## ADDENDUM NO. 3

Date: March 28, 2023
PROSPECTOR PARK PROJECT
Bids to be received: 2:00 P.M., Thursday, March 30, 2023

This Addendum is applicable to the work designated herein and shall be a part of and be included in the Contract. The Contractor shall acknowledge his/her acceptance of this addendum by initialing the line designated 'Acknowledge Addenda' at the end of the Sealed Proposal Form. All other provisions of the Project Manual shall remain in effect.

Item \#1. Questions/Responses: The attached questions were submitted by an interested bidder. Corresponding responses are included for each question.
Item \#2. Change: Change C/L3.14 The Manifold Detail has been revised and attached herein.

Item \#3. Change: Change Specification Section 3284 00, 2.01, A: Mainline 3" and larger fittings: install Leemco mechanical fittings and Leemco LH (fitting to pipe) and LPP (pipe to pipe) joint restraints. Install per manufacturer's specifications and attached chart/detail.
Item \#4. Addition: The following details are now included and shall be a part of and be included in the contract: Air Release Valve, Basket Strainer, and Ball Valve.

Item \#5. Change: Ballfield Irrigation minor change to configuration at infield manual irrigation system.

This Addendum, including this page, consists of 14 pages, including Questions and Responses, Revised Detail C/L3.14, Leemco Mechanical Joint Restraints, Details for Air Release Valve, Basket Strainer, and Ball Valve, Nibco T-113 Cut Sheet, Recycled Water signage Detail, and Ballfield Irrigation Adjustment.

This concludes Addendum \#3.

## PROSPECTOR PARK Bidding Questions received and corresponding answers

March 28, 2023

1. Plan sheet $L 3.14$, detail $C$ shows the sub-mainline to be 3 " size. Plan sheet L3.0 requires the gate valve to be the same size as the largest valve within the valve manifold, which is up to 2 " size. Please advise if we may install sub-mainline with size equal to the gate valve within the manifold.
No, see attached revised manifold detail. Size of sub-mainline and gate valve do not necessarily need to match.
2. Please provide model and manufacturer for the gate valve to be used within the valve manifolds.
LEEMCO LMV-FF Series
3. Irrigation specification, $328400-4$, the requirements for lateral lines shows that no laterals lines shall be $1 \frac{1}{4}$ " including fittings. The plans show about 4,000 linear feet of $11 / 4$ " size lateral lines. Please advise.
Use 1-1/2" laterals in lieu of 1-1/4".
4. The gate valve shown on the legend is for 6 " size Leemco LMB66BB. There are 4 " size gate valves shown on the plans. Please advise if we may install Leemco 4 " size gate valves at 4" size mainline.
Use LMV-BB series Line Size for all mainline gate valves, same size as mainline.
5. The irrigation legend for Bucker-Superior VBM shows this as $1 / 2 "$ size but the note at the end of this shows to be same size as mainline. Please advise.
$1 / \mathbf{2 " ~}^{\prime \prime}$ is typo. Size per mainline. In lieu of Buckner-Superior, install NibcoT113 (Brass). Install in valve box.
6. The irrigation decoder grounding details has a requirements to be installed at every 12 decoders or 1000 ft , irrigation note number 13 has a requirement for every 600 ft or 8 decoders. Please advise.
Install grounding per the details, at every 12 decoders or 1,000 ft.
7. The irrigation specification for 3 " and larger mainline SR21 Class 200 bell and gasketed pipe shows fittings, joint restraints, and saddle taps to be schedule 80 solvent weld. Please advise if this should be Class 350 ductile iron with joint restraints instead.
Update to Spec 3284 00, section 2.01.A.1.a: Mainline 3" and larger fittings: install Leemco mechanical fittings and Leemco LH (fitting to pipe) and LPP (pipe to pipe) joint restraints. Install per manufacturer's specifications and attached chart/detail.
8. Irrigation specification for lateral line and fittings requires use of ductile iron fittings for 3 " and larger pipe. Please confirm.
All lateral line fittings shall be PVC Sch 40, solvent weld.
9. Please provide sleeve size and type for installation.

