1112 Manatee Ave. West

Bradenton, FL 34205

purchasing@mymanatee.org

Solicitation Addendum

Addendum No.:	2
Solicitation No.:	20-R073239AJ
Project No.:	6048601
Solicitation Title:	ANIMAL SHELTER ELECTRICAL SERVICE REBUILD
Addendum Date:	February 5, 2020
Procurement Contact:	Abigail Jenkins

IFBC No. 20-R073239AJ is amended as set forth herein. Responses to questions posed by prospective bidders are provided below. This addendum is hereby incorporated in and made a part of IFBC No. 20-R073239AJ.

Replace:
BID APPENDIX J, BID PRICING FORM

Replace the Appendix J Bid Pricing Form with the Revised Appendix J, Bid Pricing form that is issued with this Addendum 2.

Replace:
BID APPENDIX J, BID FORM ELECTRONIC

Replace the Appendix J Bid Form Electronic with the Revised Appendix J, Bid Form Electronic that is issued with this Addendum 2.

Add:
BID ATTACHMENT 4, GENERATOR INFORMATION.

Bid Attachment 4, Generator Information issued with this Addendum 2, is hereby incorporated into this IFBC.

QUESTIONS & ANSWERS

Q1. Bid form does not have a line item for payment and performance bond cost. What line item should this be in or will a line item be created?

R1. Include this cost in Line Item # 1 Mobilization/Demobilization.

Q2. The riser on E2.2 shows the FPL feed coming up the pole. This is not allowed with FPL any longer. FPL will install a handhole at the base of the pole. They typically will have us set the handhole, and a fee will be charged from FPL to do this. Please provide design direction and who is to pay FPL.

R2. Contractor shall bid conduits and conductors as shown on the plans pending final design discussions with FPL. An allowance has been provided in the revised Bid Form for Florida Power & Light expenditures, see revised Bid Form included with Addendum 2.

Q3. One E2.2 There is a 600-amp main which is not required. The 200 and 400 is all that is required. Please specify if the 600 can be deleted?

R3. Price the project as is, this adjustment may be made upon award and discussions with serving utility and the County. No, the 600-amp main does not have to be removed.

Q4. The new generator will require a larger pad. Are there any specifications on the pad? It may be best to install a new pad and get the new unit on-line then demo the old, to provide the least amount of down time. This will also facilitate coming in under the new genset with conduits.

R4. The intent was to allow flexibility, however, for consistency, please quote project with demolition of old pad and addition of new. The pad shall have the following characteristics.

- 10" thickness
- 4/12T&B
- #4 Corner Bars
- 4000 PSI Slab on Grade
- Testing – 1 at 7 days and 2 at 28 days
- 11'9" x 4'8"
- Reinforcement – top and bottom 2' apart max length and width –reinforcing steel ASTM A 615, Grade 60 deformed bars, free of rust scale, dirt and oil and placed in accordance with ACI standards.

Q5. Plans show "new CT & meter" at two locations?

R5. **"**New CT & meter" tag by building was left on the plans and shall be deleted –review riser diagram for correct number of new devices

Q6. E-1.2 shows a new main and CT meter at the shelter building. The meter and main is on the new rack at the FPL pole. Is this a typo?

R6. Yes, this is a typo.

Q7. Please confirm FPL will CT this service as opposed to a self-contained meter. FPL will normally not CT until 600-amp demand is met.

R7. See attached Appendix J, Revised Bid Form.

Q8. Can the existing meter and main on the outside of the shelter building be deleted instead of using it as a raceway and blanking off?

R8. Intent is to do least amount of renovation – provide quote with these items left in place rather than demolishing.

Q9. Should FPL charges be included in the bid?

R9. See response to Q7.

Q10. FPL requires hand hole at base of pole – should contractor bid the work based on this requirement?

R10. Contractor shall bid conduits and conductors as shown on the plans.

Q11. 600A Main is not required since there are a couple downstream disconnects on the rack

R11. Price the project as is, this adjustment may be made upon award and discussions with serving utility and the County.

