



### **SGDSB**

Contractor & Sub-Contractor

HEALTH AND SAFETY

STANDARD OPERATING
PROCEDURES HANDBOOK

Working together towards zero workplace injuries

### **Table of Contents**

Introduction	Page
Procedure	3
Contractor Accountability	5
Contractor Responsibility	6
Contractor Checklist	7
Contractor Agreement	8
Contractor Orientation	10
Personal Protective Equipment	11
Electric Tools / Machinery	15
Manual Material Handling	16
Ladder Safety	17
Hot Work	19
Mould Abatement	21
Painting & Flooring Requirements	22
Working at Heights	25
Lockout Tag out	29
Confined Space - Being Developed 2007- 2008	41
Asbestos Abatement - Being Developed 2007-2008	60
Arc Flash - Being Developed 2008-2009	73
Flammable/Combustible Material	74
Fire Extinguisher	75
Acknowledgement Sign off Sheet	76
Health & Safety Training Sign Off Sheet	77
Training Evaluation Form	78



Superior-Greenstone District School Board

### **CONTRACTOR HEALTH & SAFETY RESPONSIBILITIES**

### PROCEDURE:

To ensure Contractors follow the minimum guidelines in order to provide and maintain a safe work environment for Contractors, Sub-Contractors and Superior Greenstone District School Boards employees.

Superior Greenstone District School Board is committed to the protection of its employees, the environment and its physical assets. SGDBS will continue to maintain a safe work environment in order to prevent occupational injuries and illnesses.

All employees, Contractors and employees of Contractors are responsible for complying with the requirements of the Ontario Occupational *Health and Safety Act and its Regulations*.

# All Contractors must be on the Approved Contractor List before any work can be performed

### **Definition:**

Approved Contractors – Is any contractor who has signed and returned all required documents as per this procedure

Delivery Persons - A person who is on Superior Greenstone District School Boards property to either receive or drop off product.

SGDSB - Superior-Greenstone District School Board

Maintenance Coordinator – A company employee who is contracting the work

Designate- A company employee who is contracting the work either the Maintenance Working Foreman, Head Custodian, Site Administrator and or Plant Manager

The Manager of Plant Services or SGDSB designate shall ensure that the Contractor has signed the Contractor Health and Safety Responsibility Agreement.

The Manager of Plant Services or designate shall ensure the Contractor's legal name and the authorized signing officer's title is correct on the Contractor Health and Safety Responsibility Agreement.

The Manager of Plant Services or SGDSB designate shall forward three copies of the Contractor Health and Safety Responsibility Agreement to the Contractor for signature. The

Contractor shall keep one copy for their records and forward two copies back to the Manager of Plant Services or SGDSB designate.

The Contractor must provide the Manager of Plant Services or SGDSB designate with an upto-date liability insurance certificate, listing the company as a certificate holder. SGDSB Manager of Plant Services or designate shall ensure the Contractor has no less than two (2) million dollars per occurrence of public and property liability insurance. The Manager of Plant Services may approve some lesser amount at his/her discretion.

The Contractor must submit an up-to-date Workplace Safety and Insurance Board (WSIB) Clearance Certificate.

The Manager of Plant Services or SGDSB designate shall ensure that all required documentation is completed and returned before commencement of the work.

The Contractor, Sub-Contractor shall provide the Manager of Plant Services or SGDSB designate with any Material Safety Data Sheets (MSDS) for all Workplace Hazardous Materials Information Systems (WHMIS) products used on the project.

Delivery Persons are not required to endorse a Contractor Health and Safety Responsibility Agreement. However, they shall not perform any services, other than delivery or receiving, while on Superior Greenstone District School Boards premises.

### **RESPONSIBILITIES:**

The Manager of Plant Services or SGDSB designate shall ensure that the signed Contractor Health and Safety Responsibility Agreement, along with a copy of the Contractor's WSIB Clearance Certificate, a copy of their liability insurance, licenses, certificates and MSDS(s) are on file.

SGDSB Plant Department shall keep a list of the Approved Contractors.

The Joint Health and Safety Committee will include Contractor's adherence to their health and safety roles and responsibilities when conducting monthly inspections.