Sleeves to be Sch 40, sized 2 times the total pipe diameter. Install under all new paving and extend 12" beyond hardscape edges.
10. Please provide technical detail for Air Release Valve, Manual Angle Valve, Grounding Rod and Basket Strainer, Ball Valve.
Details included in this addendum No. 3. The Manual Angle Valve is no longer being used and is replaced by Nibco t-113.
11. Please provide manufacturer and model of ball valves for irrigation.

Spears Schedule 80 True Union TU-2-0205
12. Note 24 has a requirement to install signage where recycled water is used.

Please provide detail of this sign, and locations to be installed.
Detail for Recycled Water Signage is included in this addendum No. 3.
There will be a total of four (4) of the Recycled Water Signs installed. Exact locations to be determined during construction.
13. Irrigation legend shows Hunter l-20-06-SS (2) 8.0. Please advise what the (2) designation refers to?
Disregard (2), it was a typo.
14. There is mention of lime treatment removal and replacement in the planting specifications. Can you please provide any plans or provide areas that have been lime treated in the past within the site?
The site has not been lime treated. No lime treatment is required.
15. Plan Page L4.6, there are shrubs shown in the center parking lot islands that are not identified on the legend. Please provide size and type for bidding purposes. Symbol with triangle is Dianella 'Little Rev'. (as other symbol included within legend/ same plant species and container size)
16. The boulders legend shows 3 different symbols for 3 sizes of boulders. The plans have 4 different symbols for boulders. Please advise.
Contractor to install 3 sizes per boulder schedule. Reference the size ranges on boulder schedule, see sheet L4.0 For bidding purposes, consider the number of total boulders identified on the plans, and provide approximately $20 \%$ of the small $3^{\prime}$ to $3^{\prime}-6$ " diameter, approximately $40 \%$ of the medium 4' to 4'-6" diameter, and approximately $40 \%$ of the large 5" diameter.
17. Please provide detail B/L2.13S for structural engineering as mentioned on detail E/L2.1.
This detail is provided as indicated on sheet L2.13S, Detail B.
18. Please provide the depth for river cobble as shown on detail D, L2.1. Min. depth to be 8".
19.Please provide specs sections 2624 30, 2628 19, 2629 00, 2643 00, \& 2650 00
These sections were addressed in Addendum No. 1.
20. Please provide material for infield mix at ballfield as shown on Note Schedule, L1.13.
Infield mix: 'MSU Fielder's Choice Infield Mix' by West Coast Sand + Gravel Inc. www.wcsg.com 1-800-734-3053
21. Please advise what permits will be required during this work.

Permits and deferred submittals are identified on the Cover Sheet.
22. Please advise the depth of the existing 4 " canyon drain. For bidding purposes, consider the depth to be 18".
23. Please provide manufacturer and model of catch basin - drop inlet type F.

No manufacturer is specified. Product must be in compliance with the City Standards Specifications. Previous manufacturers include Jensen Precast and Cook Concrete Products.
24. Please provide detail of BBQ per note 2.08/L1.0. Install per manufacturer's details and specifications.
25. Please provide size of river cobble for Dry-streambed D, L-2.1.

The cobble size is specific to the specified "Riverbed Mix". Suggest you contact Hastie's Sand and Gravel as identified in the notes to get more information. "Riverbed Mix is a house mix. Random mixture of $4 \times 8$ Cobbles down to $11 /{ }^{\prime \prime}$ " $\mathbf{X 1 "}$ " River Rock.

