

Location	Written By:	Approved By:	Date Created	Last Revision
Schools in TMSD	Bob Gaiser		March 9, 2017	

HAZARDS PRESENT	PERSONAL PROTECTION EQUIPMENT (PPE)	ADDITIONAL REQUIREMENTS
<ul style="list-style-type: none"> ✓ Sharp ceiling protrusions e.g. nails ✓ Hot pipes overhead ✓ Working alone hazards ✓ Mould, dust, contaminants, damp soil, rodents ✓ Hazardous atmosphere, long standing water (H₂S) ✓ Power failure ✓ Restricted egress ✓ Obstacles ✓ Asbestos ✓ Gas, sewer lines 	<ul style="list-style-type: none"> ✓ Safety glasses ✓ Bumper cap or hard hat ✓ Coveralls / tyvek suit - if soil is wet ✓ Work gloves ✓ Dust mask / respiratory protection ✓ Communication equipment ✓ Flashlight ✓ Multi gas detector 	<ul style="list-style-type: none"> ✓ Confined space entry training ✓ Respirator Fit Testing

SAFE WORK PROCEDURE

IMPORTANT:

All crawlspaces in the School Division have been assessed and categorized according to the level of risk. It is important to consider that the level of risk may increase due to the task being performed in the crawlspace. For example a "level 2" crawlspace may become a confined space due to fugitive emissions from welding or the displacement of oxygen. A confined space may be entered only by qualified and authorized personnel. **THIS SWP DOES NOT ADDRESS CONFINED SPACE ENTRY. IF IN DOUBT DO NOT ENTER.**

All crawlspaces in the Division have been identified and permanently labelled at or near the point of entry. For example: Level 1 - Crawlspace Entry Procedures. All potential hazards must be identified (or hazards that may be introduced into the confined space) must be listed on the label. A crawlspace entry permit is also posted on the crawlspace entry door / hatch.

Only employees identified by Facilities & Operations will be allowed access into the crawlspaces. Example: Maintenance staff and sub-contractors.

Contractors working in Crawlspaces on Divisional property must be informed of the dangers, and must comply with the requirements of the entry system. It is the responsibility of the supervisor who contacted the contractor to notify, brief, and provide a copy of this safe work procedure to any contractor working in a crawlspace in the Division. It is the contractor's responsibility to inform all workers under his control, and any subcontractors of specific crawlspace hazards. Briefings must be documented and records maintained.

Note: crawlspace entry permits must be kept for 5 years. Please forward completed permits to the Maintenance Supervisor

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Level 1 Confined Space (Crawlspace) Entry Procedures:

Identified Hazards: Level 1 crawlspaces pose the lowest risk. You are able to walk (rather than crawl), egress is not restricted and there are no known contaminants.

1. Prior to entering the crawlspace you must inform someone (secretary, head caretaker) that you will be entering and working in the crawlspace and how long you will be. The person you inform must be made to understand that if you do not return at the required time someone should be sent to find you.
2. Don all personal protective equipment required: eg. bumper cap, safety glasses, work gloves, coveralls (if required), and a N95 respirator (if required). Ensure you have a flashlight, or another type of portable illumination, with you at all times.
3. Turn on the multi gas detector and complete the fresh air calibration. Secure the gas detector in a location on your person but away from your breathing zone.
4. Print your name and the time on the "Crawlspace Entry Permit" that is posted on the crawlspace entry door.
5. Open the door and turn on the lights. Test the air in the space at the entrance. If the gas detector alarms or shows levels of atmospheric hazards, do not enter the space. Contact your supervisor
6. Ensure the crawlspace hatch cannot be closed while you are in the crawlspace. Place a lockout on the hasp so that it cannot be locked shut. Do not enter crawlspaces that have standing (black) water as the water may release hydrogen sulfide gas when disturbed. If standing water is present contact the maintenance shop. Someone will be assigned to test the air and pump out the water.
7. If the air sampling in step 5 is OK, enter the space to begin work. Complete your work and remove all debris and garbage. No combustible materials are allowed to be left / stored in a crawl space (fire code requirement).
- 8. If the alarm sounds at any time the worker MUST leave the space immediately and call their supervisor.**
9. Exit the crawlspace, sign out and remove the lockout device on the door / hatch. Close the door and secure it in place.
10. Remove personal protective equipment. Clean and store it appropriately.
11. Check in with person you informed in step 1 and let them know all work has been completed in the crawlspace.