### **EVALUATION:**

The Manager of Plant Services in consultation with the Joint Health and Safety Committee shall on a review from time to time the Health and Safety Standard Operating Procedures and provide recommendations to the Board as a result of such review.

Any health and safety issues will be addressed immediately by the Manager of Plant Services or SGDSB designate.

### **CONTRACTOR ACCOUNTABILITY**

### **PURPOSE:**

To ensure all Superior Greenstone District School Board Contractors and or Sub-Contractors understand the established policy for discipline related to health and safety.

All Contractors and or Sub-Contractors shall abide by their health and safety roles and responsibilities as outlined in the health and safety standard operating procedure booklet. Failure to comply will result in the application of the progressive discipline procedure.

The procedure has the following steps:

Step one (1): SGDSB Manager of Plant Services or designate and or supervisor

gives a verbal warning and provides corrective action to the contractor and or sub-Contractor worker. Worker must acknowledge receiving verbal warning by signing a Discipline

Acknowledgement form.

Step two (2) Contractor and or Sub-Contractor worker receives a written

warning using the Written Discipline form. This will outline the issue, corrective action and timeframes for compliance. The contractor and or sub-contractor worker must sign the form in the presence of their supervisor and a Superior Greenstone District

School Board designate.

Step three (3) should the contractor and or sub-contractor worker not abide with

the corrective action, then suspension or termination of the worker

will occur.

The Contractor, Sub-Contractor must abide by and must ensure that each of the contractor's employees and sub-contractor's employees (if applicable) abide by Superior Greenstone District School Board Health and Safety Standard operating procedures rules and regulations. The Contractor, Sub-Contractor will also be able and willing at such times as recommended by SGDSB to provide additional precautions as deemed necessary by SGDSB for safe-guarding employees and equipment. The Contractor, Sub-Contractor further acknowledged and agrees that any violation of safety rules or regulations is justification for the immediate termination of its Contract with SGDSB, without any further obligation on the part of SGDSB.

### CONTRACTOR RESPONSIBILITY

To ensure the safety of all Contractors, Sub-contractors the following responsibilities must be enforced.

### **Contractors Sub-Contractors workers must:**

- a) Sign in and Sign out in the school visitor log book,
- B) Report to the Head Custodian and or Maintenance Working Foreman
- c) Acknowledge they have read the SGDSB Health and Safety Standard Operating Procedure and sign off.
- d) Wear the appropriate personal protective equipment
- e) Not Smoke anywhere on school premises
- f) Report immediately to a SGDSB Maintenance Working Foreman, Head Custodian, Principal or Vice-Principal any injury, no matter how minor
- g) Remain out of restricted areas
- h) Follow all posted signs and rules
- i) In the event on an emergency follow the instructions given prior to commencing work and remain in the gathering area until given further instructions.
- j) Fill out all maintenance log books, and preventative maintenance sheets.
   (Fluorescent orange sleeves)

### The WSIB Clearance Certificate is only valid for 60 days

Approval signature:  (Maintenance Foreman or Head Custodian)	Date:
Distribution to: SGDSB Manager of Plant Services	Contractor, Sub-Contractor Name:

### CONTRACTOR CHECKLIST

(X) Check as			
Reviewed	Review	Miscellaneous	Initials
/Received		Notes	
Date and			
checked (X)			
	Signed Contractor Health and Safety		
	Responsibility Agreement		
	Received WSIB Clearance Certificate (no		
	more		
	Than 60 days old)		
	Received a copy of the Contractor's accident		
	History(for one year)		
	Received up-to-date liability insurance		
	(Company listed as certificate holder with a		
	minimum of \$2 million coverage)		
	Licenses & certificates of contractor		
	employees or other applicable training		
	requirements		
	Examples:		
	-Fall protection certificate		
	-Oil Burner Technician certificate		
	-GI, GII, GIII certificate		
	-Plumbers certificate		
	-Electrician certificate		
	-Lockout tag out certificate		
	-WHMIS certificate		
	Read SGDSB Health and Safety Rules and		
	Regulations to all employees		
	Read SGDSB Personal Protective		
	Equipment requirements(PPE) It is the		
	Contractor's responsibility to ensure that their		
	employees possess and use all required		
	PPE appropriately		
	Contractor to provide MSDS(s) for any		
	WHMIS controlled products		
	Advise Contractor all occupational		
	injuries/illness that occur on our property		
	must be reported immediately		

