



ADDENDUM 01

Project: Sunset Pool Heater Replacement

Addendum Date: February 16, 2022

Bid Document Date: February 8, 2022

Specification Date: February 8, 2022

This Addendum becomes a part of the Bidding and Contract Documents and modifies the original Bidding Documents. Acknowledgment of receipt of this Addendum in the space provided on the Bid Form is required. FAILURE TO ACKNOWLEDGE RECEIPT OF THIS ADDENDUM ON THE BID FORM MAY DISQUALIFY BID.

General:

1. Keynote 18 on AQ1.0 calls for a new concrete pad per manufactures manual. The existing concrete pad is sufficient. A new concrete pad is not necessary.

Attachments:

1. Revised Sheet AQ1.0.
2. Revised Bid Form. Line 2.4 removed

END OF ADDENDUM

SECTION 00 41 13 – BID FORM

Sunset Pool Heater Replacement

GLEN ELLYN, ILLINOIS

COMPANY NAME: _____

THIS PROJECT IS SUBMITTED TO:
Glen Ellyn Board of Commissioners

To whom it may concern:

The undersigned Bidder has received the Bid Documents, Drawings and Project Manual, titled
Sunset Pool Heater Replacement

The undersigned has received the following Addenda and have included their provisions in my
bid:

Addendum No. _____, dated _____ .

Addendum No. _____, dated _____ .

Addendum No. _____, dated _____ .

The undersigned Bidder, hereby agrees:

1. To hold the bid open for ninety (90) days
2. To accept the provisions of the Contract Documents
3. To furnish bonds, bid security, certificate of insurance and schedule of values as specified
4. To accomplish the work in accordance with the Contract Documents
5. That the Bid price is a lump sum cost for materials, installation and labor for the installation
6. That this Bid is genuine, and not sham or collusive, or made in the interest or behalf of any person not herein named
7. If awarded the contract, the undersigned further agrees to begin work with an adequate force and equipment within 7 days as established in the agreement.

THE UNDERSIGNED BIDDER, having familiarized himself with the work required by the Contract Documents, the site(s) where the Work is to be performed, local labor conditions and all laws, regulations and other factors affecting performance of the Work, and having satisfied himself of the expense and difficulties attending performance of the Work,

HEREBY PROPOSES and agrees, if this Bid is accepted to enter into Agreement to perform all work, including the assumption of all obligations, duties and responsibilities necessary to the successful completion of the Agreement and the furnishing of materials and equipment required to be incorporated in and form a permanent part of the Work, tools, equipment, supplies, transportation, facilities, labor, superintendence and services required to perform the Work as

indicated or specified in the Contract Documents to be performed or furnished by Contractor in accordance with the following Bid Prices. Contractor must submit on all scheduled values to be considered.

BASE BID PRICE:

The undersigned Bidder will perform all the work for the Sunset Pool Heater Replacement, for the base bid lump sum cost of:

_____ Dollars,

(\$_____).

(Amount shall be shown in both words and figures. In case of discrepancy, the amount shown in words will govern).

PREPARED BY:

