To request translation or disability-related accommodations, please contact us at **DTDcompliance@clackamas.us** | **503-742-4400**.

Si quiere solicitar servicios de traducción o adaptaciones para la discapacidad, contáctenos en/al **DTDcompliance@clackamas.us** | **503-742-4400**.

Чтобы запросить перевод или приспособления, связанные с инвалидностью, пожалуйста, свяжитесь с нами по:
DTDcompliance@clackamas.us | **503-742-4400**.

Щоб попросити переклад або спеціальні послуги для осіб з особливими потребами, зверніться до нас, скориставшись такими контактними даними:
DTDcompliance@clackamas.us | **503-742-4400**.

如需翻译服务或残障相关的协助，请与我们联系：
DTDcompliance@clackamas.us | **503-742-4400**。

Để yêu cầu dịch vụ dịch thuật hoặc điều chỉnh liên quan đến tình trạng khuyết tật, vui lòng liên hệ với chúng tôi qua **DTDcompliance@clackamas.us** | **503-742-4400.**

Clackamas County
www.clackamas.us

CLACKAMAS COUNTY

DAN JOHNSON
DIRECTOR

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
DEVELOPMENT SERVICES BUILDING
150 BEAVERCREEK ROAD OREGON CITY, OR 97045

MEMORANDUM

TO: Clackamas County Board of County Commissioners (BCC)

FROM: Dan Johnson, Director, Transportation and Development

RE: Stone Creek Irrigation System Replacement Public Improvement Contract with Duininck, Inc. for $4,717,460.00

DATE: October 20, 2026

REQUEST: Advance to Consent Agenda – Stone Creek Irrigation System Replacement Public Improvement Contract #1884 with Duininck, Inc. for $4,717,460.00. Funding is through golf course revenue. No County General Funds are involved.

BACKGROUND: This public improvement contract with Duininck, Inc. is to replace the irrigation system at Stone Creek Golf Club. The existing irrigation system is more than 20 years old and is reaching its end of life. Having a fully functioning irrigation system is vital to keeping the golf course in playable condition, allowing it to continue to be a staple in the local golf community, and providing affordable high-quality golf, as well as providing revenue to County Parks.

The new irrigation system will be made of materials anticipated to last more than 40 years. Golfers will be able to access and play 18 holes of the course throughout the project. Replacement will take place while the course is open, with one hole being added so that one hole can be taken offline at a time to conduct replacement operations. Funding for the contract is from golf course revenue. No County General Funds will be used for this project.

PROCUREMENT PROCESS: This work was advertised in accordance with ORS and LCRB Rules on April 28, 2026. Proposals were publicly opened on June 4, 2026. The County received two (2) proposals: Mid-America Golf and Landscape at $5,394,389.10 and Duininck, Inc. at $4,717,460.00. After review of the proposals, Duininck, Inc. was determined to be the best qualified proposer.

RECOMMENDATION: Staff respectfully recommend the Board advance this public improvement contract #1884 with Duininck, Inc. for the amount of $4,717,460 for the replacement of the irrigation system at Stone Creek Golf Club to the Consent agenda.

Respectfully Submitted,

Dan Johnson

Dan Johnson, Director
Department of Transportation and Development

Attachment:
Contract #1884 with Duininck, Inc.

CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT

Contract #0000001884

This Public Improvement Contract (the "Contract") is made by and between Clackamas County, a political subdivision of the State of Oregon ("Owner"), and **Duininck, Inc.** ("Contractor"), both collectively referred to as the "Parties". This Contract shall become effective on the date this Contract has been signed by all the Parties and shall expire upon completion the completion of all obligations under the terms of this Contract unless terminated earlier by the Parties.

All capitalized terms in this Contract shall have the meanings identified in the Clackamas County General Conditions for Public Improvement Contracts (11/21/2024) ("General Conditions") referenced within the Instructions to Bidders.

Project Name: **#2026-24 Stone Creek Irrigation Replacement Project**

1. Contract Price, Contract Documents and Work.
The Contractor hereby agrees to perform all the work described in, and reasonably inferred from, the Contract Documents, as further defined below ("Work"). In consideration of the Contractor performing the Work in accordance with the terms of the Contract, the Owner agrees to pay the Contractor an amount not to exceed **Four Million Seven Hundred Seventeen Thousand Four Hundred Sixty Dollars ($4,717,460.00)** (the "Contract Price"). Payment will be made in accordance with the terms and conditions provided in the Contract Documents. The Contract Price is the amount contemplated by the Base Bid, as indicated in the accepted Bid.

The following documents are incorporated by reference in this Contract and made a part hereof ("Contract Documents"):

- Notice of Contract Opportunity
- Supplemental Instructions to Bidders
- Bid Form
- Clackamas County General Conditions
- Prevailing Wage Rates
- Plans, Specifications and Drawings
- Instructions to Bidders
- Bid Bond
- Performance Bond and Payment Bond
- Supplemental General Conditions
- Payroll and Certified Statement Form
- Addenda 1

2. Representatives.
Contractor has named Brad Reifsteck as its Authorized Representative to act on its behalf. Owner designates, or shall designate, its Authorized Representative as indicted below (check one):

☒ Unless otherwise specified in the Contract Documents, the Owner designates Sarah Eckman as its Authorized Representative in the administration of this Contract. The above-named individual shall be the initial point of contact for matters related to Contract performance, payment, authorization, and to carry out the responsibilities of the Owner.

☐ Name of Owner's Authorized Representative shall be submitted by Owner in a separate writing.

3. Key Persons.
The Contractor's personnel identified below shall be considered Key Persons and shall not be replaced during the project without the written permission of Owner, which shall not be unreasonably withheld. If the Contractor intends to substitute personnel, a request must be given to Owner at least 30 days prior to the intended time of substitution. When replacements have been approved by Owner, the Contractor shall provide

a transition period of at least 10 working days during which the original and replacement personnel shall be working on the project concurrently. Once a replacement for any of these staff members is authorized, further replacement shall not occur without the written permission of Owner. The Contractor's project staff shall consist of the following personnel:

Project Manager: Brad Reifsteck shall be the Contractor's project manager and will participate in all meetings throughout the project term.

Job Superintendent: Tom Quelhorst shall be the Contractor's on-site job superintendent throughout the project term.

4. Contract Dates.
The Contractor agrees to complete the Work in accordance with the following key dates:

COMMENCEMENT DATE: Upon Issuance of Notice to Proceed
SUBSTANTIAL COMPLETION DATE: May 14, 2027
FINAL COMPLETION DATE: May 21, 2027

5. Insurance Certificates.
In accordance with Section G.3.5 of the General Conditions Contractor shall furnish proof of the required insurance naming Clackamas County as an additional insured. Insurance certificates may be returned with the signed Contract or may be emailed to the County Contract Analyst.

7. Tax Compliance.
The Contractor shall comply with all federal, state and local laws, regulation, executive orders and ordinances applicable to this Contract. Contractor represents and warrants that it has complied, and will continue to comply throughout the duration of this Contract and any extensions, with all tax laws of this state or any political subdivision of this state, including but not limited to ORS 305.620 and ORS chapters 316, 317, and 318. Any violation of this section shall constitute a material breach of this Contract and shall entitle County to terminate this Contract, to pursue and recover any and all damages that arise from the breach and the termination of this Contract, and to pursue any or all of the remedies available under this Contract or applicable law.

8. Confidential Information.
Contractor acknowledges that it and its employees or agents may, in the course of performing their responsibilities under this Contract, be exposed to or acquire information that is confidential to Owner. Any and all information of any form obtained by Contractor or its employees or agents in the performance of this Contract shall be deemed confidential information of Owner ("Confidential Information"). Contractor agrees to hold Confidential Information in strict confidence, using at least the same degree of care that Contractor uses in maintaining the confidentiality of its own confidential information, and not to copy, reproduce, sell, assign, license, market, transfer or otherwise dispose of, give, or disclose Confidential Information to third parties or use Confidential Information for any purpose unless specifically authorized in writing under this Contract.

9. Counterparts.
This Contract may be executed in several counterparts, all of which when taken together shall constitute an agreement binding on all Parties, notwithstanding that all Parties are not signatories to the same counterpart. Each copy of the Contract so executed shall constitute an original.

10. Integration.

All provisions of state law required to be part of this Contract, whether listed in the General or Special Conditions or otherwise, are hereby integrated and adopted herein. Contractor acknowledges the obligations thereunder and that failure to comply with such terms is a material breach of this Contract.

The Contract Documents constitute the entire agreement between the parties. There are no other understandings, agreements or representations, oral or written, not specified herein regarding this Contract. Contractor, by the signature below of its authorized representative, hereby acknowledges that it has read this Contract, understands it, and agrees to be bound by its terms and conditions.

11. Compliance with Applicable Law. Contractor shall comply with all federal, state, county, and local laws, ordinances, and regulations applicable to the Work to be done under this Contract including, but not limited to, compliance with the prohibitions set forth in ORS 652.220, compliance of which is a material element of this Contract and failure to comply is a material breach that entitles County to exercise any rights and remedies available under this Contract including, but not limited to, termination for default.

12. Responsibility for Taxes. Contractor is solely responsible for payment of any federal, state, or local taxes required as a result of the Contract or the Work including, but not limited, to payment of the corporate activity tax imposed under enrolled HB 3427 (2019 Oregon regular legislative session). Contractor may not include its federal, state, or local tax obligations as part of the cost to perform the Work.

13. Contractor DATA:

Duininck, Inc.
P.O. Box 208
Prinsburg, MN 56281

Contractor CCB # 214309 Expiration Date: 3/27/2027
Oregon Business Registry # 106620-96 Entity Type: FBC State of Formation: Minnesota

Payment information will be reported to the IRS under the name and taxpayer ID# provided by the Contractor. Information must be provided prior to contract approval. Information not matching IRS records could subject Contractor to 28 percent backup withholding.

In witness whereof, Owner executes this Contract and the Contractor does execute the same as of the day and year first above written.

Duininck, Inc.

9/25/26
Authorized Signature Date

Chad Ganser - President
Name / Title Printed

Clackamas County

Chair Date

Approved for Legal Sufficiency:

10/5/2026
County Counsel Date

CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT OPPORTUNITY

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CLACKAMAS COUNTY
NOTICE OF PUBLIC IMPROVEMENT CONTRACT OPPORTUNITY

INVITATION TO BID #2026-24
Stone Creek Irrigation Replacement Project
April 28, 2026

Clackamas County ("County") through its Board of County Commissioners is accepting sealed bids for the **Stone Creek Irrigation Replacement Project** until **June 2, 2026, 2:00 PM,** Pacific Time, ("Bid Closing") at the following location:

Bidding Documents can be downloaded from the state of Oregon procurement website ("OregonBuys") at the following address: https://oregonbuys.gov/bso/view/login/login.xhtml, Document No.S-C01010-00016773.
Prospective Bidders will need to sign in to download the information and that information will be accumulated for a Plan Holder's List. Prospective Bidders are responsible for obtaining any Addenda from Website listed above.

Submitting Proposals: Bid Locker
Proposals will only be accepted electronically thru a secure online bid submission service, **Bid Locker**.
Email submissions to Clackamas County email addresses will no longer be accepted.

A. Completed proposal documents must arrive electronically via Bid Locker located at https://bidlocker.us/a/clackamascounty/BidLocker.
B. Bid Locker will electronically document the date and time of all submissions. Completed documents must arrive by the deadline indicated in Section 1 or as modified by Addendum. LATE PROPOSALS WILL NOT BE ACCEPTED.
C. Proposers must register and create a profile for their business with Bid Locker in order to submit for this project. It is free to register for Bid Locker.
D. Proposers with further questions concerning Bid Locker may review the Vendor's Guide located at https://www.clackamas.us/how-to-bid-on-county-projects .

Engineers Estimate: $3,000,000.00 - $5,000,000.00

Contact Information
Procurement Process and Technical Questions: Tralee Whitley at TWhitley@clackamas.us

Mandatory Pre-Bid Conference will be conducted on **May 12, 2026, at 11:00 AM**. Bidders shall meet with County representatives at Stone Creek Golf Club located at **14603 S. Stoneridge Drive, Oregon City, Oregon 97045** for that purpose. Attendance will be documented through a sign-in sheet prepared by the County representative. Prime bidders who arrive more than ten (10) minutes after the start time of the meeting (as stated in the solicitation and by the County's watch) or after the discussion portion of the meeting (whichever comes first) shall not be permitted to sign in and will not be permitted to submit a bid on the project.

Bids will be opened and publicly read aloud at the above Delivery address after the Bid Closing. Bid results will also be posted to the OregonBuys listing shortly after the opening.

Qualifications: To be eligible for award under this Invitation to Bid, bidders must submit examples of prior work within the following four (4) major project components: (1) new irrigation systems on a golf

course while open to play; (2) installing pipe specific to pipe manufacturer/distributor in fusing techniques including butt fusion, socket fusion and side wall fusion; (3) Installation of decoder controlled irrigation control system; and (4) installed 2" HDPE pipe by means of vibratory plow. Examples must be provided on company letterhead and contain information as described within the Minimum Contractor Qualifications.

Prevailing Wage

Prevailing Wage Rates requirements apply to this Project because the maximum compensation for all Owner-contracted Work is more than $50,000. Contractor and all subcontractors shall comply with the provisions of ORS 279C.800 through 279C.870, relative to Prevailing Wage Rates. The Bureau of Labor and Industries (BOLI) wage rates and requirements set forth in the following BOLI booklet (and any listed amendments to that booklet), which are incorporated herein by reference, apply to the Work authorized under this Agreement:
PREVAILING WAGE RATES for Public Works Contracts in Oregon, January 5, 2026 and amended on February 18, 2026, which can be downloaded at the following web address:
http://www.oregon.gov/boli/WHD/PWR/Pages/pwr_state.aspx
The Work will take place in Clackamas County, Oregon.

Clackamas County encourages bids from Minority, Women, and Emerging Small Businesses.

CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT

INSTRUCTIONS TO BIDDERS

Clackamas County Local Contract Review Board Rules ("LCRB Rules") govern this procurement process. LCRB Rules may be found at: http://www.clackamas.us/code/documents/appendixc.pdf. The Instructions to Bidders is applicable to the procurement process for Clackamas County, or any component unit thereof identified on the Notice of Public Improvement Contract Opportunity, herein after referred to as the "Owner."

Article 1. Scope of Work

The work contemplated under this contract with the Owner, includes all labor, materials, transportation, equipment and services necessary for, and reasonably incidental to, the completion of all construction work in connection with the project described in the Project Manual which includes, but is not necessarily limited to, the Notice of Public Improvement Contract Opportunity, Instructions to Bidders, Supplemental Instructions to Bidders, Bid Form, Bid Bond, Public Improvement Contract Form, Performance Bond, Payment Bond, Clackamas County General Conditions for Public Improvement Contracts (10/13/2021), Supplemental General Conditions, and Plans, Specifications and Drawings.

Article 2. Examination of Site and Conditions

Before making a Bid, the Bidder shall examine the site of the work and ascertain all the physical conditions in relation thereto. The Bidder shall also make a careful examination of the Project Manual including the plans, specifications, and drawings and other contract documents, and shall be fully informed as to the quality and quantity of materials and the sources of supply of the materials. Failure to take these steps will not release the successful Bidder from entering into the contract nor excuse the Bidder from performing the work in strict accordance with the terms of the contract at the price established by the Bid.

The Owner will not be responsible for any loss or for any unanticipated costs, which may be suffered by the successful Bidder, as a result of such Bidder's failure to be fully informed in advance with regard to all conditions pertaining to the work and the character of the work required, including site conditions. No statement made by an elected official, officer, agent, or employee of the Owner in relation to the physical or other conditions pertaining to the site of the work will be binding on the Owner, unless covered by the Project Manual or an Addendum.

Article 3. Interpretation of Project Manual and Approval of Materials Equal to Those Provided in the Specifications

If any Bidder contemplating submitting a Bid for the proposed contract is in doubt as to the true meaning of any part of the plans, specifications or forms of contract documents, or detects discrepancies or omissions, such Bidder may submit to the Architect (read "Engineer" throughout in lieu of Architect as appropriate) a written request for an interpretation thereof at least ten (10) calendar days prior to the date set for the Bid Closing.

When a prospective Bidder seeks approval of a particular manufacturer's material, process or item of equal value, utility or merit other than that designated by the Architect in the Project Manual, the Bidder may submit to the Architect a written request for approval of such substitute at least ten (10) calendar days prior to the date set for the Bid Closing. The prospective Bidder submitting the request will be responsible for its prompt delivery.

Requests of approval for a substitution from that specified shall be accompanied by samples, records of performance, certified copies of tests by

impartial and recognized laboratories, and such other information as the Architect may request.

To establish a basis of quality, certain processes, types of machinery and equipment or kinds of materials may be specified in the Project Manual either by description of process or by designating a manufacturer by name and referring to a brand or product designation or by specifying a kind of material. Whenever a process is designated or a manufacturer's name, brand or item designation is given, or whenever a process or material covered by patent is designated or described, it shall be understood that the words "or approved equal" follow such name, designation or description, whether in fact they do so or not.

Any interpretation of the Project Manual or approval of manufacturer's material will be made only by an Addendum duly issued. All Addenda will be posted to the OregonBuys listing and will become a part of the Project Manual. The Owner will not be responsible for any other explanation or interpretation of the Project Manual nor for any other approval of a particular manufacturer's process or item for any Bidder.

When the Architect approves a substitution by Addendum, it is with the understanding that the Contractor guarantees the substituted article or material to be equal or better than the one specified.

Article 4. Security to Be Furnished by Each Bidder

Each Bid must be accompanied by either 1) a cashier's check or a certified check drawn on a bank authorized to do business in the State of Oregon, or 2) a Bid bond described hereinafter, executed in favor of the Owner, for an amount equal to ten percent (10%) of the total amount Bid as a guarantee that, if awarded the contract, the Bidder will execute the contract and provide a performance bond and payment bond as required. The successful Bidder's check or Bid bond will be retained until the Bidder has entered into a contract satisfactory to Owner and furnished a one hundred percent (100%) performance bond and one hundred percent (100%) payment bond. The Owner reserves the right to hold the Bid security as described in Article 10 hereof. Should the successful Bidder fail to execute and deliver the contract as provided for in Article 12 hereof, including a satisfactory performance bond and payment bond within twenty (20) calendar days after the Bid has been accepted by the Owner, then the contract award made to such Bidder may be considered canceled and the Bid security may be forfeited as liquidated damages at the option of the Owner. The date of the acceptance of the Bid and the award of the contract as contemplated by the Project Manual shall mean the date of acceptance specified in the Notice of Intent to Award.

Article 5. Execution of Bid Bond

Should the Bidder elect to utilize a Bid bond as described in Article 4 in order to satisfy the Bid security requirements, such form must be completed in the following manner:

A. Bid bonds must be executed on the County forms, which will be provided to all prospective Bidders by the Owner.

B. The Bid bond shall be executed on behalf of a bonding company licensed to do business in the State of Oregon.

C. In the case of a sole individual, the bond need only be executed as principal by the sole individual. In the case of a partnership, the bond must be executed by at least one of the partners. In the case of a corporation, the bond must be executed by stating the official name of the corporation under which is placed the signature of an officer authorized to sign on behalf of the corporation followed by such person's official capacity, such as president, etc. The corporation seal should then be affixed to the bond.

D. The name of the surety must be stated in the execution over the signature of its duly authorized attorney-in-fact and accompanied by the seal of the surety corporation.

Article 6. Execution of the Bid Form

Each Bid shall be made in accordance with: (i) the sample Bid Form accompanying these instructions; (ii) the appropriate signatures for a sole individual, partnership, corporation or limited liability corporation shall be added as noted in Article 5C above; (iii) numbers pertaining to base Bids shall be stated both in writing and in figures; and (iv) the Bidder's address shall be typed or printed.

The Bid Form relates to Bids on a specific Project Manual. Only the amounts and information asked for on the Bid Form furnished will be considered as the Bid. Each Bidder shall Bid upon the work exactly as specified and provided in the Bid Form. The Bidder shall include in the Bid a sum to cover the cost of all items contemplated by the Contract. The Bidder shall Bid upon all alternates that may be indicated on the Bid Form. When Bidding on an alternate for which there is no charge, the Bidder shall write the words "No Charge" in the space provided on the Bid Form. If one or more alternates are shown on the Bid Form, the Bidder shall indicate whether each is "add" or "deduct."

Article 7. Prohibition of Alterations to Bid

Bids that are incomplete, or contain ambiguities or have differing conditions required by the Bidder, including requested changes or exceptions to the Public Improvement Contract form or other portions of the Project Manual, may be rejected in Owner's sole and absolute discretion.

Article 8. Submission of Bid

Each Bid shall be sealed in an envelope, properly addressed to the Owner, showing on the outside of the envelope the name of the Bidder and the name of the project. Bids will be received at the time and place stated in the Notice of Public Improvement Contract Opportunity.

Article 9. Bid Closing and Opening of Bids

All Bids must be received by the Owner at the place and time set for the Bid Closing. Any Bids received after the scheduled Bid Closing time for receipt of Bids will be rejected.

At the time of opening and reading of Bids, each Bid received will be publicly opened and read aloud, irrespective of any irregularities or informalities in such Bids.

Generally, Bid results will be posted to the OregonBuys Website within a couple hours of the opening.

Article 10. Acceptance or Rejection of Bids by Owner

Unless all Bids are rejected, the Owner will award a contract based on the lowest responsive Bid from a responsible Bidder. If that Bidder does not execute the contract, it will be awarded to the next lowest responsible Bidder or Bidders in succession.

The Owner reserves the right to reject all Bids and to waive minor informalities. The procedures for contract awards shall be in compliance with the provisions of the LCRB Rules in effect at that time.

The Owner reserves the right to hold the Bid and Bid security of the three lowest Bidders for a period of thirty (30) calendar days from and after the time of Bid opening pending award of the contract. Following award of the contract the Bid security of the three lowest Bidders may be held twenty (20) calendar days pending execution of the contract. All other Bids will be rejected and Bid security will be returned.

In determining the lowest Bidder, the Owner reserves the right to take into consideration any or all authorized base Bids as well as alternates or combinations indicated in the Bid Form.

If no Bid has been accepted within thirty (30) calendar days after the opening of the Bids, each of the three lowest Bidders may withdraw the Bid submitted and request the return of the Bid security.

Article 11. Withdrawal of Bid

At any time prior to the Bid Closing, a Bidder may withdraw its Bid. This will not preclude the

submission of another Bid by such Bidder prior to the time set for the Bid Closing.

After the time set for the Bid Closing, no Bidder will be permitted to withdraw its Bid within the time frames specified in Article 10 for award and execution, except as provided for in that Article.

Article 12. Execution of Contract, Performance Bond and Payment Bond

The Owner will provide the successful Bidder with contract forms within seven (7) calendar days after the completion of the award protest period. The Bidder is required to execute the contract forms as provided, including a performance bond and a payment bond from a surety company licensed to do surety business in the State of Oregon, within seven (7) calendar days after receipt of the contract forms. The contract forms shall be delivered to the Owner in the number called for and to the location as instructed by the Owner.

Article 13. Recyclable Products

Contractors will use recyclable products to the maximum extent economically feasible in the performance of the Contract.

Article 14. Clarification or Protest of the Solicitation Document or Specifications

Any request for clarification or protest of the solicitation document or specifications must be submitted in the manner provided for in the applicable section of the LCRB Rules to the Procurement Representative referenced in the Notice of Public Improvement Contract Opportunity.

A protest of the Solicitation Document must be received within seven (7) business days of the issuance of the Bid or within three (3) business days of issuance of an addendum.

Requests for clarification may be submitted no less than five (5) business days prior to the Bid Closing Date.

Article 15. Protest of Intent to Award

Owner will name the apparent successful Bidder in a "Notice of Intent to Award" letter. Identification of the apparent successful Bidder is procedural only and creates no right in the named Bidder to the award of the contract. Competing Bidders will be notified by publication of the Notice of Intent to Award on the OregonBuys Website of the selection of the apparent successful Bidder(s) and Bidders shall be given seven (7) calendar days from the date on the "Notice of Intent to Award" letter to review the file at the Procurement Division office and file a written protest of award, pursuant to C-049-0450. Any award protest must be in writing and must be delivered by email, hand delivery, or mail to the Procurement Division Director at: Procurement Division, 2051 Kaen Road, Oregon City, OR 97045.

Article 16. Disclosure of First-Tier Subcontractors

Within two (2) working hours after the Bid Closing, all Bidders shall submit to the County a disclosure form identifying any first-tier subcontractors (those entities that would be contracting directly with the prime contractor) that will be furnishing labor and materials on the contract, if awarded, whose subcontract value would be equal to or greater than: (a) Five percent (5%) of the total contract price, but at least $15,000; or (b) $350,000, regardless of the percentage of the total contract price.

Disclosures may be submitted with the Bid or may be hand delivered to the Bid Closing address or emailed to the Contract Information Analyst listed on the Notice of Contract Opportunity.

CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT

SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

Project Name BID#2026-24 Stone Creek Irrigation Replacement Project

The following modify the Clackamas County "Instructions to Bidders" for this Project. Where a portion of the Instructions to Bidders has been modified by these Supplemental Instructions to Bidders, the unaltered portions shall remain in effect.

1. **Bidder Qualifications:** To be eligible for award under this Invitation to Bid, bidders must submit examples of prior work within the following four (4) major project components: (1) new irrigation systems on a golf course while open to play; (2) installing pipe specific to pipe manufacturer/distributor in fusing techniques including butt fusion, socket fusion and side wall fusion; (3) Installation of decoder controlled irrigation control system; and (4) installed 2" HDPE pipe by means of vibratory plow. Examples must be provided on company letterhead and contain information as described within the Minimum Contractor Qualifications.

2. **Mandatory Pre-Bid Conference** will be conducted on **May 12, 2026, at 11:00 AM.** Bidders shall meet with County representatives at Stone Creek Golf Club located at **14603 S. Stoneridge Drive, Oregon City, Oregon 97045** for that purpose. Attendance will be documented through a sign-in sheet prepared by the County representative. Prime bidders who arrive more than ten (10) minutes after the start time of the meeting (as stated in the solicitation and by the County's watch) or after the discussion portion of the meeting (whichever comes first) shall not be permitted to sign in and will not be permitted to submit a bid on the project.

3. **Electronic Submissions:** The County is requiring all bids for this project be electronically submitted. Complete Bids (including all attachments) will only be accepted electronically thru a secure online bid submission service, Bid Locker. Email submissions to Clackamas County email addresses will no longer be accepted. https://bidlocker.us/a/clackamascounty/BidLocker.

Bids will be publicly read aloud via the computer application, Zoom. Bidders will be allowed to video conference or listen by phone to the bid results. The projects Zoom meeting can be accessed via the information below:

ZOOM LINKS
Join Zoom Meeting
https://clackamascounty.zoom.us/j/84752368142

Meeting ID: 847 5236 8142

One tap mobile
+17193594580,,84752368142# US

+12532050468,,84752368142# US

Join instructions
https://clackamascounty.zoom.us/meetings/84752368142/invitations?signature=CaOsIHjNnoaG501ppAixNkEfbe-hHvIQ3ihYfikxdPY

**The Apparent Low bid results will be posted to the projects OregonBuys listing as soon as possible following the bid opening.

4. **Good Faith Effort:** Clackamas County encourages participation in contracts by Historically Underrepresented Businesses. "Historically Underrepresented Businesses" are State of Oregon-certified and self-identified minority, women and emerging small business as well as firms that are certified federally or by another state or entity with substantially similar requirements as the State of Oregon.

   Bidders must perform Good Faith Effort (defined below) and submit **Form 1 and Form 2** for the Bidders Bid to be considered responsive. **Form 1 and Form 2** must be submitted within **two (2) hours** after the Closing Date and Time. Form 1 and Form 2 may be submitted to either the Contact Information Analyst listed on Notice of Contract Opportunity or via the https://bidlocker.us/a/clackamascounty/BidLocker listing.

   "Good Faith Effort" is a requirement of a prime contractor to reach out to at least three Historically Underrepresented Business Subcontractors for each division of work that will be subcontracted out and to complete the required forms. If fewer than three Historically Underrepresented Business Subcontractors are reasonably available for a particular division of work, the Bidder must specifically note the reason for there being fewer than three contacts. The outreach should be performed with sufficient time to give the subcontractors at least 5 calendar days to respond to the opportunity. Form 3, which documents the actual amount of subcontractors on the project, must be submitted with the project final pay application. Compliance with the Good Faith Effort and submission of Forms 1, 2 and 3 is a contractual requirement for final payment.

   The sufficiency of the documentation or the performance of Good Faith Effort shall be in the sole and absolute determination of Clackamas County. Only those Bidders that Clackamas County has determined have not sufficiently performed Good Faith Effort shall have protest rights of the determination for such Bidder. No Bidder shall have protest rights of the sufficiency of any other Bidder completing Good Faith Effort.

CLACKAMAS COUNTY
GOOD FAITH EFFORT
SUBCONTRACTOR AND SELF-PERFORMED WORK LIST
(FORM 1)

Prime Contractor Name: Duininck Inc. **Total Contract Amount:** $4,717,460.00

Project Name: Stone Creek Irrigation Replacement Project

PRIME SELF-PERFORMING: Identify below **ALL** GFE Divisions of Work (DOW) to be self-performed. Good Faith Efforts are otherwise required.

DOW BIDDER WILL SELF-PERFORM ***(GFE not required)***	

PRIME CONTRACTOR SHALL DISCLOSE AND LIST ALL SUBCONTRACTORS, including those Minority-owned, Woman-owned, and Emerging Small Businesses ("M/W/ESB") that you intend to use on the project. Delivery via bid locker https://bidlocker.us/a/clackamascounty/BidLocker within 2 hours of the BID/Quote Closing Date/Time.

LIST ALL SUBCONTRACTORS BELOW Use **correct legal name** of Subcontractor (No Assumed Business Names)	**Division of Work** (Painting, electrical, landscaping, etc.) List **ALL** DOW performed by Subcontractors	**DOLLAR AMOUNT OF SUBCONTRACT**	If Certified or self-reporting MBE/WBE/ESB Subcontractor Check box ☑		
			MBE	WBE	ESB
Name VM Golf Services, Inc. **Address** 1115 Goodnight Trail **City/St/Zip** Houston, TX 77060 **Phone#** (281) 978-2701 **OCCB#**	ALL		☐	☐	☐
Name **Address** **City/St/Zip** **Phone#** **OCCB#**			☐	☐	☐
Name **Address** **City/St/Zip** **Phone#** **OCCB#**			☐	☐	☐
Name **Address** **City/St/Zip** **Phone#** **OCCB#**			☐	☐	☐

GFE SUBCONTRACTOR AND SELF-PERFORMED WORK LIST (FORM 1) cont'd

Prime Contractor Name: **Total Contract Amount:**

Project Name: Stone Creek Irrigation Replacement Project

LIST ALL SUBCONTRACTORS BELOW Use **correct legal name** of Subcontractor (No Assumed Business Names)	**Division of Work** (Painting, electrical, landscaping, etc.) List **ALL** DOW performed by Subcontractors	**DOLLAR AMOUNT OF SUBCONTRACT**	If Certified or self-reporting MBE/WBE/ESB Subcontractor Check box ☑		
			MBE	WBE	ESB
Name **Address** **City/St/Zip** **Phone#** **OCCB#**			☐	☐	☐
Name **Address** **City/St/Zip** **Phone#** **OCCB#**			☐	☐	☐
Name **Address** **City/St/Zip** **Phone#** **OCCB#**			☐	☐	☐
Name **Address** **City/St/Zip** **Phone#** **OCCB#**			☐	☐	☐
Name **Address** **City/St/Zip** **Phone#** **OCCB#**			☐	☐	☐
Name **Address** **City/St/Zip** **Phone#** **OCCB#**			☐	☐	☐
Name **Address** **City/St/Zip** **Phone#** **OCCB#**			☐	☐	☐

CLACKAMAS COUNTY
GOOD FAITH EFFORT
M/W/ESB CONTACT / BIDS RECEIVED LOG
(FORM 2)

Prime Contractor:
Project: Stone Creek Irrigation Replacement Project

Prime Contractor must contact or endeavor to contact at least 3 M/W/ESB Subcontractors for each Division of Work. Prime Contractor shall record its contacts with M/W/ESB Subcontractors through use of this log (or equivalent) entering all required information. All columns shall be completed where applicable. Additional forms may be copied if needed.

NAME OF M/W/ESB SUBCONTRACTOR	**Divisions of Work** (Painting, electrical, landscaping, etc.)	**Date Solicitation Letter / Fax Sent**	**PHONE CONTACT**		**BID ACTIVITY** Check Yes or No			**REJECTED BIDS** (if bid received & not used)		**Notes**
			Date of Call	**Person Receiving Call**	**Will Bid**	**Bid Received**	**Bid Used**	**Bid Amount**	**Reason Not Used** (Price, Scope or Other. If Other, explain in Notes>>)	
					☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No			
					☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No			
					☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No			
					☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No			
					☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No			
					☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No			
					☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No			

CLACKAMAS COUNTY
GOOD FAITH EFFORT
PROJECT COMPLETION REPORT
(FORM 3)

Prime Contractor Name: **Total Contract Amount:**

Project Name: Stone Creek Irrigation Replacement Project

Complete this form and submit with your request for final payment upon the project completion. Please list all subcontractors used for the project. Use additional sheets as necessary.

LIST ALL SUBCONTRACTORS BELOW Use **correct legal name** of Subcontractor (No Assumed Business Names)	**Division of Work** (Painting, electrical, landscaping, etc.) List **ALL** DOW performed by Subcontractors	**FINAL DOLLAR AMOUNT OF SUBCONTRACT**	If Certified or self-reported MBE/WBE/ESB Subcontractor Check box ☑		
			MBE	WBE	ESB
Name **Address** **City/St/Zip** **Phone#** **OCCB#**			☐	☐	☐
Name **Address** **City/St/Zip** **Phone#** **OCCB#**			☐	☐	☐
Name **Address** **City/St/Zip** **Phone#** **OCCB#**			☐	☐	☐
Name **Address** **City/St/Zip** **Phone#** **OCCB#**			☐	☐	☐
Name **Address** **City/St/Zip** **Phone#** **OCCB#**			☐	☐	☐
Name **Address** **City/St/Zip** **Phone#** **OCCB#**			☐	☐	☐

BY SIGNING BELOW, I HEREBY CERTIFY THAT THE ABOVE LISTED FIRMS HAVE BEEN UTILIZED BY OUR COMPANY IN THE AMOUNTS REPRESENTED ABOVE AND THAT THE INFORMATION CONTAINED HEREIN IS COMPLETE AND ACCURATE. .

