GeoInsight
ENVIRONMENTAL STRATEGY & ENGINEERING

November 18, 2022 GeoInsight Project 15986

Puget Sound Clean Air Agency
ATTN: NOC Application Submittal
1904 3rd Ave, Suite 105
Seattle, WA 98101

RE: Solie Funeral Home & Crematory
3301 Colby Avenue
Everett, Washington 98201

To Whom it May Concern:

On behalf of Solie Funeral Home & Crematory (Solie), GeoInsight, Inc. (GeoInsight) is providing this Notice of Construction Application. The registration is for a Facultative Technologies (FT) FT III Cremator (human) unit to be located at the Solie facility at 3301 Colby Avenue in Everett, WA. The crematory unit is to replace an existing unit permitted at the facility. The crematory will be owned and operated by Solie with the system being located at the same address above.

In accordance with permitting instructions, we have included within the following:

- Notice Of Construction Application Form
- Environmental Checklist
- Equipment Form: Cremation Units
- Support Documents for the above forms including:
  - Detailed Project Description
  - FT Process Flow Diagram
  - FT Emissions Summary
  - Facility Locus Map
  - Facility Site Plan
  - Technical Brochure for FT III

A permit filing fee of $1,550 is included with this registration.

Please don't hesitate to contact us with any questions and/or concerns regarding the permit application. We can be reached via email at twkipp@verdantas.com or klallen@verdantas.com or by phone at 860.894.1022.

Sincerely,
GEOINSIGHT, INC.

Timothy W. Kipp, CSP
Senior Consultant/EHS

Kaitlyn L. Allen-Haigis
Compliance Specialist

NOTICE OF CONSTRUCTION APPLICATION FORM

AGENCY USE ONLY	NOC#: 12307	REV#: 18695	Date Fee Rd.: 12/5/22	Eng. Assigned:

PUGET SOUND
Clean Air Agency

1904 3rd Ave #105, Seattle, WA 98101
206-343-8800
pscleanair.gov

NOTICE OF CONSTRUCTION APPLICATION FOR ORDER OF APPROVAL

The following information must be submitted as part of this application packet before an Agency engineer is assigned to review your project.

SECTION 1. FACILITY INFORMATION

Business Name
Solie Funeral Home & Crematory

Equipment Installation Address	City	State	Zip
3301 Colby Avenue	Everett	WA	98201

Is the business registered with the Agency at this equipment installation address?

☒ Yes. Current Registration or AOP No. 18695 ☐ No, not registered ☐ Unknown

Business Owner Name
Solie Funeral Home & Crematory

Business Mailing Address	City	State	Zip
3301 Colby Avenue	Everett	WA	98201

Type of Business
Funeral home and crematory

Is the installation address located within the city limits?

☒ Yes ☐ No

NAICS Code	NAICS Description
812210, 812220	Funeral homes and funeral services, and crematories.

Contact Name (for this application)	Phone	Email
Bryan Lorentzen	208-304-6041	bryanl@soliefunerals.com

Description for Agency Website

Provide a 1-2 sentence simple description of this project. See examples www.pscleanair.gov/176

Application to install one Facultatieve Technologies Model FT III Human Crematory ("the crematory"), the unit will replace an existing crematory onsite.

SECTION 2: REQUIRED APPLICATION PACKET ATTACHMENTS

1) **Process flow diagram**
☒ YES, attached. ☐ NO, not attached. This application is incomplete

2) **Emission estimate.** Emission rate increases for all pollutants.
☒ YES, attached. ☐ NO, not attached. This application is incomplete.

3) **Environmental Checklist** (or a determination made by another Agency under the State Environmental Policy Act) www.pscleanair.gov/DocumentCenter/View/170
☒ YES, attached. ☐ NO, not attached. This application is incomplete.

NOTICE OF CONSTRUCTION APPLICATION FOR ORDER OF APPROVAL

SECTION 2: REQUIRED APPLICATION PACKET ATTACHMENTS (CONT)

4) Attach **equipment form**(s) applicable to your operation. Forms are available online at www.pscleanair.gov/179

☒ YES, attached. ☐ NO, not attached. This application is incomplete.

5) **Detailed Project Description**

The project description must include a detailed description of the project, a list of process and control equipment to be installed or modified, a description of how the proposed project will impact your existing operations (if applicable), and measures that will be taken to minimize air emissions.

Detailed description of the proposed project included in packet?

☒ YES, attached. ☐ NO, not attached. This application is incomplete.

6) **$1,550 filing fee** (nonrefundable)

☐ PAY BY CHECK – Attached and made payable to **Puget Sound Clean Air Agency**

☒ PAY BY CREDIT – Accounting technician will contact person identified below for payment information

Contact Name:	Contact Number:
Bryan Lorentzen	(208) 304-6041

SECTION 3: PROCESS AND CONTROL EQUIPMENT (attach additional pages if necessary)

Process Equipment		Does this equipment have air pollution control equipment?	Air Pollution Control Equipment	
# of Units	Equipment Type & Design Capacity		# of Units	Equipment Type
1	FT III Crematory, 200 lbs/hr	☒ Yes ☐ No	1	Secondary Chamber with Burner (residence time of 2 seconds)
		☐ Yes ☐ No		
		☐ Yes ☐ No		
		☐ Yes ☐ No		

SECTION 4: CERTIFICATION STATEMENT

I, the undersigned, certify that the information contained in this application and the accompanying forms, plans, specifications, and supplemental data described herein is, to the best of my knowledge, accurate and complete.

Signature: [signature] Date: 11-18-22

Printed Name: Bryan Lorentzen Title: Owner

SECTION 5: APPLICATION SUBMITTAL

☒ **EMAIL application and attachments to:** NOC@pscleanair.gov

-OR-

☐ **MAIL application, payment, and attachments to:**
Puget Sound Clean Air Agency
ATTN: NOC Application Submittal
1904 3rd Ave, Suite 105 - Seattle, WA 98101

ENVIRONMENTAL CHECKLIST

pscleanair.org
Puget Sound Clean Air Agency

Puget Sound Clean Air Agency
1904 Third Avenue, Suite 105 | Seattle, WA 98101-3317
Phone 206-343-8800 | 206-343-7522 Fax

ENVIRONMENTAL CHECKLIST

Because of the State Environmental Policy Act, the action for which you are filing a Notice of Construction and Application for Approval to this Agency requires the completion of an environmental checklist.

