

# Reed College Confined Space Program

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## Table of Contents

	1
1.0 Purpose and Scope	3
2.0 Responsibilities of Positions	3
2.1 Environmental Health and Safety	3
2.2 Reed College Administration	3
2.3 Supervisors	3
2.4 Affected Employees	4
3.0 OSHA Definitions of Confined Spaces	5
3.1 Non-Permit Confined Space	5
3.2 Permit Required Confined Space	5
4.0 Requirements for Entry	5
4.1 Training	5
4.2 Site Assessment and Entry Forms	6
4.3 Other Reed College Programs	6
5.0 References	6
Appendix 1: Reed College Confined Space Checklist for Supervisors	7
Appendix 2: Reed College Alternate Entry Confined Space Form	8
Reed College Alternate Entry Confined Space Checklist	9
Appendix 3: Reed Tunnel Entry Briefing Form	11
Appendix 4: Reed Confined Space Inventory	13



## 1.0 Purpose and Scope

Reed College has implemented the Confined Space Program to prevent injuries and to notify employees and contractors of hazards associated with confined space entry. This program aims to limit the entry of individuals into both permit and non-permit required confined spaces and increase hazard awareness through increased training and communication. Procedures are to be followed by all entrants to ensure safety. If following of an established procedure is felt to pose a hazard, the employee must notify a supervisor of their concern. The Confined Space Program extends to all parties entering into confined spaces located on the Reed College campus.

## 2.0 Responsibilities of Positions

### 2.1 Environmental Health and Safety

- Works with supervisors to identify confined spaces and to review and update the Confined Space Program as needed.
- Administer the Confined Space Program.
- Coordinates initial and refresher training as needed.
- Evaluates program effectiveness to provide reasonable assurance that the program procedures reflect current, applicable regulations and industry-accepted standards.

### 2.2 Reed College Administration

- Provides commitment, leadership, and financial resources to support this program and reasonable assurance that all provisions of the program are met.
- Establishes and approves the policy and procedures for confined space entry for Reed College.

### 2.3 Supervisors

- Identify appropriately trained and medically qualified employees as authorized supervisor, entrant, and attendant.
- Provide equipment and supplies necessary for making safe entries into confined spaces.
- Provide and document appropriate training for affected employees.
- Inform all employees of the location and the hazards in each confined space, including posting permit-required confined spaces with a sign reading: "Permit-Required Confined Space. Do Not Enter."
- Incorporate the elements of the Confined Space Program into written procedures for energized equipment maintenance.
- Inform contractors about the Confined Space Program and coordinate entry operations.
- Work with Environmental Health and Safety to identify confined spaces and to review and update the Confined Space Program as needed.



## 2.4 Affected Employees

Working in confined spaces is a team effort involving authorized entrants, attendants, and supervisors. All affected employees need to participate in training and follow all policies and procedures in this program.

### Authorized Supervisors

- Know how to recognize, evaluate, and eliminate confined space hazards.
- Determine if the space requires a permit or is non-permitted.
- Use appropriate test instruments, specify necessary safety precautions, and properly complete the required entry or other work forms or permits.
- Prevent unauthorized persons from entering a confined space.
- Verify that entry conditions are acceptable by using the Confined Space Entry Checklist for Supervisors (Appendix 1) before signing the Alternate Entry Confined Space Form (Appendix 2) and allowing entry.
- Determine that acceptable entry conditions are maintained.
- Verify that rescue services are available and the means for summoning them are effective.

### Authorized Entrants

- Know how to recognize, evaluate, and eliminate confined space hazards.
- Communicate with the attendant regularly.
- Test for atmospheric hazards in confined spaces.
- Use equipment properly.
- Notify the attendant of any signs, symptoms, or consequences of exposure.
- Exit from the confined space immediately when given an order to evacuate, an alarm warning, or a sign of a hazardous condition.

### Authorized Attendants

- Know how to recognize, evaluate, and eliminate confined space hazards.
- Remain outside the space during entry operations until relieved by another attendant.
- Monitor the safety of the entrants.
- Prevent unauthorized persons from entering a confined space.
- Communicate with entrants, monitor their status, and tell them when to evacuate.
- Know the number and identity of authorized entrants.
- Terminate the entry and cancel the non-permit form when entry operations are finished or if a prohibited condition arises.
- Perform non-entry rescues if necessary.
- Summon emergency responders when entrants need their services.