Q12. Existing meter socket and CT cabinet become obsolete – should contractor remove this equipment?

R12. The design tries to minimize re-work and demolition. These items are to remain in line with new service with necessary adjustments to grounding connection and bond.

Q13. FPL only requires CT when load exceeds 600A and load calculations show less – should contractor price without CT cabinet?

R13. See response to Q7.

Q14. Why do we need panel "T-1"? Seems there are other panels

R14. Due to the NEC load calculations for connected loads, the "T-1" panel became necessary for the emergency HVAC receptacles. The panel requires a main disconnect since it is located in a separate building.

Q15. Should the pad be enhanced (extended) or torn out and replaced?

R15. See response to question No. 4.

Q16. Is there generator information?

R16. Yes, basis of design – MTU 125kW natural gas generator with two breakers within a wind resistant level 3 sound attenuation cabinet. See attachment 4, included with this Addendum No. 2.

Q17. Is Kohler acceptable?

R17. Yes – a list of manufacturers is included within the specification. If a manufacturer is not listed, please send an RFI questions for consideration. The generator must have a net kW output of 125 (sometimes referred to as kWe).

Q18. Is there a generator annunciator?

R18. Generator annunciator required to be placed within electrical room/main panel area just inside the building to alert maintenance personnel of generator condition.

NOTE: Items that are ~~struck through~~ are deleted. Items that are <u>underlined</u> have been added or changed. All other terms and conditions remain as stated in the IFBC

End of Addendum

INSTRUCTIONS:

Receipt of this addendum must be acknowledged as instructed in the solicitation document. Failure to acknowledge receipt of this Addendum may result in the response being deemed non-responsive.

AUTHORIZED FOR RELEASE

Chris Daley, CPPO, CPPB

Digitally signed by Chris Daley, CPPO, CPPB
DN: cn=Chris Daley, CPPO, CPPB, o=manatee County Government, ou=Procurement Manager, email=chris.daley@mymanatee.org, c=US
Date: 2020.02.05 11:45:39 -05'00'

BID FORM
IFBC 20-R073239AJ
ANIMAL SHELTER ELECTRICAL SERVICE REBUILD

Total Bid based on completion time of 120 Calendar Days.

U/M Codes: LS = Lump Sum; EA = Each; LF = Lineal Foot; SY = System

Item #	Demolition and General	U/M	QTY	UNIT COST	TOTAL BID PRICE
0	**FPL Electrical Service Upgrade work Allowance**	LS	1	$10,000	$ 10,000.00
1	**Mobilization/Demobilization**	LS	1		
2	**Remove existing generator & equipment**	LS	1		
				Sub-Total	
	New Work				
3	**Build New Utility Rack and Connect**	LS	1		
4	**Separate Admin Load - Work at Existing Disconnect**	LS	1		
5	**Generator Install and Location Work**	LS	1		
6	**Labeling - Apply Permanent Labels to All Disc. & Panels**	LS	1		
7	**Commissioning and Testing**	LS	1		
				Sub-Total	
	Additional Work Requested				
8	**Emergency AC Panel and Subpanel**	LS	1		
9	**Emergency AC Twist Locks**	LS	1		
				Sub-Total	
TOTAL BASE BID - BASED ON COMPLETION TIME OF 120 CALENDAR DAYS					
10	Contingency (10%) to be used ONLY with County's review and pre-approval from Manatee County.	10.0%			
TOTAL OFFER FOR BID WITH CONTRACT CONTINGENCY -BASED ON COMPLETION TIME OF 120 CALENDAY DAYS					

AUTHORIZED SIGNATURE(S):

NAME AND TITLE:

DATE:

Manatee County Animal Services Electrical Service Upgrade and Generator Pre-Bid
January 16, 2020 (Rev 1 – 1/20/2020)

GENERATOR INFORMATION

Engine-Generator Set[L] ("Genset")

