

SPIRIT LAKE FISH HATCHERY
UPGRADE TO RAS SYSTEM REBID
DICKINSON COUNTY, IOWA
PROJECT NUMBER: 21-01-30-11

Date February 12, 2020

This Addendum is issued to modify, explain or correct the original Drawings and Specifications, and is hereby made a part of the Contract Documents. Please attach this Addendum to the Project Manual in your possession. Insert the number and issue date of this Addendum in the blank space provided on the Proposal Form.

Specifications:

1. Table of Contents: Delete "26 29 23 – Variable Frequency Drives – Low Voltage."
2. Ignore all references to Deductive Alternates.
3. Section 26 24 19 – Motor Control Equipment, Part 1.1, A.: Add "2. Control Panels (duplex) for Walleye Reuse Pumps (WRP-1 & 2 and WRP-3 & 4 and WRP 5 & 6).
4. Section 26 24 19 – Motor Control Equipment: Add:
 - 2.4 CONTROL PANELS
 - A. Where control panels for walleye pumps are shown in the Drawings, they shall include:
 - a. NEMA 1 enclosure.
 - b. UL 508 listed industrial control panel.
 - c. Thermal magnetic circuit breaker for each pump with cover mounted disconnect operator for each pump.
 - d. IEC rated full voltage non-reversing motor starter with solid state ambient compensated thermal overload relay for each pump.
 - e. Hand-off-auto selector switches for each pump.
 - f. Green RUN indicator lights, push-to-test type.
 - g. Red flashing HIGH LEVEL ALARM indicator light, push-to-test type.
 - h. Fuse for protection of 120 VAC control circuit.
 - i. 600 volt rated terminals for field wiring of panel.
 - j. One non-resettable elapsed time meter for each pump.
 - k. One through the inner door overload reset pushbutton per pump shall be provided. Pushbutton shall allow the operator to reset the overload relay without opening the inner dead front door.
 - m. Duplex alternator including selector switch to change alternation of pumps from AUTO to PUMP 1 LEADS or PUMP 2 LEADS.
 - n. One set of unpowered "form c" contact for pumps shall be provided to indicate cumulative alarms.
5. Section 22 05 29 – Hangers and Supports for Plumbing Piping and Equipment, Replace Part 2.1, B. With "Indoor hangers and supports (including channel strut and channel strut accessories that UV and disc filter control panels shall be rack mounted from using stainless steel high post bases) that are not from ceiling and not in space under headtank shall be of stainless steel, aluminum, fiberglass, reinforced plastic or copper. Outdoors galvanized steel is also acceptable including fasteners. Fasteners indoors not from ceiling or in space under headtank shall be stainless steel."
6. Delete Section 26 29 23 – Variable Frequency Drives – Low Voltage
7. Section 40 05 00 – Pipe and Pipe Fittings – Basic Requirements, Part 3.7: Change "SCH 80 PVC for Pumped Reuse Water" To "SCH 40 PVC for pumped Reuse Water (PR) pipe and fittings 4 & 3-inch-dia. that is not female threaded. SCH 80 PVC for female threaded fittings and valves and flanges and Pumped Reuse Water (PR) in sizes

other than 4 & 3-inch dia. (including static mixer piping) and all Cold Water (CW) and water piping to and from Heat Exchangers.”

8. Section 40 05 07 – Pipe Support Systems: Add “2.4 Materials of Construction: Same as Section 22 05 29, Part 2.1, B. and addenda thereto.”
9. Section 40 05 31 – Pipe: Plastic

Part 2.3: Add “E. PVC duct in 12-inch-diameter size shall have thickness of 0.187 inches for desired weight minimization. PVC duct in 6-inch-diameter size shall be SCH 40.

Replace Part 2.4 With “Flexible PVC hose/pipe shall be SCH 40 and black or other non-white color and compatible with rigid SCH 40 PVC solvent cemented fittings. One source for required seamless length indicated in Drawings is 123Ponds.com”

Delete Part 3.4

10. Section 40 42 00 – Pipe Insulation

Replace Part 2.3 With “Provide UV resistant PVC jacketing over all pipe insulation on outdoor pipe.”