## 3.0 OSHA Definitions of Confined Spaces

The Federal Occupational Safety and Health Administration (OSHA) recognizes the accident occurring in confined spaces are complex, multifactorial events. Accordingly, standards for entry consider human, equipment, and environmental issues to protect workers from hazards.

### 3.1 Non-Permit Confined Space

Low hazard space that does not contain or, with respect to atmospheric hazards, has the potential to contain any hazard capable of causing death or serious physical harm.

### 3.2 Permit Required Confined Space

- Contains or has the potential to contain a hazardous atmosphere.
- Contains a material with the potential for engulfment of an entrant.
- Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or floor.
- Contains any other serious safety or health hazard.

## 4.0 Requirements for Entry

Reed College requires that affected employees meet the following criteria prior to entering a confined space. These are in accordance with 29 CFR 1910.146, which details the OSHA standard for confined space entry. Other criteria are specific to the Reed College Program.

### 4.1 Training

Affected employees must receive confined space training prior to entering an identified space. Reed College will provide training to affected employees:

- Before their first assigned confined space duties or whenever these duties change.
- Whenever a change in operations poses a hazard for which the employee has not received training.
- Whenever an employee deviates from the entry procedures required or the employee's knowledge or use of these procedures is inadequate.
- To establish employee proficiency in confined space duties and introduce new or revised procedures, as necessary.
- At least once every 3 years if none of the preceding requirements apply.

Topics covered will include:

- Definitions of confined space and permit-required confined space.
- Roles and duties of entrants, attendants, and entry supervisors.
- Confined space pre-entry evaluation.
- Confined space entry procedure.
- Atmospheric testing requirements.



- Site security.
- Isolation and elimination of hazards.
- Additional training as required by a specific job task, such as:
  - Asbestos Awareness
  - Control of Hazardous Energy (Lockout/Tagout)
  - Fall Protection
  - Hazard Communication / Right-to-Know
  - Machine Guarding
  - Personal Protective Equipment
  - Respiratory Protection
  - Working in Extreme Temperature Environments

## 4.2 Site Assessment and Entry Forms

Reed College designates the EHS department staff as the *Competent Person* responsible to assess identifiable hazards in confined spaces areas with the intent of eliminating or minimizing these hazards. Hazards may include but are not limited to: entrapment, engulfment, asphyxiation, and chemical exposure. See the appendices for a complete list of hazards and specific control measures implemented in the identified confined spaces on the Reed College campus.

Prior to entry, a Confined Space Checklist for Supervisors (Appendix 1) must be completed by the supervisor to identify hazards or changes to the location. If the site meets the criteria for safe entry, a Confined Space Alternate Entry Form (Appendix 2) will be filled and retained at the location for the duration of the work.

## 4.3 Other Reed College Programs

In addition to the Confined Space Program, affected employees must follow other safety program guidelines pursuant to their job function and other potential hazards.

## 5.0 References

- Occupational Safety and Health Administration (OSHA). 29 CFR (Code of Federal Regulations) 1910.146: Confined Space Standard. 1999.
- Oregon Occupational Safety and Health Administration (OR-OSHA). OAR (Oregon Administrative Rules) 437 Division 2, Subdivision J: 1910.146. 1999.



## Appendix 1: Reed College Confined Space Checklist for Supervisors

1. The space is not designed for entry.
2. There is a mechanical hazard present.
3. There is a health or environmental hazard present:
  - a. Oxygen Deficiency?
  - b. Toxic Gas present?
  - c. Fumes that could cause Explosion?
  - d. There is potential for engulfment (i.e. manholes, grain silos, quicksand, etc.).

**IF ANY OF THE FOUR CONDITIONS EXIST, THEN A PERMIT MUST BE OBTAINED FOR WORK IN THIS CONFINED SPACE. NOTIFY YOUR SUPERVISOR IF THIS CONDITION EXISTS. REED COLLEGE DOES NOT ENTER PERMIT REQUIRED CONFINED SPACES.**

To test a new confined space for toxicity, Reed College utilizes the services of an outside agency to examine and determine the quality within a specific space in question. Prior to work taking place contact EHS.

