

Invitation for Bid – Issued October 29, 2018  
Boiler Replacement  
Barry County Buildings and Grounds Department  
220 W. State Street  
Hastings, MI 49058  
(269) 945-1293

1. Barry County is requesting bids to replace the boilers and water heater at the Barry County Courts & Law bldg. located at 206 W. Court Street, Hastings, MI 49058.
2. Bids shall be mailed or delivered to the Barry County Buildings and Grounds, 220 W. State Street, Hastings, MI 49058, in a sealed envelope clearly marked “BOILER REPLACEMENT” by November 23<sup>rd</sup>, 2018 at 2:00 p.m.
3. Bids opened by mistake due to improper identification will be rejected and returned.
4. Discount payment within a specified period of time will not be considered in evaluation of bids for award. Such discounts will be taken if payment can be made in that period, even though they are not considered in evaluation of the bid.
5. The bids shall be legibly prepared with ink or typed. If a unit price or extension already entered by a bidder on the bid form is to be altered, it should be crossed out with ink, the new unit price or extension entered above or below and initialed by the bidder, also with ink. The bid shall be legally signed and the complete address of the bidder given thereon.
6. Bids may be withdrawn in person by a bidder or his authorized representative provided his identity is made known, and he signs a receipt for the bid; but only if the withdrawal is made prior to the exact time set for receipt for bids.
7. The County is not subject to sales tax and as such it shall not be included in the final bid.
8. **NO BID MAY BE WITHDRAWN FOR AT LEAST 90 DAYS AFTER BID OPENING.**

9. Bidders are cautioned that any changes, insertions, omissions to the terms and conditions, specifications or any other requirement of this invitation may be considered non-responsive and at the option of the County may result in rejection of the bid.
10. The County of Barry reserves the right to accept or reject any and all bids and to waive any informalities and minor irregularities in bids received.
11. The bid will be awarded to that responsible bidder(s) whose bid, conforming to this solicitation will be the most advantageous to the County, price and other factors considered.
12. Award of this bid and authorization to proceed is dependent on sufficient funds being available.
13. Award of this bid may be split if no vendor is able to satisfactorily meet all specifications.
14. The contact person regarding this bid is Tim Neeb, Buildings and Grounds Supervisor, (269) 945-1293 (office) or (269) 838-7084 (cell).
15. A mandatory walkthrough will be done November 16th at 10:00 a.m.
16. A vendor selected as a contractor shall, at its own expense, protect, defend, indemnify, save and hold harmless Barry County and their elected and appointed officers, employees and agents from all claims, damages, lawsuits, costs and expenses including, but not limited to, all costs from administrative proceedings, court costs and attorney fees that Barry County and their elected and appointed officers, employees and agents may incur as a result of the acts, omissions or negligence of the contractor or its employees, servants, agents or subcontractors that may arise out of the agreement.

The contractor's indemnification responsibility under this section shall include the sum of damages, costs and expenses which are in excess of the sum of damages, costs and expenses which are paid out in behalf of or reimbursed to the County and their officers, employees and agents by the insurance coverage obtained and/or maintained by the contractor.

17. This agreement shall be construed according to the laws of the State of Michigan. Barry County and the Contractor agree that the venue for any legal or equitable action under this agreement shall be established in accordance with the statutes of the State of Michigan and/or Michigan Court Rules. In the event that any action is brought under this agreement in Federal Court, the venue for such action shall be the Federal Judicial District of Michigan, Western District, South Division.
18. Vendors shall render the services to be provided pursuant to this agreement in compliance with all applicable Federal, State, and local laws, ordinances, rules, and regulations.
19. The Proposer who is selected as the Contractor shall be an Independent Contractor. The employees, servants and agents of the Contractor shall not be deemed to be and shall not hold themselves out as employees, servants, or agents of the County and shall not be entitled to any fringe benefits received by the County's personnel, such as, but not limited to, health and accident insurance, life insurance, longevity or paid sick or vacation leave.
20. Each bidder is required to certify, and by submission of this bid does hereby certify, that in accordance with Act 517 of the Public Acts of Michigan of 2012 ("Act 517"), they are not an "Iran linked business" as defined in Act 517. If bidder is selected by the County of Barry to perform the work, bidder shall separately certify, as of the date of entering into the contract with the County of Barry, that they are not an "Iran linked business."
21. The Proposer who is selected as the Contractor shall purchase and maintain insurance not less than the limits set forth below. All coverage shall be with insurance companies licensed and admitted to do business in the State of Michigan and have a minimum A. M. Best Company's Insurance Reports rating of A or A-(Excellent).
  - a) Worker's Disability Compensation Insurance including Employers Liability Coverage in accordance with all applicable Statutes of the State of Michigan.
  - b) Commercial General Liability Insurance on an "Occurrence Basis" with limits of liability not less than \$1,000,000 per occurrence and/or aggregate combined single limit. Coverage shall include the following: (A) contractual liability; (B) products and completed operations; (C) Independent Contractor's Coverage; (D) Broad Form General Liability Endorsement or Equivalent.
  - c) Motor Vehicle Liability Insurance, including Michigan No-Fault Coverage, with limits of liability of not less than \$1,000,000 per occurrence combined single limit Bodily Injury and Property Damage. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles.

