INLAND WETLANDS COMMISSION Telephone (203) 563-0180 Fax (203) 563-0284



TOWN HALL 238 Danbury Road Wilton, Connecticut 06897

APPLICATION FOR A MINOR REGULATED ACTIVITY

For Office Use Only:	
roi Office use only:	WET#
Filing Fee \$	Wilton Land Record Map#
Date of Submission	Volume # Page #
Date of Acceptance	Assessor's Map #Lot#
APPLICANT IN	FORMATION:
Applicant WILTON CONGREGATIONAL CHURCH	Agent (if applicable)
Address 70 RIDG-EFIELD ROAD	Address
WILTON, CT 06897	
Telephone 203-257-0525	Telephone
Email RGBRODERICK @SNET. NET	Email
PROPERTY IN	FORMATION:
Property Address 7º 21066FIELD ROAD	Site Acreage
Acres of altered Wetlands On-Site	Cu. Yds. of Material Excavated
Linear Feet of Watercourse	Cu. Yds. of Material to be Deposited
Linear Feet of Open Water	Acres of altered upland buffer
Sq. Ft. of proposed and/or altered impervious coverage	Sq. Ft. of disturbed land in regulated area
APPLICATION R	EQUIREMENTS:
Is The Site Within a Public Water Supply Watershed Boundary? NOX_YES*	Is The Site Within 500 Feet of a Town Boundary? NOX YES*

^{*} If the answer is yes, then the applicant is responsible for notifying the appropriate water authority and/or adjoining community's Wetlands Department. Instructions for notification are available at the office of the commission.

Page 2 Application for a Minor Regulated Activity

Project Description and Purpose: INSTALL A 80 KW DIESEL GENERATOR WITH A 203 GALLON
SUBBASE FUEL TANK, A SOUND EN CLOSURE, FENCE AND BOLLARDS. TANK WILL BE DOUBLE
WALLED. THE GENERATOR IS RATED A 75 dba NOISE LEVEL AT 23 FEET. THE G
GENERATOR WILL ALLOW THE CHURCH TO BE A HEATING, COOLING AND CHARGING
SHELTER FOR THE COMMUNITY DURING POWER OUTRES.

In addition, the applicant shall provide three (3) collated paper copies of the following information as well as an electronic submission via email to mike.conklin@wiltonct.org & elizabeth.larkin@wiltonct.org **

- () A. Written consent from the owner authorizing the agent to act on his/her behalf
- B. A Location Map at a scale of 1'' = 800'
- (') C. A Site Plan showing existing and proposed features
- D. Names and addresses of adjoining property owners

See Section 7 of the Wetlands and Watercourses Regulations of the Town of Wilton for a more detailed description of applications requirements.

The Applicant or his/her agent certifies that he is familiar with the information provided in this application and is aware of the penalties for obtaining a permit through deception, inaccurate or misleading information.

By signing this application, permission is hereby given to necessary and proper inspections of the subject property by the Commissioners and designated agents of the Commission or consultants to the Commission, at reasonable times, both before and after a final decision has been rendered.

Applicant's Signature:	GIFFORD BRODERICK	Date: 3/15/21
Agent's Signature (if ap	pplicable)	Date:

^{**}Application materials shall be collated and copies of documents more than two pages in length shall be double sided.

Wilton Congregation Church Application for an Emergency Generator 70 Ridgefield Road, Wilton, Ct 06897