## End of Questions/Responses



KEY NOTES
CENTER VALVE BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING VALVE.
2. IRRIGATION LATERAL PVC ACCORDING TO PLANS.
3. SUB-MAINLINE, SIZE PER CHART.
4. GATE VALVE ON SUB-MAINLINE. SIZE SHALL BE SAME SIZE AS LARGEST REMOTE CONTROL VALVE IN MANIFOLD
5. MAINLINE, SIZE PER PLANS (4"OR 6"),
6. EDGE OF PLANTER

NOTES
A. SET REMOTE CONTROL VALVE ASSEMBLY IN GROUND COVER / SHRUB AREA WHERE POSSIBLE. INSTALL IN LAWN ONLY IF GROUND COVER DOES NOT EXIST ADJACENT TO LAWN
B. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE

| TOTAL MANIFOLD (GPM) | SUB-MAINLINE |
| :---: | :---: |
| 1 TO 3O | 1.5", CLASS 4O PVC |
| 31 TO 50 | 2", CLASS 4O PVC |
| 51 TO 80 | 2.5", CLASS 4O PVC |
| 81 TO 120 | 3", CLASS 2OO |
| 121 TO 2OO | 4", CLASS 2OO |
| 201 TO 42O |  |

C. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOXES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES.
D. HEAT EMBOSS LIDS SHALL BE MARKED AS SUCH (E.G., IRRIGATION VALVE \#, QC, GV, ETC.).
E. ONE (1) VALVE PER BOX.
F. MAX. OF (4) VALVES PER MANIFOLD.

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CONTACT LEEMCO FOR PRE-CONSTRUCTION TRAINING AND INSTALLATION QUESTIONS:
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$$
\begin{gathered}
\text { NUNZIO DICRISTOPHER - (916) 2O2-1333 } \\
\text { NUNZIOATLEEMCO@CS.COM }
\end{gathered}
$$

## Design Criteria

All tees, Bends, Reducers and End Caps should be restrained using LH-Series restraints. A certain number of joints before and after a restrained fitting may also require joint restraints as set forth in Tables below.

Below Tables establish values for the minimum length of pipe ("L") within which other joints must be restrained Values (in feet/meters) are based on 125 PSI line pressure, 24 " cover, Sandy-Clay type soil and a safety factor of 2 For other line pressures, multiply the "L" values by the actual pressure and divide by 125 .


Minimum Restrained Length (L) in feet or meters

| Pipe-P | e Restr | ints fo | S | p |  |  |  |  |  | in fe |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pipe | Pipe OD | Pipe OD |  |  |  |  |  | Red |  | Dead | Gate |
| Size |  |  | 11 | 22 | 45 | 90 | 1 | 2 | 3 | End | Valve |
| $2^{\prime \prime}$ | 2.38 |  | 1 | 1 | 2 | 6 |  |  |  | 19 | 10 |
| 2.5" | 2.88 |  | 1 | 2 | 4 | 9 | 4 |  |  | 23 | 12 |
| 3 " | 3.50 |  | 2 | 3 | 6 | 11 | 8 | 10 |  | 30 | 15 |
| 4" | 4.50 | 4.80 | 2 | 4 | 9 | 20 | 14 | 20 | 31 | 45 | 23 |
| 6 " | 6.63 | 6.90 | 3 | 6 | 13 | 29 | 30 | 40 | 53 | 63 | 31 |
| 8" | 8.63 | 9.05 | 4 | 8 | 15 | 38 | 33 | 55 | 63 | 75 | 38 |
| 10" | 10.75 | 11.10 | 5 | 9 | 19 | 45 | 36 | 56 | 75 | 96 | 48 |
| 12" | 12.75 | 13.20 | 5 | 10 | 21 | 53 | 38 | 60 | 83 | 112 | 56 |
| $14 "$ |  | 15.30 | 6 | 11 | 24 | 58 | 40 | 62 | 86 | 130 | 62 |
| $16{ }^{\prime \prime}$ |  | 17.40 | 6 | 13 | 27 | 65 | 42 | 64 | 88 | 146 | 73 |
| $18{ }^{\prime \prime}$ |  | 19.50 | 7 | 14 | 29 | 69 | 44 | 70 | 90 | 162 | 81 |
| $20 "$ |  | 21.60 | 8 | 15 | 32 | 76 | 46 | 80 | 92 | 178 | 89 |
| $24 "$ |  | 25.80 | 9 | 18 | 37 | 88 | 63 | 90 | 114 | 209 | 105 |