### **CONTRACTOR AGREEMENT**

THIS AGREEMENT made the	day of	,20,
between	<u>.</u>	(the Contractor),
and Superior Greenstone District Sch	ool Board	, ,,

- 1) The Contractor must employ only orderly, trained, competent and skilful people to do work and the Contractor's employees must be fully covered under the Workplace Safety and Insurance Board by the Contractor and must provide up-to-date Clearance Certificate from the Workplace Safety and Insurance Board. All sub-contractors must be approved in writing by the company before commencing any work and the Contractor is responsible for ensuring that their employees comply with the terms of this agreement.
- The Contractor acknowledges and accepts all risks arising or pertaining to the ownership, possession, use or operation of its equipment in completing its services, whether in whole or in part, whether directly or indirectly, by an act or omission or negligence of the Contractor, or for those whom it is law responsible.
- Contractor must indemnify and save harmless the Company from any and all claims, demands, actions, losses or property damage arising directly or indirectly from ownership, possession, use or operation of its equipment in completing its services., whether in whole or in part, whether directly or indirectly, by an act omission or negligence of the Contractor, of for those whom it is in law responsible. Contractor must protect and hold Company harmless and must pay all costs, expenses and reasonable legal fees incurred or paid by Company in connection with such litigation. The indemnities contained in this Agreement shall not prejudice by and must survive the termination of this Agreement.
- 4) The Contractor must, during any time in which it is providing services to the Company, take out and keep in full force and effect property damage and public liability insurance in which the limits of public liability and property liability must not be less than two million (\$2,000,000.00) dollars per occurrence, the whole at the Contractor's sole cost and expense. All policies must be in written with insurance companies qualified to do business in the Province of Ontario and shall name the company as an additional insured and a certificate acknowledging same must be provided to the Company.

- The Contractor must abide by and must ensure that each of the contractor's employees and sub-contractor's employees (if applicable) abide by the Company's Health and Safety rules and regulations. The Contractor will also be able and willing at such times as recommended by the Company to provide additional precautions as deemed necessary by the Company for safe-guarding employees and equipment. The Contractor further acknowledged and agrees that any violation of safety rules or regulations is justification for the immediate termination of its Contract with Company, without any further obligation on the part of the Company.
- 6) The Contractor must, at its own expense, obtain and maintain in good standing all permits and licenses required by any authorities having jurisdiction over the business of the Contractor. The Contractor must also comply with all federal, provincial and municipal governmental laws and regulations which are applicable to its business, and in particular, those affecting health and safety, workers' compensation and environmental matters.
- 7) This Agreement must be constructed and enforced in accordance with the laws of the Province of Ontario and the parties agree to attorney to the jurisdiction of the Courts of that Province.
- 8) This Agreement embodies the entire agreement of the parties with regards to the matter herein, and no other agreement must be deemed to exist, except as entered into in writing by both parties to this Agreement.
- 9) The Contractor must not assign this Agreement or any part of it and may not employ or retain anyone as a sub-contractor or otherwise, to perform any part of its obligation under this Agreement without prior written consent of the Company.
- No contracted work offers will be granted by the Company unless this Agreement terms and conditions are fully accepted and agreed upon by the parties to the satisfaction of the Company

Accepted thisday of	20,
Contractor / Sub-Contractor	Company (SGDSB)
By:	_by
(Authorized signing officer)	(Authorized signing officer)
Print Name:	Print Name:
Print Title:	Print Title:

### **CONTRACTOR ORIENTATION**

Once a SGDSB Contractor and or Sub-Contractor are hired to perform work at any Superior Greenstone District Schools, they will be requested to review the Health and Safety Standard Operating Procedure Handbook.

The Manager of Plant Services or Maintenance Coordinator is responsible to review the content of the handbook with each SGDSB maintenance and or custodial employee.

The Head Custodian and or Maintenance Working Foreman are responsible to review the content of the handbook with each Contractor or Sub-contractor if they have not read nor understand.

SGDSB Contractor and Sub-Contractor must physically sign-off, as required to acknowledge the information has been reviewed.