BUT: If you can answer "yes" to either of the following statements with respect to the action being proposed, the attached checklist need not be completed:

1. I have obtained a State, City, or County Permit and filled out an environmental checklist.

   ☐ **Yes** ☒ **No**

   If yes, complete the following:

   State, City or County Department: _____

   Date the checklist was completed: _____

   Attach a copy of the checklist

2. An environmental checklist or assessment has previously been filled out for another agency.

   ☐ **Yes** ☒ **No**

   If yes, complete the following:

   Agency: _____

   Date the checklist was completed: _____

   Attach a copy of the checklist

If your answers are NO to both of the above statements, you must complete the attached environmental checklist.

Prepared by:

Signature _____

Name Bryan Lorentzen

Position Owner

Agency/Organization Solie Funeral Home & Crematory

Date Submitted 11-18-22

ENVIRONMENTAL CHECKLIST

Date: 11/18/22

Proponent: Puget Sound Clean Air Agency

Project, Brief Title: Installation of Crematory unit

Purpose of Checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of Checklist for Nonproject Proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of Sections A, B, and C plus section D: Supplemental Sheet for Nonproject Actions.

Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Section B: Environmental Elements that do not contribute meaningfully to the analysis of the proposal.

ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. Name of proposed project, if applicable:			
2. Name of Applicant Solie Funeral Home & Crematory			
3. Applicant Address 3301 Colby Avenue	City Everett	State WA	Zip 98201
Applicant Phone 4252525159	Applicant Email bryanl@soliefunerals.com		
Contact Person Bryan Lorentzen	Title Owner		
Company/Firm Solie Funeral Home & Crematory			
4. Date Checklist Prepared 11/15/22	**5.** Agency Requesting Checklist Puget Sound Clean Air Agency		
6. Proposed timing or schedule (including phasing, if applicable). Crematory unit scheduled to be installed in December 2022.			
7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? ☐ Yes ☒ No. If yes, explain.			
8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. Emissions estimates of the proposal have been prepared in conjunction with a Notice of Construction Application for the proposed.			
9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? ☐ Yes ☒ No. If yes, explain.			
10. List any government approvals or permits that will be needed for your proposal, if known. Notice of Construction from Puget Sound Clean Air Agency.			

ENVIRONMENTAL CHECKLIST

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.

Solie Funeral Home & Crematory is proposing to install one Facultatieve Technologies Model FT III Human Crematory ("the crematory") at their Everett facility. The crematory will replace an existing crematory onsite. The new FT III is two chambered with each chamber powered by a Natural Gas fired burner. The crematory is designed to incinerate human remains and funeral containers at a rate of 200 pounds per hour. The new crematory stack will be vented through the original chimney onsite.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The proposed work is located at 3301 Colby Avenue, Everett, Washington 98201. See attached for topographic map and site plan.

B. ENVIRONMENTAL ELEMENTS

1. EARTH

a. General description of the site:

☒ flat ☐ rolling ☐ hilly ☐ steep slopes ☐ mountains

☐ other _____

b. What is the steepest slope on the site (approximate percent slope)?

0

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them, and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Alderwood-Urban land complex and Alderwood gravelly sandy loam
Proposal does not result in the removal of soil.

d. Are there surface indications or history of unstable soils in the immediate vicinity? ☐ Yes ☒ No. If yes, describe.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

Not applicable, no filling, excavation, or grading is proposed.

f. Could erosion occur as a result of clearing, construction, or use? ☐ Yes ☒ No. If yes, generally describe.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Not applicable, no addition of impervious surfaces is proposed.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Not applicable, the proposed does not impact the earth.

ENVIRONMENTAL CHECKLIST

2. AIR

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke, greenhouse gases) during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities, if known.

Construction of the proposed will not result in emissions to the air. Once the proposed is complete, operations have the potential to emit the following: Total Particulate Matter (PM-10 and PM-2.5), Sulfur dioxide, Nitrogen oxides, Carbon monoxide, Organic compounds, Volatile organic compounds (VOC), Lead, Hazardous Air Pollutants (HAPs), and Toxic Air Contaminants (TAC).

b. Are there any off-site sources of emissions or odor that may affect your proposal? ☐ Yes ☒ No.
If yes, generally describe.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Secondary Chamber of Crematory with Burner (residence time of 2 seconds).

3. WATER

a. Surface

1. Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands) ? ☐ Yes ☒ No. If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

2. Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? ☐ Yes ☒ No. If yes, please describe and attach available plans.

3. Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

Not applicable, fill or dredge materials are not proposed to be removed or placed in.

4. Will the proposal require surface water withdrawals or diversions? ☐ Yes ☒ No.
Give general description, purpose, and approximate quantities if known.

5. Does the proposal lie within a 100-year floodplain? ☐ Yes ☒ No. If yes, note location on the site plan.

6. Does the proposal involve any discharges of waste materials to surface waters? ☐ Yes ☒ No. If yes, describe the type of waste and anticipated volume of discharge.

b. Ground Water

1. Will groundwater be withdrawn from a well for drinking water or other purposes? ☐ Yes ☒ No. If yes, give a general description of the well, proposed uses and approximate quantities withdrawn from the well.

Will water be discharged to groundwater? ☐ Yes ☒ No. If yes, give general description, purpose, and approximate quantities, if known.

2. Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the systems, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Not applicable, the proposed will not produce waste materials.

c. Water Runoff (including storm water)

1. Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? ☐ Yes ☒ No. If yes, describe.