## DESCRIPTION OF OPERATION

Combination Air Valves are fully automatic and designed to continuously remove pockets of air from high points in a piping system. They also vent and admit large volumes of air during filing or draining of the pipeline or tank. These are a normally open air valves that function in three ways:

1. During System start-up, the large open orifice exhausts large volumes of air until fluid enters the valve. Then the float rises to shut both the large orifice seat and the small orifice seat. Pressure within the valve will force the float tightly against both the seat orifices.
2. As air accumulates at the high points of the piping system, (where the valve is installed) air displacing the fluid, the float lowers with the fluid and breaks contact with the small orifice seat. Accumulated air in the valve, is then vented through the small orifice. As air is vented, the floats raise again and closes the small orifice. This sequence repeats automatically as air accumulates in the air valve.

| Part No. | Qty. | Description | Part No. | Qty. | Description |
| :---: | :---: | :--- | :---: | :---: | :--- |
| 1 | 1 | 2" Cover (33A) | 7 | 8 | Bolt Hex Nut (33A) |
| 2 | 1 | 2" Body (33A) | 8 | 2 | Screw Drive |
| $3^{*}$ | 1 | 2" Float Ball Assembly | 9 | 1 | Nameplate |
| $4^{*}$ | 1 | 2" Seal Rign | 10 | 1 | O-Ring |
| $5^{*}$ | 1 | O-Ring (33A) | 11 | 1 | 1/4" NPT Drain Plug |
| $6^{*}$ | 1 | 2" Seat (33A) | ${ }^{*} R e c o m m e n d e d ~ S p a r e ~ P a r t s ~ K i t ~$ |  |  |



## Specifications

## MODEL 33A - 1",2",3" and 4" SIZES <br> Single Body Combination Air Vacuum <br> Air Release Valve

Pressure Ratings
500 psi Ductile Iron Body and Cover

500 psi Stainless Steel
Body and Cover
600 psi Cast Steel
Body and Cover

Materials
Body and Cover:
Ductile Iron
ASTM A536 65-45-12
Body and Cover
Stainless Steel T303
Body and Cover
Cast Steel ASTM A 216 WCB

## Note:

Readily available for seawater service and other corrosive fluids applications Made of:
Monel - Bronze's - Stainless Steel

## Standard Internals

Float: Stainless Steel T304
Balance internals parts Stainless Steel and Delrin
Seals Nitrile Rubber or Viton (extra cost)
Temperature Range
Water to $180^{\circ} \mathrm{F}$

## Optional:

1. Fusion epoxy lined and coated at extra cost
2. For Well Service Install Throttling Device on the Outlet

## PROBLEMS / SOLUTIONS

1. Leakage at Inlet Connection:

Tighten valve threaded connection. If leaks persist, remove valve and seals threads with pipe sealant or tape.
2. Leakage at Cover/Body joint:

Tighten bolts per Table 2, replace gasket.
3. Small or Large Orifice Leakage:

Flush valve to remove debris. Disassemble and inspect both seat, orifices and float for wear or damage. Replace as needed with a float kit or seat kit
4. Small Orifice not Releasing Air Under Pressure: Check that operating pressure does not exceed Working Pressure on nameplate. Perform inspection step 3 and disassemble valve if problem persists.

## DISASSEMBLY

The valve can be disassembled without removing it from the pipeline, or it may be removed from the line. All work on the valve should be performed by a skilled mechanic. Special tools are NOT required.

CAUTION: Drain the vale and de-pressurized before removing the cover or pressure may causing injury.

1. Close inlet shut-off valve. Slowly open drain valve or remove drain plug. Remove the covers bolts slowly.
2. Pry cover loose and lift off valve body.
3. Remove entire seat \& float assemblies inspect for damage or wear
4. Clean and inspect parts. Note: Shake float \& if water inside float replace it and worn parts as necessary.