**d)** Professional Liability Insurance (Errors and Omissions) shall be maintained during the life of this contract with limits of liability of not less than \$1,000,000 per claim.

**e)** Additional Insured - Commercial General Liability Insurance, as described above, shall include an endorsement stating the following shall be "Additional Insureds": Barry County, all elected and appointed officials, all employees and volunteers, all boards, commissions and/or authorities and board members, including employees and volunteers thereof.

**f)** Cancellation Notice - All insurances described above shall include an endorsement stating the following: "It is understood and agreed that thirty (30) days advanced written notice of cancellation, non-renewal, reduction and/or material change shall be sent to: Barry County Administrator, 220 W. State St., Hastings, MI 49058."

**g)** Proof of Insurance - The vendor shall provide to Barry County at the time the contracts are returned by it for execution, two (2) copies of certificates of insurance for each of the and policies mentioned above. If so requested, certified copies of all policies will be furnished.

## BID SPECIFICATIONS

Barry County is seeking proposals from qualified contractors to replace the heating boiler and water heater located at the Historic Barry County Courthouse located at 220 W. State Street, Hastings, MI 49058.

1. Demo and remove existing equipment from building.
2. All labor and materials to install boilers, water heater, pumps, piping, air intakes, exhaust venting, filters, etc...as described in attached paperwork.
3. Replace Glycol in loop as needed to maintain current percentage.
4. To include emergency shut off switches, gas pipe, new pressure reducing valve, swing check, shut off valves, pipe insulation, high and low voltage electrical, strainers to protect boilers, new gas regulators for boilers, and permits.
5. Hook new equipment up to the existing control system.
6. System start up.
7. Balance system.
8. Includes all electrical work.
9. Provide training to maintenance personnel on new boiler, controller, piping and associated equipment.
10. This project will include all labor, materials, material (including possible hazardous material) removal and disposal, necessary needed to complete this project.
11. Installation shall include all plumbing connections, all drain connections, all gas piping connections, all flue connections, and all wiring including control connections.
12. System is to be installed and fully operational 8 weeks after award of bid..

The undersigned certifies that he has not communicated with or otherwise colluded with any other bidder (potential bidder) and not offered or accepted anything of any value from any employee of the County which would limit free enterprise.

The undersigned having read all terms, conditions, and specifications of the information for bid, hereby proposes to furnish these services at the following price:

Bid Price \$ \_\_\_\_\_

Signature \_\_\_\_\_ Name printed or typed \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_ Date \_\_\_\_\_

Fax \_\_\_\_\_ E-mail \_\_\_\_\_

Federal Tax ID # \_\_\_\_\_

Please list the last 3 boiler installation projects as references.

1. Company \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_ Date \_\_\_\_\_

2. Company \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_ Date \_\_\_\_\_

3. Company \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_ Date \_\_\_\_\_



## Dependable, Tank Type Water Heaters for Commercial and Residential Applications

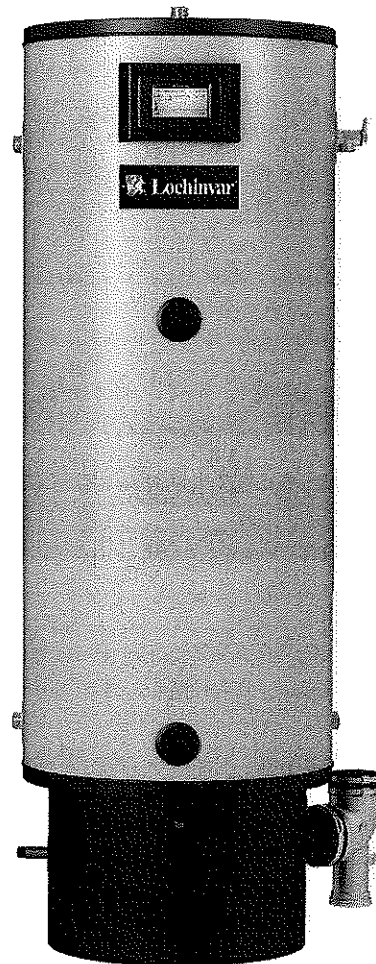
### 35-50 Series Gas Water Heaters

#### 35-50 Series

The Lochinvar 35-50 Series gas fired, tank type water heaters are designed to provide ease of installation, low stand-by loss and years of dependable service. The 35-50 Series features seven models for residential installations and six models for commercial installations, available in natural or L.P. gas.