Authorized Signature of Contractor Representative

Date

CLACKAMAS COUNTY

CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT

BID BOND

Project Name: # 2026-24 Stone Creek Irrigation Replacement Project

We, Duininck Inc, as "Principal,"
(Name of Principal)

and Western Surety Company, an South Dakota Corporation,
(Name of Surety)

authorized to transact Surety business in Oregon, as "Surety," hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors and assigns to pay unto Clackamas County ("Obligee") the sum of ($ 10% of bid)

Ten Percent (10%) of total bid dollars.

WHEREAS, the condition of the obligation of this bond is that Principal has submitted its proposal or bid to an agency of the Obligee in response to Obligee's procurement document (No.) for the project identified above which proposal or bid is made a part of this bond by reference, and Principal is required to furnish bid security in an amount equal to ten (10%) percent of the total amount of the bid pursuant to the procurement document.

NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, we have caused this instrument to be executed and sealed by our duly authorized legal representatives this 2nd day of June, 20 26.

Principal: Duininck Inc

By: Chad J Gauger
Signature

President
Official Capacity

Attest:
Corporation Secretary

DUININCK, INC. CORPORATE SEAL MINNESOTA

Surety: Western Surety Company

By: Attorney-In-Fact

Myron Mulder Name Attorney-In-Fact

151 N Franklin St.
Address

Chicago IL 60606
City State Zip

952-285-3400 Phone

952-285-3417 Fax

STATE OF Minnesota)SS:
COUNTY OF Kandiyohi)

I, Verla K. Folkerts , Notary Public of Kandiyohi County, in the State of Minnesot do hereby certify that Myron Mulder , Attorney-in-Fact of the Western Surety Company, who is personall known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me thi day in person, and acknowledged that he signed, sealed and delivered said instrument, for and on behalf of th Western Surety Company , for the uses and purposes therein set forth.

Given under my hand and notarial seal at my office in the City of Prinsburg in said County, thi 2nd day of June , 2026 .

Verla K Folkerts

Notary Public

VERLA K FOLKERTS
Notary Public-Minnesota
My Commission Expires Jan. 31, 2028

Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

Wes G Wieberdink, Myron Mulder, Individually

of Prinsburg, MN, 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 it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are 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 shareholders of the corporation.

In Witness Whereof, WESTERN SURETY 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 January, 2024.

WESTERN SURETY COMPANY

Larry Kasten, Vice President

State of South Dakota }
County of Minnehaha } ss

On this 3rd day of January, 2024, 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 WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; 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 corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires
March 2, 2026

M. BENT
NOTARY PUBLIC
SOUTH DAKOTA

M. Bent, Notary Public

CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law and Resolutions of the corporation printed below this certificate are still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 2nd day of June, 2026.

WESTERN SURETY COMPANY

L. Nelson, Assistant Secretary

Authorizing By-Laws and Resolutions

ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.

This Power of Attorney is signed by Larry Kasten, Vice President, who has been authorized pursuant to the above Bylaw to execute power of attorneys on behalf of Western Surety 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 / Obligee Services > Validate Bond Coverage, if you want to verify bond authenticity.

CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT

BID FORM

PROJECT: BID#2026-24 Stone Creek Irrigation Replacement Project
BID CLOSING: June 2, 2026, 2:00 PM, Pacific Time
BID OPENING: June 2, 2026, 2:05 PM, Pacific Time

FROM: Duininck Inc.
Bidder's Name (must be full legal name, not ABN/DBA)

TO: https://bidlocker.us/a/clackamascounty/BidLocker

1. Bidder is (*check one of the following and insert information requested*):

____a. An individual; or

____b. A partnership registered under the laws of the State of _____; or

_X_c. A corporation organized under the laws of the State of Minnesota; or

____d. A limited liability corporation organized under the laws of the State of _____;

and authorized to do business in the State of Oregon hereby proposes to furnish all material and labor and perform all work hereinafter indicated for the above project in strict accordance with the Contract Documents for the Basic Bid as follows:

Four million seven hundred seventeen thousand Dollars ($ $4,717,460.00)
four hundred sixty dollars and 00/100
and the Undersigned agrees to be bound by the following documents:

- Notice of Public Improvement Contract Opportunity
- Instructions to Bidders
- Bid Bond
- Public Improvement Contract Form
- Clackamas County General Conditions
- Prevailing Wage Rates
- Plans, Specifications and Drawings
- Supplemental Instructions to Bidders
- Bid Form
- Performance Bond and Payment Bond
- Supplemental General Conditions
- Payroll and Certified Statement Form

- ADDENDA numbered 1 through 1, inclusive *(fill in blanks)*

2. The Undersigned proposes to add to or deduct from the Base Bid indicated above the items of work relating to the following Alternate(s) as designated in the Specifications: N/A

3. The Undersigned proposes to add to or deduct from the Base Bid indicated above the items or work relating to the following Unit Price(s) as designated in the Specifications, for which any adjustments in the Contract amount will be made in accordance with Section D of the Clackamas County General Conditions: **Provide the attached bid schedule with the bid.**

4. The work shall be completed within the time stipulated and specified in the contract documents.

5. Accompanying herewith is Bid Security which is equal to ten percent (10%) of the total amount of the Basic Bid, plus the total sum of all Alternatives (if any).

6. The Undersigned agrees, if awarded the Contract, to execute and deliver to Clackamas County, within twenty (20) calendar days after receiving the Contract forms, a Contract Form, and a satisfactory Performance Bond and Payment Bond each in an amount equal to one hundred percent (100%) of the Contract sum, using forms provided by the Owner. The surety requested to issue the Performance Bond and Payment Bond will be:

Western Surety Company .

(name of surety company - not insurance agency)

The Undersigned hereby authorizes said surety company to disclose any information to the Owner concerning the Undersigned's ability to supply a Performance Bond and Payment Bond each in the amount of the Contract.

7. The Undersigned further agrees that the Bid Security accompanying the Bid is left in escrow with Clackamas County; that the amount thereof is the measure of liquidated damages which the Owner will sustain by the failure of the Undersigned to execute and deliver the above-named Contract Form, Performance Bond and Payment Bond, each as published, and that if the Undersigned defaults in either executing the Contract Form or providing the Performance Bond and Payment Bond within twenty (20) calendar days after receiving the Contract forms, then the Bid Security shall become the property of the Owner at the Owner's option; but if the Bid is not accepted within thirty (30) calendar days of the time set for the opening of the Bids, or if the Undersigned executes and timely delivers said Contract Form, Performance Bond and Payment Bond, the Bid Security shall be returned.

8. The Undersigned certifies that: (i) This Bid has been arrived at independently and is being submitted without collusion with and without any agreement, understanding, or planned common course of action with any other vendor of materials, supplies, equipment or services described in the invitation to bid designed to limit independent bidding or competition; and (ii) the contents of the Bid have not been communicated by the Undersigned or its employees or agents to any person not an employee or agent of the Undersigned or its surety on any Bond furnished with the Bid and will not be communicated to such person prior to the official opening of the Bid.

9. The undersigned ☐ **HAS,** ☒ **HAS NOT** (*check one*) paid unemployment or income taxes in Oregon within the past 12 months and ☐ **DOES,** ☒ **DOES NOT** (*check one*) a business address in Oregon. The undersigned acknowledges that, if the selected bidder, that the undersigned will have to pay all applicable taxes and register to do business in the State of Oregon before executing the Contract Form.

10. The Undersigned agrees, if awarded a contract, to comply with the provisions of ORS 279C.800 through 279C.870 pertaining to the payment of the prevailing rates of wage.

11. Contractor's CCB registration number is 214309. As a condition to submitting a bid, a Contractor must be registered with the Oregon Construction Contractors Board in accordance with ORS 701.035 to 701.055, and disclose the registration number. Failure to register and disclose the number will make the bid unresponsive and it will be rejected, unless contrary to federal law.

12. The successful Bidder hereby certifies that all subcontractors who will perform construction work as described in ORS 701.005(2) were registered with the Construction Contractors Board in accordance with ORS 701.035 to 701.055 at the time the subcontractor(s) made a bid to work under the contract.

13. The successful Bidder hereby certifies that, in compliance with the Worker's Compensation Law of the State of Oregon, its Worker's Compensation Insurance provider is Willis Towers Watson Midwest Inc., Policy No.UB-0Y689770-25-25-K, and that Contractor shall submit Certificates of Insurance as required.

14. Contractor's Key Individuals for this project (supply information as applicable):
Project Executive: _____, Cell Phone: _____,
Project Manager: Steve Dockery, Cell Phone: 910-835-3923,
Job Superintendent: Sergio Hernandez Sr., Cell Phone: 760-399-6075,
Project Engineer: _____, Cell Phone: _____.

15. The Undersigned certifies that it has not discriminated against minority, women, or emerging small businesses in obtaining any subcontracts for this project.

16. The Undersigned certifies that it has a drug testing program in accordance with ORS 279C.505.

17. ***SPECIAL MINIMUM CONTRACTOR QUALIFICATION***
Bidder must provide evidence that it meets the Special Qualifications as outlined in the attached MINIMUM CONTRACTOR QUALIFICATIONS.

REMINDER: Bidder must submit the below First-Tier Subcontractor Disclosure Form.

By signature below, Contractor agrees to be bound by this Bid.

NAME OF FIRM Duininck Inc.

ADDRESS 408 6th St, Prinsburg, MN 56281

TELEPHONE NO (320) 978-6011

EMAIL Chad.Gauger@Duininck.com

SIGNATURE 1) _____
Sole Individual

or 2) _____
Partner

or 3) Chad J Gauger
Authorized Officer or Employee of Corporation

***** ***END OF BID*** *****

FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM
PROJECT: BID#2026-24 Stone Creek Irrigation Replacement Project

BID OPENING: June 2, 2026, 2:00 PM, Pacific Time

Failure to submit this Form by the disclosure deadline will result in a nonresponsive bid.

INSTRUCTIONS:
This First-Tier Subcontractor Disclosure Form ("Form") must be submitted and received at the location specified in the Notice of Public Improvement Contract Opportunity on the advertised Bid Closing, and within two working hours after the advertised Bid Closing Time.

Proposals will only be accepted electronically thru a secure online bid submission service, **Bid Locker**. *Email submissions to Clackamas County email addresses will no longer be accepted.*

A. Completed proposal documents must arrive electronically via Bid Locker located at https://bidlocker.us/a/clackamascounty/BidLocker.
B. Bid Locker will electronically document the date and time of all submissions. Completed documents must arrive by the deadline indicated in Section 1 or as modified by Addendum. LATE PROPOSALS WILL NOT BE ACCEPTED.
C. Proposers must register and create a profile for their business with Bid Locker in order to submit for this project. It is free to register for Bid Locker.
D. Proposers with further questions concerning Bid Locker may review the Vendor's Guide located at https://www.clackamas.us/how-to-bid-on-county-projects .

Subcontractor lists may be submitted with the bid in the same envelope or email at the Bid Closing date and time. Subcontractor lists **MUST** be submitted within **two (2) hours** of the Bid Closing date and time.

List below the name of each subcontractor that will be furnishing labor, or labor and materials, for which disclosure is required, the category of work that the subcontractor will be performing, and the dollar value of the subcontract. Enter **"NONE"** if the value of the project bid is less than $100,000 or there are no subcontractors that need to be disclosed. ATTACH ADDITIONAL SHEETS IF NECESSARY.

	SUBCONTRACTOR NAME	DOLLAR VALUE	CATEGORY OF WORK
1.	VM Golf Services, Inc.	100%	Golf Irrigation
2.			
3.			
4.			
5.			
6.			

The above listed first-tier subcontractor(s) are providing labor, or labor and material, with a Dollar Value equal to or greater than:

a) 5% of the total Contract Price, but at least $15,000. If the Dollar Value is less than $15,000 do not list the subcontractor above; or
b) $350,000 regardless of the percentage of the total Contract Price.

Firm Name: Duininck Inc.

Bidder Signature: _____ Phone # 763.245.1318

VM GOLF SERVICES, INC.

Statement of Qualifications

Company profile -
VM Golf Services Inc. began its operations in 2009 and was formed by current CEO Mike Perez. Since inception, VM Golf Services has grown to become one of the leading golf course construction, renovation, and irrigation companies within the industry. VM Golf is also a Charter Member/Renovation Builder with the Golf Course Builders Association of America.

SBE status- VM Golf Services Inc. is registered through the South-Central Texas Regional Certification Agency, ID#20348684, for the following:

- Small business enterprise
- Hispanic business enterprise
- Minority business enterprise

Irrigation - Relevant Experience

Project:	Westview Golf Course; Quincy, IL; Quincy Park District - Owner
Architect:	Les Hill Irrigation Consultants
Engineer:	N/A
Contract Amount:	$2M
Date Completed:	September 2024
Scope of Work:	Install new Hunter irrigation system with HDPE main and lateral lines. Includes new central control system and retro-fit pump station.

Project:	Bloomington Country Club; Bloomington, IN; 812-332-1116
Architect:	Tony Altum & Associates
Engineer:	N/A
Contract Amount:	$1.8M
Date Completed:	December 2025
Scope of Work:	Install new Toro irrigation system with HDPE main and lateral lines. Includes new central control system station and weather station. System installed in conjunction with golf course construction renovation.

VM GOLF SERVICES, INC.

Project: Meadowbrook Golf Club, Fort Worth, TX, City of Fort Worth
Architect: Larry Rodgers Design Group
Engineer: N/A
Contract Amount: $2.9M
Date Completed: October 2024
Scope of Work: Install new Toro irrigation system with HDPE main and lateral lines. Includes new central control system station and weather station. System installed in conjunction with golf course construction renovation.

Project: Rankin Golf Course, Rankin, TX, Rankin ISD
Architect: Larry Rodgers Design Group
Engineer: N/A
Contract Amount: $2.1M
Date Completed: October 2024
Scope of Work: Install new Toro irrigation system with HDPE main and lateral lines. Includes new central control system station and weather station. System installed in conjunction with golf course construction/renovation.

PROJECT APPROACH

VM Golf Services has been doing business in the golf market for almost 17 years and like most companies has had growing pains along the way. Each project takes a little different approach dependent upon site conditions, location and of course weather. On paper most projects look simple; design, build, maintain.

Our construction approach is more about building the relationship between all parties involved within the project. From owner to designer to superintendent VM Golf can assist in all aspects of the construction process.

VM Golf staff have read and understand the specifications for the Stone Creek GC irrigation project. Being that the project has a negotiated start date upon award or in September whichever comes first, we will make sure to have pre-construction meetings with all parties necessary and scheduled prior to commencement of work. During that time, we can have a more detailed list of construction/irrigation crew members and their appropriate superintendents, any pertinent equipment, and project timelines/schedules.

Stone Creek Golf Club

Irrigation Renovation Project

April 27, 2026

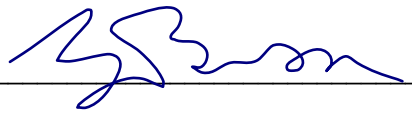
Itemization Form

Item #	Description	Estimated Qty	Unit Measure	Unit Cost
	Overhead Costs			
1	Mobilization	1	LS	$165,000.00
	Weather Station			
2	Wireless Weather Station	1	LS	$5,500.00
	Pump Station			
3	2400 GPM @ 125 PSI Pump Station	1	EA	$384,741.00
4	Intake Screen	1	EA	Included
5	Pump House Access	1	EA	$68,250.00
	Control System			
6	Central Control CPU & Interface/s	1	EA	$30,250.00
7	iPad, Otterbox	1	EA	$1,500.00
8	Grounding	1	EA	$3,300.00
	Sprinkler Assemblies			
9	75' Full Circle VIH Rotor	2	EA	$495.00
10	75' Part Circle VIH Rotor	8	EA	$495.00
11	65' Full Circle VIH Rotor	815	EA	$467.00
12	65' Part Circle VIH Rotor	453	EA	$478.00
13	65' Part Circle VIH Rotor w/tail	50	EA	$478.00
14	50' Adj. VIH Rotor	269	EA	$478.00
15	Landscape Rotor	27	EA	$192.00
	Landscape Valve Assembly			
16	2" Elec. Control Valve	13	EA	$1,650.00
	Bunker Drip Zone Assembly			
17	1" Elec. Control Valve	35	EA	$1,100.00
	Quick Couple Valve Assembly			
18	Quick Coupler Valve	128	EA	$275.00
	Air Relief Valve Assembly			
19	ARV	5	EA	$2,200.00
	Drain Valve Assembly			
20	DRV	4	EA	$605.00
	Lateral Isolation Valve Assembly			

Item #	Description	Estimated Qty	Unit Measure	Unit Cost
21	2" Lateral Valve Assembly	327	EA	$522.00
	Mainline Isolation Valve			
22	16" Mainline Valve Assembly	2	EA	$13,200.00
23	12" Mainline Valve Assembly	6	EA	$5,775.00
24	10" Mainline Valve Assembly	4	EA	$4,537.00
25	8" Mainline Valve Assembly	11	EA	$3,162.00
26	6" Mainline Valve Assembly	23	EA	$1,980.00
	Pipe			
27	18" HDPE 4710 DR11	120	LF	$118.00
28	16" HDPE 4710 DR11	215	LF	$80.00
29	12" HDPE 4710 DR11	2,480	LF	$52.00
30	10" HDPE 4710 DR11	2,090	LF	$38.00
31	8" HDPE 4710 DR11	4,800	LF	$24.00
32	6" HDPE 4710 DR11	13,250	LF	$14.57
33	6" HDPE 4710 DR17 (Transfer Pipe)	2,100	LF	$9.60
34	2" HDPE 4710 DR11	84,500	LF	$1.93
	Crossings			
35	Bridge Crossing	1	EA	$1,100.00
36	Cart Path - Cut and Patch	1	LS	$275.00
	Electrical			
37	12-2 Communication Wire	20,135	LF	$1.15
38	14-2 Communication Wire	84,750	LF	$0.82
39	Grounding & Arrestor Assembly	117	EA	$616.00

Name of Firm: Duininck Inc.

Name (print): Zack Busse - Estimator

Signature: 

Date: 06.03.26

CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT
SUPPLEMENTAL GENERAL CONDITIONS

PROJECT: #2026-24 Stone Creek Irrigation Replacement Project

The following modifies the November 21, 2024 Clackamas County General Conditions for Public Improvement Contracts ("County General Conditions") for this Contract. Except as modified below, all other terms and conditions of the County General Conditions shall remain in effect.

1. Good Faith Effort

As a condition of Contractor being awarded a Contract for this Project, Contractor must complete Good Faith Effort outreach and documentation as described in the Supplemental Instructions to Bidders of the Solicitation Document.

The Contractor may not change who is performing each Division of Work identified in Form 1 of the Good Faith Effort without the express written advance approval of Owner. This includes substituting identified subcontractors, self-performance of a Division of Work that was identified to be performed by a subcontractor, or the Contractor subcontracting a Division of Work that was identified to be self-performed by the Contractor.

Contractor shall be required to submit the completed Form 3 with its final pay application as a condition of final payment.

CLACKAMAS COUNTY GENERAL CONDITIONS FOR PUBLIC IMPROVEMENT CONTRACTS
November 21, 2024

INSTRUCTIONS: The attached **Clackamas County General Conditions for Public Improvement Contracts ("County General Conditions")** apply to all designated Public Improvement contracts. Changes to the County General Conditions (including any additions, deletions or substitutions) should only be made by attaching Public Improvement Supplemental General Conditions. The text of these County General Conditions should not otherwise be altered.

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CLACKAMAS COUNTY GENERAL CONDITIONS FOR PUBLIC IMPROVEMENT CONTRACTS ("County General Conditions")

SECTION A
GENERAL PROVISIONS

A.1 DEFINITION OF TERMS

In the Contract Documents the following terms shall be as defined below:

APPLICABLE LAWS, means all federal, state and local laws, codes, rules, regulations and ordinances, as amended applicable to the Work, to the Contract, or to the parties individually.

APPROVED BY CONTRACTING AGENCY, for purposes of ORS 279C.570(2), means the date a progress payment is approved by the Clackamas County Treasurer's office.

ARCHITECT/ENGINEER, means the Person appointed by the Owner to make drawings and specifications and, to provide contract administration of the Work contemplated by the Contract to the extent provided herein or by supplemental instruction of Owner (under which Owner may delegate responsibilities to the Architect/Engineer), in accordance with ORS Chapter 671 (Architects) or ORS Chapter 672 (Engineers) and administrative rules adopted thereunder.

AVOIDABLE DELAYS, mean any delays other than Unavoidable Delays, and include delays that otherwise would be considered Unavoidable Delays but that: (a) Could have been avoided by the exercise of care, prudence, foresight, and diligence on the part of the Contractor or its Subcontractors; (b) Affect only a portion of the Work and do not necessarily prevent or delay the prosecution of other parts of the Work nor the completion of the whole Work within the Contract Time; (c) Do not impact activities on the accepted critical path schedule; and (d) Are associated with the reasonable interference of other contractors employed by the Owner that do not necessarily prevent the completion of the whole Work within the Contract Time.

BIDDER, means a bidder in connection with Instructions to Bidders or a proposer in connection with a Request for Proposals, or Solicitation Document. May also be referenced as "Offeror," "Quoter" or "Proposer" based on the type of Solicitation Document.

CHANGE ORDER, means a written order which, when fully executed by the Parties to the Contract, constitutes a change to the Contract Documents. Change Orders shall be issued in accordance with the changes provisions in Section D and, if applicable, establish a Contract Price or Contract Time adjustment. A Change Order shall not be effective until executed by both parties.

CLAIM, means a demand by Contractor pursuant to Section D.3 for review of the denial of Contractor's initial request for an adjustment of Contract terms, payment of money, extension of Contract Time or other relief, submitted in accordance with the requirements and within the time limits established for review of Claims in these County General Conditions.

CONTRACT, means the written agreement between the Owner and the Contractor comprised of the Contract Documents which describe the Work to be done and the obligations between the parties.

CONTRACT DOCUMENTS, means the Contract, County General Conditions, Supplemental General Conditions if any, Plans, Specifications, the accepted Offer, Solicitation Document and addenda thereto, Instructions to Offerors, and Supplemental Instructions to Offerors.

CONTRACT PERIOD, as set forth in the Contract Documents, means the total period of time beginning with the full execution of a Contract and, if applicable, the issuance of a Notice to Proceed and concluding upon Final Completion.

CONTRACT PRICE, means the total price reflected in the Contract.

CONTRACT TIME, means any incremental period of time allowed under the Contract to complete any portion of the Work as reflected in the Project schedule.

CONTRACTOR, means the Person awarded the Contract for the Work contemplated.

DAYS, are calendar days, including weekdays, weekends and holidays, unless otherwise specified.

DEFECTIVE WORK, means Work that is not completed in accordance with the Specifications or the requirements of the Contract.

DIRECT COSTS, means, unless otherwise provided in the Contract Documents: the cost of materials, including sales tax and the cost of delivery; cost of labor which shall only include the applicable prevailing wage and fringe benefit (if applicable, and if paid to or on behalf of the employee) rate plus a maximum of a twelve percent (12%) markup on the prevailing wage (but not the fringe benefit) to cover Contractor's labor burden including but not limited to social security, Medicare, unemployment insurance, workers' compensation insurance, sick leave pay; substantiated Project cost increases for specific insurance (including, without limitation, Builder's Risk Insurance and Builder's Risk Installation Floater) or bond premiums; rental cost of equipment, and machinery required for execution of the Work; and the additional costs of field personnel directly attributable to the Work; travel expense reimbursement only if specifically authorized and only to the extent allowable under the County Contractor Travel Reimbursement Policy, hereby incorporated by reference.

FINAL COMPLETION, means the final completion of all requirements under the Contract, including Contract Closeout as described in Section K but excluding Warranty Work as described in Section I.2, and the final payment and release of all retainage, if any.

FORCE MAJEURE, means an act, event or occurrence caused by fire, riot, war, acts of God, terrorism, nature, sovereign, or public enemy, strikes, freight embargoes or any other act, event or occurrence that is beyond the control of the party to the Contract who is asserting Force Majeure.

NOTICE TO PROCEED, means the official written notice from the Owner stating that the Contractor is to proceed with the Work defined in the Contract Documents.

OFFER, means a bid in connection with Instructions to Bidders or a proposal in connection with a Request for Proposals, or Solicitation Document to do the work stated in the Solicitation Document at the price quoted. May also be referenced as "Bid," "Quote," or "Proposal" based on the type of Solicitation Document.

OVERHEAD, means those items which may be included in the Contractor's markup (general and administrative expense and profit) and that shall not be charged as Direct Cost of the Work, including without limitation such Overhead expenses as wages or salary of personnel above the level of foreman (i.e., superintendents and project managers), labor rates and fringe benefits above the applicable prevailing wage and fringe benefit (if applicable, and if paid to or on behalf of the employee), Contractor's labor burden for fringe benefit if paid to the employee, expenses of Contractor's offices and supplies at the Project Site (e.g. job trailer) and at Contractor's principal place of business and including expenses of personnel staffing the Project Site office and Contractor's principal place of business, and Commercial General Liability Insurance and Automobile Liability Insurance.

OWNER, means, Clackamas County or any component unit thereof including Clackamas County Development Agency, Clackamas County Service District No. 1, Surface Water Management Agency of Clackamas County, Tri-City Service District, Water Environment Services, North Clackamas Parks and Recreation District, Clackamas County Extension & 4-H Service District, Library Service District of Clackamas County, Enhanced Law Enforcement District, and Clackamas County Service District No. 5. Owner may elect, by written notice to Contractor, to delegate certain duties to more than one agent, including without limitation, to an Architect/Engineer. However, nothing in these County General Conditions is intended to abrogate the separate design professional responsibilities of Architects under ORS Chapter 671 or of Engineers under ORS Chapter 672.

PERSON, means a natural person or entity doing business as a sole proprietorship, a partnership, a joint venture, a corporation, a limited liability company or partnership, a nonprofit, a trust, or any other entity possessing the legal capacity to contract.

PLANS, means the drawings which show the location, type, dimensions, and details of the Work to be done under the Contract.

PRODUCT DATA, means illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

PROJECT, means the total undertaking to be accomplished for Owner by architects/engineers, contractors, and other others, including planning, study, design, construction, testing, commissioning, start-up, of which the Work to be performed under the Contract Documents is a part.

PROJECT SITE, means the specific real property on which the Work is to be performed, including designated contiguous staging areas, that is identified in the Plans, Specifications and Drawings.

PUNCH LIST, means the list of Work yet to be completed or deficiencies which need to be corrected in order to achieve Final Completion of the Contract.

RECORD DOCUMENT, means the as-built Plans, Specifications, testing and inspection records, product data, samples, manufacturer and distributor/supplier warranties evidencing transfer of ownership to Owner, operational and maintenance manuals, shop drawings, correspondence, certificate(s) of occupancy, and other documents listed in Subsection B.9.1 of these County General Conditions, recording all Services performed.

SAMPLES, means physical examples which illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

SHOP DRAWINGS, means drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or a Subcontractor (including any subsubcontractor), manufacturer, supplier, or distributor to illustrate some portion of the Work.

SOLICITATION DOCUMENT, means an Invitation to Bid, Request for Proposals, Request for Quotes, or other written document issued by Owner that outlines the required Specifications necessary to submit an Offer.

SPECIFICATION, means any description of the physical or functional characteristics of the Work, or of the nature of a supply, service or construction item included in the Solicitation Document. Specifications may include a description of any requirement for inspecting, testing or preparing a supply, service or construction item for delivery and the quantities or qualities of materials to be furnished under the Contract. Specifications generally will state the results or products to be obtained and may, on occasion, describe the method and manner of doing the Work to be performed. Specifications may be incorporated by reference and/or may be attached to the Contract.

SUBCONTRACTOR, means a Person having a direct contract with the Contractor, or another Subcontractor of any tier, to perform one or more items of the Work.

SUBSTANTIAL COMPLETION, means the date when the Owner accepts in writing the construction, alteration or repair constituting the Work or any designated portion thereof as having reached that state of completion when it may be used or occupied for its intended purpose. Substantial Completion of facilities with operating systems occurs only after thirty (30) continuous Days of successful, trouble-free operation of the operating systems as provided in Section K.3.2.

SUBSTITUTIONS, means items that in function, performance, reliability, quality, and general configuration are the same or better than the product(s) specified. Substitutions also means the performance of the Work by a labor force other than what is submitted in the Offer.

SUPPLEMENTAL GENERAL CONDITIONS, means those conditions that remove from, add to, or modify these County General Conditions. Public Improvement Supplemental General Conditions may be included in the Solicitation Document or may be a separate attachment to the Contract.

UNAVOIDABLE DELAYS, mean delays other than Avoidable Delays that are: (a) to the extent caused by any actions of the Owner, or any other employee or agent of the Owner, or by a separate contractor employed by the Owner; (b) to the extent caused by any Project Site conditions which differ materially from the conditions that would normally be expected to exist and inherent to the construction activities defined in the Contract Documents; or (c) to the extent caused by Force Majeure acts, or events or occurrences.

WORK, means the furnishing of all materials, equipment, labor, transportation, services, incidentals, those permits and regulatory approvals not provided by the owner necessary to successfully complete any individual item or the entire Contract and the carrying out of duties and obligations imposed by the Contract Documents for the Project.

A.2 SCOPE OF WORK

The Work contemplated under the Contract includes all labor, materials, transportation, equipment and services for, and incidental to, the completion of all work in connection with the Project described in the Contract Documents. The Contractor shall perform all Work necessary so that the Project can be legally occupied and fully used for the intended use as set forth in the Contract Documents.

A.3 INTERPRETATION OF CONTRACT DOCUMENTS

A.3.1 Unless otherwise specifically defined in the Contract Documents, words which have well-known technical meanings or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings. Contract Documents are intended to be complementary. Whatever is called for in one, is interpreted to be called for in all. However, in the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following descending order of precedence:

(a) The Contract and any amendments thereto, including Change Orders, with those of later date having precedence over those of an earlier date;
(b) The Supplemental General Conditions;
(c) County General Conditions;
(d) Plans and Specifications;
(e) The Solicitation Document, and any addenda thereto.

A.3.2 In the case of an inconsistency between Plans and Specifications or within either document not clarified by addendum, the better quality or greater quantity of Work shall be provided in accordance with the Owner's interpretation in writing as determined in Owners sole discretion.

A.3.3 If the Contractor finds discrepancies in, or omissions from the Contract Documents, or if the Contractor is in doubt as to their meaning, the Contractor shall at once notify the Owner. Matters concerning and interpretation of requirements of the Contract Documents will be decided by the Owner in the Owner's sole discretion, who may delegate that duty in some instances to the Architect/Engineer. Responses to Contractor's requests for interpretation of Contract Documents will be made in writing by Owner (or the Architect/Engineer) within any time limits agreed upon or otherwise with reasonable promptness. Contractor shall not proceed without direction in writing from the Owner (or Architect/Engineer).

A.3.4 References to standard specifications, manuals, codes of any technical society, organization or association, to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, laws or regulations in effect in the jurisdiction where the Project Site is located on the first published date of the Solicitation Document, except as may be otherwise specifically stated.

A.4 EXAMINATION OF PLANS, SPECIFICATIONS, AND PROJECT SITE

A.4.1 It is understood that the Contractor, before submitting an Offer, has made a careful examination of the Contract Documents; has become fully informed as to the quality and quantity of materials and the character of the Work required; and has made a careful examination of the location and conditions of the Work and the sources of supply for materials. The Owner will in no case be responsible for any loss or for any unanticipated costs that may be suffered by the Contractor as a result of the Contractor's failure to acquire full information in advance in regard to all conditions pertaining to the Work. No oral agreement or conversation with any officer, agent, or personnel of the Owner, or with the Architect/Engineer either before or after the execution of the Contract, shall affect or modify any of the terms or obligations herein contained. Contractor shall at all times be responsible for all utility locates regardless of the ownership of such utility infrastructure or service.

A.4.2 Should the Plans or Specifications fail to particularly describe the materials, kind of goods, or details of construction of any aspect of the Work, Contractor shall have the duty to make inquiry of the Owner and Architect/Engineer as to what is required prior to performance of the Work. Absent Specifications to the contrary, the materials or processes that would normally be used to produce first quality finished Work shall be considered a part of the Contract requirements.

A.4.3 Any design errors or omissions noted by the Contractor shall be reported promptly to the Owner, including without limitation, any nonconformity with Applicable Laws.

A.4.4 If the Contractor believes that adjustments to cost or Contract Time are involved because of clarifications or instructions issued by the Owner (or Architect/Engineer) in response to the Contractor's notices or requests for information, the Contractor must submit a written request to the Owner, setting forth the nature and specific extent of the request, including all time and cost impacts against the Contract as soon as possible, but no later than thirty (30) Days after receipt by Contractor of the clarifications or instructions issued. If the Owner denies Contractor's request for additional compensation, additional Contract Time, or other relief that Contractor believes results from the clarifications or instructions, the Contractor may proceed to file a Claim under Section D.3, Claims Review Process. If the Contractor fails to perform the obligations of Sections A.4.1 to A.4.3, the Contractor shall pay such costs and damages to the Owner as would have been avoided if the Contractor had performed such obligations.

A.4.5 If the Contractor believes that adjustments to cost or Contract Time are involved because of an Unavoidable Delay caused by differing Project Site conditions, the Contractor shall notify the Owner immediately of differing Project Site conditions before the area has been disturbed. The Owner will investigate the area and make a determination as to whether or not the conditions differ materially from either the conditions stated in the Contract Documents or those which could reasonably be expected in execution of this particular Contract. If Contractor and the Owner agrees that a differing Project Site condition exists, any adjustment to compensation or Contract Time will be determined based on the process set forth in Section D.2.2 for adjustments to or deletions from Work. If the Owner disagrees that a differing Project Site condition exists and denies Contractor's request for additional compensation or Contract Time, Contractor may proceed to file a Claim under Section D.3, Claims Review Process.

A.5 INDEPENDENT CONTRACTOR STATUS

The service or services to be performed under the Contract are those of an independent contractor as defined in ORS 670.600. Contractor represents and warrants that it is not an officer, employee or agent of the Owner as those terms are used in ORS 30.265.

A.6 RETIREMENT SYSTEM STATUS AND TAXES

Contractor represents and warrants that it is not a contributing member of the Public Employees' Retirement System and will be responsible for any federal or state taxes applicable to payment received under the Contract. Contractor will not be eligible for any benefits from these Contract payments of federal Social Security, employment insurance, workers' compensation or the Public Employees' Retirement System, except as a self-employed individual. Unless the Contractor is subject to backup withholding, Owner will not withhold from such payments any amount(s) to cover Contractor's federal or state tax obligations.

A.7 GOVERNMENT EMPLOYMENT STATUS

A.7.1 If this payment is to be charged against federal funds, Contractor represents and warrants that it is not currently employed by the Federal Government. This does not preclude the Contractor from holding another contract with the Federal Government.