2. Could waste material enter ground or surface waters? ☐ Yes ☒ No. If yes, generally describe.

3. Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? ☐ Yes ☒ No. If yes, describe.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, impacts, if any:

Not applicable, the proposed does not impact water.

4. PLANTS				
a. Check the types of vegetation found on the site:				
Deciduous Trees:	☐ Alder	☐ Maple	☐ Aspen	☐ other (specify):
Evergreen Trees:	☐ Fir	☐ Cedar	☐ Pine	☐ other (specify):
☐ Shrubs				
☒ Grass				
☐ Pasture				
☐ Crop or Grain				
☐ Orchards, Vineyards, or other permanent crops				
☐ Other types of Vegetation (specify):				
Wet Soil Plants:	☐ Cattail	☐ Buttercup	☐ other (specify):	
	☐ Bulrush	☐ Skunk Cabbage		
Water Plants:	☐ Water Lily	☐ Eelgrass	☐ Milfoil	☐ other (specify):

b. What kind and amount of vegetation will be removed or altered?

None, no vegetation will be removed or altered.

c. List threatened or endangered species known to be on or near the site.

None, listed species are not known to be on or near the site.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Not applicable, no landscaping is proposed.

e. List all noxious weeds and invasive species known to be on or near the site.

None, no noxious weeds or invasive species are known to be on or near the site.

ENVIRONMENTAL CHECKLIST

5. ANIMALS

a. Indicate birds and other animals that have been observed on or near the site or are known to be on or near the site.

Birds:	☐ Hawk	☐ Heron	☐ other (specify):
	☐ Eagle	☐ Songbirds	
Mammals:	☐ Deer	☐ Bear	☐ other (specify):
	☐ Elk	☐ Beaver	
Fish:	☐ Bass	☐ Salmon	☐ Trout
	☐ Hearing	☐ Shellfish	☐ other (specify):

b. List any threatened or endangered species known to be on or near the site.

A search of IPaC resulted in North American Wolverine, Marbled Murrelet, yellow billed cuckoo, bull trout, and Monarch Butterfly listed in the greater area.

c. Is the site part of a migration route? ☐ Yes ☒ No. If yes, explain.

d. Proposed measures to preserve or enhance wildlife, if any:

None

e. List any invasive animal species known to be on or near the site.

None, invasive animal species are not known to be on or near the site.

6. ENERGY AND NATURAL RESOURCES

a. What kinds of energy (electric, natural gas, oil, woodstove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

After installation, during regular operation of the crematory, natural gas fire burners will be used to power the two chambers in the crematory.

b. Would your project affect the potential use of solar energy by adjacent properties? ☐ Yes ☒ No. If yes, generally describe.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

None

7. ENVIRONMENTAL HEALTH

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? ☒ Yes ☐ No.
If yes, describe:

The proposal is the installation of fuel-burning equipment, which carries with it a risk of fire.

2. Describe any known or possible contamination at the site from present or past uses.

None, there are no known or possible contaminations at the site.

3. Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

None, no existing hazardous chemicals/conditions.

4. Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

None, no toxic or hazardous chemicals stored, used, or produced.

5. Describe special emergency services that might be required.

None

6. Proposed measures to reduce or control environmental health hazards, if any:

None

b. Noise

1. What types of noise exist in the area that may affect your project (for example, traffic, equipment, operation, other)?

None

2. What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example, traffic, construction, operation, other)? Indicate what hours noise would come from the site.

None

3. Proposed measures to reduce or control noise impacts, if any:

None

8. LAND AND SHORELINE USE

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? ☐ Yes ☒ No. If yes, describe.

Currently there is one building at this site that is a funeral home and crematorium.

b. Has the project site been used as working farmlands or working forest lands? ☐ Yes ☒ No. If yes, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

1. Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? ☐ Yes ☒ No. If yes, how?

c. Describe any structures on the site.

There is one building on the site that is a funeral home and crematorium.

d. Will any structures be demolished? ☐ Yes ☒ No. If yes, what?

e. What is the current zoning classification of the site?

Urban Residential 4 (UR4)

f. What is the current comprehensive plan designation of the site?

Metro

g. If applicable, what is the current shoreline master program designation of the site?

Not applicable, site is not on a shoreline.

h. Has any part of the site been classified as a critical area by the city or community? ☐ Yes ☒ No. If yes, specify.

i. Approximately how many people would reside or work in the completed project?

11

j. Approximately how many people would the completed project displace? None
k. Proposed measures to avoid or reduce displacement impacts, if any: Not applicable, no displacement proposed.
l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: Not applicable, proposed does not impact existing or projected land uses and plans.
m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any: None, not applicable.

9. HOUSING
a. Approximately how many units would be provided, if any? Indicate whether high- middle- or low-income housing. None
b. Approximately how many units, if any, would be eliminated? Indicate whether high- middle- or low-income housing. None
c. Proposed measures to reduce or control housing impacts, if any: None, proposed does not impact housing.
10. AESTHETICS
a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? Not applicable, no new structures are proposed.
b. What views in the immediate vicinity would be altered or obstructed? None, no views will be altered or obstructed.
c. Proposed measures to reduce or control aesthetic impacts, if any: Not applicable, the proposed does not impact aesthetics.

11. LIGHT AND GLARE

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

None, proposed will not produce light or glare.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

Not applicable, proposed will not produce light or glare.

c. What existing off-site sources of light or glare may affect your proposal?

None

d. Proposed measures to reduce or control light and glare impacts, if any:

Not applicable, proposed will not produce light or glare.

12. RECREATION

a. What designated and informal recreational opportunities are in the immediate vicinity?

None

b. Would the proposed project displace any existing recreational uses? ☐ Yes ☒ No. If yes, describe.

c. Proposed measures to reduce or control impacts on recreation, including recreational opportunities to be provided by the project or applicant, if any:

Not applicable, the proposed does not impact recreation.

13. HISTORIC AND CULTURAL PRESERVATION

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site?
☐ Yes ☒ No. If yes, specifically describe.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

None

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

Not applicable, no work is being conducted outside or in the surrounding areas.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

Not applicable, the proposed does not impact resources.