- Genset Data:
  - Manufacturer: MTU Onsite Energy
  - Quantity: 1
  - KW Output: **125 kW**
  - AC Output Voltage: 120/240 Volt, Single Phase
  - Engine Fuel Type: LP
  - Duty Cycle: Emergency Standby
  - Engine EPA Application: Emergency
- Standard Accessories Included:
  - Standard Controller, Unit Mounted Radiator, Steel Sub Base, Lead-Acid Engine Starting Batteries[L], Battery Cables[L], Battery Box, Battery Charger[L], Engine Block Heater, Critical Exhaust Silencer[L], Exhaust Flex Connector[L], Flex Fuel Connector[L], Pad Vibration Isolators[L], Lube Oil & Anti-freeze, (1) O&M Manual[L], Standard Manufacturer's Paint, Standard Manufacturer's Factory Testing, Manufacturer's Basic One (1) Year Standby Limited Warranty, Standard One (1) Day Start-up
- Value-Added Accessories:
  - Genset Breaker: (1) 400 Amp, LSI, 100% Rated, 3-Pole Breaker
(1) 200 Amp, LSI, 100% Rated, 3-Pole Breaker
  - Genset Weather Protective Enclosure: 190 MPH Wind Rated, Level 3 Sound Attenuated, Steel Enclosure with Internally Mounted Silencer
  - Remote E-Stop[L]: E-Stop Break Glass Station
  - Remote Annunciator[L]: RDP-110 Annunciator Panel

Automatic Transfer Switch[L]

- Qty: (1) ASCO 300 Series, Service Entrance Rated
- Amps: 200 Amp
- Poles: 3-Pole
- NEMA Enclosure: NEMA 3R
- Operation: Standard Transition
- Warranty: Manufacturer's Basic One (1) Year Limited

GAS GENERATOR SET
MTU 10V0068 GS125

125 kWe / 60 Hz / Standby
208 - 600V

SYSTEM RATINGS

Standby

Voltage (L-L)	240V**	240V**	208V**	240V**	480V**	600V
Phase	1	1	3	3	3	3
PF	1	1	0.8	0.8	0.8	0.8
Hz	60	60	60	60	60	60
Natural Gas (NG)						
Amps	521	521	434	376	188	151
kW/kVA	125/125	125/125	125/156.25	125/156.25	125/156.25	125/156.25
Liquid Propane (LP)						
Amps	521	521	434	376	188	151
kW/kVA	125/125	125/125	125/156.25	125/156.25	125/156.25	125/156.25
NG and LP						
skVA@30%						
Voltage Dip	196	130	323	323	430	331
Generator Model	431PSL6224	431CSL6204	363CSL1607	363CSL1607	363CSL1607	363PSL1658
Temp Rise	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C
Connection	4 LEAD	12 LEAD DOUBLE DELTA	12 LEAD LOW WYE	12 LEAD HI DELTA	12 LEAD HI WYE	4 LEAD WYE

**UL2200 Offered
Note: This unit is available with a dual fuel configuration.

CERTIFICATIONS AND STANDARDS

// **Generator set is designed and manufactured in facilities certified to standards ISO 9001:2008 and ISO 14001:2004**

// **Seismic Certification – Optional**
- IBC Certification
- OSHPD Pre-Approval

// **UL 2200 / CSA – Optional**
- UL 2200 Listed
- CSA Certified

// **Performance Assurance Certification (PAC)**
- Generator Set Tested to ISO 8528-5 for Transient Response
- Verified product design, quality and performance integrity
- All engine systems are prototype and factory tested

// **Power Rating**
- Accepts Rated Load in One Step Per NFPA 110

STANDARD FEATURES*

// MTU Onsite Energy is a single source supplier
// Global Product Support
// 2 Year Standard Warranty
// 6.8LT CAC Engine
- 6.8 Liter Displacement
- 4-Cycle
// 3-Way Catalyst
// Optional Fuels: LP Liquid and Dual Fuel
// Engine-generator resilient mounted
// Complete Range of Accessories
// Generator
- Brushless, Rotating Field Generator
- 2/3 Pitch Windings
- 300% Short Circuit Capability
// Digital Control Panel
- UL Recognized, CSA Certified, NFPA 110
- Complete System Metering
- LCD Display
// Cooling System
- Integral Set-Mounted
- Engine-Driven Fan