SGDSB shall retain signatures for their records. All signed acknowledgement forms must be forwarded to the Manager of Plant Services within five workings days.

The review of the handbook is the responsibility of SGDSB and must be done by competent persons.

After receiving the signed acknowledgment form SGDSB will then issue the most current Superior Greenstone District School Board Approved Contractor List to all Head Custodians, Maintenance Working foreman and Site Administrators.

# Only Approved Contractors, Sub-Contractors may perform work for SGDSB

### PERSONAL PROTECTIVE EQUIPMENT

### **Procedure:**

When exposure to a particular chemical, physical or biological hazard cannot be eliminated or adequately controlled then it may be necessary for workers to wear Personal Protective Equipment (PPE). The type of hazard and the expected exposure duration will determine the appropriate PPE. For Superior Greenstone District School contractors and or sub-contractors this may include: foot and eye protection, gloves, head protection, respirators and fall protection. The following directives provide information as to the proper care and use of the PPE.

### **Foot Safety**

When a worker is exposed to hazards that could cause a foot injury it is necessary that safety footwear be worn. All contractors and sub-contractors are required to wear protective footwear certified by the Canadian Standards Association (CSAZ195-M1992). The footwear should be Grade 1 that offers the highest protection with a steel toe that protects against falling objects and an insole that protects against punctures to the bottom of the foot. In addition, it is recommended that all Maintenance workers and electrical contractors purchase the Grade 1 safety footwear protection with soles that provide resistance to electric shock under dry conditions.

### **Eye Safety**

There are 7 classes of eye protection certified by the Canadian Standards Association (CSAZ94.3-99) to match particular hazards (i.e. impact, splash, radiation). The following protective eyewear is recommended for TCDSB trades staff based on the potential hazards that are likely to occur when completing job tasks.

Potential Hazard	Eye Protection Required
Flying Objects (nailing, drilling, crushing)	Class 1A – Spectacles with side protection
	or
	Class 2B – Cover Goggles with indirect
	ventilation for optimum protection.
Flying Particles and Dust (woodworking,	Class 2B – Cover Goggles with indirect
sanding, plastering, mould abatement)	ventilation
Radiation (Welding)	Class 3 – Welding Helmet

### Safety Gloves

Should there be the potential for the hands to be injured by a chemical, biological or physical hazard (abrasion, puncture, laceration) then appropriate gloves should be used and maintained. The gloves should be comfortable and provide a secure fit. The table below outlines the potential hazards to the hands for tasks completed by the trade's staff.

Potential Hazard	Hand Protection Required
Abrasion, Biological Contamination	Nitrile glove underneath the metal glove
(specific for the Plumbers using the	
"Snake".	
Abrasion, Sharp Edges	Leather gloves
Electricity	Rubber-insulating gloves tested to
	appropriate voltage with leather outer
	glove if risk of puncture, abrasion and
	moisture or if voltage greater than 250V
Trades Chemicals (based on MSDS)	Polyvinyl or neoprene gloves

The Material Safety Data Sheets (MSDS) for any new chemicals to be used by SGDSB contractors should be reviewed prior to using the chemical to determine the appropriate glove. It should be noted that not any one glove is resistant to all chemicals.

### **Head Protection**

In particular circumstances depending on the work being completed some SGDSB sites may be classified as construction sites. In this case as with all construction sites it is necessary that workers on site wear head protection. The appropriate head protection must comply with the Canadian Standards Association (CSAZ94.1M1992) and protect against impact and small flying or falling objects and can withstand specific electrical contact. The appropriate head protection that should be available for SGDSB contractors would be a Class E hardhat.

### **Hearing Protection**

If potentially hazardous noise exposure levels cannot be adequately reduced through engineering or administrative controls then it will be necessary for SGDSB contractors to wear appropriate hearing protection. Based on the nature of the maintenance work being performed, select trades staff should have earmuffs available that comply with the Canadian Standards Association (CSA Standard Z94.2-M1984) for working in areas with elevated noise levels (e.g. HVAC units, adjacent to compressors).