14. TRANSPORTATION

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on-site plans, if any.

Streets serving the site: Colby Avenue and 33rd Street. The site is an existing facility which already has access to the street system, no new access is proposed.

b. Is site or affected geographic area currently served by public transit? ☐ Yes ☒ No. If yes, generally describe. If not, what is the approximate distance to the nearest transit stop?

The nearest transit stop is the Colby Ave & 34th St - NB bus stop (Stop ID: 1495), 318 feet from the site.

c. How many parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

The completed project will not create or eliminate parking spaces.

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? ☐ Yes ☒ No. If yes, generally describe (indicate whether public or private).

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? ☐ Yes ☒ No. If yes, generally describe.

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

One vehicular trip will be made to deliver and install the new crematory unit to the facility. After installation of the unit, there will be an increase in number of trips to deliver funerary containers to the crematorium.

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? ☐ Yes ☒ No. If yes, generally describe.

h. Proposed measures to reduce or control transportation impacts, if any:

Not applicable, the proposed does not impact transportation.

15. PUBLIC SERVICES

a. Would the project result in an increased need for public services (for example, fire protection, police protection, public transit, health care, schools, other)? ☐ Yes ☒ No. If yes, generally describe.

b. Proposed measures to reduce or control direct impacts on public services, if any:

Not applicable, the proposed does not have an impact on public services.

16. UTILITIES

a. Indicate utilities currently available at the site:

☒ Electricity	☒ Natural gas	☒ Water	☒ Refuse Service
☒ Telephone	☒ Sanitary Sewer	☐ Septic System	☐ Other (specify):

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity that might be needed.

None, no new utilities are proposed for the project.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.	
Signature	
Name	Bryan Lorentzen
Position	Owner
Agency/Organization	Solie Funeral Home & Crematory
Date Submitted	11-18-22

D. SUPPLEMENTAL SHEET FOR NON-PROJECT ACTIONS

(Do not use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment in section B of this checklist.

When answering these questions, be aware of how the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substance; or production of noise?
Proposed measures to avoid or reduce such increases are:
2. How would the proposal be likely to affect plants, animals, fish, or marine life?
Proposed measures to protect or conserve plants, animals, fish, or marine life are:
3. How would the proposal be likely to deplete energy or natural resources?
Proposed measures to protect or conserve energy and natural resources are:
4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?
Proposed measures to protect such resources or to avoid or reduce impacts are:
5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

Proposed measures to avoid or reduce shoreline and land use impacts are:
6. How would the proposal be likely to increase demands on transportation or public services and utilities?
Proposed measures to reduce or respond to such demand(s) are:
7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

EQUIPMENT FORM: CREMATION UNITS

PUGET SOUND
Clean Air Agency

1904 3rd Ave #105, Seattle, WA 98101
206-343-8800
pscleanair.gov

NOC APPLICATION SUPPLEMENTAL FORM

Cremation Units

This application is for activities or equipment that is (check all that apply):

- ☒ New (including existing, unpermitted equipment)
- ☐ Physical or operational modification of existing equipment
- ☐ Relocation of existing equipment

Estimated date to begin construction: December 2022 Estimated date to startup: December 2022

Manufacturer: Facultatieve Technologies Model: FT III

Number of Crematory Compartments:

- ☐ Single Compartment
- ☒ Multiple Compartments (total number: 2)

Type of Fuel: ☒ Natural Gas ☐ Fuel Oil ☐ Other: _____

Cremation Unit Type

☒ Human Crematory ☐ Animal Crematory

Primary Chamber	Secondary Chamber
Max. Heat Input Rating (MMBtu/hr): 0.9	Max. Heat Input Rating (MMBtu/hr): 1.2
Operating Temperature (°F): 1470	Operating Temperature (°F): 1600
	Average Residence Time (secs): 2

If the unit has multiple compartments with different sizes and operating conditions, please attach this information for each compartment.

Operating Data

Maximum Processing Rate (lbs/hr): 200

Maximum Single Load Charge (lbs): 200

Estimated Annual Throughput (tons per year): 876

Maximum Number of Cases per Day: 16

Normal Operation 24 hours/day 7 days/week 52 weeks/yr

Maximum Operation 24 hours/day 7 days/week 52 weeks/yr

Monitoring Device Information

Thermocouple to continuously monitor secondary chamber temperature installed? ☒ Yes ☐ No

If yes, provide the thermocouple calibration or replacement frequency: 600-800 Cremations

Opacity monitoring system installed? ☒ Yes ☐ No

Stack Parameters

Stack diameter: 18 inches

Stack height above ground: 21 feet

Exhaust Flow Rate: 3379 acfm

Exhaust Temperature: 750 °F

Building Dimensions of Project Location

Building Height (highest point of roof) 37 ft

Building Width 105 ft

Building Length 105 ft

Required Attachments

1. Facility layout diagram showing location of the source (and its stack), associated buildings, and property lines.
2. Manufacturer specification sheet for cremation unit.