#### Outstanding Features

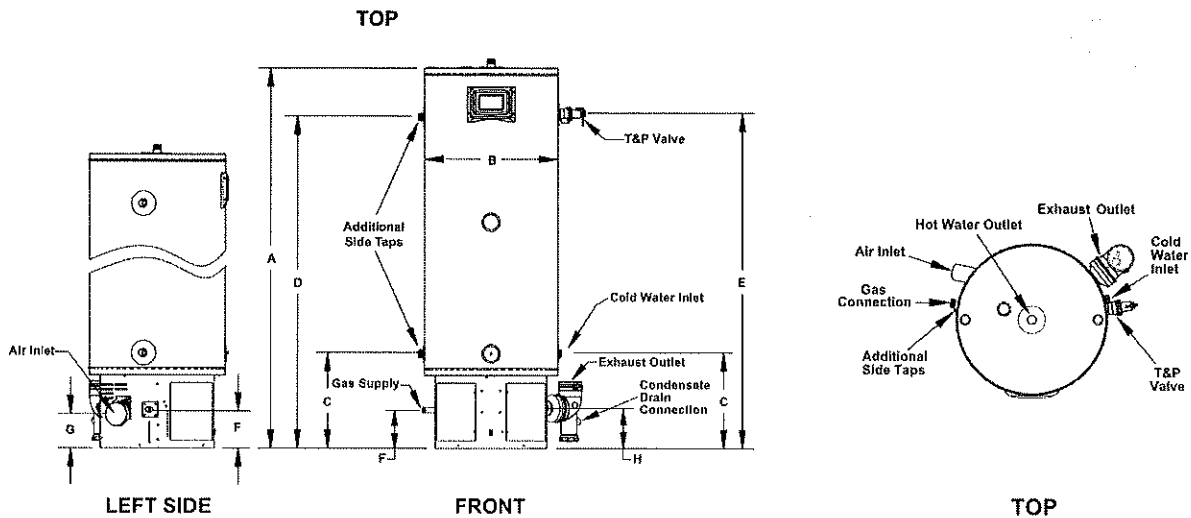
- **Stainless Steel Construction** – The tank and helical heat exchanger are made from 444 Stainless Steel for excellent corrosion resistance without need of anode rods.
- **96% Thermal Efficiency** – Operating up to 96% Thermal Efficiency, the 35-50 Series employs an internal helical heat exchanger which keeps the flue products in the appliance longer for maximum heat transfer.
- **Whisper Quiet Operation** – Ultra quiet blower and burner to minimize noise.
- **Advanced Electronic Controls** – Large touchscreen display with precise temperature control and advance diagnostics.
- **Power Direct Vent Design** – Vent in PVC, CPVC or Polypropylene for low cost installations, sidewall or rooftop. Vent 2" up to 52 equivalent feet and vent 3" up to 130 equivalent feet.
- **Ultra Low NOx Modulating Gas Burner** – Complies with SCAQMD Rule 1146.2 and other Air Quality Management Districts with NOx emissions less than 14ng/j.
- **Standards and Certifications** – Design certified by CSA International per the requirements of ANSI Z21.10.3 / CSA 4.3 standards. Meets UBC, CEC and ICC National codes. Meets thermal efficiency and standby loss requirements of the U.S. Department of Energy and ASHRAE/IEC 90.1.
- **Temperature and Pressure Relief Valve** – Factory installed.
- **Residential Warranty** - 10-year limited tank and 1-year limited parts.  
**Commercial Warranty** - 3-year limited tank and 1-year limited parts. See warranty for details.