SECTION B
ADMINISTRATION OF THE CONTRACT

B.1 OWNER'S ADMINISTRATION OF THE CONTRACT

B.1.1 The Owner shall administer the Contract as described in the Contract Documents throughout the term of the Contract, including the one-year period for correction of Work. The Owner will act as provided in the Contract Documents, unless modified in writing in accordance with other provisions of the Contract. In performing these tasks, the Owner may rely on the Architect/Engineer or other agents to perform some or all of these tasks.

B.1.2 The Owner may visit the Project Site at intervals appropriate to the stage of the Contractor's operations (1) to become generally familiar with and to keep the Owner informed about the progress and quality of the portion of the Work completed, (2) to endeavor to guard the Owner against defects and deficiencies in the Work, and (3) to determine in general if Work is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. The Owner will not

make exhaustive or continuous on-Project Site inspections to check the quality or quantity of the Work. Unless otherwise required in a Change Order, the Owner will neither have control over or charge of, nor be responsible for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work.

B.1.3 Except as otherwise provided in the Contract Documents or when direct communications have been specifically authorized, the Owner and Contractor shall communicate with each other within a reasonable time frame about matters arising out of or relating to the Contract. Communications by and with the Architect/Engineer's consultants shall be through the Architect/Engineer. Communications by and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with separate contractors shall be through the Owner.

B.1.4 Based upon the Architect/Engineer's evaluations of the Contractor's Application for Payment, or unless otherwise stipulated by the Owner, the Architect/Engineer will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

B.2 CONTRACTOR'S MEANS AND METHODS; MITIGATION OF IMPACTS

B.2.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, the Contractor shall evaluate the Project Site safety thereof and, except as stated below, shall be fully and solely responsible for the Project Site safety of such means, methods, techniques, sequences or procedures.

B.2.2 The Contractor is responsible to protect and maintain the Work during the course of construction and to mitigate any adverse impacts to the Project, including those caused by authorized changes, which may affect cost, schedule, or quality.

B.2.3 The Contractor is responsible for the actions of all its personnel, laborers, suppliers, agents, and Subcontractors on the Project. The Contractor shall enforce strict discipline and good order among Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of persons who are unfit or unskilled for the tasks assigned to them.

B.3 MATERIALS AND WORKMANSHIP

B.3.1 The intent of the Contract Documents is to provide for the construction and completion of every detail of the Work described. All Work shall be performed in a professional manner and, unless the means or methods of performing a task are specified elsewhere in the Contract Documents, Contractor shall employ methods that are generally accepted and used by the industry, in accordance with industry standards.

B.3.2 The Contractor is responsible to perform the Work as required by the Contract Documents. Defective Work shall be corrected at the Contractor's sole expense and within a reasonable time frame.

B.3.3 Work done and materials furnished may be subject to inspection and/or observation and testing by the Owner to determine if they conform to the Contract Documents. Inspection of the Work by the Owner does not relieve the Contractor of responsibility for the Work in accordance with the Contract Documents.

B.3.4 Contractor shall furnish adequate facilities, as required, for the Owner to have safe access to the Work including without limitation walkways, railings, ladders, tunnels, and platforms. Producers, suppliers, and fabricators shall also provide proper facilities and access to their facilities.

B.3.5 The Contractor shall furnish Samples of materials for testing by the Owner and include the cost of the Samples in the Contract Price.

B.4 PERMITS

Contractor shall obtain and pay for all necessary permits, licenses and fees, except for those specifically excluded in the Supplemental General Conditions, as required for the project. Contractor shall be responsible for all violations of the law. Contractor shall give all requisite notices to public authorities.

B.5 COMPLIANCE WITH GOVERNMENT REGULATIONS

B.5.1 Contractor shall comply with Applicable Laws, as amended pertaining to the Work and the Contract. Failure to comply with such requirements shall constitute a breach of Contract and shall be grounds for Contract termination. Without limiting the generality of the foregoing, Contractor expressly agrees to comply with the following, as applicable and as may be amended from time to time: (i) Title VI and VII of Civil Rights Act of 1964, as amended; (ii) Section 503 and 504 of the Rehabilitation Act of 1973, as amended; (iii) the Health Insurance Portability and Accountability Act of 1996; (iv) the Americans with Disabilities Act of 1990, as amended; (v) ORS Chapter 659A; as amended; (vi) all regulations and administrative rules established pursuant to any applicable laws; and (vii) all other applicable requirements of federal, state, county or other local government entity statutes, rules and regulations.

B.5.2 Contractor shall comply with all applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations, and

(a) Contractor shall not discriminate against Disadvantaged, Minority, Women or Emerging Small Business enterprises, as those terms are defined in ORS 200.005, or a business enterprise that is owned or controlled by or that employs a disabled veteran, as that term is defined in ORS 408.225, in the awarding of subcontracts.

(b) Contractor shall maintain, in current and valid form, all licenses and certificates required by Applicable Laws or the Contract when performing the Work.

B.5.3 Contractor shall certify that it shall not accept a bid from Subcontractors to perform Work unless such Subcontractors are registered with the Construction Contractors Board in accordance with ORS 701.021 at the time they submit their bids to the Contractor.

B.5.4 Contractor shall certify that each landscape contracting business, as defined in ORS 671.520(2), performing Work under the Contract holds a valid landscape construction professional license issued pursuant to ORS 671.560.

B.5.5 The following notice is applicable to Contractors who perform excavation Work. ATTENTION: Oregon law requires you to follow rules adopted by the Oregon Utility Notification Center. Those rules are set forth in OAR 952-001-0010 through OAR 952-001-0090. You may obtain copies of the rules by calling the center at (877) 668-4001.

B.5.6 Failure to comply with any or all of the requirements of B.5.1 through B.5.5 shall be a material breach of Contract and constitute

grounds for Contract termination. Damages or costs resulting from such noncompliance shall be the responsibility of Contractor.

B.5.7 The Contractor shall include in each subcontract those provisions required under ORS 279C.580.

B.5.8 Contractor shall comply with ORS 652.220, compliance of which is a material element of this Contract and failure to comply is a material breach that entitles County to exercise any rights and remedies available under this Contract including, but not limited to, termination for default.

B.6 SUPERINTENDENCE

Contractor shall keep on the Project Site, during the progress of the Work, a competent superintendent and any necessary assistants who shall be satisfactory to the Owner and who shall represent the Contractor on the Project Site. Directions given to the superintendent by the Owner shall be confirmed in writing to the Contractor.

B.7 INSPECTION

B.7.1 Owner shall have access to the Work at all times.

B.7.2 Inspection of the Work will be made by the Owner at its discretion. The Owner will have authority to reject Work that does not conform to the Contract Documents in the Owner's sole discretion. Any Work found to be not in conformance with the Contract Documents, in the discretion of the Owner, shall be removed and replaced at the Contractor's expense.

B.7.3 Contractor shall make or obtain at the appropriate time all tests, inspections and approvals of portions of the Work required by the Contract Documents or by Applicable Laws or orders of public authorities having jurisdiction. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals. Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work. The Contractor shall give the Owner timely notice of when and where tests and inspections are to be made so that the Owner may be present for such procedures. Required certificates of testing, inspection or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Owner.

B.7.4 As required by the Contract Documents, Work done or material used without required inspection or testing and/or without providing timely notice to the Owner may be ordered removed at the Contractor's expense.

B.7.5 If directed to do so by Owner or other permitting authority any time before the Work is accepted, the Contractor shall uncover portions of the completed Work for inspection. After inspection, the Contractor shall restore such portions of Work to the standard required by the Contract. If the Work uncovered is unacceptable or was done without required testing or inspection or sufficient notice to the Owner, the uncovering and restoration shall be done at the Contractor's expense. If the Work uncovered is acceptable and was done with sufficient notice to the Owner, the uncovering and restoration will be paid for pursuant to a Change Order.

B.7.6 If any testing or inspection reveals failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Owner's and Architect/Engineer's services and expenses, shall be at the Contractor's expense.

B.7.7 In Owner's sole discretion, it may authorize other interested parties to inspect the Work affecting their interests or property. Their right to inspect shall not make them a party to the Contract and shall not interfere with the rights of the parties of the Contract. Instructions or orders of such parties shall be transmitted to the Contractor, through the Owner.

B.8 SUBCONTRACTS AND ASSIGNMENT

B.8.1 Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound by the terms and conditions of these General Conditions and Supplemental General Conditions, and to assume toward the Contractor all of the obligations and responsibilities which the Contractor assumes toward the Owner thereunder, unless (1) the same are clearly inapplicable to the subcontract at issue because of legal requirements or industry practices, or (2) specific exceptions are requested by Contractor and approved in writing by Owner. Where appropriate, Contractor shall require each Subcontractor to enter into similar agreements with sub-subcontractors at any level.

B.8.2 At Owner's request, Contractor shall submit to Owner prior to their execution either Contractor's form of subcontract, or the subcontract to be executed with any particular Subcontractor. If Owner disapproves such form, Contractor shall not execute the form until the matters disapproved are resolved to Owner's satisfaction. Owner's review, comment upon or approval of any such form shall not relieve Contractor of its obligations under this Agreement or be deemed a waiver of such obligations of Contractor.

B.8.3 Contractor shall not assign, sell, or transfer its rights, or delegate its responsibilities under the Contract, in whole or in part, without the prior written approval of the Owner. No such written approval shall relieve Contractor of any obligations of the Contract, and any transferee shall be considered the agent of the Contractor and bound to perform in accordance with the Contract Documents. Contractor shall remain liable as between the original parties to the Contract as if no assignment had occurred.

B.9 OWNER'S RIGHT TO DO WORK

Owner reserves the right to perform other or additional work at or near the Project Site with other agents than those of the Contractor. If such work takes place within or next to the Project Site, Contractor shall coordinate work with the other contractors or agents, cooperate with all other contractors or forces, carry out the Work in a way that will minimize interference and delay for all agents involved, place and dispose of materials being used so as not to interfere with the operations of another, and join the Work with the work of the others in an acceptable manner and perform it in proper sequence to that of the others. The Owner will resolve any disagreements that may arise between or among Contractor and the other contractors over the method or order of doing all work (including the Work). In case of unavoidable interference, the Owner will establish work priority (including the Work) in the Owner's sole discretion.

B.10 OTHER CONTRACTS

In all cases and at any time, the Owner has the right to execute other contracts related to or unrelated to the Work of the Contract. The Contractor of the Contract shall fully cooperate with any and all other contractors without additional cost to the Owner in the manner described in Section B.13.

B.11 ALLOWANCES

B.11.1 The Contractor shall include in the Contract Price all allowances stated in the Contract Documents. Items covered by allowances

shall be supplied for such amounts and by such persons or entities as the Owner may direct.

B.11.2 Unless otherwise provided in the Contract Documents:

(a) when finally reconciled, allowances shall cover the cost of the Contractor's materials and equipment delivered at the Project Site and all required taxes, less applicable trade discounts;

(b) Contractor's costs for unloading and handling at the Project Site, labor, installation costs, Overhead, profit and other expenses contemplated for stated allowance amounts shall be included in the Contract Price but not in the allowances;

(c) whenever costs are more than or less than allowances, the Contract Price shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (i) the difference between actual costs and the allowances under Section B.17.2(a) and (ii) changes in Contractor's costs under Section B.17.2(b);

(d) Unless Owner requests otherwise, Contractor shall provide to Owner a proposed fixed price for any allowance work prior to its performance.

B.12 SUBMITTALS, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

B.12.1 The Contractor shall prepare and keep current, for the Architect's/Engineer's approval (or for the approval of Owner if approval authority has not been delegated to the Architect/Engineer), a schedule and list of submittals which is coordinated with the Contractor's construction schedule and allows the Architect/Engineer reasonable time to review submittals. Owner reserves the right to finally approve the schedule and list of submittals. Submittals include, without limitation, Shop Drawings, Product Data, and Samples.

B.12.2 Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents. The purpose of their submittal is to demonstrate for those portions of the Work for which submittals are required by the Contract Documents the way by which the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents. Review of submittals by the Architect/Engineer is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, or for approval of safety precautions or, unless otherwise specifically stated by the Architect/Engineer, of any construction means, methods, techniques, sequences or procedures, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect/Engineer's review of the Contractor's submittals shall not relieve the Contractor of its obligations under the Contract Documents. The Architect/Engineer's approval of a specific item shall not indicate approval of an assembly of which the item is a component. Informational submittals upon which the Architect/Engineer is not expected to take responsive action may be so identified in the Contract Documents. Submittals which are not required by the Contract Documents may be returned by the Architect/Engineer without action.

B.12.3 The Contractor shall review for compliance with the Contract Documents, approve and submit to the Architect/Engineer Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of separate contractors. Submittals which are not marked as reviewed for compliance with the Contract Documents and approved by the Contractor may be returned by the Architect/Engineer without action.

B.12.4 By approving and submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents that the Contractor has determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

B.12.5 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective submittal has been approved by the Architect/Engineer.

B.12.6 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect/Engineer's review or approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Architect/Engineer in writing of such deviation at the time of submittal and (i) the Architect/Engineer has given written approval to the specific deviation as a minor change in the Work, or (ii) a Change Order has been executed by Owner authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals by the Architect/Engineer's review or approval thereof.

B.12.7 In the event that Owner elects not to have the obligations and duties described under this Section B.18 performed by the Architect/Engineer, or in the event no Architect/Engineer is employed by Owner on the Project, all obligations and duties assigned to the Architect/Engineer hereunder shall be performed by the Owner.

B.13 SUBSTITUTIONS

The Contractor may make Substitutions only with the written consent of the Owner, after evaluation by the Owner and only in accordance with a Change Order. Substitutions shall be subject to the requirements of the Solicitation Document. By making requests for Substitutions, the Contractor represents that the Contractor has personally investigated the proposed substitute product; represents that the Contractor will provide the same warranty for the Substitution that the Contractor would for the product originally specified unless approved otherwise; certifies that the cost data presented is complete and includes all related costs under the Contract including redesign costs, and waives all claims for additional costs related to the Substitution which subsequently become apparent; and will coordinate the installation of the accepted Substitution, making such changes as may be required for the Work to be completed in all respects.

B.14 USE OF PLANS AND SPECIFICATIONS

Plans, Specifications and related Contract Documents furnished to Contractor by Owner or Owner's Architect/Engineer shall be used solely for the performance of the Work under the Contract. Contractor and its Subcontractors and suppliers are authorized to use and reproduce applicable portions of such documents appropriate to the execution of the Work, but shall not claim any ownership or other interest in them beyond the scope of the Contract, and no such interest shall attach. Unless otherwise indicated, all common law, statutory and other reserved rights, in addition to copyrights, are retained by Owner.

SECTION C
WAGES AND LABOR

C.1 PREVAILING WAGE RATES ON PUBLIC WORKS

Contractor shall comply fully with the provisions of ORS 279C.800 through 279C.870. Pursuant to ORS 279C.830(1)(d), Contractor shall pay workers at not less than the specified minimum hourly rate of wage, and shall include that requirement in all subcontracts. If the Work is subject to both the state prevailing wage rate law and the federal Davis-Bacon Act, Contractor shall pay the higher of the applicable state or federal prevailing rate of wage. Contractor shall provide written notice to all workers of the number of hours per day and days per week such workers may be required to work.

C.2 PAYROLL CERTIFICATION AND FEE REQUIREMENTS

C.2.1 In accordance with ORS 279C.845, the Contractor and every Subcontractor shall submit written certified statements to the Owner on the form prescribed by the Commissioner of the Bureau of Labor and Industries ("BOLI"), certifying the hourly rate of wage paid each worker which the Contractor or the Subcontractor has employed on the Project and further certifying that no worker employed on the Project has been paid less than the prevailing rate of wage or less than the minimum hourly rate of wage specified in the Contract, which certificate and statement shall be verified by the oath of the Contractor or the Subcontractor that the Contractor or Subcontractor has read the certified statement, that the Contractor or Subcontractor knows the contents of the certified statement, and, that to the Contractor's or Subcontractor's best knowledge and belief, the certified statement is true. The certified statements shall set out accurately and completely the payroll records for the prior week, including the name and address of each worker, the worker's correct classification, rate of pay, daily and weekly number of hours worked, deductions made, and actual wages paid. Certified statements for each week during which the Contractor or Subcontractor has employed a worker on the Project shall be submitted once a month, by the fifth (5^{th}) business day of the following month. The Contractor and Subcontractors shall preserve the certified statements for a period of ten (10) years from the date of completion of the Contract.

C.2.2 Pursuant to ORS 279C.845(7), the Owner shall retain 25 percent of any amount earned by the Contractor on the Project until the Contractor has filed the certified statements required by section C.2.1. The Owner shall pay to the Contractor the amount retained under this subsection within 14 days after the Contractor files the required certified statements, regardless of whether a Subcontractor has failed to file certified statements.

C.2.3 Pursuant to ORS 279C.845(8), the Contractor shall retain 25 percent of any amount earned by a first-tier Subcontractor on this Project until the first-tier Subcontractor has filed with the Owner the certified statements required by C.2.1. Before paying any amount retained under this subsection, the Contractor shall verify that the first-tier Subcontractor has filed the certified statement. Within 14 days after the first-tier Subcontractor files the required certified statement the Contractor shall pay the first-tier Subcontractor any amount retained under this subsection.

C.2.4 In accordance with statutory requirements and administrative rules promulgated by the Commissioner of the Bureau of Labor and Industries, the fee required by ORS 279C.825(1) will be paid by Owner to the Commissioner.

C.3 PROMPT PAYMENT AND CONTRACT CONDITIONS

C.3.1 As a condition to Owner's performance hereunder, the Contractor shall:

C.3.1.1 Make payment promptly, as due, to all persons supplying to Contractor labor or materials for the prosecution of the Work provided for in the Contract.

C.3.1.2 Pay all contributions or amounts due the State Industrial Accident Fund or successor program from such Contractor or Subcontractor incurred in the performance of the Contract.

C.3.1.3 Not permit any lien or claim to be filed or prosecuted against the Owner on account of any labor or material furnished. Contractor will not assign any claims that Contractor has against Owner, or assign any sums due by Owner, to Subcontractors, suppliers, or manufacturers, and will not make any agreement or act in any way to give Subcontractors a claim or standing to make a claim against the Owner.

C.3.1.4 Pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.

C.3.2 If Contractor fails, neglects or refuses to make prompt payment of any claim for labor or services furnished to the Contractor of a Subcontractor by any person in connection with the Project as such claim becomes due, the proper officer(s) representing the Owner may pay the claim and charge the amount of the payment against funds due or to become due Contractor under the Contract. Payment of claims in this manner shall not relieve the Contractor or the Contractor's surety from obligation with respect to any unpaid claims.

C.3.3 Contractor shall include in each subcontract for property or services entered into by the Contractor and a first-tier subcontractor, including a material supplier, for the purpose of performing a construction contract, a payment clause that obligates the Contractor to pay the first-tier Subcontractor for satisfactory performance under its subcontract within ten (10) Days out of such amounts as are paid to the Contractor by the Owner under such contract.

C.3.4 If the Contractor or a first-tier subcontractor fails, neglects or refuses to pay a person that provides labor or materials in connection with the Contract within 30 days after receiving payment from the contracting agency or a contractor, the Contractor or first-tier subcontractor owes the person the amount due plus interest charges that begin at the end of the 10-day period within which payment is due under ORS 279C.580 (4) and that end upon final payment, unless payment is subject to a good faith dispute as defined in ORS 279C.580. The rate of interest on the amount due is nine percent per annum. The amount of interest may not be waived.

C.3.5 If the Contractor or a subcontractor fails, neglects or refuses to make payment to a person furnishing labor or materials in connection with the Contract, the person may file a complaint with the Construction Contractors Board, unless payment is subject to a good faith dispute as defined in ORS 279C.580.

C.3.6 All employers, including Contractor, that employ subject workers who work under the Contract in the State of Oregon shall comply with ORS 656.017 and provide the required Workers' Compensation coverage, unless such employers are exempt under ORS 656.126. Contractor shall ensure that each of its Subcontractors complies with these requirements.

C.3.7 In accordance with ORS 279C.570, for all subcontracts that exceed $500,000 that the Contractor withholds retainage, the Contractor shall place amounts deducted as retainage into an interest-bearing escrow account. Interest on the retainage amount accrues from the

date the payment request is approved until the date the retainage is paid to the Subcontractor to which it is due.

C.4 PAYMENT FOR MEDICAL CARE

As a condition to Owner's performance hereunder, Contractor shall promptly, as due, make payment to any person, co-partnership, association or corporation furnishing medical, surgical, and hospital care or other needed care and attention, incident to sickness or injury, to the employees of the Contractor, of all sums of which the Contractor agrees to pay for the services and all moneys and sums that the Contractor collected or deducted from the wages of employees under any law, contract or agreement for the purpose of providing or paying for the services.

C.5 HOURS OF LABOR

As a condition to Owner's performance hereunder, no person shall be employed to perform Work under the Contract for more than ten (10) hours in any one day or forty (40) hours in any one week, except in cases of necessity, emergency or where public policy absolutely requires it. In such instances, Contractor shall pay the employee at least time and a half pay:

(a) For all overtime in excess of eight (8) hours a day or forty (40) hours in any one week when the work week is five consecutive Days, Monday through Friday; or

(b) For all overtime in excess of ten (10) hours a day or forty (40) hours in any one week when the work week is four consecutive Days, Monday through Friday; and

(c) For all Work performed on Saturday and on any legal holiday specified in ORS 279C.540.

This Section C.5 will not apply to Contractor's Work under the Contract to the extent Contractor is currently a party to a collective bargaining agreement with any labor organization.

This Section C.5 shall not excuse Contractor from completion of the Work within the time required under the Contract.

SECTION D
CHANGES IN THE WORK

D.1 CHANGES IN WORK

D.1.1 The terms of the Contract shall not be waived, altered, modified, supplemented or amended in any manner whatsoever, without prior written agreement and then only after any necessary approvals have been obtained. A Change Order is required to modify the Contract, which shall not be effective until its execution by the parties to the Contract and all approvals required by public contracting laws have been obtained.

D.1.2 It is mutually agreed that changes in Plans, quantities, or details of construction may be necessary or desirable during the course of construction. Within the general scope of the Contract, the Owner may at any time, without notice to the sureties and without impairing the Contract, require changes it deems necessary or desirable within the scope of this Project and consistent with this Section D.1. All changes to the Work shall be documented and Change Orders shall be executed under the conditions of the Contract Documents. Such changes may include, but are not limited to:

(a) Modification of specifications and design.
(b) Increases or decreases in quantities.
(c) Increases or decreases to the amount of Work.
(d) Addition or elimination of any Work item.
(e) Change in the duration of the Project.
(f) Acceleration or delay in performance of Work.
(g) Deductive changes.

Deductive changes are those that reduce the scope of the Work, and shall be made by mutual agreement whenever feasible. In cases of suspension or partial termination under Section J, Owner reserves the right to unilaterally impose a deductive change and to self-perform such Work, for which the provisions of Section B.13 (Owner's Right to Do Work) shall then apply. Adjustments in compensation shall be made under Section D.1.3, in which costs for deductive changes shall be based upon a Direct Costs adjustment together with the related percentage markup specified for profit, Overhead and other indirect costs, unless otherwise agreed to by Owner.

D.1.3 The Owner and Contractor agree that adjustments to or deletions from the Work shall be administered and compensated according to the following:

(a) Unit Pricing: Unit pricing may be utilized at the Owner's option when unit prices or solicitation alternates were provided that established the cost for adjustments to Work, and a binding obligation exists under the Contract on the parties covering the terms and conditions of the adjustment to Work.

(b) Fixed Fee: If the Owner elects not to utilize unit pricing, or in the event that unit pricing is not available or appropriate, fixed pricing may be used for adjustments to or deletions from the Work. In fixed pricing, the basis of payments or total price shall be agreed upon in writing between the parties to the Contract, and shall be established before the Work is done whenever feasible. Notwithstanding the foregoing, the mark-ups set forth in Section D.1.3(c) shall be utilized in establishing fixed pricing, and such mark-ups shall not be exceeded. Cost and price data relating to adjustments to or deletions from the Work shall be supplied by Contractor to Owner upon request, but Owner shall be under no obligation to make such requests.

(c) Time and Material: In the event that unit pricing and fixed pricing are not utilized, then adjustments to or deletions from the Work shall be performed on a cost reimbursement basis for Direct Costs. Such Work shall be compensated on the basis of the actual, reasonable and allowable cost of labor, equipment, and material furnished on the Work performed. The Contractor or Subcontractor who performs the Work shall be allowed to add up to ten percent (10%) markup to the Direct Costs as full compensation for profit, Overhead and other indirect costs for Work performed with the Contractor's or Subcontractor's own agents

Each ascending tier Subcontractor or the Contractor that did not perform the Work, will be allowed to add up to five percent (5%) supplemental markup on the Direct Costs of the Work (but not the above allowable markups) covered by a Change Order. No additional markup shall be permitted for any third tier or greater descending Subcontractor.

Example: $20,000 of Direct Costs Work performed by a 2nd Tier Subcontractor

	Markup	Allowed Total Fee Plus Markup
General Contractor	5%	$1,000.00
1st Tier Sub Contractor	5%	$1,000.00
2nd Tier Sub Contractor	10%	$22,000.00

(d) Payments made to the Contractor shall be complete compensation for Overhead, profit, and all costs that were incurred by the Contractor or by other agents furnished by the Contractor, including Subcontractors, for adjustments to or deletions from the Work pursuant to a Change Order. Owner may establish a maximum cost for additional Work under this Section D.1.3, which shall not be exceeded for reimbursement without additional written

authorization from Owner in the form of a Change Order. Contractor shall not be required to complete such additional Work without additional authorization.

D.1.4 Any necessary adjustment of Contract Time that may be required as a result of adjustments to or deletions from the Work must be agreed upon by the parties before the start of the revised Work unless Owner authorizes Contractor to start the revised Work before agreement on Contract Time adjustment.

Contractor shall submit any request for additional compensation (and additional Contract Time if Contractor was authorized to start Work before an adjustment of Contract Time was approved) as soon as possible but no later than thirty (30) Days after receipt of Owner's request for additional Work . If Contractor's request for additional compensation or adjustment of Contract Time is not made within the thirty (30) Day time limit, Contractor's requests pertaining to that additional Work shall be barred. The thirty (30) Day time limit for making requests shall not be extended for any reason, including without limitation Contractor's claimed inability to determine the amount of additional compensation or adjustment of Contract Time, unless an extension is granted in writing by Owner. If the Owner denies Contractor's request for additional compensation or adjustment of Contract Time, Contractor may proceed to file a Claim under Section D.3, Claims Review Process. No other reimbursement, compensation, or payment will be made, except as provided in Section D.1.5 for impact claims.

D.1.5 If any adjustment to Work under Section D.1.3 causes an increase or decrease in the Contractor's cost of, or the Contract Time required for the performance of any other part of the Work under the Contract, Contractor shall submit a written request to the Owner, setting forth the nature and specific extent of the request, including all time and cost impacts against the Contract as soon as possible, but no later than thirty (30) Days after receipt of Owner's request for adjustments to or deletions from the Work by Contractor.

The thirty (30) Day time limit applies to claims of Subcontractors, suppliers, or manufacturers who may be affected by Owner's request for adjustments to or deletions from the Work and who request additional compensation or an extension of Contract Time to perform; Contractor has responsibility for contacting its Subcontractors, suppliers, or manufacturers within the thirty (30) Day time limit, and including their requests with Contractor's requests. If the request involves Work to be completed by Subcontractors, or materials to be furnished by suppliers or manufacturers, such requests shall be submitted to the Contractor in writing with full analysis and justification for the adjustments to compensation and Contract Time requested. The Contractor shall analyze and evaluate the merits of the requests submitted by Subcontractors, suppliers, and manufacturers to Contractor prior to including those requests and Contractor's analysis and evaluation of those requests with Contractor's requests for adjustments to compensation or Contract Time that Contractor submits to the Owner. Failure of Subcontractors, suppliers, manufacturers or others to submit their requests to Contractor for inclusion with Contractor's requests submitted to Owner within the time period and by the means described in this section shall constitute a waiver of these Subcontractor claims. The Owner will not consider direct requests or claims from Subcontractors, suppliers, manufacturers or others not a party to the Contract. The consideration of such requests and claims under this section does not give any Person, not a party to the Contract the right to bring a claim against Owner, whether in this claims process, in litigation, or in any dispute resolution process.

If the Owner denies the Contractor's request for adjustment to compensation or Contract Time, the Contractor may proceed to file a Claim under Section D.3, Claims Review Process.

D.1.6 No request or Claim by the Contractor for additional costs or an adjustment of Contract Time shall be allowed if made after receipt of final payment application under the Contract. Final payment application must be made by Contractor within the time required under Section E.6.4.

D.1.7 It is understood that changes in the Work are inherent in construction of this type. The number of changes, the scope of those changes, and the effect they have on the progress of the original Work cannot be defined at this time. The Contractor agrees that it will work in good faith with Owner to undertake changes, when agreed upon by execution of a Change Order. Each change will be evaluated for extension of Contract Time and increase or decrease in compensation based on its own merit.

D.2 DELAYS

D.2.1 Contractor shall not be entitled to additional compensation or additional Contract Time for Avoidable Delays.

D.2.2 In the event of Unavoidable Delays, Contractor may be entitled to the following:

(a) Contractor may be entitled to additional compensation or additional Contract Time, or both, for Unavoidable Delays described in Section D.2.1.2 (a) and (b).

(b) Contractor may be entitled to additional Contract Time for Unavoidable Delays described in Section D.2.1.2(c) and (d).

In the event of any requests for additional compensation or additional Contract Time, or both, as applicable, arising under this Section D.2.2 for Unavoidable Delays, other than requests for additional compensation or additional Contract Time for differing Project Site conditions for which a review process is established under Section A.4.5, Contractor shall submit a written notification of the delay to the Owner within two (2) Days of the occurrence of the cause of the delay. This written notification shall state the cause of the potential delay, the Project components impacted by the delay, and the anticipated additional Contract Time extension or the additional compensation, or both, as applicable, resulting from the delay. Within seven (7) Days after the cause of the delay has been mitigated, or in no case more than thirty (30) Days after the initial written notification, the Contractor shall submit to the Owner, a complete and detailed request for additional compensation or additional Contract Time, or both, as applicable, resulting from the delay. If the Owner denies Contractor's request for additional compensation or adjustment of Contract Time, the Contractor may proceed to file a Claim under Section D.3, Claims Review Process.

If Contractor does not timely submit the notices required under this Section D.2, Contractor's Claim shall be barred.

D.3 CLAIMS REVIEW PROCESS

D.3.1 All Contractor Claims shall be referred to the Owner for review. Contractor's Claims, including Claims for adjustments to compensation or Contract Time, shall be submitted in writing by Contractor to the Owner within five (5) Days after a denial of Contractor's initial request for an adjustment of Contract terms, payment of money, extension of Contract Time or other relief, provided that such initial request has been submitted in accordance with the requirements and within the time limits established in these County General Conditions. Within thirty (30) Days after the initial Claim, Owner shall receive from Contractor a complete and detailed description of the Claim (the "Detailed Notice") that includes all information required by Section D.3.2. Unless the Claim is made in accordance with these time requirements, it shall be barred.

D.3.2 The Detailed Notice of the Claim shall be submitted in writing by Contractor and shall include all information, records and documentation necessary for the Owner to properly and completely evaluate the claim, including, but not limited to a detailed, factual statement of the basis of the Claim, pertinent dates, Contract provisions which support or allow the Claim, reference to or copies of any documents which support the Claim, the dollar value of the Claim, and the Contract Time adjustment requested for the Claim. If the Claim involves Work to be completed by Subcontractors, the Contractor will analyze and evaluate the merits of the Subcontractor claim prior to forwarding it and that analysis and evaluation to the Owner. The Owner will not consider direct claims from Subcontractors, suppliers, manufacturers, or others not a party to the Contract. Contractor agrees that it will make no agreement, covenant, or assignment, nor will it commit any other act that will permit or assist any Subcontractor, supplier, manufacturer, or other to directly or indirectly make a claim against Owner.

D.3.3 The Owner, through the Architect/Engineer (or other employee or agent assigned by the Owner) will review all Claims and take one or more of the following preliminary actions within ten (10) Days of receipt of the Detailed Notice of a Claim: (1) request additional supporting information from the Contractor; (2) inform the Contractor and Owner in writing of the time required for adequate review and response; (3) reject the Claim in whole or in part and identify the reasons for rejection; (4) recommend approval of all or part of the Claim; (5) arrange a meeting with the Contractor for formal review of the Claim; or (6) propose an alternate resolution.

D.3.4 Once the Engineer or Project Manager determines the Owner is in receipt of a properly submitted claim, the Engineer or Project Manager may arrange a meeting, as agreed by the parties, with the Contractor in order to present the claim for formal review and discussion. A person authorized by the Contractor to execute Change Orders on behalf of the Contractor must be present and attend all claim meetings.

D.3.5 The Owner's decision, through the Architect/Engineer (or other employee or agent assigned by the Owner), shall be final and binding on the Contractor unless appealed by written notice to the Owner within fifteen (15) Days of receipt of the decision. The Contractor must present written documentation supporting the Claim within fifteen (15) Days of the notice of appeal. After receiving the appeal documentation, the Owner, through the appropriate department director, shall review the materials and render a decision within thirty (30) Days after receiving the appeal documents.

D.3.6 If, at any step in the claim decision or review process, the Contractor fails to promptly submit requested information or documentation that the Owner deems necessary to analyze the claim, the Contractor is deemed to have waived its right to further review, and the Claim will not be considered properly filed and preserved.

D.3.7 Both parties agree to exercise their best efforts in good faith to resolve all disputes within sixty (60) Days of the issuance of the appeal in Section D. 3.4 above. If the parties are unable to resolve their issues through mediation or otherwise, either party may seek redress through all available remedies in equity or in law.

D.3.8 Unless otherwise directed by Owner, Contractor shall proceed with the Work while any Claim, or mediation or litigation arising from a Claim, is pending. Regardless of the review period or the final decision of the Owner, the Contractor shall continue to diligently pursue the Work as identified in the Contract Documents. In no case is the Contractor justified or allowed to cease or delay Work, in whole or in part, without a written stop work order from the Owner.

SECTION E
PAYMENTS

E.1 SCHEDULE OF VALUES

The Contractor shall submit, by or before the pre-construction conference (as described in Section H.1.3), a schedule of values ("Schedule of Values") for the Contract Work. This schedule shall provide a breakdown of values for the Contract Work and will be the basis for progress payments. The breakdown shall demonstrate reasonable, identifiable, and measurable components of the Work. Unless objected to by the Owner, this schedule shall be used as the basis for reviewing Contractor's applications for payment. If objected to by Owner, Contractor shall revise the schedule of values and resubmit the same for approval of Owner.