SUPPORTING DOCUMENTATION

Detailed Project Description

FT Process Flow Diagram

FT Emissions Summary

Facility Locus Map

Facility Site Plan

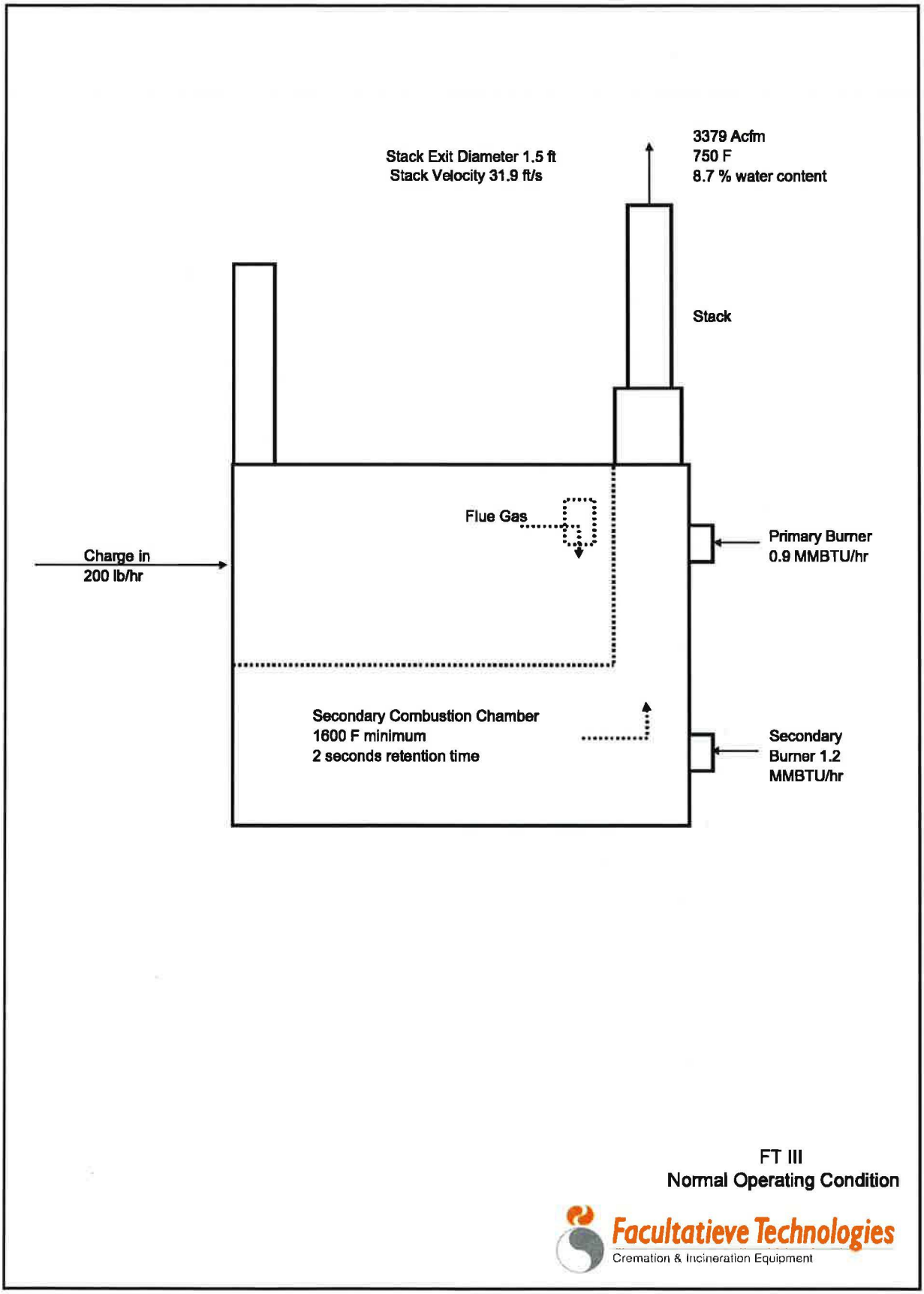
Technical Brochure for FT III

Detailed Project Description:
The project description must include a detailed description of the project, a list of process and control equipment to be installed or modified, a description of how the proposed project will impact your existing operations (if applicable), and measures that will be taken to minimize air emissions. Detailed description of the proposed project included in packet?

Solie Funeral Home & Crematory (Solie) is proposing to replace an existing cremation unit with a Facultatieve Technologies FT III cremation unit. The existing unit will be removed and the replacement unit will be set in the same place, utilizing the existing stack at the facility. The replacement work will involve a crane to lift the cremation units and indoor electrical work to install the new unit. Work to supply the new unit with natural gas will also be completed; the work is expected to be minor since the existing unit also utilizes natural gas. No outdoor work or alterations to the building are anticipated as part of the project. The existing operation will not change, except that instead of the existing unit the new FT III will be utilized during cremations completed at the facility.

The FT III unit is a dual chambered cremation unit with each chamber fueled by natural gas. The secondary chamber has a retention time of 2 seconds at 1600 F, which serves as the emissions control for the unit. The secondary chamber is an integrated part of the cremation process with no way to bypass. Emissions from the FT III are such that Solie will be a True Minor source under the Clean Air Act. Solie will follow all recommended maintenance and operating procedures to ensure emissions from the unit remain at anticipated levels.

Process Flow Diagram



FT III
Normal Operating Condition

Facultatieve Technologies
Cremation & Incineration Equipment

Facultatieve Technologies The Americas
FT SE III Cremator Emissions Summary

Pollutant	Emissions before controls (max) (lb/hr)	Actual emissions (lb/hr)	Actual emissions (ton/year) (6)	Requested Allowable (lb/hr)	Requested Allowable (ton/year) (6)
Particulate emissions (PE/PM) (1)	**0.18**	**0.18**	**0.79**	**0.18**	**0.79**
PM # 10 microns in diameter (2)	**0.18**	**0.18**	**0.79**	**0.18**	**0.79**
PM # 2.5 microns in diameter (2)	**0.18**	**0.18**	**0.79**	**0.18**	**0.79**
Sulfur dioxide (SO_2) (3)	**0.41**	**0.41**	**1.80**	**0.41**	**1.80**
Nitrogen oxides (NO_x) (1)	**0.47**	**0.47**	**2.06**	**0.47**	**2.06**
Carbon monoxide (CO) (1)	**0.018**	**0.018**	**0.079**	**0.018**	**0.08**
Organic compounds (OC) (4)	**0.0008**	**0.0008**	**0.0035**	**0.0008**	**0.0035**
Volatile organic compounds (VOC) (4)	**0.0008**	**0.0008**	**0.0035**	**0.0008**	**0.0035**
Lead (Pb) (1)	**0.00013**	**0.00013**	**0.00058**	**0.00013**	**0.00058**
Total Hazardous Air Pollutants (HAPs) (5)	**0.049**	**0.049**	**0.21**	**0.049**	**0.21**
Highest single HAP: (5)	**0.048**	**0.048**	**0.21**	**0.048**	**0.21**
Toxic Air Contaminants (TAC): (5)	**0.052**	**0.052**	**0.23**	**0.052**	**0.23**

Notes:

1. PM, NOX, CO, OC, and VOC emission rates are average values taken from stack testing events conducted on FT III and FT II SE units. FT III and FT II SE units have indentical equipment and operating specifications, parameters and differ only in the width of the primary chamber.