**Meets ASHRAE Energy Efficiency Standards**

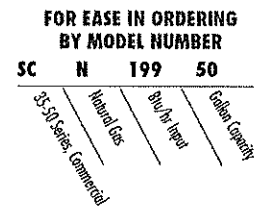


# Dimensions and Specifications:



Model Number	Btu/hr Input	Gallon Cap.	GPH @ 90°F Rise	1st Hour Recovery	Thermal Efficiency	A	B	C	D	E	F	Gas Conn	Water Conn	Vent Diameter	Ship Wt.
<b>35-50 Series, Residential</b>															
SWN100-035	100,000	34	129	156	96%	48-1/2"	22"	15-3/4"	40-1/2"	41"	6-1/2"	1/2"	1"	2" or 3"	150
SWN130-035	130,000	34	165	192	96%	48-1/2"	22"	15-3/4"	40-1/2"	41"	6-1/2"	1/2"	1"	2" or 3"	150
SWN150-035	150,000	34	190	217	94%	48-1/2"	22"	15-3/4"	40-1/2"	41"	6-1/2"	1/2"	1"	2" or 3"	150
SWN130-050	130,000	50	165	205	95%	62-1/2"	22"	15-3/4"	54-1/2"	55"	6-1/2"	1/2"	1"	2" or 3"	176
SWN150-050	150,000	50	190	230	95%	62-3/4"	22"	15-3/4"	55-3/4"	56-1/4"	6-1/2"	1/2"	1"	2" or 3"	180
SWN175-050	175,000	50	222	262	96%	62-3/4"	22"	15-3/4"	55-3/4"	56-1/4"	6-1/2"	1/2"	1"	3"	180
SWN199-050	199,000	50	253	293	96%	62-3/4"	22"	15-3/4"	55-3/4"	56-1/4"	6-1/2"	1/2"	1"	3"	180
<b>35-50 Series, Commercial</b>															
SCN130-035	130,000	34	165	192	96%	48-1/2"	22"	15-3/4"	40-1/2"	41"	6-1/2"	1/2"	1"	2" or 3"	150
SCN150-035	150,000	34	190	217	94%	48-1/2"	22"	15-3/4"	40-1/2"	41"	6-1/2"	1/2"	1"	2" or 3"	150
SCN130-050	130,000	50	165	205	95%	62-1/2"	22"	15-3/4"	54-1/2"	55"	6-1/2"	1/2"	1"	2" or 3"	176
SCN150-050	150,000	50	190	230	95%	62-3/4"	22"	15-3/4"	55-3/4"	56-1/4"	6-1/2"	1/2"	1"	2" or 3"	180
SCN175-050	175,000	50	222	262	96%	62-3/4"	22"	15-3/4"	55-3/4"	56-1/4"	6-1/2"	1/2"	1"	3"	180
SCN199-050	199,000	50	253	293	96%	62-3/4"	22"	15-3/4"	55-3/4"	56-1/4"	6-1/2"	1/2"	1"	3"	180

\* In the model number, "N" indicates natural gas; replace "N" with "L" to indicate L.P. gas models.  
 The SWN100-035 model has a 33 gallon rated storage capacity, a 0.90% UEF rating and a 179 GPH First Hour Rating.



*This is a natural gas 35-50 series water heater. It has standard construction, 199,999 Btu/hr, and 50 gallon storage capacity.*



Lochinvar, LLC  
 300 Maddox Simpson Parkway  
 Lebanon, Tennessee 37090  
 P: 615.889.8900 / F: 615.547.1000  
 Lochinvar.com





Barry County  
Courts And Law

Boiler

Etna Supply S102823811

4901 Clay Avenue SW  
Grand Rapids, MI 49548

Phone: (616) 241-5414

Fax: (616) 241-4786



Enclosed are submittals and/or shop drawings on the following items being proposed for use on the above reference project. This information is not intended to be all-inclusive, but rather contains material we feel pertinent to this project.

The images on these submittal sheets have been scanned in to create custom submittal sheets for the above reference project. All trademarks and patents apply to the manufacturer of the materials.

Please return an approved set of submittals to ETNA Supply Company as soon as possible. Release of material prior to engineer's approval is the contractor's acceptance of material as submitted. The ultimate responsibility for ordering material that conforms to the project specifications lies with the contractor. Submittals and/or shop drawings on additional material will be provided upon request.

If you have any questions regarding this information, please do not hesitate to contact us.

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# BARRY COUNTY COURTS AND LAW

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**Lochinvar**<sup>®</sup>  
HIGH EFFICIENCY BOILERS & WATER HEATERS

**FTXL FIRE TUBE  
CONDENSING BOILER**

Submittal Sheet

FTX-Sub-03

**FTXL FIRE TUBE COMMERCIAL BOILERS**

Job Name: \_\_\_\_\_ Model No. FTX850N-M13  
 Location: \_\_\_\_\_ Type Gas: NATURAL  
 Engineer: \_\_\_\_\_ Equipment Tag(s): \_\_\_\_\_  
 Wholesaler: \_\_\_\_\_  
 Contractor: \_\_\_\_\_