### Respirators

Job tasks conducted by SGDSB contractors can result in the production of respiratory hazards including gases, vapours, fumes, mist and/or dusts. The concentration of these respiratory hazards currently does not warrant respiratory protection based on the existing engineering and administrative controls. However, in the circumstances that a respirator is necessary then determine the appropriate respirator based on the contaminant characteristics and anticipated exposure limit. Upon selecting a respirator it is imperative that the respirator fits properly and is maintained accordingly to ensure the protection factor is not compromised.

### **Fall Protection**

Travel restraint or fall arrest system consists of the following components:

- CSA-approved full body harness
- Lanyard
- Lifeline
- Rope grab
- Adequate anchorage

All fall protection equipment must be inspected for damage, wear and obvious defects prior to each use. Each worker required to use fall protection must be trained in its safe use and proper maintenance. Any defective components should be immediately replaced.

# Fall Protection Safety Equipment Checklist is available from the Head Custodian

### **Anchor Points**

Contractors must install all temporary anchor points prior to commencing any tasks that require fall protection.

Anchor points capable of withstanding a 5000 pound shock unless a deceleration device in use limits fall to 2 feet, in which case a 3000 pound anchor point may be used.

Refer to OH&S Regulations

### Fall Protection Safety Equipment Checklist

			Ec	quipme	ent	
General Factors	Inspected By:	Tie-Off Adaptors	Lanyards	Full Body Harness	Anchorage Plates	Hook / Carabineers
		(Place	date inspe	ected in co	rrespondin	ig box)
Hardware / Physical Damage (includes d-rings, snap hooks, carabineers, adjusters, keepers, thimbles, buckles, keepers, back pads)	Inspect for damage, distortion, sharp edges, burrs, cracks, corrosion, and proper operation					
Webbing	Inspect for cuts, burns, tears, abrasion, frays, knots, excessive soiling, and discoloration					
Stitching	Inspect for pulled or cut stitches					
Labels	Inspect and make certain all labels are securely held in place and legible.					

Additional Comments:

### **ELECTRIC TOOLS / MACHINERY**

### **Procedure:**

All Superior Greenstone District School Board contractors and or sub-contractors that work with electric tools shall operate the tool according to the manufacturer's instructions.

### **Directives:**

- Only use the power tool for the task in which it was designed.
- Inspect all power tools prior to use for damaged or worn parts and ensure screws, nuts and bolts are tightened.
- Inspect cords for defects: check the power cord for cracking, fraying, and other signs of wear or faults in the cord insulation.
- If a tool is defective, remove it from service immediately for repair by a qualified person.
- Read the operator's manual before using the tool and operate the tool according to the manufacturer's instructions.
- Ensure that the power tool has the correct guard, shield or other attachment that the manufacturer recommends.
- Wear or use personal protective equipment (PPE) or clothing that is appropriate for the work you are doing; this may include items such as safety glasses or goggles, hearing protection, dust mask, gloves, safety boots or shoes, or rubber boots.
- Pull the plug, not the cord when unplugging a tool. Pulling the cord causes wear and may adversely affect the wiring to the plug - an electrical shock to the operator may result.
- Before plugging or unplugging tools be sure power switch is turned off.
- Never clean or repair a tool unless power is disconnected and only if you are trained to complete such repairs.
- Electric tools should be properly grounded or double-insulated.
- Keep power cords clear of tools during use
- Suspend power cords over aisles or work areas to eliminate stumbling or tripping hazards.
- Ground fault circuit interrupters must be used with any portable electric tool operated outdoors or in wet locations.
- Wear the appropriate PPE for the task being completed.

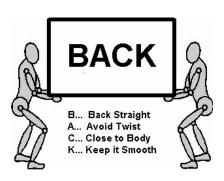
### MANUAL MATERIAL HANDLING

### **Procedure:**

This procedure has been developed to minimize the risk of injury associated with Manual Material Handling (MMH).

The risk factors related to MMH including:

- Force (required to perform the task)
- Weight (of the object to be moved)
- Repetition (number of times the lifting motion is performed)
- Duration (length of time task performed)
- Grip
- Stability of load (liquids are not as stable as the centre of gravity shifts)
- Size of object
- Travel distance (vertical and horizontal)



The best lifting practice is to control the risk factors. The following outlines the necessary controls to be followed by contractors involved with MMH.

