESSIVE DESIGN-BUILD)

CITY OF THORNTON, CO // *\$85,389,462*

PRINCIPAL-IN-CHARGE: This 20 MGD greenfield conventional treatment process plant included preoxidation, conventional pretreatment basins, intermediate ozone, biological filtration, and chlorine for disinfection. The pipeline work included 1,190 LF of 6" and 4" PVC gravity sewer pipe, 1,085 LF of 12" to 24" RCP stormwater pipes, and 1,495 LF of 30" and 24" DIP raw water pipes.

NV GENERAL ENGINEERING -
CLASS A QP 0081812
NV GENERAL ENGINEERING -
CLASS A 81812
NV C-40 - EPOXY APPLICATION
88298
UT CONTRACTOR LICENSE QP
(W/ LRF) 239445-5501

OSHA COMPETENT PERSON
- CONFINED SPACE AND
TRENCHING & EXCAVATION
MEMBER OF AMERICAN WATER
WORKS ASSOCIATION
MEMBER OF NATIONAL UTILITY
CONTRACTORS ASSOCIATION

DODD WATER TREATMENT PLANT UPGRADES (PROGRESSIVE DESIGN-BUILD)

LEFT HAND WATER DISTRICT // *\$29,383,347*

PRINCIPAL-IN-CHARGE: Expansion of the existing plant from 6 MGD to 10 MGD including the construction of a new pretreatment building housing the chemical feed equipment, a settling basin with plate settlers, a horizontal flocculation basin, raw water strainers, and the membrane feed pumps. Installation of membrane racks, pretreatment chemicals/process, and new HS finish water pumps.

ECCV NORTHERN BOOSTER PUMP STATION (CMAR)

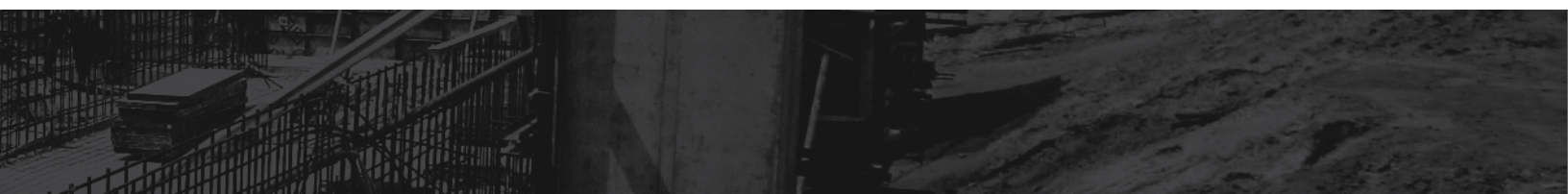
EAST CHERRY CREEK VALLEY WATER & SANITATION DISTRICT // *\$7,133,945*

PRINCIPAL-IN-CHARGE: Construction of a 13-MGD pump station capable of being upgraded to 18 MGD; a 1-MG D115 internally post-tensioned, aboveground, concrete storage tank; three 2,500-GPM, 400-hp vertical turbine can pumps; hypochlorite chemical storage and feed systems; surge control devices; supplemental buildings; site work; HVAC; electrical; instrumentation; plumbing; and yard piping.

WASTEWATER TREATMENT PLANT IMPROVEMENTS (CMAR)

CITY OF LOVELAND, CO // *\$35,133,341*

PRINCIPAL-IN-CHARGE: Removal of digesters 3 and 4, MCC building, sludge mixing tank, digester feed pumps, primary sludge mixing pumps, and heat exchangers. The BNR phase included removal and replacement of fine bubble aeration diffusers and RAS anoxic zone tank. Relocation of an existing sanitary sewer, renovation of the primary sludge pump station, replacement of digester biogas burner, renovation of existing RAS progressive cavity pump station, renovation of three primary clarifiers, and new chemical feed equipment.



Chad Hulan

Cost Estimator

Chad is a Master Plumber/Journeyman Fitter and has extensive experience in the plumbing/HVAC field. He specializes in water and wastewater treatment facilities, pumping stations, industrial process and piping, and concrete post-tensioned water storage tanks. Chad has been responsible for estimating and being the low bidder on projects from \$500,000 to more than \$100 million. Whether bidding on a project or negotiating a design-build project, Chad uses his considerable skill to obtain the best value and service in the market.



Garney Experience: 13 years
Industry Experience: 30 years

EDUCATION:

N/A

REGISTRATIONS/CERTS:

TN CONTRACTOR LICENSE QP
23798

PROJECT EXPERIENCE:

CLEARVIEW RESERVOIRS AND PUMP STATION REPLACEMENT (PROGRESSIVE DESIGN-BUILD)

GOLDEN STATE WATER COMPANY, CA // \$5,000,000

CHIEF ESTIMATOR: Demolition of existing and construction of two 0.15 MG potable water storage tanks, replacement of an existing pump station and connective waterlines, paving, landscaping, irrigation, on-site drainage, fencing, and other civil site improvements.

WOLCOTT WASTEWATER TREATMENT PLANT EXPANSION (CMAR)

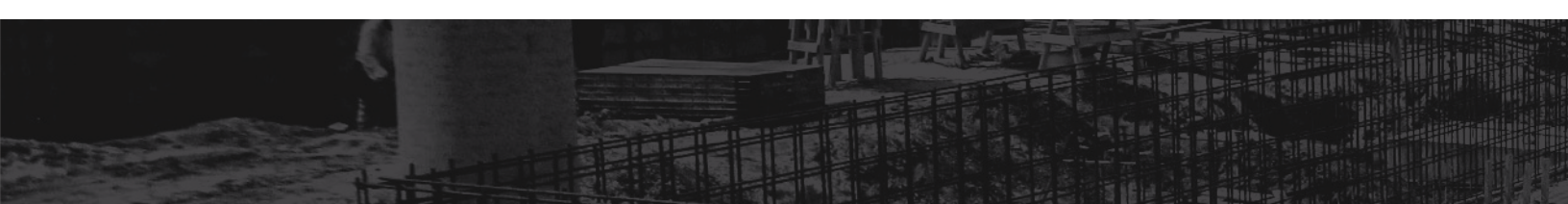
UNIFIED GOVERNMENT OF WYANDOTTE COUNTY // \$37,170,507

ESTIMATOR: Construction of a new 2 MGD WWTP that replaced an aging 0.3 MGD plant consisting of chemical feed facilities, aeration basins with diffusers, aeration blowers, submersible mixers, UV disinfection, headworks, influent pump station, odor control system, and concrete outlet structure. Additional work included the construction of a 5 MG earthen storage reservoir, electrical, manholes, paving, the installation of 2,517 LF of 2" to 30" process pipe, 360 LF of 18" and 30" DIP sanitary gravity and force main, and 800 LF of 2" HDPE gas pipe.

NORTHERN WATER SUPPLY PROJECT MEMBRANE WATER TREATMENT FACILITY (CM/GC)

EAST CHERRY CREEK VALLEY WATER & SANITATION DISTRICT // \$27,676,055

SUPERINTENDENT: Construction of a new membrane water treatment building, reverse osmosis equipment, membrane feed pumps, ultraviolet water treatment equipment, installation of new chemical tanks, chemical piping, clean-in-place tanks, a high service pump station building, and 5 MG welded steel aboveground water storage reservoir that included a concentrate storage pond and concentrate discharge pump station.



CHEROKEE TDS REDUCTION FACILITY (PROGRESSIVE DESIGN-BUILD)

CHEROKEE METROPOLITAN DISTRICT // \$42,288,620

SENIOR ESTIMATOR: A new metal building housing an RO and pressure membrane ultrafiltration system, evaporation ponds, headworks structure, grit basin, and modifications to the existing SBR basins consisted of removing the existing diffusers and replacing them with MBR. The MBR basins are also receiving two waste recirculation pumps and submersible mixers. Includes a chemical storage building and feed system, stormwater detention basin outlet structure, and HDPE discharge piping. A 3 MGD bypass was used to keep the plant in operation.

ECCV NORTHERN BOOSTER PUMP STATION (CMAR)

EAST CHERRY CREEK VALLEY WATER & SANITATION DISTRICT // \$7,133,945

MECHANICAL PROJECT MANAGER: Construction of a 13-MGD pump station capable of being upgraded to 18 MGD; a 1-MG D115 internally post-tensioned, aboveground, concrete storage tank; three 2,500-GPM, 400-hp vertical turbine can pumps; hypochlorite chemical storage and feed systems; surge control devices; supplemental buildings; site work; HVAC; electrical; instrumentation; plumbing; and yard piping.

ECCV SOUTHERN BOOSTER PUMP STATION (CMAR)

EAST CHERRY CREEK VALLEY WATER & SANITATION DISTRICT // \$6,050,639

MECHANICAL PROJECT MANAGER: Construction of a 1-MG D115 internally post-tensioned, aboveground, concrete storage tank; pump station building; pump station electrical distribution; three 2,500-GPM, 400-hp vertical turbine can pumps and appurtenances providing 11 MGD capacity; 48' finished water transmission piping and fittings; HVAC; plumbing; finishes and furniture; lighting; instrumentation and control systems; and improvements to an existing SCADA and instrumentation/control system.

75TH STREET WASTEWATER TREATMENT PLANT UPGRADES

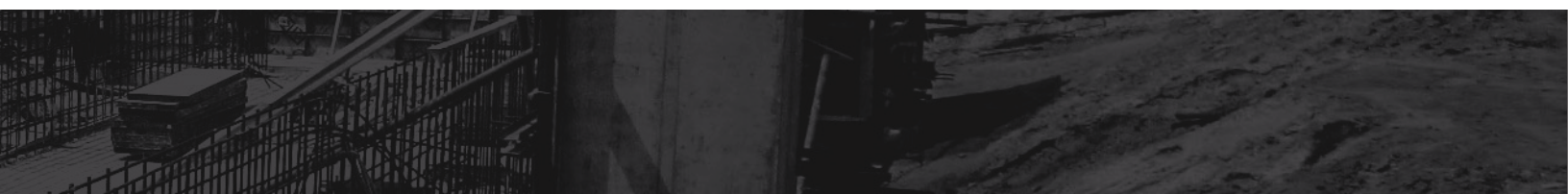
CITY OF BOULDER, CO // \$28,477,763

MECHANICAL PROJECT MANAGER: Included improvements to expand the plant's treatment capacity from 20.5 to 25 MGD by converting the secondary treatment process from a trickling filter / solids contract process to an activated sludge process. This required the retrofit to an existing pump station, three new activated sludge aeration basins, new blower building, and a new 85' secondary clarifier. Additional work included demolition to accommodate new construction, site piping, grading, and upgrades to the electrical and I&C systems.

PLUM CREEK WATER PURIFICATION FACILITY ADVANCED TREATMENT PROJECT (CM/GC)

TOWN OF CASTLE ROCK, CO // \$28,367,500

CHIEF ESTIMATOR: Installation of equipment for pre-ozone, biologically active carbon filtration, ozone generation and destruction system, GAC including eight downflow liquid activated carbon adsorption units, UV disinfection including one inline 12.8 MGD unit, two dewatering centrifuges, and a 1 MG D110 Type III aboveground concrete water storage tank.



Jefferson Lewis, ENV SP

Start-Up & Commissioning

Jefferson has been in the water/wastewater treatment industry since 2008, working as a Water Treatment Technician and a hands-on Water System Operator before joining Garney. He understands the importance of incorporating operator preferences into the plan and will communicate to ensure their expectations are met. He will develop start-up plans early during preconstruction to mitigate any potential challenges. During construction, Jefferson will manage all start-up, testing, and commissioning. He will train all staff before turning the pump station over to the District.



Garney Experience: 7 years

Industry Experience: 16 years

PROJECT EXPERIENCE:

THORNTON WATER TREATMENT PLANT REPLACEMENT (PROGRESSIVE DESIGN-BUILD)

CITY OF THORNTON, CO // \$85,389,462

START-UP & COMMISSIONING MANAGER: This 20 MGD greenfield conventional treatment process plant included preoxidation, conventional pretreatment basins, intermediate ozone, biological filtration, and chlorine for disinfection. The pipeline work included 1,190 LF of 6" and 4" PVC gravity sewer pipe, 1,085 LF of 12" to 24" RCP stormwater pipes, and 1,495 LF of 30" and 24" DIP raw water pipes.

CHEROKEE TDS REDUCTION FACILITY (PROGRESSIVE DESIGN-BUILD)

CHEROKEE METROPOLITAN DISTRICT // \$42,288,620

START-UP & COMMISSIONING MANAGER: A new metal building housing an RO and pressure membrane ultrafiltration system, evaporation ponds, headworks structure, grit basin, and modifications to the existing SBR basins consisted of removing the existing diffusers and replacing them with MBR. The MBR basins are also receiving two waste recirculation pumps and submersible mixers. Includes a chemical storage building and feed system, stormwater detention basin outlet structure, and HDPE discharge piping. A 3 MGD bypass was used to keep the plant in operation.