Delete Part 3.1, D.

Replace Part 3.2 Schedules, subpart A With “Pumped Reuse (PR) piping and Cold Water or City Water (CW) piping shall have ½ inch thick insulation. UV disinfection vessels and their flanges shall be insulated. Static mixer bodies shall be insulated. Do not insulate water meters, PVC valves, stacked discfilters, PVC flanges, PVC unions or piping over the Walleye Reuse Pump Sumps.”

11. Section 43 25 13.1 – Submersible Pumps & Static Mixers:

- a. Part 2.1, A., 3.: Add “b. Topp Industries.”
- b. Part 2.4, D.: Change “1-1/2 inch” to “true 1-1/2 or 2- inch (Contractor provide true 1-1/2 inch Flomatic 508 checks, not bushed Flomatic 208).”
- c. Part 2.5:

At subpart A: Change “SCH 40” to “SCH 80.”

At subpart B: Delete “Three stage.”

Replace subpart C With: “Units tagged SM-1 thru SM-3 shall be 3 stage 12-inch dia. with approx. 0.03 psid at 175 gpm. Unit tagged SM-4 shall 4 stage 10-inch dia.

12. Section 43 27 73 – Stacked Discfilter System:

2.1, I.: Change “5.8 gallons” To “4.5 gal.”

2.1, V.: Add: “4. Have a dry contact to interlock the backwash sequence with equipment by others.”

13. Section 43 41 26 – Aquaculture Tanks & Hatching Jars:

1.1, A., 1.: Change “fry tanks, walleye fry tanks, musky fry tank(s), fry transfer tank(s), walleye reuse pump sumps” To “Three walleye fry tanks, one musky fry tank, two fry transfer tanks and three walleye reuse pump sumps.”

1.1,A., 1.: Delete “and hatching jars.”

2.4, A.: Change “Provide” To “DNR will provide.”

Plans:

1. Sheet S-6:

Provide welded 4" dia. aluminum pipe stubs connections at the west ends of the 13" deep troughs per Sheet D-4.
Elevation 2: Change "7/8-inch dia. hole in each . . . location with Sheet D4 and PVC angle valve . . ." To "Holes in each . . . location and size with Sheet D4 and bulkhead . . ."

2. Sheet S-6 & S-7:

Add 1/2" both 7-1/4" dimensions making overall width 1" more. Over those spaces provide 7-1/2" instead of 7" wide plates.

The aluminum elbows and half coupling shown in Section B shall be 4" dia. and at the east end of the troughs centered 4" from the end.

Make the two 11" deep troughs 12" deep. Keep the spacing between troughs. This will make the overall height of the rack 2" taller and the upper jar shelf 1" higher.

The feet (clipped angles) on the outboard legs shall toe in instead of out.

3. Sheet S-8:

Add 1/2" to 7-1/4" dimension making top overall width 1/2" more. Over those spaces provide 7-1/2" instead of 7" wide plates.

Elevation 2: Change "7/8-inch dia. hole in each . . . location with Sheet D4 and PVC angle valve . . ." To "Holes in each . . . location and size with Sheet D4 and bulkhead . . ."

The aluminum elbows and half coupling shown in Section B shall be at the west end of the troughs centered 4" from the end.

Make the two 11" deep troughs 12" deep. Keep the spacing between troughs. This will make the overall height of the rack 2" taller and the upper jar shelf 1" higher.

The feet (clipped angles) on the outboard legs shall toe in instead of out.

Provide welded 3" dia. aluminum connections at the east ends of the 13" deep troughs per Sheet D-5.

4. Sheet D-2: Change "suspended in old trench drain" To "standed in old trench drain using stainless steel pipe clamps (shaped like B-Line B3140) and stainless steel all-thread for legs."

5. Sheet D-3:

General Notes:

Add: "4. Condenser pads shall be at least 8 inches thick and at least 4 inches longer and wider than the condensers and shall have #4 rebar 12 inches on center each way mid-slab. Provide free draining gravel at least 8 inches deep under the pads."