STANDARD EQUIPMENT*

// Engine

Heavy Duty Air Cleaner
Oil Pump
Oil Drain Extension and S/O Valve
Full Flow Oil Filter
Jacket Water Pump
Thermostat
Blower Fan and Fan Drive
Radiator - Unit Mounted
Electric Starting Motor - 12V
Governor – Electronic Isochronous
Base - Formed Steel
SAE Flywheel and Bell Housing
Charging Alternator - 12V
Battery Rack and Cables
Flexible Exhaust Connection
Liquid Cooled, Ball Bearing Turbocharger
EPA Certified Engine

// Generator

NEMA MG1, IEEE and ANSI standards compliance for temperature rise and motor starting
Sustained short circuit current of up to 300% of the rated current for up to 10 seconds
Self-Ventilated
Superior Voltage Waveform
Solid State, Volts-per-Hertz Regulator
±1% Voltage Regulation No Load to Full Load
Brushless Alternator with Brushless Pilot Exciter
4 Pole, Rotating Field
130 °C Max. Standby Temperature Rise
1 Bearing, Sealed
Flexible Coupling
Full Amortisseur Windings
125% Rotor Balancing
3-Phase Voltage Sensing
100% of Rated Load - One Step
5% Max. Total Harmonic Distortion

// Digital Control Panel(s)

Digital Metering
Engine Parameters
Generator Protection Functions
Engine Protection
SAE J1939 Engine ECU Communications
Windows®-Based Software
Multilingual Capability
Remote Communications to RDP-110 Remote Annunciator
Programmable Input and Output Contacts
UL Recognized, CSA Certified, CE Approved
Event Recording
IP 54 Front Panel Rating with Integrated Gasket
NFPA110 Compatible

* Represents standard product only. Consult Factory/MTU Onsite Energy Distributor for additional configurations.

APPLICATION DATA

// Engine

Manufacturer	MTU
Model	6.8LT CAC
Type	4-Cycle
Aspiration	Turbocharged, Intercooled
Arrangement	10-V
Displacement: L (in³)	6.8 (415)
Bore: cm (in)	9 (3.55)
Stroke: cm (in)	10.6 (4.17)
Compression Ratio	9:1
Rated RPM	1,800
Engine Governor	Bosch
Max. Power (NG): kWm (bhp)	154 (207)
Max. Power (LP): kWm (bhp)	154 (207)
Speed Regulation	C/F
Air Cleaner	Dry

// Liquid Capacity (Lubrication)

Total Oil System: L (gal)	5.7 (1.5)
Engine Jacket Water Capacity: L (gal)	6.1 (1.6)
System Coolant Capacity: L (gal)	35.04 (9.25)

// Electrical

Electric Volts DC	12
Cold Cranking Amps Under -17.8 °C (0 °F)	925

// Fuel Inlet - Vaporous Supply

Fuel Supply Connection Size	1 1/2" NPT
Fuel Supply Pressure: mm H_2O (in. H_2O)	178–279 (7–11)

// Fuel Inlet - Liquid Supply

Fuel Supply Connection Size	#6 (3/8") Female SAE 45° Flare
Max. Fuel Supply Pressure: kPa (PSI)	2,150 (312)

// Fuel Consumption (NG-1000 BTU/ft³ / LP-2500 BTU/ft³)

	NG	LPG
At 100% of Power Rating: m³/hr (ft³/hr)	41.4 (1,463)	18.1 (640)
At 75% of Power Rating: m³/hr (ft³/hr)	32.9 (1,161)	14.3 (505)
At 50% of Power Rating: m³/hr (ft³/hr)	24 (849)	10.4 (366)