LARRY D. MOORE WATER TREATMENT PLANT

ROXBOROUGH WATER AND SANITATION DISTRICT // \$35,495,849

PROJECT ENGINEER: Raw water chemical feed systems, Kruger Actiflo equipment, a recycled LPHO UV disinfection system, three sodium hypochlorite tanks and feed system, sedimentation basins with plate settlers, two air scour aeration blowers, flocculators, a storm water pond, and installation of various interior and exterior piping totaling 14,292 LF, as well as 6,000 LF of 24" DIP transmission main.

EDUCATION:

UNIVERSITY OF COLORADO, ROCKY MOUNTAIN WATER & WASTEWATER PLANT OPERATORS SCHOOL, COURSEWORK IN INTERMEDIATE WATER COURSE

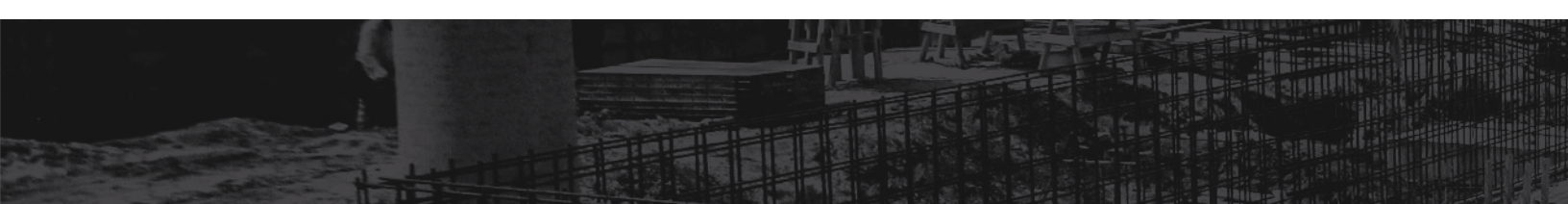
UNIVERSITY OF COLORADO, ROCKY MOUNTAIN WATER & WASTEWATER PLANT OPERATORS SCHOOL, COURSEWORK IN WATER FUNDAMENTALS COURSE

COLORADO STATE UNIVERSITY, BS IN NATURAL RESOURCE MANAGEMENT

REGISTRATIONS/CERTS:

CO WATER TREATMENT OPERATOR 12200

CO CWP 29915



WASTEWATER TREATMENT PLANT IMPROVEMENTS (CMAR)

CITY OF LOVELAND, CO // *\$35,133,341*

START-UP & COMMISSIONING MANAGER: Removal of digesters 3 and 4, MCC building, sludge mixing tank, digester feed pumps, primary sludge mixing pumps, and heat exchangers. The BNR phase included removal and replacement of fine bubble aeration diffusers and RAS anoxic zone tank. Relocation of an existing sanitary sewer, renovation of the primary sludge pump station, replacement of digester biogas burner, renovation of existing RAS progressive cavity pump station, renovation of three primary clarifiers, and new chemical feed equipment.

SOLDIER CANYON FILTER PLANT 15 MGD EXPANSION (CMAR)

SOLDIER CANYON WATER TREATMENT AUTHORITY // *\$34,406,071*

STARTUP & COMMISSIONING MANAGER: CMAR services for a 15 MGD expansion to the existing Soldier Canyon Water Treatment Plant for a finished capacity of 60 MGD. Construction phase included a new 30 MGD rapid mixing flocculation and sedimentation basin pretreatment facility, chlorine contact basin, replacement of the existing concrete solids handling decant pond, sludge pump station upgrades, chemical storage and feed facilities, pipeline improvements, electrical including a generator and I&C upgrades, paving, grading, and landscaping.

FRASER RIVER PUMP BACK PHASE 2 AND SNOWMAKING FACILITIES

INTRAWEST/WINTER PARK RESORT // *\$33,267,294*

START-UP & COMMISSIONING MANAGER: This project supports snowmaking operations at Winter Park Ski Resort and includes work at over 10,000 feet above sea level. The scope includes new and existing pump house work at three structures installing new vertical turbine pumps, 21,000 LF of 12" carbon connective waterlines, and a new earthen berm dam with an LLDPE liner.

PLUM CREEK WATER PURIFICATION FACILITY ADVANCED TREATMENT PROJECT (CM/GC)

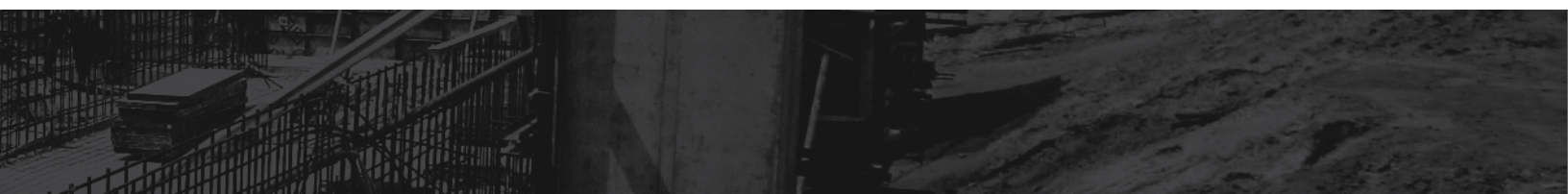
TOWN OF CASTLE ROCK, CO // *\$28,367,500*

STARTUP & COMMISSIONING MANAGER: Installation of equipment for pre-ozone, biologically active carbon filtration, ozone generation and destruction system, GAC including eight downflow liquid activated carbon adsorption units, UV disinfection including one inline 12.8 MGD unit, two dewatering centrifuges, and a 1 MG D110 Type III aboveground concrete water storage tank.

CANYONS AND RIDGEGATE WELL HOUSES (CMAR)

PARKER WATER & SANITATION DISTRICT // *\$26,975,659*

START-UP & COMMISSIONING MANAGER: Two new well houses including 5 MGD raw water consolidated groundwater treatment facilities. Each site included a well house building, connection pipeline consisting of 1,155 LF of 4" to 12" DIP and 320 LF of 12" carbon steel, chemical storage and feed systems, packaged gravity filtration, a two-train disinfection contact clearwell basin, LAS mixing chamber, a high service distribution wet well including vertical turbine raw water pumps, 780 LF of 16" DIP finished water pipeline for distribution, and detention ponds.



Dave Richard, PE

Design Manager

As Principal Engineer and leader of Dewberry's Northern California water/wastewater group, Dave has 45 years of experience in water resources and wastewater engineering, specializing in water supply and distribution; wastewater conveyance, treatment, reuse, and disposal; and stormwater conveyance. Dave has been responsible for the condition assessment, planning, design, permitting, construction oversight, startup, trouble-shooting, and peer review of water supply, treatment, storage, and distribution system improvements for agencies in Calaveras, Fresno, Placer, Sacramento, San Diego, San Joaquin, Solano, Stanislaus, Tuolumne, and Yolo counties. Projects have included design of new and rehabilitation/repair/replacement of existing infrastructure including surface water treatment plant improvements, transmission pipelines, storage reservoirs, distribution systems, and pumping plants. As Design Manager, Dave will be responsible for day to day oversight of the design team with a particular focus on fish screen/inlet structure, interdisciplinary coordination, quality control for all deliverables, schedule management, and technical support for the permitting team.

PROJECT EXPERIENCE:

STORM DRAIN ZONE 36/39 PROJECT

CITY OF MANTECA, CA

PROJECT MANAGER: Project Manager for an alternatives analysis and design of drainage facilities to serve future development in the southwest quadrant of the City. Preliminary and final design and environmental services (IS/MND) including technical studies in support of CEQA are in process. The conveyance system will consist of a 66-inch diameter gravity drain and a 120 cfs storm drain pump station to convey stormwater through a 2,600 ft long 48-inch diameter force main to an outfall along a levee discharging to the San Joaquin River through twin 30-inch diameter pipelines. The pumping plant will have a firm capacity of 120 cfs and will consist of two low-flow pumps, each with a capacity of 30 cfs; three high-flow pumps, each with a capacity of 60 cfs; and two standby generators.

GRANGE WATER SYSTEM IMPROVEMENTS

TURLOCK IRRIGATION DISTRICT

PROJECT MANAGER: Project Manager for a \$3.5 million project including an alternatives analysis, preliminary design, final design, and permitting assistance for water system improvements including replacement of two corroded/leaking 40,000 gal finished water storage tanks and a raw water pump station.



Dewberry Experience: 5 years

Industry Experience: 40 years

EDUCATION:

MS, ENVIRONMENTAL ENGINEERING, UNIVERSITY OF CALIFORNIA, DAVIS

BS, CIVIL ENGINEERING (SANITARY OPTION), MICHIGAN TECHNOLOGICAL UNIVERSITY

REGISTRATIONS/CERTS:

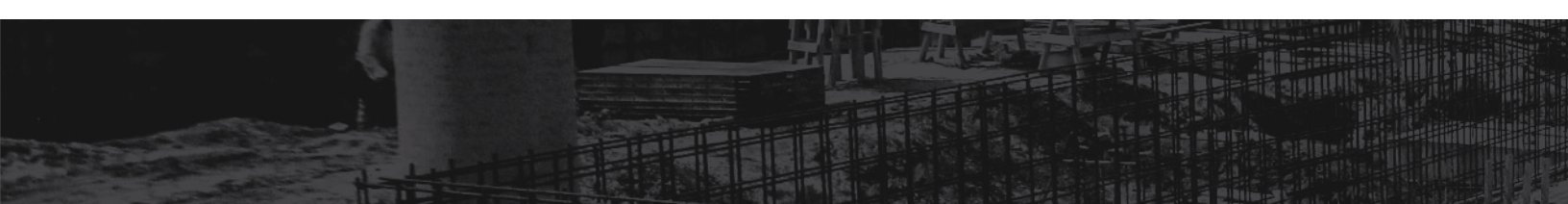
PROFESSIONAL ENGINEER • CA
#C33479

CALIFORNIA ASSOCIATION OF SANITATION AGENCIES (CASA)

CALIFORNIA WATER ENVIRONMENT ASSOCIATION (CWEA)

WATER ENVIRONMENT FEDERATION (WEF)

WATER REUSE



The tanks were replaced with two welded-steel storage tanks. The raw water pump station included four vertical turbine pumps. Additional facilities in the project included a chlorine handling system and expanded site piping, flow meters, motor control center, SCADA system, and Maintenance Building.

ATWOOD 3 PUMP STATION IMPROVEMENTS

PLACER COUNTY

PROJECT MANAGER: Project Manager for \$1.2 million rehabilitation/upgrade of submersible pump station serving residential and commercial properties in North Auburn near the Placer County Government Center. Improvements included reconstruction of a duplex pump station with new wet well and triplex pumping configuration to meet future buildout flows. Improvements included additional 2300 ft of 6-inch force main extension along major urban street with connection to an 18-inch regional trunk sewer, flow metering vault, discharge piping configured to allow for bypass pumping and force main pigging, and electrical/control system upgrade. Design required extensive hydraulic analyses to determine preferred pump selection for current and future flows and the development of a detailed construction sequencing plan to minimize operational interruptions during construction. Site work included piping connections to emergency storage tank, pavement replacement, security fencing, and drainage improvements.

COUNTY JAIL PUMP STATION IMPROVEMENTS

PLACER COUNTY

PROJECT MANAGER: Project Manager for rehabilitation/upgrade of submersible pump station serving Auburn Justice Center in North Auburn near the Placer County Government Center. Existing pump station includes in-line grinder system and chopper-style submersible pumps that are necessary to process heavy solids loadings from the County jail. Improvements included replacement of the existing chopper pumps with similar units designed to deliver higher discharge pressures in response to changes in the pump station force main alignment. Pump replacement triggered retrofit of electrical infrastructure including variable frequency drives for 20 hp pumps, circuit breaker upgrade, and modifications to pump controls. Design required extensive hydraulic analyses to determine preferred pump selection and the development of a detailed construction sequencing plan to minimize operational impacts during construction. Testing and commissioning procedures were also prepared to establish expectations for pump station start-up and acceptance.

CORDOVA SEWAGE PUMPING STATION UPGRADE AND EXPANSION

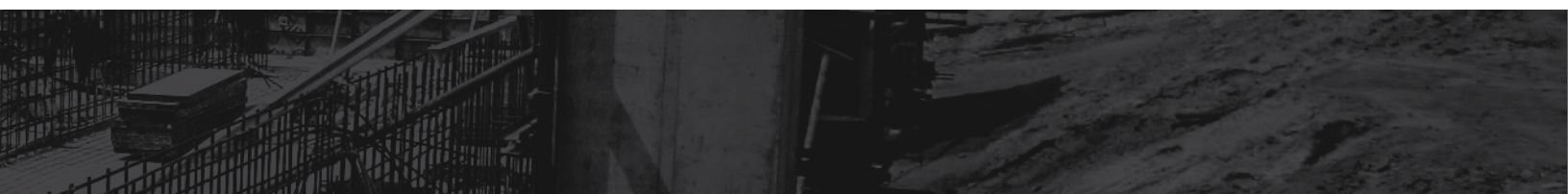
CITY OF SACRAMENTO, CA

PROJECT MANAGER: Project Manager for \$2 million rehabilitation of 10 mgd wastewater pumping station, including pumping equipment replacement, diesel-driven units, and standby power. Design required the development of a detailed construction sequencing plan so complete renovation of critical mechanical-electrical equipment could be accomplished without taking the station offline. Ancillary facilities included odor control for liquid and vapor systems, chemical storage, and bypass pumping systems.