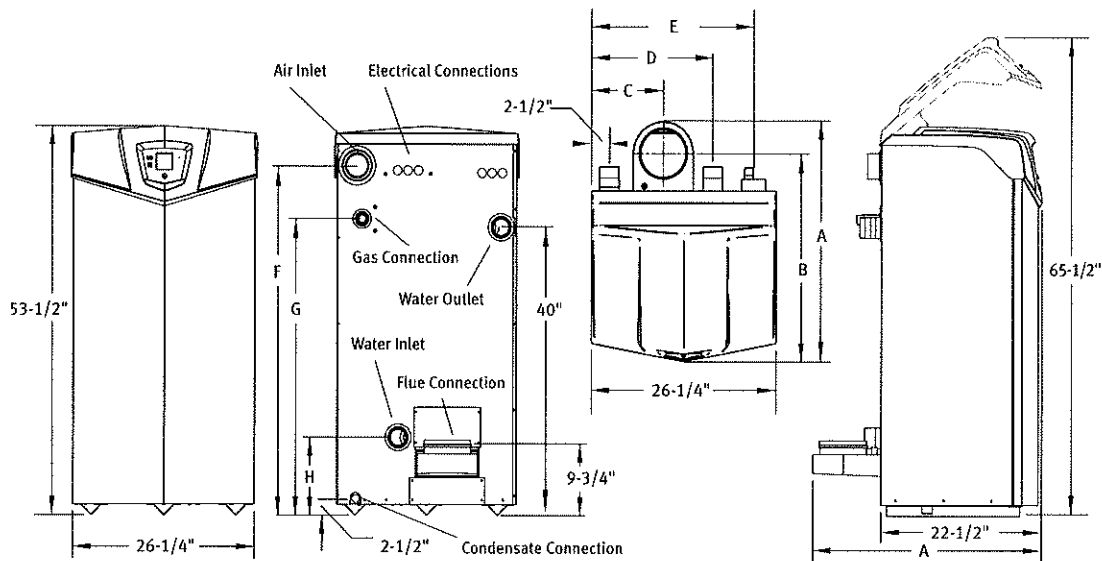
**NOTES:**

FOR EASE IN ORDERING  
BY MODEL NUMBER

FTX	850	N	M13
FTXL Boiler	850,000 Btu/hr Input	Natural Gas	M13 Firing Control

This model is:

- FTXL Fire Tube boiler
- 850,000 Btu/hr
- Natural gas
- M13 Firing Controls

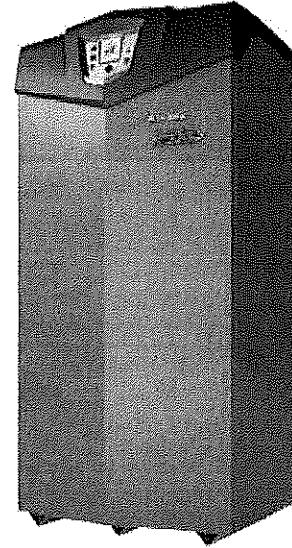


FTXL Boiler		Dimensions and Specifications																				
Model No.	Input Min MBH	Input Max MBH	Thermal Eff.	Gross Output MBH	NET AHRI Rating MBH	Turn down	Flow (GPM) Min	Flow (GPM) Max	HEX Water Volume	A	B	C	D	E	F	G	H	Water Conn.	Vent Size	Air Intake	Gas Conn.	Ship Wt. (lbs.)
○ FTX400N(M, L)	40.0	399.9	98.0%	392	341	10:1	10	105	13	30-1/2"	27-1/2"	10-1/4"	17"	23-1/4"	46-1/4"	39-1/2"	10-3/4"	2"	4"	4"	1"	435
○ FTX500N(M, L)	50.0	500.0	97.7%	489	425	10:1	15	105	12	30-1/2"	27-1/2"	10-1/4"	17"	23-1/4"	46-1/4"	39-1/2"	10-3/4"	2"	4"	4"	1"	460
○ FTX600N(M, L)	85.0	600.0	97.5%	585	509	7:1	15	105	12	30-1/2"	27-1/2"	10-1/4"	17"	23-1/4"	46-1/4"	39-1/2"	10-3/4"	2"	4"	4"	1"	470
○ FTX725N(M, L)	103.5	725.0	97.2%	705	613	7:1	20	150	17	33"	28-1/2"	10-1/2"	17-1/2"	23-1/2"	48-1/2"	41-1/4"	11"	2-1/2"	6"	4"	1"	510
○ FTX850N(M, L)	121.5	850.0	97.0%	825	717	7:1	25	150	16	33"	28-1/2"	10-1/2"	17-1/2"	23-1/2"	48-1/2"	41-1/4"	11"	2-1/2"	6"	4"	1"	535

\*Information subject to change without notice. Dimensions are in inches. Select "N" or "L" for Natural or LP gas. \*The Net AHRI Water Ratings shown are based on a piping and pickup allowance of 1.15. \*Lochinvar should be consulted before selecting a boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc. \*The ratings have been determined under the provisions governing forced draft burners.