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## Appendix 2: Reed College Alternate Entry Confined Space Form

This document must remain near the entrance of the confined space.

It is null and void if conditions for which it was issued change.

### Non-Permit/Alternate Entry Confined Space Procedure

1. Identify all hazards associated with this space and remove them.
2. Fill out a lock-out/tag-out [LOTO] permit if needed.
3. Have all equipment on hand.
4. Begin atmospheric testing. Document your results on page 2.
5. Complete all items on the entry form.
6. Have all parties sign the entry form. If any item on the alternate entry form is checked as "NO" (meaning not yet complete or available), do not sign the form.
7. Place this document in the entrance of the confined space until completion of work.
8. Re-energize and remove all LOTO equipment and signs.
9. Return equipment to service, if appropriate.
10. Record work completion.
11. Place completed checklist in Physical Plant file.



## Reed College Alternate Entry Confined Space Checklist

Space ID/Location:	Start Date:	End Date:
Scope of Work:	Start Time:	End Time:
Expires (max of 1 shift):		

Yes	No	Remove hazards associated with this space:
		No chemicals, solvents, or paints brought into the space?
		No hazardous operations performed in or around the space under this entry document?
		Space barricaded or coned off to prevent access to the area by vehicle and pedestrian traffic?
		All energy sources eliminated through lock-out/tag-out procedures?

<b>Atmospheric Tester:</b>	Calibration Date:
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Continuous Air Monitoring Required;  
Log Results And Time Initially and Every 20 Minutes or When Appropriate

Test Gas/Vapor (Acceptable Level)	Initial Result	Time	Repeat Result	Time	Repeat Result	Time	Repeat Result	Time	Tester Initials
O <sub>2</sub> , Oxygen 20.5% to 21.0%									
Flammables (0% LEL)									
CO, Carbon Monoxide (<10 ppm)									
H <sub>2</sub> S, Hydrogen Sulfide (0 ppm)									



Other Toxics (list) (Less than ½ PEL)								
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Yes	No	Other Hazards:
		No unusual odors or residues in or around this space?
		No standing water in this space?
		Access good: ladder rungs in good shape, rungs all the way to top or bottom, etc.? Portable ladder in position and extends 3 feet above access point, etc.?
		Other (list):

**If the above checklist indicates any potential hazards associated with the space, then you must consider this a Permit Required Confined Space. If you are not sure whether there are hazards associated with this space, contact your supervisor or EHS before proceeding with entry.**

Your signature below acknowledges that the confined space has been evaluated to determine that no hazards exist in or around the space.

Entrant: \_\_\_\_\_

Attendant: \_\_\_\_\_

Supervisor: \_\_\_\_\_

Date: \_\_\_\_\_



## Appendix 3: Reed Tunnel Entry Briefing Form

A. To enter Reed College Utility Tunnel System the following requirements must be met:

1. No smoking or eating (water/hydration drink recommended).
  2. You must carry a two-way radio (walkie talkie) and designate a support buddy (follow two-way radio protocol for your department)
  3. Notify Facilities Services, by calling the maintenance on-call, prior to entering.
  4. Understand that you **must** notify Facilities Services when exiting the Utility Tunnel System.
  5. Received approved Utility Tunnel Safety Training.
  6. Utility Tunnel System entries are signed designating a restricted area.
- 
7. The following PPE and other equipment are required for Utility Tunnel entry
    - a. Emergency light (e.g. flash light).
    - b. Closed toed shoes.
    - c. Hard hats are available at the entry.
    - d. Other appropriate equipment related to safety (e.g. N95)