List of Adjoining Neighbors

Jonathan & Isabel Foltz - 80 Ridgefield Road

Old Town Hall – 2 Belden Hill Road

Donald & Beth Rowley – 65 Ridgefield Road

David & Robin Clune – 87 Ridgefield Road

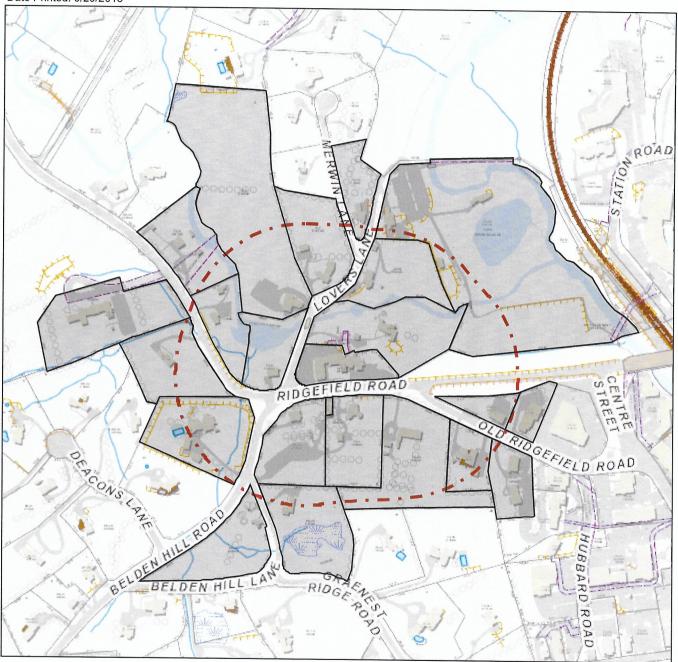
Donald & Eileen Allers – 10 Lovers Lane

Town of Wilton

Geographic Information System (GIS)