Signed: _____

Name Printed: _____

Title: _____

Company: _____

SCHEDULE OF VALUES – BASE BID

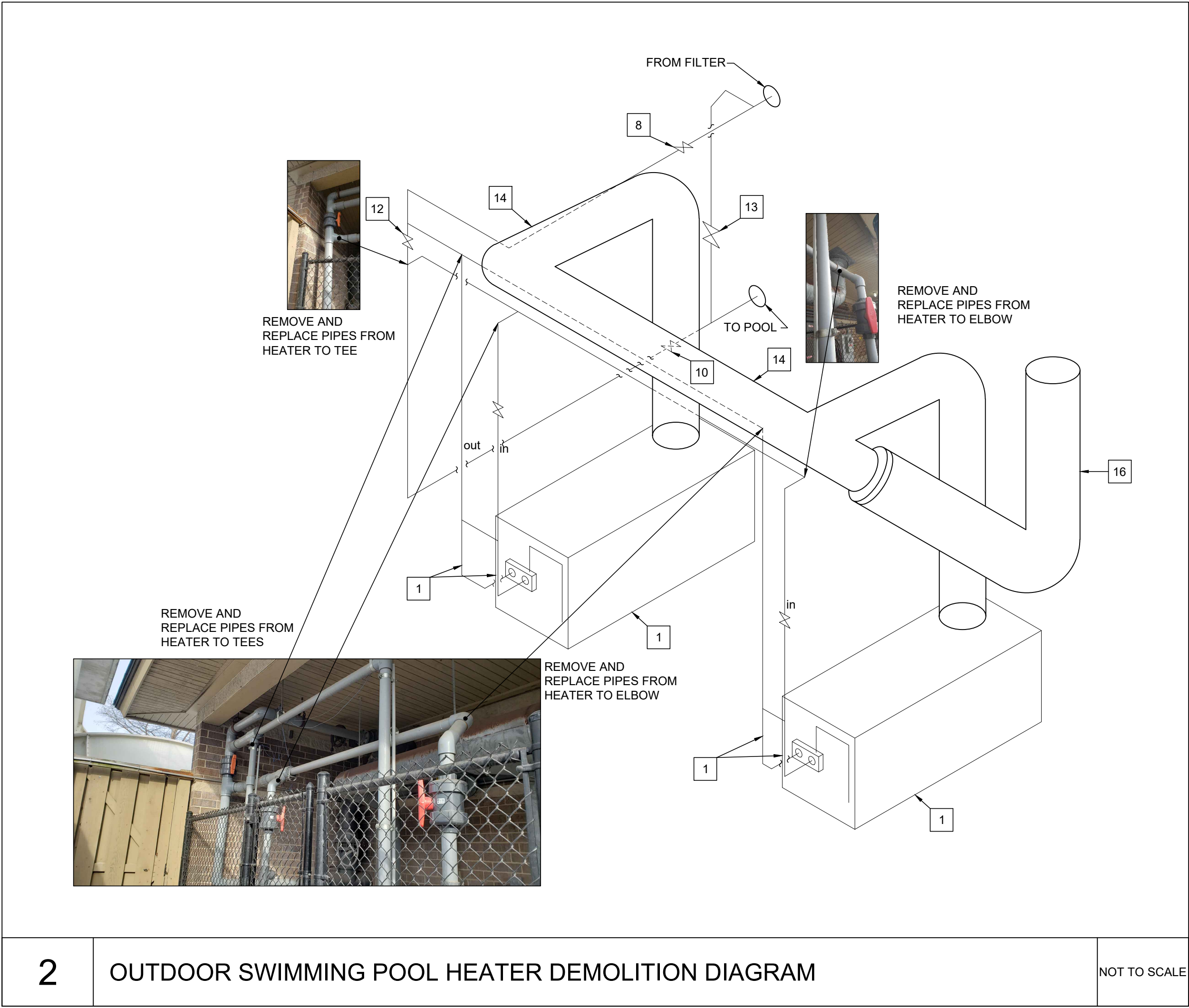
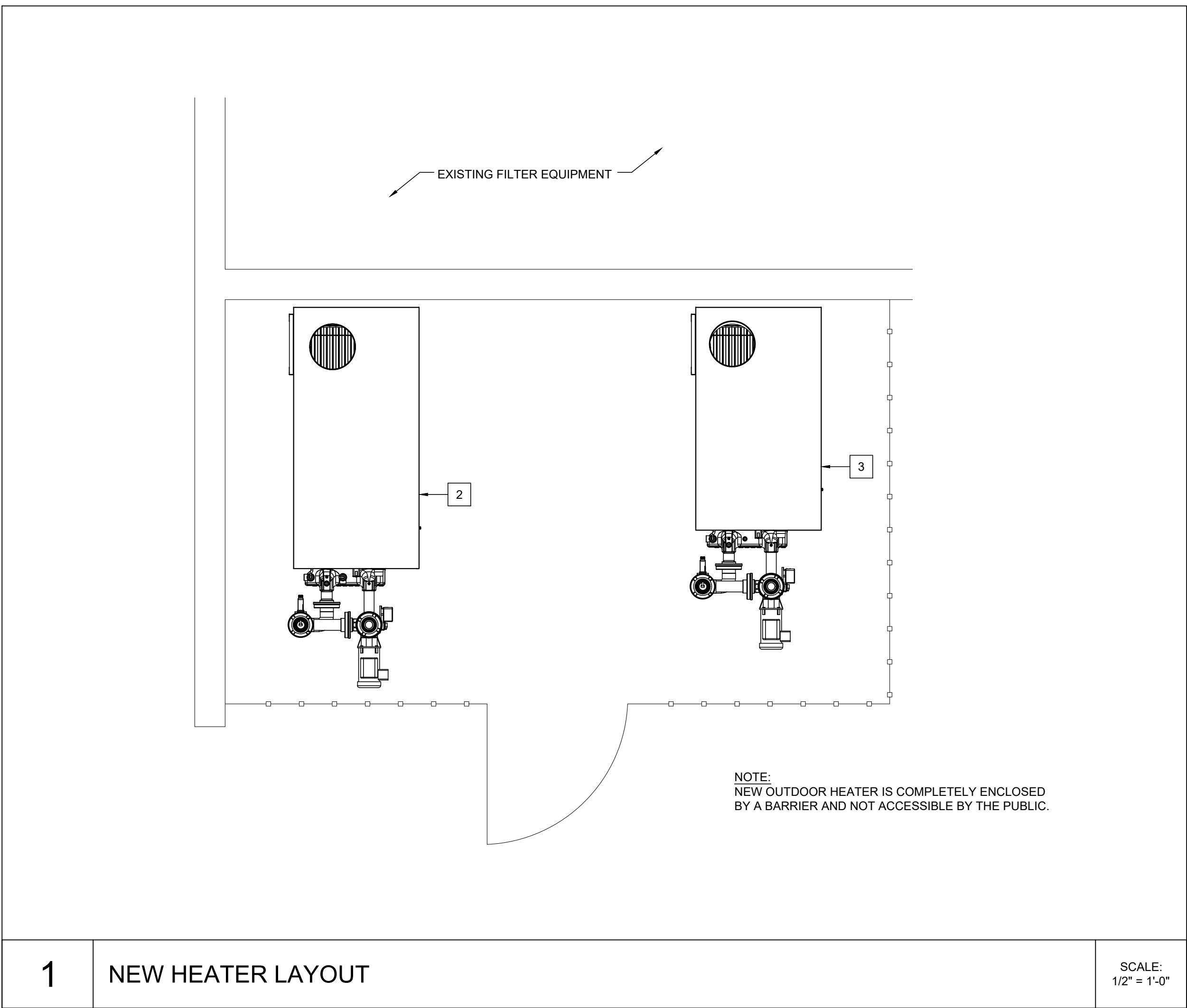
Bidder to complete the Schedule of Values. The Schedule of Values is for bid evaluation, aiding the bidder in estimating quantities and preparing the lump sum bid. Bidders are responsible for verifying all quantities and not relying solely on the quantities shown in this schedule. The successful bidder will be required to enter into a lump sum contract agreement. No additional payments will be made due to the discrepancies between bidder's estimated quantities, owner's estimated quantities, and the actual installed quantities to construct the work as drawn and specified. The Unit Prices will be used to establish change orders for additions or deductions to the project as approved by the Owner. The Unit Price shall include all equipment, materials, and labor necessary to complete the work.

