Work Order Signature Document

NJPA EZIQC Contract No.: FL-MDCAE04-052014-SES

[X] **New Work Order** [ ] **Modify an Existing Work Order**

Work Order Number.: 062104.00 Work Order Date: 11/06/2018

Work Order Title: Miami Beach Public Works Office New Generator

Owner Name:	City of Miami Beach	Contractor Name:	Solares Electrical Services, Inc
Contact:	Adrian Morales	Contact:	Andres Solares
Phone:	305-673-7000	Phone:	

Work to be Performed

Work to be performed as per the Final Detailed Scope of Work Attached and as per the terms and conditions of NJPA EZIQC Contract No FL-MDCAE04-052014-SES.

Brief Work Order Description:

Time of Performance Estimated Start Date:
Estimated Completion Date:

Liquidated Damages Will apply: [ ] Will not apply: [X]

Work Order Firm Fixed Price: $295,675.31

Owner Purchase Order Number:

Approvals

Owner Date

Contractor Date

Detailed Scope of Work

To: Andres Solares
Solares Electrical Services, Inc
10421 NW 28th Street
Miami, Fl 33172
No Data Input

From: Adrian Morales
City of Miami Beach
1700 Convention Center Drive
Miami Beach, FL 33139
305-673-7000

Date Printed: November 06, 2018

Work Order Number: 062104.00

Work Order Title: Miami Beach Public Works Office New Generator

Brief Scope:

☐ **Preliminary** ☐ **Revised** ☒ **Final**

The following items detail the scope of work as discussed at the site. All requirements necessary to accomplish the items set forth below shall be considered part of this scope of work.

Provide automatic transfer switch and generator including all conduit and wiring, excavation, surfacing repairs, testing, permit, concrete slabs.

Subject to the terms and conditions of JOC Contract **FL-MDCAE04-052014-SES**.

Contractor _____ Date _____

Owner _____ Date _____

Contractor's Price Proposal - Summary

Date: November 06, 2018

Re:

IQC Master Contract #:	FL-MDCAE04-052014-SES
Work Order #:	062104.00
Owner PO #:	
Title:	Miami Beach Public Works Office New Generator
Contractor:	Solares Electrical Services, Inc
Proposal Value:	$295,675.31

Section - 01	**$25,014.04**
Section - 02	**$1,155.67**
Section - 03	**$5,177.56**
Section - 23	**$1,744.47**
Section - 26	**$252,404.21**
Section - 28	**$567.67**
Section - 32	**$9,611.69**
Proposal Total	**$295,675.31**

Thisl total represents the correct total for the proposal. Any discrepancy between line totals, sub-totals and the proposal total is due to rounding.

The Percentage of NPP on this Proposal: **56.63%**

Contractor's Price Proposal - Detail

Date: November 06, 2018

Re:

IQC Master Contract #:	FL-MDCAE04-052014-SES
Work Order #:	062104.00
Owner PO #:	
Title:	Miami Beach Public Works Office New Generator
Contractor:	Solares Electrical Services, Inc
Proposal Value:	$295,675.31

	Sect.	Item	Mod.	UOM	Description	Line Total
Labor	Equip.	Material	(Excludes)			
Section - 01						
1	01 22	16 00 0002		EA	Reimbursable FeesReimbursable fees will be paid to the contractor for the actual cost, without mark-up, for which a receipt or bill is received. The Adjustment Factor applied to Reimbursable Fees will be 1.0750. The labor cost involved in obtaining all permits is in the Adjustment Factor. The base cost of the Reimbursable Fee is $1.00. The quantity used will adjust the base cost to the actual Reimbursable Fee (e.g. quantity of 125 = $125.00 Reimbursable Fee). If there are multiple Reimbursable Fees, each one shall be listed separately with a comment in the "note" block to identify the Reimbursable Fees (e.g. sidewalk closure, road cut, various permits, extended warrantee, expedited shipping costs, etc.). A copy of each receipt shall be included with the Proposal.	$5,878.75
				Installation	Quantity 5,280.00 x Unit Price 1.00 x Factor 1.1134 = Total 5,878.75	
				permit		
2	01 22	16 00 0002		EA	Reimbursable FeesReimbursable fees will be paid to the contractor for the actual cost, without mark-up, for which a receipt or bill is received. The Adjustment Factor applied to Reimbursable Fees will be 1.0750. The labor cost involved in obtaining all permits is in the Adjustment Factor. The base cost of the Reimbursable Fee is $1.00. The quantity used will adjust the base cost to the actual Reimbursable Fee (e.g. quantity of 125 = $125.00 Reimbursable Fee). If there are multiple Reimbursable Fees, each one shall be listed separately with a comment in the "note" block to identify the Reimbursable Fees (e.g. sidewalk closure, road cut, various permits, extended warrantee, expedited shipping costs, etc.). A copy of each receipt shall be included with the Proposal.	$3,340.20
				Installation	Quantity 3,000.00 x Unit Price 1.00 x Factor 1.1134 = Total 3,340.20	
				Estimate FPL fees to open vault for core drilling and comeback to connect new service		
3	01 22	20 00 0049		HR	Investigating Senior Engineer Or Specialty ConsultantFor special investigatory engineering requirements or other miscellaneous professional services.	$3,340.20
				Installation	Quantity 24.00 x Unit Price 125.00 x Factor 1.1134 = Total 3,340.20	
				for permitting, testing and owner;s training		
4	01 22	23 00 0386		WK	1/2 To 5/8 CY, 65 HP, Loader-Backhoe With Standard Bucket And Full-Time Operator	$764.50
				Installation	Quantity 0.30 x Unit Price 2,288.78 x Factor 1.1134 = Total 764.50	
5	01 22	23 00 0718		DAY	650 KW A/C Resistive Loadbank	$1,003.46
				Installation	Quantity 2.00 x Unit Price 450.63 x Factor 1.1134 = Total 1,003.46	

Work Order Number: 062104.00
Work Order Title: Miami Beach Public Works Office New Generator

Section - 01

6	01 22 23 00 0736		EA	Fuel Reimbursement For GeneratorsPurchases made by the contractor for fuel will be reimbursed to the Contractor at the actual cost of the purchase, without mark-up, for which a receipt or bill is received. The Adjustment Factor applied to Reimbursable Fees will be 1.0000. The base cost of the purchase is $1.00, quantity will adjust cost to actual purchase cost; i.e., quantity of 125 = $125.00 purchase. If there are multiple purchases, each one shall be listed separately with a comment in the "note" block to identify the purchase.								$2,226.80
			Installation		Quantity	x	Unit Price	x	Factor	=	Total		
					2,000.00		1.00		1.1134		2,226.80		
7	01 22 23 00 1173		WK	3 Ton, 4 x 2 Flat Bed Truck With Full-Time Truck Driver									$3,103.20
			Installation		Quantity	x	Unit Price	x	Factor	=	Total		
					1.00		2,787.14		1.1134		3,103.20		
8	01 45 23 00 0011		EA	Proctor Compaction 4" Standard Mold ASTM D698, Field Soils Test									$356.98
			Installation		Quantity	x	Unit Price	x	Factor	=	Total		
					2.00		160.31		1.1134		356.98		
9	01 71 13 00 0005		EA	Up To 20 Ton Lift Move On/Off Cost, Truck Mounted CraneIncludes delivery and pickup.									$278.35
			Installation		Quantity	x	Unit Price	x	Factor	=	Total		
					1.00		250.00		1.1134		278.35		
10	01 71 13 00 0005	0047	MOD	For >30 To 60 Miles Radius, Add									$69.59
			Installation		Quantity	x	Unit Price	x	Factor	=	Total		
					1.00		62.50		1.1134		69.59		
11	01 71 23 16 0023		ACR	Survey Clear Area For Underground Utilities									$3,633.86
			Installation		Quantity	x	Unit Price	x	Factor	=	Total		
					1.00		3,263.75		1.1134		3,633.86		
12	01 71 36 00 0003		EA	X-Ray Or Electromagnetic Survey Minimum Set-Up ChargeFor projects where the total charges are less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.									$331.20
			Installation		Quantity	x	Unit Price	x	Factor	=	Total		
					1.00		297.47		1.1134		331.20		
13	01 74 19 00 0016		EA	30 CY Dumpster (4 Ton) "Construction Debris"Includes delivery of dumpster, rental cost, pick-up cost, hauling, and disposal fee. Non-hazardous material.									$686.95
			Installation		Quantity	x	Unit Price	x	Factor	=	Total		
					1.00		616.98		1.1134		686.95		

Subtotal for Section - 01 **$25,014.04**

Section - 02

14	02 41 19 13 0057		EA	Saw Cut Minimum ChargeFor projects where the total saw cutting charge is less than the minimum charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.									$512.15
			Installation		Quantity	x	Unit Price	x	Factor	=	Total		
					1.00		459.99		1.1134		512.15		
15	02 41 19 13 0082		EA	Drill 2" Diameter Core In >4" To 6" Concrete									$75.93
			Installation		Quantity	x	Unit Price	x	Factor	=	Total		
					2.00		34.10		1.1134		75.93		
16	02 41 19 13 0096		EA	Drill 4" Diameter Core In >6" To 8" Concrete									$411.71
			Installation		Quantity	x	Unit Price	x	Factor	=	Total		
					6.00		61.63		1.1134		411.71		

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Section - 02

17	02 66 23 00 0065		SF	Cleanup And Re-Grade Working Surface								$155.88
			Installation		Quantity 2,000.00	x	Unit Price 0.07	x	Factor 1.1134	=	Total 155.88	

Subtotal for Section - 02 **$1,155.67**

Section - 03

18	03 11 13 00 0026		SF	Elevated Slab Wood Formwork								$299.95
			Installation		Quantity 60.00	x	Unit Price 4.49	x	Factor 1.1134	=	Total 299.95	
19	03 21 11 00 0009		TON	>#6, Grade 70, Footings And Slabs, Reinforcing Steel								$3,911.29
			Installation		Quantity 2.00	x	Unit Price 1,756.46	x	Factor 1.1134	=	Total 3,911.29	
20	03 31 13 00 0018		CY	Direct Chute, Place 3,000 PSI Concrete Continuous Footings								$966.32
			Installation		Quantity 10.00	x	Unit Price 86.79	x	Factor 1.1134	=	Total 966.32	

Subtotal for Section - 03 **$5,177.56**

Section - 23

21	23 05 48 00 0021		EA	550-1,920 LB Rubber In Shear Vibration Isolation With 0.48" Deflection								$1,619.28
			Installation		Quantity 4.00	x	Unit Price 363.59	x	Factor 1.1134	=	Total 1,619.28	
22	23 09 23 00 0907		EA	Break Glass Switch								$125.19
		X	Installation		Quantity 1.00	x	Unit Price 112.44	x	Factor 1.1134	=	Total 125.19	

Subtotal for Section - 23 **$1,744.47**

Section - 26

23	26 00 00 00 0000			KOHLER Model 600REOZVB, EPA Certified Diesel Generator Set, 600KW, @ 0.8 PF, 60 Hz, 3 Phase, UL 2200, 277/480								$167,435.42
		NPP	Installation		Quantity 1.00	x	Unit Price 134,681.00	x	Factor 1.2432	=	Total 167,435.42	
24	26 05 13 00 0226		EA	300 MCM Crimp Compression Connection For Bare Aluminum Wire								$951.73
			Installation		Quantity 10.00	x	Unit Price 85.48	x	Factor 1.1134	=	Total 951.73	
25	26 05 19 16 0133		MLF	300 MCM Cable - Type THHN-THWN, 600 V Copper, Underground Feeder And Branch Circuit								$24,870.90
			Installation		Quantity 3.00	x	Unit Price 7,445.93	x	Factor 1.1134	=	Total 24,870.90	
26	26 05 19 16 0251		MLF	#6 AWG Cable - XLPE-USE-RHH-RHW 600 V Copper, Single Stranded, Placed In Conduit								$584.83
			Installation		Quantity 0.42	x	Unit Price 1,250.64	x	Factor 1.1134	=	Total 584.83	
27	26 05 19 16 0258		MLF	#3/0 AWG Cable - XLPE-USE-RHH-RHW 600 V Copper, Single Stranded, Placed In Conduit								$5,718.57
			Installation		Quantity 0.79	x	Unit Price 6,501.43	x	Factor 1.1134	=	Total 5,718.57	

Work Order Number: 062104.00
Work Order Title: Miami Beach Public Works Office New Generator

Section - 26

28	26 05 19 16 0284	MLF	#1/0 AWG Cable - Type THHN-THWN 600 V Copper, Single Stranded, Placed In Conduit										$1,411.02
				Quantity		Unit Price		Factor		Total			
			Installation	0.41	x	3,079.20	x	1.1134	=	1,405.64			
			Demolition	0.02	x	241.97	x	1.1134	=	5.39			
29	26 05 19 16 0293	MLF	600 MCM Cable - Type THHN-THWN 600 V Copper, Single Stranded, Placed In Conduit										$2,766.04
				Quantity		Unit Price		Factor		Total			
			Installation	0.16	x	15,119.98	x	1.1134	=	2,693.53			
			Demolition	0.12	x	542.69	x	1.1134	=	72.51			
30	26 05 26 00 0099	EA	5/8" Diameter x 10' Long Copper-Clad Ground Rods										$633.30
				Quantity		Unit Price		Factor		Total			
			Installation	10.00	x	56.88	x	1.1134	=	633.30			
31	26 05 29 00 0016	LF	>2' Length x 1-5/8" Wide x 1-5/8" High, 12 Gauge, Steel Unistrut Channel										$665.37
				Quantity		Unit Price		Factor		Total			
			Installation	100.00	x	5.36	x	1.1134	=	596.78			
			Demolition	80.00	x	0.77	x	1.1134	=	68.59			
32	26 05 29 00 0028	EA	3-Hole, 1-7/16" x 4-1/8", 90 Degree Angle, Unistrut Channel Fitting										$48.99
				Quantity		Unit Price		Factor		Total			
			Installation	10.00	x	4.40	x	1.1134	=	48.99			
33	26 05 29 00 0047	EA	4" Diameter, Rigid Steel Conduit Clamp For Unistrut Channel										$18.26
				Quantity		Unit Price		Factor		Total			
			Installation	4.00	x	4.10	x	1.1134	=	18.26			
34	26 05 29 00 0062	EA	5/8-11 Lock Nut With Spring For Unistrut Channel										$205.76
				Quantity		Unit Price		Factor		Total			
			Installation	35.00	x	5.28	x	1.1134	=	205.76			
35	26 05 33 13 0034	CLF	1" RGS With 4 #12 THHN/THWN Wire AssemblyIncludes conduit, terminations, straps, wire as indicated. Not for use where detail is available.										$960.21
				Quantity		Unit Price		Factor		Total			
			Installation	1.60	x	539.01	x	1.1134	=	960.21			
36	26 05 33 13 0053	LF	4" RGS Conduit With Threaded Coupling										$25,572.57
				Quantity		Unit Price		Factor		Total			
			Installation	800.00	x	28.71	x	1.1134	=	25,572.57			
37	26 05 33 13 0079	EA	4" RGS 45 Degree Standard Radius Elbow										$3,467.73
				Quantity		Unit Price		Factor		Total			
			Installation	22.00	x	141.57	x	1.1134	=	3,467.73			
38	26 05 33 13 0782	EA	4" IMC Type LB Two Hub Conduit Body With Cover										$2,871.24
				Quantity		Unit Price		Factor		Total			
			Installation	10.00	x	257.88	x	1.1134	=	2,871.24			
39	26 05 33 13 0985	EA	4" PVC Coated, Urethane Lined, RGS 42" Large Radius Elbow										$1,627.06
				Quantity		Unit Price		Factor		Total			
			Installation	2.00	x	730.67	x	1.1134	=	1,627.06			
40	26 05 43 00 0148	LF	1 At 2", PVC, Type EB Duct Bank										$43.26
				Quantity		Unit Price		Factor		Total			
			Installation	15.00	x	2.59	x	1.1134	=	43.26			
41	26 05 43 00 0156	LF	4 At 4", PVC, Type EB Duct Bank										$312.81
				Quantity		Unit Price		Factor		Total			
			Installation	15.00	x	18.73	x	1.1134	=	312.81			

Contractor's Price Proposal - Detail Continues..

Work Order Number: 062104.00
Work Order Title: Miami Beach Public Works Office New Generator

Section - 26

42	26 05 43 00 0188			EA	4" Adapter									$67.38
				Installation	Quantity 2.00	x	Unit Price 30.26	x	Factor 1.1134	=	Total 67.38			
43	26 05 83 00 0023			EA	1/0 AWG Compression Lugs, 1 Hole, Wrapped, Low Voltage, To 600 Volts									$250.96
				Installation	Quantity 10.00	x	Unit Price 22.54	x	Factor 1.1134	=	Total 250.96			
44	26 05 83 00 0075			EA	750 MCM Compression Lugs, 2 Hole, Wrapped, Low Voltage, To 600 Volts									$702.14
				Installation	Quantity 9.00	x	Unit Price 70.07	x	Factor 1.1134	=	Total 702.14			
45	26 27 13 00 0027			EA	4 Meters And Main, 120/240 Volt, 1,200 Amp Bus, 4 Jaw Sockets, 200 Amp Max									$1,475.01
				Installation	Quantity 1.00	x	Unit Price 1,324.78	x	Factor 1.1134	=	Total 1,475.01			
46	26 32 13 13 0021			EA	600 KW Diesel Generator Set, 3 Phase (Cummins DQCA)									$6,898.82
			X	Installation	Quantity 1.00	x	Unit Price 6,196.17	x	Factor 1.1134	=	Total 6,898.82			
47	26 32 13 13 0021	0349		MOD	For Weather Resistant Aluminum Diesel Generator Enclosure, Add									$0.00
				Installation	Quantity 0.00	x	Unit Price 68,478.38	x	Factor 1.1134	=	Total 0.00			
48	26 33 43 00 0004			EA	Solid State Battery Charger, 12 Cell Single Phase With Wall Bracket, 208/240/480 V									$2,051.43
				Installation	Quantity 1.00	x	Unit Price 1,842.49	x	Factor 1.1134	=	Total 2,051.43			
49	26 36 23 00 0048			EA	800 Amp Automatic Transfer Switch/Service Entrance, 3 Pole Circuit Breaker, NEMA 1 Enclosure (Cummins OTPCSE800)									$793.40
			X	Installation	Quantity 1.00	x	Unit Price 712.59	x	Factor 1.1134	=	Total 793.40			

Subtotal for Section - 26 **$252,404.21**

Section - 28

50	28 05 13 23 0003			CLF	Red Teflon 2-Pair #18 Gauge, Twisted Shielded Solid CU									$162.17
				Installation	Quantity 1.00	x	Unit Price 145.65	x	Factor 1.1134	=	Total 162.17			
51	28 31 23 00 0347			EA	Remote Annunciator, 80 Character LCD, Common System Indicators, Beige Housing, Mounts To 4" Box With Supplied Ring (EST3 RLCD)									$405.50
				Installation	Quantity 1.00	x	Unit Price 364.20	x	Factor 1.1134	=	Total 405.50			

Subtotal for Section - 28 **$567.67**

Section - 32

52	32 11 16 00 0004			CY	Bituminous Stabilized Base Course3/4" ASTM C33.									$2,356.58
				Installation	Quantity 24.00	x	Unit Price 88.19	x	Factor 1.1134	=	Total 2,356.58			
53	32 12 13 19 0001			SY	Surface Prime Coat, 0.28 Gallon/SY									$25.12
				Installation	Quantity 24.00	x	Unit Price 0.94	x	Factor 1.1134	=	Total 25.12			

Work Order Number: 062104.00
Work Order Title: Miami Beach Public Works Office New Generator

Section - 32

54	32	12	13	19 0001	0338	MOD	For Up To 150, Add							$5.88
						Installation	Quantity 24.00	x	Unit Price 0.22	x	Factor 1.1134	=	Total 5.88	
55	32	12	16	13 0005		SY	2" Thick Binder Course	Includes placement, rolling, finishing and sweeping.						$5,918.83
						Installation	Quantity 600.00	x	Unit Price 8.86	x	Factor 1.1134	=	Total 5,918.83	
56	32	12	16	13 0022		TON	Base Course, PC-I							$870.19
						Installation	Quantity 6.00	x	Unit Price 130.26	x	Factor 1.1134	=	Total 870.19	
57	32	12	16	13 0022	0441	MOD	For >5 To 10, Add							$435.09
						Installation	Quantity 6.00	x	Unit Price 65.13	x	Factor 1.1134	=	Total 435.09	

Subtotal for Section - 32 **$9,611.69**

Proposal Total **$295,675.31**

This total represents the correct total for the proposal. Any discrepancy between line totals, sub-totals and the proposal total is due to rounding.