In the event of an emergency call 911, the workers supervisor and the Divisional Maintenance Supervisor.
DO NOT enter the space to attempt rescue.

Level 2 Confined Space (Crawlspace) Entry Procedures:

Identified Hazards: Level 2 crawlspaces pose all the same risks as Level 1 crawlspaces. However, egress is restricted due to a low ceiling, low pipes and smaller hatch openings.

1. All level one controls must be implemented. In addition, a two person entry is mandatory.
2. A first aider (entry supervisor) must be stationed outside the hatch and must remain there until all work has been completed.
3. Radio contact with the person entering the crawl space must be maintained at all times. If radio contact is not possible then voice contact must be maintained at all times.
4. The entry supervisor is responsible to maintain contact with the entrant at all times and to contact emergency services in the event of an incident. **At no time is the entry supervisor allowed to enter the crawlspace.**
5. Don all personal protective equipment: bumper cap, safety glasses, work gloves, coveralls (if required), and a N95 respirator (if required). Ensure you have a flashlight, or other means of portable illumination with you at all times.
6. Turn on the multi gas detector and complete the fresh air calibration. Secure the gas detector in a location on your person but away from your breathing zone.
7. Print your name and the time on the "Crawlspace Entry Permit" that is posted on the crawlspace entry hatch.
8. Open the hatch and turn on the lights. Test the air in the space at the entrance. If the gas detector alarms or shows levels of atmospheric hazards, do not enter the space. Contact your supervisor
9. Ensure the crawlspace hatch cannot be closed while you are in the crawlspace. Place a lockout on the hasp so that it cannot be locked shut. Do not enter crawlspaces that have standing (black) water as the water may release hydrogen sulfide gas when disturbed. If standing water is present contact the maintenance shop. Someone will be assigned to test the air and pump out the water.
10. You must keep in constant contact with the "entry supervisor" at all times.
11. **If the alarm sounds at any time the worker MUST leave the space immediately and call their supervisor.**
12. If the air sampling in step 8 is OK, enter the space to begin work. Complete your work and remove all debris and garbage. No combustible materials are allowed to be left / stored in a crawl space (fire code requirement).
13. Exit the crawlspace, sign out and remove the lockout device on the door / hatch. Close the door and secure it in place.
14. Remove personal protective equipment. Clean and store it appropriately.
15. Sign out of the crawlspace by entering your exit time on the permit form.

In the event of an emergency call 911, the workers supervisor and the Divisional Maintenance Supervisor.
DO NOT enter the space to attempt rescue.

Level 3 Confined Space (Crawlspace) Entry Procedures:

Identified Hazards: Level 3 crawlspaces pose all the same risks as Level 1 & 2 crawlspaces. However, egress is restricted due to a low ceiling, low pipes, or a smaller hatch opening and the crawlspace may contain mould, damp soil, or other contaminants.