// Cooling - Radiator System

	NG and LPG
Ambient Capacity of Radiator: °C (°F)	50 (122)*
Max. Restriction of Cooling Air: Intake and Discharge Side of Rad.: kPa (in. H_2O)	0.12 (0.5)
Water Pump Capacity: L/min (gpm)	123 (32.5)
Heat Rejection to Coolant: kW (BTUM)	85.3 (4,850)
Heat Radiated to Ambient: kW (BTUM)	39.82 (2,265)
Heat Rejected to Charge Air Cooler: kW (BTUM)	14.1 (800)
Fan Power: kW (hp)	9.1 (12.2)

* Installation of enclosures reduces the ambient capacity of the cooling system by 3 °C (5.4 °F).

// Air Requirements

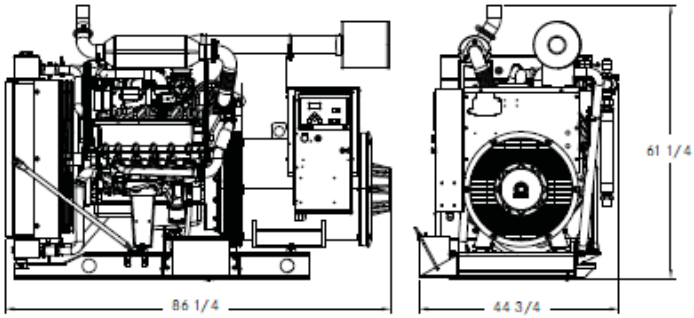
	NG and LPG
Aspirating: *m³/min (SCFM)	7.8 (275)
Air Flow Required for Rad. Cooled Unit: *m³/min (SCFM)	256 (9,056)
Remote Cooled Applications; Air Flow Required for Dissipation of Radiated Generator Set Heat For a Max. of 25 °F Rise: *m³/min (SCFM)	144.6 (5,107)

* Air density = 1.184 kg/m³ (0.0739 lbm/ft³)

// Exhaust System

	NG and LPG
Gas Temp. (Stack): °C (°F)	649 (1,200)
Gas Volume at Stack Temp: m³/min (CFM)	25.1 (886)
Max. Allowable Back Pressure: kPa (in. H_2O)	6.2 (25)

WEIGHTS AND DIMENSIONS



Drawing above for illustration purposes only, based on standard open power 480 volt generator set. Lengths may vary with other voltages. Do not use for installation design. See website for unit specific template drawings.

System	Dimensions (L x W x H)	Weight (dry)
Open Power Unit (OPU)	2,191 x 1,137 x 1,556 mm (86.25 x 44.75 x 61.25 in)	1,126-1,908 kg (2,482-4,207 lb)

Weights and dimensions are based on open power units and are estimates only. Consult the factory for accurate weights and dimensions for your specific generator set.

SOUND DATA

Unit Type	Standby Full Load (NG)	Standby Full Load (LP)
Level 0: Open Power Unit dB(A)	83	83

Sound data is provided at 7 m (23 ft). Generator set tested in accordance with ISO 8528-10 and with infinite exhaust.