The Percentage of NPP on this Proposal: **56.63%**

Subcontractor Listing

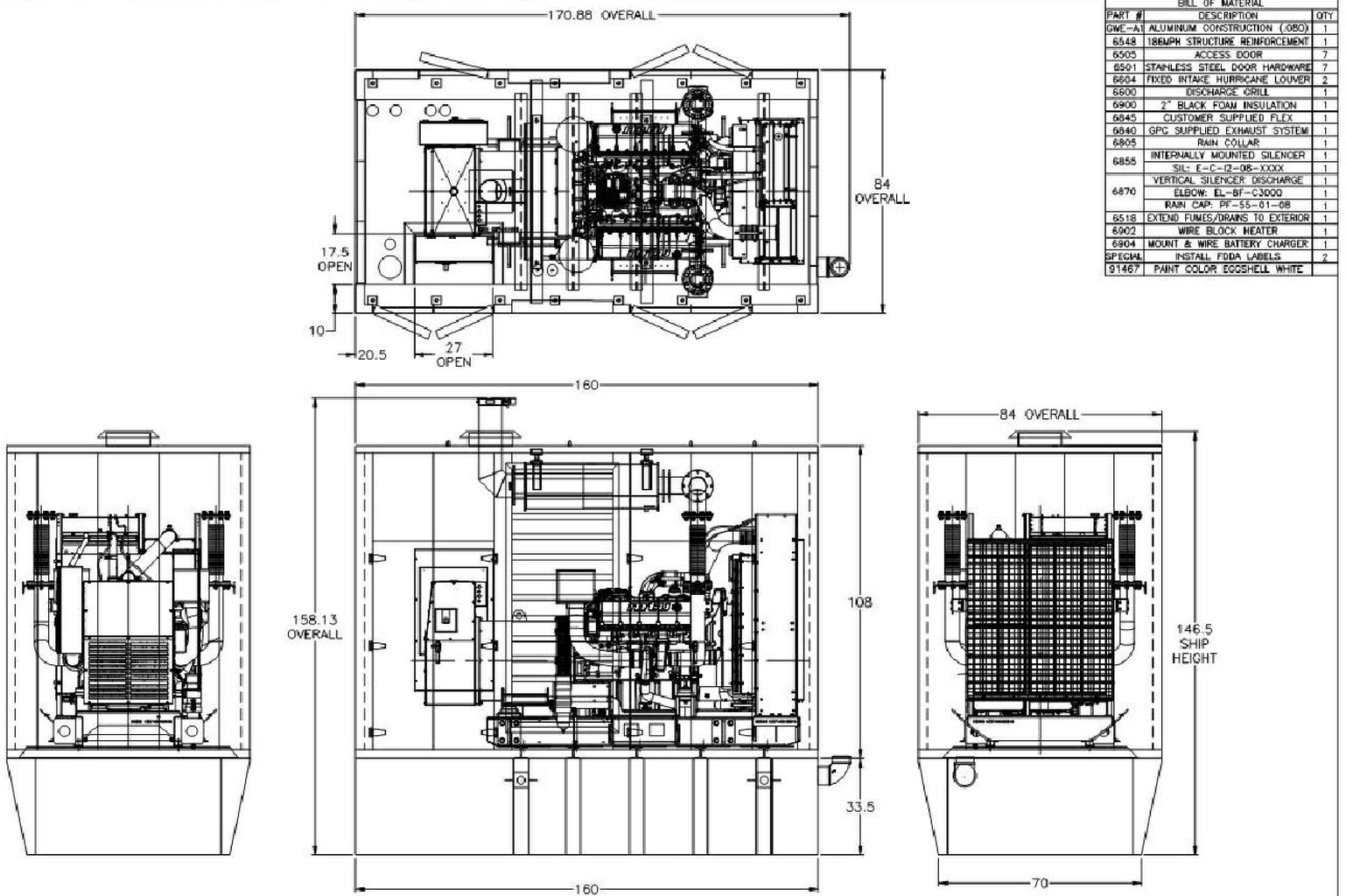
Date: November 06, 2018

Re:

IQC Master Contract #: FL-MDCAE04-052014-SES
Work Order #: 062104.00
Owner PO #:
Title: Miami Beach Public Works Office New Generator
Contractor: Solares Electrical Services, Inc
Proposal Value: $295,675.31

Name of Contractor	Duties	Amount	%
No Subcontractors have been selected for this Work Order		$0.00	0.00

QUOTE #	TANK GAL	GENSET MODEL	GENSET FOOTPRINT	ASSY. WEIGHT
33787	1100 GAL	DS500	132" X 74"	X LBS



BILL OF MATERIAL

PART #	DESCRIPTION	QTY
GWE-A1	ALUMINUM CONSTRUCTION (.080)	1
6548	186MPH STRUCTURE REINFORCEMENT	1
6505	ACCESS DOOR	7
6501	STAINLESS STEEL DOOR HARDWARE	7
6604	FIXED INTAKE HURRICANE LOUVER	2
6600	DISCHARGE GRILL	1
6900	2" BLACK FOAM INSULATION	1
6845	CUSTOMER SUPPLIED FLEX	1
6840	GPG SUPPLIED EXHAUST SYSTEM	1
6805	RAIN COLLAR	1
6855	INTERNALLY MOUNTED SILENCER	1
	SIL: E-C-12-08-XXXX	1
6870	VERTICAL SILENCER DISCHARGE	1
	ELBOW: EL-8F-C3000	1
	RAIN CAP: PF-55-01-08	1
6518	EXTEND FUMES/DRAINS TO EXTERIOR	1
6902	WIRE BLOCK HEATER	1
6904	MOUNT & WIRE BATTERY CHARGER	1
SPECIAL	INSTALL FDDA LABELS	2
91467	PAINT COLOR EGGSHELL WHITE	

ASSY

REVISIONS				REVISIONS			
REV	DATE:	CHANGE MADE	BY	REV	DATE:	CHANGE MADE	BY

GWE-A1-500-1100 ASSEMBLY

CUSTOMER/ID: FLORIDA DDA
JOB REF:
DRAWING REF: AAAQ33787
DWG #: X
DATE: 5/30/17
DRAWN BY: MTB

GLOBAL POWER COMPONENTS

ENGINEERING
FOR ARCHITECTURE
5757 Blue Lagoon Dr.
Suite 400
Miami, FL 33126
Phone: 305.266.6553
Fax: 305.266.6695
www.tlc-engineers.com
EB #0000015

PROPERTY MANAGEMENT
FACILITY
1833 BAY ROAD
MIAMI BEACH, FL. 33139

Revisions:

No.	Date	Description

Seal
Manuel Mollinedo, P.E.
Florida License #63096

Project No.: 618043
Issue Date: 04-11-2018
Drawn By: TLC
Approved By: TLC
Scale:

Drawing Title:
STANDBY GENERATOR DIMENSIONS

Drawing No.: E-1.02

Sheet: of

100% PROGRESS SET

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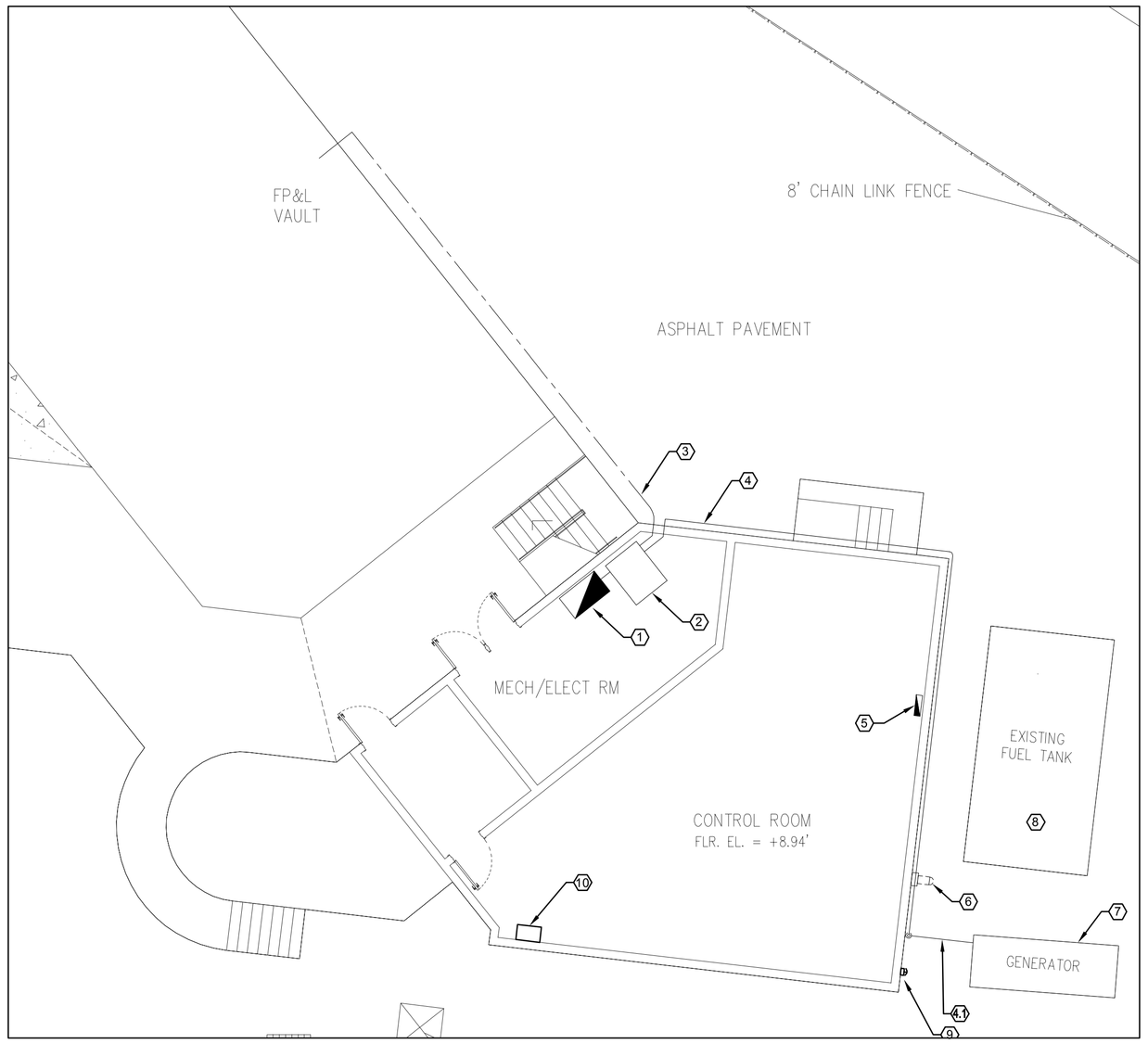
3/16/2018 2:26:23 PM



ELECTRICAL SITE PLAN
SCALE: 1/8" = 1'-0"

KEY NOTES:

1. EXISTING MAIN DISTRIBUTION PANEL, MAIN 1 OF 1 TO REMAIN. REFER TO RISER DIAGRAM FOR FURTHER INFORMATION.
2. NEW AUTOMATIC TRANSFER SWITCH, SERVICE RATED, 800A-3 POLE, 480V. BASIS OF DESIGN "ASCO - MODEL J3USA3800NGXM,11BE,18RX, WITH A MAIN OCPD = 800A - 3 POLE, SOLID STATE. LABEL AS "MAIN 1 OF 1".
3. NEW SERVICE ENTRANCE CONDUCTORS INSTALLED UNDERGROUND. REFER TO RISER DIAGRAM FOR SIZES.
4. NEW GENERATOR FEEDERS: 3" RIGID CONDUIT ATTACHED TO EXTERIOR WALL. REFER TO RISER DIAGRAM FOR WIRE SIZES.
4.1. NEW GENERATOR FEEDERS: 4" PVC SCH 40, UNDERGROUND, AT 18" BFG.REFER TO RISER DIAGRAM FOR WIRE SIZES.
5. EXISTING PANEL "P" LOCATED AT CONTROL ROOM. INSTALL NEW 40A-2POLE CIRCUIT BREAKER TO FEED GENERATOR BUILT-IN LOAD CENTER. PROVIDE PANEL CIRCUIT DIRECTORY. REFER TO PANEL SCHEDULE FOR FURTHER INFORMATION.
6. EXISTING CANLOCKS TO BE REMOVED. REMOVE WIRES AND CONDUITS ALL THE WAY BACK TO ELECTRICAL / MECHANICAL ROOM.
7. NEW STANDBY GENERATOR, 600 KW, 480V-3Ø. PROVIDE CONCRETE PAD.
8. EXISTING FUEL TANK. CONNECT TO NEW STANDBY GENERATOR.
9. GENERATOR EMERGENCY SHUT-OFF BUTTON.
10. REMOTE ANNUNCIATOR PANEL

5/18/2018

mtu onsite energy — PowerSPEC™ Power System Sizing and Specification

MBCH PUBLIC WORK

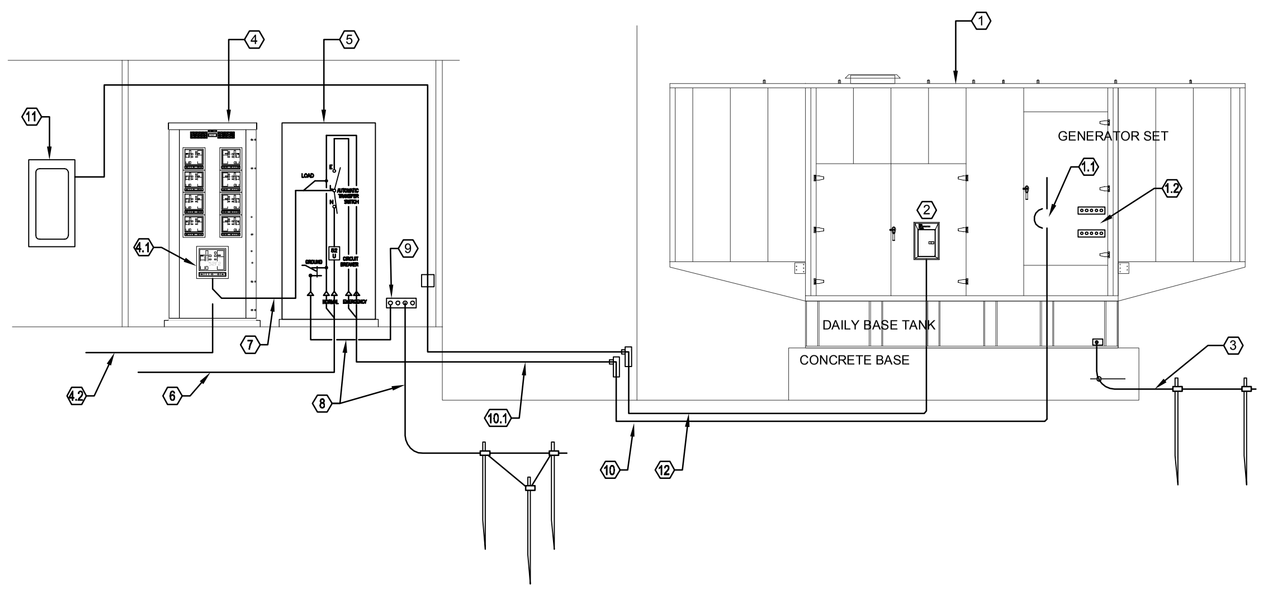
Model: MTU 10V1600 DS450 Sizing: Recommended

Sizing Prepared By: United States of America		**Customer Contact:**	
Project Overview			
Voltage	277/480V	**Fuel Type**	Diesel
Frequency	60 Hz	**Rating Type**	Standby
Phase	Three Phase	**Site Altitude**	3 m (10 ft)
Product Type	Standard	**Ambient Temperature**[8]	27°C (80°F)
		Permitted Back Pressure	50 mbar (20.1 in. H_2O)
Load Analysis Summary			
Peak kVA	500	**Running kVA**	450
Peak kW	450	**Running kW**at	405
		Running PF	0.9
Generator Set Details			
Generator Set Model	MTU 10V1600 DS450 (Qty 1)	**Nameplate kW Rating**	450
Alternator Model	572RSL4025 w/ PMG	**Rated P.F.**	0.8
Temperature Rise	105°C	**Site kW Rating**[7]	420
Engine Model	3D 10V1600G70S EPA Nonroad T3 Comp (40CFR89) 1800rpm TD		

Block Load Transient Response[3]			Recovery Times	Alternator Motor Starting[2]:	
Load Change	**FDip**	**VDip**		**VDip**	**SkVA**
0-25 %	1.7%	3.8%	0.6s	**10%**	338
0-50 %	2.5%	6.6%	1.2s	**20%**	702
0-75 %	4.3%	10.4%	1.4s	**30%**	1067
0-100 %	8.7%	16.9%	2s	**35%**	1309

Technical Data at 100% Nameplate Rated Load[1]			
Make	MTU	**Governor**	Electronic Isochronous (ADEC)
Model	MTU 10V1600 DS450	**Cooling Pkg Ambient Rating**	50°C (122°F)
Aspiration	TurboCharged	**Cooling Pkg Airflow**	642 m^3/min (22672 ft^3/min)
Cylinder Configuration	10-V	**Heat Rejection to Coolant**	285 kW (13364 BTU/min)
Displacement	17.5 L (1068 in^3)	**Heat Rejection to CAC**	118 kW (6711 BTU/min)
Rated RPM	1,800	**Heat Rejection to Fuel**	4.6 kW (262 BTU/min)
Fuel Consumption	115.4 L/hr (30.5 gal/hr)	**Heat Radiated to Ambient**	59 kW (3333 BTU/min)
Aspiration Airflow	93 m^3/min (1236 ft^3/min)	**Exhaust Stack Temperature**	461°C (862°F)
Emissions Rating	EPA Tier 3	**Exhaust Flow Rate**	105 m^3/min (3637 ft^3/min)

1. Based on standard conditions of 77° F, 300 ft. altitude, 0.5" H_2O intake restriction. Exhaust Flow Rate is evaluated using Stack Temperature.
2. Based on instantaneous voltage dip as defined per NEMA MG-1.
3. Recovery time is based on steady-state recovery of voltage. This information is based on average performance, and should not be considered a guarantee. Results may vary based on production tolerances and site conditions. Consult MTU OE for further information regarding transients.
4. NA = Not Applicable 5. CF = Consult Factory. 6. The average running load on diesel engines should not be less than 30% of rated power.
7. Site kW Rating is the maximum sustainable kW at the project site conditions. Note that the Standby kW can be higher.
8. Engine intake air temperature is based on ambient temperature. Additional installation preheat is not considered for calculated derate performance.



PARTIAL RISER DIAGRAM
SCALE: N.T.S.