2. Stack tests that provide the basis for these emission rates include the following:
Evergreen Cemetery, Livermore, CA - FT III 3/14/2008
Evergreen Cemetery, Livermore, CA - FT III 9/10/2014
Jersey Crematorium, St. Helier, Jersey (UK) - FT III 1/27/2015
Swan Point Cemetery, Providence, RI - FT III and FT II SE 2/5-6/2015 (two days of testing)
Forest Lawn Cremation Company, Buffalo, NY - FT III 4/19/2016
Stack test reports available upon request.

3. It was assumed that particulate emissions were below 2.5 micrometers in size, and therefore PM, PM_{10} and $PM_{2.5}$ were reported as the same value.

4. Sulfur dioxide emissions are based on an emission factor developed by North Carolina Department of Natural Resources (NCDNR) 2009

5. It was assumed that VOCs and organic compounds were the same. VOC and OC emission rates are based on data from the St. Helier stack testing.

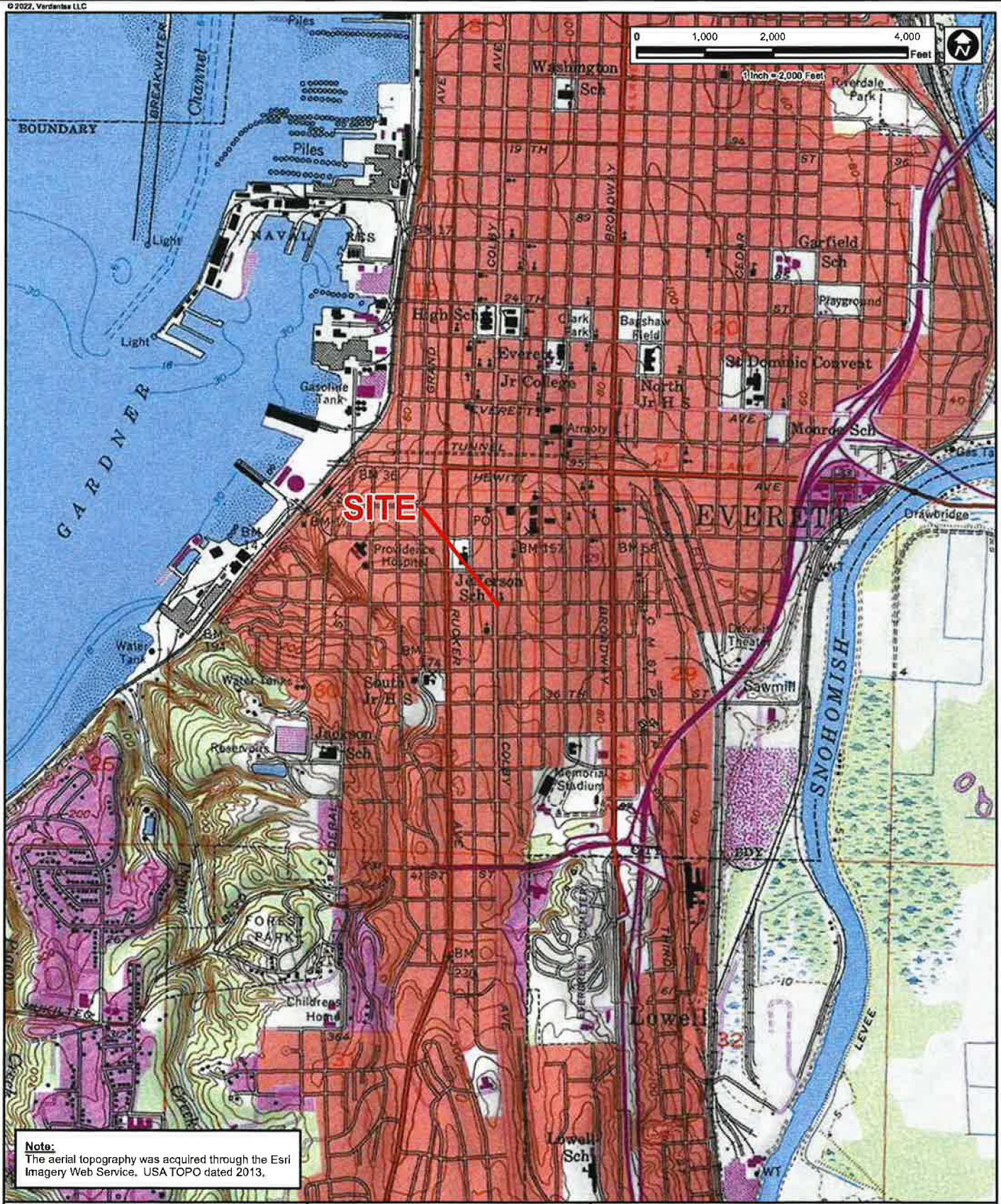
6. HAP and TAC emission rates was a combination of available stack testing data and USEPA AP-42 emission factors (found through WEBFIRE SCC code 31502101. See the "FT III Cremator HAP/TAC Emissions Summary" table attached.

7. The actual operating time for this unit will depend on the number of cremations that will be needed per year, and the amount that will be performed on this unit compared to the other existing units onsite. For the purposes of the calculations above, 8,760 hours per year was conservatively used to estimate tons per year.