COURTLAND AND WALNUT GROVE SEWER PROJECTS

SACRAMENTO AREA SEWER DISTRICT

PROJECT MANAGER: Project Manager to re-route raw wastewater from two wastewater treatment plant sites. The \$27 million pipeline and pump station projects included four submersible pumping stations, 20 miles of force main, and five horizontal directional drilling crossings located within the California Delta.



Max Hardy, PE

Structures Engineer/On-Site Engineer

Max has 10 years of structural design experience specializing in the design of water and wastewater treatment plants. Max has led the structural design of water and wastewater projects that included new designs and major retrofits. He has managed the structural design of treatment plants from conceptual design to working with the contractor to deliver the finished product.



PROJECT EXPERIENCE

STORM DRAIN ZONE 36/ZONE 39 IMPROVEMENTS PROJECT

CITY OF MANTECA, CA

STRUCTURAL ENGINEER: Structural Engineer for a 120 cfs storm drain pump station that is to be constructed as part of this project consisting of a large underground concrete structure with planned dimension of approximately 60 feet by 60 feet and a depth of approximately 40 feet with an attached 24 feet by 45 feet by 35 feet deep concrete screening structure. The pump station supports three high volume and two low volume storm drain pumps to provide year-round flood protection.

ATWOOD 3 PUMP STATION IMPROVEMENTS

PLACER COUNTY

STRUCTURAL ENGINEER: Structural Engineer for \$1.2 million rehabilitation/upgrade of submersible pump station serving residential and commercial properties. Improvements included reconstruction of duplex pump station with new wet well and triplex pumping configuration to meet future buildout flows. Improvements included additional 2300 ft of 6-inch force main extension along major urban street with connection to 18-inch regional trunk sewer.

CONDITION ASSESSMENT OF CHLORINE CONTACT FACILITY

RANCHO MURIETA COMMUNITY SERVICES DISTRICT

STRUCTURAL ENGINEER: Structural Engineer for the condition and structural assessment of the existing chlorine contact basin. The existing basin was inspected to ensure concrete soundness and structural integrity. The analysis also included a desktop assessment reviewing the effects of Hydrodynamic loading. This assessment was a part of an overall sodium hypochlorite upgrade improvements project.

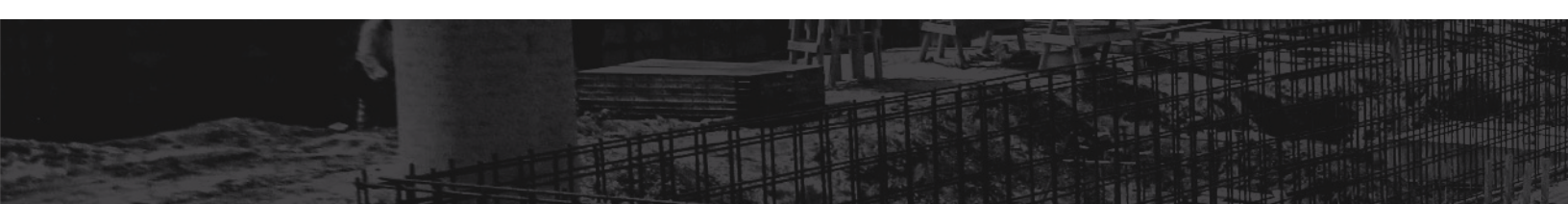
Dewberry Experience: 2 years
Industry Experience: 10 years

EDUCATION:

BS, CIVIL ENGINEERING,
CALIFORNIA STATE UNIVERSITY,
SACRAMENTO

REGISTRATIONS/CERTS:

PROFESSIONAL ENGINEER • CA
#93472



COLOMA PUMP STATION REPLACEMENT PROJECT

SAUSALITO-MARIN CITY SANITARY DISTRICT

STRUCTURAL ENGINEER: Structural Engineer for the design of a 25-foot-deep cast-in-place concrete wet well pump station, buried concrete electrical building, and a backup generator. The Coloma Pump Station is a \$6.13 million project that increased sewage pumping capacity and reliability. The extra capacity helps prevent sewer overflows during heavy rainfall when flows can increase more than 900%

TWENTYNINE PALMS WWTP

NAVFAC SOUTHWEST

STRUCTURAL ENGINEER: This project consists of the design and construction (Garney) of a new wastewater treatment facility at the Marine Corps Air Ground Combat Center (MCAGCC) in Twentynine Palms, CA, and has a total contract value of \$155 million.

MCAGCC is the largest air/ground combat center for the US Marine Corps, occupying approximately 1,100 square miles of the Southern Mojave Desert. The existing WWTP operates on a lagoon system with chemical flocculation and disinfection where the effluent is used for irrigation water at the Desert Winds Combat Center Golf Course. This new project will decommission the existing 0.75 million gallon per day (MGD) average day flow wastewater treatment process at the Mainside WWTP and replace it with a new 2 MGD system that produces Title 22 (California Code of Regulations) disinfected tertiary recycled water.

As lead designer, Dewberry is providing design and engineering services during construction. The project will include new facilities for:

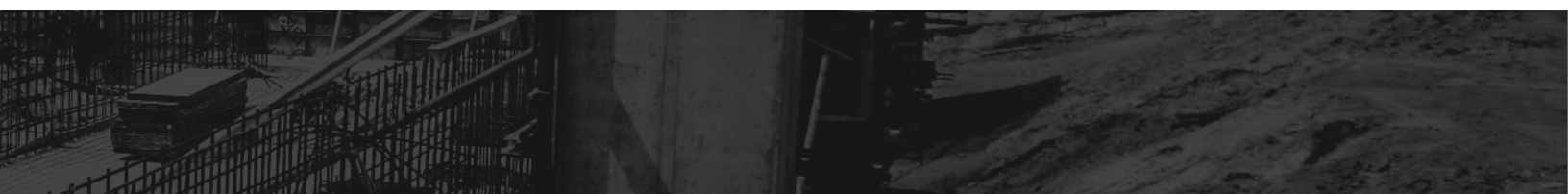
- Preliminary treatment and pumping - septage receiving station, influent pumping, flow equalization, screening, grit removal
- Activated sludge secondary treatment process capable of biological nitrogen removal - aeration basins, final clarifiers, process building
- Tertiary treatment - filtration (Title 22), disinfection, recycled water storage and pumping
- Solids management - waste activated sludge thickening, pumping, and sludge drying beds
- Odor control facilities
- New operations building
- Chemical systems including onsite sodium hypochlorite generation, coagulant, and polymer
- Other ancillary support systems - plant drain system, plant water system, etc.

WATER TREATMENT PLANT IMPROVEMENTS DESIGN

TOWN OF SILT, CO

STRUCTURAL ENGINEER: After completing a Water Treatment Plant facility plan, Dewberry is currently designing the recommended improvements to address the Town's water treatment needs over the next 20 years. Improvements include:

- Energy-efficient electrical and control system
- SCADA system design
- Public awareness campaign
- Onsite stormwater system modifications
- New emergency generator
- A new raw water pump and controls
- New ballasted coagulation/flocculation/sedimentation system



Chad Weaver, PE

Civil Engineer/Commissioning Support

Chad is a project manager and design engineer with experience in planning, modeling, and design of pump stations and water and wastewater treatment facilities. Chad has been engaged in several projects involving the condition assessment, retrofitting, and upgrading of existing facilities with a focus on developing solutions to work within the constraints of existing facility layout, hydraulics, and operations.



Dewberry Experience: 8 years

Industry Experience: 17 years

PROJECT EXPERIENCE:

PUMPING PLANT #2 PUMP/MOTOR REPLACEMENT PROJECT (DESIGN-BUILD WITH GARNEY)

FOUNTAIN VALLEY AUTHORITY

CIVIL ENGINEER: The scope of work for this project was for final design and construction services of the Fountain Valley Authority Pumping Plant #2. This included structural analysis of the existing facility floor; demolition of units 2, 3, and 4 motors, pumps, and pads; pouring new concrete structural pads; the installation of three owner-furnished 1,000 hp horizontal split case EBARA raw water pumps and motors; and associated electrical and instrumentation work.

TWENTYNINE PALMS WWTP, TWENTYNINE PALMS, CA (DESIGN-BUILD WITH GARNEY)

NAVFAC SOUTHWEST

STRUCTURAL ENGINEER: This project consists of the design and construction of a new wastewater treatment facility at the Marine Corps Air Ground Combat Center (MCAGCC) in Twentynine Palms, CA, and has a total contract value of \$155 million.

MCAGCC is the largest air/ground combat center for the US Marine Corps, occupying approximately 1,100 square miles of the Southern Mojave Desert. The existing WWTP operates on a lagoon system with chemical flocculation and disinfection where the effluent is used for irrigation water at the Desert Winds Combat Center Golf Course. This new project will decommission the existing 0.75 million gallon per day (MGD) average day flow wastewater treatment process at the Mainside WWTP and replace it with a new 2 MGD system that produces Title 22 (California Code of Regulations) disinfected tertiary recycled water.

EDUCATION:

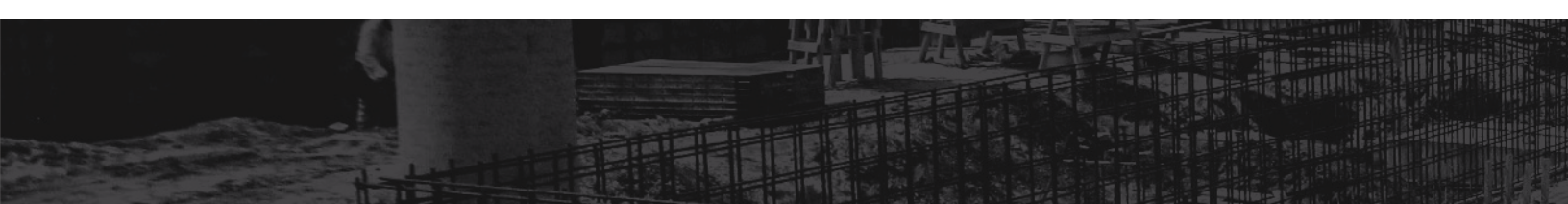
MS, ENVIRONMENTAL SCIENCE AND ENGINEERING, COLORADO SCHOOL OF MINES

BS, ENGINEERING WITH SPECIALTY IN ENVIRONMENTAL SCIENCE, COLORADO SCHOOL OF MINES

REGISTRATIONS/CERTS:

PROFESSIONAL CIVIL ENGINEER:
CO #45017 •
CA #85888

AMERICAN WATER WORKS ASSOCIATION



As lead designer, Dewberry is providing design and engineering services during construction. The project will include new facilities for:

- Preliminary treatment and pumping - septage receiving station, influent pumping, flow equalization, screening, grit removal
- Activated sludge secondary treatment process capable of biological nitrogen removal - aeration basins, final clarifiers, process building
- Tertiary treatment - filtration (Title 22), disinfection, recycled water storage and pumping
- Solids management - waste activated sludge thickening, pumping, and sludge drying beds
- Odor control facilities
- New operations building
- Chemical systems including onsite sodium hypochlorite generation, coagulant, and polymer
- Other ancillary support systems - plant drain system, plant water system, et

ZONE 5 PUMP STATION

CITY OF ARVADA, CO

PROJECT MANAGER: Project Manager for the design of a new 6,000 gallon per minute booster pump station to be located at the Ralston Water Treatment Plant (RWTP). The new Zone 5 Pump Station replaces an existing pump station located within the RWTP and will deliver water from two existing clearwells to the Zone 5 Water Storage Tank. The pump station increases the capacity to Zone 5 to meet growing demands throughout the distribution system and will also allow for a wider range of operating levels in the RWTP's clearwells which are currently limited by the existing pump station. The design included review of record documents from 12 previous projects spanning over 50 years, find location and potholing of conflicting utilities, hydraulic evaluation of the existing and proposed system, pump selection, station layout, evaluation of the capacity of the RWTP's existing power distribution system, site improvements, and coordination of City planning and building department reviews. The project includes installation of an emergency generator to supply backup power to the pump station and another existing facility at the RWTP.