B. Potential Utility Tunnel System Hazards

- Asbestos – Some pipes may be covered with asbestos insulation & should not be disturbed. If asbestos encapsulation is in disrepair; report this to Facilities Services upon exiting the Utility Tunnel. Do not disturb abatement containment areas, if present.
- Flooding – Areas of the Utility Tunnel System have the potential to flood. In times of high water or leaks, consult with Facilities Services before entering.
- Heat – In some areas of the Utility Tunnel System there is a potential for temperatures to exceed 100 degrees F.
- Natural Gas Lines – Be aware that natural gas lines may run in some sections of the Utility Tunnel System. Should you smell the “rotten egg” odor of natural gas, immediately exit the Utility Tunnel & IMMEDIATELY notify Facilities Services.
- Sanitation Issues – On occasion, the Utility Tunnel System may have rodent or insect infestations. In addition, sewage leaks may occur in the Utility Tunnel System. If you observe these problems, it is important to report your observations to Facilities Services. It is also important to wash your hands & face upon exiting the Utility Tunnel System.
- Steam Lines – 10 PSI steam lines at 220 degrees F run through the Utility Tunnel System. Do not disturb. Take care not to touch hot steam line pipes. Report any degradation or damage to the insulation around these steam lines.
- Tight Spaces – Pipes and other obstacles cross the floor & hang low overhead. Be prepared for trip hazards, crawling over pipes & ducking under pipes

C. Confined Spaces

The Utility Tunnel System is considered a Confined Space. It is NOT a Permit-Required Confined Space unless work in the Utility Tunnel System could create:

- Any potential atmospheric hazards,



- Potential for entrapment,
- A safety or health hazard & the hazard(s) cannot be declassified in an attempt to make the space safe,

If the above conditions exist, Permit-Required Confined Space Safety Program procedure must be followed and entry is not allowed unless further authorization is granted.



## Appendix 4: Reed Confined Space Inventory

Space Type	Space Location	Atmospheric Hazards	Entry Hazards	Other Hazards	Candidate for Alternative Entry
Boiler #1	Physical Plant, lower level	Oxygen, flammables, carbon monoxide, dust, ash residuals, fuel bi-products	Very tight entry points into steam and mud drums	-Elevated heat potential, contact and ambient -Potential energy sources are to be locked out/tagged out (steam, natural gas, fuel oil, igniters, mechanical devices such as forced draft fans), reduce all energy sources to zero -Falls from entrances to boiler access points	No, Permit Required Confined Space
Boiler #2	Physical Plant, lower level	Oxygen, flammables, carbon monoxide, dust, ash residuals, fuel bi-products	Very tight entry points into steam and mud drums	-Elevated heat potential, contact and ambient -Potential energy sources are to be locked out/tagged out (steam, natural gas, fuel oil, igniters, mechanical devices such as forced draft fans), reduce all energy sources to zero -Falls from entrances to boiler access points	No, Permit Required Confined Space
Boiler #20266 (1000 sq ft)	Chemistry building, boiler room	Oxygen, flammables, carbon monoxide, dust, ash residuals	Small confined space	-Elevated heat potential, contact and ambient -Potential energy sources are to be locked out/tagged out (steam, natural gas, fuel oil, igniters, mechanical devices such as forced draft fans), reduce all energy sources to zero	No, Permit Required Confined Space
Boiler #20678 (250 sq ft)	Chemistry building, boiler room	Oxygen, flammables, carbon monoxide, dust, ash residuals	Small confined space	-Elevated heat potential, contact and ambient -Potential energy sources are to be locked out/tagged out (steam, natural gas, fuel oil, igniters, mechanical devices such as forced draft fans), reduce all energy sources to zero	No, Permit Required Confined Space
Cistern (drywell)	NW corner of campus in field above pond (north of old community garden area)	Oxygen, flammables, carbon monoxide	Deep space, varying depths of water	-Pedestrian and vehicle traffic -Fall into space via unguarded edge	Yes
Communications/fiber optic vault	Eliot Circle	Oxygen, flammables,	Varying depths of water	-Pedestrian traffic -Potential low voltage exposure -Potential risk of shock by coming	Yes