NOTE: Float Kit \& Seat Kit includes cover gasket

| Valve Size | $1 "$ | $2^{\prime \prime}$ | $3^{\prime \prime}$ | $4^{\prime \prime}$ |
| :---: | :---: | :---: | :---: | :---: |
| A | 9.10 | 12.44 | 12.75 | 12.75 |
| B | 6.25 | 7.50 | 9.00 | 9.00 |
| Inlet (NPT) | 1" NPT | 2" NPT | 3" NPT | 4 " NPT |
| Outlet (NPT) | 1" NPT | 2" NPT | 4 4" NPT | 4 " NPT |
| Shipping Wt. (Lbs.)* | 25 | 29 | 38 | 40 |
| Max. Operating PSI <br> (Std. Orifice) | 300 | 500 | 300 | 300 |
| Max. Operating PSI <br> (with.076 Orifice) | 300 | 500 | 450 | 450 |



* Approximate

Available Flanged

## REASSEMBLY

1. All parts must be cleaned and gaskets surfaces cleaned with a stiff wire brush in the direction of the serration or machine marks. Worn parts, gaskets and seal should be replaced during reassembly.
2. Apply Loctite or similar Compound to threaded Connections
3. Stand valve body vertically. Insert entire delrin frame, seat \& float assembly into register. Move float up/down to insure concentricity and no binding.
4. Lay new cover gasket on clean surface and apply a gasket compound such as Permatex \#80065 to both surfaces. Assemble gasket and cover over bolt holes in body.
5. Insert lubricated bolts and tighten to the torques listed in Table 2.
6. Place valve back in service. Refer to the installation instruction. Slowly open inlet isolation valve.

TABLE 2. VALVE COVER BOLT TORQUES

| BOLT SIZE | TORQUE (FT. LBS.) |
| :---: | :---: |
| $1 / 4 "-20$ | 6 |
| $5 / 16 "-18$ | 11 |
| $3 / 8 "-24$ | 19 |
| $7 / 16 "-32$ | 30 |

## PARTS AND SERVICE

Parts and service are available from your local representative or the factory. Make note of the valve Model No. and Working Pressure located on the valve nameplate.


FILTER FABRIC - COVER ALL BOX HOLES $1 / 2 "$ UB TURF
AREAS, 1 " IN SHRUB AREA
(00) AIR/NAC. CONT. ACTING AIR VENT



## Class 125 Bronze Gate Valves

Screw-In Bonnet • Non-Rising Stem • Solid Wedge
$125 \mathrm{PSI} / 8.6$ bar saturated steam to $353^{\circ} \mathrm{F} / 178^{\circ} \mathrm{C}$ 200 PSI/13.8 bar non-shock cold working pressure

CONFORMS TO MSS SP-80

| MATERIAL LIST |  |
| :--- | :--- |
| PART | SPECIFICATION |
| 1. Handwheel Nut | 300 Series Stainless Steel |
| 2. Identification Plate | Aluminum |
| 3. Handwheel | a. Malleable Iron ASTM A 47 (T-113) <br> b. Bronze (T-113-BHW) <br> c. Bronze Cross (T-113-K) |
| 4. Stem | Silicon Bronze ASTM B 371 <br> Alloy C69400/C69430 <br> or ASTM B99 Alloy C65100 |
| 5. Packing Nut | Bronze ASTM B 62 or ASTM B584 <br> Alloy C84400 or Brass ASTM B 16 |
| 6. Packing Gland | Bronze ASTM B 62 or ASTM B584 <br> Alloy C84400 or Brass ASTM B 16 |
| 7. Packing | Aramid Fibers with Graphite |
| 8. Stuffing Box | Bronze ASTM B 62 |
| 9. Bonnet | Bronze ASTM B 62 |
| 10. Body | Bronze ASTM B 62 |
| 11. Wedge | Bronze ASTM B 62 |