EMISSIONS DATA

Fuel Type	THC + NO_x	CO
Natural Gas	0.4	0.04
Liquid Propane	0.11	0.16

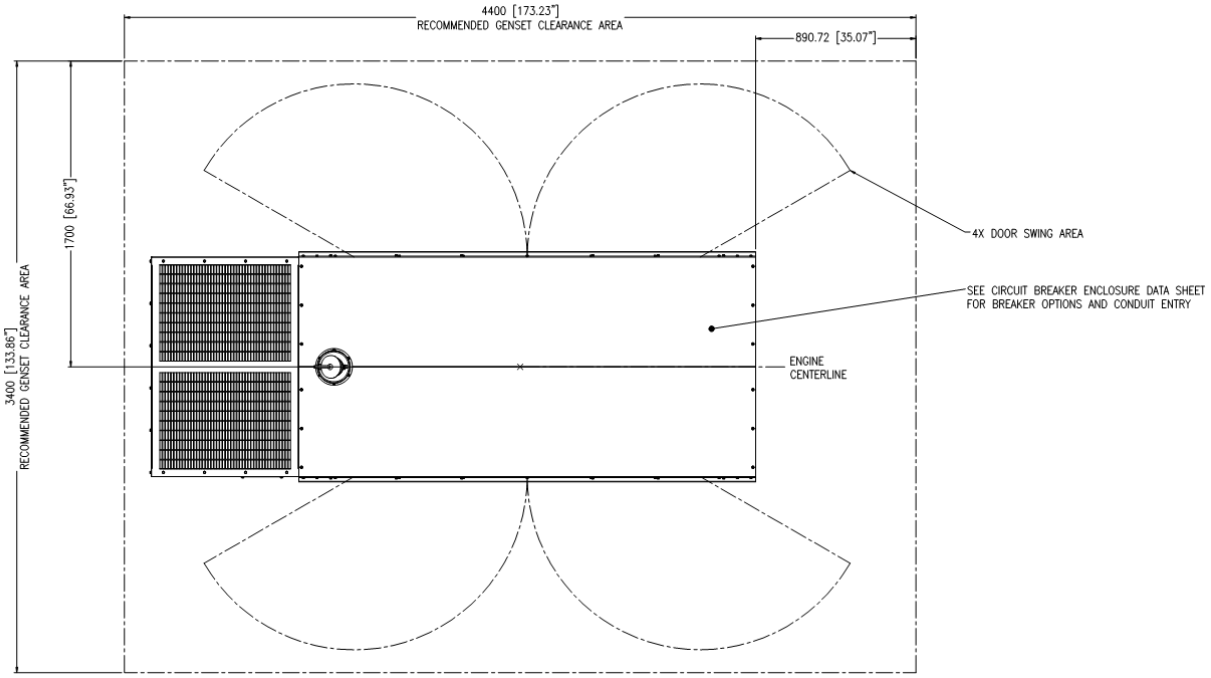
All units are in g/hp-hr and are EPA weighted cycle values. Emission levels of the engine may vary with ambient temperature, barometric pressure, humidity, fuel type and quality, installation parameters, measuring instrumentation, etc. The data was obtained in compliance with US EPA regulations.

RATING DEFINITIONS AND CONDITIONS

// Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. No overload capability for this rating. Ratings are in accordance with ISO 3046-1, BS 5514, and AS 2789. Average load factor: ≤ 85%.

// Deration Factor:
Altitude: Consult your local MTU Onsite Energy Power Generation Distributor for altitude derations.
Temperature: Consult your local MTU Onsite Energy Power Generation Distributor for temperature derations.