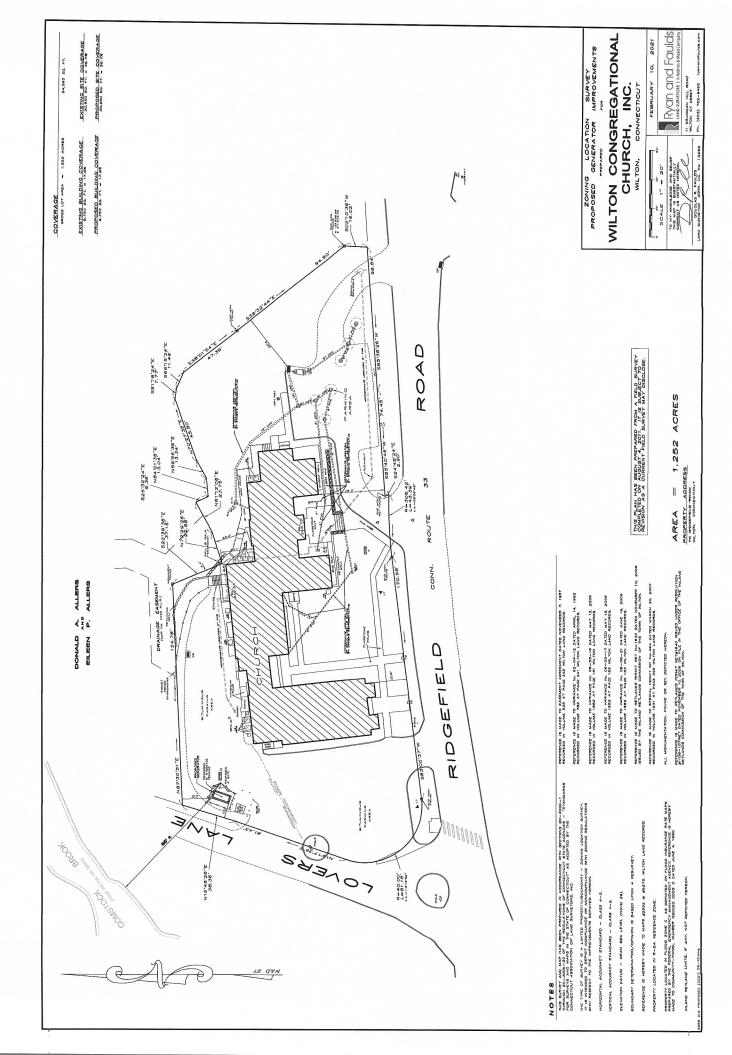
Date Printed: 9/20/2018

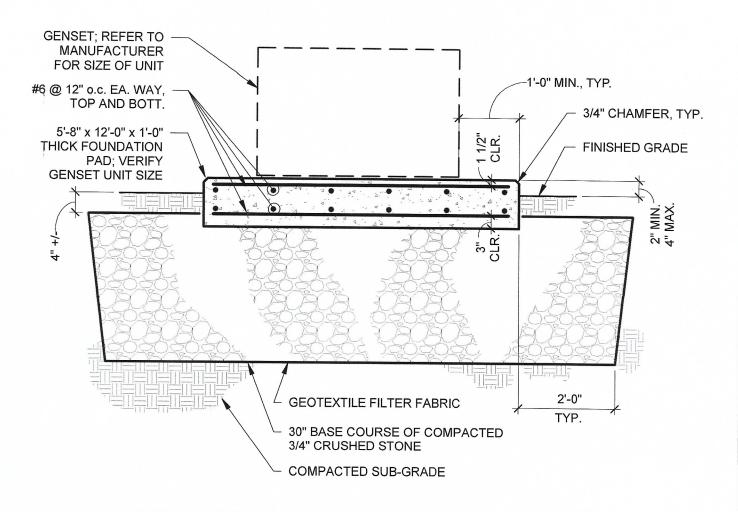


MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Wilton and its mapping contractors assume no legal responsibility for the information contained herein.





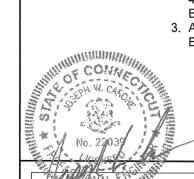


GENSET FOUNDATION PAD DETAIL

NO SCALE

NOTE:

- FOUNDATION PAD DESIGN BASED ON CAT D80 GC GENSET WITH INTEGRAL FUEL TANK; OPERATING WEIGHT OF 4,800 POUNDS.
- 2. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAS TO BE 4,500 PSI; WATER-CEMENT RATIO (W:C) TO BE 0.42; AIR CONTENT TO BE 6% +/- 1.5%; MAXIMUM SLUMP TO BE 4".
- 3. ANCHOR RODS SHALL BE SIZED AND LOCATED ACCORDING TO THE EQUIPMENT MANUFACTURER'S REQUIREMENTS.



FULL SCALE DWG. SIZE

ANSI A - 8 1/2"X11"

DiBlasi Associates, PC

tructural Engineers 500 Purdy Hill Road Monroe Connecticut 06468 (203) 452-1331 FAX (203) 268-8103 mail@DiBlasi-Engrs.com www.DiBlasi-Engrs.com PROJECT:

WILTON CONGREGATIONAL CHURCH

70 RIDGEFIELD ROAD WILTON, CT 06897

SKETCH TITLE:

GENSET FOUNDATION PAD

PROJECT NO: 2020-108

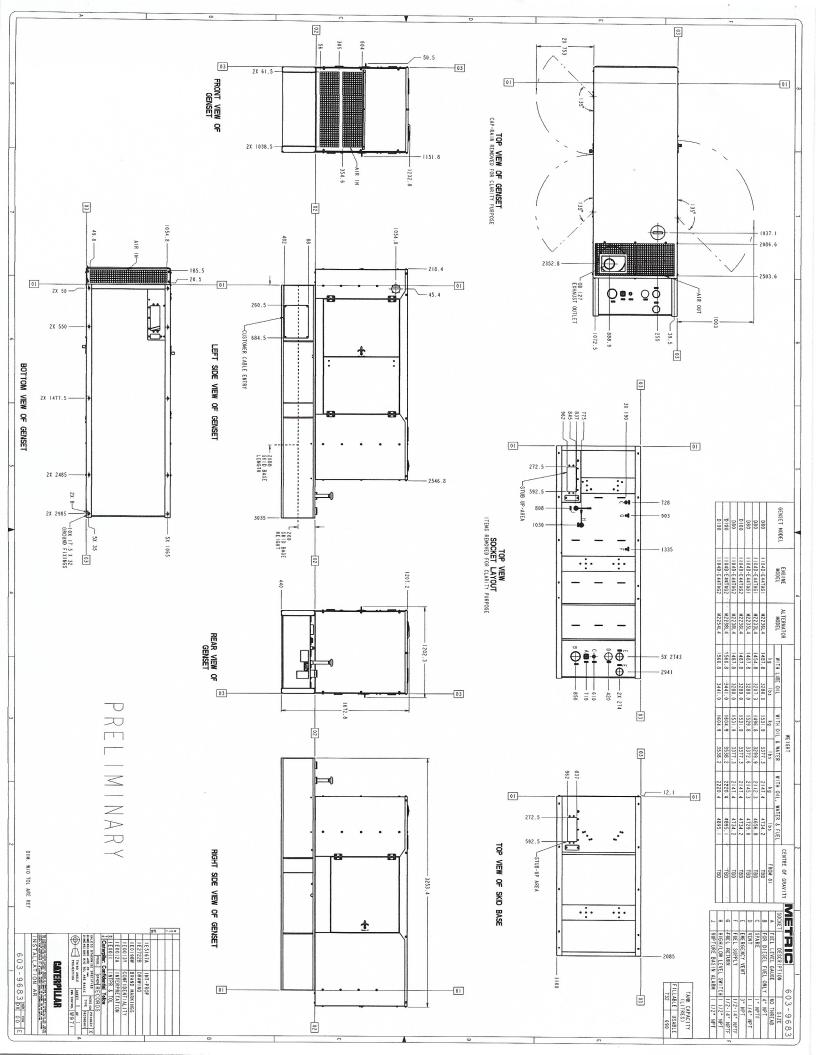
DATE: 01/20/2021

DRAWN BY: JWC

SCALE: AS NOTED

2020-108 SKETCH NO.

SKS.01



Cat® D80 GC DIESEL GENERATOR SETS



Standby: 60Hz



Engine Model	Cat® C4.4 In-line 4, 4-cycle diesel
Bore x Stroke	105mm x 127mm (4.1in x 5.0 in)
Displacement	4.4 L (269 in ³)
Compression Ratio	16.7:1
Aspiration	Turbocharged
Fuel Injection System	Common Rail

Image shown might not reflect actual configuration

Model	Standby	Emission Strategy
D80 GC	80 ekW	EPA TIER III

PACKAGE PERFORMANCE

Performance	Sta	ndby			
	3-Phase	1-Phase			
Frequency	60 Hz	60 Hz			
Genset Power Rating	100 kVA	80 kVA			
Genset power rating with fan, 3p@ 0.8 & 1p@1.0 power factor	80 ekW	80 ekW			
Performance Number	P4510A	P4510A			
Fuel Consumption					
100% load with fan, L/hr (gal/hr)	22.9 (6.1)	23.3 (6.2)			
75% load with fan, L/hr (gal/hr)	18.4 (4.9)	18.6 (4.9)			
50% load with fan, L/hr (gal/hr)	13.5 (3.6)	13.6 (3.6)			
Cooling System ¹					
Radiator air flow restriction (system), kPa (in. Water)	0.12	(0.48)			
Engine coolant capacity, L (gal)	7.0	(1.8)			
Radiator coolant capacity, L (gal)	10.0 (2.6)				
Total coolant capacity, L (gal)	17.0	0 (4.4)			
Inlet Air					
Combustion air inlet flow rate, m³/min (cfm)	7.8 (275)	7.8 (275)			
Max. Allowable Combustion Air Inlet Temp, °C (°F)	45	(113)			
Exhaust System					
Exhaust stack gas temperature, °C (°F)	630 (1166)	630 (1166)			
Exhaust gas flow rate, m³/min (cfm)	17.6 (620)	17.6 (621)			
Exhaust system backpressure (maximum allowable) kPa (in. water)	15.0 (60.2)	15.0 (60.2)			
Heat Rejection					
Heat rejection to exhaust (total) kW (Btu/min)	77.7 (4419)	77.7 (4419)			
Heat rejection to atmosphere from engine, kW (Btu/min)	13.5 (768)	13.5 (768)			