WOLF RANCH PUMP STATION

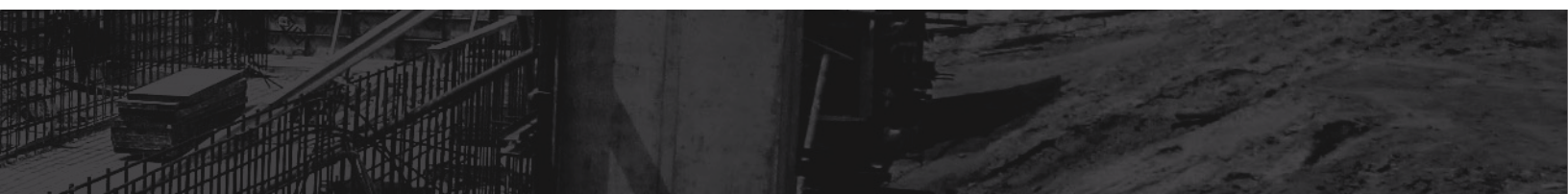
COLORADO SPRINGS UTILITIES

PROJECT MANAGER/LEAD DESIGN ENGINEER: Project Manager and Lead Design Engineer for a new potable water booster pump station in Colorado Springs providing water to three new residential developments. Led a major design revision which reduced the project cost by approximately \$1.4 million. The design included hydraulic modeling and transient analysis which was used in the sizing of two 8,500-gallon hydropneumatic surge tanks. The project includes four 125 hp vertical turbine pumps, specialty combination pump control/backpressure regulating valves, emergency power generator, and integration of power and controls with existing facilities.

CEDAR HEIGHTS PUMP STATION NO. 2 REPLACEMENT

COLORADO SPRINGS UTILITIES

PROJECT MANAGER: Project Manager for the design and construction phase services to replace the existing below grade canned pump station with a new above ground station equipped with two 125 hp vertical turbine pumps with capacities of 450 gpm.



KT Tran, EIT

Process Engineer

KT is a Project Engineer providing hydraulic design, process calculations, system modeling, plans and specifications, assistance with technical memoranda, and AutoCAD support on water, wastewater, and storm drainage projects. While completing his graduate studies at the University of the Pacific, he also served as a Civil Engineering Assistant with the California Department of Water Resources.



PROJECT EXPERIENCE:

LA GRANGE WATER SYSTEM IMPROVEMENTS

TURLOCK IRRIGATION DISTRICT

PROJECT ENGINEER: Project Engineer for an alternatives analysis, preliminary design, final design, and permitting assistance for water system improvements including replacement of two corroded/leaking 40,000 gal finished water storage tanks and a raw water pump station. The tanks were replaced with two welded-steel storage tanks. The raw water pump station included filter feed and fire tender pumps. Additional facilities in the project included a chlorine handling system and expanded site piping, flow meters, motor control center, SCADA system, and Maintenance Building.

SOUTH MANTECA REGIONAL PUMP STATION

MANTECA, CA

PROJECT ENGINEER: Project Engineer for \$2.3 million submersible pump station to serve 2200 residential units planned for South Manteca. The 2.0 mgd pump station will be constructed in phases in alignment with the pace of expected development over the next ten years. Initially, an interim station is being constructed. At buildout, the pump station will be equipped with three 700 gal/min pumps each furnished with variable frequency drives, a 60 kW emergency generator, odor control equipment, and provisions for flow metering and bypass pumping. Site design of the pump station allowed for convenient ingress/egress for over-sized City vactor truck and included aesthetic features to blend with entrance to high-end residential development. Design was completed on a fast-track schedule and included extensive coordination with multiple private and public stakeholders and PG&E for electrical service. Construction of the station was challenging because of deep excavations within an area with a high groundwater table, required coordination with the construction of adjacent underground utilities, and the need for temporary pumping to meet initial development demands.

Dewberry Experience: 4 years

Industry Experience: 4 years

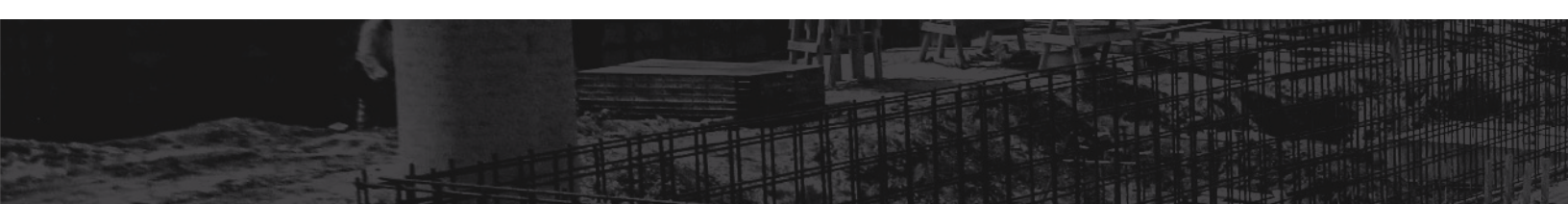
EDUCATION:

MS, ENGINEERING SCIENCE,
UNIVERSITY OF THE PACIFIC

BS, CIVIL ENGINEERING,
UNIVERSITY OF THE PACIFIC

REGISTRATIONS/CERTS:

ENGINEERING IN TRAINING - CA
#168767



ATWOOD 3 PUMP STATION IMPROVEMENTS

PLACER COUNTY

PROJECT ENGINEER: Project Engineer for \$1.2 million rehabilitation/upgrade of submersible pump station serving residential and commercial properties in North Auburn near the Placer County Government Center. Improvements included reconstruction of duplex pump station with new wet well and triplex pumping configuration to meet future buildout flows. Improvements also included additional 2300 ft of 6-inch force main extension along major urban street with connection to 18-inch regional trunk sewer, flow metering vault, discharge piping configured to allow for bypass pumping and force main pigging, and electrical/control system upgrade. Design required extensive hydraulic analyses to determine preferred pump selection for current and future flows and the development of a detailed construction sequencing plan to minimize operational interruptions during construction. Site work included piping connections to emergency storage tank, pavement replacement, security fencing, and drainage improvements.

COUNTY JAIL PUMP STATION IMPROVEMENTS

PLACER COUNTY

PROJECT ENGINEER: Project Engineer for rehabilitation/upgrade of submersible pump station serving Auburn Justice Center in North Auburn near the Placer County Government Center. Existing pump station includes in-line grinder system and chopper-style submersible pumps that are necessary to process heavy solids loadings from County jail. Improvements included replacement of the existing chopper pumps with similar units designed to deliver higher discharge pressures in response to changes in the pump station force main alignment. Pump replacement triggered retrofit of electrical infrastructure including variable frequency drives for 20 hp pumps, circuit breaker upgrade, and modifications to pump controls. Design required extensive hydraulic analyses to determine preferred pump selection and the development of a detailed construction sequencing plan to minimize operational impacts during construction. Testing and commissioning procedures were also prepared to establish expectations for pump station start-up and acceptance.

US 50 CORRIDOR ENHANCEMENTS, PUMPING PLANT REPLACEMENT

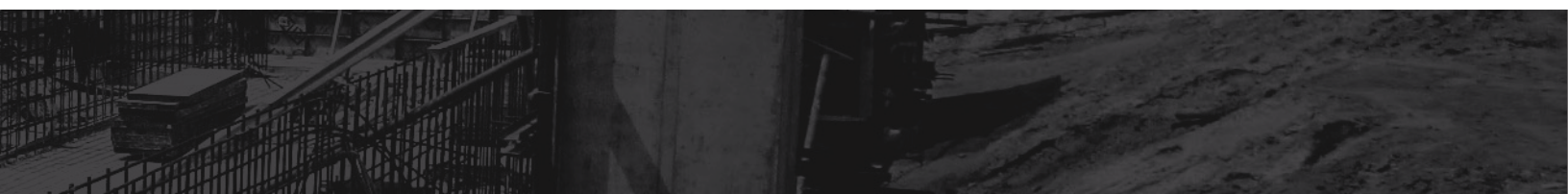
CITY OF SACRAMENTO

PROJECT ENGINEER: Project Engineer for replacement of three storm drain pumping plants with submersible pump stations within Caltrans/State of California right of way. Pumping plant capacities range from 4,000 to 8,000 gpm. Responsibilities included development of system curves for revised discharge conditions, selection of replacement pumping equipment, analysis of retrofit alternatives, and development of preliminary plans.

STORM DRAIN ZONES 36 AND 39 IMPROVEMENTS PROJECT

CITY OF MANTECA

PROJECT ENGINEER: Project Engineer for a regional solution for storm drainage to serve new development in the southwest quadrant of the City. The selected alternative consists of approximately 5,200 ft of 66-inch diameter gravity line, a 120 cfs storm drain pump station with five pumps and two standby generators, a 2,600 48-inch force main connecting to an outfall structure, and discharge pipelines from the outfall into the San Joaquin River. Duties have included review of background information, preparation of figures for technical memoranda, research and identification of components for a Basis of Design report, hydraulics analyses/pump selection, and preparation of design drawings for the project.



Jeff Bray

Permitting

Jeff has 30 years of experience which includes biological resource and wetland projects for transportation, energy, and mining clients. Prior to joining Dewberry, he spent 26 years with an environmental firm where he gained experience leading and growing an environmental group. Jeff regularly manages multi-disciplinary projects and has extensive experience preparing biological studies for public agency clients on projects in support of CEQA and/or NEPA clearance.



Dewberry Experience: 2 years

Industry Experience: 28 years

PROJECT EXPERIENCE

CITY OF MANTECA, STORM DRAIN ZONE 36/ZONE 39 IMPROVEMENT, MANTECA, CA

CITY OF MANTECA

QA/QC REVIEWER: Jeff provided QA/QC review of the environmental document for this storm drain improvement project that will extend through the former wastewater treatment facility to an outfall into the San Joaquin River.

EDUCATION:

BS, WILDLIFE BIOLOGY,
HUMBOLDT STATE UNIVERSITY,
ARCATA

CITY OF FORT BRAGG, RAW WATER PIPELINE REPLACEMENT PROJECT

CITY OF FORT BRAGG

QA/QC REVIEWER: Jeff provided QA/QC review of the environmental document for replacement of this raw water supply pipeline and is managing the regulatory and endangered species permitting. The three-mile pipeline crosses through mature redwood forests and two streams and will require numerous state and federal agency permits.

SUNRISE AVENUE WIDENING

CITY OF RANCHO CORDOVA

ENVIRONMENTAL LEAD: Environmental lead for this roadway widening project located in the City of Rancho Cordova and the County of Sacramento, managing the environmental schedule and deliverables. The project also includes bridge replacements over the Folsom South Canal and Laguna Creek. Sensitive environmental resources are expected to include biological resources, cultural resources, and air quality.

SOUTH WATT AVENUE WIDENING

SACRAMENTO COUNTY

BIOLOGICAL RESOURCES LEAD: Biological Resources Lead for this roadway widening project located in the County and City of Sacramento. The project also includes extending the existing bridge over Morrison Creek. Jeff is managing preparation of the aquatic resources delineation and the biological resources technical study.



FREMONT AVENUE PEDESTRIAN BRIDGE REHABILITATION

CITY OF LOS ALTOS

BIOLOGICAL RESOURCES LEAD: Biological Resources Lead for this pedestrian bridge rehabilitation project over Permanente Creek.. Jeff is managing the preparation of the regulatory permit applications.

USAL ROAD BRIDGE REPLACEMENT

MENDOCINO COUNTY

ENVIRONMENTAL LEAD: Environmental Lead for this bridge replacement project located in the Sinkyone Wilderness State Park, managing the environmental schedule and deliverables. The existing eight-span, single-lane railroad car bridge is structurally deficient and will be replaced with a two-span, single-lane concrete slab bridge on cast-in-drilled-hole pile foundations. The existing bridge is in a highly sensitive area for biological and cultural resources and is located within a recreational area with limited site access.

US 101/SR 135 INTERCHANGE IMPROVEMENT

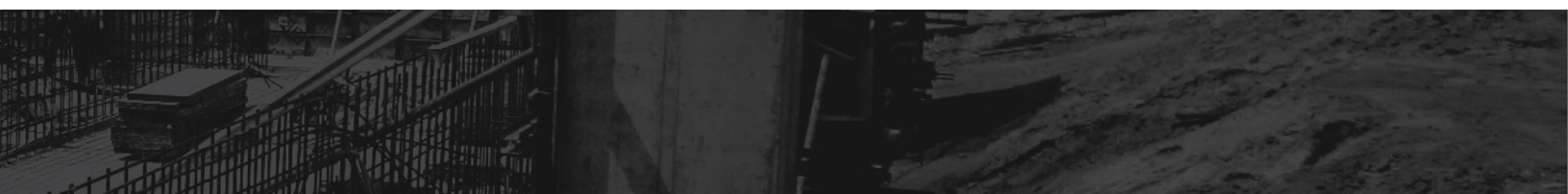
CITY OF SANTA MARIA

ENVIRONMENTAL MANAGER: Environmental Manager providing QA/QC for environmental clearance under NEPA and CEQA. This project improved US 101/SR 135 interchange in Santa Maria to alleviate weaving movements at the intersection at the ramp terminus. Key issues include biological resources, hazards and hazardous materials, air quality and greenhouse gas emissions, noise, and Section 4(f)/6(f) resources.