KEY NOTES:

1. NEW 600 KW STANDBY GENERATOR, 480V-3Ø, DIESEL FULED. BASIS OF DESIGN "MTU MODEL MTU 10V1600 DS450 WITH DAILY BASE TANK.
1.1. GENERATOR DISCONNECT: 800A, 3-POLE CIRCUIT BREAKER FACTORY BUILT-IN.
1.2. VERIFY BONDING WIRE BETWEEN NEUTRAL BAR AND GROUND BAR IN GENERATOR SET HAS BEEN REMOVED. GENERATOR SHALL BE CONNECTED AS A NON-SEPARATED DERIVED SYSTEM.
2. FACTORY BUILT-IN LOAD CENTER: 100A, 208/120V-1Ø TO POWER BATTERY CHARGER, ENGINE WATER HEATER JACKET, CONVENIENCE RECEPTACLE AND LIGHTING IN GENERATOR HOUSING. THOSE LOADS ARE FACTORY PRE-WIRED.
3. GENERATOR HOUSING SHALL BE BONDED TO GROUND POTENTIAL: PROVIDE (1) #4 AWG THWN BONDING WIRE BETWEEN GENERATOR HOUSING GROUND LUG AND (2) GROUND RODS (5/8 " x 10-FT) INSTALLED 6-FT APART. ALSO BOND TO STRUCTURAL STEEL BAR IN GENERATOR CONCRETE PAD.
4. EXISTING MAIN DISTRIBUTION PANEL TO REMAIN. 800A, 480/277 V, 3Ø.
4.1. EXISTING MAIN 1 OF 1: 800A MAIN CIRCUIT BREAKER. THIS CB SHALL NOT BE LONGER "MAIN 1 OF 1" AND SHALL NOT BE LABELED AS MAIN.
4.2. EXISTING SERVICE ENTRACE CONDUCTORS TO BE REMOVED. DISCONNECT THESE CBALES FROM "MDP" AND REMOVE ALL THE WAYBACK TO FP&L VAULT. COORDINATE WITH FP&L TO DISCONNECT FROM POWER SOURCE. CAP EMPTY CONDUITS AT BOTH ENDS.
5. NEW AUTOMATIC TRANSFER SWITCH, 800A, 3 POLE, SERVICE RATED. BASIS OF DESIGN: ASCO ....WITH AN OCPD = 800A-3 POLE, 480 VOLTS "MAIN 1 OF 1". LABEL AS REQUIRED
6. NEW SERVICE ENTRANCE CONDUCTORS: (3) SETS: EACH SET = (4) #300 KCM THWN IN 4" PVC-UG. TOTAL AMPACITY = 855AMPS.
7. (2) SETS: EACH SET = (4) #600 KCM THWN + (1) #1/0 AWG THWN(G) IN 4" C.
8. NEW GROUNDING ELECTRODE CONDUCTOR: (1) #3/0 AWG THWN.
9. NEW MAIN GROUND BAR: 1/4" x 4" x 18" COPPER PLATE "A" CONFIGURATION, HOLE PATTERN = CC.
10. (3) SETS: EACH SET = (4) # 300 KCM THWN + (1) #1/0 AWG THWN(G) IN 4" PVC-UG @ 18" BFG.
10.1. (3) SETS: EACH SET = (4) # 300 KCM THWN + (1) #1/0 AWG THWN(G) IN 3" C.
11. EXISTING PANEL "P": PROVIDE NEW 40A - 2 POLE CIRCUIT BREAKER IN POSITION 14, 16 TO FEED LOAD CENTER IN GENERATOR HOUSING. REFER TO PANEL SCHEDULE.
12. (3) #6 AWG THWN + (1) #8 AWG THWN(G) IN 1"C (USE PVC IN UNDERGROUND SECTION)

SCOPE OF WORK:

THE SCOPE OF WORK FOR THE PRESENT DESIGN IS TO PROVIDE STANBY POWER TO MAIMI BEACH - PUBLIC WORK FACILITY.

THIS SHALL BE DONE BY INSTALLING A 600kV DIESEL FUELED GENERATOR @ 480/277 V - THREE PHASE.

ENGINEERING
FOR ARCHITECTURE
5757 Blue Lagoon Dr.
Suite 400
Miami, FL 33126
Phone: 305.266.6553
Fax: 305.266.6695
www.tlc-engineers.com
EB #0000015

MIAMI BEACH PUBLIC WORKS
GENERATOR
451 Dade Blvd,
Miami Beach, FL 33140

Revisions:

No.	Date	Description

Seal

Manuel Mollinedo, P.E.
Florida License #63096

Project No.: 618002
Issue Date: 03-31-08
Drawn By: TLC
Approved By: TLC
Scale: 1/8" = 1'-0"

Drawing Title:

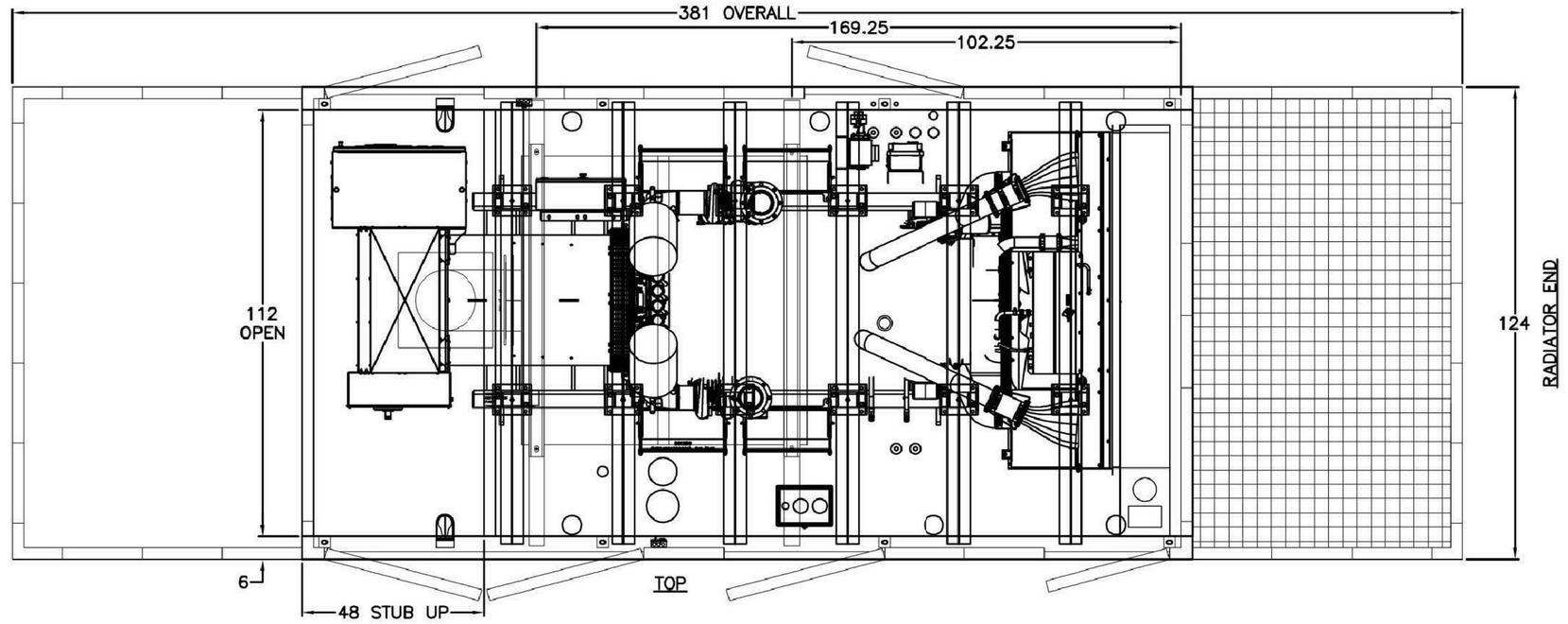
GENERATOR
FLOOR PLAN &
RISER DIAGRAM

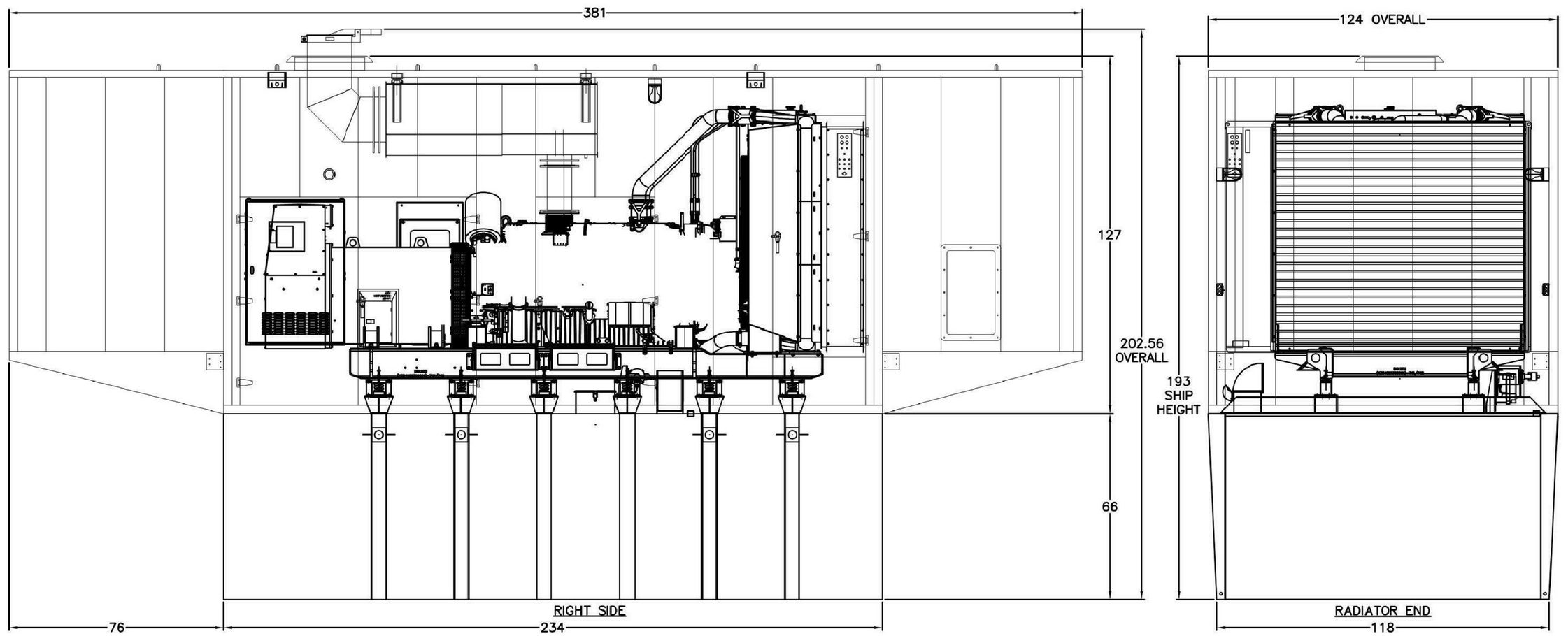
Drawing No.: E-101

Sheet: - of -

60% PROGRESS SET

JOB #	TANK GAL	GENSET MODEL	GENSET FOOTPRINT	TOTAL WEIGHT
	5000 GAL	DS1250	198.25" X 90"	48,750 LBS





NEC 2014

ALL VERTICAL WALL & DOOR PANELS & ROOF PANELS 2" FIBER INSULATION BOARD W/ PERF

BILL OF MATERIAL		
PART #	DESCRIPTION	QTY
GWE-A1	ALUMINUM CONSTRUCTION (.080,.125")	1
6548	186 MPH STRUCTURE REINFORCEMENT	1
SPECIAL	IMPACT RATED PER BLACKWATER TESTING	1
6505	ACCESS DOOR	6
6501	STAINLESS STEEL DOOR HARDWARE	6
6610	EXTERNAL VERTICAL INTAKE HOOD	1
6616	EXTERNAL VERTICAL DISCHARGE HOOD	1
SPECIAL	2" FIBER INSULATION BOARD	1
6520	LINE INTERIOR W/ ALUMINUM PERF	1
6805	RAIN COLLAR	1
6845	CUSTOMER SUPPLIED EXHAUST FLEX	2
6840	GPC SUPPLIED EXHAUST SYSTEM	1
6855	INTERNALLY MOUNTED SILENCER	1
	SIL: GPC-E-C-12-16-0754-BW	1
6870	VERTICAL SILENCER DISCHARGE	1
	ELBOW: EL-16F-C3000-STD	1
	RAIN CAP: PARKER FAB-55-03-16	1
6800	EXHAUST EXTENSION	2
6518	EXTEND FUMES/DRAINS IF VALVE PRESENT	1
6904	MOUNT & WIRE BATTERY CHARGER	1
6902	MOUNT & WIRE BLOCK HEATER	1
6910	INCANDESCENT LIGHT PACKAGE	1
6911	INCANDESCENT FIXTURE (100 WATT)	3
6913	LIGHT SWITCH (1-POLE)	1
6916	GFCI OUTLET (20 AMP)	1
6918	GFCI PROTECTED OUTLET (20 AMP)	1
6914	100A DIST PANEL (1ϕ, 120/240V)	1
6555	MOUNT & WIRE LOAD BANK	1
6556	MOUNT & WIRE LOAD BANK CONTROLS	1
91467	PAINT COLOR EGGSHELL WHITE	

DPBR #ID MFT-10468

GENERAL SPECIFICATIONS:
- CERTIFICATIONS AND STANDARDS:
  EMISSIONS: COMPLYING WITH EPA TIER 3.

  MANUFACTURED IN ISO 9001 AND ISO 14001 CERTIFIED FACILITY.

  UL 2200 COMPLIANT.

  ISO 8528-5 FOR TRANSIENT RESPONSE.

  POWER RATING: ACCEPTS DESIGN LOAD IN ONE STEP PER NEC 110.
  POWER FACTOR > 0.8.

  2 YEAR STANDARD WARRANTY.

  ELECTRIC STARTING MOTOR - 24V.
  CHARGING ALTERNATOR - 24V.
  SUSTAINED SHORT CIRCUIT CURRENT UP TO 300% IN 10 SEC.

  DIGITAL, SOLID STATE, VOLT-PER-HERTZ REGULATOR.

  +/- 0.25 % VOLTAGE REGULATION.

  COMMUNICATION TO REMOTE ANNUNCIATOR.
  ENGINE JACKET WATER HEATER.

  FUEL CONSUMPTION AT 100 % = 4.2 GL/HR

  FUEL CONSUMPTION AT 75 % = 3.3 GL/HR

EMERGENCY POWER SYSTEM.

POWER SUPPLY - GENERAL REQUIREMENTS

STANDBY GENERATOR SHALL BE SUCH THAT, IN THE EVENT OF FAILURE OF THE NORMAL POWER, THE EMERGENCY POWER SHALL BE AVAILABLE WITHIN THE TIME REQUIRED FOR THE APPLICATION BUT NOT TO EXCEED 30 SECONDS.
EXISTING EMERGENCY LIGHTS ARE CURRENTLY POWERED WITH BATTERY BACKUP AND READY TO STAR 10 SECONDS AFTER THE POWER FAILURE.

EMERGENCY GENERATOR PRIME MOVERS SHALL BE AN INTERNAL COMBUSTION ENGINE FUELED BY DIESEL #2 TYPE. A SUB-BASE FUEL TANK SHALL BE PROVIDED WITH ENOUGH CAPACITY FOR 12 HOURS OF CONTINUOUS OPERATION AT A LOAD OF 100% POWER RATING. AUXILIARY FUEL TANK WITH CAPACITY FOR 96 HOURS IS EXISTING AT THE FACILITY.

CLASSIFICATION OF THE EMERGENCY POWER SUPPLY SYSTEM.

THIS STANDBY GENERATOR AND THE ATS SHALL BE PART OF THE EPSS AND SHALL BE CLASSIFIED AS LEVEL 2, TYPE 30, AND CLASS 12. ELECTRICAL CONTRACTOR SHALL VERIFY THAT THE EPSS IS CAPABLE TO ACTUATE IN LESS THAN 30 SECONDS FROM THE INSTANT THE NORMAL POWER FAILS. ELECTRICAL CONTRACTOR SHALL MADE THE REQUIRED ADJUSTING TO GET THAT TIME.

THE STANDBY GENERATOR SHALL BE HEATED AS NECESSARY TO MAINTAIN THE WATER JACKET AND BATTERY TEMPERATURE DETERMINED BY THE MANUFACTURER FOR COLD START AND LOAD ACCEPTANCE.

THE EMERGENCY GENERATOR SHALL BE PROVIDED WITH A CONTROL PANEL CONTAINING THE FOLLOWING:
A.- AUTOMATIC REMOTE START CAPABILITY.
B.- "RUN-OFF-AUTOMATIC" SWITCH.
C.- SHUTDOWNS, ALARMS, AND CONTROLS AS REQUIRED BY NFPA 110

THE CONTROL PANEL SHALL BE CAPABLE TO OFFER THE FOLLOWING INFORMATION:
A.- HIGH ENGINE TEMPERATORE PRE-ALARM
B.- HIGH ENGINE TEMPERATURE (AND SHUTDOWN).
C.- LOW LUBE OIL PRESSURE PRE-ALARM
D.- LOW LUBE PRESSURE ALARM (AND SHUTDOWN).
E.- OVERSPEED (AND SHUTDOWN).
F.- LOW FUEL MAIN TANK.
G.- CONTROL SWITCH NOT IN AUTOMATIC POSITION.
H.- LOW VOLTAGE IN BATTERY.
I.- BATTERY CHARGER AC FAILURE.
J.- AIR SHUTDOWN DAMPER WHEN USED (AND SHUTDOWN).
K.- REMOTE EMERGENCY STOP.

AN EMERGENCY MANUAL STOP STATION SHALL BE FACTORY BUILT-IN ON THE GENERATOR HOUSING. ADDITIONAL A REMOTE EMERGENCY MANUAL STOP STATION SHALL BE PROVIDED INSIDE THE OFFICE AREA IN MARINE PATROL MAIN OFFICE. THE REMOTE MANUAL STOP STATION SHALL BE LABELED.

REQUIRED WIRING BETWEEN TRANSFER SWITCH AND GENERATOR CONTROL PANEL SHALL BE RUN BY THE ELECTRICAL CONTRACTOR. PROVIDE NECESSARY CONDUITS AND WIRES FOR CONTROL FUNCTIONS. COORDINATE WITH GENERATOR / TRANSFER SWITCH MANUFACTURER'S REPRESENTATIVE FOR QUANTITY AND SIZES.