COMPANY NAME: _____

Item	Description	Quantity	Unit	Unit Price	Item Total
1.0	Demolition				
1.1	Remove and dispose of existing outdoor swimming pool heaters with associated pipes and valves.	1.00	LSUM	\$ -	\$ -
				Subtotal	\$ -
2.0	New Construction				
2.1	New Pool Heater as Specified	1.00	LSUM	\$ -	\$ -
2.2	New Back-Up Pool Heater as Specified	1.00	LSUM	\$ -	\$ -
2.3	Associated plumbing, valves, flue work, and incidentals as specified	1.00	LSUM	\$ -	\$ -
				Subtotal	\$ -
		Construction Subtotal			\$ -

3.0	General Requirements				
3.1	Contracting and General Requirements	1.00	LSUM	\$ -	\$ -
3.2	Bonds & Insurance	1.00	LSUM	\$ -	\$ -
3.3	Allowance for unforeseen conditions. Include in Base Bid price. Including replacing non-functioning existing valves.				\$ 3,000.00
				Subtotal	\$
Bid Project Total					\$ -

END OF SECTION – 00 41 13



NOTES

DEMOLITION NOTES:

1.)

EXISTING SLIP-RESISTANT CONCRETE FLOOR SLOPES TO EXISTING FLOOR DRAIN.

2.)

EXISTING HEATER AREA IS NOT ACCESSIBLE TO POOL PATRONS AND IS COMPLETELY ENCLOSED BY FENCE.

3.)

REMOVE AND DISPOSE OF EXISTING SWIMMING POOL HEATERS (LOCHINVAR CPN1261 & CPN 1441).

4.)

DISCONNECT EXISTING OUTDOOR SWIMMING POOL HEATERS FROM EXISTING 2" GAS SERVICE, EXISTING EXHAUST VENT PIPE, AND ELECTRICAL WIRING AND CONDUIT. PROTECT THESE EXISTING ITEMS AS REQUIRED SO THEY MAY BE CONNECTED TO THE NEW HEATER.

INSTALLATION NOTES

1.)

NEW HEATERS IS BEING INSTALLED FOR THE EXISTING OUTDOOR SWIMMING POOL.

2.)

ALL POOL WATER HEATER INFLUENT AND EFFLUENT LINES FROM THE BYPASS TO THE HEATER TO BE C.P.V.C. REPLACE PIPES AND VALVES AS REQUIRED.

3.)

INSTALLATION OF THE NEW POOL HEATERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

4.)

CONTRACTOR TO CONNECT THE NEW POOL HEATER TO THE EXISTING 2" GAS SERVICE. EXHAUST VENT PIPES AND ELECTRICAL WIRING AND CONDUIT.

5.)

INSTALLATION OF THE NEW POOL HEATERS AND WIRING SHALL ADHERE TO THE 2008 NATIONAL ELECTRICAL CODE. ALL CIRCUITS TO BE GROUNDED WITH AN INSULATED COPPER WIRE FROM THE MAIN DISTRIBUTION PANEL IN ACCORDANCE WITH THE 2008 NATIONAL ELECTRICAL CODE. THE HEATER SHALL BE BONDED TO THE EXISTING BONDING WIRE LOCATED IN THE EQUIPMENT ROOM IN ACCORDANCE WITH ARTICLE 680.26 OF THE 2008 NATIONAL ELECTRICAL CODE.

6.)

A PRESSURE RELIEF VALVE WITH A MAXIMUM PRESSURE RATING OF 75 POUNDS PER SQUARE INCH AND HAVING A THERMAL CAPACITY AT LEAST EQUAL TO THE HEAT INPUT RATING OF THE HEATER SHALL BE INSTALLED ON EACH HEATER EFFLUENT PIPE, WITH THE DISCHARGE PIPED TO WITHIN SIX (6) INCHES OF THE FLOOR.

7.)

CONTRACTOR TO INCLUDE 2 NEW THERMOMETERS IF NOT PRESENT ON SITE (ONE BEFORE AND ONE AFTER HEATER BYPASS) AND AQUASTAT MANUFACTURED BY HONEYWELL, MODEL #L4006A1959 (LOCATED DOWNSTREAM FROM HEATER PIPING). AQUASTAT SET TO 115°.

BONDING NOTES:

1.)

CONTRACTOR SHALL BOND NEW HEATER TO THE EXISTING BONDING GRID IN ACCORDANCE WITH ARTICLE 680.26 OF THE 2008 NATIONAL ELECTRICAL CODE. PROVIDE AN APPROVED BONDING LUG / CLAMP ON ALL EXISTING ITEMS AND CONNECT WITH A #8 SOLID BARE COPPER BONDING WIRE.

KEY NOTES

1.

REMOVE AND DISPOSE OF EXISTING OUTDOOR SWIMMING POOL HEATERS WITH ASSOCIATED PIPES AND VALVES.

2.

NEW 1,440,000 B.T.U. SWIMMING POOL HEATER MANUFACTURED BY LOCHINVAR, MODEL # CPN1442.

3.

NEW 1,260,000 B.T.U. BACK-UP SWIMMING POOL HEATER MANUFACTURED BY LOCHINVAR, MODEL # CPN1262.