		carbon monoxide		in contact with energized electrical systems -Fall into space via unguarded edge	
Communications/fiber optic vault	Steele Street at SW corner in grass	Oxygen, flammables, carbon monoxide	Varying depths of water	-Pedestrian traffic -Potential low voltage exposure -Potential risk of shock by coming in contact with energized electrical systems -Fall into space via unguarded edge	Yes
Condensate return tank	Physical Plant, lower level	Oxygen	Very tight entry point (14.5 inches)	-Elevated heat potential, contact and ambient -Contact with boiler treatment chemicals mixed into boiler water	Yes
Crawl space under Eliot Hall	Accessed via the M1-12 Mechanical space (utility tunnel)	Asbestos	Very warm in space due to steam piping, very tight quarters due to piping	-Elevated heat potential, contact and ambient -There are several entrances to this crawl space via Eliot Hall, all "hatches" are concealed under carpet/flooring -Very confining space	Yes
Deaerator tank	Physical Plant, lower level	Oxygen	Very tight entry point (14.5 inches)	-Elevated heat potential, contact and ambient -Contact with boiler treatment chemicals mixed into boiler water	No, Permit Required Confined Space
Electrical vault	Between Library and ETC	Oxygen, flammables, carbon monoxide	Varying depths of water	-Pedestrian and vehicle traffic -Contact with electrical -Ensure electrical is locked out/tagged out before working -Remove standing water from vault prior to entry	Yes
Electrical vault	West parking lot, north end in grass	Oxygen, flammables, carbon monoxide	Varying depths of water	-Pedestrian and vehicle traffic -Contact with electrical -Ensure electrical is locked out/tagged out before working -Remove standing water from vault prior to entry	Yes
Electrical vault	SW corner of Steele Hall	Oxygen, flammables, carbon monoxide	Varying depths of water	-Pedestrian and vehicle traffic -Contact with electrical -Ensure electrical is locked out/tagged out before working -Remove standing water from vault prior to entry	Yes
Electrical vault	Physical Plant, east side of road	Oxygen, flammables, carbon monoxide	Varying depths of water	-Pedestrian and vehicle traffic -Contact with electrical -Ensure electrical is locked out/tagged out before working -Remove standing water from vault prior to entry	Yes
Electrical vault	East parking lot	Oxygen, flammables, carbon monoxide	Varying depths of water	-Pedestrian and vehicle traffic -Contact with electrical -Ensure electrical is locked out/tagged out before working	Yes



				-Remove standing water from vault prior to entry	
Electrical vault	Woodbridge at SW corner in sidewalk	Oxygen, flammables, carbon monoxide	Varying depths of water	-Pedestrian and vehicle traffic -Contact with electrical -Ensure electrical is locked out/tagged out before working -Remove standing water from vault prior to entry	Yes
Electrical vault	Woodbridge at SE corner in sidewalk	Oxygen, flammables, carbon monoxide	Varying depths of water	-Pedestrian and vehicle traffic -Contact with electrical -Ensure electrical is locked out/tagged out before working -Remove standing water from vault prior to entry	Yes
Electrical vault	McKinley on south side in grass	Oxygen, flammables, carbon monoxide	Varying depths of water	-Pedestrian and vehicle traffic -Contact with electrical -Ensure electrical is locked out/tagged out before working -Remove standing water from vault prior to entry	Yes
Electrical vault	Eliot Circle (2x)	Oxygen, flammables, carbon monoxide	Varying depths of water	-Pedestrian and vehicle traffic -Contact with electrical -Ensure electrical is locked out/tagged out before working -Remove standing water from vault prior to entry	Yes
Fire line meter vault	At entrance to East parking lot, in grass	Oxygen, flammables, carbon monoxide	No ladder	-Pedestrian traffic -Fall into space via unprotected edge	Yes
Fire line water vault	At entrance to East parking lot, in lawn	oxygen, flammables, carbon monoxide		-Pedestrian traffic -Fall into space via unprotected edge	Yes
Hot water heater	Chemistry building, boiler room	Oxygen, flammables	Small entry point (14.5 inches) and small confined space	-Elevated heat potential, contact and ambient -All inlets/outlets are to be secured to prevent entry of water	No, Permit Required Confined Space
Hot water utility vault	Physical Plant, east side in road	Oxygen, flammables, carbon monoxide	Deep space	-Pedestrian traffic -Elevated heat potential, contact and ambient -Fall into space via unprotected edge	Yes
Hot water utility vault	North end of Dam	Oxygen, flammables, carbon monoxide	Deep space	-Pedestrian traffic -Elevated heat potential, contact and ambient -Fall into space via unprotected edge	Yes
Hot water utility vault	Woodbridge, SE corner in sidewalk	Oxygen, flammables, carbon monoxide	Deep space	-Pedestrian traffic -Elevated heat potential, contact and ambient -Fall into space via unprotected edge	Yes