E.2 APPLICATIONS FOR PAYMENT

E.2.1 Owner shall make progress payments on the Contract monthly as Work progresses, in accordance with the requirements of this Section E.2 and ORS 279C.570. Applications for payment shall be based upon estimates of Work completed and the Schedule of Values. As a condition precedent to Owner's obligation to pay, all applications for payment shall be approved by the Owner. A progress payment shall not be considered acceptance or approval of any Work or waiver of any defects therein. Owner shall pay to Contractor interest in accordance with ORS 279C.570 for overdue invoices, not including retainage, due the Contractor. Overdue invoices will be those that have not been paid within the earlier of:

(a) Thirty (30) days after receipt of the invoice; or

(b) Fifteen (15) days after the payment is approved by the County.

Notwithstanding the foregoing, in instances when an application for payment is filled out incorrectly, or when there is any defect or impropriety in any submitted application or when there is a good faith dispute, Owner shall so notify the Contractor within fifteen (15) Days stating the reason or reasons the application for payment is defective or improper or the reasons for the dispute. A defective or improper application for payment, if corrected by the Contractor within seven (7) Days of being notified by the Owner, shall not cause a payment to be made later than specified in this section unless interest is also paid. Payment of interest will be postponed when payment on the principal is delayed because of disagreement between the Owner and the Contractor.

Owner reserves the right, instead of requiring the Contractor to correct or resubmit a defective or improper application for payment, to reject the defective or improper portion of the application for payment and pay the remainder of the application for such amounts which are correct and proper.

Owner, upon written notice to the Contractor, may elect to make payments to the Contractor only by means of Electronic Funds Transfers ("EFT") through Automated Clearing House ("ACH") payments. If Owner makes this election, the Contractor shall arrange for receipt of the EFT/ACH payments.

E.2.2 Contractor shall submit to the Owner an application for each payment and, if required, receipts or other vouchers showing payments for materials and labor including payments to Subcontractors. Contractor shall include in its application for payment a schedule of the percentages of the various parts of the Work completed, based on the Schedule of Values which shall aggregate to the payment application total, and shall include, on the face of each copy thereof, a certificate in substantially the following form:

"I, the undersigned, hereby certify that the above bill is true and correct, and the payment therefore, has not been received.

Signed: _____
Dated: _____"

E.2.3 Generally, applications for payment will be accepted only for materials that have been installed. Under special conditions, applications for payment for stored materials will be accepted at Owner's sole discretion. Such a payment, if made, will be subject to the following conditions:

(a) The request for stored material shall be submitted at least thirty (30) Days in advance of the application for payment on which it appears. Applications for payment shall be entertained for major equipment, components or expenditures only.

(b) The Contractor shall submit applications for payment showing the quantity and cost of the material stored.

(c) The material shall be stored in a bonded warehouse and Owner shall be granted the right to access the material for the purpose of removal or inspection at any time during the Contract Period.

(d) The Contractor shall name the Owner as co-insured on the insurance policy covering the full value of the property while in the care and custody of the Contractor until it is installed. A certificate noting this coverage shall be issued to the Owner.

(e) Payments shall be made for materials and equipment only. The submitted amount in the application for payment shall be reduced by the cost of transportation from the storage site to the Project Site and for the cost of an inspector to verify delivery and condition of the goods at the storage site. The cost of storage and inspection shall be borne solely by the Contractor.

(f) Within sixty (60) Days of the application for payment, the Contractor shall submit evidence of payment covering the material and/or equipment stored and of payment for the storage site.

(g) Payment for stored materials and/or equipment shall in no way indicate acceptance of the materials and/or equipment or waive any rights under the Contract for the rejection of the Work or materials and/or equipment not in conformance with the Contract Documents.

(h) All required documentation shall be submitted with the respective application for payment.

E.2.4 The Owner reserves the right to withhold all or part of a payment, or may nullify in whole or part any payment previously made, to such extent as may be necessary in the Owner's opinion to protect the Owner from loss because of:

(a) Work that is defective and not remedied, or that has been demonstrated or identified as failing to conform with Applicable Laws or the Contract Documents;

(b) third party claims filed or evidence reasonably indicating that such claims will likely be filed unless security acceptable to the Owner is provided by the Contractor;

(c) failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment (in which case Owner may issue checks made payable jointly to Contractor and such unpaid persons under this provision, or directly to Subcontractors and suppliers at any level under Section C.3.2);

(d) reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Price;

(e) damage to the Work, Owner or Owner's agent;

(f) reasonable evidence that the Work will not be completed within the Contract Time required by the Contract, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay;

(g) failure to carry out the Work in accordance with the Contract Documents; or

(h) assessment of liquidated damages, when withholding is made for offset purposes.

E.2.5 Subject to the provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

(a) Take that portion of the Contract Price properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the total Contract Price allocated to that portion of the Work in the Schedule of Values, less retainage as provided in Section E.5. Pending final determination of cost to the Owner of changes in the Work, no amounts for changes in the Work can be included in applications for payment until the Contract Price has been adjusted by a Change Order;

(b) Add that portion of the Contract Price properly allocable to materials and equipment delivered and suitably stored at the Project Site for subsequent incorporation in the completed construction (or, if approved in advance by the Owner pursuant to Section E.2.3, suitably stored off the Project Site at a location agreed upon in writing), less retainage as provided in Section E.5;

(c) Subtract the aggregate of previous payments made by the Owner; and

(d) Subtract any amounts for which the Owner has withheld or nullified payment as provided in the Contract Documents.

E.2.6 Contractor's applications for payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay to a Subcontractor or material supplier.

E.2.7 The Contractor warrants to Owner that title to all Work covered by an application for payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an application for payment all Work for which payments are received from the Owner shall be free and clear of liens, claims, security interests or encumbrances in favor of the Contractor, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided financing, labor, materials and equipment relating to the Work.

E.2.8 If Contractor disputes any determination by Owner with regard to any application for payment, Contractor nevertheless shall continue to expeditiously perform the Work. No payment made hereunder shall be or be construed to be final acceptance or approval of that portion of the Work to which such partial payment relates or shall relieve Contractor of any of its obligations hereunder.

E.3 PAYROLL CERTIFICATION REQUIREMENT

Owner's receipt of payroll certification pursuant to Section C.2 of the Contract shall be a condition precedent to Owner's obligation to pay any progress payments or final payment otherwise due.

E.4 DUAL PAYMENT SOURCES

Contractor shall not be compensated for Work performed under the Contract from any state agency other than the agency that is a party to the Contract.

E.5 RETAINAGE

E.5.1 Retainage shall be withheld and released in accordance with the requirements set forth in Local Contract Review Board Rules or the applicable County standard.

E.5.1.1 Owner may reserve as retainage from any progress payment an amount not to exceed five percent of the payment. As Work progresses, Owner may reduce the amount of retainage on or may eliminate retainage on any remaining monthly Contract payments after fifty (50) percent of the Work under the Contract is completed if, in the Owner's discretion, such Work is progressing satisfactorily. Elimination or reduction of retainage shall be allowed only upon written application by the Contractor, which application shall include written approval of Contractor's surety; except that when the Work is ninety-seven and a half percent (97.5%) completed in Owner's estimation, the Owner may, at its discretion and without application by the Contractor, reduce the retained amount to hundred (100) percent of the value of the Work remaining to be done. Upon receipt of written application by the Contractor, Owner shall respond in writing within a reasonable time.

E.5.1.2 If retainage is withheld, unless the Contractor requests and the Owner accepts a form of retainage described in options (a) or (b) below, the Owner (except as otherwise provided below for a contract of $500,000 or less), will deposit the retainage in an interest-bearing escrow account as required by ORS 279C.570(2). The Contractor shall execute such documentation and instructions respecting the interest-bearing escrow account as the Owner may require to protect its interests, including but not limited to a provision that no funds may be paid from the account to anyone without the Owner's advance written authorization. For a Contract over $500,000, if the Contractor requests that the Owner deposit the retainage in an interest-bearing account under ORS 279C.560(5), the Owner will use an interest-bearing escrow account as stated above. For a Contract of $500,000 or less, if the Contractor requests that the Owner deposit the retainage in an interest-bearing account under ORS 279C.560(5), the Owner will use an interest-bearing account (in a bank, savings bank, trust company or savings association) as provided under ORS 279C.450(5).

In accordance with the provisions of ORS 279C.560, Local Contract Review Board Rules, or the applicable County standard, unless the Owner finds in writing that accepting bonds, securities or other instruments described in option (a) below or a security bond described in option (b) below poses an extraordinary risk that is not typically associated with the bond, security or instrument, the Owner will approve the Contractor's written request:

a. to be paid amounts which would otherwise have been retained from progress payments where Contractor has deposited acceptable bonds, securities or other instruments of equal value with Owner or in a custodial account or other mutually-agreed account satisfactory to Owner, with an approved bank or trust company to be held in lieu of the cash retainage for the benefit of Owner. Interest or earnings on the bonds, securities or other instruments shall accrue to the Contractor. The Contractor shall execute and provide such documentation and instructions respecting the bonds, securities and other instruments as the Owner may require to protect its interests. To be permissible, the bonds, securities and other instruments must be of a character approved by Owner; or

b. that the Contractor be allowed, with the approval of the Owner, Owner allow Contractor to deposit a surety bond for the benefit of Owner, in a form acceptable to Owner, in lieu of all or a portion of funds retained, or to be retained. Such bond and any proceeds therefrom shall be made subject to all claims and liens in the manner and priority as set forth for retainage under ORS 279C.550 to ORS 279C.625.

When the Owner has accepted the Contractor's election of option (a) or (b), Owner may recover from Contractor any additional costs incurred through such election by reducing Contractor's final payment. Where the Owner has agreed to Contractor's request for option (b), Contractor shall accept like bonds from Subcontractors and suppliers on the Project from which Contractor has required retainages.

E. 5.1.3 The retainage held by Owner shall be included in and paid to the Contractor as part of the final payment of the Contract Price. The Owner shall pay to Contractor interest at the rate of two thirds of one percent per month on the final payment due Contractor, interest to commence forty-five (45) Days after the date which Owner receives Contractor's final approved application for payment and Work under the Contract has been completed and accepted and to run until the date when final payment is tendered to Contractor. The Contractor shall notify Owner in writing when the Contractor considers the Work complete and deliver to Owner its final application for payment and Owner shall, within fifteen (15) Days after receiving the written notice and the application for payment, either accept the Work or notify the Contractor of Work yet to be performed on the Contract. If Owner does not within the time allowed notify the Contractor of Work yet to be performed to fulfill contractual obligations, the interest provided by this subsection shall commence to run forty-five (45) Days after the end of the fifteen (15) Day period.

E.5.1.4 Owner will reduce the amount of the retainage if the Contractor notifies the Owner that the Contractor has deposited in an escrow account with a bank or trust company, in a manner authorized by the Owner, bonds and securities of equal value of a kind approved by the Owner and such bonds and securities have in fact been deposited.

E.5.1.5 Contractor agrees that if Contractor elects to reserve a retainage from any progress payment due to any Subcontractor or supplier, such retainage shall not exceed five percent of the payment, and such retainage withheld from Subcontractors and suppliers shall be subject to the same terms and conditions stated in Subsection E.5 as apply to Owner's retainage from any progress payment due to Contractor.

E.5.1.6 The Contractor shall comply with all applicable legal requirements for withholding and releasing retainage and for prompt payments, including but not limited to those in ORS Chapters 279C and 701, and 49 CFR 26.29.

E.6 FINAL PAYMENT

E.6.1 Upon completion of all the Work under the Contract, the Contractor shall notify the Owner, in writing, that Contractor has completed Contractor's obligations under the Contract and shall prepare its application requesting final payment. The amount of final payment will be the difference between the total amount due the Contractor pursuant to the Contract Documents and the sum of all payments previously made. Upon receipt of such notice and application for payment, the Owner will inspect the Work, and, if acceptable, submit to Contractor a recommendation as to acceptance of the completed Work and the final estimate of the amount due the Contractor. If the Work is not acceptable, Owner will notify Contractor within fifteen (15) Days of Contractor's request for final payment. Upon approval of this final application for payment by the Owner and compliance by the Contractor with

provisions in Section K, and Contractor's satisfaction of other provisions of the Contract Documents as may be applicable, the Owner shall pay to the Contractor all monies due under the provisions of these Contract Documents.

E.6.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Owner (1) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least thirty (30) Days' prior written notice has been given to the Owner, (2) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents, (3) consent of surety, if any, to final payment and (4), if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien.

E.6.3 Acceptance of final payment by the Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final application for payment.

E.6.4 Contractor agrees to submit its final payment application within ninety (90) Days after Substantial Completion, unless written extension is granted by Owner. Contractor shall not delay final payment application for any reason, including without limitation nonpayment of Subcontractors, suppliers, manufacturers or others not a party to the Contract, or lack of resolution of a dispute with Owner or any other person of matters arising out of or relating to the Contract. If Contractor fails to submit its final payment application within ninety (90) Days after Substantial Completion, and Contractor has not obtained written extension by Owner, all requests or Claims for additional costs or an extension of Contract Time shall be barred.

SECTION F
PROJECT SITE CONDITIONS

F.1 USE OF PREMISES

Contractor shall confine equipment, storage of materials and operation of Work to the limits indicated by Contract Documents, Applicable Laws, permits or directions of the Owner. Contractor shall follow the Owner's instructions regarding use of premises, if any.

F.2 PROTECTION OF WORKERS, PROPERTY AND THE PUBLIC

F.2.1 Contractor shall maintain continuous and adequate protection of all of the Work from damage and shall protect the Owner, workers and property from injury or loss arising in connection with the Contract. Contractor shall remedy acceptably to the Owner any damage, injury, or loss, except such as may be directly due to errors in the Contract Documents or caused by authorized representatives or personnel of the Owner. Contractor shall adequately protect adjacent property as provided by law and the Contract Documents.

F.2.2 Contractor shall take all necessary precautions for the safety of all personnel on the Project Site or otherwise engaged in the undertaking of the Work and shall comply with the Contract Documents, best practices and all applicable provisions of federal, state and municipal safety laws and building codes to prevent accidents or injury to persons on, about or adjacent to the premises where the Work is being performed. Contractor shall erect and properly maintain at all times, as required by the conditions and progress of the Work, all necessary safeguards for protection of workers and the public against any hazards created by construction. Contractor shall designate a responsible employee or associate on the Project Site, whose duty shall be the prevention of accidents. The name and position of the person designated shall be reported to the Owner. The Owner has no responsibility for Project Site safety. Project Site safety shall be the responsibility of the Contractor.

F.2.3 Contractor shall not enter upon private property without first obtaining permission from the property owner or its duly authorized representative. Contractor shall be responsible for the preservation of all public and private property along and adjacent to the Work contemplated under the Contract and shall use every precaution necessary to prevent damage thereto. In the event the Contractor damages any property, the Contractor shall at once notify the property owner and make, or arrange to make, full restitution. Contractor shall, immediately and in writing, report to the Owner, all pertinent facts relating to such property damage and the ultimate disposition of the claim for damage.

F.2.4 Contractor shall be responsible for protection of adjacent work areas including impacts brought about by activities, equipment, labor, utilities, vehicles and materials on the Project Site.

F.2.5 Contractor shall at all times direct its activities in such a manner as to minimize adverse effects on the environment. Handling of all materials shall be conducted so no release will occur that may pollute or become hazardous.

F.2.6 In an emergency affecting the safety of life or limb or of the Work or of adjoining property, the Contractor, without special instruction or authorization from the Owner, shall act reasonably to prevent threatened loss or injury, and shall so act, without appeal, if instructed by the Owner. Any compensation claimed by the Contractor on account of emergency work shall be determined in accordance with section D.

F.2.7 Contractor shall comply with all Owner safety rules and regulations, if applicable. Prior to commencement of any Work, Contractor and Subcontractors shall be required to complete an Owner Contractor Safety Orientation and submit all Owner required safety plans.

F.2.8 Contractor shall demonstrate that an employee drug testing program is in place.

F.3 CUTTING AND PATCHING

F.3.1 If applicable, Contractor shall be responsible for coordinating all cutting, fitting, or patching of the Work to make its several parts come together properly and fit to receive or be received by work of other contractors or Subcontractors shown upon, or reasonably implied by, the Contract Documents.

F.3.2 If applicable, Contractor shall be responsible for restoring all cut, fitted, or patched surfaces to an original condition; provided, however, that if a different condition is specified in the Contract Documents, then Contractor shall be responsible for restoring such surfaces to the condition specified in the Contract Documents.

F.4 CLEANING UP

From time to time as may be prudent or ordered by the Owner and, in any event, immediately after completion of the Work, the Contractor shall, at its own expense, clean up and remove all refuse and unused materials of any kind resulting from the Work. If Contractor fails to do so within twenty-four (24) hours after notification by the Owner the work may be

done by others and the cost charged to the Contractor and deducted from payment due the Contractor.

F.5 ENVIRONMENTAL CONTAMINATION

F.5.1. Contractor shall be held responsible for and shall indemnify, defend (with counsel of Owner's choice), and hold harmless Owner from and against any costs, expenses, damages, claims, and causes of action, or any of them, resulting from all spills, releases, discharges, leaks and disposal of environmental pollution, including storage, transportation, and handling during the performance of the Work or Contractor's obligations under the Contract which occur as a result of, or are contributed by, the negligence or actions of Contractor or its personnel, agents, or Subcontractors or any failure to perform in accordance with the Contract Documents (except to the extent otherwise void under ORS 30.140). Nothing in this section F.5.1 shall limit Contractor's responsibility for obtaining insurance coverages required under Section G.3 of the Contract, and Contractor shall take no action that would void or impair such coverages.

F.5.1.1 Contractor agrees to promptly dispose of such spills, releases, discharge or leaks to the satisfaction of Owner and regulatory agencies having jurisdiction in a manner that complies with Applicable Laws. Cleanup shall be at no cost to the Owner and shall be performed by properly qualified and, if applicable, licensed personnel.

F.5.1.2 Unless otherwise approved in the Solicitation Document, Contractor shall obtain the Owner's written consent prior to bringing onto the Project Site any (i) environmental pollutants or (ii) hazardous substances or materials, as the same or reasonably similar terms are used in any Applicable Laws. In any event, Contractor shall provide prior written notice to Owner when hazardous materials are brought on to the Project Site. The Contractor, at all times, shall:

(a) properly handle, use and dispose of all environmental pollutants and hazardous substances or materials on the Project Site, in accordance with all Applicable Laws;

(b) be responsible for any and all spills, releases, discharges, or leaks of (or from) environmental pollutants or hazardous substances or materials which Contractor has brought onto the Project Site; and

(c) promptly clean up and remediate, without cost to the Owner, such spills, releases, discharges, or leaks to the Owner's satisfaction and in compliance with all Applicable Laws.

F.5.2 Contractor shall report all reportable quantity releases, as such releases are defined in Applicable Laws. Upon discovery, regardless of quantity, Contractor must verbally report all releases to the Owner in a prompt manner. A written follow-up report shall be submitted to Owner within 48 hours of the telephonic report. Such written report shall contain, as a minimum:

(a) Description of items released (identity, quantity, manifest numbers, and any and all other documentation required by law).

(b) Whether amount of items released is EPA/DEQ reportable, and, if so, when reported.

(c) Exact time and location of release, including a description of the area involved.

(d) Containment procedures initiated.

(e) Summary of communications about the release between Contractor and State, local or federal officials other than Owner. Any communication to the press will be done by Owner and Contractor will defer to Owner.

(f) Description of cleanup procedures employed or to be employed at the Project Site, including disposal location of spill residue.

(g) Personal injuries, if any, resulting from, or aggravated by, the release.

F.6 ENVIRONMENTAL CLEAN-UP

F.6.1 Unless disposition of environmental pollution is specifically a part of the Contract, or was caused by the Contractor (reference F.5 Environmental Contamination), Contractor shall immediately notify Owner of any hazardous substance(s) which Contractor discovers or encounters during performance of the Work required by the Contract. "Hazardous substance(s)" means any hazardous, toxic and radioactive materials and those substances defined as "hazardous substances," "hazardous materials," "hazardous wastes," "toxic substances," or other similar designations in any federal, state, or local law, regulation, or ordinance, including without limitation asbestos, polychlorinated biphenyl ("PCB"), or petroleum, and any substances, materials or wastes regulated by 40 CFR, Part 261 and defined as hazardous in 40 CFR S 261.3. In addition to notifying Owner of any hazardous substance(s) discovered or encountered, Contractor shall immediately cease working in any particular area of the Project where a hazardous substance(s) has been discovered or encountered if continued work in such area would present a risk or danger to the health or wellbeing of Contractor's or any Subcontractor's work force, property or the environment.

F.6.2 Upon being notified by Contractor of the presence of hazardous substance(s) on the Project Site, not brought on to the Project Site by Contactor, Owner shall arrange for the proper disposition of such hazardous substance(s).

F.7 DEMOLITION

F.7.1 For demolition tasks, if any, the Contractor shall salvage or recycle construction and demolition debris, if feasible and cost-effective.

SECTION G
INDEMNITY, BONDING, AND INSURANCE

G.1 RESPONSIBILITY FOR DAMAGES / INDEMNITY

G.1.1 Contractor shall be responsible for all damage to property, injury to persons, and loss, expense, inconvenience, and delay that may be caused by, or result from, the carrying out of the Work to be done under the Contract, or from any act, omission or neglect of the Contractor, its Subcontractors, employees, guests, visitors, invitees and agents.

G.1.2 To the fullest extent permitted by law, Contractor shall indemnify, defend (with counsel approved by Owner) and hold harmless the Owner and its elected officials, officers, directors, agents, and employees (collectively "Indemnitees") from and against all liabilities, damages, losses, claims, expenses, demands and actions of any nature whatsoever which arise out of, result from or are related to: (a) any damage, injury, loss, expense, inconvenience or delay described in this Section G.1; (b) any accident or occurrence which happens or is alleged to have happened in or about the Project Site or any place where the Work is being performed, or in the vicinity of either, at any time prior to the time the Work is fully completed in all respects; (c) any failure of the Contractor to

observe or perform any duty or obligation under the Contract Documents which is to be observed or performed by the Contractor, or any breach of any agreement, representation or warranty of the Contractor contained in the Contract Documents or in any subcontract; (d) the negligent acts or omissions of the Contractor, a Subcontractor or anyone directly or indirectly employed by them or any one of them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder (except to the extent otherwise void under ORS 30.140); and (e) any lien filed upon the Project or bond claim in connection with the Work. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Section G.1.2.

G.1.3 In claims against any person or entity indemnified under Section G.1.2 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section G.1.2 shall not be limited on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

G.2 PERFORMANCE AND PAYMENT SECURITY; PUBLIC WORKS BOND

G.2.1 When the Contract Price is $50,000 or more, the Contractor shall furnish and maintain in effect at all times during the Contract Period a performance bond in a sum equal to the Contract Price and a separate payment bond also in a sum equal to the Contract Price. Contractor shall furnish such bonds even if the Contract Price is less than the above thresholds if otherwise required by the Contract Documents. If the Contract Price is increased, Contractor shall increase its payment and performance bonds to reflect the amended Contract Price.

G.2.2 Bond forms furnished by the Owner and notarized by Contractor's surety company authorized to do business in Oregon are the only acceptable forms of performance and payment security, unless otherwise specified in the Contract Documents.

G.2.3 Before execution of the Contract, the Contractor shall file with the Construction Contractors Board, and maintain in full force and effect, the separate public works bond required by Oregon Revised Statutes, Chapter 279C.830 and 279C.836, unless otherwise exempt under those provisions. The Contractor shall also include in every subcontract a provision requiring the Subcontractor to have a public works bond filed with the Construction Contractors Board before starting Work, unless otherwise exempt, and shall verify that the Subcontractor has filed a public works bond before permitting any Subcontractor to start Work.

G.3 INSURANCE

G.3.1 Primary Coverage: Insurance carried by Contractor under the Contract shall be the primary coverage. The coverages indicated are minimums unless otherwise specified in the Contract Documents.

G.3.2 Workers' Compensation: All employers, including Contractor, that employ subject workers who work under the Contract in the State of Oregon shall comply with ORS 656.017 and provide the required Workers' Compensation coverage, unless such employers are exempt under ORS 656.126. This shall include Employer's Liability Insurance with coverage limits of not less than the minimum amount required by statute for each accident. Contractors who perform the Work without the assistance or labor of any employee need not obtain such coverage if the Contractor certifies so in writing. Contractor shall ensure that each of its Subcontractors complies with these requirements. The Contractor shall require proof of such Workers' Compensation coverage by receiving and keeping on file a certificate of insurance from each Subcontractor or anyone else directly employed by either the Contractor or its Subcontractors.

G.3.3 Builder's Risk Insurance:

G.3.3.1 Builder's Risk: During the term of the Contract, for new construction the Contractor shall obtain and keep in effect Builder's Risk insurance on an all risk forms, including earthquake and flood, for an amount equal to the full amount of the Contract, plus any changes in values due to modifications, Change Orders and loss of materials added. Such Builder's Risk shall include, in addition to earthquake and flood, theft, vandalism, mischief, collapse, transit, debris removal, and architect's fees "soft costs" associated with delay of Project due to insured peril. Any deductible shall not exceed $50,000 for each loss, except the earthquake and flood deductible which shall not exceed 2 percent of each loss or $50,000, whichever is greater. The deductible shall be paid by Contractor. The policy will include as loss payees Owner, the Contractor and its Subcontractors as their interests may appear.

G.3.3.2 Builder's Risk Installation Floater: For Work other than new construction, Contractor shall obtain and keep in effect during the term of the Contract, a Builder's Risk Installation Floater for coverage of the Contractor's labor, materials and equipment to be used for completion of the Work performed under the Contract. The minimum amount of coverage to be carried shall be equal to the full amount of the Contract. The policy will include as loss payees Owner, the Contractor and its Subcontractors as their interests may appear. Owner may waive this requirement at its sole and absolute discretion.

G.3.3.3 Such insurance shall be maintained until Owner has occupied the facility.

G.3.3.4 A loss insured under the Builder's Risk insurance shall be adjusted by the Owner and made payable to the Owner as loss payee. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Sub-subcontractors in similar manner. The Owner shall have power to adjust and settle a loss with insurers.

G.3.4 General Liability Insurance:

G.3.4.1 Commercial General Liability: Upon execution of a Contract, Contractor shall obtain, and keep in effect at Contractor's expense for the term of the Contract, Commercial General Liability Insurance ("CGL") covering bodily injury and property damage in the amount of not less than $1,000,000 per claim and $2,000,000 per occurrence in a form satisfactory to Owner. This insurance shall include personal injury liability, products and completed operations, and contractual liability coverage for the indemnities provided under the Contract (to the extent contractual liability coverage for the indemnity is available in the marketplace), and shall be issued on an occurrence basis written on ISO Form GC 00 01 (12 04 or later) or an equivalent form approved in advance by Owner. The CGL shall provide separation of insured language. The policy or policies obtained by Contractor for purposes of fulfilling the requirements of this section shall be primary insurance with respect to the Owner. Any insurance or self-insurance maintained by the County shall be excess and shall not contribute to it.

G.3.4.2 Automobile Liability: Contractor shall obtain, at Contractor's expense, and keep in effect during the term of the Contract, Automobile Liability Insurance covering owned, and/or hired

vehicles, as applicable. The coverage may be written in combination with the Commercial General Liability Insurance. Contractor shall provide proof of insurance of not less than $1,000,000 per claim and $2,000,000 per occurrence. Contractor and its Subcontractors shall be responsible for ensuring that all non-owned vehicles maintain adequate Automobile Liability insurance while on Project Site.

G.3.4.3 Owner may adjust the insurance amounts required in Section G.3.4.1 and G.3.4.2 based upon institution specific risk assessments through the issuance of Supplemental General Conditions and a Contract.

G.3.4.4 To the extent that the Contract Documents require the Contractor to provide professional design services, design-build, or certifications related to systems, materials, or equipment, the Contractor shall (1) purchase and maintain professional liability/errors-and-omissions insurance with limits of not less than $1,000,000 for each claim and $2,000,000 general annual aggregate and (2) cause those Subcontractors (of any tier) who are providing professional design services including any design-build services to procure and maintain professional liability/errors-and-omissions insurance with limits of not less than $1,000,000 for each claim and $2,000,000 general annual aggregate. This policy shall be for the protection of the Owner, its elected officials, officers, agents and employees against liability for damages because of personal injury, bodily injury, death, or damage to property, including loss of use thereof, and damages because of negligent acts, errors and omissions in any way related to the Contract. The Owner, at its option, may require a complete copy of the above policy.

G.3.4.5 "Tail" Coverage: If any of the required liability insurance is arranged on a "claims made" basis, "tail" coverage will be required at the completion of the Contract for a duration of 36 months or the maximum time period available in the marketplace if less than 36 months. Contractor shall furnish certification of "tail" coverage as described or continuous "claims made" liability coverage for 36 months following Final Completion. Continuous "claims made" coverage will be acceptable in lieu of "tail" coverage, provided its retroactive date is on or before the effective date of the Contract. Owner's receipt of the policy endorsement evidencing such coverage shall be a condition precedent to Owner's obligation to make final payment and to Owner's final acceptance of Work or services and related warranty (if any).

G.3.4.6 Umbrella Liability (if required by Owner through issuance of Supplemental General Conditions): Contractor shall obtain, at Contractor's expense, and keep in effect during the term of the Contract, Umbrella liability Insurance over and above the general liability, automobile liability and workers' compensation coverage if required by Owner in specified limits at time of requirement.

G.3.4.7 Pollution Liability may be required by Owner through issuance of Supplemental General Conditions.

G.3.5 Additional Insured: The general liability insurance coverage, automobile liability, umbrella, and pollution liability if required, shall include the Owner as additional insureds but only with respect to the Contractor's activities to be performed under the Contract. The additional-insured endorsement for CGL insurance must be written on ISO Form CG 20 10 (10 01) and CG 20 37 (10 01), or their equivalent, but shall not use either of the following forms: CG 20 10 (10 93) or CG 20 10 (03 94). Proof of insurance must include a copy of the endorsement showing "Clackamas County, its elected officials, agents, officers, and employees" as scheduled insureds.

If Contractor cannot obtain an insurer to name the Owner as additional insureds, Contractor shall obtain at Contractor's expense, and keep in effect during the term of the Contract, Owners and Contractors Protective Liability Insurance, naming the Owner as additional insureds with not less than a $2,000,000 limit per occurrence. This policy must be kept in effect for 36 months following Final Completion. As evidence of coverage, Contractor shall furnish the actual policy to Owner prior to execution of the Contract.

G.3.6 Notice of Cancellation or Change: If the Contractor receives a non-renewal or cancellation notice from an insurance carrier affording coverage required herein, or receives notice that coverage no longer complies with the insurance requirements herein, Contractor agrees to notify Owner by fax within five (5) business days with a copy of the non-renewal or cancellation notice, or written specifics as to which coverage is no longer in compliance. When notified by Owner, the Contractor agrees to stop Work pursuant to the Contract at Contractor's expense, unless all required insurance remain in effect. Any failure to comply with the reporting provisions of this insurance, except for the potential exhaustion of aggregate limits, shall not affect the coverages provided to the Owner and its institutions, divisions, officers, and employees.

Owner shall have the right, but not the obligation, of prohibiting Contractor from entering the Project Site until a new certificate(s) of insurance is provided to Owner evidencing the replacement coverage. The Contractor agrees that Owner reserves the right to withhold payment to Contractor until evidence of reinstated or replacement coverage is provided to Owner.

G.3.7 Certificate(s) of Insurance/Insurance Carrier Qualification: As evidence of the insurance coverage required by the Contract, the Contractor shall furnish certificate(s) of insurance to the Owner prior to execution of the Contract. The certificate(s) will specify all of the parties who are additional insureds or loss payees for the Contract. A renewal certificate shall be sent to Owner at least 10 days prior to coverage expiration. Insurance coverage required under the Contract shall be obtained from insurance companies or entities acceptable to the Owner and that are eligible to provide such insurance under Oregon law. Eligible insurers include admitted insurers that have been issued a certificate of authority from the Oregon Department of Consumer and Business Services authorizing them to conduct an insurance business and issue policies of insurance in the state of Oregon, and certain non-admitted surplus lines insurers that satisfy the requirements of applicable Oregon law and which are subject to approval by the Owner. The Contractor shall be financially responsible for all deductibles, self-insured retentions and/or self-insurance included hereunder. Any deductible, self-insured retention and/or self-insurance in excess of $50,000 shall be subject to approval by the Owner in writing and shall be a condition precedent to the effectiveness of any Contract.

SECTION H
SCHEDULE OF WORK

H.1 CONTRACT PERIOD

H.1.1 Time is of the essence. The Contractor shall at all times carry on the Work diligently, without delay and punctually fulfill all requirements herein.

H.1.2 Notice to Proceed. Unless otherwise directed in the Contract Documents, Contractor shall commence Work on the Project Site within fifteen (15) Days of the Notice to Proceed. Notwithstanding the Notice to Proceed, Contractor shall not be authorized to proceed with the Work until all initial Contract requirements, including the Contract, performance bond and payment bond, and certificates of insurance, have been fully executed and submitted in a form acceptable to Owner.

H.1.3 Unless otherwise not required in the Construction Documents, Contractor shall participate in a pre-construction conference with the Owner's representative and designated design team. The purpose of this pre-construction conference is to review the Contractor's proposed Schedule of Values and to review any other Project logistics to be coordinated between the parties.

H.1.4 Unless specifically extended by a Change Order, all Work shall be complete by the date contained in the Contract Documents. The Owner shall have the right to accelerate the completion date of the Work, which may require the use of overtime. Such accelerated Work schedule shall be an acceleration in performance of Work under Section D.1.2(f) and shall be subject to the provisions of Section D.1.

H.1.5 The Owner shall not waive any rights under the Contract by permitting the Contractor to continue or complete in whole or in part the Work after the date described in Section H.1.2 above.

H.2 SCHEDULE

H.2.1 Contractor shall provide, by or before the pre-construction conference, the initial as-planned schedule for review and acceptance by the Owner. The submitted schedule must illustrate Work by Project components, labor trades, and long lead items broken down by building and/or floor where applicable. If Owner shall so elect, Contractor shall provide the schedule in CPM format showing the graphical network of planned activities, including i) a reasonably detailed list of all activities required to complete the Work; ii) the time and duration that each activity will take to completion; and iii) the dependencies between the activities. Schedules lacking adequate detail, or unreasonably detailed, will be rejected. The schedule shall include the following: Notice to Proceed or the date the Work commences, if no Notice to Proceed is issued by Owner, Substantial Completion, and Final Completion. Schedules shall be updated monthly, unless otherwise required by the Contract Documents, and submitted with the monthly application for payment. Acceptance of the Schedule by the Owner does not constitute agreement by the Owner as to the Contractor's sequencing, means, methods, or durations. Any positive difference between the Contractor's scheduled completion and the Contract completion date is float owned by the Owner. Owner reserves the right to negotiate the float if it is deemed to be in Owner's best interest to do so. In no case shall the Contractor make a claim for delays if the Work is completed within the Contract Time but after Contractor's scheduled completion.