COPPER COVE WASTEWATER TREATMENT PLANT UPGRADE

CALAVERAS COUNTY WATER DISTRICT

CONTRACT MANAGER: Jeff is managing Dewberry's contract for this WWTP upgrade in Calaveras County. The project includes adding a tertiary treatment facility and raising the dam from the primary treatment pond, including related infrastructure upgrades (access roads, conveyance pipes). The dam raise was previously cleared with an EIR. CCWD has applied for federal funding assistance; therefore, NEPA clearance will also be needed. Dewberry's scope of work includes evaluating the tertiary upgrades under CEQA and the total project under NEPA. Technical studies include biological and cultural resources and air/noise (due to the proposed use of an off-site borrow location). It is expected that a CEQA Categorical Exemption will cover the tertiary upgrades and a NEPA Environmental Assessment will be needed for the total project. Dewberry will also assist CCWD with regulatory permitting consisting of Section 404, 401, and 1602 including Section 7 consultation with USFWS.



Koosha Toofan, PE

Electrical/SCADA

Koosha is a professional engineer with over 18 years of experience in electrical, controls and instrumentation, and SCADA and telemetry-based systems for water, wastewater, and stormwater distribution and pumping plants, as well as water treatment and wastewater treatment plants. He also has expertise in the design of power generation, transmission, and distribution. Koosha has served as Project Manager and Principal Engineer on numerous major projects where his expertise has led to exemplary project designs.



EETS Experience: 18 years
Industry Experience: 18 years

PROJECT EXPERIENCE

ATWOOD 3 LIFT STATION

PLACER COUNTY

ELECTRICAL: Collaborated with Dewberry to retrofit an existing pump station, installing (3) upsized 40HP motors to meet increased demand. Added new instruments such as flowmeters, level transmitters, and pressure switches for modernization and improved facility controls. Also incorporated a new natural gas generator.

EDUCATION:

MBA, MANAGEMENT &
STRATEGY, WESTERN
GOVERNORS UNIVERSITY

BS, ELECTRICAL ENGINEERING,
UNIVERSITY OF CALIFORNIA,
DAVIS

SJC02 STORM DRAIN PUMP STATION

MICROSOFT

ELECTRICAL/SCADA: In collaboration with Dewberry, completed the electrical, controls and instrumentation, and SCADA and telemetry design of a new pump station, incorporating (3) 40HP VFD powered pumps.

CERTS/REGISTRATIONS:

PE, CA #E20418

SJC02 SANITARY SEWER PUMP STATION

MICROSOFT

ELECTRICAL/SCADA: Worked alongside Dewberry to execute the electrical, controls and instrumentation, and SCADA and telemetry design of a new pump station, featuring (3) 15HP VFD powered pumps.

WASTEWATER PUMP STATION IMPROVEMENTS

OAKWOOD LAKE WATER DISTRICT

ELECTRICAL: Partnered with Dewberry to retrofit an existing pump station, introducing (3) upsized 15HP pumps powered by VFDs. Designed the project in phases to minimize utility downtime, ensuring the pump station remained operational. Integrated existing pump station status and alarm signals to terminate in a new PLC, facilitating transmission to the headquarters HMI.



Cathy Avila, PE

River Hydraulics

Catherine Avila is a principal who began Avila and Associates Consulting Engineers, Inc. in 2000 and who has over 35 years of public and private sector experience in many areas including hydrologic and hydraulic modeling (HECRAS, HEC-HMS), environmental assessments, and structure hydraulics. Prior to starting Avila and Associates, Ms. Avila was a Branch Chief for Structure Hydraulics for the California Department of Transportation (Caltrans) where she was in responsible charge of several key programs including the State of California's Structure Hydraulics Local Assistance Training Program, infrastructure database management, and development and implementation of the state bridge scour mitigation program.

PROJECT EXPERIENCE:

PELTIER ROAD BRIDGE OVER MOKELUMNE RIVER REPLACEMENT

SAN JOAQUIN COUNTY, CA

PROJECT MANAGER/PROJECT ENGINEER/HYDRAULIC

MODELER: Avila was retained to provide the hydrology, hydraulic, scour and bank protection analysis for the project. This includes the HEC-RAS hydraulic analysis modeling and coordination with the Central Valley Flood Protection Board (CVFPB) discharge, which controls the design of the bridge. In addition to the hydraulic modeling for the existing and proposed bridge, Avila is completing the drainage analysis for the proposed roadway and the post construction stormwater facility sizing. Avila will also be completing the Location Hydraulic Study, Summary Floodplain Encroachment Report, and Stormwater Pollution Prevention Plan (SWPPP) for the project.

WAVERLY ROAD OVER CHANNEL B FEASIBILITY STUDY

SAN JOAQUIN COUNTY, CALIFORNIA

PROJECT MANAGER/PROJECT ENGINEER/HYDRAULIC MODELER: Avila was retained to provide the hydrology and 2D HEC-RAS hydraulic modeling for the replacement of the Waverly Road Bridge over Channel B. Avila completed 2D RAS modeling of the existing and alternative designs to determine the size of the structure needed to ensure there would be no adverse hydraulic impacts within the channel reach.



Industry Experience: 36 years

EDUCATION:

B.S., CIVIL ENGINEERING, SANTA CLARA UNIVERSITY

M.S. CIVIL ENGINEERING, U.C. DAVIS

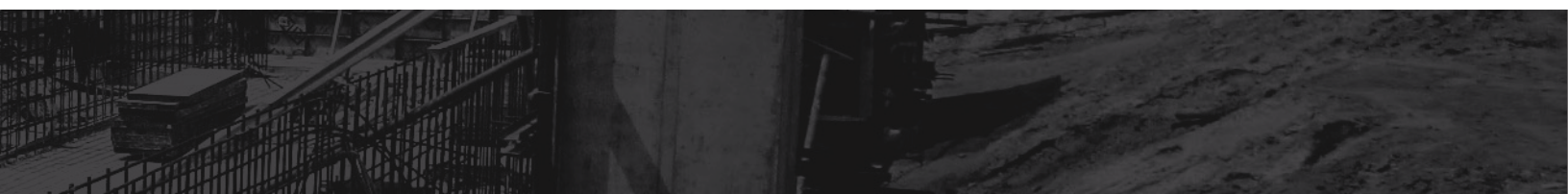
M.B.A. PUBLIC SECTOR MANAGEMENT / ECONOMICS, U.C. DAVIS

REGISTRATIONS/CERTS:

PROFESSIONAL CIVIL ENGINEER, (CA - 48947) (NV - 16678) (HI - 19728)

AMERICAN SOCIETY OF CIVIL ENGINEERS

DIPLOMATE, WATER RESOURCES ENGINEER (ENVIRONMENTAL AND WATER INSTITUTE)



ESCALON BELLOTA ROAD BRIDGE OVER MORMON SLOUGH

SAN JOAQUIN, CA

PROJECT MANAGER/PROJECT ENGINEER/HYDRAULIC MODELER: Avila was responsible for providing hydraulic services including hydraulic analysis for the temporary scour countermeasure for the scour critical bridge on Escalon Bellota Road over Mormon Slough. Avila modeled over 15 different proposed scour countermeasure and grading configurations to determine the most appropriate alternative.

To better understand the scour effects of Mormon Slough, ICF, as a subconsultant to Avila, performed a geomorphology and sediment transport study of the reach. The results of this analysis indicated a potential for up to 80 feet of additional lateral migration and bank loss on the left bank in the next 100 years. Approximately 5 to 10 feet of additional channel incision is also possible in the next 100 years. These conclusions were supported with sediment transport models creating using SRH-2D software. ICF also recommended bank hardening countermeasures to attempt to arrest the lateral migration.

MESSICK ROAD BRIDGE REPLACEMENT OVER THE MOSHER CREEK

SAN JOAQUIN COUNTY, CA

PROJECT MANAGER/PROJECT ENGINEER/HYDRAULIC MODELER: Avila is responsible for providing bridge hydraulic services including estimating discharge design, water surface elevation, velocity and bridge scour for a bridge rehabilitation vs. replacement study of the Messick Road Bridge over Mosher Creek. Avila coordinated FEMA floodplain/floodway issues with San Joaquin County.

ARROYO PASSAJERO BRIDGE REPLACEMENT

FRESNO COUNTY, CA

PROJECT MANAGER/PROJECT ENGINEER/HYDRAULIC MODELER: Avila was retained to provide bridge hydraulic services including estimating discharge design water surface elevation, velocity and bridge scour for the Arroyo Passajero Bridge replacements for Fresno County. Avila also provided geomorphological analysis for the future structure including estimating future degradation and lateral migration of this unstable channel through their subconsultant ICF. Due to the 2023 storm events, the channel degraded approximately 3-ft exposing 2-3 feet of piles at the bridge. Avila is currently working with Fresno County to develop scour countermeasures to keep the bridge open during the 2024 winter.

MARCH 2023 STORM DAMAGE RECOVERY

TULARE COUNTY, CA

PROJECT MANAGER, PROJECT ENGINEER, HYDRAULIC MODELER: Avila is the project manager for providing bridge hydraulic services for 10 storm damage projects including hydraulic modeling to size rock slope protection at eroded roadways adjacent to creeks and sizing undersized culverts. Avila is completing 2D hydraulic modeling at bridge, culvert and roadway locations affected by the March 2023 storms to obtain FEMA funding for infrastructure repair.



Ben Crawford, PE, GE

Geotechnical

Ben Crawford is the Founder and President of Crawford & Associates, Inc. He has managed complex projects including bridges, roadways, pavement rehabilitation, water and wastewater, parks, and trails. Ben's experience includes providing geotechnical recommendations for water, wastewater, storm drainage, and pipeline projects, including associated ancillary structures, foundations, and pavement/flatwork. Previous projects include reinforced concrete pipelines, large-diameter pipelines, work within wetlands and waterways, open-cut and trenchless pipelines, and projects within areas of high seismicity.



Industry Experience: 36 years

EDUCATION:

B.S., CIVIL ENGINEERING,
CALIFORNIA POLYTECHNIC
STATE UNIVERSITY, SAN LUIS
OBISPO

REGISTRATIONS/CERTS:

CIVIL ENGINEER, CA #68457
GEOTECHNICAL ENGINEER, CA
#2861

PROJECT EXPERIENCE:

ATHERTON TANK AND PUMP STATION

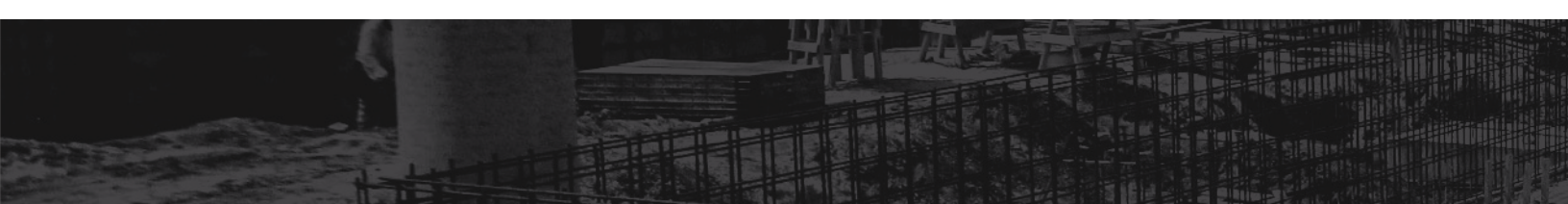
SAN JOAQUIN COUNTY, CA

GEOTECHNICAL ENGINEER: Ben Crawford prepared geotechnical recommendations for the Atherton Tank and Pump Station. The project consisted of three new booster pumps and a 90-foot diameter steel water storage tank. Performed detailed settlement calculations and determined that an over excavation and recompaction of the near surface loose sands would be required. Provided foundation recommendations for a reinforced concrete mat foundation and perimeter ring foundation. In 2013, the City of Manteca upgraded the project to include a 150 ft. diameter, 33 ft. tall, 3.6-million-gallon steel water tank founded on a perimeter ring foundation; a dedicated booster pump station, piping and standby on-site electrical generation. The project has been completed utilizing design/build delivery. Completed the design/build process and worked with the City, Design Team and Contractor to update our recommendations during construction.

SUTTER NATIONAL WILDLIFE REFUGE INTAKE PUMP STATION AND FISH SCREEN FACILITY

SUTTER COUNTY, CA

GEOTECHNICAL ENGINEER: Project improvements include four new pumps with fish screen constructed on a new lift station structure, a new distribution structure and spillway, and 700-lineal feet of 54-inch diameter conveyance pipe connecting the new pumps to the distribution structure. This project is utilizing a modified design/build approach. Ben was Principal and oversaw a Geotechnical Report, which included recommendations for open-end steel pipe pile deep foundations for the platform, pipe, and ramp supports; and spread and/or mat foundations for the distribution structure. Developed idealized geotechnical engineering properties and strength/bearing characteristics of foundation materials; calculated compressive, tension, and lateral resistance for the pump station; and provided recommendations for the distribution box, grading, and pipeline trench stability and backfill. The team also observed foundation installation and provided actual pile capacity based on the Gates Formula.