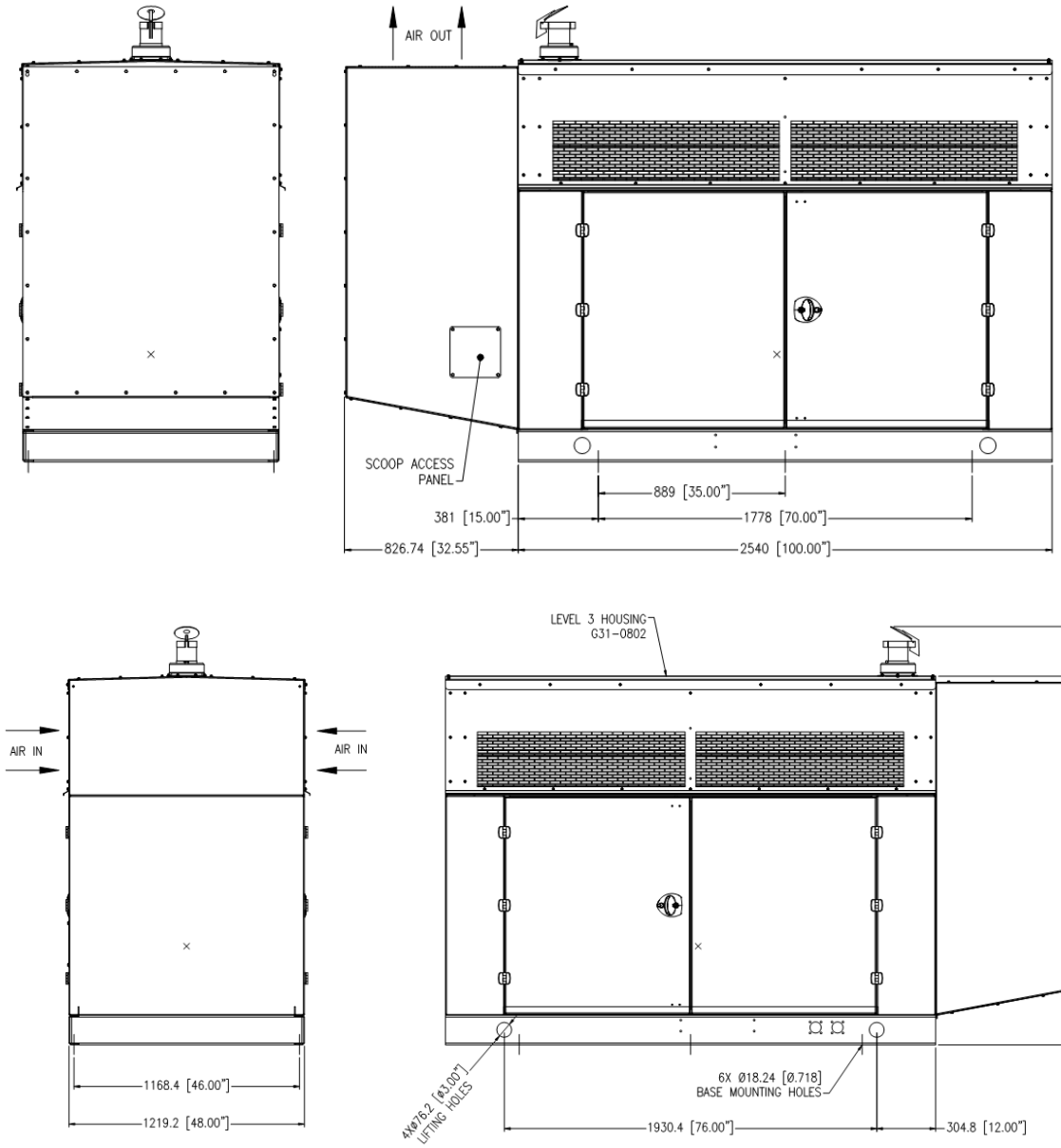
C/F = Consult Factory/MTU Onsite Energy Distributor
N/A = Not Available



DRAWING OPTIONS 75–125 kW WSG–1068		
Group	Drawing Code	Description
Housing Options, Exterior	G31–0801	Level 1 & 2 Housing
	G31–0802	Level 3 Housing w/ Exhaust Scoop
	G31–0803	Air Exhaust Gravity Louver
	G31–0804	Air Exhaust Motorized Louver
Housing Options, Interior	G31–0901	Air Intake Motorized Louver
	G31–0902	Interior Housing Lights
	G31–0903	Space Heater

Reference the Drawing Options table and within the Layer Properties turn on/off the Drawing Codes that may or may not apply to your configuration.

Note: Some options may not be referenced. Only options which visibly change the drawing are selectable


AIR OUT
SCOOP ACCESS PANEL
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381 [15.00"]
1778 [70.00"]
826.74 [32.55"]
2540 [100.00"]
AIR IN
AIR IN
LEVEL 3 HOUSING G31-0802
1906.34 [75.05"]
2162.47 [85.14"]
1168.4 [46.00"]
1219.2 [48.00"]
4XØ76.2 [Ø3.00"] LIFTING HOLES
6X Ø18.24 [Ø.718] BASE MOUNTING HOLES
1930.4 [76.00"]
304.8 [12.00"]