H.2.2 All Work shall be completed during normal weekdays (Monday through Friday) between the hours of 7:00 a.m. and 5:00 p.m. unless otherwise specified in the Contract Documents. Unless otherwise specified in the Contract Documents, no Work shall be performed during the following holidays:

- New Year's Day
- Martin Luther King Day
- Memorial Day
- Independence Day
- Labor Day
- Veterans Day
- Thanksgiving Day
- Christmas Day
- President's Day

When a holiday falls on a Sunday, the following Monday shall be recognized as a legal holiday. When a holiday falls on Saturday, the preceding Friday shall be recognized as a legal holiday.

H.3 PARTIAL OCCUPANCY OR USE

The Owner may occupy or use any completed or partially completed portion of the Work at any stage, provided such occupancy or use is consented to by public authorities having jurisdiction over the Work. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have reasonably accepted in writing the responsibilities assigned to each of them. Approval by the Contractor to partial occupancy or use shall not be unreasonably withheld. Immediately prior to such partial occupancy or use, the Owner and Contractor shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work. Partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

SECTION I
CORRECTION OF WORK

I.1 CORRECTION OF WORK BEFORE FINAL PAYMENT

The Contractor warrants to the Owner that materials and equipment furnished under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects, and that the Work will conform to the requirements of the Contract Documents. Work failing to conform to these requirements shall be deemed defective. Contractor shall promptly remove from the premises and replace all defective materials and equipment as determined by the Owner, whether incorporated in the Work or not. Removal and replacement shall be without loss or expense to the Owner, and Contractor shall bear the cost of repairing all Work destroyed or damaged by such removal or replacement. Contractor shall be allowed a period of no longer than thirty (30) Days after Substantial Completion for completion of defective (Punch List) work. At the end of the thirty-day period, or earlier if requested by the Contractor, Owner shall arrange for inspection of the Work by the Architect/Engineer. Should the work not be complete, and all corrections made, the costs for all subsequent reinspections shall be borne by the Contractor. If Contractor fails to complete the Punch List work within the thirty (30) Day period, Owner may perform such work and Contractor shall reimburse Owner all costs of the same within ten (10) Days after demand without affecting Contractor's obligations.

I.2 WARRANTY WORK

I.2.1 Neither the final certificate of payment nor any provision of the Contract Documents shall relieve the Contractor from responsibility for Defective Work and, unless a longer period is specified, Contractor shall correct all defects that appear in the Work within a period of one year from the date of issuance of the written notice of Substantial Completion by the Owner except for latent defects which will be remedied by the Contractor at any time they become apparent. The Owner shall give Contractor notice of defects with reasonable promptness. Contractor shall perform such warranty work within a reasonable time after Owner's demand and at Contractors sole expense. If Contractor fails to complete the warranty work within such period as Owner determines reasonable, or at any time in the event of warranty work consisting of emergency repairs, Owner may perform such work and Contractor shall reimburse Owner all costs of the same within ten (10) Days after demand, without affecting Contractor's obligations. The Contractor shall perform the warranty Work by correcting defects within twenty-four (24) hours of notification by Owner, unless otherwise specified in the Contract Documents. Should the Contractor fail to respond within the specified response time, the Owner may, at its option, complete the necessary repairs using another contractor or its agents. If Owner completes the repairs using Owner's agent, Contractor shall pay Owner at the rate of one and one-half (1½) times the standard hourly rate of Owner's agent, plus related overhead and any direct non-salary costs. If Owner completes the repairs using another contractor, Contractor shall pay

Owner the amount of Owner's direct costs billed by the other contractor for the work, plus the direct salary costs and related overhead and direct non-salary expenses of Owner's agents who are required to monitor that contractor's work. Work performed by Owner using Owner's own agents or those of another contractor shall not affect the Contractor's contractual duties under these provisions, including warranty provisions.

I.2.2 Nothing in this Section I.2 provision shall negate guarantees or warranties for periods longer than one year including without limitation, such guarantees or warranties required by other sections of the Contract Documents for specific installations, materials, processes, equipment or fixtures.

I.2.3 In addition to Contractor's warranty, manufacturer's warranties shall pass to the Owner and shall not take effect until such portion of the Work covered by the applicable warranty has been accepted in writing by the Owner.

I.2.4 The one-year period for correction of Work shall be extended with respect to portions of Work performed after Substantial Completion by the period of time between Substantial Completion and the actual performance of the Work, and shall be extended by corrective Work performed by the Contractor pursuant to this Section, as to the Work corrected. The Contractor shall remove from the Project Site portions of the Work which are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

I.2.5 Nothing contained in this Section I.2 shall be construed to establish a period of limitation with respect to other obligations which the Contractor might have under the Contract Documents. Establishment of the period for correction of Work as described in this Section I.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

I.2.6 If the Owner prefers to accept Work which is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Price will be reduced as appropriate and equitable as determined by Owner. Such adjustment shall be effected whether or not final payment has been made.

SECTION J
SUSPENSION AND/OR TERMINATION OF THE WORK

J.1 OWNER'S RIGHT TO SUSPEND THE WORK

J.1.1 The Owner has the authority to suspend portions or all of the Work due to the following causes:

(a) Failure of the Contractor to correct unsafe conditions;

(b) Failure of the Contractor to carry out any provision of the Contract;

(c) Failure of the Contractor to carry out orders;

(d) Conditions, in the opinion of the Owner, which are unsuitable for performing the Work;

(e) Time required to investigate differing Project Site conditions; or

(f) Any reason considered to be in the public interest.

J.1.2 The Owner shall notify Contractor and the Contractor's Surety in writing of the effective date and time of the suspension, and Owner shall notify Contractor and Contractor's surety in writing to resume Work.

J.2 CONTRACTOR'S RESPONSIBILITIES

J.2.1 During the period of the suspension, Contractor is responsible to continue maintenance at the Project just as if the Work were in progress. This includes, but is not limited to, protection of completed Work, maintenance of access, protection of stored materials, temporary facilities, and clean-up.

J.2.2 When the Work is recommenced after the suspension, the Contractor shall replace or renew any Work damaged during the suspension, remove any materials or facilities used as part of temporary maintenance, and complete the Work in every respect as though its prosecution had been continuous and without suspension.

J.3 COMPENSATION FOR SUSPENSION

Depending on the reason for suspension of the Work, the Contractor or the Owner may be due compensation by the other party. If the suspension was required due to acts or omissions of Contractor, the Owner may assess the Contractor actual costs of the suspension in terms of administration, remedial work by the Owner's agents or another contractor to correct the problem associated with the suspension, rent of temporary facilities, and other actual costs related to the suspension, and any liquidated damages arising from the delay. If the suspension was caused by acts or omissions of the Owner, the Contractor may be due compensation which shall be defined using Section D, Changes in Work. If the suspension was required through no fault of the Contractor or the Owner, neither party shall owe the other for the impact.

J.4 OWNER'S RIGHT TO TERMINATE CONTRACT

J.4.1 The Owner may, without prejudice to any other right or remedy, and after giving Contractor seven (7) Days' written notice and an opportunity to cure, terminate the Contract in whole or in part under the following conditions:

(a) If Contractor should, voluntarily or involuntarily, seek protection under the United States Bankruptcy Code and Contractor as debtor-in-possession or the Trustee for the estate fails to assume the Contract within a reasonable time;

(b) If Contractor should make a general assignment for the benefit of Contractor's creditors;

(c) If a receiver should be appointed on account of Contractor's insolvency;

(d) If Contractor should repeatedly refuse or fail to supply an adequate number of skilled workers or proper materials to carry on the Work as required by the Contract Documents, or otherwise fail to perform the Work in a timely manner;

(e) If Contractor should repeatedly fail to make prompt payment to Subcontractors or for material or labor, or should disregard laws, ordinances or the instructions of the Owner;

(f) If Contractor is otherwise in breach of any part of the Contract; or

(g) If Contractor is in violation of Applicable Laws, either in the conduct of its business or in its performance of the Work.

J.4.2 At any time that any of the above occurs, Owner may exercise all rights and remedies available to Owner at law or in equity, and, in

addition, Owner may take possession of the premises and of all materials and appliances and finish the Work by whatever method it may deem expedient. In such case, the Contractor shall not be entitled to receive further payment until the Work is completed. If the Owner's cost of finishing the Work exceeds the unpaid balance of the Contract Price, Contractor shall pay the difference to the Owner.

J.5 TERMINATION FOR CONVENIENCE, NON-APPROPRIATION OF FUNDS, OR FORCE MAJEURE

J.5.1 Owner may terminate the Contract in whole or in part whenever Owner determines: (a) that termination of the Contract is in the best interest of Owner or the public; (b) that the Owner failed to receive funding, appropriations, allocations or other expenditure authority as contemplated by Owner's budget and Owner determines, in its sole determination, and its assessment and ranking of the policy objectives explicit or implicit in Owner's budget, Owner may determine it is necessary to and may terminate the Contract.; or (c) in the event of Force Majeure.

J.5.2 The Owner shall provide the Contractor with seven (7) Days prior written notice of a termination for Owner's or for public convenience. After such notice, the Contractor shall provide the Owner with immediate and peaceful possession of the premises and materials located on and off the premises for which the Contractor received progress payment under Section E. Compensation for Work terminated by the Owner under this provision will be according to Section E. In no circumstance shall Contractor be entitled to lost profits for Work not performed due to termination. If the Contract is terminated for public convenience, neither the Contractor not its Surety shall be relieved of liability for damages or losses suffered by the Owner as a result of defective, unacceptable or unauthorized Work completed or performed.

J.6 ACTION UPON TERMINATION

J.6.1 Upon receiving a notice of termination, and except as directed otherwise by the Owner, Contractor shall immediately cease placing further subcontracts or orders for materials, services, or facilities. In addition, Contractor shall terminate all subcontracts or orders to the extent they relate to the Work terminated and, with the prior written approval of the Owner, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts and orders.

J.6.2 As directed by the Owner, Contractor shall, upon termination, transfer title and deliver to the Owner all Record Documents, information, and other property that, if the Contract had been completed, would have been required to be furnished to the Owner.

J.6.3 Upon Owner's notice of termination pursuant to either Section J.4 or J.5, if Owner shall so elect, Contractor shall assign to the Owner such subcontracts and orders as Owner shall specify. In the event Owner elects to take assignment of any such subcontract or order, Contractor shall take such action and shall execute such documents as Owner shall reasonably require for the effectiveness of such assignment and Contractor shall ensure that no contractual arrangement between it and its subcontractors or suppliers of any tier or sub-tier shall prevent such assignment.

SECTION K
CONTRACT CLOSE OUT

K.1 RECORD DOCUMENTS

As a condition of final payment (refer also to section E.6), Contractor shall comply with the following: Contractor shall provide Record Documents for the entire Project to Owner. Record Documents shall depict the Project as constructed and shall reflect each and every change, modification, and deletion made during the construction. Record Documents are part of the Work and shall be provided prior to the Owner's issuance of final payment. Record Documents include all modifications to the Contract Documents unless otherwise directed.

K.2 OPERATION AND MAINTENANCE MANUALS

As part of the Work, Contractor shall submit two completed operation and maintenance manuals ("O & M Manuals") for review by the Owner prior to submission of any pay request for more than 75% of the Work. Owner's receipt of the O & M Manuals shall be a condition precedent to any payment thereafter due. The O & M Manuals shall contain a complete set of all submittals, all product data as required by the specifications, training information, telephone list and contact information for all consultants, manufacturers, installer and suppliers, manufacturer's printed data, record and shop drawings, schematic diagrams of systems, appropriate equipment indices, warranties and bonds. The Owner shall review and return one O & M Manual for any modifications or adjustments required. Prior to submission of its final pay request, Contractor shall deliver two (2) complete and approved sets of O & M Manuals in paper form and one (1) complete and approved set in electronic form to the Owner and Owner's receipt of the O & M Manuals shall be a condition precedent to Owner's obligation to make final payment.

K.3 COMPLETION NOTICES

K.3.1 Contractor shall provide Owner written notice of both Substantial and Final Completion. The certificate of Substantial Completion shall state the date of Substantial Completion, the responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and the time within which the Contractor shall finish all items on the Punch List accompanying the Certificate. Both completion notices must be signed and notarized by the Contractor and signed by the Architect/Engineer (if applicable) and Owner to be valid. The Owner shall provide the final signature on the notices. The notices shall take effect on the date they are signed by the Owner.

K.3.2 Substantial Completion of a facility with operating systems (e.g., mechanical, electrical, HVAC) shall be that degree of completion that has provided a minimum of thirty (30) continuous Days of successful, trouble-free operation, which period shall begin after all performance and acceptance testing has been successfully demonstrated to the Owner. All equipment contained in the Work, plus all other components necessary to enable the Owner to operate the facility in the manner that was intended, shall be complete on the Substantial Completion date. The Contractor may request that a Punch List be prepared by the Owner with submission of the request for the Substantial Completion notice.

K.4 TRAINING

As part of the Work, and prior to submission of the final application for payment, the Contractor shall schedule with the Owner training sessions for all equipment and systems as required by the Contract Documents. Contractor shall schedule training sessions at least two weeks in advance of the date of training to allow Owner to provide its personnel with adequate notice. If assignments arise because of termination under Section J.4, then such assignments shall not relieve Contractor of liability hereunder. The O & M Manual shall be used as a basis for training. In addition to any off-Project Site training required by the Contract Documents, training shall include a formal session conducted at the Project Site after the equipment and/or system is completely installed and operational in its normal operating environment.

K.5 EXTRA MATERIALS

As part of the Work, Contractor shall provide spare parts, extra maintenance materials, and other materials or products in the quantities specified in the Contract Documents prior to final payment. Delivery point for extra materials shall be designated by the Owner.

K.6 ENVIRONMENTAL CLEAN-UP

As part of the Final Completion notice, or as a separate written notice submitted with or before the notice of Final Completion, the Contractor shall notify the Owner that all environmental and pollution clean-up, remediation and closure have been completed in accordance with all Applicable Laws and pursuant to the authority of all agencies having jurisdiction, and Contractor shall provide Owner with any and all documentation related to the same, including but not limited to directives, orders, letters, certificates and permits related to or arising from such environmental pollution. The notice shall reaffirm the indemnification given under Section F.5.1 above. Contractor's completion of its obligations under this Section K.6 and Owner's receipt of documents evidencing such completion shall be a condition precedent to Owner's obligation to make final payment.

K.7 CERTIFICATE OF OCCUPANCY

Owner's receipt of an unconditioned certificate of occupancy from the appropriate state and/or local building officials shall be a condition precedent to Owner's obligation to make final payment, except to the extent failure to obtain an unconditional certificate of occupancy is due to the fault or neglect of Owner.

K.8 OTHER CONTRACTOR RESPONSIBILITIES

The Contractor shall be responsible for returning to the Owner all property of Owner issued to Contractor during construction such as keys, security passes, Project Site admittance badges, and all other pertinent items. Upon notice from Owner, Contractor shall be responsible for notifying the appropriate utility companies to transfer utility charges from the Contractor to the Owner. The utility transfer date shall not be before Substantial Completion and may not be until Final Completion, if the Owner does not take beneficial use of the facility and the Contractor's agents continue with the Work.

The Owner's property is drug free and weapons free areas and the use of tobacco products is only allowed in designated areas. Contractor shall be required to ensure that its employees, Subcontractors and agents shall comply with these requirements.

SECTION L
GENERAL PROVISIONS

L.1 NO THIRD PARTY BENEFICIARIES

Owner and Contractor are the only parties to the Contract and are the only parties entitled to enforce its terms. Nothing in the Contract gives, is intended to give, or shall be construed to give or provide any benefit or right, whether directly, indirectly, or otherwise, to third persons unless such third persons are individually identified by name herein and expressly described as intended beneficiaries of the terms of the Contract.

L.2 SEVERABILITY

If any provision of the Contract is declared by a court to be unenforceable, illegal, or in conflict with any law, the validity of the remaining terms and provisions shall not be affected and the rights and obligations of the parties shall be construed and enforced as if the Contract did not contain the particular provision held to be invalid.

L.3 ACCESS TO RECORDS

L.3.1 Contractor shall keep, at all times on the Project Site, one record copy of the complete Contract Documents, including the Plans, Specifications, addenda, and Change Orders (if any) in good order and marked currently to record field changes and selections made during construction, and one record copy of Shop Drawings, Product Data, Samples and similar submittals, and shall at all times give the Owner access thereto.

L.3.2 Contractor shall retain and the Owner and its duly authorized representatives shall have access, for a period not less than ten (10) years, to all Record Documents, financial and accounting records, and other books, documents, papers and records of Contractor which are pertinent to the Contract, including records pertaining to Overhead and indirect costs, for the purpose of making audit, examination, excerpts and transcripts. If for any reason, any part of the Work or the Contract shall be subject to litigation, Contractor shall retain all such records until all litigation is resolved and Contractor shall continue to provide Owner and/or its agents with full access to such records until such time as all litigation is complete and all periods for appeal have expired and full and final satisfaction of any judgment, order or decree is recorded and Owner receives a record copy of documentation from Contractor.

L.4 WAIVER

Failure of the Owner to enforce any provision of the Contract shall not constitute a waiver or relinquishment by the Owner of the right to such performance in the future nor of the right to enforce any other provision of the Contract.

L.5 SUCCESSORS IN INTEREST

The provisions of the Contract shall be binding upon and shall accrue to the benefit of the parties to the Contract and their respective permitted successors and assigns.

L.6 GOVERNING LAW

The Contract shall be governed by and construed in accordance with the laws of the State of Oregon without giving effect to the conflict of law provisions thereof.

L.7 APPLICABLE LAW

Contractor hereto agrees to comply in all ways with applicable local, state and federal ordinances, statutes, laws and regulations.

L.8 NON-EXCLUSIVE RIGHTS AND REMEDIES

Except as otherwise expressly provided herein, the rights and remedies expressly afforded under the provisions of the Contract shall not be deemed exclusive, and shall be in addition to and cumulative with any and all rights and remedies otherwise available at law or in equity. The exercise by either Party of any one or more of such remedies shall not preclude the exercise by it, at the same or different times, of any other remedies for the same default or breach, or for any other default or breach, by the other Party.

L.9 INTERPRETATION

The titles of the sections of the Contract are inserted for convenience of reference only and shall be disregarded in construing or interpreting any of its provisions.

L.10 DEBT LIMITATION

The Contract is expressly subject to the debt limitation of Oregon counties set forth in Article XI, Section 10, of the Oregon Constitution, and is contingent upon funds being appropriated therefore. Any provisions herein which would conflict with law are deemed inoperative to that extent.

L.11 LITIGATION

Any Claim between Owner and Contractor that arises from or relates to the Contract and that is not resolved through the Claims Review Process in Section D.3 shall be brought and conducted solely and exclusively within the Circuit Court of Clackamas County for the State of Oregon; provided, however, if a Claim must be brought in a federal forum, then it

shall be brought and conducted solely and exclusively within the United States District Court for the District of Oregon. In no event shall this section be construed as a waiver by the County of any form of defense or immunity, whether sovereign immunity, governmental immunity, immunity based on the Eleventh Amendment to the Constitution of the United States or otherwise, from any claim or from the jurisdiction of any court. CONTRACTOR, BY EXECUTION OF THE CONTRACT, HEREBY CONSENTS TO THE IN PERSONAM JURISDICTION OF THE COURTS REFERENCED IN THIS SECTION.

L. 12 SURVIVAL

All warranty, indemnification, and record retention provisions of the Contract, and all of Contractor's other obligations under the Contract that are not fully performed by the time of Final Completion or termination, and all other rights and obligations which by their context are intended to survive, shall survive Final Completion or any termination of the Contract.

L.13 ACCESS TO RECORDS

L.13.1. Contractor shall keep, at all times on the Work site, one record copy of the complete Contract Documents, including the Plans, Specifications, Construction Change Directives and addenda, in good order and marked currently to record field changes and selections made during construction, and one copy of Shop Drawings, Project Data, Samples and similar submittals, and shall at all times give the Owner access thereto.

L.13.2 Contractor shall retain and the Owner and its duly authorized representatives shall have access, for a period not less than ten (10) years, to all Record Documents, financial and accounting records, and other books, documents, papers and records of Contractor which are pertinent to the Contract, including records pertaining to Overhead and indirect costs, for the purpose of making audit, examination, excerpts and transcripts. If for any reason, any part of the Work or this Contract shall be subject to litigation, Contractor shall retain all such records until all litigation is resolved and Contractor shall continue to provide Owner and/or its agents with full access to such records until such time as all litigation is complete and all periods for appeal have expired and full and final satisfaction of any judgment, order or decree is recorded and Owner receives a record copy of documentation from Contractor.

L.14 WAIVER

Failure of the Owner to enforce any provision of this Contract shall not constitute a waiver or relinquishment by the Owner of the right to such performance in the future nor of the right to enforce any other provision of this Contract.

L. 15 NO ATTORNEY FEES.

In the event any arbitration, action or proceeding, including any bankruptcy proceeding, is instituted to enforce any term of this Contract, each party shall be responsible for its own attorneys' fees and expenses.

CLACKAMAS COUNTY

CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT

PERFORMANCE BOND

Bond No.: 30283325
Solicitation: # 2026-24
Project Name: Stone Creek Irrigation Replacement Project

Western Surety Company (Surety #1)		Bond Amount No. 1:	$ 4,717,460.00
_____ (Surety #2)*		Bond Amount No. 2:*	$ _____
* *If using multiple sureties*		Total Penal Sum of Bond:	$4,717,460.00

We, Duininck Inc as Principal, and the above identified Surety(ies), authorized to transact surety business in Oregon, as Surety, hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors and assigns firmly by these presents to pay unto Clackamas County, the sum of (Total Penal Sum of Bond) Four Million, Seven Hundred Seventeen Thousand, Four Hundred Sixty Dollars & NO/100 (Provided, that we the Sureties bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety); and

WHEREAS, the Principal has entered into a contract with Clackamas County, along with the plans, specifications, terms and conditions of which are contained in the above-referenced Solicitation; and

WHEREAS, the terms and conditions of the contract, together with applicable plans, standard specifications, special provisions, schedule of performance, and schedule of contract prices, are made a part of this Performance Bond by reference, whether or not attached to the contract (all hereafter called "Contract"); and

WHEREAS, the Principal has agreed to perform the Contract in accordance with the terms, conditions, requirements, plans and specifications, and all authorized modifications of the Contract which increase the amount of the work, the amount of the Contract, or constitute an authorized extension of the time for performance, notice of any such modifications hereby being waived by the Surety:

NOW, THEREFORE, THE CONDITION OF THIS BOND IS SUCH that if the Principal herein shall faithfully and truly observe and comply with the terms, conditions and provisions of the Contract, in all respects, and shall well and truly and fully do and perform all matters and things undertaken by Contractor to be performed under the Contract, upon the terms set forth therein, and within the time prescribed therein, or as extended as provided in the Contract, with or without notice to the Sureties, and shall defend, indemnify, and save harmless Clackamas County and its elected officials, officers, employees and agents, against any direct or indirect damages or claim of every kind and description that shall be suffered or claimed to be suffered in connection with or

arising out of the performance of the Contract by the Principal or its subcontractors, and shall in all respects perform said contract according to law, then this obligation is to be void; otherwise, it shall remain in full force and effect for so long as any term of the Contract remains in effect.

Nonpayment of the bond premium will not invalidate this bond nor shall Clackamas County, be obligated for the payment of any premiums.

This bond is given and received under authority of Oregon Revised Statutes Chapter 279C and the Clackamas County Local Contractor Review Board Rules, the provisions of which hereby are incorporated into this bond and made a part hereof.

IN WITNESS WHEREOF, WE HAVE CAUSED THIS INSTRUMENT TO BE EXECUTED AND SEALED BY OUR DULY AUTHORIZED LEGAL REPRESENTATIVES.

Dated this 1st day of October, 20 26.

PRINCIPAL: Duininck Inc

By: _____
Signature

President, Chad Gauger
Official Capacity

Attest: _____
Corporation Secretary

SURETY: Western Surety Company
[Add signatures for each if using multiple bonds]

BY ATTORNEY-IN-FACT:
[Power-of-Attorney must accompany each bond]

Myron Mulder
Name

_____
Signature

151 N Franklin St.
Address

Chicago	IL	60606
City	State	Zip

952-285-3400	952-285-3417
Phone	Fax

STATE OF Minnesota)SS:
COUNTY OF Kandiyohi)

I, Verla K. Folkerts , Notary Public of Kandiyohi County, in the State of Minnesota do hereby certify that Myron Mulder, Attorney-in-Fact of the Western Surety Company, who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person, and acknowledged that he signed, sealed and delivered said instrument, for and on behalf of the Western Surety Company, for the uses and purposes therein set forth.

Given under my hand and notarial seal at my office in the City of Prinsburg in said County, this 1st day of October, 2026.

Verla K Folkerts
Notary Public

VERLA K FOLKERTS
Notary Public-Minnesota
My Commission Expires Jan. 31, 2028

Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

Wes G Wieberdink, Myron Mulder, Individually

of Prinsburg, MN, 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 it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are 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 shareholders of the corporation.

In Witness Whereof, WESTERN SURETY 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 January, 2024.

WESTERN SURETY COMPANY

Larry Kasten, Vice President

State of South Dakota
County of Minnehaha } ss

On this 3rd day of January, 2024, 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 WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; 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 corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires
March 2, 2026

M. BENT NOTARY PUBLIC SOUTH DAKOTA

M. Bent, Notary Public

CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law and Resolutions of the corporation printed below this certificate are still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 1st day of October, 2026.

WESTERN SURETY COMPANY

L. Nelson, Assistant Secretary

Authorizing By-Laws and Resolutions

ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.

This Power of Attorney is signed by Larry Kasten, Vice President, who has been authorized pursuant to the above Bylaw to execute power of attorneys on behalf of Western Surety 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 / Obligee Services > Validate Bond Coverage, if you want to verify bond authenticity.

CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT

PAYMENT BOND

Bond No.: 30283325
Solicitation: #2026-24
Project Name: Stone Creek Irrigation Replacement Project

Western Surety Company (Surety #1)	Bond Amount No. 1:	$ 4,717,460.00
_____ (Surety #2)*	Bond Amount No. 2:*	$ _____
* *If using multiple sureties*	Total Penal Sum of Bond:	$ 4,717,460.00

We, Duininck Inc, as Principal, and the above identified Surety(ies), authorized to transact surety business in Oregon, as Surety, hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors and assigns firmly by these presents to pay unto Clackamas County, the sum of (Total Penal Sum of Bond) Four Million, Seven Hundred Seventeen Thousand Four Hundred Sixty Dollars & NO/100 (Provided, that we the Sureties bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety); and

WHEREAS, the Principal has entered into a contract with Clackamas County, along with the plans, specifications, terms and conditions of which are contained in above-referenced Solicitation; and

WHEREAS, the terms and conditions of the contract, together with applicable plans, standard specifications, special provisions, schedule of performance, and schedule of contract prices, are made a part of this Payment Bond by reference, whether or not attached to the contract (all hereafter called "Contract"); and

WHEREAS, the Principal has agreed to perform the Contract in accordance with the terms, conditions, requirements, plans and specifications, and schedule of contract prices which are set forth in the Contract and any attachments, and all authorized modifications of the Contract which increase the amount of the work, or the cost of the Contract, or constitute authorized extensions of time for performance of the Contract, notice of any such modifications hereby being waived by the Surety:

NOW, THEREFORE, THE CONDITION OF THIS BOND IS SUCH that if the Principal shall faithfully and truly observe and comply with the terms, conditions and provisions of the Contract, in all respects, and shall well and truly and fully do and perform all matters and things by it undertaken to be performed under said Contract and any duly authorized modifications that are made, upon the terms set forth therein, and within the time prescribed therein, or as extended therein as provided in the Contract, with or without notice to the Sureties, and shall defend, indemnify, and save harmless Clackamas County and its elected officials, officers, employees and agents, against any claim for direct or indirect damages of every kind and description that shall be suffered or claimed to be suffered in connection with or arising out of the performance of the Contract by the Contractor or its subcontractors, and shall promptly pay all persons supplying labor, materials or both to the Principal or its subcontractors for prosecution of the work provided in the Contract; and shall promptly pay all contributions due the State Industrial Accident Fund and the State Unemployment Compensation Fund from the Principal or its subcontractors in connection with the performance of the Contract; and shall pay over to the Oregon Department of Revenue all sums required to be deducted and retained from the wages of employees of the Principal and its subcontractors pursuant to ORS 316.167, and

shall permit no lien nor claim to be filed or prosecuted against Clackamas County on account of any labor or materials furnished; and shall do all things required of the Principal by the laws of this State, then this obligation shall be void; otherwise, it shall remain in full force and effect for so long as any term of the Contract remains in effect.

Nonpayment of the bond premium will not invalidate this bond nor shall Clackamas County be obligated for the payment of any premiums.

This bond is given and received under authority of Oregon Revised Statutes Chapter 279C and the Clackamas County Local Contractor Review Board Rules, the provisions of which hereby are incorporated into this bond and made a part hereof.

IN WITNESS WHEREOF, WE HAVE CAUSED THIS INSTRUMENT TO BE EXECUTED AND SEALED BY OUR DULY AUTHORIZED LEGAL REPRESENTATIVES:

Dated this 1st day of October, 20 26.

PRINCIPAL: Duininck Inc

By: _____
Signature

President, Chad Gauger
Official Capacity

Attest: _____
Corporation Secretary

SURETY: Western Surety Company
[Add signatures for each if using multiple bonds]

BY ATTORNEY-IN-FACT:
[Power-of-Attorney must accompany each bond]

Myron Mulder
Name

_____
Signature

151 N Franklin St.
Address

Chicago	IL	60606
City	State	Zip
952-285-3400	952-285-3417	
Phone	Fax	

STATE OF Minnesota)SS:
COUNTY OF Kandiyohi)

I, Verla K. Folkerts , Notary Public of Kandiyohi County, in the State of Minnesota do hereby certify that Myron Mulder , Attorney-in-Fact of the Western Surety Company, who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person, and acknowledged that he signed, sealed and delivered said instrument, for and on behalf of the Western Surety Company , for the uses and purposes therein set forth.

Given under my hand and notarial seal at my office in the City of Prinsburg in said County, this 1st day of October , 2026 .

Verla K Folkerts
Notary Public

VERLA K FOLKERTS
Notary Public-Minnesota
My Commission Expires Jan. 31, 2028

Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

Wes G Wieberdink, Myron Mulder, Individually

of Prinsburg, MN, 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 it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are 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 shareholders of the corporation.

In Witness Whereof, WESTERN SURETY 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 January, 2024.

WESTERN SURETY COMPANY

Larry Kasten, Vice President

State of South Dakota
County of Minnehaha } ss

On this 3rd day of January, 2024, 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 WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; 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 corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires
March 2, 2026

M. BENT NOTARY PUBLIC SOUTH DAKOTA

M. Bent, Notary Public

CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law and Resolutions of the corporation printed below this certificate are still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 1st day of October, 2026.

WESTERN SURETY COMPANY

L. Nelson, Assistant Secretary

Authorizing By-Laws and Resolutions

ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.

This Power of Attorney is signed by Larry Kasten, Vice President, who has been authorized pursuant to the above Bylaw to execute power of attorneys on behalf of Western Surety 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 / Obligee Services > Validate Bond Coverage, if you want to verify bond authenticity.

CLACKAMAS COUNTY
PUBLIC IMPROVEMENT CONTRACT
PROJECT INFORMATION, PLANS, SPECIFICATIONS AND DRAWINGS

PROJECT: 2026-24 Stone Creek Irrigation Replacement Project

Background

The Stone Creek Golf Club is a championship-caliber 18-hole golf course with clubhouse/pro shop, event center, and driving range, initially built in 2002. The site contains 164.73 acres, the course measures 6,840 yards with a USGA course rating of 73.8 and a USGA slope of 140. The golf course has old-growth Douglas Firs, lakes, four wetlands and forty-three bunkers. The club has been recognized for its environmental stewardship and efforts to conserve water and habitat, however, the original irrigation infrastructure is aging, outdated, and in need of replacement to improve reliability and water efficiency.

Project Scope:

The project includes installation of a new golf course irrigation system and prefabricated pump station. The irrigation system consists of a new two wire/decoder control system with computer and interface, HDPE piping, valves and sprinklers on the golf course and clubhouse area. A new irrigation pump station is proposed to be placed inside the existing pump house.

The Contractor will be required to provide all materials, labor and equipment necessary to install the proposed irrigation system. Demo of the existing irrigation system shall include removal of all sprinklers, controllers and valve boxes on the golf course.

Engineers Estimate: $3,000,000.00 - $5,000,000.00

Key Dates:

All Basic Bid Work may begin as soon as the Notice to Proceed ("NTP") is issued
Proposed schedule. Final schedule to be negotiated with selected contractor.
Mobilization: August 2026
Notice to Proceed with Construction on Golf Course: September 8, 2026
Substantial Completion: May 14, 2027
Final Completion: May 21, 2027

The Scope further includes the following Plans, Specifications and Drawings:

- Section 02110 Site Clearing (1 page)
- Section 02211 Rough Grading (2 pages)
- Section 02811 Golf Course Irrigation (24 pages)
- Golf Course Irrigation Renovation Bid Set – Sheet No: S100; IR000; IR100; IR200; IR300; IR400 (7 pages)

INVITATION TO BID #2026-24
Stone Creek Irrigation Replacement
Project
ADDENDUM NUMBER 1
June 1, 2026

On April 28, 2026, Clackamas County ("County") published Invitation to Bid #2026-24 ("BID"). The County has found that it is in its interest to amend the BID through the issuance of this Addendum #1. Except as expressly amended below, all other terms and conditions of the original BID and subsequent Addenda shall remain unchanged.

1. The bid closing date is hereby changed from June 2, 2026, at 2:00 PM to **June 4, 2026, at 2:00 PM**

End of Addendum #1

SECTION 02110

SITE CLEARING

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes
   1. Remove surface debris.
   2. Clear site of plant life and grass.
   3. Remove existing site items as noted on the drawings.

1.2 REGULATORY REQUIREMENTS

A. Conform to applicable code for disposal of debris.

1.3 SEQUENCING AND SCHEDULING

A. Coordinate clearing Work with utility companies.

1.4 QUALITY ASSURANCE - NOT USED.
1.5 DELIVERY, STORAGE AND HANDLING - NOT USED.
1.6 PROJECT/SITE CONDITIONS

A. Protection of Existing Improvements: Provide protection necessary to prevent damage to existing improvements indicated to remain in place.

B. Dust Control: The amount of dust from clearing and grubbing shall be controlled to prevent the spread of dust to adjacent properties. Water sprinkling shall be used to control release of dust during clearing and grubbing.