Facultatieve Technologies The Americas

FT III Cremator HAP/TAC Emissions Summary

Pollutant	Emission Rate lb/hr	HAP	TAC	Source
Antimony	1.18E-04	Yes	Yes	Stack Test - FT III - Evergreen Cemetery, Livermore, CA 9/10/2104
Arsenic	3.13E-06	Yes	Yes	Stack Test - FT III - Evergreen Cemetery, Livermore, CA 9/10/2104
Beryllium	2.31E-06	Yes	Yes	Stack Test - FT III - Evergreen Cemetery, Livermore, CA 9/10/2104
Cadmium	3.62E-05	Yes	Yes	Stack Test - FT III - Evergreen Cemetery, Livermore, CA 9/10/2104
Chromium	3.64E-05	Yes	Yes	Stack Test - FT III - Evergreen Cemetery, Livermore, CA 9/10/2104
Cobalt	2.17E-07	Yes	Yes	Stack Test - FT III - Evergreen Cemetery, Livermore, CA 9/10/2104
Copper	1.91E-04	No	Yes	Stack Test - FT III - Evergreen Cemetery, Livermore, CA 9/10/2104
Iron	5.49E-04	No	No	Stack Test - FT III - Evergreen Cemetery, Livermore, CA 9/10/2104
Lead	1.33E-04	Yes	Yes	Stack Test - FT III - Evergreen Cemetery, Livermore, CA 9/10/2104
Manganese	8.33E-06	Yes	Yes	Stack Test - FT III - Evergreen Cemetery, Livermore, CA 9/10/2104
Mercury	8.45E-05	Yes	Yes	Stack Test - FT III - Evergreen Cemetery, Livermore, CA 9/10/2104
Nickel	2.09E-05	No	Yes	Stack Test - FT III - Evergreen Cemetery, Livermore, CA 9/10/2104
Selenium	7.74E-06	Yes	Yes	Stack Test - FT III - Evergreen Cemetery, Livermore, CA 9/10/2104
Silver	6.20E-05	No	Yes	Stack Test - FT III - Evergreen Cemetery, Livermore, CA 9/10/2104
Thallium	1.13E-06	No	No	Stack Test - FT III - Evergreen Cemetery, Livermore, CA 9/10/2104
Zinc	3.11E-03	No	Yes	Stack Test - FT III - Evergreen Cemetery, Livermore, CA 9/10/2104
Hydrogen Chloride	4.80E-02	Yes	Yes	AP-42 (WEBFIRE SCC code 31502101)
Benz(a)pyrene	1.94E-08	Yes	Yes	AP-42 (WEBFIRE SCC code 31502101)
Vanadium	3.86E-05	No	No	AP-42 (WEBFIRE SCC code 31502101)
Hydrogen Fluoride	4.37E-04	Yes	Yes	AP-42 (WEBFIRE SCC code 31502101)
Tetrachlorinated dibenzo-p-dioxins	9.40E-10	Yes	Yes	AP-42 (WEBFIRE SCC code 31502101)
2,3,7,8-Tetrachlorodibenzofuran	3.46E-10	Yes	Yes	AP-42 (WEBFIRE SCC code 31502101)
Barium	1.60E-05	No	Yes	AP-42 (WEBFIRE SCC code 31502101)
	Total	0.0489	0.0523	
	Max	0.048		



GeoInsight

DISCLAIMER:
Verdantas LLC has furnished this map to the company identified in the title block (Client) for its sole and exclusive use as a preliminary planning and screening tool and field verification is necessary to confirm these data. This map is reproduced from geospatial information compiled from third-party sources which may change over time. Areas depicted by the map are approximate and may not be accurate to mapping, surveying or engineering standards. Verdantas LLC makes no representation or guarantee as to the content, accuracy, timeliness or completeness of any information or spatial location depicted on this map. This map is provided without warranty of any kind, including but not limited to, the implied warranties of merchantability or fitness for a particular purpose. In no event will Verdantas LLC, its owners, officers, employees or agents, be liable for damages of any kind arising out of the use of this map by Client or any other party.