- 1. When the weight of the object is greater than 100 pounds the object should be designated as a "**team lift**" involving at least two staff members. Gloves should be worn when lifting these objects to secure a grip.
- 2. Objects that have the potential to be unstable should be secured prior to lifting.
- 3. The horizontal travel distance should be minimized where possible to limit unnecessary lifting. This is accomplished by picking-up/dropping off equipment as close as possible to its final destination.
- 4. The following practice should be implemented for all Manual Material Handling:
  - Stand close to the load and face the way you intend to move.
  - Use a wide stance to gain balance.
  - Be sure you have a good grip on the load.
  - Lift the load as close to the body as possible, and lift smoothly without jerking.
  - Avoid twisting and side bending while lifting.
  - Use appropriate mechanical assistance where available.

### LADDER SAFETY

### **Procedure:**

All Superior Greenstone District School Board contractors and or sub-contractors are required to comply with the requirements outlined in the Industrial Establishments, Regulation 851 under the Occupational Health and Safety Act for access ladders in fixed position and portable ladders. In addition, the following directives should be applied to prevent injuries when using a ladder to complete work or as a means of access/egress.

### **Directives**

- Inspect the condition of rails, braces, steps and rungs.
- Tag defective ladders so they are out of service and cannot be utilized. Do not make temporary repairs.
- Use an appropriate ladder for the task at hand that meets the accreditation standard (i.e. height, material, ladder type) and use according to specifications.
- Always face the ladder when climbing up or down and when working on the ladder.
- Maintain a three point contact when <u>ascending/descending</u> a straight ladder
- Clear debris, tools and other objects from area where the ladder will be placed to ensure the ladder is secured.
- When erecting a straight ladder, the feet should be 1 rung out for every 4 rungs height to the point the ladder touches the wall.
- Clean muddy or wet soles of shoes/boots before mounting the ladders.
- One or more workers should hold a portable ladder that exceeds 6 metres in length and is not securely fastened or is likely to be endangered by traffic in place.
- Assistance should be made available for any employee required to move a heavy or long ladder.
- Hoist materials or attach them to a belt. Do not carry materials in your hands.
- Painting a ladder is prohibited as it can hide deficiencies.
- The legs of a stepladder should be fully extended and locked before use and should **never** be leaned against a wall for use as a straight ladder.

### Ladder Inspection Reports are available from school Head Custodian

LADDER INSPECTION RE	PORT
TRUCKNO	
MAKE AND MATERIAL	
LADDER NO.	
TYPE: EXTENSION SINGLE	STEP
DATE PURCHASED	
ASSIGNED TO	
DEPARTMENT	
INDICATE "S" - SATISFACT "U" - UNSATISFACTOR	
DATE OF INSPECTION D/M/Y	
STEPS, RUNGS:	S( ) U( )
RUNG LOCKS:	S( ) U( )
ROPE AND PULLEY:	S( ) U( )
SAFETY FEET:	S( ) U( )
SIDERAILS:	S( ) U( )
HINGES:	S( ) U( )
SPREADERS:	S( ) U( )
UPRIGHTS:	S( ) U( )
VEHICLE LADDER STORAGE:	S( ) U( )
INSPECTED BY: (print name)	
COMMENTS:	
	····
SIGNATURE:	

### **Ratings and Types**

Manufactured ladders are rated to the duty or service to which they will be put and the working load under which they will be used in a standard inclined position. The following table provides the different grades of ladders and loads they are rated for:

### In-Line Load Ratings & Duty Type

(Wooden and Metal Ladders)

Duty Rating & Type	Working Load (pounds)
Extra Heavy Duty – Type IA	300
Heavy Duty – Type I	250
Medium Duty – Type II	225
Light Duty – Type III	200

### **HOT WORK PROCEDURE**

### **Procedure:**

Hot Work is any operation producing flames, sparks or heat, by cutting, welding, brazing, grinding, sawing, soldering, thawing frozen pipe and by applying roof covering.

The Superior Greenstone District School Board Plant Services Department operates under a Hot Work Procedure through a permit system. Before any Hot Work is carried out, Contractors, subcontractors must complete a permit to do Hot Work.

# Hot Work Permits available from the school Head Custodian

Contractors and or Sub-Contractors who do not follow these procedures are not authorized to perform Hot Work repairs.