PART 2 – PRODUCTS - NOT USED.
PART 3 – EXECUTION

3.1 EXECUTION

A. Clearing
   1. Clear areas required for access to site and execution of Work.
B. Removal
   1. Remove debris, rock, concrete, asphalt, trees and extracted plant life from site. Excavate organic root fibers. Remove root fibers from site. Remove existing site items as indicated on the drawings.
C. Dispose of waste materials, including trash, debris concrete, pipe, etc. off site.

3.2 PROTECTION

A. Protect utilities that remain, from damage.
B. Protect bench marks, trees and existing structures from damage or displacement.
C. Protect irrigation structures and underground piping.

END OF SECTION 02110

SECTION 02211

ROUGH GRADING

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes
1. Removal of topsoil and subsoil.
2. Cutting, grading, filling and rough contouring the site.

1.2 REFERENCES – NOT USED.
1.3 SUBMITTALS – NOT USED.
1.4 QUALITY ASSURANCE – NOT USED.
1.5 DELIVERY, STORAGE, AND HANDLING - NOT USED.
1.6 PROJECT/SITE CONDITIONS - NOT USED.
1.7 SEQUENCING AND SCHEDULING - NOT USED.
1.8 EXTENDED WARRANTY - NOT USED.
1.9 MAINTENANCE - NOT USED.

PART 2 – PRODUCTS

2.1 MANUFACTURES - NOT USED.

2.2 MATERIALS

A. Topsoil: Excavated material, graded, free of roots, rocks larger than 1 inch, subsoil, debris, and large weeds.
B. Subsoil: Excavated material, graded, free of lumps larger than 6 inches, rocks larger than 3 inches, and debris.

2.3 MANUFACTURED UNITS - NOT USED.
2.4 EQUIPMENT - NOT USED.
2.5 COMPONENTS - NOT USED.
2.6 ACCESSORIES - NOT USED.
2.7 MIXES - NOT USED.
2.8 FABRICATION - NOT USED.
2.9 SOURCE QUALITY CONTROL - NOT USED.

PART 3 – EXECUTION

3.1 EXAMINATION

A. Verify that survey benchmark and intended elevations for the Work are as indicated.

3.2 PREPARATION

A. Identify required lines, levels, contours, and datum.
B. Identify known underground, above ground, and aerial utilities. Stake and flag locations.
C. Notify utility company to relocate utilities, if required.
D. Protect above and below grade utilities which are to remain.
E. Protect bench marks, fences, surveying control points, existing structures, sidewalks, plant life and paving, from excavation equipment and vehicular traffic.
F. Generally, compact subgrade to density requirements for subsequent backfill materials.

3.3 EXECUTION

A. Topsoil Excavation
1. Notify Engineer for approval before continuing work.
2. If necessary before making cuts, remove existing top soil over areas to be cut and filled not previously removed by stripping specified in other Sections and stockpile in suitable area.

3. Stockpile on site. Verify stockpile location with Owner. Separate topsoil from subsoils. Protect from erosion.

B. Subsoil Excavation
   1. Excavate subsoil from areas to be further excavated, or re-graded.
   2. Stockpile on site. Protect from erosion. If soft spot, water, or other unusual excavating conditions are encountered, stop work and notify Architect.

C. Filling
   1. Exposed surfaces to be proof-rolled with a fully loaded rubber tire dump or water truck under the observation of a representative of the Engineer. Areas found to be soft or otherwise unsuitable for support of support of structural loads should be over-excavated and replaced with compacted structural fill.
   2. Fill areas to contours and elevations with unfrozen materials.
   3. Maintain optimum moisture content of fill materials to attain required compaction density.
   4. Slope grade away from building as shown on plans.
   5. Make grade changes gradual. Blend slope into level areas.
   6. Remove surplus fill materials from site.

D. Tolerances
   1. Top Surface of Subgrade: Plus or minus 1/10 foot.

3.4 FIELD QUALITY CONTROL

A. If tests indicate Work does not meet specified requirements, remove Work, replace and retest at no cost to Owner.

B. Proof-roll compacted fill surfaces under slabs-on-grade and paving. Proof roll building pad before placing footings.

3.5 ADJUSTING - NOT USED.

3.6 CLEANING - NOT USED.

3.7 DEMONSTRATION - NOT USED.

3.8 PROTECTION

A. Protect finished work under provisions of Division One.

3.9 SCHEDULES - NOT USED.

END OF SECTION 02211

SECTION 02811

GOLF COURSE IRRIGATION

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes
   1. Pipe and fittings, valves, sprinkler heads, accessories, and connections to water source.
   2. Control system.

B. Related Sections: The following Sections contain requirements that relate to this Section:
   1. Division 2 Section 02110 “Site Clearing” for site preparation.
   2. Division 2 Section 02211 “Rough Grading” for course improvements.

1.2 SYSTEM PERFORMANCE REQUIREMENTS

A. Location of Sprinklers and Devices: Design location is intended for maximum irrigation efficiency. All Sprinklers will be located by Irrigation Consultant

B. Minimum Water Coverage:
   1. Not less than:Turf Areas: 100 percent.

C. All flow velocities, within the entire irrigation system, shall not exceed 5 feet per second.

1.3 SUBMITTALS

A. Product data including pressure rating, rated capacity, settings, and electrical data of selected models for the following:
   1. Valves, including general-duty, underground, automatic control, quick-coupler types, isolation, air release and drain type and valve boxes.
   2. Sprinklers.
   3. Pipe and Fittings.
   4. Wiring and Splice Kits.
   5. Irrigation system record drawings.
   6. Control system.
   7. IC Modules.

B. Wiring diagrams for electrical controllers, valves, and devices.

C. Maintenance data for inclusion in "Operation and Maintenance Manual" for the following:

   1. Seasonal activities of start-up, shut-down and winterization, including blow-out operation of sprinkler system with compressed air.
   2. Automatic control valves.
   3. Sprinklers.
   4. Controllers.
   5. Irrigation system record drawings.
   6. Central control system.

D. HDPE pipe, valves and fittings:
   1. The following information shall be submitted by pipe and fitting suppliers:

      a. Name of the pipe manufacturer and a list of the piping and quantities to be provided by manufacturer. A Certificate of Origin is required for all pipe not manufactured in the United States.

      b. Name(s) of fitting manufacturer(s) and lists of fittings and quantities to be provided by manufacturer. A Certificate of Origin is required for all fittings not manufactured in the United States.

c. Pipe and fitting product data indicating conformance with this specification, applicable standards, and warranty provisions, including written documentation regarding any intended variance from this specification and applicable standards.

d. At the time of shipment, the supplier shall provide certified documentation of pipe and fitting conformance with this specification and applicable pipe and fitting standards specified herein.

2. The following information shall be submitted by Fusion Providers.

a. Documentation that each Fusion Technician has met requirements for joining proficiency for each type of fusion joint performed by the Fusion Technician under this specification.

b. Documentation of conformance with this specification and applicable standards, including written documentation regarding any intended variance from this specification and applicable standards. This will include fusion joint warranty information and recommended project specific fusion parameters.

c. The following MANUAL AS-RECORDED DATA is required from the Contractor and/or Fusion Provider:

3. Manual Datalogging for each fusion joint performed on the project, including joints that were rejected. Submittals of the Fusion Technician's joint reports are required as requested by the Owner or Engineer. Specific requirements of the Fusion Technician's joint manual datalogging shall include:

a. Fusion technician's name or initials

b. Date and exact time at completion of fusion process

c. Once the technician has completed this process, they are confirming that they followed all safety and fusion procedures for the fusion machine used.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: Engage an experienced company, foreman, superintendent and laborers with a minimum of five years experience and who have successfully installed irrigation systems similar in material, design, and extent to that indicated for Project that have resulted in construction with a record of successful in-service performance.

B. Listing/Approval Stamp, Label, or Other Marking: On equipment, specialties, and accessories made to specified standards.

C. Listing and Labeling: Equipment, specialties, and accessories that are listed and labeled.

1. The Terms "Listed" and "Labeled": As defined in "National Electrical Code," Article 100.
2. Listing and Labeling Agency Qualifications: A "Nationally Recognized Testing Laboratory" (NRTL) as defined in OSHA Regulation 1910.7.

D. HDPE pipe, valves and fittings:
1. REFERENCES:

a. This section contains references to the following documents. They are a part of this section to the extent referenced in this specification. Where a referenced document contains references to other standards, those documents are included as references under this section as if referenced directly. In the event of a conflict between the requirements of this section and those of the referenced documents, the requirements of this specification shall prevail.

b. Unless otherwise specified, references to documents shall mean the latest published edition of the referenced document in effect at the time of construction.

Reference	Title
AWWA C651	Standard for Disinfecting Water Mains
ANSI/AWWA C901	Polyethylene (PE) Pressure Pipe and Tubing, ½ In. (13 mm) Through 3 In. (76 mm) for Water Service

Reference	Title
ANSI/AWWA C906	Polyethylene (PE) Pressure Pipe and Fittings, 4 In. (100 mm) Through 63 In. (1,600 mm), for Water Distribution and Transmission
ASTM C923	Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes and Laterals
AWWA M55	Manual of Water Supply Practices, PE Pipe–Design and Installation
ASTM D1603	Standard Test Method for Carbon Black in Olefin Plastics
ASTM D2321	Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications
ASTM D2774	Standard Practice for Underground Installation of Thermoplastic Pressure Piping
ASTM D3035	Standard Specification for Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter
ASTM D3261	Standard Specification for Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing
ASTM D3350	Standard Specification for Polyethylene Plastics Pipe and Fittings Materials
ASTM D4218	Standard Test method for Determination of Carbon Black Content in Polyethylene Compounds by the Muffle-Furnace Technique
ASTM F585	Standard Practice for Insertion of Flexible Polyethylene Pipe Into Existing Sewers
ASTM F714	Standard Specification for Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Outside Diameter
ASTM F1055	Standard Specification for Electrofusion Type Polyethylene Fittings for Outside Diameter Controlled Polyethylene Pipe and Tubing
ASTM F1290	Standard Practice for Electrofusion Joining Polyolefin Pipe and Fittings
ASTM F1417	Standard Test Method for Installation Acceptance of Plastic Gravity Sewer Lines Using Low-Pressure Air
ASTM F1962	Standard Guide for Use of Maxi-Horizontal Directional Drilling for Placement of Polyethylene Pipe or Conduit Under Obstacles, Including River Crossings
ASTM F2164	Standard Practice for Field Leak Testing of Polyethylene (PE) Pressure Piping Systems Using Hydrostatic Pressure
ASTM F2206	Standard Specification for Fabricated Fittings of Butt-Fused Polyethylene (PE) Plastic Pipe, Fittings, Sheet Stock, Plate Stock, or Block Stock
ASTM F2620	Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings
ASTM F2786	Standard Practice for Field Leak Testing of Polyethylene (PE) Pressure Piping Systems Using Gaseous Media Under Pressure (Pneumatic Leak Testing)
NSF/ANSI 61	Drinking Water System Components–Health Effects
PPI TR-4	PPI Listing of Hydrostatic Design Basis (HDB), Strength Design Basis (SDB), Pressure Design Basis (PDB) and Minimum Required Strength Ratings for Thermoplastic Piping Materials for Pipe
PPI TR-46	Guidelines for Use of Mini-Horizontal Directional Drilling for Placement of High-Density Polyethylene Pipe

E. Product Options: Irrigation system piping, specialties, and accessories are based on specific types, manufacturers, and models indicated. Components with equal performance characteristics produced by other manufacturers may be considered, provided deviations in dimensions, operation, and other characteristics do not change design concept or intended performance as judged by the Irrigation Consultant. The burden of proof of product equality is on the Contractor. Any substitutions must be approved by the Irrigation Consultant in writing prior to installation.

1.4 HDPE MANUFACTRUER REQUIREMENTS

A. High density polyethylene (HDPE) pipe and fittings shall be manufactured in accordance with the following standards

1. ASTM D3035 – ½ in through 24-in pipe
2. ASTM F714 – 3-in through 54-in pipe
3. AWWA C901 – 1/2 In. (13mm) through 3 In. (76 mm) pipe and tubing
4. AWWA C906 – 4 In. (100 mm) through 63 In (1,600 mm) pipe and fabricated fittings

5. ASTM D3261 – butt fusion fittings, saddles and flange adapters

6. ASTM F1055 – electrofusion couplings and saddles.

7. ASTM F2206 – fabricated fittings

1.5 HDPE FUSION TECHNICIAN REQUIREMENTS

A. Each Fusion Technician shall be separately qualified to make each type of fusion joint. Fusion joint types are butt fusion, saddle fusion, electrofusion, and socket fusion. Only AquaFUSION® qualified technicians shall make fuses during initial construction and during the contractor warranty period. Qualification to make one type of fusion joint shall not qualify a Fusion Technician to make a different type of fusion joint.

B. Each Fusion Technician making butt fusion joints shall be qualified to make butt fusion joints in accordance with ASTM F2620. Qualification shall have occurred not more than 12 months before performing fusion joining on site in accordance with this specification. Qualification shall be a documented demonstration of proficiency by making joints in accordance with ASTM F2620 that are proved to be satisfactory by destructive testing (bend-back test) in accordance with ASTM F2620. Prior to any fused HDPE pipe being installed in the trench, the contractor shall perform a bend back test (in accordance with ASTM F 2620). These tests shall be random. The fusion technician will not know in advance which of his/her fusions will be tested. The completed test specimen shall be manually data logged (each will be marked clearly with name of technician, date, passed or failed written with a silver, metallic Sharpie marker). These completed test specimens will remain onsite for inspection of the irrigation consultant till the project is completed. Tests will be performed as follows, one test per diameter, per week, per technician.

C. Each Fusion Technician making saddle fusion joints shall be qualified to make saddle fusion joints in accordance with ASTM F2620. Qualification shall have occurred not more than 12 months before performing on-site fusion joining in accordance with this specification. Qualification shall be a documented demonstration of proficiency by making joints in accordance with ASTM F2620 that are proved to be satisfactory by destructive testing in accordance with ASTM F2620.

D. Each Fusion Technician making electrofusion fitting joints shall be qualified to make electrofusion fitting joints in accordance with ASTM F1290 and the electrofusion fitting manufacturer's recommended procedure. Qualification shall have occurred not more than 12 months before performing on-site fusion joining in accordance with this specification. Qualification shall be a documented demonstration of proficiency by making joints in accordance with ASTM F1290 and the electrofusion fitting manufacturer's recommended procedure that are proved to be satisfactory by destructive testing in accordance with ASTM F1290 and the electrofusion fitting manufacturer's recommended procedure.

E. Each Fusion Technician making socket fusion joints shall be qualified to make socket fusion joints in accordance with ASTM F2620. Qualification shall have occurred not more than 12 months before performing on-site fusion joining in accordance with this specification. Qualification shall be a documented demonstration of proficiency by making joints in accordance with ASTM F2620 that are proved to be satisfactory by destructive testing in accordance with ASTM F2620.

1.6 APPROVED HDPE SUPPLIERS

A. Pipe and fitting suppliers shall be approved by the Project Consultant.

B. The following pipe manufacturers are approved:

a. AquaFuse®

b. ISCO

c. High Country Fusion

C. The following fitting manufacturers are approved:

a. AquaFuse®

b. ISCO

c. High Country Fusion

D. The following on-site qualification training are approved:

a. AquaFuse®
b. Ewing/ISCO

E. The following mainline and isolation valves are approved:
a. ControlFlo™
b. AquaFuse®
c. Leemco

1.7 PROJECT CONDITIONS

A. Perform site survey, research public utility records, and verify existing utility locations. Verify that irrigation system piping may be installed in compliance with original design and referenced standards.

1.8 SEQUENCING AND SCHEDULING

A. Maintain uninterrupted water service to all facilities during normal working hours. Arrange for temporary water shutoff with Owner.

B. Maintain Uninterrupted existing irrigation system during construction. Arrange for temporary water shutoff with Owner. Provide alternate water source for irrigation if water is to be shut off for more than (2) days.

C. Provide proposed construction schedule to Ownership prior to construction. Coordinate hole closure with Course staff minimum one week in advance. Maximum number of holes closed simultaneously shall be limited to one hole unless approved by Ownership in advance.

1.9 TURN-OVER MATERIALS AND EQUIPMENT

A. Deliver extra materials to Owner. Furnish extra materials matching products installed as described below. Package them with protective covering for storage and label clearly describing contents.

1. Quick Coupler Valves, Hose Swivels and Operating Keys: Furnish (3) extra parts.
2. VIH Rotors: Furnish (6) extra full heads and (6) extra part circle heads, each model.
3. Remote Control Valves: Furnish (2) extra valve assemblies, for each assembly type. To exclude lateral isolation valve.
4. Landscape Sprinklers: Furnish (6) extra full circle rotors and (6) extra adjustable heads, each model.
5. Landscape Spray/Rotary Sprinklers: Furnish (6) extra each model spray body and nozzle.
6. Lateral Isolation Valves: Furnish (2) extra each model lateral isolation valve.
7. 2-Inch Socket Fusion Fittings: Furnish (5) extra coupler, tee and 90 el, each model.
8. 2-Inch Mechanical Fittings: Furnish (2) Philmac IPS-OD-Large Bore poly x poly couplers, tees and couplers, each model.

B. Deliver 2-inch socket fusion equipment, new in box.

1. Socket & Sidewall Heater Assembly: 2-inch McElroy 252601, or approved equal.
2. Heater Adapter Set: 2-inch McElroy MCSW02669, or approved equal.
3. Heater Sling: 2-inch McElroy SW08601, or approved equal.
4. Depth Guage & Chamfer Tool: 2-inch McElroy SW08701, or approved equal.
5. Clamp: 2-inch McElroy SW02710, or approved equal.

1.10 SUBSTITUTIONS

A. Substitutions to the specified equipment will be permitted with the express written approval of the Irrigation Consultant. Substitutions will be approved only when the substituted item is equivalent or better in quality and performance than the item originally specified. The final determination for "equivalents" rests with the Irrigation Consultant. Their decision shall be final and binding.

1.11 INSTALLATION WARRANTY

A. Warranty system against defects of installation and material for a period of 1 year after final completion of the irrigation system. Guarantee shall also cover repair or damage to any part of the premises resulting from leaks or other defects in material, equipment and workmanship to the satisfaction of the Irrigation Consultant. Repairs, if required, shall be done promptly upon notification by the Owner, and, at no cost to the Owner.

B. As part of the warranty, the Contractor shall be responsible for deactivating and winterizing the system prior to the onset of the freezing season and for reactivating the system at the onset of the spring growing season; each event must be accomplished once during the warranty period. In the event the system is completed in a season when it will not be in use, the Contractor shall winterize the system upon completion of testing (and approval by the Irrigation Consultant) and reactivate the system in the spring. The Contractor shall submit a letter to the Irrigation Consultant certifying that the system was winterized and drained and indicate the date such action was accomplished. The Contractor shall be responsible for any damage resulting from failure to comply. Contractor shall instruct and demonstrate winterization and startup techniques for Owner.

1.12 RAIN BIRD BRANDED WARRANTY

A. All Valve-In-Head rotors and swing joint shall carry a 5-year parts replacement warranty.

B. All other Rain Bird branded components shall carry a minimum 1-year parts replacement warranty.

1.13 HDPE PIPE, FITTINGS AND VALVES

A. Pipe and fitting suppliers shall provide a twenty five-year HDPE system warranty covering defects in product material and workmanship. A successful pressure test or pressure leak test prior to the expiration of the warranty period shall not relieve the supplier of warranty responsibility for the full warranty term.

B. Fusion providers shall provide a one-year warranty from the date of installation acceptance covering defects in fusion joining workmanship that shall provide for remaking defective butt fusion, saddle fusion, electrofusion, or socket fusion joints. A successful pressure test or pressure leak test prior to the expiration of the warranty period shall not relieve the installer of warranty responsibility for the full warranty term.

1.14 ALLIED MATERIAL WARRANTY

A. All components not covered under the Rain Bird or HDPE pipe, fitting and valve warranty shall carry a minimum 1-year parts replacement warranty.

PART 2 MATERIALS

2.1 SWING JOINTS:

1. Swing Joints shall have AquaFuse® thread inlet and modified stub ACME threads with elastomeric O-ring seals at each rotating joint and meets ASTM Standard F2768 (Standard Specification for Modified Stub ACME Thread Joint with Elastomeric Seal in plastic piping components). Each rotating joint shall be sealed with an elastomeric O-ring, installed pre-compressed in a sealing groove free of parting lines to prevent leakage as produced by CMF Global.

B. Rain Bird Swing Joints:

1. Rain Bird 952-IC Series Rotors:	Rain Bird SJ1215033TS
2. Rain Bird 702-IC/752-IC Series Rotors:	Rain Bird SJ12125R3TS
3. 1” Landscape Rotors:	AquaFuse AF1C2-418
4. ¾” Landscape Rotors:	AquaFuse AF1AF-418
5. ½” Spray Heads:	Hunter SJ7512
6. Quick Couple Valve:	AquaSaddle 1-1/2" Female Acme 90° with Lasco G1MS-212

C. Or approved Equal

2.2 VIH ROTORS:

A. Full-circle sprinklers shall be:
   1. Rain Bird A702-IC-70-32
   2. Rain Bird A752-IC-70-26
   3. Rain Bird A952-IC-70-48

B. Part-circle sprinklers shall be:
   1. Rain Bird A752-IC-70-36
   2. Rain Bird A752-IC-70-26
   3. Rain Bird A952-IC-70-48

2.3 LANDSCAPE ROTORS:

A. Rain Bird 8005-SS Series, nozzle per plan.

2.4 ROTARY SPRAY HEADS: N/A

2.5 2" REMOTE CONTROL VALVES:

A. Rain Bird 200-PESB-PRS-ICM with ICM adapter.

2.6 2" REMOTE CONTROL VALVE & FILTER:

B. Rain Bird 200-PESB-PRS-ICM with ICM adapter.
C. Netafim LVCZ150HP-NV filter kit.

2.7 CENTRAL CONTROL SYSTEM:

A. The computerized central control system shall be the Rain Bird Cirrus PRO as hereinafter specified. It shall be capable of controlling three (3) independent, 18-hole golf courses, plus one "other" area, each consisting of greens, tees, fairways, approaches, perimeters, roughs and miscellaneous areas. The central shall include the Rain Bird Cirrus PRO Computer Assembly, a field hardware (Integrated Control) interface, an uninterruptible power supply rated at 980 Watts or higher, a power circuit surge arrestor and a grounding network grid with surge arrestors, all as hereinafter specified.

B. All Cirrus PRO central control systems shall be "Hybrid" compatible. Cirrus PRO Hybrid computer systems shall have the flexibility to control up to three (3) field interfaces in any combination of interface type. Each of the interfaces will require a separate serial port for each device. To enable the functionality of these items, a Cirrus PRO system Hybrid software module and additional interfaces (MIM, MIM-LINK or MIM-LINK900, ICI or LDI as needed) shall be supplied as specified on the drawings.

C. Cirrus PRO software shall include the following modules; Automatic Weather™, Smart Weather™, Rain Bird Messenger™, Hybrid Software, Smart Sensors™, The Freedom System™, Map Utilities, Map Layers and Multiple Weather Stations. An additional module purchase is required for Smart Pump™.

D. The Cirrus PRO system shall provide for the selection of three (3) different flow measurement units - U.S. gallons per minute (GPM), cubic meters per hour (M3/H) or liters per second (L/S). It shall also provide for the selection of any one of 22 different languages for display.

E. **Cirrus PRO Software Capacity** —The Cirrus PRO software shall operate in the Microsoft® Windows® 10 32 or 64-bit environment and shall be capable of controlling any one (1) or up to eight (8) of the four (4) types of Rain Bird field control systems: hard-wired satellite controllers; LINK or LINK900 radio-operated satellite controllers, decoder field devices, or IC System.

F. The Cirrus PRO software, when used with an IC System, shall have the capacity to control a maximum of 24,000 single ICMs and activate up to 24,000 rotors or valves using eight (8) IC Interfaces and a Hybrid software module.

G. **Continuous "real-time" communication -** Between the central computer, interfaces and field satellite controllers, decoders or IC modules, the system shall provide continuous operation and response at all times. Continuous field "feedback" status information shall be registered in the computer software and also at the satellite interface when satellite systems are used. Cirrus PRO shall be a program/schedule-based system providing maximum flexibility of programming and giving the operator absolute and full control of the entire system. The Cirrus PRO system shall be capable of unlimited programs residing in the system at one time. Each program shall be further defined by a number of smaller schedules. A maximum of 50 programs and up to 50 schedules per program may be operated simultaneously. All programming shall be maintained in the computer memory and on the hard drive, from which they shall be executed. Programming shall NOT be "downloaded" to the field satellites. It shall NOT be possible to change or reprogram from the field thus assuring the operator full control at all times.

H. A "time window" may be defined for each individual program, confining its operation to this specific time period. Individual programs shall be capable of being designated for up to six (6) start times. Individual schedules shall be capable of being designated for up to 12 start times within the specified time window for their program. It shall be possible to designate the sequence of operation of areas and the sequence of operation of stations in these areas, within a given schedule.

I. **Dynamic Flo-Manager®** feature shall be included with the software and automatically distribute and limit flow within the system, to eliminate hydraulic "overload" while maintaining maximum system operating efficiency, without the requirement of entering flow zone or branch piping data. The system shall also be capable of entering complete flow management database information for up to six (6) independent pump stations; up to 250 piping network branches and up to 999 flow zones for each pump station. This shall result in the highest efficiency of pump station operation, shortest watering cycle time and conservation of energy. During operation, individual flow graphs shall be automatically generated for each of the three (3) courses, with individual station activity information being presented in colorful charts. Flow graphs shall be automatically stored in the software for future access and reference.

J. **The Cirrus PRO Smart Weather™** optional software module, when specified, shall monitor and respond to climatic conditions as they occur by tracking evapotranspiration (ET) rates and other sensory inputs from up to five (5) on-site weather stations. Smart Weather shall also log weather conditions for future reference. Smart Weather shall provide automatic response from user- defined thresholds on up to five (5) WS-PRO2 Weather Stations. The Smart Weather responses shall be provided to the computer for programmed response and shall be capable of sending an email or text message to the user for alarm conditions with the optional Rain Bird Messenger™ module.

K. **Pump Profiling™** - Cirrus PRO shall provide user-definable limits for irrigation system capacity to manage system flow and decrease power consumption during peak electrical periods. If so desired, the user shall define irrigation system capacity for each hour of the day to optimize system efficiency according to electrical demand. The Cirrus PRO software shall automatically increase or decrease system capacity according to these user-defined limits.

L. **Programming Flexibility** - The Cirrus PRO system shall also provide for programs to be set to adhere to manual water budgeting; at the system level, at the individual program level and/or at the individual schedule level. A watersaver feature shall provide water budgeting capabilities from zero (0) to 300% in one (1) % increments. Automatic rain shutdown shall be possible with the integration of a rain sensor.

M. An innovative, guided initialization and "start-up" programming method in Cirrus PRO shall result in a customized QuickStart™ program that gets the system "up" and "operating" in the shortest possible time. Built-in rotor database tables shall provide for easy specification of station sprinklers for custom irrigation scheduling. Precipitation rates for each station shall be automatically calculated with the selection of sprinkler model, pattern and spacing.

N. A unique QuickIRR™ method of programming shall provide for a quick and easy method to automatically build programs to meet all irrigation challenges and allow programming by specific areas and designating sequence of operation of these areas. This feature is enhanced in Cirrus PRO by providing the ability to program multiple courses. Select the course, hole, area, sequence and run time and Cirrus PRO will calculate the most efficient irrigation sequencing.

O. A “Dry Run” feature shall provide for simulation of a program prior to operation, enabling the user to make the necessary adjustments before actually operating it in the field. A printout of the “dry run” results shall be possible, as well as being displayed on the monitor.

P. The Cirrus PRO Cycle + Soak™ feature works with Flo-Manager to achieve maximum efficiency and conservation. It helps control water application on slopes and in areas with poor drainage. Cycle + Soak shall maintain pump station demand while preventing over application in challenging areas of the course. The Cycle + Soak feature will ensure the maximum cycle time defined by the user is never exceeded and will not change with changes in station runtime.

Q. Graphical display of the golf course can be achieved using GPS, CAD, aerial photograph or the Scorecard function. Each hole can be defined to indicate the areas to be irrigated such as greens, tees, fairways, approaches, perimeters, roughs and miscellaneous areas. The system shall provide for multi-station programming and operation of individual stations. A station data table shall give complete database information for each individual station.

R. **The FREEDOM System™** - The Cirrus PRO system shall be capable of direct manual access of any station at any time. Full system remote control via handheld radio or remote telephone commands shall be possible with the integration of The FREEDOM System™ and handheld software module.

S. **Logs and Troubleshooting -** The Cirrus PRO system shall provide for an individual course, daily and seasonal logs for record keeping and easy compliance with regulatory requirements regarding water usage. A unique “Cost Estimator” feature shall provide projections of water and power costs for specific irrigation cycles, which can be used in establishing budget requirements.

T. When used with an Integrated Control System, the Cirrus PRO software shall contain detailed diagnostics software that measures a series of parameters related to system operation. These parameters shall include ICI and ICM operation. The software diagnostics shall be capable of polling individual station ICM’s on each wire path and display the number of passed and failed ICMs on each wire path. The diagnostics shall also be capable of measuring the total mA draw on each wire path. Individual ICM’s can be interrogated to confirm communication with the central control software as well as measure the voltage at each ICM for troubleshooting purposes. The diagnostics shall be capable of communicating with each ICM by “fast connect” or through the “long address” setting based on the diagnostic function.

U. **Hardware**—Computer - Furnish and install at the central location a Rain Bird Cirrus PRO computer assembly consisting of the following minimum specifications:

1. DELL™ Optiplex™ 7040 Mini Tower
2. Intel® Core™ i5-6500 Processor
3. 8GB, DDR4 RAM
4. 1TB Solid State Drive
5. US English (QWERY) Wireless Keyboard and Mouse8X DVD+/-RW Optical Disk Drive
6. Intel® Integrated Graphics
7. 24" Widescreen HD LED-Lit Flat-Panel Monitor
8. 58” Hisense 58U6HF 4K LED Smart TV with 10’ HDMI cable and wall mount.
9. 16 GB USB Flash Drive
10. 6 Serial (RS232/COM) Ports
11. 1 Parallel Port
12. 10 External USB 2.0 Ports (6 USB 3.0, 4 USB 2.0)

V. Preinstalled software shall consist of:
    1. Rain Bird Cirrus PRO software program
    2. Microsoft Windows® 10 Professional 64-bit

W. **Voltage Stabilizer (120VAC)**—At the central location, furnish and install a combination voltage stabilizer and uninterruptible power source. Unit shall have a minimum rated output of 1440VA and 980 Watts. It shall be suitable for 50/60 Hz operation with input power of 120VAC. The unit shall operate in the AC mode from 82VAC input up to 144VAC input, regulating the output voltage within proper limits. Transfer to battery mode shall occur at any input voltage less than 75VAC or greater than 154VAC. In battery mode, output shall be a pure Sine wave form. Stepped or approximated Sine wave forms shall not be acceptable. Output voltage regulation shall be less than 5% at full load. Frequency regulation shall be +/- 3 Hz on battery. Surge energy rating shall be a minimum of 459 Joules. Battery

back-up shall have a minimum time of approximately 14 minutes minimum at half-load capacity. The unit shall have Quick Status Indicators and an LCD menu-driven display screen showing power status, control settings, configuration, test and diagnostics, and logs. USB and Smart-Slot computer interface ports shall enable communication with the central control computer. The tower housing shall have a minimum of eight (8) "battery and surge" NEMA 5-15R electrical outlets. The voltage stabilizer shall be the APC Smart-UPS 1500 or higher.

2.8 ISOLATION VALVES:

A. Ductile Iron Mainline Valves, Sizes 4"-12":

1. Ductile Iron Resilient Seated Gate Valves 250 PSI Polyethylene Ends.
2. Valves shall conform to the latest revision of AWWA Standard C509/C515 covering resilient wedge (RS) gate valves for water supply service.
3. AWWA C509/C515 valves shall have an iron body, bonnet, and O-ring plate. The wedge shall be fully encapsulated with rubber.
4. The sealing rubber shall be permanently bonded to the wedge casting per ASTM D429.
5. Valves shall be supplied with O-ring seals at all pressure retaining joints. No flat gaskets shall be allowed.
6. The valve shall be non-rising stem (NRS), opened by turning left or right, and provided with either a 2" square operating nut or a hand wheel. The operating nut and hand wheel shall be marked with the word "Open" and an arrow to indicate the direction to open.
7. Stems shall be cast copper alloy or stainless steel with an integral collar in full compliance with AWWA. All stems shall operate with copper alloy stem nuts independent of the wedge.
8. All stems shall have two O-rings located above the thrust collar and one O-ring below. The upper stem O-rings shall be replaceable with valve fully opened and subjected to full pressure. The stems on 2"-12" or 63mm-315mm sizes shall also have a low torque thrust bearing located both above and below the stem collar to reduce friction during operation.
9. Waterway shall be smooth, unobstructed, and free of all pockets, cavities, and depressions in the seat area.
10. The body, bonnet, and O-ring plate shall be coated, both on the interior and the exterior, with fusion-bonded epoxy. Epoxy shall be applied in accordance with AWWA C550 and be NSF 61 certified.
11. Each valve shall have the maker's name, the pressure rating, and the year in which it was manufactured cast into the body. Prior to shipment from the factory, each valve shall be hydrostatically pressure tested to the requirements of AWWA C509/C515.
12. AquaFuse® ControlFlo™ Valves shall have all component parts cast and assembled in the USA and shall be manufactured by the Clow Valve Company.

B. Ductile Iron Mainline Valves, Sizes 14"-24":

1. Ductile Iron Resilient Seated Gate Valves 250 PSI Flanged End.
2. Valves shall conform to the latest revision of AWWA Standard C509/C515 covering resilient wedge (RS) gate valves for water supply service.
3. AWWA C509/C515 valves shall have an iron body, bonnet, and O-ring plate. The wedge shall be fully encapsulated with rubber.
4. The sealing rubber shall be permanently bonded to the wedge casting per ASTM D429.
5. Valves shall be supplied with O-ring seals at all pressure retaining joints. No flat gaskets shall be allowed.
6. The valve shall be non-rising stem (NRS), opened by turning left or right, and provided with either a 2" square operating nut or a hand wheel. The operating nut and hand wheel shall be marked with the word "Open" and an arrow to indicate the direction to open.
7. Stems shall be cast copper alloy or stainless steel with an integral collar in full compliance with AWWA. All stems shall operate with copper alloy stem nuts independent of the wedge.
8. All stems shall have two O-rings located above the thrust collar and one O-ring below. The upper stem O-rings shall be replaceable with valve fully opened and subjected to full pressure. The stems on 2"-12" or 63mm-315mm sizes shall also have a low torque thrust bearing located both above and below the stem collar to reduce friction during operation.
9. Waterway shall be smooth, unobstructed, and free of all pockets, cavities, and depressions in the seat area.