CITY OF TRACY RECYCLED WATER PROJECT

SAN JOAQUIN COUNTY, CA

GEOTECHNICAL ENGINEER: The City of Tracy is constructing a recycled water pipeline from the WWTP to a pump station. The combined recycled water will be conveyed to the Delta Mendota Canal. Key project components include about 50,000 total lineal feet of open-cut trenches, six trenchless crossings, pump station at the WWTP, new pump station, and ancillary structures including manholes, blowoff assemblies, air valve assemblies, isolation valves. Ben oversaw the preparation of a Geotechnical report. Key geotechnical considerations associated with design and construction include the presence of soft clays and shallow groundwater levels. Provided calculations and recommendations for soil loads on rigid buried pipes, flexible buried pipes, thrust restraint, composite modulus of soil reaction for open cut construction, and trenchless pipeline recommendations.

NORTH VALLEY REGIONAL RECYCLED WATER PROGRAM

STANISLAUS COUNTY, CA

GEOTECHNICAL ENGINEER: Key project components include improvements to the existing wastewater effluent pump station; trenchless pipeline installation beneath the San Joaquin River and Patterson Irrigation District canals; about 32,000 linear feet of 42-in diameter pipeline; terminal outfall structure; a meter vault to measure flow; and a variety of ancillary structures. Prepared a Geotechnical Data Report and a Geotechnical Report for proposed structures and the pipe improvements. Pipeline recommendations were provided, including calculating the Composite Modulus of Soil Reaction (CMSR), thrust restraint for large diameter pipelines, trenching, and trench backfill requirements.

RIVER TRUNK PIPELINE REALIGNMENT AND PUMP STATION PROJECT

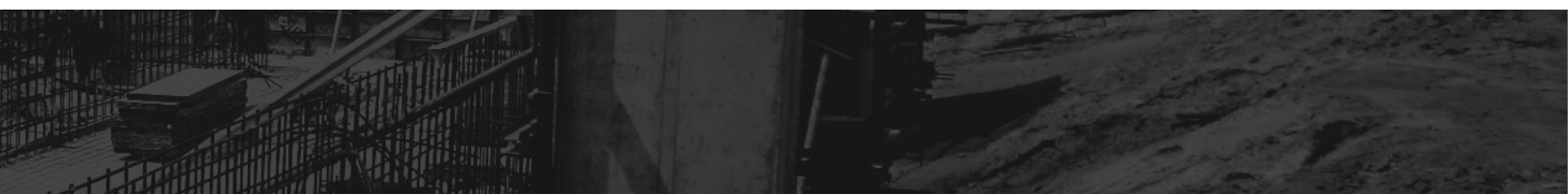
MODESTO, CA

PROJECT MANAGER/PROJECT ENGINEER/HYDRAULIC MODELER: The overall project includes about 23,000 lineal feet of 15-60" diameter pipeline, new pump station with ancillary support structures, and various manhole and vault structures. Prepared a Geotechnical Report with analysis of subsurface conditions and provided pipeline, trench sidewalls, backfill material, and compaction recommendations. Foundation recommendations for the pump station and ancillary structures include Mat Foundations and Strip or Spread footings. Key geotechnical considerations include the variability in soil strata throughout the alignment and the presence of loose/soft soils within the planned pipe zone, and groundwater presence within the required deep excavations for the pump station.

STANISLAUS REGIONAL WATER AUTHORITY WATER TREATMENT PROJECT

STANISLAUS COUNTY, CA

PROJECT MANAGER, PROJECT ENGINEER, HYDRAULIC MODELER: The project will require water release from Don Pedro Reservoir located about 25 miles up the Tuolumne River. Water will then be diverted from an existing infiltration gallery in the Tuolumne River located immediately downstream of Geer Road. The geologic setting, subsurface data, groundwater, and site seismicity/fault rupture were studied based on existing documents and reports of the area. Preliminary conclusions were provided for the Water Treatment Facility, Open Cut Pipeline, Trenchless Pipeline, and Terminal Tanks. Recommendations for Excavation/Stability, Groundwater/Dewatering, Liquefaction & Seismic Settlement, and Corrosivity were provided.



PATRICK DUNN, M.S., P.G., C.Hg. **Hydrogeologist**

Pat has over 33 years of hydrogeology water supply and environmental permitting experience. Major areas of responsibility include project management; preparation of hydrogeologic and environmental assessments for water resource projects, wastewater and hazardous/solid waste sites, and agricultural and food processing facilities throughout California. He is familiar with and has a working knowledge of federal and state environmental and drinking water regulations. He has been a project manager for several large water resource studies and water supply projects located in over twenty California Counties.



Industry Experience: 33 years

EDUCATION:

MS HYDROGEOLOGY, UNIVERSITY OF BIRMINGHAM - UNITED KINGDOM

BS GEOLOGY, UNIVERSITY OF IOWA

REGISTRATIONS/CERTS:

PROFESSIONAL GEOLOGIST - CA #7001

CERTIFIED HYDROGEOLOGIST - CA #900

PROFESSIONAL GEOLOGIST - NE #G009

PROJECT EXPERIENCE:

US NAVY - CHINA LAKE AIR BASE

RIDGE CREST, CA

HYDROGEOLOGIST: Conducted investigations in support a production well, including the completion of a test hole/ isolation zone sampling, design, and installation and pump test programs. Detailed geologic logging and water quality identification were used to select production zones. Completed production wells that exceeded pumping rates of 2,000 gpm.

CITY OF MANTECA WELLS 28, 29 AND 30

MANTECA, CA

HYDROGEOLOGIST: Conducted investigations in support of production wells, including the completion of a test hole/isolation zone sampling, design, and installation and pump test programs. Detailed geologic logging and water quality identification were used to select production zones. Completed production wells that exceeded pumping rates of 2,000 gpm

CITRUS HEIGHTS WATER DISTRICT, SKYCREST WELL

CITRUS HEIGHTS, CA

HYDROGEOLOGIST: Conducted investigations in support of production wells, including the completion of an installation and pump test program. Detailed geologic logging and water quality identification was used to select production zones. Completed production well that exceeded pumping rates of 2,500 gpm

EAST SAN JOAQUIN GROUNDWATER BASIN AUTHORITY SGMA SUSTAINABILITY PLAN

SAN JOAQUIN COUNTY, CA

HYDROGEOLOGIST: Pat is NV5's team lead providing hydrogeological services/monitoring network oversight used to compile and assess information toward the completion of a



hydrogeological conceptual model and 2023 Final Groundwater Sustainability Plan. Information was used to show the mechanisms to demonstrate County sustainability. Specific items of interest includes updating the monitoring system for both agricultural and municipal pumping wells with water level and water quality variations used to calibrate the ground water model under development

RANCHO MURIETA COMMUNITY SERVICE DISTRICT

RANCHO MURIETA, CA

HYDROGEOLOGIST: Work included the assessment of near surface soils and hydrogeology to determine recharge components to foothill locations in Calaveras County. Groundwater management plan elements were updated and a monitoring system was established for the monitoring plan for the State and 2020 Groundwater Sustainability Plan.

CALAVERAS COUNTY WATER DISTRICT RECHARGE STUDY AND GROUNDWATER MANAGEMENT PLAN UPDATE (WELL MONITORING)

CALAVERAS COUNTY, CA

HYDROGEOLOGIST Work included the assessment of near surface soils and hydrogeology to determine recharge components to foothill locations in Calaveras County. Groundwater management plan elements were updated and a monitoring system was established for the monitoring plan for the State and 2020 Groundwater Sustainability Plan.

LAKE CAMANCHE WATER IMPROVEMENT DISTRICT NO. 7, INTEGRATED REGIONAL GROUNDWATER MANAGEMENT STUDY AND PLAN AND PRODUCTION WELL NO. 14

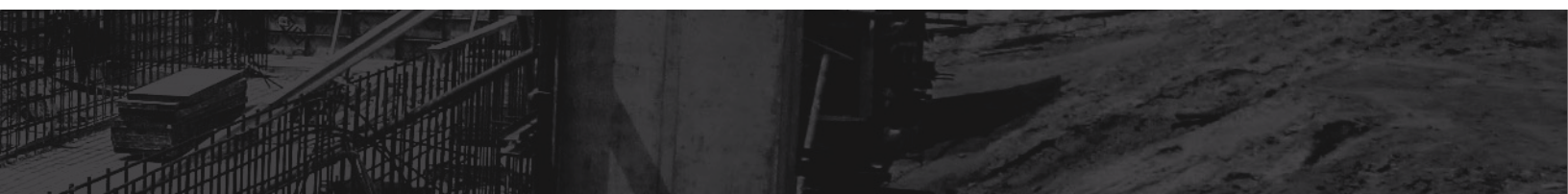
AMADOR COUNTY, CA

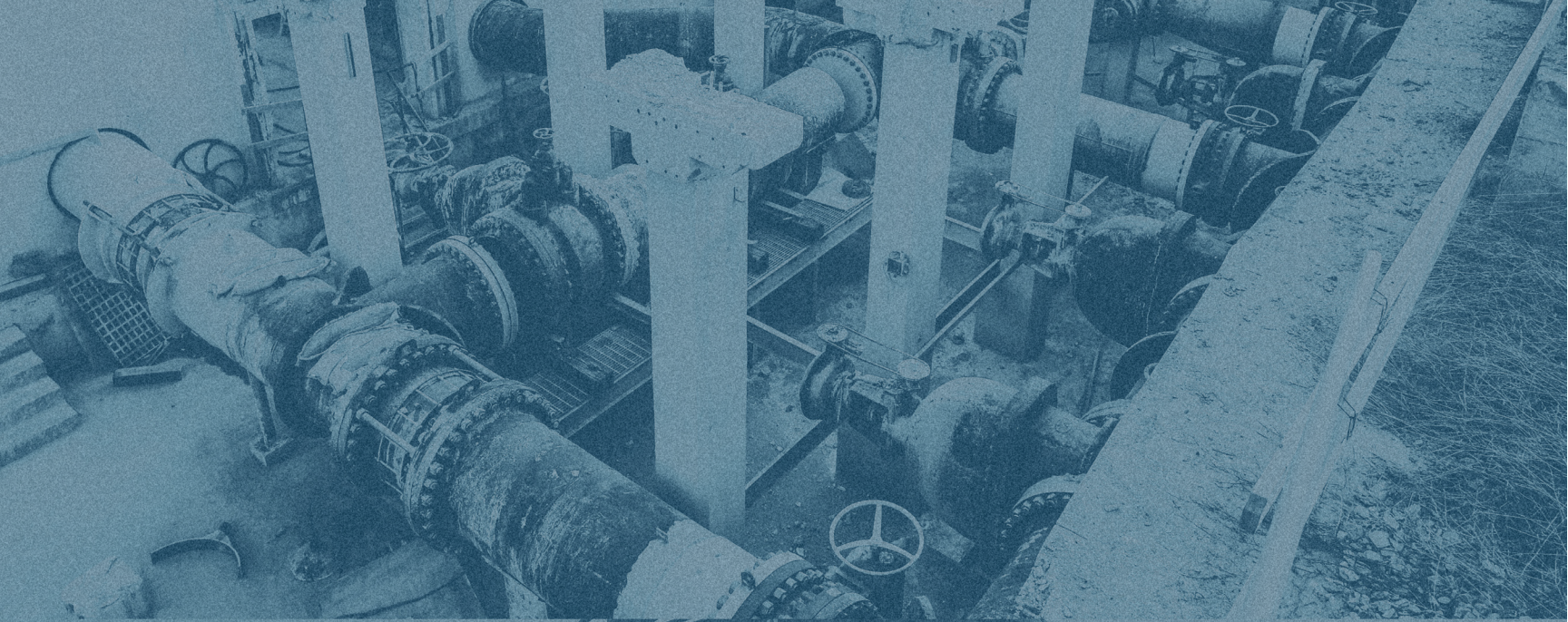
HYDROGEOLOGIST: Pat helped develop and secured a grant package totaling over \$280,000. The study involved completing a groundwater source sufficiency and a groundwater management plan for this service area. Geophysical and hydrogeological investigations supported reliable groundwater resource and plan that was publically noticed and approved of by the Amador Water Agency and California Department of Water Resources. Water Well no.14 was designed, installed, and pump-tested leading up to this project. The source sufficiency was used to assess sustainable pump rates for the individual well and rehabilitation of other district wells.

OVER 15 CALIFORNIA MUNICIPAL WATER COMPANIES OR DISTRICTS

BIGHORN DESERT VIEW, BAR-LEN MWC, JUNIPER-REVIERA, HILL VIEW, JUBILEE MWC, CUYAMA, GORDON ACRES MWC, CENTER WATER COMPANY, LAKEVIEW RANCHOS MWC, FEATHER RIVER CANYON CSD, FARMINGTON MWC, ALPINE VILLAGE, DESCANSO, HUNGRY GULCH WATER COMPANY, 4TH STREET WATER COMPANY AND LANARE WATER DISTRICT

HYDROGEOLOGIST: Pat developed technical memoranda at a minimum during the planning phase to identify spatial and target depth information for favorable production and water quality. As needed, Pat led an investigation of existing wells, including geophysical logs, video logs, temperature logs, and water quality sampling to confirm probable water quality for production wells. During construction, he verified installation new well using pump test and water quality for the selected production zones, and final well equipping – Various Counties, CA.