November 2022

Air Permit Application
Solie Funeral Home & Crematory

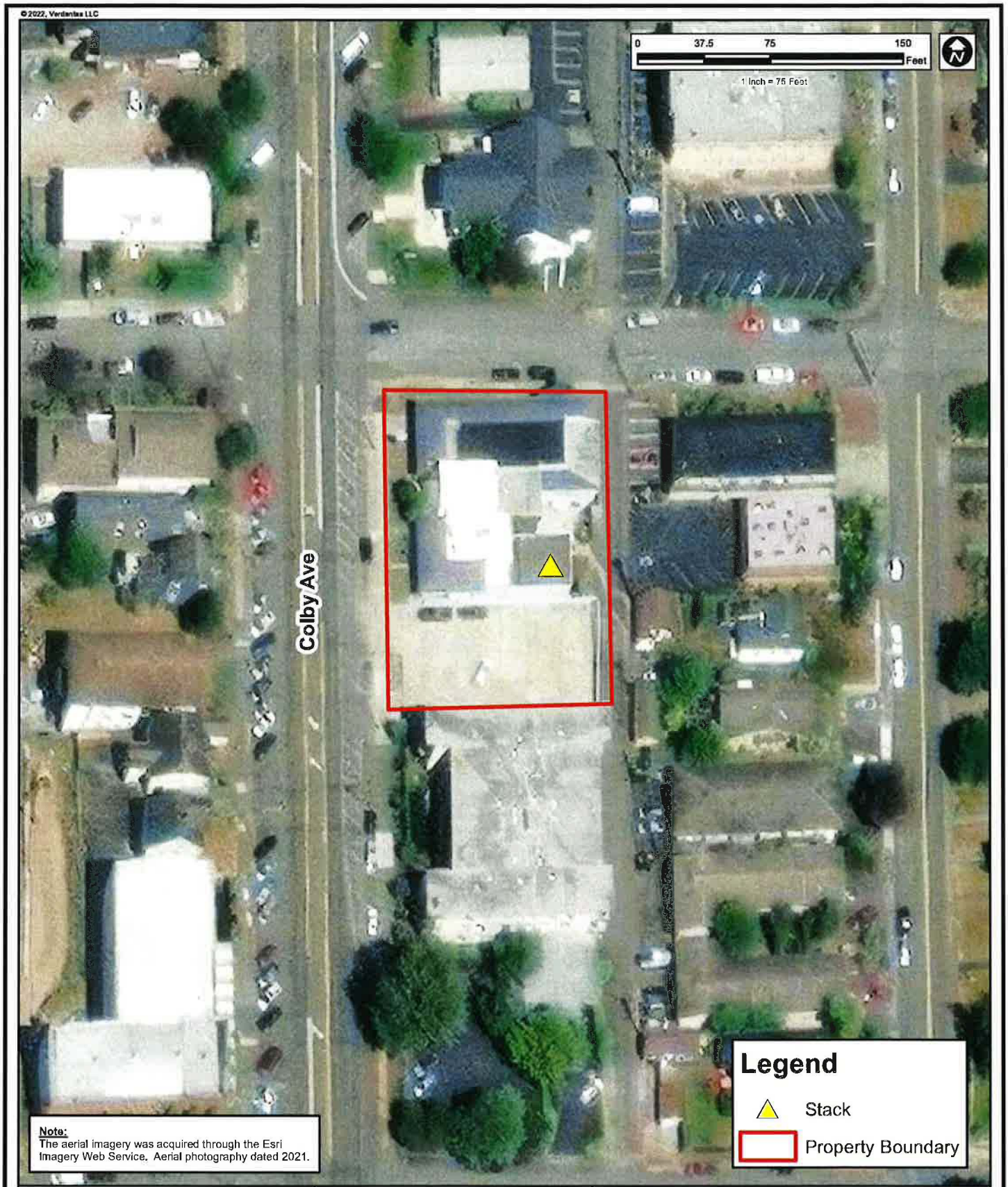
Locus Map

3301 Colby Avenue
Everett, Washington 98201

Figure
1

Produced Using Esri's ArcGIS Software

File Location: Z:\GIS\Projects\012\15986 - Solie Funeral Home\15986-00001_Fig1.mxd Edited: 11/18/2022 User: idalton



GeoInsight

DISCLAIMER:
GeoInsight, Inc. has furnished this map to the company identified in the title block (Client) for its sole and exclusive use as a preliminary planning and screening tool and field verification is necessary to confirm these data. This map is reproduced from geospatial information compiled from third-party sources which may change over time. Areas depicted by the map are approximate and may not be accurate to mapping, surveying or engineering standards. GeoInsight, Inc. makes no representation or guarantee as to the content, accuracy, timeliness or completeness of any information or spatial location depicted on this map. This map is provided without warranty of any kind, including but not limited to, the implied warranties of merchantability or fitness for a particular purpose. In no event will GeoInsight, Inc., its owners, officers, employees or agents, be liable for damages of any kind arising out of the use of this map by Client or any other party.

November 2022

Air Permit Application
Solie Funeral Home & Crematory

Site Map

3301 **Colby** Avenue
Everett, **Washington** 98201

Figure
2

Produced Using Esri's ArcGIS Software

File Location: Z:\GIS\Projects\012\15986 - Solie Funeral Home\15986-00001_Fig2.mxd Edited: 11/18/2022 User: kallen

FT

Cremation & Incineration Equipment

FT The Americas – info.usa@facultatieve-technologies.com
Phone: +1 330 723 6339 / +1 888 883 2876

FT III Cremator

The FT III is the most advanced cremator in the world

The fully automated control system enables 75 minute crema-tions as an average with fully integrated combustion controls meeting the most stringent environmental standards without human intervention.

The integrated control system constantly adjusts and controls variables to reduce the gas consumption and electrical power usage.

The technical engineering of the FT III cremator offers a wide variety of options and possibilities in order to answer to your specific needs and/or building requirements.

The FTIII is a product that can be adapted for future changes in environmental standards and requirements such as filtration.

FT cremators are not only the most advanced but also the most cost efficient cremators on the market

The self diagnostic integrated software combined with our Online customer support offers our clients the best solutions.

The Intuitive control and HMI (Human Machine Interface) system offers each client a customized reporting package which can be securely linked to your central administration facility.

- **Average cremation times of 75 minutes based on an average weight of 200 lbs**
- **Daily operation: without limit 24 hours/day, no cooldown time between cremations (pursuant to local permitting)**

On board SCADA package FT III

Remote access standard

Specifications	
Height:	10' 10"
Width:	7' 1"
Length:	12' 8"
Weight:	27,000 lbs
Fuel:	Natural gas / LPG
Opening for installation:	8' 9" wide x 8' 9" high
Daily operation:	Without limit 24 hours/day (pursuant to local permitting)
Average cremation time:	75 minutes
Door opening	43" x 30 "

Electrical Characteristics	
Combustion air fan:	1,200 cu.ft/min at 68°F, 7 HP
Ejector air fan:	1,200 cu.ft/min at 68°F, 7 HP
Control System	1.5 kW
Electrical supply:	80 amps 208-230 Volts, 60 Hz, three phase, 5 wire (3 line, 1 ground, 1 neutral)

Fuel consumption	
Burner ratings: • Primary Burner: • Secondary Burner:	 • 900,000 Btu/hr • 1,200,000 Btu/hr
Natural Gas usage typically	12 cu.ft/min at 8" Water gauge (excludes pre-heating of cremator)
LPG usage on request / Also available in double end format	

FT related products

FTUSA V2

Table Loader

HSC & ATC

Infant Charging Trolley

Ash Storage/Cooling rack

FT
Cremation & Incineration Equipment

FT The Americas
940 Lake Road I Medina OH 44256 I USA
Phone: +1 330 723 6339 / +1 888 883 2876 I Fax: +1 330 723 5841 I info.usa@facultatieve-technologies.com

FT The Americas • FT The Netherlands • FT United Kingdom • FT Germany • FT France • FT Czech Republic *FT is part of 'the Facultatieve Group'*

1917-FTII/FTIII-USA