ASSY

REVISIONS				REVISIONS			
REV	DATE:	CHANGE MADE	BY	REV	DATE:	CHANGE MADE	BY
1	12/8	CHANGE LENGHT & WIDTH, ADD LOAD BANK	MTB				
2	12/16	UPDATED SILENCER, ELBOW, & RAINCAP MOVE DOORS	MTB				

GWE-A1-1250-2000 ASSEMBLY

CUSTOMER/ID: FLORIDA DDA
JOB REF: MIAMI AIRPORT
DRAWING REF:AAAQ14276
DWG #: 45-25377
DATE: 10/22/15
DRAWN BY: SK

GLOBAL POWER COMPONENTS

ENGINEERING FOR ARCHITECTURE
5757 Blue Lagoon Dr.
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EB #0000015

PROPERTY MANAGEMENT FACILITY
GENERATOR
1833 BAY ROAD
MIAMI BEACH, FL 33139

Revisions:

No.	Date	Description

Seal
Manuel Mollinedo, P.E.
Florida License #63096

Project No.: 618043
Issue Date: 04-11-2018
Drawn By: TLC
Approved By: TLC
Scale: 1/8" = 1'-0"

Drawing Title:
STANDBY GENERATOR DIMENSIONS

Drawing No.:
E-102

Sheet: - of -

100% PROGRESS SET

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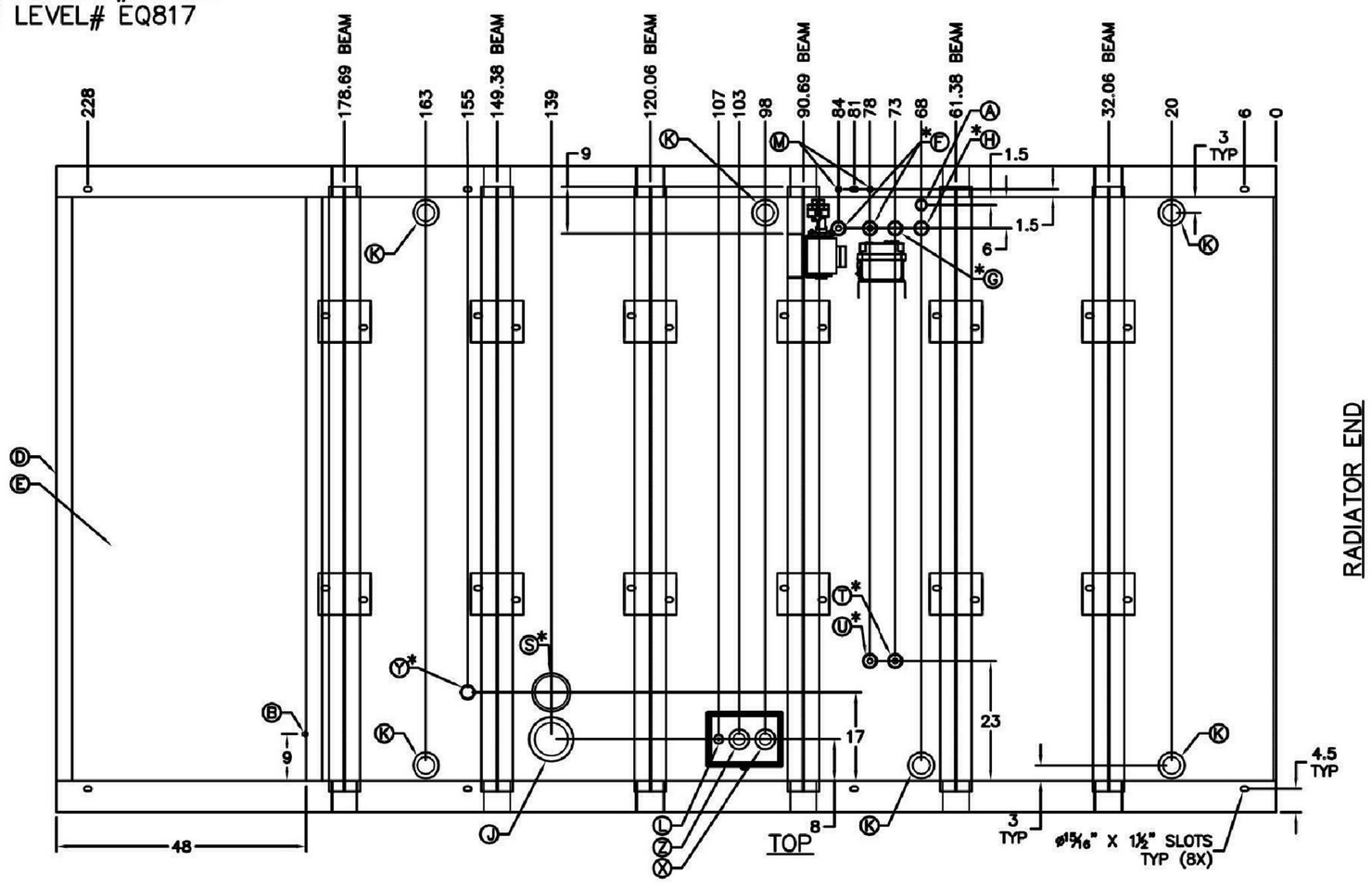
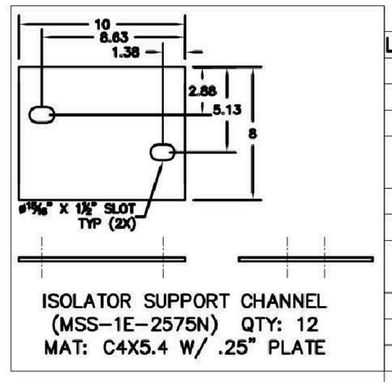
3/16/2018 2:26:23 PM

JOB #	TANK GAL	GENSET MODEL	GENSET FOOTPRINT	TANK WEIGHT
	5000 GAL	DS1250	198.25" X 90"	16,525 LBS

FDEP:
TANK# EQ716
SPILL BOX# EQ567
BASIN ALARM# EQ817
HIGH LEVEL# EQ817

∗ = 2" PIPE TO TANK TOP UNLESS OTHERWISE NOTED





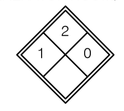
ISOLATOR SUPPORT CHANNEL
(MSS-1E-2575N) QTY: 12
MAT: C4X5.4 W/ .25" PLATE

Underwriters Laboratories, Inc.
UL 142 LISTED PRODUCT
File Numbers:
MH18481 MH46743 MH25279

GLOBAL POWER COMPONENTS		
1100 GLS UL142 SUB-BASE TANK - EQ# 567		
SIZE:	DATE: 5/30/2017	DWG NO: AAAD33787
SCALE:		CAD FILE: EMC PROJECTS/FLORIDA DET DIESEL

ANCHOR REQUIREMENT:
- (16) 7/8" DIAM HEX HEAD ASTM F1554 GR. 105 ANCHOR BOLTS.
- 6" EMBEDMENT
- 4000 PSI CRACKED CONCRETE.

PROVIDE SIGN AS PER NFPA 704 FOR FUEL SUPPLY TANK, FUELING PORT, AND OUTSIDE THE GENERATOR ROOM, INDICATING THE FOLLOWING:
- HEALTH HAZARD = 1
- FLAMMABLE HAZARD = 2
- INSTABILITY HAZARD = 0
- SPECIAL HAZARD = N/A

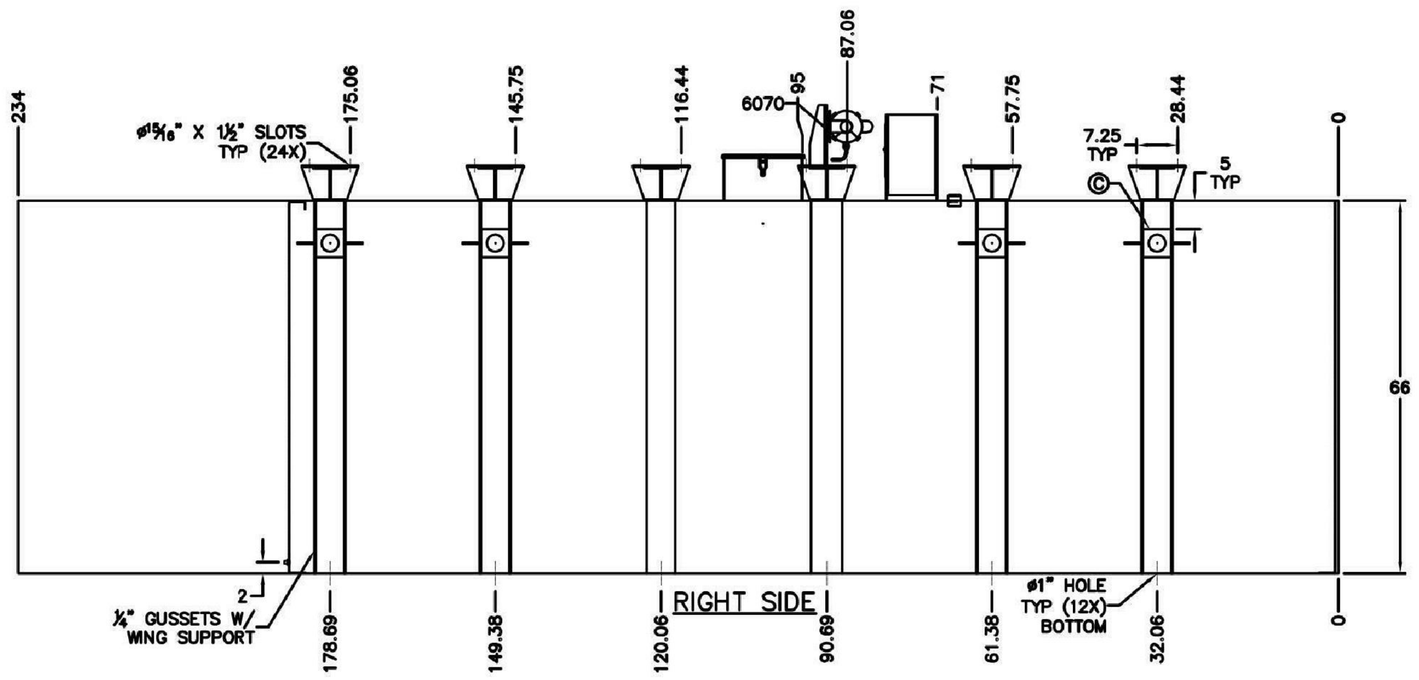


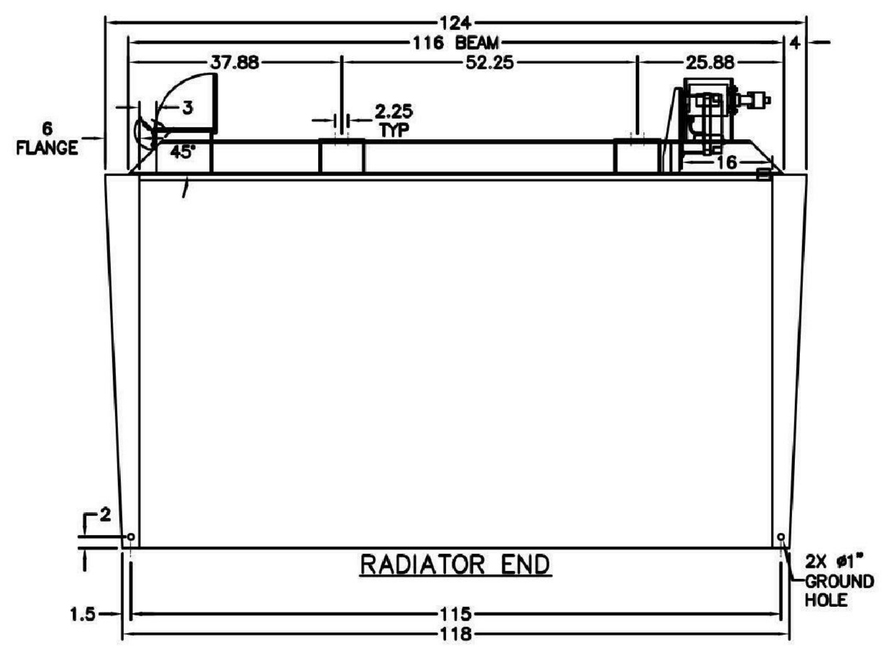
SUB-BASE FUEL TANK

BILL OF MATERIAL

LETTER	PART #	DESCRIPTION	QTY
S	3166	F CPLG, 6", E-VENT	1
T	3655	F CPLG, 2", RETURN, W/ 3/4" DIP TUBE	1
U	3655	F CPLG, 2", SUPPLY, W/ 3/4" DIP TUBE	1
X	1003	FLANGE, 2", FUEL LEVEL GAUGE	1
	1003-TS	ROCHESTER TWINSITE ADAPTER (#P5648SD2547)	1
Y	3152	F CPLG, 2", STANDARD VENT CAP	1
Z	3005	FLANGE, 2", LOCKING FILL CAP	1
A	4301	ø1-1/2" PIPE, TOE, L = 30-1/2"	1
	SPECIAL	F CPLG, 1-1/2", LD-FPI-BB15 FLOAT	1
B	3502	FLANGE, 1/2", BASIN DRAIN	1
C	8410	1/2" FLUSH MOUNT LIFTING PLATE	8
D	8003	REMOVABLE END PLATE - 3" BEND	1
E	4000	48" STANDARD ELECTRICAL STUB UP	1
F	3600	F CPLG, 2", FITTING W/ 1/2" DIP TUBE	2
G	1093	F CPLG, 2", 3-FLOAT ASSEMBLY (LOW, PUMP ON/OFF)	1
J	3166	FLANGE, 6", CONTAINMENT E-VENT	1
K	3196	FLANGE, 3", FITTING W/ PLUG	8
L	3190	FLANGE, 3/8", FITTING W/ PLUG	1
M	3191	F. CPLG, 1/2", FITTING W/ PLUG	2
	8220	7 GAL SPILL CONTAINMENT BOX	1
	8303	6" I-BEAM GENSET SUPPORT	6
	8420	ISOLATOR SUPPORT PLATE	12
	8426	GPC SUPPLIED ISOLATORS (MSS-1E-2575)	12
	1380	SERIES 400 CONTROLLER (SINGLE/REVERSE)	1
	2025	SINGLE SUPPLY PUMP SYSTEM	1
	6040	1/3 HP CARBONATE MOTOR, 1ϕ 115/230V, 50/60Hz, 48YZ FRAME	1
		BRONZE CLOSED COUPLED 4GPM ROTARY GEAR PUMP, 3/8" PORTS	1
	6400	REMOTE PUMP BASE W/ ENCL FOR SUPPLY PUMP	1
	2010	REVERSE PUMP SYSTEM	1
	6070	1/2 HP CAPACITOR START MOTOR 1ϕ, 115/230V, 60Hz, 48 FRAME	1
		BRONZE CLOSED COUPLED 7GPM ROTARY GEAR PUMP, 1/2" PORTS	1
	700-1025	1/2" FUEL STRAINER	1
	700-1065	1/2" SPRING CHECK VALVE	1
	700-1096	1/2" SOLENOID VALVE (120VAC, NC)	1
	UL2085	2HR FIRE RATED DOUBLE WALL TANK	1
9638		PAINT COLOR GLOSS BLACK	

GENSET OFFSET 6" TO LEFT SIDE





REVISIONS				REVISIONS			
REV	DATE:	CHANGE MADE	BY	REV	DATE:	CHANGE MADE	BY

SUB BASE TANK W/ RUPTURE BASIN & STUB UP

TANK

ENGINEERING
FOR ARCHITECTURE
5757 Blue Lagoon Dr.
Suite 400
Miami, FL 33126
Phone: 305.266.6553
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EB #0000015

PROPERTY MANAGEMENT FACILITY
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MIAMI BEACH, FL. 33139

Revisions:

No.	Date	Description

Seal
Manuel Mollinedo, P.E.
Florida License #63096

Project No.: 618043
Issue Date: 04-11-2018
Drawn By: TLC
Approved By: TLC
Scale: 1/8" = 1'-0"
Drawing Title:
SUB-BASE
DAILY
FUEL TANK
Drawing No.: E-103
Sheet: - of -

100% PROGRESS SET

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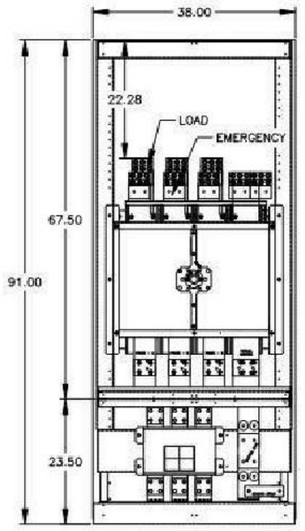
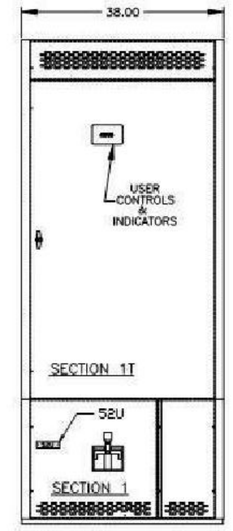
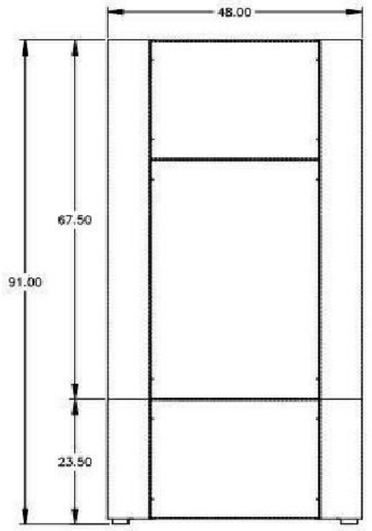


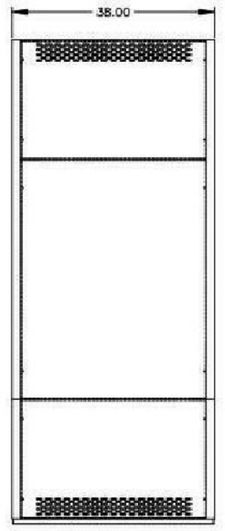
FRONT ELEVATION
INTERIOR VIEW



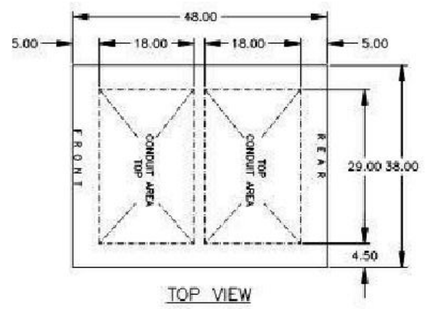
FRONT VIEW: 300 SERIES



SIDE VIEW



REAR VIEW



TOP VIEW

GENERAL NOTES

1. TYPE 1 ENCLOSURE. FREE STANDING. FLOOR MOUNTED. CODE GAUGE STEEL.
2. ALL DOORS HAVE LOCKABLE HANDLES WITH COMMON KEYING AND CAPTIVE SCREWS AS REQUIRED.
3. FINISH: ANSI 61 GRAY POLYESTER SEMI GLOSS ELECTROSTATIC POWDER.
4. RECOMMENDED CLEARANCES:
   FRONT: 38 INCHES
   REAR: 38 INCHES
5. ALL BUS IS SILVER-PLATED COPPER, BASED ON 1000A PER SQ. IN. DENSITY.
6. A FULL RATED NEUTRAL CONNECTION FOR EACH SOURCE AND THE LOAD IS OPTIONAL. WHEN PROVIDED IT IS IN ONE OF THE FOLLOWING FORMATS AS SPECIFIED BY THE CATALOG NO. NEUTRAL TYPE,
   A. SOLID (COPPER BUS) NEUTRAL (SHOWN) (PROVIDED STANDARD ON H3AUS)
   B. SWITCHED NEUTRAL POLE
   C. OVERLAPPING NEUTRAL POLE (NOT AVAILABLE ON 7ACUS/7ADUS UNITS)
7. DESIGNED FOR FRONT AND REAR ACCESS
8. FOR SPECIFIED TRANSFER SWITCH, REFER TO OPERATOR'S MANUAL PROVIDED WITH UNIT.
9. SECTION 1 & SECTION 1T SHIP AS 1 UNIT.

SPECIFICATIONS

1. SERVICE VOLTAGE:
   SYSTEM RATING: 1600 AMPS, 2000 AMPS, 3ϕ, 4W.
   GROUND BUS- 600 AMPS
   SHORT CIRCUIT RATING- 65,000 RMS SYM AMPERES @ 480V.
   THE EMERGENCY SOURCE INPUT MUST BE PROTECTED BY A REMOTE OVERCURRENT PROTECTION DEVICE AS LISTED ON THE MARKINGS ON THE TRANSFER SWITCH.
2. BATTERY VOLTAGE: N/A
3. NEUTRAL BUS: 2000 AMPS
4. APPLICABLE LABELS: U.L. 891- SUITABLE ONLY FOR USE AS SERVICE EQUIPMENT.

CABLING NOTES

1. ALL SIZES SUPPLIED STANDARD WITH MECHANICAL (SCREW TYPE) LUGS.
   A. LUG MATERIAL: ALUMINUM ALLOY 6061-T6 WITH ELECTRO TIN PLATED FINISH.
   B. SCREW MATERIAL: ALUMINUM ALLOY 6262-T9 WITH ELECTRO TIN PLATED FINISH.
   C. UL LISTED, CSA CERTIFIED.
   D. LUG SCREW TIGHTENING TORQUE PER UL 486B: 19 FT-LBS.
   E. SUITABLE WIRE BENDING SPACE IS PROVIDED.
2. OPTIONAL COPPER CRIMP LUGS MAY BE SUPPLIED.
   A. LUG MATERIAL: HIGH CONDUCTIVITY WROUGHT COPPER FINISH, ELECTRO TIN PLATED.
   B. UL LISTED, CSA CERTIFIED.
   C. LUG MOUNTING HARDWARE TIGHTENING TORQUE: (REFER TO WITHSTAND CURRENT RATING LABEL PROVIDED ON EACH TRANSFER SWITCH).
   D. SUITABLE WIRE BENDING SPACE IS PROVIDED.
3. CONSULT FACTORY FOR OTHER TERMINATION REQUIREMENTS.