Garney
CONSTRUCTION



GARNEY

STATEMENT OF QUALIFICATIONS FOR:

NORTH PUMP STATION IMPROVEMENTS PROJECT

**NORTH SAN JOAQUIN WATER
CONSERVATION DISTRICT**

Cost Proposal has been updated as of April 22, 2024 as requested by NSJWCD to approach Phase 1 Services (Preliminary Stage) as follows:

- Phase 1a - Concept Design
- Phase 1b - BODR/30% Design
- Phase 1c - 60% Design/GMP

Adders for Ranney and Infiltration Gallery are also included as follows:

- Phase 1a - Concept Design
- Phase 1b - BODR/30% Design



**NORTH SAN JOAQUIN WATER
CONSERVATION DISTRICT**
498 EAST KETTLEMAN LANE
LODI, CA 95240

GARNEY PACIFIC, INC.
17510 W BETHANY ROAD
TRACY, CA 95391



PART 7

COST PROPOSAL

SUBMITTED IN A SEPARATE SEALED ENVELOPE



PART 7

1. Preliminary Stage Price expressed as a lump sum price, in accordance with Exhibit B-1 to the Agreement.

B-1: PRELIMINARY STAGE - STIPULATED PRICE:

\$623,655

\$562,596

\$1,186,251

Preliminary Stage Price Breakdown:

	ORIGINAL (Wet-Well and Dry-Well w/ Fish Screen)				COST ADDER (Ranney and Infiltration Gallery)				TOTAL COST (with Ranney and Infiltration Gallery)			
	Garney Costs	Dewberry Costs	Subconsultant Costs	Total Cost	Garney Costs	Dewberry Costs	Subconsultant Costs	Total Cost	Garney Costs	Dewberry Costs	Subconsultant Costs	Total Cost
Phase 1a (Concept)	\$19,872	\$48,640	\$107,035	\$175,547	\$15,616	\$57,080	\$80,000	\$152,696	\$35,488	\$105,720	\$187,035	\$328,243
Phase 1b (BODR/30% Design)	\$58,918	\$124,580	\$140,000	\$323,498	\$0	\$14,900	\$395,000	\$409,900	\$58,918	\$139,480	\$535,000	\$733,398
Phase 1C (60% Design/GMP)	\$49,190	\$65,420	\$10,000	\$124,610	\$0	\$0	\$0	\$0	\$49,190	\$65,420	\$10,000	\$124,610
Phase 1 Totals	\$127,980	\$238,640	\$257,035	\$623,655	\$15,616	\$71,980	\$475,000	\$562,596	\$143,596	\$310,620	\$732,035	\$1,186,251

NOTE: A more detailed cost breakdown is provided on the following pages of this Cost Proposal.

Assumptions & Clarifications:

1. Lump Sum Amount, rates, and fees assume mutually acceptable contract terms and conditions.
2. Our costs are based on Phase 1 Services per the attached Overview Schedule.
3. It is assumed the District and its agents will complete review of design documents, memorandums, and other deliverables within two (2) weeks from receipt from Design-Builder.
4. In developing the updated spreadsheets, Dewberry has conferred with the hydrogeologists at NV5 regarding the Ranney well and riverbed filtration alternatives. While the alternatives are both considered feasible, the desired yield is pushing the envelope and will require extensive field work (and time) to confirm. In discussing the alternatives with NV5, much of the work required in concept development for either alternative is essentially identical and duplicative. In other words, the initial steps are the same until the field work is complete and a decision is reached regarding a specific direction. Considering this, Ranney Well and Infiltration Gallery are combined into a groundwater extraction alternative with two options. Incremental engineering costs are summarized in the spreadsheets.
5. The current Overview Schedule - Rev2 only accounts for one month (1-Month) of Conceptual Design effort. It is anticipated the preliminary work required for the Ranney Well and Infiltration Gallery will extend this time out, which is not currently reflected in the Overview Schedule.

**NORTH SAN JOAQUIN WATER CONSERVATION DISTRICT
NORTH PUMP STATION IMPROVEMENTS PROJECT
PHASE 1 SERVICES**

PROJECT INITIATION & IMPLEMENTATION

1. Kickoff meeting and brainstorming sessions.
2. Status review meetings (bi-weekly).
3. Project execution plan and schedule.
4. Risk register development/strategies.
5. Value engineering review/workshop.
6. Document/constructability review.
7. Procurement plan (long-lead).
8. Project cost models (initial OPCC, BODR/30%, and 60% GMP)

PHASE 1a – CONCEPT SERVICES

- 1a-1. Development and evaluation of two pump station concepts and four intake types and configurations.
- 1a-2. 20-scale site topographic map.
- 1a-3. Bathymetric survey including cross-sections at 50-ft intervals, 1000 ft upstream and downstream of location of river diversion.
- 1a-4. Pre-project river hydraulic modeling at various stages including hydraulic cross-sections.
- 1a-5. Geomorphic assessment/sediment transport technical memorandum.
- 1a-6. Geotechnical exploration to evaluate feasibility of concepts developed in Phase 1a.
- 1a-7. (Adder) Groundwater pumping/target depth/horizontal extraction technical memorandum.
- 1a-8. Alternatives evaluation technical memorandum.

PHASE 1b – PRELIMINARY (BODR / 30% DESIGN)

- 1b-1. (Adder) Monitoring wells/test well to confirm available yield for groundwater wells.
- 1b-2. Geotechnical report including recommendations for foundation design, pile design, structural excavation, trench excavation, and site grading.
- 1b-3. Fish habitat assessment technical memorandum.
- 1b-4. River hydraulic modeling for preferred project.
- 1b-5. Fish screen selection technical memorandum.
- 1b-6. Pump station wet well technical memorandum.
- 1b-7. Pump selection technical memorandum.
- 1b-8. Basis of Design Report.
- 1b-9. Preliminary design drawings:

- a. Civil
 - Site plan
 - Grading/paving plan
 - Site piping plan
- b. Structural
 - Foundation plan
 - Top deck plan
 - Cross-sections (3)
- c. Mechanical
 - Pump/piping deck plan
 - Fish screen/wet well plan
 - Fish screen/wet well sections (2)
 - Discharge manifold sections
- d. Electrical
 - One line diagram
 - Pump station P&ID
 - Electrical site plan
 - Motor control center elevation

1b-10. Electrical service application (application fees/permanent service activation is not included).

1b-11. Permitting strategy memorandum (permitting effort/applications/fees are not included).

PHASE 1c – 60% DESIGN

1c-1. Design drawings:

- a. Civil
 - Piping profiles (2)
 - Access road improvements plan
- b. Structural
 - Well sections/details
 - Top deck details
 - General structural details
- c. Mechanical
 - Discharge piping details
 - Equipment schedules
- d. Electrical
 - P&ID
 - Conduit schedule
 - Electrical details

2. Standard Hourly Rate Schedule for all personnel that will be engaged in Preliminary Stage Work, in accordance with Exhibit B-3 to the Agreement.

B-3: PRELIMINARY STAGE – STANDARD HOURLY RATES:

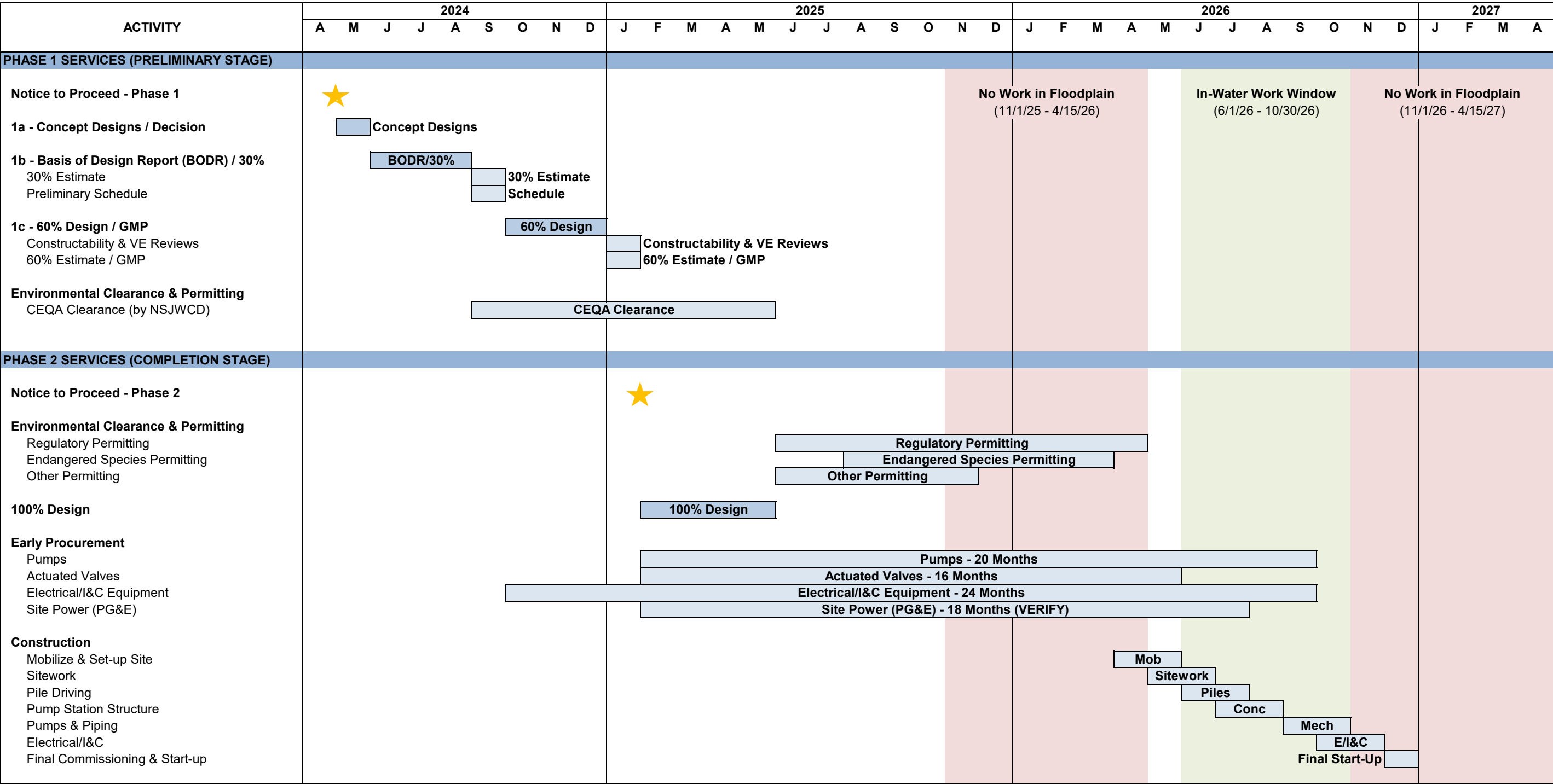
Company	Position Classification	Hourly Billing Rate
Garney Pacific	Design-Build Manager	\$222
Garney Pacific	Preconstruction Manager (Project Manager)	\$199
Garney Pacific	Constructability/VE (Superintendent)	\$214
Garney Pacific	Project Engineer	\$125
Garney Pacific	Safety Manager	\$149
Garney Pacific	Lead Estimator	\$148
Garney Pacific	Cost Estimator	\$123
Garney Pacific	Project Coordinator	\$85
Dewberry	Design Lead	\$265
Dewberry	Civil Engineer I	\$235
Dewberry	Civil Engineer II	\$210
Dewberry	Structural Engineer I	\$325
Dewberry	Structural Engineer II	\$210
Dewberry	Process Engineer	\$130
Dewberry	Permitting	\$240
Dewberry	Staff Engineer – Civil	\$115
Dewberry	Staff Engineer – Structures	\$105
Dewberry	Staff Engineer – Pipeline	\$115
Dewberry	Project Coordinator	\$150

3. Design-Builder Fee to be applied to the Completion Stage services expressed as a percentage of the Completion Stage Lump Sum Price.