4.

NEW THERMOMETERS

5.

NEW AQUASTAT, IF NOT PRESENT ALREADY PRESENT, INSTALLED DOWNSTREAM FROM HEATER PIPING, SET AT 115° F, BY HONEYWELL #L4006A1959.

6.

NEW 2 1/2" CPVC INFLUENT PIPES, CONNECT TO EXISTING

7.

NEW 2 1/2" CPVC EFFLUENT PIPES, CONNECT TO EXISTING

8.

EXISTING 2 1/2" HEATER INFLUENT TRUE UNION BALL VALVE TO REMAIN

9.

NEW 2 1/2" HEATER ISOLATION INFLUENT TRUE UNION BALL VALVE

10.

EXISTING 2 1/2" HEATER EFFLUENT TRUE UNION BALL VALVE TO REMAIN

11.

NEW 2 1/2" HEATER ISOLATION EFFLUENT TRUE UNION BALL VALVE

12.

EXISTING 2 1/2" HEATER BYPASS VALVE TO REMAIN

13.

EXISTING 4" HEATER BYPASS VALVE TO REMAIN

14.

EXISTING 12" FLUE TO REMAIN

15.

NEW 12" FLUE, CONNECT TO EXISTING

16.

EXISTING 15" FLUE THRU ROOF OF ENCLOSURE. REPLACE AS REQUIRED

17.

CONTRACTOR TO INSTALL A PRESSURE RELIEF VALVE ON EXISTING HEATER EFFLUENT PIPE. MAXIMUM PRESSURE RATING OF 75 POUNDS PER SQUARE INCH AND HAVING A THERMAL CAPACITY AT LEAST EQUAL TO THE HEAT INPUT RATING OF THE HEATER. SHALL BE INSTALLED WITH THE DISCHARGE PIPED TO WITHIN 6" OF THE FLOOR

18.