Hot water utility vault	Chittick, east end in landscape	Oxygen, flammables, carbon monoxide	Deep space	-Pedestrian traffic -Elevated heat potential, contact and ambient -Fall into space via unprotected edge	Yes
Irrigation Vault	Physical plant, east side in parking area near lake	Oxygen, flammables, carbon monoxide	Deep space	-Pedestrian traffic -Fall into space via unprotected edge	Yes
Lab sink sump	Chemistry building, boiler room	Oxygen, flammables, toxics (anything dumped down lab sinks)	Very confined space	-Unknown materials being dumped down lab sinks -Contact with the materials	No, Permit Required Confined Space
Sanitary lift station	Physics building	Oxygen, flammables, hydrogen sulfide, unknowns from materials dumped into space	No ladder, very tight entry points	-Employee foot traffic -Contact with effluent -Lock out/tag out of space energy sources and secure pipelines that feed station -Very small space	Yes
Sanitary lift station	Chemistry building	Oxygen, flammables, hydrogen sulfide, unknowns from materials dumped into space	No ladder, very tight entry points	-Employee foot traffic -Contact with effluent -Lock out/tag out of space energy sources and secure pipelines that feed station -Very small space	Yes
Sanitary lift station	Library basement (LL2)	Oxygen, flammables, hydrogen sulfide, unknowns from materials dumped into space	No ladder, very tight entry points	-Employee foot traffic -Contact with effluent -Lock out/tag out of space energy sources and secure pipelines that feed station -Very small space	Yes
Sanitary lift station	Vollum Hall basement	Oxygen, flammables, hydrogen sulfide, unknowns from materials dumped into space	No ladder, very tight entry points	-Employee foot traffic -Contact with effluent -Lock out/tag out of space energy sources and secure pipelines that feed station -Very small space	Yes
Storm Interceptor vault	Between library and ETC	Oxygen, flammables	Varying depths of water	-Pedestrian traffic -Space cannot be isolated from the storm sewer system so entry should only be done during dry periods with no rain and low to no runoff. -Because it cannot be isolated	Yes



				from storm sewer system, during entry, air monitoring is required	
Utility vault (fire main valve vault)	Library quad	Oxygen, flammables	No ladder	-Pedestrian traffic -Fall into space via unprotected edge	Yes
Utility vault (fire main valve vault)	South end of west parking lot in landscape	Oxygen, flammables	No ladder	-Pedestrian traffic -Fall into space via unprotected edge	Yes
Utility vault (steam and condensate lines)	Library quad	Oxygen, flammables, carbon monoxide	No ladder	-Pedestrian traffic -Elevated heat potential, contact and ambient -Fall into space via unprotected edge	Yes
Utility vault (steam and condensate lines)	Eliot circle	Oxygen, flammables, carbon monoxide	No ladder	-Pedestrian traffic -Elevated heat potential, contact and ambient -Fall into space via unprotected edge	Yes
Water backflow vault	South of Eliot circle in front lawn	Oxygen, flammables, carbon monoxide	Varying depths of water	-Pedestrian traffic -Fall into space via unprotected edge	Yes
Water backflow vault	Eliot Hall, NE corner	Oxygen, flammables, carbon monoxide	Varying depths of water	-Pedestrian traffic -Fall into space via unprotected edge	Yes
Eliot tunnel	Eliot off shoot of tunnel	Oxygen, flammables, carbon monoxide	Tight space	-Elevated heat potential, contact and ambient -There are several entrances to this crawl space via Eliot Hall, all "hatches" are concealed under carpet/flooring -Very confining space	Yes
Eliot attic/mechanical space	Eliot hatch 4th floor	Oxygen, flammables, carbon monoxide	Requires ladder	-Elevated heat potential in summer months -Mechanical equipment potential need for lock out tag out (LOTO) depending on service area	Yes
Willard attic	Willard attic	Oxygen, flammables, carbon monoxide	Requires ladder	-Elevated heat potential in summer months -Mechanical equipment potential need for lock out tag out (LOTO) depending on service area	Yes
Water backflow vault	Birchwoods on NE corner near 28th	Oxygen, flammables, carbon monoxide	Varying depths of water	-Pedestrian traffic -Fall into space via unprotected edge	Yes
Water backflow vault	Biology west	Oxygen, flammables, carbon monoxide	Varying depths of water	-Pedestrian traffic -Fall into space via unprotected edge	Yes