1. All level two controls must be implemented. In addition, a two person entry is mandatory and PPE includes a P-100 respirator or better, a Tyvec suit, disposable protective gloves (latex, nitrile gloves, etc).
 - A first aider (entry supervisor) must be stationed outside the hatch and must remain there until all work has been completed.
 - Radio contact with the person entering the crawl space must be maintained at all times. If radio contact is not possible then voice contact must be maintained at all times.
 - The entry supervisor is responsible to maintain contact with the entrant at all times and to contact emergency services in the event of an incident. **At no time is the entry supervisor allowed to enter the crawlspace.**
2. Don all personal protective equipment: bumper cap, safety glasses, work gloves, coveralls or Tyvec, and a P-100 respirator. Ensure you have a flashlight or other means of portable illumination with you at all times.
3. Turn on the multi gas detector and complete the fresh air calibration. Secure the gas detector in a location on your person but away from your breathing zone.
4. Print your name and the time on the "Crawlspace Entry Permit" that is posted on the crawlspace entry hatch.
5. Open the hatch and turn on the lights. Test the air in the space at the entrance. If the gas detector alarms or shows levels of atmospheric hazards, do not enter the space. Contact your supervisor.
6. Ensure the crawlspace hatch cannot be closed while you are in the crawlspace. Place a lockout on the hasp so that it cannot be locked shut. Do not enter crawlspaces that have standing (black) water as the water may release hydrogen sulfide gas when disturbed. If standing water is present contact the maintenance shop. Someone will be assigned to test the air and pump out the water.
7. You must keep in constant contact with the "entry supervisor" at all times.
8. **If the alarm sounds at any time the worker MUST leave the space immediately and call their supervisor.**
9. If the air sampling in step 5 is OK, enter the space to begin work. Complete your work and remove all debris and garbage. No combustible materials are allowed to be left / stored in a crawl space (fire code requirement).
10. Exit the crawlspace, sign out and remove the lockout device on the door / hatch. Close the door and secure it

in place.

11. Sign out of the crawlspace by entering your exit time on the permit form.
12. Immediately upon exiting the hatch, remove your tyvek, booties, gloves and respirator and dispose of into separate garbage. Proceed to the closest washroom and wash your hands and face. Clean and store your P-100 respirator appropriately.

**In the event of an emergency call 911, the workers supervisor and the Divisional Maintenance Supervisor.
DO NOT enter the space to attempt rescue.**

Level 4 Confined Space Entry Procedures

Identified Hazards: This crawl space is a partial drain for the sewer and may contain sewer gases. **A confined space may be entered only by qualified, trained and authorized personnel. An entry permit is also required. Please obtain an entry permit from the S&H Officer.**

Personal Protective Equipment Required:

Hard hat / bumper cap, safety shoes (or closed toe footwear), safety glasses, work gloves, ventilation equipment, coveralls or tyvek suit, multi gas detector, tri-pod or davit arm, rescue procedures / plan / equipment, entry permit.

Two Person Entry is Mandatory:

A entry supervisor must be stationed outside the hatch and must remain there until all work has been completed. The entry supervisor must have a means of communication with the person entering the crawl space. Communication must be maintained at all times. You will be required to wear a harness and lifeline. If radio contact is not possible then voice contact must be maintained.

Entry:

1. Set up the tri-pod or davit arm.
2. Print your name, entry supervisors name, date and time on the "Crawlspace Entry Permit"
3. Test the air quality with the multi gas detector directly above the hatch. Document the information on the entry permit.
4. If air quality is normal then open the hatch and secure the access hatch / door to prevent accidental closing.
5. Don your PPE and harness. Ensure that your lifeline is long enough that it will reach from the hatch opening to your work area. Attach the tri-pod or davit arm's life line to the back of your harness. The entry supervisor is required to operate the tri-pod or davit arm while the worker enters the space.
6. Test the air quality with the multi gas detector by lowering it into the space. Document the information on the entry permit. If no alarm sounds the worker may enter but must have the gas detector on his person at all times. If the gas detector shows signs of hazardous atmospheric contaminants then the space is required to be ventilated. Please contact the Divisional Maintenance Supervisor prior to proceeding.
7. Take a flashlight or other type of portable illumination. Conduct the required work. Remove all debris and garbage. No combustible materials are allowed to be left / stored in crawlspace
8. **If the alarm sounds at any time the worker MUST leave the space immediately and call their**

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supervisor.

9. If the alarm sounds and the worker does not exit, the entry supervisor must initiate the rescue plan. The entry supervisor **MUST NOT ENTER** at any time.
10. After work has been completed, lock access hatch / door to prevent unauthorized entry.
11. Complete the entry permit and return it to the Maintenance Supervisor.

Note: separate rescue procedures must be created prior to entering.

REGULATORY REQUIREMENTS:

- Mb. Regulations 217/2006, Part 15, Sections 15.1 – 15.3
- WS&H Act W210, Section 4, 5, 7, 7.1
- Confined Space Entry - Code of Practice