# FTXL™

## FIRE TUBE BOILER



- CON-X-US® REMOTE CONNECT CAPABLE
- CASCADING SEQUENCER
- LOCH-N-LINK™ USB DRIVE SETUP
- 5 INPUTS FROM 399,999 TO 850,000 BTU/HR
- UP TO 10:1 TURNDOWN RATIO
- COMMON VENT AND PVC DIRECT-VENTING
- FLOW RATES FROM 10 TO 150 GPM
- SMALL 6.2 SQ. FT. FOOTPRINT
- 4 PUMP CONTROL
- WIRELESS OUTDOOR SENSOR CAPABLE

### Smart System Features

- ▶ **Smart System Digital Operating Control**  
Multi-Color Graphic LCD Display w/Navigation Dial
- ▶ **Loch-N-Link™ USB Thumb Drive Port for Easy Programming**
- ▶ **Cascading Sequencer with Built-in Redundancy**  
Selectable Cascade Type:  
Lead Lag/Efficiency Optimization  
Multiple Size Boilers  
Front-End Loading
- ▶ **3 Reset Temperatures Inputs w/Independent Outdoor Reset Curves for Each Outdoor Sensor**
- ▶ **Four-Pump Control**  
System Pump with Parameter for Continuous Operation  
Boiler Pump with Variable-Speed Control  
Domestic Hot Water Boiler Pump  
Domestic Hot Water Recirculation Pump Control with Sensor
- ▶ **Building Management System Integration**  
0-10 VDC Input to Control Modulation or Setpoint  
0-10 VDC Input from Variable-Speed System Pump  
0-10 VDC Modulation Rate Output Signal  
0-10 VDC Enable/Disable Signal
- ▶ **Programmable System Efficiency Optimizers**  
Space Heating Night Setback  
DHW Night Setback  
Anti-Cycling  
Ramp Delay  
Boost Time and Temperature
- ▶ **High-Voltage Terminal Strip**  
120 VAC/60 Hertz/1 Phase  
Pump Contacts for 3 Pumps
- ▶ **Low-Voltage Terminal Strip**  
Building Recirculation Pump Start/Stop  
Building Recirculation Return Temp Sensor  
Contacts  
Proving Switch Contacts  
Flow Switch Contacts  
Alarm Contacts

- Runtime Contacts  
3 Space Heat Thermostat Contacts  
Tank Thermostat Contacts  
System Sensor Contacts  
Tank Sensor Contacts  
Cascade Contacts  
0-10 VDC BMS Contacts  
0-10 VDC Boiler Rate Output Contacts  
0-10 VDC Boiler Pump Speed Contacts  
0-10 VDC System Pump Speed Contacts  
ModBus Contacts
- ▶ **Time Clock**
- ▶ **Data Logging**  
Ignition Attempts  
Last 10 Lockouts  
Space Heat Run Hours  
Domestic Hot Water Run Hours

### Standard Features

- ▶ **97%-98% Thermal Efficiency**
- ▶ **Modulating Burner with up to 10:1 Turndown**  
Direct Spark Ignition  
Low NOx Operation  
Sealed Combustion  
Low Gas Pressure Operation
- ▶ **Stainless Steel Fire-Tube Heat Exchanger**  
ASME-Certified, "H" Stamped  
160 psi Working Pressure  
50 psi Relief Valve  
Combustion Analyzer Test Port  
Fully Welded Design
- ▶ **Vertical and Horizontal Direct Vent**  
Direct Vent up to 100 feet  
PVC, CPVC, Polypropylene or AL29-4C  
Factory Supplied Sidewall Vent Termination
- ▶ **Smart System Control**
- ▶ **Other Features**  
On/Off Switch  
Adjustable High Limit with Manual Reset  
Automatic Reset High Limit

- Manual Reset Low Water Cutoff  
Flue Temperature Sensor  
Low Air Pressure Switch  
Temperature and Pressure Gauge  
Condensate Trap  
Zero Service Clearances  
10-Year Limited Warranty  
Low Water Cutoff  
Custom Maintenance Reminder with Contact Info  
Password Security  
Customizable Freeze Protection Parameters