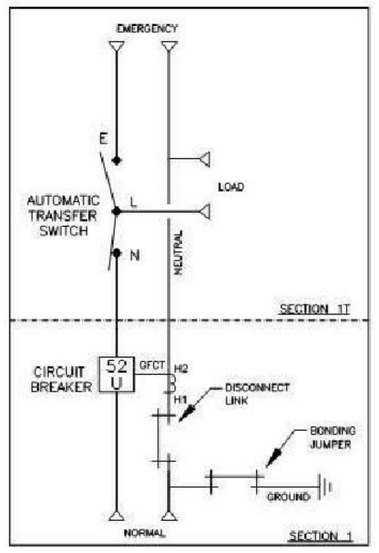
NOTES 1600-2000 AMPS

1. SUPPLIED WITH STANDARD MECHANICAL (SCREW TYPE) LUGS ON THE NORMAL, EMERGENCY & LOAD BUS STABS. ONE (1) LUG PER PHASE AND NEUTRAL EACH SUITABLE FOR CONNECTION OF SIX (6) 1/0 AWG-600MCM CU/AL CABLE (SEE NOTE "A" BELOW).
   A. SUITABLE WIRE BENDING SPACE IS PROVIDED FOR UP TO SIX (6) 600MCM CABLES PER TERMINAL PER NEC.
2. OPTIONAL COPPER CRIMP LUGS MAY BE SUPPLIED. UP TO SIX (6) TWO HOLE, LONG BARREL CU CRIMP LUGS RATED FOR UP TO 600MCM. (REFER TO CRIMP LUG INSTALLATION DATA PROVIDED WITH UNIT FOR FULL INSTALLATION DETAILS)
   A. SUITABLE WIRE BENDING SPACE IS PROVIDED FOR UP TO SIX (6) 600MCM CABLES PER TERMINAL PER NEC.
3. GROUND LUGS ARE PROVIDED STANDARD AS FOLLOWS;
   (18) 1/0 - 750MCM CU/AL CABLE

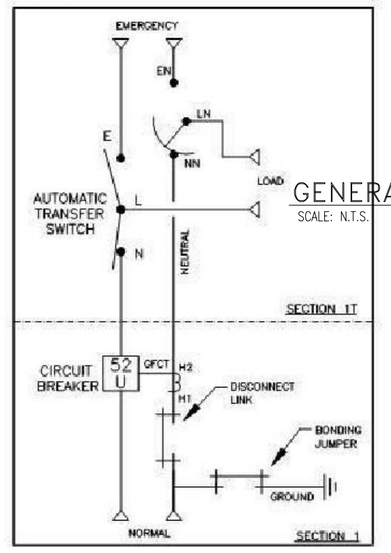
CIRCUIT BREAKER: ITEM 52U

SQUARE "D" 80% RATED, TYPE 'RJF', 2500AF/2000AT OR 2500AF/1600AT STATIONARY MOUNTED, MANUALLY OPERATED, WITH LONG DELAY, SHORT DELAY, INSTANTANEOUS AND GROUND FAULT TRIP SETTINGS.

ONE LINE DIAGRAMS

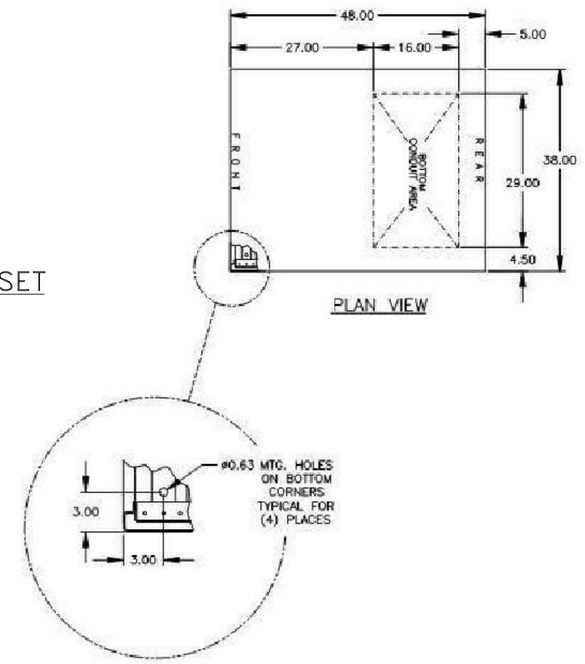


(WITH SOLID NEUTRAL)



(WITH SWITCHED/OVERLAPPING NEUTRAL)

GENERATOR SET
SCALE: N.T.S.



REV.	EDN NO.	BY	DATE	DESCRIPTION
B	221423	DP	1/15/09	ADDED "80% RATED"
A	218103	AE	04/23/08	SEE ECN
—	213163	RN	4-30-07	ISSUE

PROJECT NAME:

OUTLINE | MOUNTING

CAUS 1600A - 2000A, RJF SE BREAKER
TYPE 1 91 X 38 X 48

THIRD ANGLE PROJECTION

	BY	DATE
DRAWN BY	RN	4-30-07
CHECKED		
PROJECT APPROVAL		
ENG. APPROVAL		

MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE SP-----003. FOR PLASTIC PARTS SEE MP-0-055

ASSEM. REF. NO.

COMPUTER GENERATED DRAWING

SCALE NT SIZE DS

DWG. NO. 754577-051

DRAWING REV. B EDN NO. 221423 SHEET 1 OF 1

ASCO® ASCO Power Technologies, L.P. FLORHAM PARK, NEW JERSEY 07932 U.S.A.

NOTES 600 AMP AUTOMATIC TRANSFER SWITCH

1. SUPPLIED WITH STANDARD MECHANICAL (SCREW TYPE) LUGS ON THE LOAD & EMERGENCY BUS STABS. ONE (1) LUG PER PHASE AND NEUTRAL EACH SUITABLE FOR CONNECTION OF THREE SETS OF CABLES UP TO 600KCM CU/AL.
2. GROUND LUGS ARE PROVIDED STANDARD AS FOLLOWS: (3) #1/0 - 3/0 AWG CU/AL CABLE.

CIRCUIT BREAKER: ITEM 52U

1. 100% RATED MOLDED CASE CIRCUIT BREAKER, 800AF/800AT SOLID STATE ELECTRONIC TRIP.

ENGINEERING
FOR ARCHITECTURE
5757 Blue Lagoon Dr.
Suite 400
Miami, FL 33126
Phone: 305.266.6553
Fax: 305.266.6695
www.tlc-engineers.com
EB #0000015

MIAMI BEACH PUBLIC WORKS
GENERATOR
451 Dade Blvd.
Miami Beach, FL 33140

Revisions:

No.	Date	Description

Seal

Manuel Mollinedo, P.E.
Florida License #63096

60% PROGRESS SET

Project No.: 618002
Issue Date: 03-31-08
Drawn By: TLC
Approved By: TLC
Scale: 1/8" = 1'-0"

Drawing Title:
AUTOMATIC TRANSFER SWITCH DIAGRAM

Drawing No.: E-104

Sheet: - of -

TAW POWER SYSTEMS, INC.
1500 NW 15th Ave
Pompano Beach, FL 33069
Ph.: (954) 977-0202 x1759 (800) 876-0990
Fax: (954) 977-9249
John.Potts@tawinc.com
Kohler Generator Systems Distributors

KOHLER POWER SYSTEMS DISTRIBUTOR FOR ALABAMA, SOUTH GEORGIA, FLORIDA, LOUISIANA AND MISSISSIPPI

Date: August 8, 2018
Contact: John Potts

Offer No: P1808-0105
Contact Cell #: (954)-234-4226

Project: City of Miami Beach – Public Works

****

One New **KOHLER Model 600REOZVB**, EPA Certified **Diesel** Generator Set,
600KW, @ 0.8 PF, 60 Hz, 3 Phase, UL 2200, 277/480 Volt with the following:

CONTROLLER:
APM402
Controller meets NFPA 110

ENCLOSURE:
Aluminum Sound Enclosure
181 MPH Wind Load Rated
Load Center
Critical Silencer

COOLING:
Unit Mounted Radiator
Block Heater, 120 Volt

FUEL SYSTEM:
Flexible Fuel Lines
Sub-base Fuel Tank, 550 Gallon, UL142 Listed
FDEP Package
Fuel Transfer Pumps – Supply & Return
Fuel Water Separator

GENERATOR ACCESSORIES (Electrical):
Line Circuit Breakers, 3 Pole, 100 % Rated
Qty (1) 800 Amps, Electronic,

ENGINE ELECTRICAL ACCESSORIES:
Battery Rack and Cables
Starting Battery, Lead Acid
Battery Charger: 10 Amps

CONTROLLER ACCESSORIES LOOSE:
Remote Emergency Stop, Break Glass
Remote Annunciator Panel

AUTOMATIC TRANSFER SWITCH:
Qty (1) Kohler Model KEP-DMTA-0800-NK
208 Volt, 3 Ph., 3 Pole, 800A, NEMA 1,
Service Entrance Rated

ADDITIONAL ACCESSORIES:
Certified Factory Test @ 0.8 P.F.
3 Engine, Generator Parts, Maintenance Manuals
1 Electronic Manual
Vibration Isolators: Internal
5 Year Comprehensive Warranty

SUPPLIED BY OTHERS
New Fuel – First Fill of New Tank
Installation
Local and State Permitting by Others
All Infrared, 3rd Party and NETA Testing if Required

TOTAL NET LOT: $125,870.00

ESTIMATED LEAD TIME:
16 to 18 weeks after release of the order. This estimated lead time is subject to change daily due to availability

F.O.B. FACTORY, FREIGHT ALLOWED TO JOB SITE

SALES TAX NOT INCLUDED

Regards,

TAW Power Systems, Inc.
John Potts
Senior Sales Engineer

OFFER VALID FOR 30 DAYS FROM THIS OFFER DATE (LISTED ABOVE)

EXCEPTIONS/ CLARIFICATIONS/ NOTES:
Delivery, start up, and load testing are quoted as during normal business hours. If after hour, weekend, or holiday work hours are required, the Contractor will be responsible for the overtime differential unless otherwise noted.

OFFER BASED UPON:

- Drawing E-101

NOTE: TAW's STANDARD TERMS and CONDITIONS apply to all offers for purchase and any purchase orders accepted by TAW. You may find a copy under the terms and conditions section at TAWINC.com or please contact our office at 800-456-9449 and we will forward you a copy. TAW will transmit a written delivery schedule based on the manufacturer's confirmation, approximately fifteen (15) days after product release. Also included will be the related progress invoice values based on material shipments.

(OFFER ACCEPTANCE BELOW)

_____
COMPANY

_____
AUTHORIZED SIGNATURE

_____
TITLE

_____
PRINT NAME DATE

TERMS & CONDITIONS ACKNOWLEDGED:

_____
INITIAL

Detailed Scope of Work

To: Andres Solares
Solares Electrical Services, Inc
10421 NW 28th Street
Miami, Fl 33172
No Data Input

From: Isreal Baker
The Gordian Group
30 Patewood Dr
Greenville, SC 29615
(800) 874-2291

Print Date: November 06, 2018

Work Order Number: 062104.00

Work Order Title: Miami Beach Public Works Office New Generator

Brief Scope:

The following items detail the scope of work as discussed at the site. All requirements necessary to accomplish the items set forth below shall be considered part of this scope of work.

Detailed Scope:

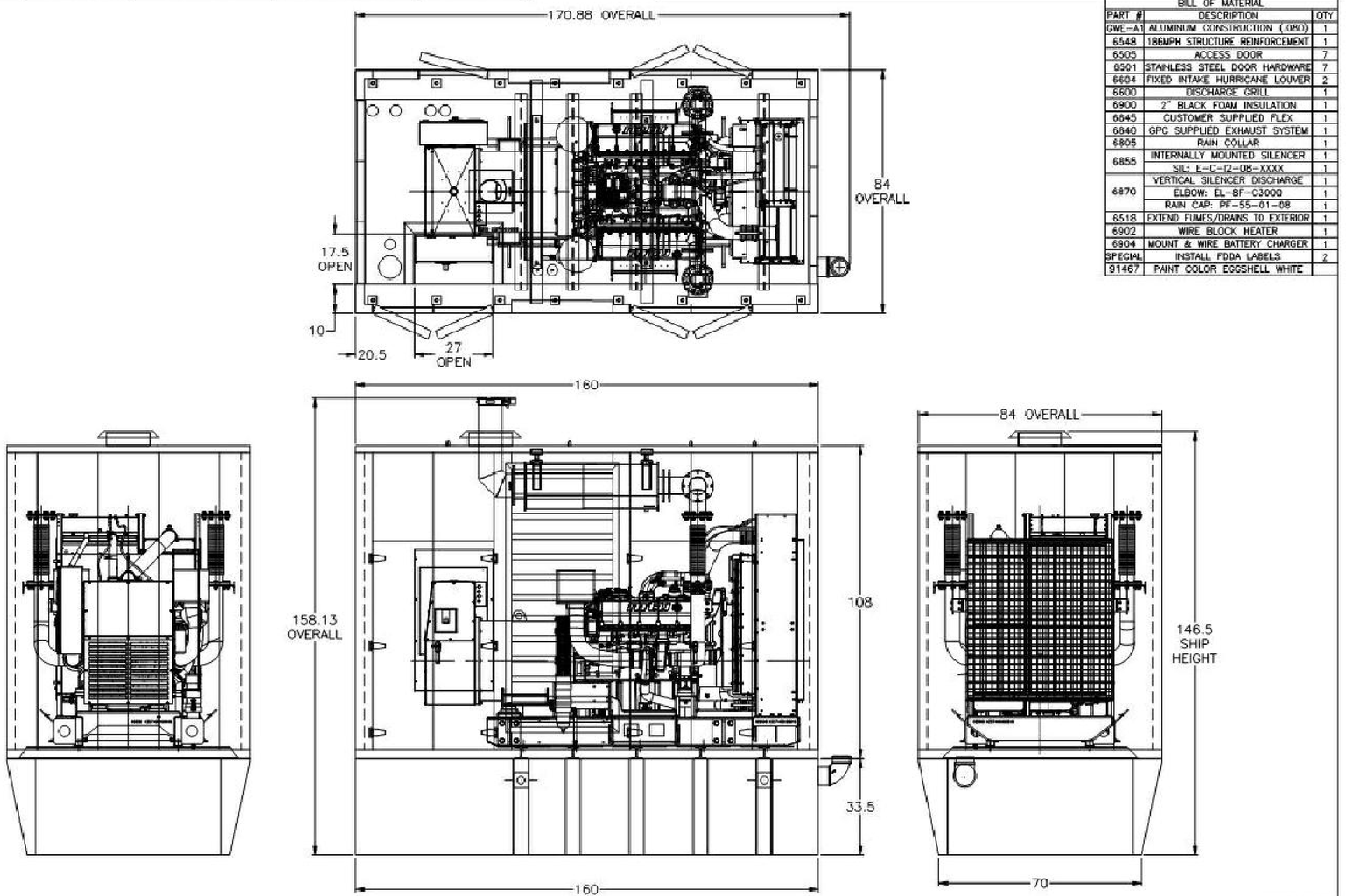
Provide automatic transfer switch and generator including all conduit and wiring, excavation, surfacing repairs, testing, permit, concrete slabs.

Subject to the terms and conditions of JOC Contract **FL-MDCAE04-052014-SES**.

Isreal Baker _____ Date _____

Andres Solares _____ Date _____

QUOTE #	TANK GAL	GENSET MODEL	GENSET FOOTPRINT	ASSY. WEIGHT
33787	1100 GAL	DS500	132" X 74"	X LBS



BILL OF MATERIAL

PART #	DESCRIPTION	QTY
GWE-A1	ALUMINUM CONSTRUCTION (.080)	1
6548	186MPH STRUCTURE REINFORCEMENT	1
6505	ACCESS DOOR	7
6501	STAINLESS STEEL DOOR HARDWARE	7
6604	FIXED INTAKE HURRICANE LOUVER	2
6600	DISCHARGE GRILL	1
6900	2" BLACK FOAM INSULATION	1
6845	CUSTOMER SUPPLIED FLEX	1
6840	GPG SUPPLIED EXHAUST SYSTEM	1
6805	RAIN COLLAR	1
6855	INTERNALLY MOUNTED SILENCER	1
	SIL: E-C-12-08-XXXX	1
6870	VERTICAL SILENCER DISCHARGE	1
	ELBOW: EL-8F-C3000	1
	RAIN CAP: PF-55-01-08	1
6518	EXTEND FUMES/DRAINS TO EXTERIOR	1
6902	WIRE BLOCK HEATER	1
6904	MOUNT & WIRE BATTERY CHARGER	1
SPECIAL	INSTALL FDDA LABELS	2
91467	PAINT COLOR EGGSHELL WHITE	

ASSY

REVISIONS				REVISIONS			
REV	DATE:	CHANGE MADE	BY	REV	DATE:	CHANGE MADE	BY

GWE-A1-500-1100 ASSEMBLY

CUSTOMER/ID: FLORIDA DDA
JOB REF:
DRAWING REF: AAAQ33787
DWG #: X
DATE: 5/30/17
DRAWN BY: MTB

GLOBAL POWER COMPONENTS

ENGINEERING
FOR ARCHITECTURE
5757 Blue Lagoon Dr.
Suite 400
Miami, FL 33126
Phone: 305.266.6553
Fax: 305.266.6695
www.tlc-engineers.com
EB #0000015

PROPERTY MANAGEMENT
FACILITY
1833 BAY ROAD
MIAMI BEACH, FL. 33139

Revisions:

No.	Date	Description

Seal
Manuel Mollinedo, P.E.
Florida License #63096

Project No.: 618043
Issue Date: 04-11-2018
Drawn By: TLC
Approved By: TLC
Scale:

Drawing Title:
STANDBY GENERATOR DIMENSIONS

Drawing No.: E-1.02

Sheet: of

100% PROGRESS SET

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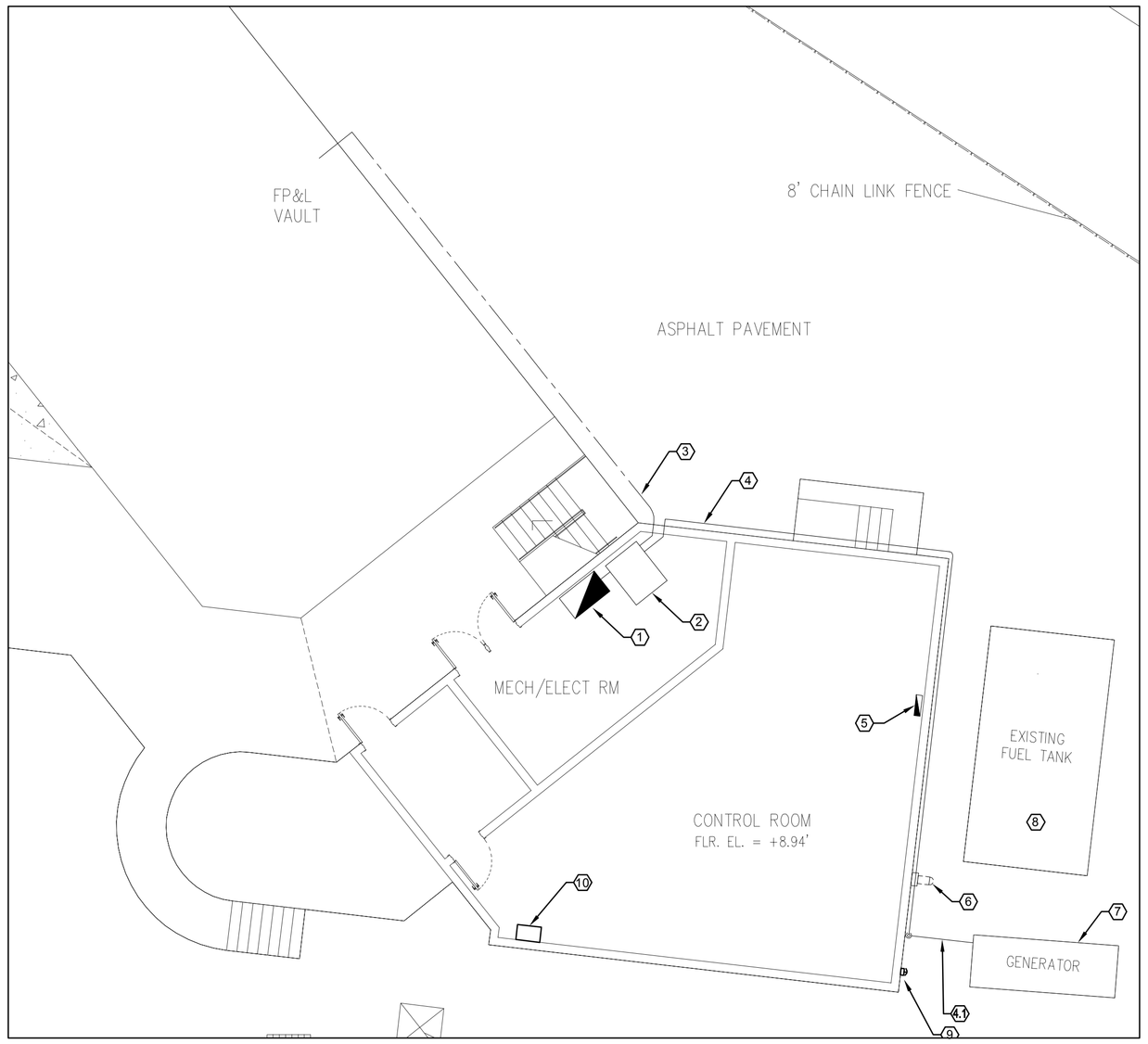
3/16/2018 2:26:23 PM