### Methods

### A) BEFORE DOING HOT WORK

- Seek another repair method if possible, which does not create risk of fire.
- Hot Work permit must be completed and signed by the person doing the work and posted in the work area.
- Prepare the area properly to guard against fire.
- Inspect the area for Fire Alarm smoke detectors.
- Remove combustible contents or cover with Fire resistive tarpaulins.
- Sweep floors clean.
- Remove flammable liquids.
- Make sure Fire protection and Hot Work equipment function properly.
- A Fire Hose and/or Fire Extinguisher must be available and function properly.
- Notify the Head Custodian or Designate of work to be carried out and the time lines.

### B) AFTER DOING HOT WORK

- Fire watch up to 1 Hour after work is completed.
- Monitor the Hot Work area for at least 4 hours after the job is complete.

# **WARNING!**

### HOT WORK IN PROGRESS WATCH FOR FIRE!

IN CASE OF AN EMERGENCY: CALL:

## WARNING!

FACTORY MUTUAL



### BEFORE INITIATING HOT WORK, CAN THIS JOB BE AVOIDED? IS THERE A SAFER WAY? This Hot Work Permit is required for any temporary operation involving open flames or producing heat and/or sparks. This includes, but is not limited to: Brazing. Cutting. Grinding, Soldering, Thawing Pipe, Torch Applied Roofing and Welding. PART 1 REQUIRED PRECAUTIONS CHECKLIST INSTRUCTIONS 1. Firesafety Supervisor: Available aprinklers, hose streams and extinguishers are in service/operable. Verify precautions listed at right (or do not proceed with the work). Hot Work equipment in good repair. B. Complete and retain PART 1. Requirements within 35 ft. (11m) of work C. Issue PART 2 to person doing job. I verify the above location has been examined, the precautions checked on the Required Precautions Checklist have been taken to prevent fire, and permission is authorized for this work. Work on enclosed equipment Enclosed equipment cleaned of all combustibles. Containers purged of flammable liquids/vapors. Pressurized vessels, piping and equipment removed from service, isolated and vented. wetch/Hot Work area monitoring Fire watch will be provided during and for 80 minutes after work, including any coffee or lunch breaks. NOTE EMERGENCY NOTIFICATION ON BACK OF FORM. USE AS APPROPRIATE FOR YOUR FACILITY. and, where precusal, charged small novel. Fire watch is trained in use of this equipment and in sounding elemn. Fire watch may be required for adjoining areas, above, and below. FACTORY MUTUAL Monitor Hot Work area for 4 hours after job is completed Other Precautions Taken

### **MOULD ABATEMENT**

### **Procedure:**

The appropriate mould abatement procedure is determined by the quantity of mould identified and the type of material that is contaminated. The following procedure outlines the remediation measures that must be followed by Superior Greenstone District School Board staff, contractors and subcontractors as defined by the extent of the mould contamination.

- 1. For areas contaminated with mould that are less than 10 sq. ft (1m²):
  - Contractors and or Sub-contractors trained on this procedure, personal protective equipment and potential health hazards can conduct the necessary remediation.
  - The personal protective equipment that should be worn includes gloves<sup>1</sup> and goggles<sup>2</sup>.
  - Remediation of materials can be completed during school hours providing there
    are no occupants in the adjacent vicinity where the work is being completed.
  - Contaminated materials should be removed, sealed in double plastic bags and disposed as normal waste.
- 2. For areas contaminated with mould that are <u>between 10 sq.ft and 100 sq. ft (1 to 3m²):</u>
  - The areas requiring remediation should be contained with floor to ceiling enclosed with polyethylene sheeting and maintained under negative pressure with a HEPA filtered fan unit. The supply and return air vents in the contaminated area should be blocked prior to commencing the remediation.
  - The personal protective equipment that should be worn includes a N95 respirator or a half face respirator with HEPA filter, disposable coveralls, gloves<sup>1</sup> and goggles<sup>2</sup>.
  - Remediation of materials contaminated with this extent of mould must be completed after school hours and with advance notification to the area occupants.
  - Contaminated materials should be removed, sealed in double plastic bags and disposed as normal waste.
- 3. For areas contaminated with mould that are **greater than 100 sq.ft (3m2)**: Any surfaces requiring remediation that are greater than 100 sq.ft should be completed by a qualified contractor.
- The appropriate gloves that can be used include: natural rubber, neoprene, nitrile, polyurethane or PVC.
- The goggles should not have any vent holes to prevent any dust/debris entering the eyes.