NOT USED

TYPICAL SPECIFICATIONS FOR LOCHINVAR COPPER-FIN2 COMMERCIAL HEATER MODELS CPN1262 & CPN1442

1. THE CPN1262 HAS AN INPUT RATING OF 1,260,000 B.T.U./HR AND SHALL BE OPERATED ON NATURAL GAS.
2. THE CPN1442 HAS AN INPUT RATING OF 1,440,000 B.T.U./HR AND SHALL BE OPERATED ON NATURAL GAS.
3. THE WATER CONTAINING SECTION SHALL BE OF A "FIN TUBE" DESIGN, WITH STRAIGHT COPPER TUBES HAVING EXTRUDED INTEGRAL FINS SPACED SEVEN (7) FINS PER INCH. THE TUBES SHALL TERMINATE INTO A ONE PIECE, LINED, CAST IRON HEADER. THERE SHALL BE NO BOLTS, GASKETS OR "O" RINGS IN THE HEAD CONFIGURATION. THERE SHALL BE ACCESS TO THE FRONT HEADER OF THE HEATERS EXCHANGER FOR THE PURPOSES OF INSPECTION, CLEANING OR REPAIR. THE HEAT EXCHANGER SHALL BE MOUNTED IN A STRESS-FREE JACKET ASSEMBLY IN ORDER TO PROVIDE A "FREE FLOATING DESIGN" ABLE TO WITHSTAND THE EFFECTS OF THERMAL SHOCK. THE HEATERS SHALL BEAR THE ASME "H" STAMP FOR 160 PSI WORKING PRESSURE AND SHALL BE NATIONAL BOARD LISTED. THE COMPLETE HEAT EXCHANGER ASSEMBLY SHALL CARRY A FIVE (5) YEAR WARRANTY.
4. THE COMBUSTION CHAMBER SHALL BE SEALED AND COMPLETELY ENCLOSED WITH LOCH-HEAT CERAMIC FIBERBOARD INSULATION. A BURNER/FLAME OBSERVATION PORT SHALL BE PROVIDED ON EACH END OF THE UNIT. THE BURNERS SHALL BE CONSTRUCTED OF A HIGH TEMPERATURE STAINLESS STEEL AND FIRE ON A HORIZONTAL PLAN. THE HEATERS SHALL BE MULTI-SPEED COMBUSTION AIR BLOWER TO PRECISELY CONTROL THE FUEL/AIR MIXTURE OF MAXIMUM EFFICIENCY.
5. THE HEATERS SHALL BE CONSTRUCTED WITH A HEAVY GAUGE GALVANIZED STEEL JACKET ASSEMBLY, PRIMEED AND PRE-PAINTED ON BOTH SIDES WITH A MINIMUM DRY FILM THICKNESS OF 0.70 MILS. THE JACKET DESIGN SHALL ALLOW SINGLE UNIT VENTING CONNECTION WITHOUT THE USE OF EXTERNAL DRAFT HOOD DEVICES.
6. THE HEATERS SHALL BE CERTIFIED AND LISTED BY CSA INTERNATIONAL UNDER THE LATEST EDITION OF ANSI Z21.56/CSA4.7 STANDARD. THE HEATERS SHALL COMPLY WITH THE ENERGY EFFICIENCY REQUIREMENTS OF THE LATEST EDITION OF THE ASHRAE 90.1 STANDARD. THE HEATERS SHALL OPERATE AT THERMAL EFFICIENCY 85%.
7. THE HEATERS SHALL BE FURNISHED WITH A FACTORY SUPPLIED PUMPED BY PASS ASSEMBLY TO ENSURE PROPER OPERATION WITHOUT CONDENSATION. THE BY PASS ASSEMBLY SHALL INCLUDE A SEALED ALL BRONZE PUMP SUITABLE FOR OUTDOOR INSTALLATION. THE BY PASS ASSEMBLY SHALL BE CONSTRUCTED OF SCHEDULE 80 CPVC PIPING WITH BRASS INSERTS AND AN AUTOMATIC THREE-WAY VALVE TO PROTECT THE UNIT AGAINST INLET WATER TEMPERATURES THAT WOULD CAUSE THE HEAT EXCHANGER TO CONDENSE. INSTRUCTIONS FOR PROPER SETUP AND OPERATION OF THE BY PASS WILL BE SUPPLIED WITH THE HEATERS.
8. THE HEATERS SHALL BE EQUIPPED WITH AN ELECTRONIC INTEGRATED CONTROL MODULE WITH A MICROPROCESSOR-BASED PLATFORM INCORPORATING SOFTWARE CUSTOMIZED FOR OPERATION OF THE LOCHINVAR COPPER-FIN II. ALL INTERNAL SAFETY, OPERATING AND IGNITION CONTROLS SHALL BE INCLUDED IN THE ELECTRONIC INTEGRATED CONTROL MODULE. THE ELECTRONIC INTEGRATED CONTROL MODULE SHALL PROVIDE ON/OFF CONTROL OF THE GAS SUPPLY TO THE BURNER. OPERATION OF THE COMBUSTION AIR BLOWER, IGNITION OF THE GAS-AIR MIXTURE, FLAME PROVING, CONTROL OF WATER TEMPERATURE SET POINTS, AND MONITORING OF ALL SAFETY FUNCTIONS. MODBUS PROTOCOL (OPTIONAL).