ELECTRICAL SITE PLAN
SCALE: 1/8" = 1'-0"

KEY NOTES:

1. EXISTING MAIN DISTRIBUTION PANEL, MAIN 1 OF 1 TO REMAIN. REFER TO RISER DIAGRAM FOR FURTHER INFORMATION.
2. NEW AUTOMATIC TRANSFER SWITCH, SERVICE RATED, 800A-3 POLE, 480V. BASIS OF DESIGN "ASCO - MODEL J3USA3800NGXM,11BE,18RX, WITH A MAIN OCPD = 800A - 3 POLE, SOLID STATE. LABEL AS "MAIN 1 OF 1".
3. NEW SERVICE ENTRANCE CONDUCTORS INSTALLED UNDERGROUND. REFER TO RISER DIAGRAM FOR SIZES.
4. NEW GENERATOR FEEDERS: 3" RIGID CONDUIT ATTACHED TO EXTERIOR WALL. REFER TO RISER DIAGRAM FOR WIRE SIZES.
4.1. NEW GENERATOR FEEDERS: 4" PVC SCH 40, UNDERGROUND, AT 18" BFG.REFER TO RISER DIAGRAM FOR WIRE SIZES.
5. EXISTING PANEL "P" LOCATED AT CONTROL ROOM. INSTALL NEW 40A-2POLE CIRCUIT BREAKER TO FEED GENERATOR BUILT-IN LOAD CENTER. PROVIDE PANEL CIRCUIT DIRECTORY. REFER TO PANEL SCHEDULE FOR FURTHER INFORMATION.
6. EXISTING CANLOCKS TO BE REMOVED. REMOVE WIRES AND CONDUITS ALL THE WAY BACK TO ELECTRICAL / MECHANICAL ROOM.
7. NEW STANDBY GENERATOR, 600 KW, 480V-3Ø. PROVIDE CONCRETE PAD.
8. EXISTING FUEL TANK. CONNECT TO NEW STANDBY GENERATOR.
9. GENERATOR EMERGENCY SHUT-OFF BUTTON.
10. REMOTE ANNUNCIATOR PANEL

5/18/2018

mtu onsite energy — PowerSPEC™ Power System Sizing and Specification

MBCH PUBLIC WORK

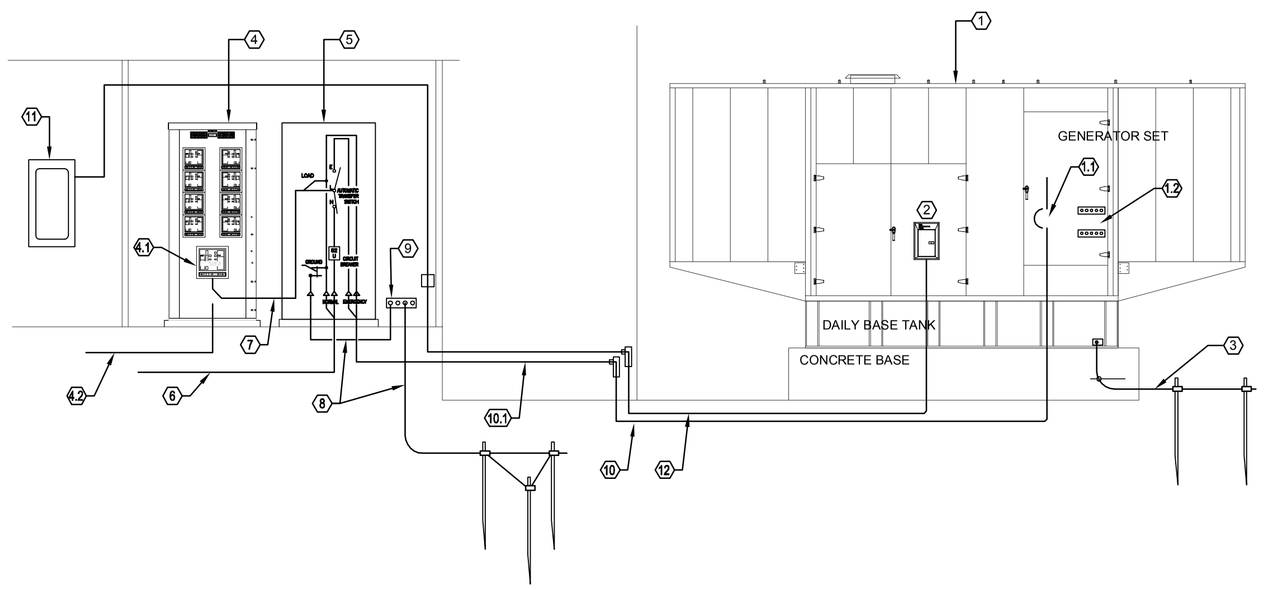
Model: MTU 10V1600 DS450 Sizing: Recommended

Sizing Prepared By: United States of America		**Customer Contact:**	
Project Overview			
Voltage	277/480V	**Fuel Type**	Diesel
Frequency	60 Hz	**Rating Type**	Standby
Phase	Three Phase	**Site Altitude**	3 m (10 ft)
Product Type	Standard	**Ambient Temperature**[8]	27°C (80°F)
		Permitted Back Pressure	50 mbar (20.1 in. H_2O)
Load Analysis Summary			
Peak kVA	500	**Running kVA**	450
Peak kW	450	**Running kW**at	405
		Running PF	0.9
Generator Set Details			
Generator Set Model	MTU 10V1600 DS450 (Qty 1)	**Nameplate kW Rating**	450
Alternator Model	572RSL4025 w/ PMG	**Rated P.F.**	0.8
Temperature Rise	105°C	**Site kW Rating**[7]	420
Engine Model	3D 10V1600G70S EPA Nonroad T3 Comp (40CFR89) 1800rpm TD		

Block Load Transient Response[3]			Recovery Times	Alternator Motor Starting[2]:	
Load Change	**FDip**	**VDip**		**VDip**	**SkVA**
0-25 %	1.7%	3.8%	0.6s	**10%**	338
0-50 %	2.5%	6.6%	1.2s	**20%**	702
0-75 %	4.3%	10.4%	1.4s	**30%**	1067
0-100 %	8.7%	16.9%	2s	**35%**	1309

Technical Data at 100% Nameplate Rated Load[1]			
Make	MTU	**Governor**	Electronic Isochronous (ADEC)
Model	MTU 10V1600 DS450	**Cooling Pkg Ambient Rating**	50°C (122°F)
Aspiration	TurboCharged	**Cooling Pkg Airflow**	642 m^3/min (22672 ft^3/min)
Cylinder Configuration	10-V	**Heat Rejection to Coolant**	285 kW (13364 BTU/min)
Displacement	17.5 L (1068 in^3)	**Heat Rejection to CAC**	118 kW (6711 BTU/min)
Rated RPM	1,800	**Heat Rejection to Fuel**	4.6 kW (262 BTU/min)
Fuel Consumption	115.4 L/hr (30.5 gal/hr)	**Heat Radiated to Ambient**	59 kW (3333 BTU/min)
Aspiration Airflow	93 m^3/min (1236 ft^3/min)	**Exhaust Stack Temperature**	461°C (862°F)
Emissions Rating	EPA Tier 3	**Exhaust Flow Rate**	105 m^3/min (3637 ft^3/min)

1. Based on standard conditions of 77° F, 300 ft. altitude, 0.5" H_2O intake restriction. Exhaust Flow Rate is evaluated using Stack Temperature.
2. Based on instantaneous voltage dip as defined per NEMA MG-1.
3. Recovery time is based on steady-state recovery of voltage. This information is based on average performance, and should not be considered a guarantee. Results may vary based on production tolerances and site conditions. Consult MTU OE for further information regarding transients.
4. NA = Not Applicable 5. CF = Consult Factory. 6. The average running load on diesel engines should not be less than 30% of rated power.
7. Site kW Rating is the maximum sustainable kW at the project site conditions. Note that the Standby kW can be higher.
8. Engine intake air temperature is based on ambient temperature. Additional installation preheat is not considered for calculated derate performance.



PARTIAL RISER DIAGRAM
SCALE: N.T.S.

KEY NOTES:

1. NEW 600 KW STANDBY GENERATOR, 480V-3Ø, DIESEL FULED. BASIS OF DESIGN "MTU MODEL MTU 10V1600 DS450 WITH DAILY BASE TANK.
1.1. GENERATOR DISCONNECT: 800A, 3-POLE CIRCUIT BREAKER FACTORY BUILT-IN.
1.2. VERIFY BONDING WIRE BETWEEN NEUTRAL BAR AND GROUND BAR IN GENERATOR SET HAS BEEN REMOVED. GENERATOR SHALL BE CONNECTED AS A NON-SEPARATED DERIVED SYSTEM.
2. FACTORY BUILT-IN LOAD CENTER: 100A, 208/120V-1Ø TO POWER BATTERY CHARGER, ENGINE WATER HEATER JACKET, CONVENIENCE RECEPTACLE AND LIGHTING IN GENERATOR HOUSING. THOSE LOADS ARE FACTORY PRE-WIRED.
3. GENERATOR HOUSING SHALL BE BONDED TO GROUND POTENTIAL: PROVIDE (1) #4 AWG THWN BONDING WIRE BETWEEN GENERATOR HOUSING GROUND LUG AND (2) GROUND RODS (5/8 " x 10-FT) INSTALLED 6-FT APART. ALSO BOND TO STRUCTURAL STEEL BAR IN GENERATOR CONCRETE PAD.
4. EXISTING MAIN DISTRIBUTION PANEL TO REMAIN. 800A, 480/277 V, 3Ø.
4.1. EXISTING MAIN 1 OF 1: 800A MAIN CIRCUIT BREAKER. THIS CB SHALL NOT BE LONGER "MAIN 1 OF 1" AND SHALL NOT BE LABELED AS MAIN.
4.2. EXISTING SERVICE ENTRACE CONDUCTORS TO BE REMOVED. DISCONNECT THESE CBALES FROM "MDP" AND REMOVE ALL THE WAYBACK TO FP&L VAULT. COORDINATE WITH FP&L TO DISCONNECT FROM POWER SOURCE. CAP EMPTY CONDUITS AT BOTH ENDS.
5. NEW AUTOMATIC TRANSFER SWITCH, 800A, 3 POLE, SERVICE RATED. BASIS OF DESIGN: ASCO ....WITH AN OCPD = 800A-3 POLE, 480 VOLTS "MAIN 1 OF 1". LABEL AS REQUIRED
6. NEW SERVICE ENTRANCE CONDUCTORS: (3) SETS: EACH SET = (4) #300 KCM THWN IN 4" PVC-UG. TOTAL AMPACITY = 855AMPS.
7. (2) SETS: EACH SET = (4) #600 KCM THWN + (1) #1/0 AWG THWN(G) IN 4" C.
8. NEW GROUNDING ELECTRODE CONDUCTOR: (1) #3/0 AWG THWN.
9. NEW MAIN GROUND BAR: 1/4" x 4" x 18" COPPER PLATE "A" CONFIGURATION, HOLE PATTERN = CC.
10. (3) SETS: EACH SET = (4) # 300 KCM THWN + (1) #1/0 AWG THWN(G) IN 4" PVC-UG @ 18" BFG.
10.1. (3) SETS: EACH SET = (4) # 300 KCM THWN + (1) #1/0 AWG THWN(G) IN 3" C.
11. EXISTING PANEL "P": PROVIDE NEW 40A - 2 POLE CIRCUIT BREAKER IN POSITION 14, 16 TO FEED LOAD CENTER IN GENERATOR HOUSING. REFER TO PANEL SCHEDULE.
12. (3) #6 AWG THWN + (1) #8 AWG THWN(G) IN 1"C (USE PVC IN UNDERGROUND SECTION)

SCOPE OF WORK:

THE SCOPE OF WORK FOR THE PRESENT DESIGN IS TO PROVIDE STANBY POWER TO MAIMI BEACH - PUBLIC WORK FACILITY.

THIS SHALL BE DONE BY INSTALLING A 600kV DIESEL FUELED GENERATOR @ 480/277 V - THREE PHASE.

ENGINEERING
FOR ARCHITECTURE
5757 Blue Lagoon Dr.
Suite 400
Miami, FL 33126
Phone: 305.266.6553
Fax: 305.266.6695
www.tlc-engineers.com
EB #0000015

MIAMI BEACH PUBLIC WORKS
GENERATOR
451 Dade Blvd,
Miami Beach, FL 33140

Revisions:

No.	Date	Description

Seal

Manuel Mollinedo, P.E.
Florida License #63096

Project No.: 618002
Issue Date: 03-31-08
Drawn By: TLC
Approved By: TLC
Scale: 1/8" = 1'-0"

Drawing Title:

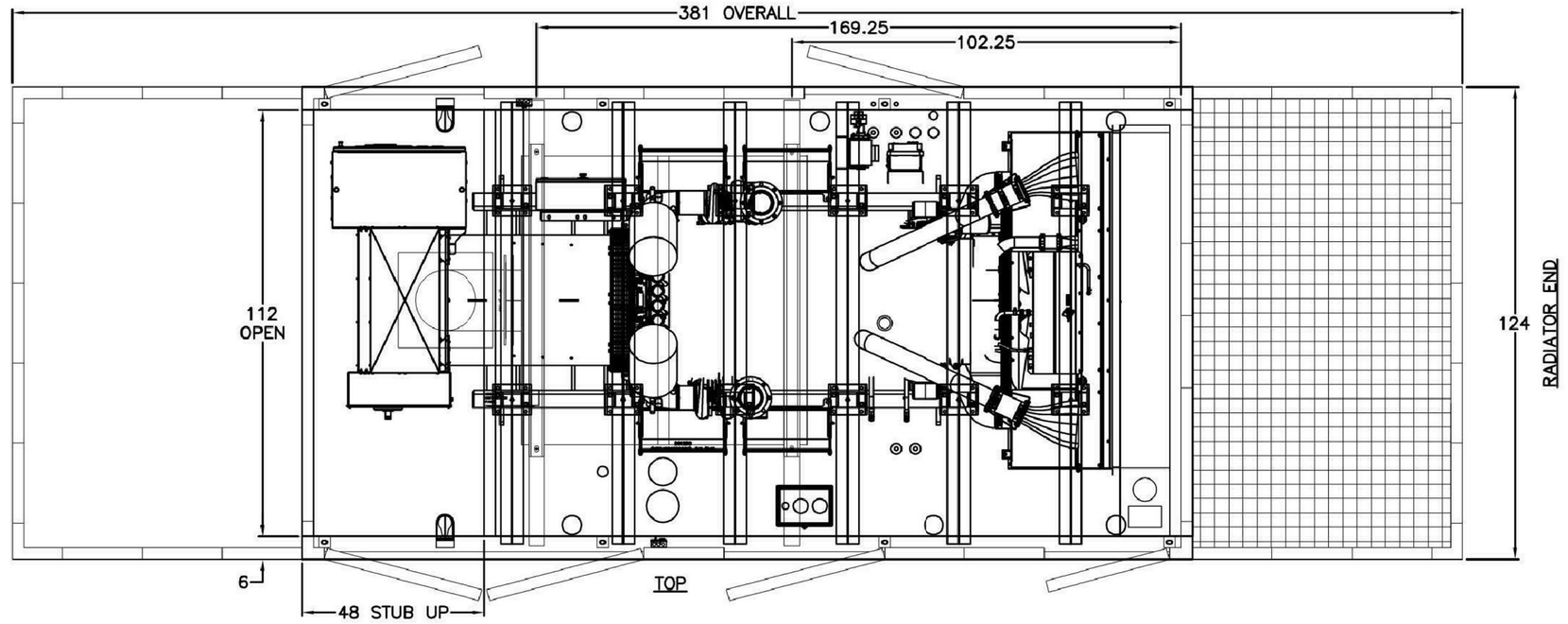
GENERATOR
FLOOR PLAN &
RISER DIAGRAM

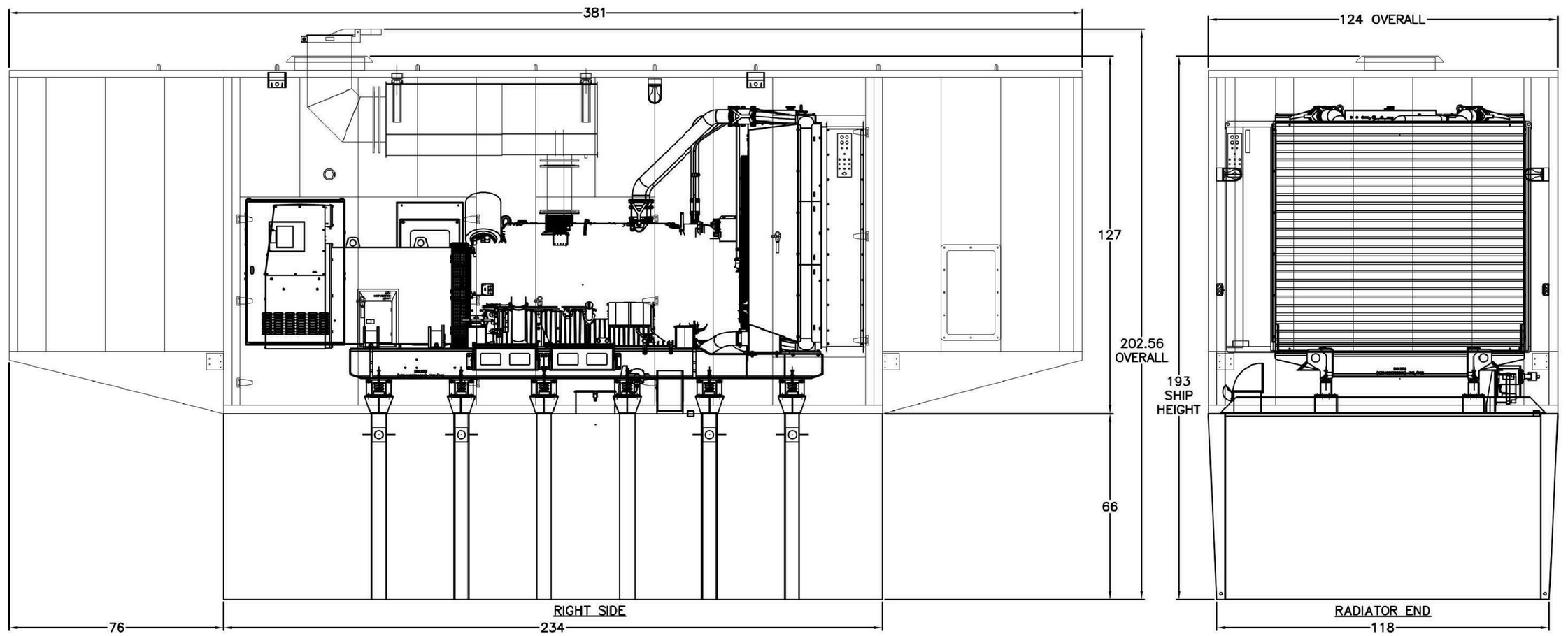
Drawing No.: E-101

Sheet: - of -

60% PROGRESS SET

JOB #	TANK GAL	GENSET MODEL	GENSET FOOTPRINT	TOTAL WEIGHT
	5000 GAL	DS1250	198.25" X 90"	48,750 LBS





NEC 2014

ALL VERTICAL WALL & DOOR PANELS & ROOF PANELS 2" FIBER INSULATION BOARD W/ PERF

BILL OF MATERIAL		
PART #	DESCRIPTION	QTY
GWE-A1	ALUMINUM CONSTRUCTION (.080,.125")	1
6548	186 MPH STRUCTURE REINFORCEMENT	1
SPECIAL	IMPACT RATED PER BLACKWATER TESTING	1
6505	ACCESS DOOR	6
6501	STAINLESS STEEL DOOR HARDWARE	6
6610	EXTERNAL VERTICAL INTAKE HOOD	1
6616	EXTERNAL VERTICAL DISCHARGE HOOD	1
SPECIAL	2" FIBER INSULATION BOARD	1
6520	LINE INTERIOR W/ ALUMINUM PERF	1
6805	RAIN COLLAR	1
6845	CUSTOMER SUPPLIED EXHAUST FLEX	2
6840	GPC SUPPLIED EXHAUST SYSTEM	1
6855	INTERNALLY MOUNTED SILENCER	1
	SIL: GPC-E-C-12-16-0754-BW	1
6870	VERTICAL SILENCER DISCHARGE	1
	ELBOW: EL-16F-C3000-STD	1
	RAIN CAP: PARKER FAB-55-03-16	1
6800	EXHAUST EXTENSION	2
6518	EXTEND FUMES/DRAINS IF VALVE PRESENT	1
6904	MOUNT & WIRE BATTERY CHARGER	1
6902	MOUNT & WIRE BLOCK HEATER	1
6910	INCANDESCENT LIGHT PACKAGE	1
6911	INCANDESCENT FIXTURE (100 WATT)	3
6913	LIGHT SWITCH (1-POLE)	1
6916	GFCI OUTLET (20 AMP)	1
6918	GFCI PROTECTED OUTLET (20 AMP)	1
6914	100A DIST PANEL (1ϕ, 120/240V)	1
6555	MOUNT & WIRE LOAD BANK	1
6556	MOUNT & WIRE LOAD BANK CONTROLS	1
91467	PAINT COLOR EGGSHELL WHITE	

DPBR #ID MFT-10468

GENERAL SPECIFICATIONS:
- CERTIFICATIONS AND STANDARDS:
  EMISSIONS: COMPLYING WITH EPA TIER 3.