DESIGN-BUILDER FEE: 11.00%

OVERVIEW SCHEDULE - Rev2
(Updated: 04/22/24)

**North San Joaquin Water Conservation District
North Pump Station Improvement Project**





NORTH SAN JOAQUIN WATER CONSERVATION DISTRICT
NORTH PUMP STATION IMPROVEMENTS PROJECT
 Estimated Labor Hours and Fee Estimate - Phase 1a (CONCEPT) - ORIGINAL
 April 11, 2024

Task	Garney Pacific		Dewberry		Dewberry Subconsultants						SubTOTAL	Combined
	Hours	Fee	Hours	Fee	Avila River Hydraulics	Crawford Geotechnical	EETS Electrical/ SCADA	UNICO Survey	NV5 Hydrogeologist	ICF Sediment/ Fish	Total Fee	Total Fee
11.0 Preliminary Engineering for Preferred Alternative												
11.01 Civil/Site	0	\$0.00	0	\$0.00							\$0.00	\$0.00
11.02 Offsite Pipeline	0	\$0.00	0	\$0.00							\$0.00	\$0.00
11.03 Structural	0	\$0.00	0	\$0.00							\$0.00	\$0.00
11.04 Mechanical	0	\$0.00	0	\$0.00							\$0.00	\$0.00
11.05 Electrical	0	\$0.00	0	\$0.00							\$0.00	\$0.00
11.06 Groundwater Wells	0	\$0.00	0	\$0.00							\$0.00	\$0.00
11.07 Basis of Design Report	0	\$0.00	0	\$0.00							\$0.00	\$0.00
Total Task 11.0	0	\$0.00	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12.0 Preliminary Drawings												
12.01 Preliminary Drawings	0	\$0.00	0	\$0.00							\$0.00	\$0.00
12.02 60% Drawings	0	\$0.00	0	\$0.00							\$0.00	\$0.00
Total Task 12.0	0	\$0.00	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13.0 Cost Models												
13.01 Cost Model (Initial OPCC)	24	\$4,036.00	0	\$0.00							\$0.00	\$4,036.00
13.02 Cost Model (BODR / 30%)	0	\$0.00	0	\$0.00							\$0.00	\$0.00
13.03 Cost Model (60% / GMP)	0	\$0.00	0	\$0.00							\$0.00	\$0.00
13.04 Deliverables Workshop	0	\$0.00	0	\$0.00							\$0.00	\$0.00
Total Task 13.0	24	\$4,036.00	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4,036.00
14.0 Permitting Strategy												
14.01 Identification of Environmental Enhancements	0	\$0.00	0	\$0.00							\$0.00	\$0.00
14.02 Outreach to Resource Agencies	0	\$0.00	0	\$0.00							\$0.00	\$0.00
Total Task 14.0	0	\$0.00	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TOTAL	100	\$19,872.00	238	\$48,640.00	\$25,000.00	\$0.00	\$0.00	\$62,035.00	\$0.00	\$20,000.00	\$107,035.00	\$175,547.00



NORTH SAN JOAQUIN WATER CONSERVATION DISTRICT
NORTH PUMP STATION IMPROVEMENTS PROJECT
 Estimated Labor Hours and Fee Estimate - Phase 1b (BODR/30% DESIGN) - ORIGINAL
 April 11, 2024

Task	Garney Pacific		Dewberry		Dewberry Subconsultants						Subtotal	Combined
	Hours	Fee	Hours	Fee	Avila River Hydraulics	Crawford Geotechnical	EETS Electrical/ SCADA	UNICO Survey	NV5 Hydrogeologist	ICF Sediment/ Fish	Total Fee	Total Fee
11.0 Preliminary Engineering for Preferred Alternative												
11.01 Civil/Site	0	\$0.00	24	\$3,980.00							\$0.00	\$3,980.00
11.02 Offsite Pipeline	0	\$0.00	0	\$0.00							\$0.00	\$0.00
11.03 Structural	0	\$0.00	44	\$9,460.00							\$0.00	\$9,460.00
11.04 Mechanical	0	\$0.00	64	\$8,860.00							\$0.00	\$8,860.00
11.05 Electrical	0	\$0.00	8	\$1,580.00			\$5,000.00				\$5,000.00	\$6,580.00
11.06 Groundwater Wells	0	\$0.00	0	\$0.00							\$0.00	\$0.00
11.07 Basis of Design Report	0	\$0.00	84	\$15,140.00							\$0.00	\$15,140.00
Total Task 11.0	0	\$0.00	224	\$39,020.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00	\$5,000.00	\$44,020.00
12.0 Preliminary Drawings												
12.01 Preliminary Drawings	0	\$0.00	184	\$26,920.00			\$10,000.00				\$10,000.00	\$36,920.00
12.02 60% Drawings	0	\$0.00	0	\$0.00							\$0.00	\$0.00
Total Task 12.0	0	\$0.00	184	\$26,920.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.00	\$10,000.00	\$36,920.00
13.0 Cost Models												
13.01 Cost Model (Initial OPCC)	0	\$0.00	0	\$0.00							\$0.00	\$0.00
13.02 Cost Model (BODR / 30%)	88	\$13,300.00	0	\$0.00							\$0.00	\$13,300.00
13.03 Cost Model (60% / GMP)	0	\$0.00	0	\$0.00							\$0.00	\$0.00
13.04 Deliverables Workshop	10	\$1,832.00	0	\$0.00							\$0.00	\$1,832.00
Total Task 13.0	98	\$15,132.00	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$15,132.00
14.0 Permitting Strategy												
14.01 Identification of Environmental Enhancements	0	\$0.00	24	\$5,760.00							\$0.00	\$5,760.00
14.02 Outreach to Resource Agencies	0	\$0.00	24	\$5,960.00							\$0.00	\$5,960.00
Total Task 14.0	0	\$0.00	48	\$11,720.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$11,720.00
TOTAL	320	\$58,918.00	664	\$124,580.00	\$25,000.00	\$80,000.00	\$15,000.00	\$0.00	\$0.00	\$20,000.00	\$140,000.00	\$323,498.00



NORTH SAN JOAQUIN WATER CONSERVATION DISTRICT
NORTH PUMP STATION IMPROVEMENTS PROJECT
 Estimated Labor Hours and Fee Estimate - Phase 1c (60% DESIGN/GMP) - ORIGINAL
 April 11, 2024

Task	Garney Pacific		Dewberry		Dewberry Subconsultants					Combined	
	Hours	Fee	Hours	Fee	Avila River Hydraulics	Crawford Geotechnical	EETS Electrical/ SCADA	UNICO Survey	ICF Sediment/ Fish	SUBTOTAL Total Fee	TOTAL Total Fee
1.0 Project Management											
1.01 Liaison with District	12	\$2,572.00	60	\$14,800.00						\$0.00	\$17,372.00
1.02 Status Review Meetings with District	24	\$5,052.00	32	\$7,600.00						\$0.00	\$12,652.00
1.06 Peer Review	0	\$0.00	16	\$5,200.00						\$0.00	\$5,200.00
1.07 Project Execution Plan	0	\$0.00	0	\$0.00						\$0.00	\$0.00
1.07 Project Schedule/Maintenance	24	\$4,776.00	0	\$0.00						\$0.00	\$4,776.00
1.08 Risk Register Development/Strategies	12	\$2,464.00	0	\$0.00						\$0.00	\$2,464.00
1.09 Value Engineering Review/Workshop	20	\$3,680.00	0	\$0.00						\$0.00	\$3,680.00
1.10 Document/Constuctability Review	16	\$2,884.00	0	\$0.00						\$0.00	\$2,884.00
1.11 Procurement Plan (Long-Lead)	14	\$2,578.00	0	\$0.00						\$0.00	\$2,578.00
Total Task 1.0	122	\$24,006.00	108	\$27,600.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$51,606.00
12.0 Preliminary Drawings											
12.02 60% Drawings	0	\$0.00	240	\$37,820.00			\$10,000.00			\$10,000.00	\$47,820.00
Total Task 12.0	0	\$0.00	240	\$37,820.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$10,000.00	\$47,820.00
13.0 Cost Models											
13.01 Cost Model (Initial OPCC)	0	\$0.00	0	\$0.00						\$0.00	\$0.00
13.02 Cost Model (BODR / 30%)	0	\$0.00	0	\$0.00						\$0.00	\$0.00
13.03 Cost Model (60% / GMP)	152	\$21,520.00	0	\$0.00						\$0.00	\$21,520.00
13.04 Deliverables Workshop	20	\$3,664.00	0	\$0.00						\$0.00	\$3,664.00
Total Task 13.0	172	\$25,184.00	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$25,184.00
TOTAL	294	\$49,190.00	348	\$65,420.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$10,000.00	\$124,610.00



NORTH SAN JOAQUIN WATER CONSERVATION DISTRICT
NORTH PUMP STATION IMPROVEMENTS PROJECT
 Estimated Labor Hours and Fee Estimate - Phase 1a (CONCEPT) - COST ADDER (Ranney and Infiltration Gallery)
 April 11, 2024

Task	Garney Pacific		Dewberry		Dewberry Subconsultants						SubTOTAL	Combined
	Hours	Fee	Hours	Fee	Avila River Hydraulics	Crawford Geotechnical	EETS Electrical/ SCADA	UNICO Survey	NV5 Hydrogeologist	ICF Sediment/ Fish	Total Fee	Total Fee
11.0 Preliminary Engineering for Preferred Alternative												
11.01 Civil/Site	0	\$0.00	0	\$0.00							\$0.00	\$0.00
11.02 Offsite Pipeline	0	\$0.00	0	\$0.00							\$0.00	\$0.00
11.03 Structural	0	\$0.00	0	\$0.00							\$0.00	\$0.00
11.04 Mechanical	0	\$0.00	0	\$0.00							\$0.00	\$0.00
11.05 Electrical	0	\$0.00	0	\$0.00							\$0.00	\$0.00
11.06 Groundwater Wells	0	\$0.00	0	\$0.00							\$0.00	\$0.00
11.07 Basis of Design Report	0	\$0.00	0	\$0.00							\$0.00	\$0.00
Total Task 11.0	0	\$0.00	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12.0 Preliminary Drawings												
12.01 Preliminary Drawings	0	\$0.00	0	\$0.00							\$0.00	\$0.00
12.02 60% Drawings	0	\$0.00	0	\$0.00							\$0.00	\$0.00
Total Task 12.0	0	\$0.00	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13.0 Cost Models												
13.01 Cost Model (Initial OPCC)	24	\$4,036.00	0	\$0.00							\$0.00	\$4,036.00
13.02 Cost Model (BODR / 30%)	0	\$0.00	0	\$0.00							\$0.00	\$0.00
13.03 Cost Model (60% / GMP)	0	\$0.00	0	\$0.00							\$0.00	\$0.00
13.04 Deliverables Workshop	0	\$0.00	0	\$0.00							\$0.00	\$0.00
Total Task 13.0	24	\$4,036.00	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4,036.00
14.0 Permitting Strategy												
14.01 Identification of Environmental Enhancements	0	\$0.00	0	\$0.00							\$0.00	\$0.00
14.02 Outreach to Resource Agencies	0	\$0.00	0	\$0.00							\$0.00	\$0.00
Total Task 14.0	0	\$0.00	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TOTAL	80	\$15,616.00	256	\$57,080.00	\$0.00	\$35,000.00	\$0.00	\$0.00	\$45,000.00	\$0.00	\$80,000.00	\$152,696.00



NORTH SAN JOAQUIN WATER CONSERVATION DISTRICT
NORTH PUMP STATION IMPROVEMENTS PROJECT
 Estimated Labor Hours and Fee Estimate - Phase 1b (BODR/30% DESIGN) - COST ADDER (Ranney and Infiltration Gallery)
 April 11, 2024

Task	Garney Pacific		Dewberry		Dewberry Subconsultants						Subtotal	Combined
	Hours	Fee	Hours	Fee	Avila River Hydraulics	Crawford Geotechnical	EETS Electrical/ SCADA	UNICO Survey	NV5 Hydrogeologist	ICF Sediment/ Fish	Total Fee	Total Fee
11.0 Preliminary Engineering for Preferred Alternative												
11.01 Civil/Site	0	\$0.00	0	\$0.00							\$0.00	\$0.00
11.02 Offsite Pipeline	0	\$0.00	0	\$0.00							\$0.00	\$0.00
11.03 Structural	0	\$0.00	0	\$0.00							\$0.00	\$0.00
11.04 Mechanical	0	\$0.00	0	\$0.00							\$0.00	\$0.00
11.05 Electrical	0	\$0.00	0	\$0.00							\$0.00	\$0.00
11.06 Groundwater Wells	0	\$0.00	0	\$0.00							\$0.00	\$0.00
11.07 Basis of Design Report	0	\$0.00	60	\$10,620.00							\$0.00	\$10,620.00
Total Task 11.0	0	\$0.00	60	\$10,620.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$10,620.00
12.0 Preliminary Drawings												
12.01 Preliminary Drawings	0	\$0.00	0	\$0.00							\$0.00	\$0.00
12.02 60% Drawings	0	\$0.00	0	\$0.00							\$0.00	\$0.00
Total Task 12.0	0	\$0.00	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13.0 Cost Models												
13.01 Cost Model (Initial OPCC)	0	\$0.00	0	\$0.00							\$0.00	\$0.00
13.02 Cost Model (BODR / 30%)	0	\$0.00	0	\$0.00							\$0.00	\$0.00
13.03 Cost Model (60% / GMP)	0	\$0.00	0	\$0.00							\$0.00	\$0.00
13.04 Deliverables Workshop	0	\$0.00	0	\$0.00							\$0.00	\$0.00
Total Task 13.0	0	\$0.00	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14.0 Permitting Strategy												
14.01 Identification of Environmental Enhancements	0	\$0.00	0	\$0.00							\$0.00	\$0.00
14.02 Outreach to Resource Agencies	0	\$0.00	0	\$0.00							\$0.00	\$0.00
Total Task 14.0	0	\$0.00	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TOTAL	0	\$0.00	68	\$14,900.00	\$0.00	-\$35,000.00	\$0.00	\$0.00	\$450,000.00	-\$20,000.00	\$395,000.00	\$409,900.00