DIMENSIONS-WEIGHTS-OUANTITIES

| Size |  | Dimensions |  |  |  |  |  | T-113 |  | Master <br> Ctn. Oty. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | A |  | B |  | C |  |  |  |  |
| In. | mm. | In. | mm. | In. | mm. | In. | mm. | Lbs. | Kg. |  |
| 1/4 $\dagger$ | 8 | 1.69 | 43 | 3.38 | 86 | X | X | 0.74 | 0.33 | 50 |
| 3/8 $\dagger$ | 10 | 1.69 | 43 | 3.38 | 86 | . 69 | 18 | 0.71 | 0.32 | 50 |
| 1/2 $\dagger$ | 15 | 1.94 | 49 | 3.63 | 92 | . 75 | 19 | 0.82 | 0.37 | 50 |
| $3 / 4$ | 20 | 2.06 | 54 | 3.91 | 99 | . 88 | 22 | 1.10 | 0.50 | 50 |
| 1 | 25 | 2.44 | 62 | 4.69 | 119 | 1.00 | 25 | 1.82 | 0.82 | 30 |
| $11 / 4$ | 32 | 2.63 | 67 | 5.22 | 133 | 1.19 | 32 | 2.40 | 1.09 | 20 |
| $11 / 2$ | 40 | 2.88 | 72 | 6.25 | 159 | 1.25 | 33 | 3.51 | 1.59 | 10 |
| 2 | 50 | 3.06 | 78 | 7.06 | 179 | 1.31 | 34 | 4.93 | 2.24 | 10 |
| $21 / 2$ | 65 | 4.13 | 105 | 8.41 | 224 | 1.81 | 46 | 9.96 | 4.52 | 5 |
| 3 | 80 | 4.50 | 114 | 10 | 254 | 1.94 | 49 | 14.40 | 6.53 | 4 |

†No packing gland, packing only in these sizes.
xNot available this size.
FREEZING WEATHER PRECAUTION: Subsequent to testing a piping system, valves should be left in an open position to allow complete drainage.

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.


## T-113

Threaded


## T-113-K

Threaded With Cross Handle



KEY NOTES
$\frac{\text { KEYNOT }}{1.9 " \times 12^{\prime \prime}}$ METAL SIGN. CORNERS TO HAVE 1" RADIUS . TOP OF SIGN TO SIT LUUH WITH TOP OF POST. SIGN COLOR TO BE PURPLE.
2. 'IN ORDER TO CONSERVE WATER...' TEXT: 1" HIGH. TEXT OFFSET:1-1/8" TO INSIDE OF BORDER, OFFSET TO LINE OF LARGER TEXT: 1-1/8". COLOR WHITE. FONT: 'NEUTRA.
3. 'RECYCLED WATER IN USE' TEXT: 2" HIGH. TEXT OFFSET: 1-1/8" TO INSIDE OF BORDER, VERTICAL TEXT SPACING: 3/4", OFFSET TO LOGO. COLOR: WHITE FONT: 'NEUTRA'.
4. LOWER TEXT ON SIGNAGE:
-DO NOT DRINK
NO TOME EL AGUA
-WASH HANDS AFTER CONTACT
-LAVESE LAS MANOS DESPUES DE TOCAR
TEXT: 3/4" HIGH. VERTICAL TEXT SPACING 1/4". ROW SPACING: 1/2". COLOR WHITE. FONT: 'NEUTRA'. CENTER TEXT
5. LOGO TO BE 6-3/4" HIGH. COLOR: WHITE. CENTER LOGO.
6. 1/4" SOLID WHITE BORDER OFFSET 1/4" FROM EDGE OF SIGN
7. TWO (2) BOLTS 1" O.C. FROM TOP AND BOTTOM OF SIGN FACE. BOLT SIGN TO POST.
8. 2" SQ. T.S. POST
9. FINISHED GRADE: $3-1 / 2^{\prime \prime}$ IN SHRUB BED
10. 8" DIA. CONCRETE FOOTING. SLOPE TOP AWAY FROM POST TO PREVENT STANDING WATER.
11. COMPACTED SUBGRADE, PER GEOTECHNICAL REPORT.