9. THE HEATERS SHALL FEATURE THE "SMART SYSTEM" CONTROL WITH A 2-LINE, 16 CHARACTER LCD DISPLAY, PASSWORD SECURITY, PUMP DELAY WITH FREEZE PROTECTION, PUMP EXERCISE AND PC PORT CONNECTION. THE HEATERS SHALL ALLOW 0-10 VDC INPUT CONNECTION FOR BMS CONTROL AND HAVE BUILT-IN "CASCADE" TO SEQUENCE AND ROTATE WHILE MAINTAINING STAGE FIRING OF UP TO EIGHT HEATERS WITHOUT UTILIZATION OF AN EXTERNAL CONTROLLER. SUPPLY VOLTAGE SHALL BE 120 VOLT / 60 HERTZ / SINGLE PHASE.
10. LOCAL COMMUNICATION, PROGRAMMING AND A DISPLAY OF OPERATING AND ALARM STATUS CONDITIONS SHALL BE ACCESSIBLE THROUGH THE SMART SYSTEM CONTROL PANEL. THE SMART SYSTEM CONTROL PANEL SHALL CONTAIN AN ON/OFF MAIN POWER SWITCH, A DIGITAL DISPLAY OF A TEMPERATURE FUNCTIONS, THE OPERATIONAL STATUS OF THE HEATERS, OR AN ACTIVE ALARM FAULT. DATA POINTS VISIBLE IN THE DIGITAL DISPLAY INCLUDE INLET WATER TEMPERATURE, OUTLET WATER TEMPERATURE, WATER TEMPERATURE DIFFERENTIAL, PERCENT FIRING RATE, SETPOINT TEMPERATURES, SETPOINT DIFFERENTIAL, MINIMUM TEMPERATURE, MAXIMUM TEMPERATURE AND MAXIMUM RESET TEMPERATURE. OPERATIONAL STATUS SHALL BE DISPLAYED FOR OFF, STANDBY, PRE-PURGE, IGNITION, POOL AND/OR SPA WATER HEATING, AND POST-PURGE.
11. FAULT STATUS SHALL BE PROVIDED FOR HIGH LIMIT, GAS PRESSURE (OPTIONAL), LOW WATER, BLOCKED DRAIN, LOUVER PROVING, AND AIR PRESSURE SWITCH STATUS.
12. THE STANDARD OPERATING CONTROL SYSTEM SHALL INCLUDE REDUNDANT PROVEN PILOT HOT SURFACE IGNITION WITH FULL FLAME MONITORING CAPABILITY, MULTIPLE MAIN GAS VALVES WITH REDUNDANT VALVE SEATS AND BUILT IN LOW GAS PRESSURE REGULATORS SHALL BE SUPPLIED AS STANDARD. GAS VALVES WILL BE REFERENCED TO THE COMBUSTION CHAMBER TO ENSURE PROPER AIR/GAS MIXTURE FOR EFFICIENT COMBUSTION.
13. ADDITIONAL STANDARD CONTROLS SHALL INCLUDE A WATER PRESSURE SWITCH, BLOCKED FLUE PRESSURE SWITCH, LOW AIR PRESSURE SWITCH FOR EACH FAN, LOW VOLTAGE TRANSFORMER FOR THE CONTROL CIRCUIT, 7 AMP CIRCUIT BREAKER FOR 24 VAC CONTROL CIRCUIT, ASME TEMPERATURE AND PRESSURE RELIEF VALVE AND FLOW SWITCH. THE MANUFACTURER SHALL VERIFY PROPER OPERATION OF THE BURNERS, ALL CONTROLS AND THE HEAT EXCHANGER BY CONNECTION TO WATER AND VENTING FOR A FACTORY FIRE TEST PRIOR TO SHIPPING. A QUALITY TEST REPORT SHALL BE SHIPPED WITH EACH UNIT.
14. A 24 VAC CONTROL CIRCUIT AND COMPONENTS SHALL BE USED. ALL COMPONENTS SHALL BE EASILY ACCESSED AND SERVICEABLE. ALL COMPONENTS SHALL HAVE MULTI PIN PLUG IN TYPE CONNECTORS TO EASE SERVICE, TROUBLESHOOTING AND LOWER REMOVAL AND REPLACEMENT COST.
15. THE HEATERS SHALL BE APPROVED FOR INDOOR OR OUTDOOR INSTALLATION. THE HEATERS SHALL BE APPROVED FOR SIDEWALL, DIRECTAIRE® VERTICAL, DIRECTAIRE VERTICAL WITH SIDEWALL AIR INLET, DIRECTAIRE HORIZONTAL, AIR-LOCK™ DIRECT VENT AND CONVENTIONAL VENTING (SEE MECHANICAL DETAIL). VENTING SHALL BE CLASSIFIED CATEGORY I, NEGATIVE DRAFT, NON CONDENSING, TO USE TYPE "B" DOUBLE WALL VENTING MATERIALS. DIRECT VENT INSTALLATIONS REQUIRE THE USE OF AL29-4C VENT MATERIALS.
16. THE HEATERS SHALL HAVE AN INDEPENDENT LABORATORY RATING FOR OXIDES OF NITROGEN (NOX) OF LESS THAN 20 PPM CORRECTED TO 3% O2.