10. The body, bonnet, and O-ring plate shall be coated, both on the interior and the exterior, with fusion-bonded epoxy. Epoxy shall be applied in accordance with AWWA C550 and be NSF 61 certified.
11. Each valve shall have the maker's name, the pressure rating, and the year in which it was manufactured cast into the body. Prior to shipment from the factory, each valve shall be hydrostatically pressure tested to the requirements of AWWA C509/C515.
12. Leemco LMV Series, or approved equal.

C. Poly Lateral Isolation Valves:
1. AquaFuse ControlFlow 360 Ball Valve AFBV0200Y-MFNO-360.
2. ISCO MTD Polyflow Full port Ball Valve TRI10901.
3. All valves shall be ball valve type constructed from High Density Polyethylene PE 4710 Full Port and manufactured in accordance with AWWA C901, AWWA C906, ASTM D2513, ASME B16.40, CFR 49 Part 192 and CSA B137.4.
4. Manufacturing facility must be ISO 9001 certified.
5. All valves must be serialized for complete material and process traceability.
6. Valve should maintain a bubble tight seal throughout the entire pressure and temperature range and provide blow-out proof stem and Seal design.
7. All valves must be PE4710 material both body and ends.
8. Operation must be 360 degree open to close.
9. Valves shall be temperature rated -20°F – 140°F Valve body must provide resistance to mechanical and thermal loads as supplied by AquaFuse® ControlFlo™.

2.9 VALVE OPERATING KEYS:

A. Rain Bird 55-K-1.

B. The contractor shall provide three keys of each type required to operate all types of manual gate valves used.

2.10 VALVE BOXES:

a. Automatic Electric Valves:
1. Rain Bird VB-JMB-H. Extensions as required.
2. Carson 1324 Spec Grade Valve Box with **Green** "T" Lid and Bolt. Extensions as required.
3. Or approved Equal.

B. Lateral Isolation Valves:
1. Rain Bird VB-10RND-L. Extensions as required.
2. Carson 910 Spec Grade Valve Box with **Green** "T" Lid. Extensions as required.
3. Or approved Equal.

C. Mainline Isolation Valves:
1. Rain Bird VB-10RND-L. Extensions as required.
2. Carson 910 Spec Grade Valve Box with **Tan** "T" Lid. Extensions as required.
3. Or Approved Equal.

D. Air Relief Valve:
1. Christy B24 Concrete Valve Box with B24D Lid and B24x12 extensions as required.
2. Or approved Equal.

E. Splices:
1. Rain Bird VB-10RND-BLK. 10" CL 200 PVC Riser
2. Carson 910 Spec Grade Valve Box with **Black** "T" Lid. 10" CL 200 PVC Riser.
3. Or approved Equal.

2.11 FLUSH VALVE AND AIR-RELIEF VALVE:

A. Crispin IC10A Air/Vac Combo Valve assembly as detailed.

2.12 WIRE CONNECTORS:

a. All high voltage splice kits shall be Direct Bury Multi-Mold Resin 85 Series as manufactured by 3-M.

b. Wire 24-volt splice kits shall be Direct Bury Splice Kits (DBY) as manufactured by 3-M.

c. All 24 volt and 120-volt wire splices are to be placed in Carson 910 valve boxes with black lid.

2.13 WIRING:

A. 120 and 220 volt and wiring shall be type UF, direct burial copper wire sized as shown on the irrigation plan. 120 and 220 volt wiring shall be three conductor Tray cable and shall consist of one black power wire, one white common wire, and one green ground wire which is to be one wire size smaller that the power wire which the ground is servicing. Grounding shall be provided per manufacturer's recommendation.

B. 24V Power wire shall be red 14-2 PE UF/UL direct bury as manufactured by Regency or approved equal.

2.14 WEATHER STATION:

d. Rain Bird Spectrum Watchdog 3552HU as manufactured by Campbell Scientific with solar/battery power and cellular communication. Weather station shall be equipped with Solar Radiation Sensor, Air Temperature and Relative Humidity Probe Tipping Bucket Rain Gage, and either the Wind Set or Sonic Wind Sensor.

3.1 PIPE AND FITTINGS

F. PE4710 100% Fused System:

1. PE4710 100% Fused System Component material (compound) for all fittings (general and service), valves (mainline and lateral), and pipe shall be high density bimodal High-Performance polyethylene copolymer designed for extrusion of potable water, reclaimed water, industrial, and mining pipe."PE4710 Fused System Component material (compound) shall have a PENT value at 2.4 MPa and 80 °C of >10,000 hours per ASTM F 1473 and It is listed by the Plastics Pipe Institute (PPI TR-4, as both PE 4710 and PE 100) and is certified to ANSI/NSF Standard 14, ANSI/NSF Standard 61, CSA B137.1 and CSA B137.4 and have Oxidative Resistance Classification of CC3".
2. All Fused PE4710 material (compound) shall conform to material requirements specified in pipe standard: ASTM D3035 or ASTM F714 or AWWA C901 or AWWA C906, fitting standard: AWWA C906 or ASTM D3261 or ASTM F2206 or ASTM F1055 as applicable for the pipe or fitting. PE4710 material (compound) shall meet the requirements of ASTM D3350 and shall meet or exceed Cell Classification 445574C and 445576C and is Certified NSF Standard 14 and/or Standard 61 for Potable Water Pipe and Fittings and have an Oxidative Resistance Classification of CC3.
3. PE4710 material (compound) shall have a hydrostatic design basis (HDB) rating at 140°F (60°C) of not less than 1000 psi that shall be listed in PPI TR-4 in the name of the pipe manufacturer.
4. PE4710 pipe and fitting material (compound) in PE4710 pipe and fittings shall contain color and ultraviolet (UV) stabilizer meeting the requirements of Code C or E per ASTM D3350. Code C material shall contain 2 to 3 percent carbon black to provide indefinite protection against UV degradation when material from the pipe is tested in accordance with ASTM D1603 or ASTM D4218. Code E material used for coextruded OD color stripes or a coextruded ID color layer shall contain sufficient UV stabilizer to protect the pipe against UV degradation for at least 24 months of unprotected outdoor exposure. Coextruded color PE compound material shall be PE4710 pipe material compound, varying only by color and UV stabilizer.
5. Clean rework materials derived from pipe production by the same manufacturer are acceptable as part of a blend with new material for the production of new pipe provided that the rework material is the same PE4710 material designation as the new material (compound) to which it is added. Finished products containing rework material shall meet the requirements this specification.

G. PE4710 pipe and butt fusion fittings shall have plain ends for butt fusion.

H. PE4710 pipe:
1. Nominal straight lengths of 3 inch and larger pipe shall be 40 ft. or 50 ft.
2. Nominal coil lengths of 4-inch and smaller pipe shall be 500 ft. Longer or shorter coils such as 800 ft for 4-inch pipe, 1000 ft for 3-inch pipe, or 2000 ft for 2 inch or smaller pipe shall be acceptable. Pipe shall be black. Coextruded lavender or purple stripes or a coextruded lavender or purple layer shall be an acceptable option.
3. Pipe shall be permanently marked using heated indent printing in accordance with ASTM D3035 or ASTM F714 as applicable for the pipe size including:
   a. Nominal size and sizing system, e.g., IPS or DIOD
   b. DR or SDR
   c. Standard Designation, ASTM D3035 or ASTM F714 material designation, and pressure rating or pressure class for water at 73°F.
      a) Marking the Standard Designation on the pipe shall serve as the manufacturer's certification that the pipe has been manufactured, sampled and tested and has been found to comply with the requirements of the standard.
      b) The ASTM D3035 or ASTM F714 pipe pressure rating for water at 73°F shall be "PE4710 PR161" where 161 = pressure rating in psi
   4. Extrusion production-record code
   5. Manufacturer's Trademark or trade name "AquaFuse".

I. PE4710 fittings:
1. PE4710 butt fusion, saddle fusion, electrofusion and fabricated fittings shall be manufactured from PE4710 material (compound) in accordance with this specification. All fittings molded and fabricated shall be manufactured in the U.S.A. and must be NSF-61 Approved and manufactured at a Factory Mutual (FM) approved facility that has been inspected and approved by FMRC, and are audited frequently to ensure compliance and promote continuing improvement.
2. PE4710 fittings shall comply with ASTM D3261 for molded butt fusion and saddle fusion fittings, flange adapters and MJ adapters, or shall comply with ASTM F2206 or AWWA C906 for fabricated butt fusion fittings, or shall comply with ASTM F1055 for electrofusion fittings.
3. PE4710 fittings shall comply with the marking requirements of ASTM D3261 for molded butt and saddle fusion fittings, flange adapters and MJ adapters or shall comply with the marking requirements of ASTM F2206 or AWWA C906 for fabricated butt fusion fittings, or shall comply with the marking requirements of ASTM F1055 for electrofusion fittings.
4. PE4710 fittings shall have pressure class ratings not less than the pressure class rating of the pipe to which they are joined.

3.2 FUSION JOINTS

A. Unless otherwise specified, PE4710 pipe and fittings shall be assembled in the field with butt fusion, saddle fusion or electrofusion joints. **Electrofusion couplings can only be installed if pipe is prepared with a professional rotary scraper.** ASTM F2620 and the pipe manufacturer's recommended procedure shall be observed for butt fusion and saddle fusion joints. ASTM F1290 and the electrofusion fitting manufacturer's recommended joining procedure shall be observed for electrofusion joints.

B. Field butt fusion, saddle fusion and electrofusion joints shall be made by Fusion Technicians that are qualified in accordance with this specification to make the specific fusion joint type.

C. Field fusion joints shall be recorded and documented in accordance with this specification.

3.3 MECHANICAL CONNECTIONS AND FITTINGS FOR PRESSURE APPLICATIONS

A. Connections shall be defined in conjunction with the linking of project piping, as well as the tie-ins to other piping systems.

B. MECHANICAL AND COMPRESSION FITTINGS

1. Acceptable mechanical and compression fittings for use with PE4710 pipe and fittings shall be mechanical fittings that are qualified by the mechanical fitting manufacturer for use with HDPE pipe and fittings.

2. Mechanical and compression fittings for use with HDPE pipe shall provide restraint against longitudinal separation that is inherent to the design of the joint. Mechanical joints that do not provide restraint against pull-

out or push-off are prohibited. An insert stiffener must be used to ensure long term restraint and water tight seal. Compression Fittings are to be used for REPAIRS ONLY.

3. Mechanical connections to non-HDPE devices and appurtenances shall be by bolted flange adapter or MJ adapter. Flange adapter and MJ adapter connections shall be assembled, installed and tightened in accordance with flange adapter or MJ adapter manufacturer's instructions. Flange bolt tightening shall be in accordance with PPI TN-38.

B. GASKETED, PUSH-ON FITTINGS

1. Gasket push-on fittings shall be fitted with insert stiffener and an external mechanical restraint that span across the joint and are assembled in accordance with restraint manufacturer's instructions.

   a. Thrust blocking does not provide acceptable restraint and is prohibited.

   b. Where plain-end PE4710 pipe is assembled with push-on fittings, the PE4710 pipe end shall be fitted with electrofusion restraints so that external mechanical restraint may be secured to the PE4710 pipe.

2. Where PE4710 pipe is connected to gasket mechanical joint fittings or appurtenances, the connection shall be made by butt fusing a PE4710 MJ Adapter to the PE4710 pipe and connecting the PE4710 MJ Adapter to the mechanical joint fitting or appurtenance.

C. SLEEVE-TYPE COUPLINGS

1. Sleeve-type mechanical couplings shall be manufactured for use with HDPE pipe, and shall be restrained and shall be fitted with insert stiffener as indicated on the drawings and in these specifications. Unrestrained sleeve-type couplings are prohibited.

D. EXPANSION AND FLEXIBLE COUPLINGS

1. Expansion-type mechanical couplings are prohibited.

E. CONNECTION HARDWARE AND COATING

1. Bolts shall be carbon steel grade 5 or 8 with a minimum 105,000 PSI tensile strength conforming to SAE J429. Bolts shall be standard ANSI B1.1, Class 2A coarse threads. Nuts shall conform to ASTM A563 and be standard ANSI B1.1, Class 2A coarse threads. All bolt heads and nuts shall be hexagonal. Identification on the head of the bolt shall be three slash marks.

2. Bolts and nuts shall be finished with the TRIPAC 2000 coating system to significantly reduce the effects of corrosion. A multi-step process shall be utilized to chemically clean, abrasive blast and prime with zinc/nickel phosphate primer prior to application of the Xylan fluoropolymer. Wear resistance (K-Factor) shall be in the range of 6 to 8 (excellent) and minimal effects should be seen after a 2000-hour Salt Spray test conforming to ASTM B-117.

4.1 CONSTRUCTION:

4.01 DELIVERY AND OFF-LOADING

A. All piping shall be bundled or packaged for transportation by commercial carrier to the site.

B. Before off-loading, pipe shall be inspected for damage. Any pipe damaged in shipment shall be assessed and either accepted or rejected as directed by the Owner or Engineer, and the pipe supplier shall be notified of rejected pipe within 7 days of delivery at the site. Rejected pipe shall be quarantined for disposition. Each pipe shipment shall be checked for quantity and proper pipe size, color and type.

C. Pipe shall be off-loaded and handled in accordance with the pipe manufacturer's instructions and AWWA M55.

D. The Contractor shall be responsible for correct procedures in loading, unloading, stacking, transporting, and handling all materials to be used in the system. The Contractor shall avoid rough handling which could affect the useful life of equipment. Pipe shall be handled in accordance with the manufacturer's recommendations on loading, unloading, and storage.

4.02 HANDLING AND STORAGE

A. Pipe lengths should be placed and stored on level ground. Pipe should be stored at the job site in the unit packaging provided by the manufacturer. The interior of the pipe, as well as all end surfaces, should be kept free from dirt and foreign matter.

B. Pipe shall be handled and supported with the use of woven fiber pipe slings or approved equal. Care shall be exercised when handling the pipe to not cut, gouge, scratch or otherwise abrade the piping in any way. Use of hooks, chains, wire rope or any other handling device which creates the opportunity to damage the surface of the pipe is strictly prohibited.

C. Covering or shading of PE4710 pipe and fittings against exposure to ultraviolet light from sunlight is not required.

D. Materials shall be stored to insure the preservation of their quality. Materials can be stored on the site providing the storage area is approved by the Owner, see Site Summary Plan. Security of the stored materials is the responsibility of the Contractor. The Contractor shall be responsible for correctly handling the materials used to construct the irrigation system, and all materials will be handled and stored in accordance with the manufacturer's recommendations. The Contractor shall adequately protect the Owners property from theft or vandalism and shall be permitted to erect a temporary construction fence for storage of equipment and materials. The Contractor will be required to keep a neat and orderly construction area. Disposal of rubbish and waste material shall be continuous. Upon completion of the system, the contractor shall remove all temporary structures, rubbish, and waste material remaining from the installation.

4.03 EXCAVATION AND BACKFILL:

A. The Contractor shall do all necessary trenching and backfilling required for the proper installation of the system. Only mainlines will be installed with trenches. All pipe 2-1/2" and smaller shall be installed using the "pulling method".

B. The Contractor shall use backfilling equipment and techniques that will tamp the backfill in such a manner that no settling will result.

C. Trench bottoms and backfill material will be free from rock or stones over 1/2 inch in diameter, clodded dirt, or other unsuitable substances to prevent damage to pipe during backfill operation. The trench bottom is to be smooth and where rock or other debris is encountered, over excavation of 6 inches is required and suitable material will be used to form an adequate pipe bed.

D. Backfilling of trenches containing plastic pipe shall be done when the pipe is cool to avoid excessive contraction in cold weather. All pipe embedment material should be selected and placed carefully, avoiding stones (over 1/2" in size), frozen lumps, and debris. Sharp stones and crushed rock larger than 3/4 inch which could cause significant scratching or abrasion of the pipe, should be excluded from the embedment material.

E. Contractor shall perform all boring, cutting, removal, and/or repair of pavement, where pipes must be installed across existing roads, paths, walkways or other pavement. Such work shall be coordinated with the owner and/or governmental agencies to minimize time of close for any road, walkway, etc. Where cart path crossings are required, contractor shall cut and remove pavement and provide a temporary gravel repair until Contractor is able to pave prior to finalization of project.

F. Lateral pipe is to be installed with a vibratory plow, the Contractor should use due care to ensure the pipe is not damaged by scraping or stretching during installation, and a bullet with a diameter at least 1" greater than the pipe being installed shall be used.

G. Trenches shall be made wide enough to allow a minimum of 6 inches between parallel pipes. Trenches for pipes shall be made of sufficient depths to provide the minimum cover from finished grade as follows:

1. 30" minimum cover over main lines (pipe 3" and larger).
2. 24" minimum cover over lateral lines (pipe 2-1/2" and smaller).
3. 36" minimum cover over 24-volt electric wires.
4. 18" minimum cover over lateral lines for spray head zones (pipe 2-1/2" and smaller).

H. Where 120-Volt power wire and 24-volt power wire share the same mainline trench, they are to be laid on opposite sides of the mainline and at different elevations allowing for a minimum separation of 18” with the 120-volt power near the bottom of the pipe and the 24-volt control wire near the top of the pipe.

I. Where the 120-volt power wire is not in the mainline trench, it is to be installed in a trench with a minimum of 36 inches of cover.

J. Maintain all warning signs, shoring, barricades, flares, and red lanterns as required by any local ordinances.

K. Backfill shall be placed in layers of twelve inches (12") or less and tamped in place. The contractor shall guarantee that all trenches and other disturbed areas will be free from settling of more than one-half inch (1/2"). Should more settling than this occur, the Contractor shall regrade and reseed the trench. This no-settlement guarantee shall be in effect for one year following the final acceptance.

L. If rock is encountered in sufficient amounts that it cannot be removed by trencher or backhoe, the Contractor shall notify the Owner and they shall negotiate the additional cost incurred in the handling of such areas of excavation.

M. If existing utilities or other components are damaged during construction, they are to be repaired by the contractor at no additional cost to the owner.

N. All equipment on the golf course shall be equipped with a non-aggressive turf type tread. No tracks allowed.

4.04 MAINLINE INSTALLATION:

A. Mainline installation is to be in accordance with manufacture's recommendations. Mainline is to be installed in one complete operation with all associated components (fittings, mainline valves, lateral valves, etc.) The mainline is to be tested under normal operating pressure for at least 24 hours prior to making lateral connections. Mainlines are to be flushed and all air removed prior to connecting laterals.

B. Routing of mainline shall be in accordance with the plans wherever possible. The Contractor may make necessary adjustments to avoid obstacles provided the adjustments do not conflict with the intent of the plans and specifications. All such changes or adjustments are subject to the approval of the Owner.

C. Joining of O-ring pipe shall be completed with a lubricant approved by the pipe manufacturer. Pipe Manufacturer's recommendations shall be used to join pipe lengths. Gasketed fittings shall be installed by cutting the pipe square, removing burrs and using a rasp or beveling tool to taper the cut ends of pipe. Lubricant shall be also used to install fittings per manufacturer's recommendations.

D. HDPE pipe shall be fused as per manufactures specifications and per section 4.05.

D. All mainline trenches are to be closed at the end of each day.

E. Where mainlines are to cross shallow drainage pipes, irrigation contractor shall adjust mainline depth to route pipe over or under drainage pipe as required.

4.05 FUSION PROCESS

A. GENERAL

1. Butt and saddle fusion of PE4710 pipe and fittings shall be in accordance with ASTM F2620 and the manufacturer’s recommended joining procedure.
2. Electrofusion of PE4710 pipe and fittings shall be performed in accordance with ASTM F1290 and the electrofusion fitting manufacturer’s recommended procedure.

3. PE4710 pipe and fittings shall be fused by qualified fusion technicians, as documented by the fusion provider. Training records for qualified fusion technicians shall be available to Owner or Engineer upon request.

4. As each fusion joint is constructed the contractor is required to perform MANUAL DATALOGGING on all fusions. This is written next to all fusions with a metallic ink marker (such as Sharpie or equivalent) that will include fusion technician's name or initials, date and exact time at completion of fusion process. Once the technician has completed this process, they are confirming that they followed all safety and fusion procedures for the fusion machine used.

5. Butt fusion machines shall incorporate the following properties, including the following elements:

   a. HEAT PLATE – Heat plates and the non-stick coatings on heating surfaces shall be in good condition without heating surface gouges or scratches. The non-stick coating shall be intact, clean and free of any contamination. Heater controls and temperature indicators shall function properly, and electrical cords and connections shall be in good condition. The heat plate shall maintain a uniform and consistent temperature on all areas of the heating surfaces on both sides of the heat plate.

   b. CARRIAGE – Carriage shall travel smoothly with no binding at less than 50 psi for hydraulic fusion machines. Clamps shall be in good condition with proper inserts for the pipe size being fused.

   c. GENERAL MACHINE – Overview of machine body shall yield no obvious defects, missing parts, or potential safety issues during fusion.

6. Other equipment specifically required for fusion processes shall include the following:

   a. Pipe rollers shall be used to support pipe to either side of the butt fusion machine and provide for vertical and lateral pipe alignment straight through the butt fusion machine.

   b. A protective enclosure that provides for full machine motion of the clamps, heat plate, fusion assembly and carriage shall be provided for fusion in inclement and/or windy weather. Pipe ends shall be covered or blocked where open pipe ends could allow prevailing winds to blow through the pipe.

   c. Fusion machine operations and maintenance manual shall be kept with the fusion machine at all times.

B. JOINT RECORDING

1. MANUAL DATALOGGING on all fusions. This is written next to all fusions with a metallic ink marker (such as Sharpie or equivalent) that will include fusion technician's name or initials, date and exact time at completion of fusion process. Once the technician has completed this process, they are confirming that they followed all safety and fusion procedures for the fusion machine used.

4.06 INSTALLATION

A. The PE4710 pipe and fittings shall be installed such that PE4710 pipe curvature is not less than the minimum bending radius recommended by the pipe manufacturer.

B. Direct burial installation of PE4710 pressure pipe shall be in accordance with ASTM D2774 and the pipe manufacturer's recommendations.

C. Direct burial installation of PE4710 non-pressure pipe shall be in accordance with ASTM D2321 and the pipe manufacturer's recommendations.

D. Installation of PE4710 pipe by horizontal directional drilling shall be in accordance with ASTM F1962 or PPI TR-46 and the pipe manufacturer's recommendations.

E. Installation of PE4710 pipe by slip lining or insertion within a casing or host pipe shall be in accordance with ASTM F585 and the pipe manufacturer's recommendations.

F. Tracer Wire – All PE4710 piping shall be installed with a continuous, insulated PE, UF, TW, THW, THWN, or HMWPE insulated copper, 10 gauge or thicker wire for pipeline location purposes by means of an electronic line tracer.

1. The wires shall be installed along the entire length of the pipe.

2. Sections of wire shall be spliced together using approved splice caps and waterproof seals. Twisting the wires together is not acceptable.

4.07 MAKING CONNECTIONS TO NON-PE4710 PIPING SYSTEMS

A. Approximate locations for non-PE4710 piping systems are shown on the drawings or detailed in the specifications. Prior to making connections into existing piping systems, the Contractor shall:

1. Verify the actual field location, size, piping material and service of non-PE4710 piping systems.

2. Obtain all required non-PE4710 piping manufacturer(s) approved fittings (i.e., saddles, sleeve type couplings, flanges, tees, etc., as shown).

3. Have installed all temporary pumps and/or pipes in accordance with established connection plans.

4. Have on hand pipe stoppers, blind flanges or other devices to seal a valve or appurtenance that fails to seal properly. When applied to pressure rated valves or appurtenances, all such devices shall be pressure rated equal to or greater than the pressure rating of the valve or appurtenance to which they are attached.

B. Where PE4710 pipe connects in-line to unrestrained gasket push-on piping, the end of the PE4710 pipe shall be anchored in-line within 10 ft of the connection to restrict longitudinal movement of the PE4710 pipe.

3. The PE4710 pipe shall be fitted with a PE4710 wall anchor or electrofusion flex restraint.

4. The PE4710 wall anchor or electrofusion flex restraints shall be encased in reinforced concrete that is sufficient to withstand Poisson effect longitudinal loads in accordance with AWWA M55 In-Line Anchoring.

C. Unless otherwise approved by the Engineer, new piping systems shall be completely assembled and successfully tested prior to making connections to non-PE4710 piping systems.

4.08 PIPE SYSTEM CONNECTIONS

A. Pipe connections shall be installed per applicable standards and regulations, as well as per the connection manufacturer's recommendations and as indicated on the drawings. Pipe connections to structures shall be installed per applicable standards and regulations, as well as per the connection manufacturer's recommendations.

4.09 TRACER WIRE TESTING

A. Upon completion of installation by direct burial, slip lining, directional boring or pipe bursting, the Contractor shall demonstrate that the tracer wire is continuous and unbroken through the entire run of the pipe.

1. Demonstration shall include full signal conductivity (including splices) when energizing for the entire run in the presence of the Owner or Engineer.

2. If the wire is broken, the Contractor shall repair or replace it. Pipeline installation will not be accepted until the tracer wire passes a continuity test.

4.10 TAPPING FOR POTABLE AND NON-POTABLE WATER APPLICATIONS

A. Tapping shall be performed using standard saddle fusion fittings, electrofusion saddle fittings, or mechanical tapping saddles or sleeves designed for use on HDPE piping. Tapping by threading directly into the PE4710 pipe wall is prohibited.

B. Branching connections requiring a larger diameter shall be made with saddle fusion branch saddle fittings or mechanical branch connection fittings as specified and indicated on the drawings.

C. Equipment used for tapping shall be made specifically for tapping HDPE pipe:

1. Tapping bits shall be carbide tipped and designed for clean burr-free drilling, specifically made for HDPE pipe. 'Hole saws' made for cutting wood, steel, ductile iron, or other materials are strictly prohibited.

2. Manually operated or power operated drilling machines may be used.

D. Taps may be performed while the pipeline is filled with water and under pressure ('wet' tap), or when the pipeline is not filled with water and not under pressure ('dry' tap).

4.11 TESTING

A. Testing shall comply with all local building codes, statutes, standards, local jurisdiction, and laws.

B. Segments of the pipe may be tested separately in accordance with standard testing procedure, as approved by the Owner and Engineer.

C. HYDROSTATIC LEAKAGE TESTING FOR PRESSURE PIPING

1. Hydrostatic leakage testing shall comply with ASTM F2164. Joint leakage and any defective materials and/or workmanship shall be repaired or replaced by the Contractor at no additional cost to the Owner.
2. Pneumatic (compressed air) leakage testing of PE4710 pressure piping is prohibited.

D. LEAKAGE TESTING FOR NON-PRESSURE PIPING

1. Non-pressure piping such as sewers shall be tested for excessive leakage in accordance with ASTM F1417.
2. Joint leakage and any defective materials and/or workmanship shall be repaired or replaced by the Contractor at no additional cost to the Owner.

4.12 CHECK LIST FOR CONTRACTORS

A. All system components must be 100% fused with a Zero "0" allowable leakage rate for a minimum of 25 years and with a **PENT value at 2.4 MPa and 80 °C of >10,000 hours per ASTM F1473** from the Pump Station connection to the Swing Joint assembly and no other alternatives shall be accepted.

The fused components consist of the following:

1. Fused lateral connection to swing joint- Rated at > 335 PSI Operating Pressure
2. Fused gear operated lateral isolation valves – NSF/ANSI Standard 61 certified.
3. Fused mainline valves - AWWA C550 and NSF/ANSI Standard 61 certified.
4. Molded fittings thru 12" – FM Approved, AWWA, NSF/ANSI Standard 61 certified.
5. Fabricated fittings 14" and larger - FM Approved, AWWA, NSF/ANSI Standard 61 certified.
6. Pipe - FM Approved, AWWA, NSF/ANSI Standard 14 and 61 certified.

B. SUBMITTALS

1. The following information shall be submitted by the contractor or system supplier:
   a. A Certificate of Analysis issued by the manufacturers Quality Assurance that confirms that the products in the "Check List For Contractors" section meets all requirements including **a PENT value at 2.4 MPa and 80 °C of >10,000 hours per ASTM F 1473.**
   b. A Certificate of Origin is required for all products not manufactured in the United States.

4.13 ELECTRICAL WORK:

A. The Contractor is responsible for all electrical work pertaining to the irrigation system unless otherwise noted on the plan.

B. All electrical shall be installed per local and national codes.

C. All high voltage power shall be installed by a licensed electrician.

D. All electrical along plowed pipe routes shall be layed along the pipe, no pulling of wire allowed.

4.14 UTILITIES

A. The Contractor shall be required to locate all utilities within the limits of construction, including private and public utilities prior to construction.

B. Owner shall be responsible to verify utility locates and make Contractor aware of other possible utilities not located.

C. Any and all damage to located utilities, tile lines, and existing water lines will be repaired by the Contractor at the Contractors expense. Any and all damage to non-located utilities, tile lines, and existing water lines will be repaired by the Contractor and paid for by the Owner at a negotiated price.

4.15 QUICK COUPLE VALVES:

A. Quick couple valves are to be installed with prefabricated swing joint assemblies as shown in the details. One quick coupler valve shall be provided for each tee complex and one quick coupler valve shall be provided for each green and tee complex and located per plan.

4.16 LATERAL LINES:

A. Pipe and fittings shall be thoroughly cleaned of dirt, dust and moisture immediately before the fusion process.

B. Lateral pipes and fittings shall be installed in accordance with the manufactures recommendations.

C. The pulling technique shall be used and a bullet with a diameter 1" greater than the pipe will be required.

D. All lateral lines shall be flushed thoroughly prior to installing sprinklers and electric valves. Flushing shall be completed by plumbing a minimum five-foot length of 1.25” pipe threaded to the swing joint outlet and directed to discharge water downhill of trench or excavated hole. No water allowed within excavated area prior to plumbing the sprinkler head.

4.17 SPRINKLER HEADS:

A. All sprinkler heads are to be installed on swing joints as shown on the detail sheet.

B. Sprinklers are to be installed with the top edge of the sprinkler body at finish grade and level to maintain equal water distribution in 360 degrees rotation.

C. Sprinklers shall be installed at least 12" away from curbs, sidewalks or buildings. The contractor shall be responsible for damage from landscape maintenance operations to sprinklers which are installed incorrectly.

4.18 CONTROL EQUIPMENT INSTALLATION

A. Installation of all control equipment wired, and radio is to be complete in accordance with manufacturers recommendations. Refer to details and manufacturer installation manuals for detailed installation instructions.

B. Central controller shall be located at the superintendent's office.

C. Contractor shall provide Irrigation Consultant with daily records of all decoder addresses on VIH rotors and electric solenoid-controlled valves on the “as-staked” plan provided to Contractor by Irrigation Consultant.

D. Contractor shall install all radio communication equipment as necessary to provide communication throughout the property.

4.19 FIELD GROUNDING:

A. All central control and field control units shall be ground per manufacturers recommendations. Grounding shall be tested by and Independent Contractor or Distributor to ensure the minimum resistance is achieved at each controller unit. Report detailing resistance test shall be provided to Irrigation Consultant prior to final payment application.

4.20 CLEANING PREMISES:

A. The Contractor shall continuously keep a neat and orderly area in which he is installing the system. Disposal of rubbish and waste material resulting from the installation shall be continual. Upon completion of the system, the Contractor shall remove from the Owner's property, at his own expense, all temporary structures, rubbish, and waste materials resulting from installation.

4.21 COURSE PLAYABILITY:

A. The Contractor may coordinate with the Golf Pro and Superintendent to close one golf hole throughout construction.

4.22 CARE OF SOD AND TURF:

A. For all phases of the installation requiring trenching or excavating, sod shall be cut, removed and replaced alive within all areas of the golf course. Turf elevated due to pulling laterals and 24-volt wiring shall be rolled and top dressed with seed mix to establish a level surface after all connections have been completed. All areas disturbed by construction or equipment shall be graded to conform to their specified or original condition and be sodded as approved by the Owner. No more than 1000 feet of trench will be permitted to be unrestored at any one time.

B. It shall be the Contractors responsibility to care for sod/seed until established. Scheduling of irrigation shall be coordinated with Superintendent.

C. Any turf loss due to lack of irrigation as a result of not maintaining the existing irrigation system is the responsibility of the contractor. All turf lost shall be cut, removed and resod with a sod mix approved by the Superintendent. Turf loss shall be identified by the Golf Course Superintendent.

4.23 VEGETATION:

A. No trees or shrubs shall be cut, pruned or removed without authorization of the Owner in writing. Any trees removal that is required and approved shall be cut and removed by golf course personnel.

4.24 REMOVAL OF EXISTING IRRIGATION EQUIPMENT:

A. Existing irrigation equipment shall be removed by Contractor. Contractor shall coordinate construction schedule with golf course superintendent for removal of existing irrigation equipment.

B. All irrigation valves, rotors and field satellites, valve boxes or other components visible on the surface shall be removed and returned to Owner.

C. All voids in finish grade from removal of irrigation shall be filled with topsoil from mainline excavation, graded flush with surrounding grade and seeded with mix approved by Supt..

4.25 ADDITIONAL HEADS & DECODERS FOR SHOP INVENTORY:

A. See Section 1.7.

4.26 EXISTING IRRIGATION SYSTEM:

A. The existing irrigation system shall be kept fully operational during the construction of the new irrigation system during the irrigation season. If the existing system is damaged during the irrigation season, the contractor shall repair the existing system to provide irrigation to the golf course as water is needed to maintain vegetation. If the existing system is damaged outside the irrigation season, damaged location shall be adequately marked for possible future repair by the contractor prior to the following irrigation season if required to maintain existing vegetation. The contractor shall coordinate construction of the new irrigation system so that the existing system can be removed as the new system is installed.

B. Work shall proceed from the new pump station and proceed out to the extremities of the property. The existing system is to be kept operational during construction and if required, the new system can be temporally connected to the existing system to provide irrigation during the construction period.

4.27 ROAD CROSSINGS:

A. All road crossings shall be bored. No cut and patch shall be allowed.

4.28 CART PATH CROSSING AND REPAIR:

A. Cart path crossings are to be made by cutting cart path and pulling the pipe under the path with a vibratory plow. Provide a temporary gravel repair which will be suitable for a future pavement base. Contractor will provide all permanent repairs to street and cart path crossings. Repair shall match exiting conditions.

B. Mainline crossings shall be made by making a 3-foot cut and removing existing pavement. Provide a temporary gravel repair which will be suitable for a future pavement base. Contractor will provide all permanent repairs to cart path and street crossings. Repair shall match exiting conditions.