### Optional Equipment

- CON-X-US Remote Connectivity
- ModBus Communication
- BMS Gateway to BACnet or LonMark
- SMART SYSTEM PC Software
- Alarm Bell
- Motorized Isolation Valve
- Wireless Outdoor Temperature Sensor
- Multi-Temperature Loop Control
- Variable-Speed Boiler Circulator
- Constant-Speed Boiler Circulator
- Condensate Neutralization Kit
- Concentric Vent Kit (FTX400-FTX600)
- Common Vent Kits
- High and Low Gas Pressure Switches w/Manual Reset (FTX500-FTX850)
- 30 psi ASME Relief Valve
- 75 psi ASME Relief Valve
- 100 psi ASME Relief Valve
- 125 psi ASME Relief Valve
- 150 psi ASME Relief Valve
- ▶ **Firing Controls**
- M9 - Standard Construction
- M13 - CSD-1/FM/GE Gap (FTX500-FTX850)



Lochinvar, LLC  
300 Maddox Simpson Parkway  
Lebanon, Tennessee 37090  
P: 615.889.8900 / F: 615.547.1000  
f t i n Lochinvar.com



11/17—Printed in U.S.A.



ETNA SUPPLY - GRAND RAPIDS  
 4901 CLAY AVENUE SW  
 GRAND RAPIDS, MI 49548-3038  
 616 241 5414  
 Fax 616 241 4786



# Acknowledgement

ORDER DATE	ORDER NUMBER	PAGE NO.
10/18/2018	S102823811	
ETNA SUPPLY - GRAND RAPIDS 4901 CLAY AVENUE SW GRAND RAPIDS, MI 49548-3038 616 241 5414 Fax 616 241 4786		1 of 2

SOLD TO:

SHIP TO:

ETNA QUOTE - HEATING  
 GRAND RAPIDS, MI 49548

ETNA QUOTE - HEATING  
 BARRY COUNTY COURTS AND LAW  
 GRAND RAPIDS, MI 49548

CUSTOMER NUMBER	CUSTOMER PO NUMBER	JOB NAME / RELEASE NUMBER	SALESPERSON	
37771	BARRY COUNTY COURTS		Corp ETA	
WRITER	SHIP VIA	TERMS	SHIP DATE	FREIGHT ALLOWED
Brandon Hart	BID	NET CASH/CK/CC	10/18/2018	No
ORDER QTY	DESCRIPTION			
	BARRY COUNTY COURTS AND LAW			
2ea	LOCHINVAR FTX850N-M13 FTXL FIRETUBE CONDENSING BOILER WITH CSD-1 121-850 MBH INPUT 100059335			
2ea	NEUTRA-SAFE CN4-1200 CONDENSATE NEUTRALIZER, 1,200,000 BTU CAPACITY			
2ea	LOCHINVAR KIT30151 CON-X-US 100071724			
2ea	WILO STRATOS 2X3-35 CI 3/4HP 230V SINGLE PHASE CIRC PUMP 2163593			
2ea	WILO STRATOS EXTERNAL OFF/0-10V DC/DUAL PUMP INTERFACE MODULE 2030475			
2ea	WEBSTONE 51417HV-RF400 ISOLATOR SWT X ROTATING FLANGE W/HOSE DRAIN			
2ea	WEBSTONE 51407HV-RF400 ISOLATOR SWT X ROTATING FLANGE			
1ea	FERNOX 62227 TF-1 DELTA COMMERCIAL FILTER 2" *Nonstock - Restock Policy Applies*			
1ea	WILO STRATOS 2X3-35 CI 3/4HP 230V SINGLE PHASE CIRC PUMP 2163593			
1ea	WEBSTONE 51417HV-RF400 ISOLATOR SWT X ROTATING FLANGE W/HOSE DRAIN			