Water backflow vault	Eliot north turnaround	Oxygen, flammables, carbon monoxide	Varying depths of water	-Pedestrian traffic -Fall into space via unprotected edge	Yes
Water backflow vault	Prexy SW corner near campus marquee sign	Oxygen, flammables, carbon monoxide	Varying depths of water	-Pedestrian traffic -Fall into space via unprotected edge	Yes
Water backflow vault	RCA/Garden house near 28th sidewalk	Oxygen, flammables, carbon monoxide	Varying depths of water	-Pedestrian traffic -Fall into space via unprotected edge	Yes
Water backflow vault	Steel street vault, parallel with Grove	Oxygen, flammables, carbon monoxide	Varying depths of water	-Pedestrian traffic -Fall into space via unprotected edge	Yes
Water backflow vault	Steel street vault, parallel with Sullivan	Oxygen, flammables, carbon monoxide	Varying depths of water	-Pedestrian traffic -Fall into space via unprotected edge	Yes
Attic space	Anna Mann hallway hatch	Requires ladder	Requires ladder	-Elevated heat potential in summer months -Mechanical equipment potential need for lock out tag out (LOTO) depending on service area	Yes
Attic space	Bragdon hallway hatch	Requires ladder	Requires ladder	-Elevated heat potential in summer months -Mechanical equipment potential need for lock out tag out (LOTO) depending on service area	Yes
Attic space	Canyon House hatch	Requires ladder	Requires ladder	-Elevated heat potential in summer months -Mechanical equipment potential need for lock out tag out (LOTO) depending on service area	Yes
Attic space	Naito and Sullivan hallway hatch	Requires ladder	Requires ladder	-Elevated heat potential in summer months -Mechanical equipment potential need for lock out tag out (LOTO) depending on service area	Yes
Attic space	Kaul Auditorium, behind stage into roof truss system	Requires ladder (built in)	Requires ladder (built in)	-Elevated heat potential in summer months -Mechanical equipment potential need for lock out tag out (LOTO) depending on service area	Yes
Attic space	ODB hallway hatch	Requires ladder	Requires ladder	-Elevated heat potential in summer months	Yes



				-Mechanical equipment potential need for lock out tag out (LOTO) depending on service area	
Basement/ Crawl space	Greywood, entered through bathroom floor	Oxygen, flammables, carbon monoxide	Tight space	-Elevated heat potential in summer months -Mechanical equipment potential need for lock out tag out (LOTO) depending on service area	Yes
Basement/ Crawl space	Growing Seeds, exterior closet near fire panel	Oxygen, flammables, carbon monoxide	Tight space	-Elevated heat potential in summer months -Mechanical equipment potential need for lock out tag out (LOTO) depending on service area	Yes
Air unit	Chemistry attic	Oxygen, flammables, carbon monoxide	Requires ladder	-Elevated heat potential in summer months -Mechanical equipment potential need for lock out tag out (LOTO) depending on service area	Yes
Air unit	Biology penthouse	Oxygen, flammables, carbon monoxide	Requires ladder	-Elevated heat potential in summer months -Mechanical equipment potential need for lock out tag out (LOTO) depending on service area	Yes
Air unit	ETC penthouse	Oxygen, flammables, carbon monoxide	Requires ladder	-Elevated heat potential in summer months -Mechanical equipment potential need for lock out tag out (LOTO) depending on service area	Yes