  MANUFACTURED IN ISO 9001 AND ISO 14001 CERTIFIED FACILITY.

  UL 2200 COMPLIANT.

  ISO 8528-5 FOR TRANSIENT RESPONSE.

  POWER RATING: ACCEPTS DESIGN LOAD IN ONE STEP PER NEC 110.
  POWER FACTOR > 0.8.

  2 YEAR STANDARD WARRANTY.

  ELECTRIC STARTING MOTOR - 24V.
  CHARGING ALTERNATOR - 24V.
  SUSTAINED SHORT CIRCUIT CURRENT UP TO 300% IN 10 SEC.

  DIGITAL, SOLID STATE, VOLT-PER-HERTZ REGULATOR.

  +/- 0.25 % VOLTAGE REGULATION.

  COMMUNICATION TO REMOTE ANNUNCIATOR.
  ENGINE JACKET WATER HEATER.

  FUEL CONSUMPTION AT 100 % = 4.2 GL/HR

  FUEL CONSUMPTION AT 75 % = 3.3 GL/HR

EMERGENCY POWER SYSTEM.

POWER SUPPLY - GENERAL REQUIREMENTS

STANDBY GENERATOR SHALL BE SUCH THAT, IN THE EVENT OF FAILURE OF THE NORMAL POWER, THE EMERGENCY POWER SHALL BE AVAILABLE WITHIN THE TIME REQUIRED FOR THE APPLICATION BUT NOT TO EXCEED 30 SECONDS.
EXISTING EMERGENCY LIGHTS ARE CURRENTLY POWERED WITH BATTERY BACKUP AND READY TO STAR 10 SECONDS AFTER THE POWER FAILURE.

EMERGENCY GENERATOR PRIME MOVERS SHALL BE AN INTERNAL COMBUSTION ENGINE FUELED BY DIESEL #2 TYPE. A SUB-BASE FUEL TANK SHALL BE PROVIDED WITH ENOUGH CAPACITY FOR 12 HOURS OF CONTINUOUS OPERATION AT A LOAD OF 100% POWER RATING. AUXILIARY FUEL TANK WITH CAPACITY FOR 96 HOURS IS EXISTING AT THE FACILITY.

CLASSIFICATION OF THE EMERGENCY POWER SUPPLY SYSTEM.

THIS STANDBY GENERATOR AND THE ATS SHALL BE PART OF THE EPSS AND SHALL BE CLASSIFIED AS LEVEL 2, TYPE 30, AND CLASS 12. ELECTRICAL CONTRACTOR SHALL VERIFY THAT THE EPSS IS CAPABLE TO ACTUATE IN LESS THAN 30 SECONDS FROM THE INSTANT THE NORMAL POWER FAILS. ELECTRICAL CONTRACTOR SHALL MADE THE REQUIRED ADJUSTING TO GET THAT TIME.

THE STANDBY GENERATOR SHALL BE HEATED AS NECESSARY TO MAINTAIN THE WATER JACKET AND BATTERY TEMPERATURE DETERMINED BY THE MANUFACTURER FOR COLD START AND LOAD ACCEPTANCE.

THE EMERGENCY GENERATOR SHALL BE PROVIDED WITH A CONTROL PANEL CONTAINING THE FOLLOWING:
A.- AUTOMATIC REMOTE START CAPABILITY.
B.- "RUN-OFF-AUTOMATIC" SWITCH.
C.- SHUTDOWNS, ALARMS, AND CONTROLS AS REQUIRED BY NFPA 110

THE CONTROL PANEL SHALL BE CAPABLE TO OFFER THE FOLLOWING INFORMATION:
A.- HIGH ENGINE TEMPERATORE PRE-ALARM
B.- HIGH ENGINE TEMPERATURE (AND SHUTDOWN).
C.- LOW LUBE OIL PRESSURE PRE-ALARM
D.- LOW LUBE PRESSURE ALARM (AND SHUTDOWN).
E.- OVERSPEED (AND SHUTDOWN).
F.- LOW FUEL MAIN TANK.
G.- CONTROL SWITCH NOT IN AUTOMATIC POSITION.
H.- LOW VOLTAGE IN BATTERY.
I.- BATTERY CHARGER AC FAILURE.
J.- AIR SHUTDOWN DAMPER WHEN USED (AND SHUTDOWN).
K.- REMOTE EMERGENCY STOP.

AN EMERGENCY MANUAL STOP STATION SHALL BE FACTORY BUILT-IN ON THE GENERATOR HOUSING. ADDITIONAL A REMOTE EMERGENCY MANUAL STOP STATION SHALL BE PROVIDED INSIDE THE OFFICE AREA IN MARINE PATROL MAIN OFFICE. THE REMOTE MANUAL STOP STATION SHALL BE LABELED.

REQUIRED WIRING BETWEEN TRANSFER SWITCH AND GENERATOR CONTROL PANEL SHALL BE RUN BY THE ELECTRICAL CONTRACTOR. PROVIDE NECESSARY CONDUITS AND WIRES FOR CONTROL FUNCTIONS. COORDINATE WITH GENERATOR / TRANSFER SWITCH MANUFACTURER'S REPRESENTATIVE FOR QUANTITY AND SIZES.

ASSY

REVISIONS				REVISIONS			
REV	DATE:	CHANGE MADE	BY	REV	DATE:	CHANGE MADE	BY
1	12/8	CHANGE LENGHT & WIDTH, ADD LOAD BANK	MTB				
2	12/16	UPDATED SILENCER, ELBOW, & RAINCAP MOVE DOORS	MTB				

GWE-A1-1250-2000 ASSEMBLY

CUSTOMER/ID: FLORIDA DDA
JOB REF: MIAMI AIRPORT
DRAWING REF:AAAQ14276
DWG #: 45-25377
DATE: 10/22/15
DRAWN BY: SK

GLOBAL POWER COMPONENTS

ENGINEERING FOR ARCHITECTURE
5757 Blue Lagoon Dr.
Suite 400
Miami, FL 33126
Phone: 305.266.6553
Fax: 305.266.6695
www.tlc-engineers.com
EB #0000015

PROPERTY MANAGEMENT FACILITY
GENERATOR
1833 BAY ROAD
MIAMI BEACH, FL 33139

Revisions:

No.	Date	Description

Seal
Manuel Mollinedo, P.E.
Florida License #63096

Project No.: 618043
Issue Date: 04-11-2018
Drawn By: TLC
Approved By: TLC
Scale: 1/8" = 1'-0"

Drawing Title:
STANDBY GENERATOR DIMENSIONS

Drawing No.:
E-102

Sheet: - of -

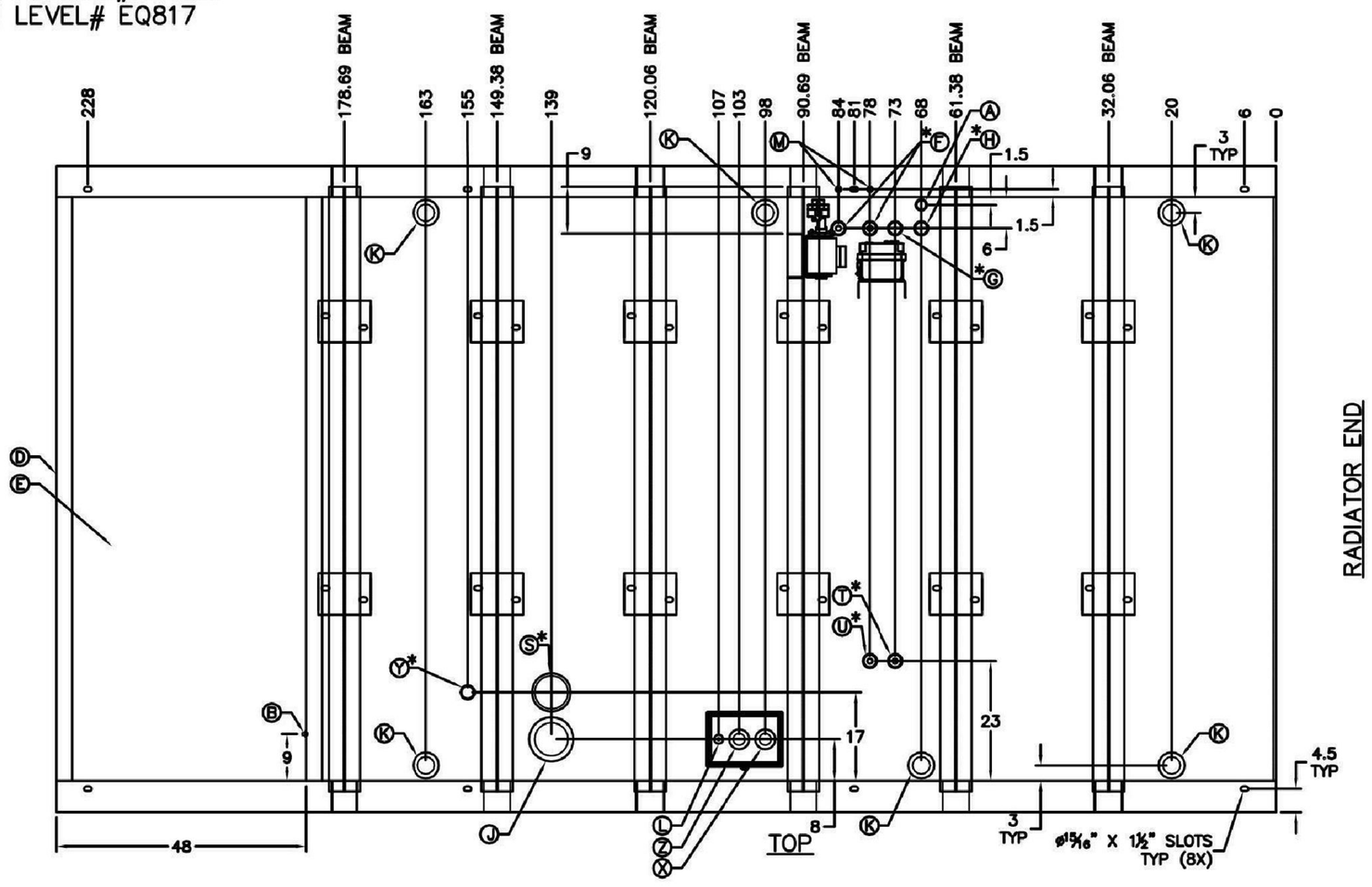
100% PROGRESS SET

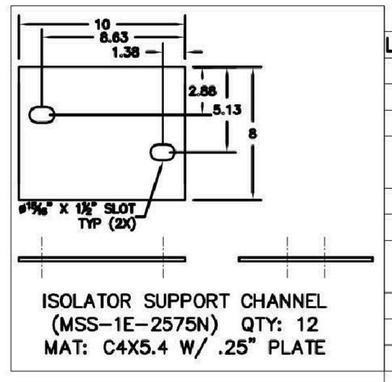
C:\Revit Local\618032_MEP_R17_Barbara.Rodriguez.rvt
3/16/2018 2:26:23 PM

JOB #	TANK GAL	GENSET MODEL	GENSET FOOTPRINT	TANK WEIGHT
	5000 GAL	DS1250	198.25" X 90"	16,525 LBS

FDEP:
TANK# EQ716
SPILL BOX# EQ567
BASIN ALARM# EQ817
HIGH LEVEL# EQ817

∗ = 2" PIPE TO TANK TOP UNLESS OTHERWISE NOTED





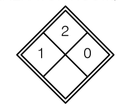
ISOLATOR SUPPORT CHANNEL
(MSS-1E-2575N) QTY: 12
MAT: C4X5.4 W/ .25" PLATE

Underwriters Laboratories, Inc.
UL 142 LISTED PRODUCT
File Numbers:
MH18481 MH46743 MH25279

GLOBAL POWER COMPONENTS		
1100 GLS UL142 SUB-BASE TANK - EQ# 567		
SIZE:	DATE: 5/30/2017	DWG NO: AAAD33787
SCALE:		CAD FILE: EMC PROJECTS/FLORIDA DET DIESEL

ANCHOR REQUIREMENT:
- (16) 7/8" DIAM HEX HEAD ASTM F1554 GR. 105 ANCHOR BOLTS.
- 6" EMBEDMENT
- 4000 PSI CRACKED CONCRETE.

PROVIDE SIGN AS PER NFPA 704 FOR FUEL SUPPLY TANK, FUELING PORT, AND OUTSIDE THE GENERATOR ROOM, INDICATING THE FOLLOWING:
- HEALTH HAZARD = 1
- FLAMMABLE HAZARD = 2
- INSTABILITY HAZARD = 0
- SPECIAL HAZARD = N/A

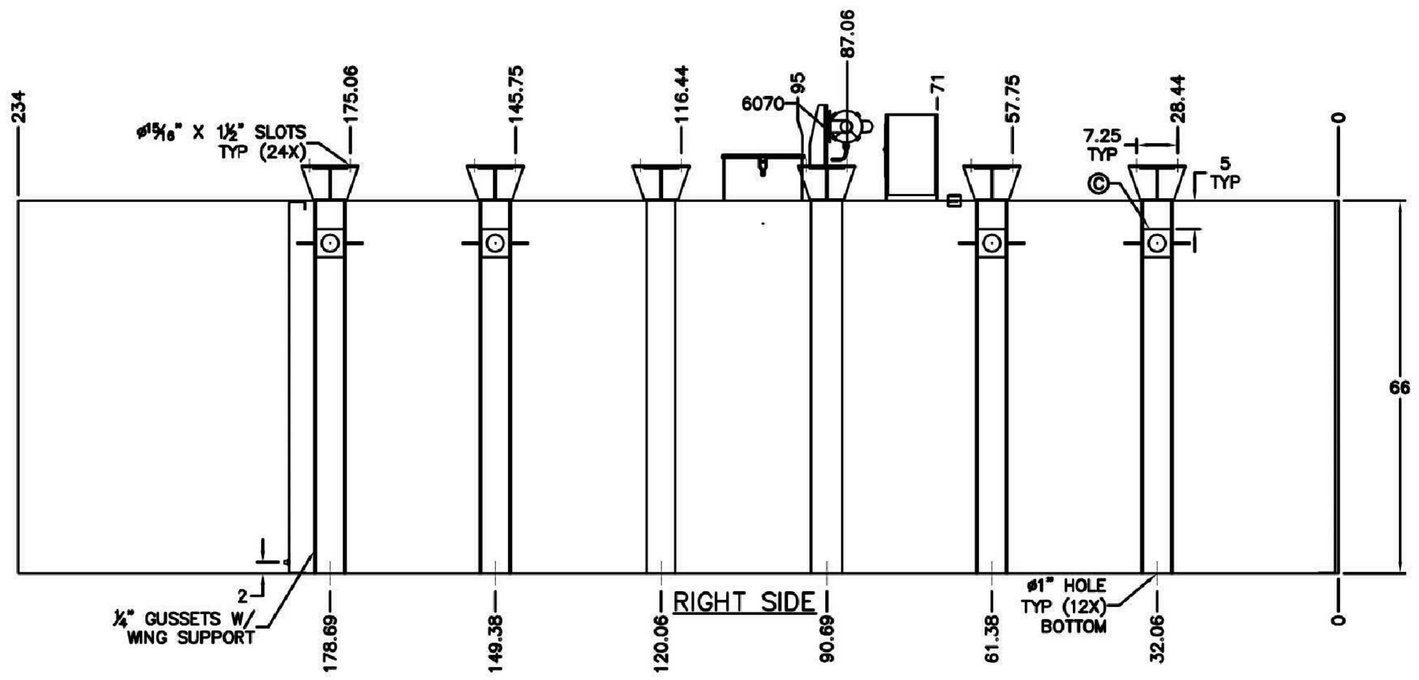


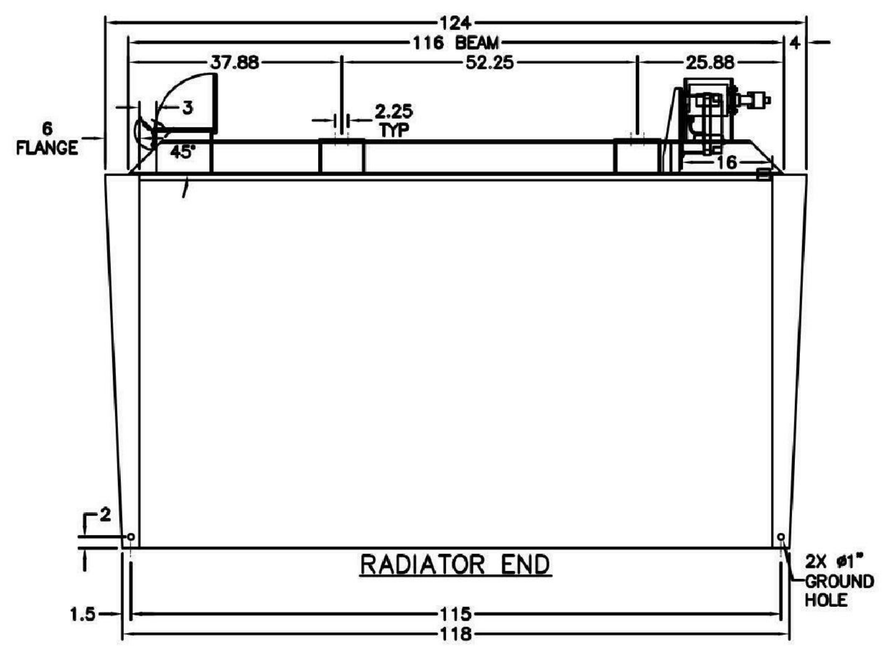
SUB-BASE FUEL TANK

BILL OF MATERIAL

LETTER	PART #	DESCRIPTION	QTY
S	3166	F CPLG, 6", E-VENT	1
T	3655	F CPLG, 2", RETURN, W/ 3/4" DIP TUBE	1
U	3655	F CPLG, 2", SUPPLY, W/ 3/4" DIP TUBE	1
X	1003	FLANGE, 2", FUEL LEVEL GAUGE	1
	1003-TS	ROCHESTER TWINSITE ADAPTER (#P5648SD2547)	1
Y	3152	F CPLG, 2", STANDARD VENT CAP	1
Z	3005	FLANGE, 2", LOCKING FILL CAP	1
A	4301	ø1-1/2" PIPE, TOE, L = 30-1/2"	1
	SPECIAL	F CPLG, 1-1/2", LD-FPI-BB15 FLOAT	1
B	3502	FLANGE, 1/2", BASIN DRAIN	1
C	8410	1/2" FLUSH MOUNT LIFTING PLATE	8
D	8003	REMOVABLE END PLATE - 3" BEND	1
E	4000	48" STANDARD ELECTRICAL STUB UP	1
F	3600	F CPLG, 2", FITTING W/ 1/2" DIP TUBE	2
G	1093	F CPLG, 2", 3-FLOAT ASSEMBLY (LOW, PUMP ON/OFF)	1
J	3166	FLANGE, 6", CONTAINMENT E-VENT	1
K	3196	FLANGE, 3", FITTING W/ PLUG	8
L	3190	FLANGE, 3/8", FITTING W/ PLUG	1
M	3191	F. CPLG, 1/2", FITTING W/ PLUG	2
	8220	7 GAL SPILL CONTAINMENT BOX	1
	8303	6" I-BEAM GENSET SUPPORT	6
	8420	ISOLATOR SUPPORT PLATE	12
	8426	GPC SUPPLIED ISOLATORS (MSS-1E-2575)	12
	1380	SERIES 400 CONTROLLER (SINGLE/REVERSE)	1
	2025	SINGLE SUPPLY PUMP SYSTEM	1
	6040	1/3 HP CARBONATE MOTOR, 1ϕ 115/230V, 50/60Hz, 48YZ FRAME	1
		BRONZE CLOSED COUPLED 4GPM ROTARY GEAR PUMP, 3/8" PORTS	1
	6400	REMOTE PUMP BASE W/ ENCL FOR SUPPLY PUMP	1
	2010	REVERSE PUMP SYSTEM	1
	6070	1/2 HP CAPACITOR START MOTOR 1ϕ, 115/230V, 60Hz, 48 FRAME	1
		BRONZE CLOSED COUPLED 7GPM ROTARY GEAR PUMP, 1/2" PORTS	1
	700-1025	1/2" FUEL STRAINER	1
	700-1065	1/2" SPRING CHECK VALVE	1
	700-1096	1/2" SOLENOID VALVE (120VAC, NC)	1
	UL2085	2HR FIRE RATED DOUBLE WALL TANK	1
9638		PAINT COLOR GLOSS BLACK	