\*\* Continued on Next Page \*\*

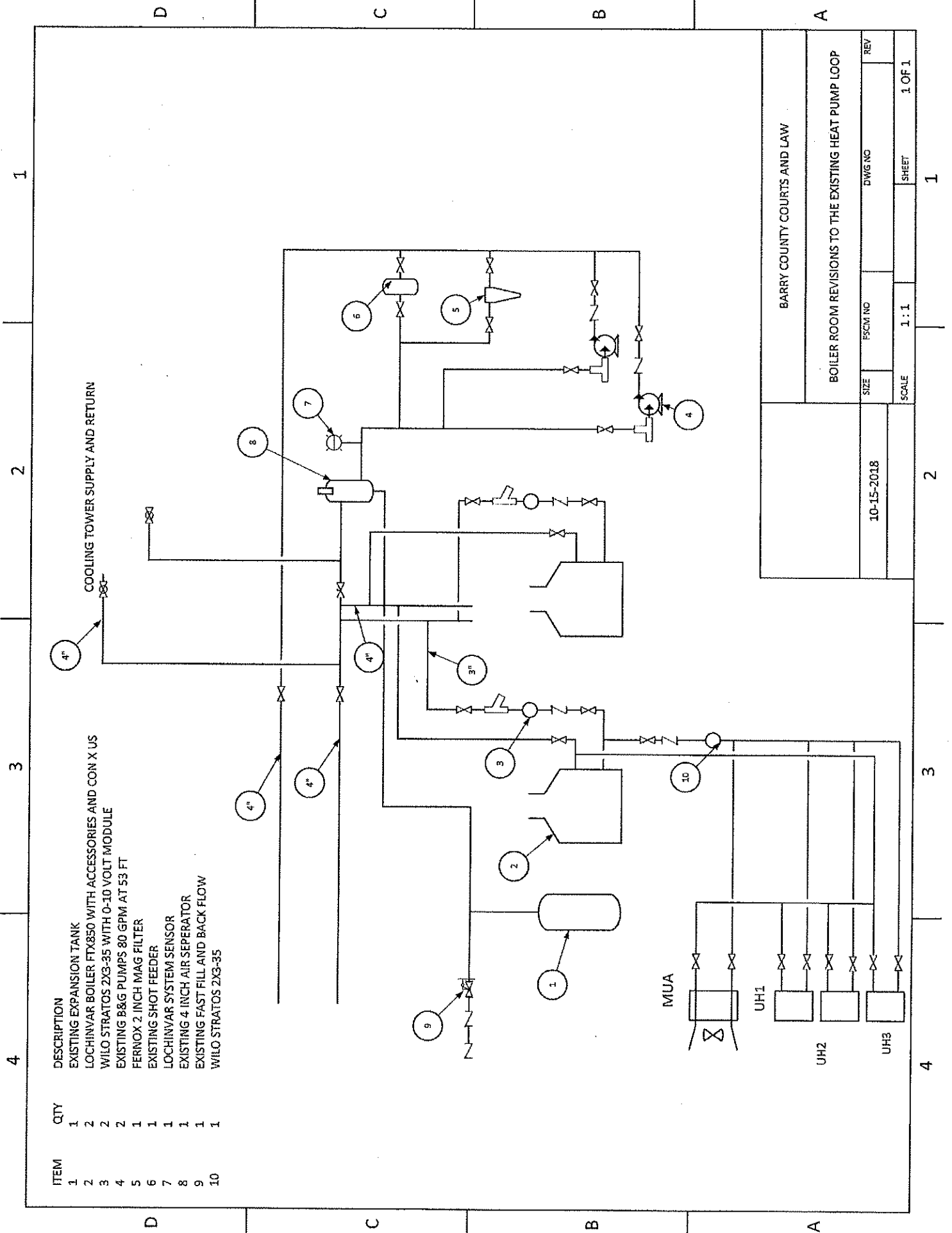




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ORDER DATE	ORDER NUMBER	PAGE NO.
10/18/2018	S102823811	

ORDER QTY	DESCRIPTION
1 ea	WEBSTONE 51407HV-RF400 ISOLATOR SWT X ROTATING FLANGE
1 ea	Lochinvar SCN130-050 Water Heater



ITEM	QTY	DESCRIPTION
1	1	EXISTING EXPANSION TANK
2	2	LOCHINVAR BOILER FTX850 WITH ACCESSORIES AND CON X US
3	2	WILO STRATOS 2X3-35 WITH 0-10 VOLT MODULE
4	2	EXISTING B&G PUMPS 80 GPM AT 53 FT
5	1	FERNOX 2 INCH MAG FILTER
6	1	EXISTING SHOT FEEDER
7	1	LOCHINVAR SYSTEM SENSOR
8	1	EXISTING 4 INCH AIR SEPERATOR
9	1	EXISTING FAST FILL AND BACK FLOW
10	1	WILO STRATOS 2X3-35

BARRY COUNTY COURTS AND LAW			
BOILER ROOM REVISIONS TO THE EXISTING HEAT PUMP LOOP			
SIZE	FSCM NO	DWG NO	REV
10-15-2018			
SCALE	1:1	SHEET	1 OF 1

1 2 3 4

D C B A

4" 4" 4" 4" 3" 3" 4" 4" 10"

COOLING TOWER SUPPLY AND RETURN

MUA

UH1

UH2

UH3

1 2 3 4 5 6 7 8 9 10