C. Where possible, cart path crossings shall be made by boring pipe under the path.

4.29 GPS SURVEYING OF STAKED SPRINKLERS:

a. Location of all sprinklers will be marked with GPS by Baer Design Group, LLC in upto six site visits. Additional staking requested the Contractor will be at the Contractors expense at a rate of $140/hr plus all travel expense.

b. Contractor shall install sprinkler heads within 6 inches of GPS's location. Contractor is responsible to provide offset markers during excavation for head set to ensure rotor is installed in desired location.

c. The Contractor will provide one person to assist in the head staking and the same person shall be used to stake the entire golf course.

d. The Contractor is to provide whiskers for marking head locations. Whisker colors shall be pink for full circle sprinkler heads and blue for part circle sprinkler heads. The irrigation consultant is to be notified at least 10 working days prior to each staking phase.

E. Contractor shall provide Whiskers for staking of sprinklers
1. Whiskers shall be Stake All Whiskers by Black Burn Marking Flags and Marking Products. https://blackburnflag.com/marking/stake-whiskers/stake-all-whiskers/
2. Full circle rotors shall be marked with blue whiskers.
3. Part circle rotors shall be marked with pink whiskers.

F. The irrigation consultant is to be notified at least 10 working days prior to each staking phase.

4.30 RIPRAP:

A. Rip Rap material shall consist of 6” to 12” angular solid rock at a depth of 18”, sourced locally to match existing rock on property, if applicable.

4.31 OTHER INSTRUCTIONS:

B. Manufacturer's recommendations and instructions will be followed on the installation of all equipment constituting the irrigation system.

C. Valve boxes are to be installed so that the top of the box is in the same plane as the ground surface directly surrounding the box.

D. The Contractor shall maintain adequate protection of all his work as well as the Owner's property from damage, injury or loss arising in connection with work on this Contract. The Contractor shall securely cover all openings into the pipe system at the end of the day.

E. The Contractor shall conduct their operations in a manner to comply with all provisions of the Soil Erosion and Sedimentation Control Act, as well as preventing the entry of fuels, oils, chemicals, or sewage or other harmful substances into any bodies of water or aquifers.

F. Any existing equipment removed and not used in the irrigation system shall remain the property of the Owner. Removed equipment shall be cleaned and delivered to the Owner prior to completion of the contract.

5.1 FINALIZATION:

5.2 TESTING:

A. The Owner's authorized representative shall be responsible for inspection of the Contractor's work while such work is in progress. The Contractor will be notified of any work which does not meet the installation instructions and will be required to correct such work.

B. Upon completion of construction, the contractor will test the entire system under the normal working conditions. Upon visual inspection of the ground, should any leak be found, it shall be promptly repaired. All components will be checked for proper operation. Any malfunctioning equipment or leak shall be repaired and retested until it is in satisfactory working condition.

C. Upon completion of construction, the Contractor will test all grounding and provide a written report to the Owner on the installed performance for each wire leg, central control, weather station, pump station and other grounding system.

5.3 ADJUSTING THE SYSTEM:

A. Upon completion of the system the Contractor shall adjust the sprinkler heads to provide optimum performance, and all controllers, and other equipment will be set so that the overall operation of the system is at its most efficient.

B. The irrigation consultant will assist the Contractor in programming the central controller.

C. The Contractor shall flush all lines and evacuate all air from the system.

D. The Contractor shall adjust the pressure of all heads to provide performance which is specified on the irrigation plan. Minor adjustment during the guarantee period will be made by the Owner.

5.4 NOTIFICATION AND COMPLETION OF REQUIREMENTS:

A. When the Contractor is satisfied that they have completed the requirements of the contract documents, and has tested the system, the contractor shall submit a written statement which indicates the installation is complete. At a prearranged time, the system will be inspected by the Owner and Irrigation Consultant and any items found which do not constitute completion of the irrigation system will be noted. The Contractor will be notified of corrections in writing.

5.5 OWNER'S ACCEPTANCE:

A. Final acceptance of the work may be obtained from the Owner upon the satisfactory completion of all work. The Owner may accept the system prior to completing corrections deemed necessary during the final inspection. Any appropriate deductions for such conditions will be made to the final payment.

5.6 RECORD DRAWINGS:

A. The contractor shall furnish the Owner with a reproducible "Record" drawing with each payment request showing all sprinkler heads, valves, station addresses, flush valves, and pipelines to a reasonable scale and provide a minimum of two dimensions taken from fixed, obvious objects to each automatic and manual control valve, and quick coupling valve.

B. Contractor shall provide Owner with an Operations and Maintenance Manual. Instruction sheets and parts lists covering all operating equipment installed on the project will be bound into a 3-ring binder and furnished to the Owner in two copies.

5.7 OPERATIONAL INSTRUCTIONS:

A. After completion, testing and acceptance of the system the Contractor will instruct the Owner's personnel in the operation and maintenance of the system.

5.8 WARRANTY:

A. The Contractor shall furnish a certificate of warranty registration and a guarantee of work and materials for a period of one year from the date of final acceptance. Final payment for the system shall not be made unless this certification is presented to the Owner.

5.9 GUARANTEE:

A. For a period of one (1) year from the date of acceptance of the installation, the Contractor shall promptly furnish and install, without cost to the Owner, any parts which prove defective in material, and/or workmanship. Failure to respond to the Owner's request for repairs within a period of 5 days authorizes the Owner to proceed with such necessary repairs and charge the Contractor for all expenses incurred in the repair work.

B. In the Fall following final acceptance of the installation the Contractor shall "winterize" the system as part of the guarantee.

C. In the Spring following final acceptance of the installation the Contractor shall turn the system on and make any necessary repairs as part of the guarantee.

D. Any damage to the equipment not covered by the guarantee will be repaired by the Contractor and charged to the Owner at the Contractor's regular service rates. It will be the responsibility of the Contractor to get the signed work order before making any non-warranty repairs.

E. Emergency repairs may be made by the Owner without relieving the contractor of his guarantee obligation.

5.10 OWNER'S RESPONSIBILITY DURING CONSTRUCTION:

A. Owner shall pay for all permits required on the project.

5.11 OWNER'S RESPONSIBILITY POST CONSTRUCTION:

A. It will be the Owner's responsibility to maintain the system in good working order during the guarantee period, performing necessary minor maintenance, keeping the grass from obstructing the sprinkler heads, and preventing damage during landscape maintenance operations.

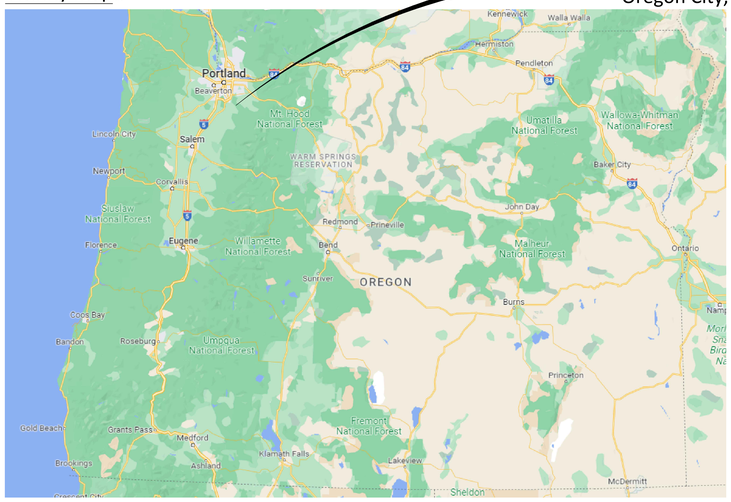
Bend, Oregon

Golf Course Irrigation Renovation
Bid Set

October 2025

Stone Creek Golf Club
14603 S. Stoneridge Dr
Oregon City, OR 97045

Vicinity Map NTS

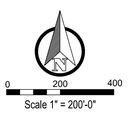


Sheet Summary

Cover
S100 Site Summary Plan
IR000 Irrigation Legend & Notes
IR100 Mechanical and Plumbing Plan
IR200 Electrical Plan
IR300 Irrigation Details
IR400 Pump Station Plans & Details
IR401 Prefabricated Pump Station Details

Course Wide Map





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Clackamas County
Stone Creek Golf Club
Irrigation Renovation Project

Oregon City

Oregon

SITE SUMMARY PLAN

Revisions

Project Number: 25014
Drawn by: GB
Checked by: GB
Date: 10/7/2025
Sheet No.
S100

IRRIGATION LEGEND

75' VIH ADJ. ROTOR: (DETAIL 7 & 8/IR300)	RAIN BIRD A-952-IC-70-48; 75' SPACING, 29.7 GPM @ 70 PSI
65' VIH ROTOR: (DETAIL 7 & 8/IR300)	RAIN BIRD A-702-IC-70-32; 65' SPACING, 23.3 GPM @ 70 PSI
65' VIH ADJ. ROTOR: (DETAIL 7 & 8/IR300)	RAIN BIRD A-752-IC-70-36; 65' SPACING, 23.2 GPM @ 70 PSI
50' VIH ADJ. ROTOR: (DETAIL 7 & 8/IR300)	RAIN BIRD A-752-IC-70-26; 51' SPACING, 10.9 GPM @ 70 PSI
25' LANDSCAPE ROTOR: (DETAIL 9/IR300)	RAIN BIRD 5006+SAMSS-MPR-25; 25' R, 45 PSI (90°:1.0 GPM) (180°:1.98 GPM) (360°: 3.82 GPM)
30' LANDSCAPE ROTOR: (DETAIL 9/IR300)	RAIN BIRD 5006+SAMSS-MPR-30; 30' R, 45 PSI (90°:1.4 GPM) (180°:2.96 GPM) (360°: 5.78 GPM)
35' LANDSCAPE ROTOR: (DETAIL 9/IR300)	RAIN BIRD 5006+SAMSS-MPR-35; 35' R, 45 PSI (90°:192 GPM) (180°:3.81 GPM) (360°: 7.58 GPM)
QUICK COUPLER VALVE: (DETAIL 5/IR300)	RAIN BIRD SRC
2" ELEC. CONTROL VALVE: (DETAIL 17/IR300)	RAIN BIRD 200-PESB-PRS-D WITH ICM & ICM-A
1" DRIP CONTROL VALVE: (DETAIL 17/IR300)	RAIN BIRD 100-PESB-PRS-D WITH ICM & ICM-A
LATERAL ISOLATION VALVE (DETAIL 3/IR300)	
MAINLINE ISOLATION VALVE (DETAIL 1 & 2/IR300)	
AIR RELIEF VALVE: (DETAIL 4/IR300)	CRISPIN PL10A
DRAIN VALVE (DETAIL 18/IR300)	
CPU CENTRAL CONTROL SYSTEM:	RAIN BIRD CIRRUS PRO
ICI FIELD INTERFACE UNIT:	ICI 3000+
2" HDPE 4710 DR11	
6" HDPE 4710 DR11	
8" HDPE 4710 DR11	
10 HDPE 4710 DR11	
12" HDPE 4710 DR11	
16" HDPE 4710 DR11	
18" HDPE 4710 DR17	
20" HDPE 4710 DR11	
36" HDPE 4710 DR11	
RAIN BIRD SPECTRUM WATCHDOG 3552HU WEATHER STATION – SOLAR, BATTERY, CELLULAR	

IRRIGATION KEYNOTES

1. EXISTING IRRIGATION PUMP STATION AND PUMP HOUSE – DISCONNECT POWER TO BUILDING AND PUMP STATION. DISCONNECT AND LIFT EXISTING ROOF OFF BUILDING TO ALLOW FOR REMOVAL OF EXISTING PUMP STATION. DISCONNECT PLUMBING AND REMOVE EXISTING PREFABRICATED PUMP STATION AND COMPONENTS FROM BUILDING. DROP IN NEW PREFABRICATED PUMP STATION AND MAKE ALL NECESSARY ELECTRICAL AND PLUMBING CONNECTIONS FOR A FULLY FUNCTIONAL PUMP STATION, PER CODE REQUIREMENTS. REPLACE ROOF AND SECURE TO BUILDING.
2. INSTALL NEW SELF CLEANING INTAKE SCREEN ON EXISTING INTAKE PIPE IN POND. PLUMB SCREEN RETURN LINE TO PUMP STATION. CONTRACTOR MAY DRAIN POND OUTSIDE OF IRRIGATION SEASON, COORDINATE WITH SUPERINTENDENT.
3. EXISTING IRRIGATION TRANSFER PUMP SYSTEM. SAVE AND PROTECT EXISTING TRANSFER PUMP INCLUDING THE INTAKE SYSTEM ALL THE WAY THROUGH THE 6" FLANGED DISCHARGE CONNECTION ABOVE GRADE, INCLUDING POWER, HOUSING AND OTHER INFRASTRUCTURE. CONNECT NEW FLANGED HDPE TRANSFER PIPE TO EXISTING DISCHARGE AND EXTEND TO IRRIGATION POND PER PLAN.
4. POND FILL – ENLARGE TRANSFER PIPE TO 12" DIA, A MIN. 20' UPSTREAM OF DISCHARGE INTO POND. INSTALL RIP RAP AT DISCHARGE TO PREVENT EROSION IF NECESSARY.
5. BRIDGE CROSSING – INSTALL NEW MAINLINE AND TRANSFER PIPE ON UNDERSIDE OF BRIDGE. SECURE TO BRIDGE USING EATON B3110 SERIES PIPE HANGERS WITH HANGER RODS LENGTH AS REQUIRED TO PROVIDE UNIFORM SLOPE THROUGH CROSSING, OR APPROVED EQUAL. SPACE HANGERS AT 5' O.C.
6. GAS EASEMENT – COORDINATE ALL CONSTRUCTION ACTIVITIES WITHIN THIS EASEMENT WITH UTILITY COMPANY.
7. EXTEND 2" LATERAL AND COMMUNICATION WIRE TO EXISTING ELECTRIC VALVES AROUND CLUBHOUSE AND CART STORAGE BUILDING. REPLACE ELECTRIC VALVES AND CONNECT TO NEW IRRIGATION SYSTEM. PRESERVE AND PROTECT EXISTING IRRIGATION DOWNSTREAM OF ELECTRIC VALVES.
8. DRAIN VALVE – EXTEND 2" DRAIN TO DAYLIGHT IN POND/CREEK AT LOW POINT. ADD RIP RAP IF REQUIRED TO PREVENT EROSION.

ELECTRICAL LEGEND

CPU ICI CENTRAL CONTROL:	RAIN BIRD CIRRUS PRO SYSTEM W/ICI+, BATTERY BACK-UP, SURGE PROTECTION, 5 YR GSP, IPAD AND OTTERBOX
12-2 COMMUNICATION WIRE PATH – GROUP A (GREEN)	
14-2 COMMUNICATION WIRE PATH – GROUP A (RED)	
12-2 COMMUNICATION WIRE PATH – GROUP B (BLUE)	
14-2 COMMUNICATION WIRE PATH – GROUP B (RED)	
12-2 COMMUNICATION WIRE PATH – GROUP C (YELLOW)	
14-2 COMMUNICATION WIRE PATH – GROUP C (RED)	
GROUNDING/ARRESTOR – COMMUNICATION WIRE PATH (DETAIL 19/IR300)	
RAIN BIRD SPECTRUM WATCHDOG 3552HU WEATHER STATION – SOLAR, BATTERY, CELLULAR	

ELECTRICAL KEYNOTES

1. INSTALL IRRIGATION CENTRAL CONTROL SYSTEM COMPUTER AND ICI IN SUPERINTENDENTS OFFICE IN SAME LOCATION AS EXISTING COMPONENTS. CONNECT TO EXISTING 120V POWER SUPPLY. INSTALL CONDUIT INTO BUILDING TO COMPUTER AS NEEDED TO EXTEND COMMUNICATION WIRES FROM THE FIELD TO THE COMPUTER INTERFACE. INSTALL MAXI SURGE PLATE AND GROUNDING IMMEDIATELY OUTSIDE BUILDING.
2. INSTALL NEW WEATHER STATION IN THIS APPROXIMATE LOCATION, VERIFY EXACT LOCATION WITH IRRIGATION CONSULTANT.
3. EXTEND MAXI-WIRE TO PUMP STATION AND CONNECT TO FLOW METER OUTPUT INSIDE PUMP CONTROL PANEL WITH RAIN BIRD IC-IN. INSTALL ALL ABOVE GRADE WIRE INSIDE RIGID PVC CONDUIT. COORDINATE WITH PUMP MANUFACTURER TO VERIFY AND CONFIRM CORRECT PORTS FOR WIRE CONNECTION.
4. EXISTING POWER HIGH VOLTAGE POWER. LOCATE, SAVE AND PROTECT.
5. DISCONNECT ALL ELECTRICAL AS REQUIRED TO REMOVE EXISTING PUMP SKID. INSTALL NEW PUMP SKID AND MAKE ALL NECESSARY ELECTRICAL CONNECTIONS FOR A FULLY FUNCTIONAL SYSTEM INCLUDING OPERATION OF TWO EXISTING WELL SYSTEMS AND ONE FUTURE AUTOMATIC WELL SYSTEM.

GENERAL NOTES

1. EXISTING SITE PLAN WAS CREATED BY A GPS AND GIS MAPPING. FIELD ADJUST AS NECESSARY IN THE FIELD.
2. DESIGN IS BASED ON 2400 GPM @ 125 PSI.
3. ALL NEW IRRIGATION MATERIAL NOTED ON THIS PLAN IS TO BE CONTRACTOR PROVIDED, CONTRACTOR INSTALLED.
4. ALL VIH ROTORS WILL BE GPS'D BY BAER DESIGN GROUP (BDG). BDG MAY ADJUST LOCATION OF MATERIALS IN THE FIELD AS NECESSARY TO FIT SITE CONDITIONS. CONTRACTOR SHALL SCHEDULE STAKING A MINIMUM OF 10 DAYS IN ADVANCE. MINIMUM OF THREE HOLES SHALL BE STAKED PER VISIT.
5. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES (PRIVATE AND PUBLIC) PRIOR TO CONSTRUCTION. ANY DAMAGE TO MARKED UTILITIES SHALL BE REPAIRED AT NO COST TO THE OWNER.
6. COORDINATE WITH ALL OTHER PLAN SHEETS PRIOR TO AND DURING CONSTRUCTION.
7. CONTRACTOR WILL PAY FOR AND ACQUIRE ALL PERMITS REQUIRED AS PART OF THIS PROJECT.
8. ALL ROCK OR DEBRIS LARGER THAN 2" BROUGHT TO THE SURFACE FROM TRENCHING SHALL BE REMOVED FROM THE BACKFILL.
9. ALL SPLICES TO BE INSTALLED IN 10" ROUND VALVE BOX WITH BLACK FLUSH LID MARKED "ELEC".
10. ALL COMMUNICATION WIRE SHALL BE 12-2 OR 14-2 MAXI CABLE PER ELECTRICAL PLAN.
11. ALL ELECTRICAL WIRE ABOVE FINISH GRADE SHALL BE INSTALLED IN RIGID SCH 40 PVC CONDUIT.
12. ALL MULTI-STRAND ELECTRICAL WIRES SHALL BE TAPPED TOGETHER IN TEN FOOT INTERVALS OR LESS.
13. ALL INSTALLATION SHALL MEET OR EXCEED NATIONAL, STATE AND LOCAL CODES.
14. CONTRACTOR SHALL MAINTAIN DAILY RECORDS AND MODIFICATIONS OF WORK NOTED ON AN IRRIGATION AS-BUILT.
15. CONTRACTOR SHALL ACCOMPANY CURRENT IRRIGATION AS-BUILT WITH EACH PAYMENT APPLICATION MONTHLY.
16. THE ENTIRE INSTALLED SYSTEM SHALL INCLUDE MINIMUM A ONE YEAR WARRANTY FROM THE DATE OF FINAL ACCEPTANCE. ALL DEFECTS IN MATERIAL OR LABOR SHALL BE REPAIRED BY THE CONTRACTOR IN A TIMELY MANNER AND AT NO COST TO THE OWNER. PLANT MATERIAL LOST DUE TO LACK OF URGENCY ON A WARRANTY ITEM SHALL BE REPLACED TO EQUAL OR GREATER VALUE AT NO COST TO THE OWNER.
17. ALL MATERIALS SHALL BE THOSE SPECIFIED NEW IN BOX AND WITHOUT FLAWS OR DEFECTS OF ANY KIND.
18. NO SUBSTITUTIONS WILL BE ALLOWED WITHOUT WRITTEN APPROVAL PRIOR TO BID.
19. THE IRRIGATION SYSTEM IS DESIGNED TO PROVIDE MAXIMUM EFFICIENCY AND DISTRIBUTION UNIFORMITY. IF THE CONTRACTOR IS REQUIRED TO MAKE FIELD ADJUSTMENTS, NOTIFY THE IRRIGATION CONSULTANT IMMEDIATELY FOR FURTHER EVALUATION.

DEMOLITION NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE AND MARK ALL UTILITIES ON SITE. UTILITIES DAMAGED THROUGH CONSTRUCTION THAT ARE MARKED SHALL BE REPAIRED BY CONTRACTOR AT NO COST TO THE OWNER. UTILITIES DAMAGED THROUGH CONSTRUCTION THAT ARE NOT MARKED AND OR ARE UNKNOWN SHALL BE PAID FOR BY THE LOCATE COMPANY OR OWNER.
2. ALL EXISTING MAINLINE SHALL BE ABANDONED IN PLACE.
3. ALL EXISTING LATERALS SHALL BE ABANDONED IN PLACE.
4. CONTRACTOR SHALL REMOVE ALL EXISTING LATERAL ISOLATION VALVES AND VALVE BOXES. BACKFILL DISTURBED AREA WITH TOPSOIL, COMPACT FLUSH WITH ADJACENT GRADES AND SEED WITH MIX APPROVED BY SUPERINTENDENT.
5. CONTRACTOR SHALL REMOVE EXISTING FIELD SATELLITES AND RETURN TO OWNER. ABANDON EXISTING ELECTRICAL IN PLACE. DISCONNECT AND ABANDON SERVICE. REPAIR GROUND WITH TOPSOIL AND SEED WITH MIX APPROVED BY SUPERINTENDENT.
6. CONTRACTOR SHALL REMOVE EXISTING VIH ROTORS, SWING JOINTS, ELECTRIC VALVES, QUICK COUPLE VALVES AND RETURN TO OWNER. CONTRACTOR SHALL ALSO REMOVE EXISTING VALVE BOXES AND DISPOSE OF OFF SITE. BACKFILL HOLE WITH TOPSOIL, COMPACT FLUSH WITH ADJACENT GRADE AND SEED WITH MIX APPROVED BY SUPERINTENDENT.

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Clackamas County
Stone Creek Golf Club
Irrigation Renovation Project

Oregon City, Oregon

Legends and Notes

Revisions

Project Number:	25014
Drawn by:	GB
Checked by:	GB
Date:	10/1/2025

Sheet No.:
IR000

IRRIGATION LEGEND

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Scale 1" = 100'-0"

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MECHANICAL PLAN

Revisions	
Project Number:	25014
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Date:	10/7/2025
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ELECTRICAL LEGEND

CPU ICI	CENTRAL CONTROL: RAIN BIRD CIRRUS PRO SYSTEM W/ICI+, BATTERY BACK-UP, SURGE PROTECTION, 5 YR GSP, IPAD AND OTTERBOX
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	GROUNDING/ARRESTOR – COMMUNICATION WIRE PATH (DETAIL 19/IR300)
	RAIN BIRD SPECTRUM WATCHDOG 3552HU WEATHER STATION – SOLAR, BATTERY, CELLULAR

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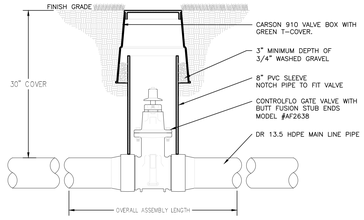
Clackamas County
Stone Creek Golf Club
Irrigation Renovation Project

Oregon

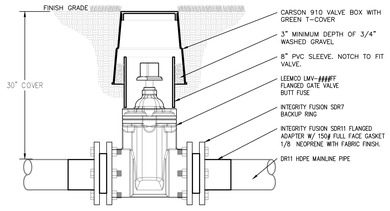
Oregon City

ELECTRICAL PLAN

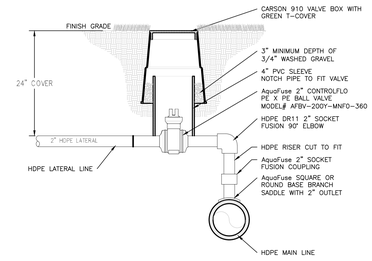
Revisions	
Project Number	2504
Drawn by	GB
Checked by	GB
Date	05/7/2025
Sheet No.	IR200



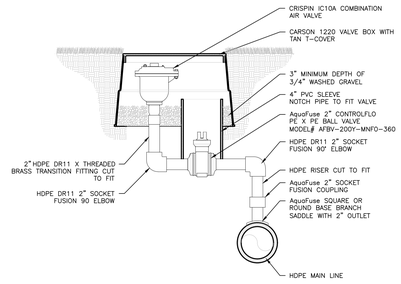
1 4" - 12" Mainline Gate Valve - HDPE
NTS



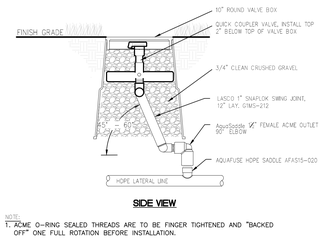
2 14"+ Mainline Gate Valve - HDPE
NTS



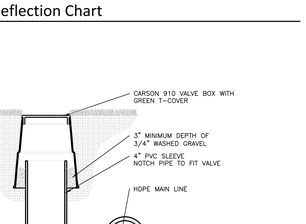
3 2" Lateral Isolation Valve Assembly
NTS



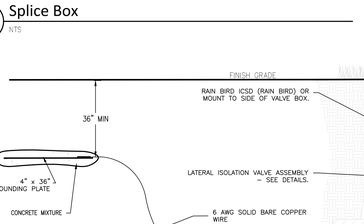
4 Air/Vac Valve Assembly
NTS



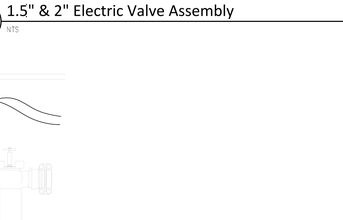
5 Quick Couple Valve Assembly
NTS



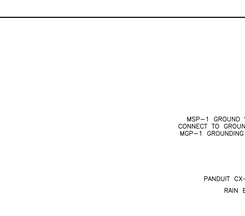
6 Double Rotor End of Line Swing Joint Service
NTS



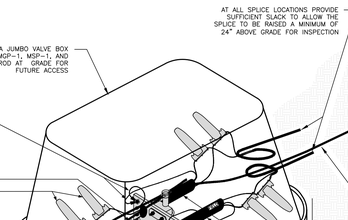
7 VIH Rotor - End Lateral
NTS



8 VIH Rotor - Mid Lateral
NTS



9 Gear Driven Rotor
NTS



10 MP Rotator/Spray Head
NTS

11 Mainline Trench Section
NTS

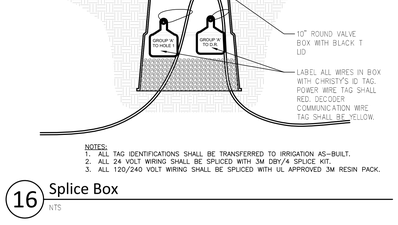
12 Lateral Trench Section (if required)
NTS

13 Greens/Surrounds Head Layout
NTS

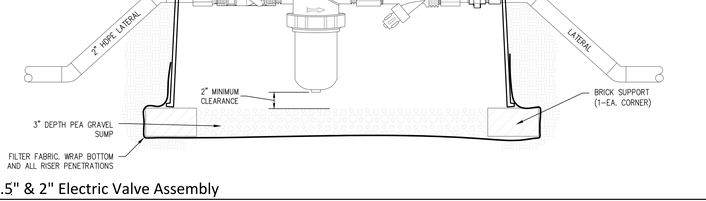
14 Creek/Depression Crossing
NTS

MINIMUM ALLOWABLE RADIUS OF HDPE PIPE	
DR RATING	DEFLECTION RADIUS
DR 9 OR LOWER	20X THE O.D.
DR 13.5	25X THE O.D.
DR 21	27X THE O.D.
DR 21 OR GREATER	100X THE O.D.

15 Pipe Deflection Chart
NTS



16 Splice Box
NTS



17 1.5" & 2" Electric Valve Assembly
NTS

18 Manual Drain/Lake Fill Valve
NTS

19 Two Wire Path Grounding Assembly
NTS

20 Rain Bird MSP-1/MPG-1 Grounding Assembly
NTS

BAER DESIGN GROUP, LLC
greg@baerdg.com
Ph. 208.859.1980

Clackamas County
Stone Creek Golf Club
Irrigation Renovation Project

Oregon City, Oregon

IRRIGATION DETAILS

Revisions

Project Number: 25014
Drawn by: GB
Checked by: GB
Date: 10/1/2025

Sheet No.:
IR300

PUMP STATION SPECIFICATIONS:
NAME: STONE CREEK GOLF CLUB
STATION MODEL:
VTV-7C-60X4/10STV-480-3-2325-125
STATION TOTAL PERFORMANCE:
2325GPM @ 125 PSI
PUMP HORSEPOWER:
SUSTAIN/JOCKEY PUMP: 10HP
PUMP NO.1-4: 60HP
CHECK VALVE SIZE
SUSTAIN: 2"
PUMP NO.1-4: 6"
ISOLATION VALVE SIZES:
SUSTAIN PUMP: 2"
PUMP NO.1-4: 5"

DISCHARGE ISOLATION VALVE: 10"
RELIEF VALVE SIZE: 4"
PUMP STATION DISCONNECT: 400 AMP

POWER REQUIREMENTS:
480V, 60 HZ, 3 PH, 302 FLA

EXHAUST FAN REQ'D FOR BUILDING:
4250 CFM

	INITIAL	DATE
WET WELL DIMS: ..... 72" DIA.		
WET WELL DEPTH: ..... *149"*		
MAIN LINE CONNECTION: .... *16" FL*		
DROP PIPE COVER: ..... *36"*		
INTAKE FLUME SIZE: ..... *TBD*		
INTAKE FLUME MATERIAL: ..... *TBD*		
PLEASE VERIFY ALL INFO WITH YOUR INITIALS AND DATE		

PLEASE USE THE SPACE BELOW FOR ANY ADDITIONAL COMMENTS:

- ☐ APPROVED AS SUBMITTED
- ☐ APPROVED AS NOTED
- ☐ REVISE AND RESUBMIT

REVIEWED BY: _____

NAME: _____

DATE: _____

DIMENSIONS AND SIZES OF EXISTING STRUCTURES, AND/OR COMPONENTS MUST BE VERIFIED TO WATERTRONICS BEFORE STATION CONSTRUCTION BEGINS.

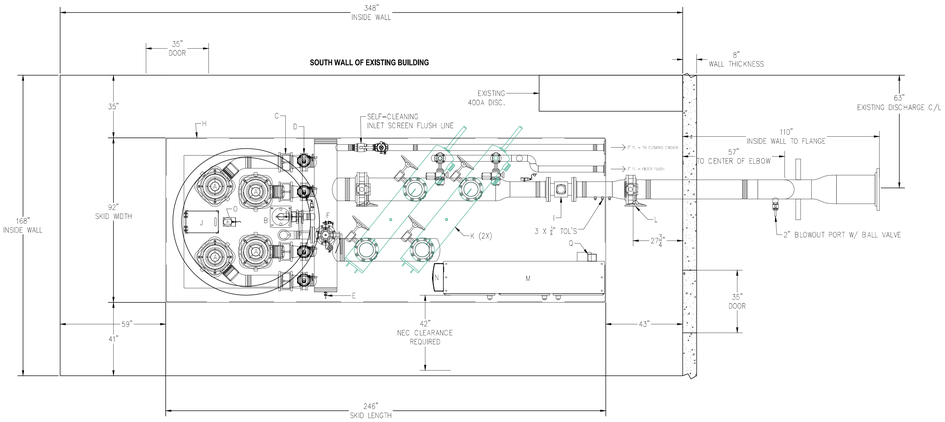
UNLESS SPECIFIED BY THE CUSTOMER, PUMP HOUSE/CONCRETE SLAB DIMENSIONS ARE RECOMMENDED MINIMUMS FOR NEC AND SERVICE CLEARANCE, AND ARE FOR ILLUSTRATION PURPOSES ONLY. PROJECT MANAGER SHALL BE CONSULTED ON FINAL DESIGN.

THE PUMP STATION PROPOSED HEREIN IS DESIGNED TO BE PLACED IN A PUMP HOUSE FOR PROTECTION FROM THE ENVIRONMENT. IF A PUMP HOUSE IS NOT USED, WATERTRONICS MUST BE NOTIFIED AT TIME OF QUOTATION SO SPECIAL PROVISIONS CAN BE MADE.

WATERTRONICS
PHONE: 1-262-367-5000
FAX: 1-262-367-5551

SHEET 1 OF 4 SHEETS

DRAWING NO. STONE CREEK GC 10/03/25



[P] REMOTE GPIO KIT
USED TO START/STOP WELL PUMP #3 ON LOW POND LEVEL
WILL NEED TO TRACK WATER USAGE
(TO SHIP LOOSE)

CONCEPT DRAWING ONLY
NOT TO BE USED FOR CONSTRUCTION

PLAN VIEW

STATION COMPONENTS:
A 60HP MAIN PUMP AND MOTOR
B 10HP JOCKEY PUMP AND MOTOR
C CHECK VALVE
D PUMP ISOLATION VALVE W/ EBV
E DRAIN
F 4" PRESSURE RELIEF VALVE
G PRESSURE TRANSDUCER W/ GAUGE
H PAINTED STEEL BASE (GREEN)
I 8" ELECTROMAGNETIC FLOW METER
J WET WELL VIEWING HATCH
K FORSTA D8-180-304-8" FILTER W/ AUTOFLUSH
L 10" STATION ISOLATION VALVE
M CONTROL CABINET
N NOREN HEAT EXCHANGER COOLING
O LEVEL SENSOR
P GPIO KIT FOR WELL PUMP #3
Q PREMIUM SURGE SUPPRESSOR

ADDITIONAL AMENITIES
MECHANICAL SEALS
PREMIUM SURGE/LIGHTNING PROTECTION
WATERVISION CLOUD - VERIZON - 5 YR SUB.
STAINLESS STEEL FASTENERS

NOT SHOWN
CLEMONS CW2400 SELF-CLEANING INLET SCREEN
FLUME MATERIAL - CMP
FLUME SIZE TBD - 24"
WET WELL LEVEL CONTROL W/ 3 POND FILLS
PUMP 1 - POND FILL RELAY
PUMP 2 - POND FILL RELAY
PUMP 3 - GPIO KIT W/ WV CLOUD

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Clackamas County
Stone Creek Golf Club
Irrigation Renovation Project
Oregon City, Oregon

PREFABRICATED PUMP STATION

Revisions

Project Number: 25014
Drawn by: GB
Checked by: GB
Date: 10/1/2025

Sheet No.:
IR400