At Note 3 Change "cross and tee at static mixer shall be 4-inch dia." To "cross and tee at static mixer shall be 10-inch dia."

All overhead Pumped Reuse Water (PR) pipe and fittings tagged/labeled as 3" dia. approx. 9 ft and higher above floor shall be instead be 4" including its vertical elbows which shall have conical reducers down to 3" dia.

1" piping at the two fry transfer tanks at the left side of the drawing is wrongly indicated as branched from 3" risers. Instead, change the horizontal elbow nearest the central walleye jar rack aeration columns to a tee and run 1" overhead to the south side of the window in the west wall. Drop beside the window and then turn to the Ball Valve at the south Fry Transfer Tank. Likewise provide 1" pipe from north walleye jar rack aeration columns' supply to the north side of the window and down to the north Fry Transfer Tank Ball Valve. Also continue that 1" pipe under the window to the south Fry Transfer Tank and provide it a second 1" Ball Valve.

Provide 2" Gravity Reuse (GR) piping centered 2" AFF from the true wye shown under the Esocid Fry Tank to the offset piping shown at the Esocid Reuse Pump Station.

At Esocid Reuse Pump Station Delete 2-1/2" Reducer.

6. Sheet D-4:

Plan 1: Tank adapter at west end is to be 3" rather than 4" dia.

Detail 2: To "angle globe valve" Add "on close SCH 80 PVC nipple."

Elevation A: Two supply troughs are to be 12 instead of 11" deep. Rack overall height is to be 2" taller. Clearances between all four troughs are to remain.

Elevation B:

Sources for loose packing media for aeration columns include Pentair BioBarrels BF44A and EasyPro Pond Products Bio-Balls and Koch-Glitsch.

PVC Duct shall be 36 instead of 38" long.

7. Sheet D-5:

Elevation A: Two supply troughs are to be 12 instead of 11" deep. Rack overall height is to be 2" taller. Clearances between all four troughs are to remain.

Elevation B:

To "MPT x socket EL SCH 40 PVC" Add "into 3-inch dia. aluminum half coupling of upper drain trough.

PVC Duct shall be 30 instead of 38" long and 6 instead of 12" dia. and may be SCH 40 PVC.

8. Sheet D-6:

Plan 2: Change "3-inch max all around" To "4-inch max all around."

Section 4: Tank floor may be up to 2" thick. Near standpipe shall be two sets of slots for screens 3" apart like in Plan 2. Screens slots shall be uniform and between 1/2" and 3/4" wide and between 3/8" and 5/8" deep. DNR intends to fabricate their own screens with aluminum channel frames.

9. Sheet D-7:

Isometric 1: Static mixer and cross under and tee above shall all have main size of 12 instead of 8" dia. Vertical ball valve straight above shall instead be a 4" PVC butterfly valve in overhead horizontal pipe.

Provide 4" piping and bushing in top of 12x2 tee. The riser shall bear on the floor. Flange bolts shall be stainless or fiberglass. Provide spigot flanges in the cross & tee. Contractor add support to resist tipping. Drawings are based on Spears brand fittings and spigot flanges.

Fry Transfer Tank Detail 4: Overall 2'-6" height shall include the casters. Nominal inside depth shall be 24 inches.

Section 6:

The rail and lift out check valve system is specified in specification Section 43 25 13.1 and it shall include two gate valves with extended handles (one is shown but not labeled). The piping, gate valves and quick disconnects of the system shall be 2" rather than 1-1/2" dia. except Contractor shall provide true 1-1/2" Flomatic 508 check valves and SCH 40 stainless steel pipes from them to the pumps. Do not provide 1-1/2" Flomatic 208 checks from the rail system manufacturers that are actually bushed 2" valves that are oversized for this application where the DNR could throttle flows.

Notes: Add:

3. Provide 2" thick rigid insulation on the outside of the sump walls below grade.
4. Through wall provide 2" Overflow Water (OW) pipe with Centerline elevation 8" BFF as shown on Sheet D-2.