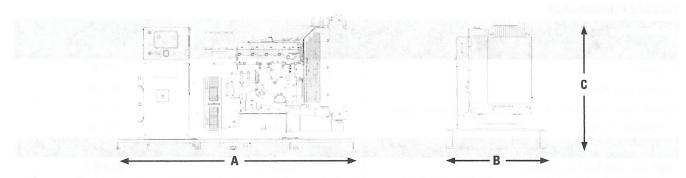
LEHE2662-01 1/2

Cat® D80 GC DIESEL GENERATOR SETS



Emissions (Nominal) ²		Stan	dby	
		3-Phase		1-Phase
NOx + HC, g/kW-hr		3.6		3.6
CO, g/kW-hr		0.9		0.9
PM, g/kW-hr		0.12		0.12
Alternator ³				
Voltages	480V	208V	600V	240V
Motor starting capability @ 30% Voltage Dip	-			
Current Amps	120	278	96	333
Frame Size	M2233L4	M2236L4	M2236L4	M2235L4
Excitation	SE	SE	SE	SE
Temperature Rise, °C	130	105	105	130

WEIGHTS & DIMENSIONS



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
2097 (82.6)	1100 (43.3)	1343 (52.9)	950 (2095)

APPLICABLE CODES AND STANDARDS:

AS1359, CSA C22.2 No100-04, UL142, UL489, UL869, UL2200, NFPA37, NFPA70, NFPA99, NFPA110, IBC, IEC60034-1, ISO3046, ISO8528, NEMA MG1-22, NEMA MG1-33, 2006/95/EC, 2006/42/EC, 2004/108/EC.

Note: Codes may not be available in all model configurations. Please consult your local Cat Dealer representative for availability.

STANDBY: Output available with varying load for the duration of the interruption of the normal source power. Average power output is 70% of the standby power rating. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

PRIME: Output available with varying load for an unlimited time. Average power output is 70% of the prime power rating. Typical peak demand is 100% of prime rated ekW with 10% overload capability for emergency use for a maximum of 1 hour in 12. Overload operation cannot exceed 25 hours per year

RATINGS: Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO3046 standard conditions.

DEFINITIONS AND CONDITIONS

- ¹ For ambient and altitude capabilities consult your Cat dealer. Air flow restriction (system) is added to existing restriction from factory.
- ² Emissions data measurement procedures are consistent with those described in EPA CFR 40 Part 89, Subpart D & E and ISO8178-1 for measuring HC, CO, PM, NOx. Data shown is based on steady state operating conditions of 77° F, 28.42 in HG and number 2 diesel fuel with 35° API and LHV of 18,390 BTU/lb. The nominal emissions data shown is subject to instrumentation, measurement, facility and engine to engine variations. Emissions data is based on 100% load and thus cannot be used to compare to EPA regulations which use values based on a weighted cycle.
- ³ UL 2200 Listed packages may have oversized generators with a different temperature rise and motor starting characteristics. Generator temperature rise is based on a 40° C ambient per NEMA MG1-32.

LET'S DO THE WORK."

Cat® GC Integral Fuel Tanks





Integral Fuel Tanks D40 GC - D200 GC

Image show might not reflect actual product

Features

- UL Listed for United States (UL 142) and Canada (CAN/ULC S601)
- · Facilitates compliance with NFPA 30 code, NFPA 37 and 110 standards and CSA C282 code
- · Dual wall
- · Low fuel level warning standard, customer configurable warning or shutdown
- · Primary tank leak detection switch in containment basin
- · Tank design provides capacity for thermal expansion of fuel
- · Fuel supply dip tube is positioned so as not to pick up fuel sediment
- Fuel return and supply dip tube is separated by an internal baffle to prevent immediate re-supply of heated return fuel
- Pressure washed with an iron phosphate solution
- · Interior tank surfaces coated with a solvent-based thin-film rust preventative
- · Heavy gauge steel gussets with internal lifting rings
- Primary and secondary tanks are leak tested at 20.7 kPa (3 psi) minimum
- · Compatible with open packages and enclosures
- · Gloss black polyester alkyd enamel exterior paint
- Welded steel containment basin (minimum of 110% of primary tank capacity)
- · Direct reading fuel gauge with variable electrical

Integral

- · Integral diesel fuel tank is incorporated into the generator set base frame
- Robust base design includes linear vibration isolators between tank base and engine generator.