GENSET OFFSET 6" TO LEFT SIDE





REVISIONS				REVISIONS			
REV	DATE:	CHANGE MADE	BY	REV	DATE:	CHANGE MADE	BY

SUB BASE TANK W/ RUPTURE BASIN & STUB UP

TANK

ENGINEERING
FOR ARCHITECTURE
5757 Blue Lagoon Dr.
Suite 400
Miami, FL 33126
Phone: 305.266.6553
Fax: 305.266.6695
www.tlc-engineers.com
EB #0000015

PROPERTY MANAGEMENT FACILITY
GENERATOR
1833 BAY ROAD
MIAMI BEACH, FL. 33139

Revisions:

No.	Date	Description

Seal
Manuel Mollinedo, P.E.
Florida License #63096

Project No.: 618043
Issue Date: 04-11-2018
Drawn By: TLC
Approved By: TLC
Scale: 1/8" = 1'-0"
Drawing Title:
SUB-BASE
DAILY
FUEL TANK
Drawing No.: E-103
Sheet: - of -

100% PROGRESS SET

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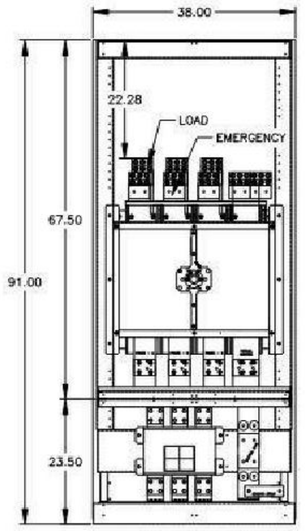
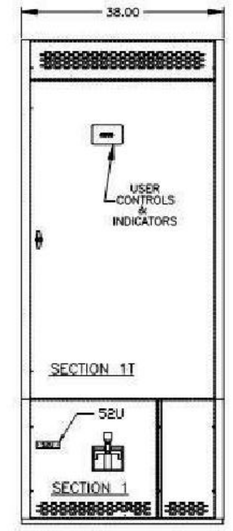
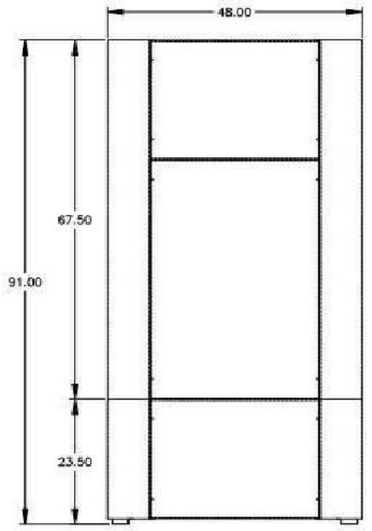


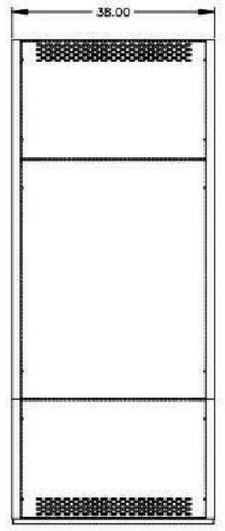
FRONT ELEVATION
INTERIOR VIEW



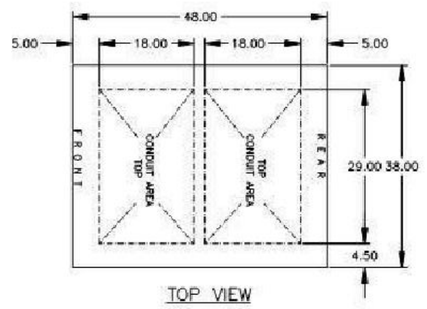
FRONT VIEW: 300 SERIES



SIDE VIEW



REAR VIEW



TOP VIEW

GENERAL NOTES

1. TYPE 1 ENCLOSURE. FREE STANDING. FLOOR MOUNTED. CODE GAUGE STEEL.
2. ALL DOORS HAVE LOCKABLE HANDLES WITH COMMON KEYING AND CAPTIVE SCREWS AS REQUIRED.
3. FINISH: ANSI 61 GRAY POLYESTER SEMI GLOSS ELECTROSTATIC POWDER.
4. RECOMMENDED CLEARANCES:
   FRONT: 38 INCHES
   REAR: 38 INCHES
5. ALL BUS IS SILVER-PLATED COPPER, BASED ON 1000A PER SQ. IN. DENSITY.
6. A FULL RATED NEUTRAL CONNECTION FOR EACH SOURCE AND THE LOAD IS OPTIONAL. WHEN PROVIDED IT IS IN ONE OF THE FOLLOWING FORMATS AS SPECIFIED BY THE CATALOG NO. NEUTRAL TYPE,
   A. SOLID (COPPER BUS) NEUTRAL (SHOWN) (PROVIDED STANDARD ON H3AUS)
   B. SWITCHED NEUTRAL POLE
   C. OVERLAPPING NEUTRAL POLE (NOT AVAILABLE ON 7ACUS/7ADUS UNITS)
7. DESIGNED FOR FRONT AND REAR ACCESS
8. FOR SPECIFIED TRANSFER SWITCH, REFER TO OPERATOR'S MANUAL PROVIDED WITH UNIT.
9. SECTION 1 & SECTION 1T SHIP AS 1 UNIT.

SPECIFICATIONS

1. SERVICE VOLTAGE:
   SYSTEM RATING: 1600 AMPS, 2000 AMPS, 3ϕ, 4W.
   GROUND BUS- 600 AMPS
   SHORT CIRCUIT RATING- 65,000 RMS SYM AMPERES @ 480V.
   THE EMERGENCY SOURCE INPUT MUST BE PROTECTED BY A REMOTE OVERCURRENT PROTECTION DEVICE AS LISTED ON THE MARKINGS ON THE TRANSFER SWITCH.
2. BATTERY VOLTAGE: N/A
3. NEUTRAL BUS: 2000 AMPS
4. APPLICABLE LABELS: U.L. 891- SUITABLE ONLY FOR USE AS SERVICE EQUIPMENT.

CABLING NOTES

1. ALL SIZES SUPPLIED STANDARD WITH MECHANICAL (SCREW TYPE) LUGS.
   A. LUG MATERIAL: ALUMINUM ALLOY 6061-T6 WITH ELECTRO TIN PLATED FINISH.
   B. SCREW MATERIAL: ALUMINUM ALLOY 6262-T9 WITH ELECTRO TIN PLATED FINISH.
   C. UL LISTED, CSA CERTIFIED.
   D. LUG SCREW TIGHTENING TORQUE PER UL 486B: 19 FT-LBS.
   E. SUITABLE WIRE BENDING SPACE IS PROVIDED.
2. OPTIONAL COPPER CRIMP LUGS MAY BE SUPPLIED.
   A. LUG MATERIAL: HIGH CONDUCTIVITY WROUGHT COPPER FINISH, ELECTRO TIN PLATED.
   B. UL LISTED, CSA CERTIFIED.
   C. LUG MOUNTING HARDWARE TIGHTENING TORQUE: (REFER TO WITHSTAND CURRENT RATING LABEL PROVIDED ON EACH TRANSFER SWITCH).
   D. SUITABLE WIRE BENDING SPACE IS PROVIDED.
3. CONSULT FACTORY FOR OTHER TERMINATION REQUIREMENTS.

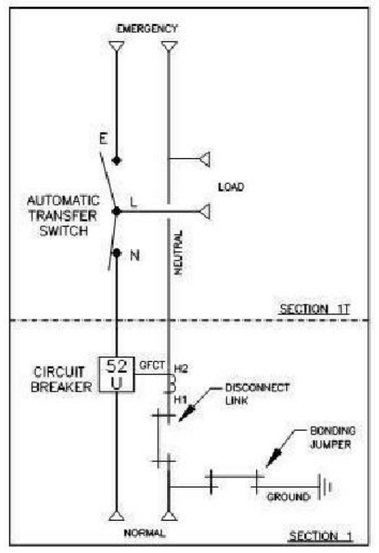
NOTES 1600-2000 AMPS

1. SUPPLIED WITH STANDARD MECHANICAL (SCREW TYPE) LUGS ON THE NORMAL, EMERGENCY & LOAD BUS STABS. ONE (1) LUG PER PHASE AND NEUTRAL EACH SUITABLE FOR CONNECTION OF SIX (6) 1/0 AWG-600MCM CU/AL CABLE (SEE NOTE "A" BELOW).
   A. SUITABLE WIRE BENDING SPACE IS PROVIDED FOR UP TO SIX (6) 600MCM CABLES PER TERMINAL PER NEC.
2. OPTIONAL COPPER CRIMP LUGS MAY BE SUPPLIED. UP TO SIX (6) TWO HOLE, LONG BARREL CU CRIMP LUGS RATED FOR UP TO 600MCM. (REFER TO CRIMP LUG INSTALLATION DATA PROVIDED WITH UNIT FOR FULL INSTALLATION DETAILS)
   A. SUITABLE WIRE BENDING SPACE IS PROVIDED FOR UP TO SIX (6) 600MCM CABLES PER TERMINAL PER NEC.
3. GROUND LUGS ARE PROVIDED STANDARD AS FOLLOWS;
   (18) 1/0 - 750MCM CU/AL CABLE

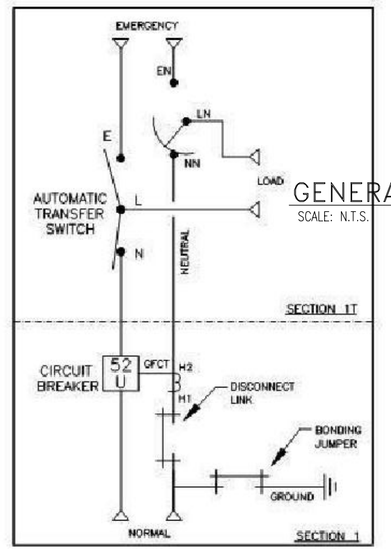
CIRCUIT BREAKER: ITEM 52U

SQUARE "D" 80% RATED, TYPE 'RJF', 2500AF/2000AT OR 2500AF/1600AT STATIONARY MOUNTED, MANUALLY OPERATED, WITH LONG DELAY, SHORT DELAY, INSTANTANEOUS AND GROUND FAULT TRIP SETTINGS.

ONE LINE DIAGRAMS

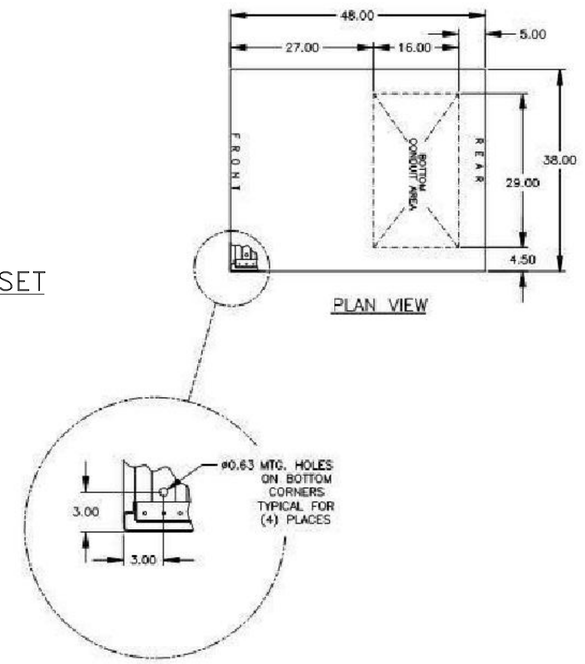


(WITH SOLID NEUTRAL)



(WITH SWITCHED/OVERLAPPING NEUTRAL)

GENERATOR SET
SCALE: N.T.S.



REV.	EDN NO.	BY	DATE	DESCRIPTION
B	221423	DP	1/15/09	ADDED "80% RATED"
A	218103	AE	04/23/08	SEE ECN
—	213163	RN	4-30-07	ISSUE

PROJECT NAME:

OUTLINE | MOUNTING

CAUS 1600A - 2000A, RJF SE BREAKER
TYPE 1 91 X 38 X 48

THIRD ANGLE PROJECTION

	BY	DATE
DRAWN BY	RN	4-30-07
CHECKED		
PROJECT APPROVAL		
ENG. APPROVAL		

MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE SP-----003. FOR PLASTIC PARTS SEE MP-0-055

ASSEM. REF. NO.

COMPUTER GENERATED DRAWING

SCALE NT SIZE DS

DWG. NO. 754577-051

DRAWING REV. B EDN NO. 221423 SHEET 1 OF 1

ASCO® ASCO Power Technologies, L.P. FLORHAM PARK, NEW JERSEY 07932 U.S.A.

NOTES 600 AMP AUTOMATIC TRANSFER SWITCH

1. SUPPLIED WITH STANDARD MECHANICAL (SCREW TYPE) LUGS ON THE LOAD & EMERGENCY BUS STABS. ONE (1) LUG PER PHASE AND NEUTRAL EACH SUITABLE FOR CONNECTION OF THREE SETS OF CABLES UP TO 600KCM CU/AL.
2. GROUND LUGS ARE PROVIDED STANDARD AS FOLLOWS: (3) #1/0 - 3/0 AWG CU/AL CABLE.

CIRCUIT BREAKER: ITEM 52U

1. 100% RATED MOLDED CASE CIRCUIT BREAKER, 800AF/800AT SOLID STATE ELECTRONIC TRIP.

ENGINEERING
FOR ARCHITECTURE
5757 Blue Lagoon Dr.
Suite 400
Miami, FL 33126
Phone: 305.266.6553
Fax: 305.266.6695
www.tlc-engineers.com
EB #0000015

MIAMI BEACH PUBLIC WORKS
GENERATOR
451 Dade Blvd.
Miami Beach, FL 33140

Revisions:

No.	Date	Description

Seal

Manuel Mollinedo, P.E.
Florida License #63096

60% PROGRESS SET

Project No.: 618002
Issue Date: 03-31-08
Drawn By: TLC
Approved By: TLC
Scale: 1/8" = 1'-0"

Drawing Title:
AUTOMATIC TRANSFER SWITCH DIAGRAM

Drawing No.: E-104

Sheet: - of -

TAW POWER SYSTEMS, INC.
1500 NW 15th Ave
Pompano Beach, FL 33069
Ph.: (954) 977-0202 x1759 (800) 876-0990
Fax: (954) 977-9249
John.Potts@tawinc.com
Kohler Generator Systems Distributors

KOHLER POWER SYSTEMS DISTRIBUTOR FOR ALABAMA, SOUTH GEORGIA, FLORIDA, LOUISIANA AND MISSISSIPPI

Date: August 8, 2018
Contact: John Potts

Offer No: P1808-0105
Contact Cell #: (954)-234-4226

Project: City of Miami Beach – Public Works

****

One New **KOHLER Model 600REOZVB**, EPA Certified **Diesel** Generator Set,
600KW, @ 0.8 PF, 60 Hz, 3 Phase, UL 2200, 277/480 Volt with the following:

CONTROLLER:
APM402
Controller meets NFPA 110

ENCLOSURE:
Aluminum Sound Enclosure
181 MPH Wind Load Rated
Load Center
Critical Silencer

COOLING:
Unit Mounted Radiator
Block Heater, 120 Volt

FUEL SYSTEM:
Flexible Fuel Lines
Sub-base Fuel Tank, 550 Gallon, UL142 Listed
FDEP Package
Fuel Transfer Pumps – Supply & Return
Fuel Water Separator

GENERATOR ACCESSORIES (Electrical):
Line Circuit Breakers, 3 Pole, 100 % Rated
Qty (1) 800 Amps, Electronic,

ENGINE ELECTRICAL ACCESSORIES:
Battery Rack and Cables
Starting Battery, Lead Acid
Battery Charger: 10 Amps

CONTROLLER ACCESSORIES LOOSE:
Remote Emergency Stop, Break Glass
Remote Annunciator Panel

AUTOMATIC TRANSFER SWITCH:
Qty (1) Kohler Model KEP-DMTA-0800-NK
208 Volt, 3 Ph., 3 Pole, 800A, NEMA 1,
Service Entrance Rated

ADDITIONAL ACCESSORIES:
Certified Factory Test @ 0.8 P.F.
3 Engine, Generator Parts, Maintenance Manuals
1 Electronic Manual
Vibration Isolators: Internal
5 Year Comprehensive Warranty

SUPPLIED BY OTHERS
New Fuel – First Fill of New Tank
Installation
Local and State Permitting by Others
All Infrared, 3rd Party and NETA Testing if Required

TOTAL NET LOT: $125,870.00

ESTIMATED LEAD TIME:
16 to 18 weeks after release of the order. This estimated lead time is subject to change daily due to availability

F.O.B. FACTORY, FREIGHT ALLOWED TO JOB SITE

SALES TAX NOT INCLUDED

Regards,

TAW Power Systems, Inc.
John Potts
Senior Sales Engineer

OFFER VALID FOR 30 DAYS FROM THIS OFFER DATE (LISTED ABOVE)

EXCEPTIONS/ CLARIFICATIONS/ NOTES:
Delivery, start up, and load testing are quoted as during normal business hours. If after hour, weekend, or holiday work hours are required, the Contractor will be responsible for the overtime differential unless otherwise noted.

OFFER BASED UPON:

- Drawing E-101

NOTE: TAW's STANDARD TERMS and CONDITIONS apply to all offers for purchase and any purchase orders accepted by TAW. You may find a copy under the terms and conditions section at TAWINC.com or please contact our office at 800-456-9449 and we will forward you a copy. TAW will transmit a written delivery schedule based on the manufacturer's confirmation, approximately fifteen (15) days after product release. Also included will be the related progress invoice values based on material shipments.

(OFFER ACCEPTANCE BELOW)

_____
COMPANY

_____
AUTHORIZED SIGNATURE

_____
TITLE

_____
PRINT NAME DATE

TERMS & CONDITIONS ACKNOWLEDGED:

_____
INITIAL