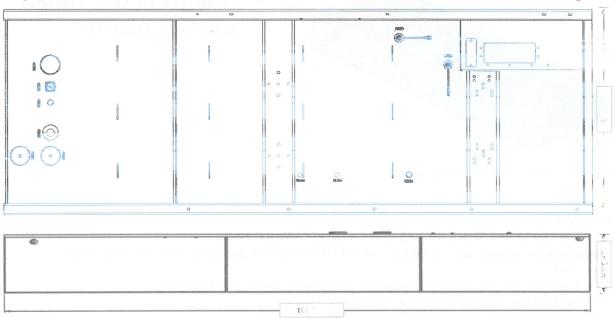
Options

- Audio/visual fuel level alarm panel
- 5 gal (18.9L) spill containment
- · Fuel tank fill pipe and lockable cap
- · Overfill prevention Valve

Cat® GC Integral Fuel Tanks



Integral Fuel Tank Base Useable Capacities with Fuel Tank Dimensions & Weights



The heights listed above do not include lumber used during manufacturing and shipping

A. Open Set & Sound Attenuated Enclosure

Standby	Feature	Total Capacity		Useable Capacity	
eKW	Code	Litre	Gallon	Litre	Gallor
40-60	FTDW044	523	138.2	466	123.1
80-100	FTDW043	769	203.1	690	182.3
125-200	FTDW045	1511	399.2	1355	357.9

Standby		Tank Only							Overall Package Height with Tank				
		Dry Weight		Height 'H'		Length 'L'		Width		Open		Enclosure	
eKW Code	kg	lb	mm	in	mm	in	mm	in	mm	in	, mm	(Siln)	
40-60	FTDW044	387.5	853.2	365	14.4	2708	106.6	1100	43.3	1384	54.5	1496	58.9
80-100	FTDW043	462.5	1019.6	440	17.3	3035	119.5	1100	43.3	1583	62.3	1673	65.9
125-200	FTDW045	736.1	1622.8	555	21.9	3670	144.5	1300	51.2	1847	72.7	1925	75.8

Cat® GC Integral Fuel Tanks



Time (Hours)

		Standby Ratings (kVA)								
	Feature	ekW	100%		75%		50%			
Tank Design	Code		Hrs	L/hr	Hrs	L/hr	Hrs	L/hr		
Integral Tank		40	33.5	13.9	43.1	10.8	57.5	8.1		
	FTDW044	50	27.7	16.8	36.4	12.8	50.1	9.3		
		60	24.0	19.4	27.7	16.8	35.6	13.1		
	FTDW043	80	29.1	23.7	36.3	19.0	49.6	13.9		
		100	24.0	28.8	29.7	23.2	40.1	17.2		
	FTDW045	125	35.8	37.8	44.7	30.3	61.9	21.9		
		150	31.5	43.0	38.8	34.9	54.2	25.0		
		175	26.5	51.2	32.3	41.9	47.4	28.6		
		200	24.0	56.4	29.6	45.8	41.6	32,6		

Tanks include RH stub-up area directly below the circuit breaker or power terminal strips.

Fuel tanks and applicable options facilitate compliance with the following United States NFPA Code and Standards:

NFPA 30: Flammable and Combustible Liquids Code

NFPA 37: Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines

NFPA 110: Standard for Emergency and Standby Power Systems

Fuel tanks and applicable options facilitate compliance with the following Canadian Standard and Code:

CSA C282 - Emergency Electrical Power Supply for Buildings

CSA B139-09 - Installation Code for Oil-Burning Equipment

www.cat.com/electricpower

©2020 Caterpillar

All rights reserved.

Materials and specifications are subject to change without notice. The International System of Units (SI) is used in this publication.