### **PAINTING & FLOORING**

### **Procedure:**

To adopt a painting and flooring procedure that will ensure all staff and other parties are informed in advance when painting or flooring work will be performed in their schools. Implementation of a professional uniform colour scheme will enable the schools to look similar to new construction upon completion. Promoting the use of low VOC paints, adhesives, and flooring materials, will see improved air quality for building users upon work completion.

### **CURRENT SITUATION**

Geraldton Composite High School and BA Parker Public School in Geraldton are Paint Free Schools. No Plant Maintenance painting or flooring installation can take place unless approved by Superior Greenstone District School Board Manager of Plant Services or Maintenance Coordinator.

Materials have the potential to impact air quality; therefore the selection of painting, flooring materials and adhesives is an important consideration. Using various paint colours across the Board causes difficulty and extra cost when blending and colour matching.

### PRODUCT COMMENTS AND REQUIREMENTS

### **Paint**

- 1. Low-emitting primer and paint will be standard and applied in all schools and shall consist of the following specifications:
  - a) **Paint** Glidden ICI Ultra Alkyd Oil Low Odour (94410.501)
  - b) **Primer** Glidden ICI Gripper 250 (250.501)
- 2. Coordination with existing paint colours and building colour standard must be based with a uniform colour scheme and be continued throughout the school. Repainting will be done in the original colour unless the requester has received approval from Maintenance Coordinator or Plant Manager to change colours from the Plant Department Colour Schedule.
- Head Custodians to ensure ICI Paints document used and store all records in their data base by school location, colour code, dye lot, and paint bases.

### **MSDS and DATA Sheets**

1. MSDS sheets must be on site prior to any painting and be filed in the school's WHMIS binders.

### **Flooring** (carpet, vinyl, related flooring materials and adhesives)

- 1. Install carpet, vinyl and related flooring materials only when the school building is not occupied, except for small installations or repairs.
- 2. Use of low-emitting VOC adhesives recommended, manufactures and/or suppliers to submit information about product emissions that may adversely impact air quality.

### SAFE WORKING PRACTICE

- 1. Avoid re-circulating air from painted or flooring installation areas, ensure return air systems are temporarily covered and or blocked.
- 2. Use supply and exhaust fans to remove paint fumes and/or flooring fumes from the school.
- 3. During exterior painting keep windows and doors closed as much as possible.
- 4. Seal containers carefully after use.
- 5. Dispose waste following appropriate manufactures recommendations.

### SCHOOL REQUIREMENTS

- 1. Whenever possible, painting and flooring installations will be scheduled during school breaks or summer vacation periods. However, this is not always possible.
- 2. Prior to establishing a schedule for interior painting and flooring installations, the Maintenance Coordinator, Maintenance Working Foreman and or Head Custodian shall discuss the proposed dates with the school Principal/Vice Principal. The discussion shall consider accommodations with respect to class relocation and safety requirements.
- 3. Notification to staff by way of a bulletin and onsite notice shall be given one (1) week prior to the scheduled painting.
- 4. Notice of painting in progress is to be posted on entrance doors by the Maintenance Working Foreman, Head Custodian or designate.
- 5. No painting will be undertaken in a classroom or area that is occupied.
- 6. Keep paint stored in approved storage cabinets.
- 7. MSDS information required and reviewed prior to any painting or flooring work to begin.
- 8. A Work Order Request must be submitted requesting the area to be painted and be approved by the Principal/Vice Principal and Maintenance Coordinator.

# NOTICE PLANNED PAINTING / FLOORING WORK

FROM:						
SCHOOL:						
Is it intended that the above	ve work w	ill begi	n			
And be completed by						
In the following areas of the	ne school:					
Foyer	[	]				
Administration Ar	ea [	]				
Corridors	]	]				
Washroom	]	]				
Gymnasium	[	]				
Library	[	]				
Classrooms	[	]				
Other	[	]				
Please be assured that th maximum extent possible		ing wo	rked on will l	oe ventilat	ed to the	
If you are allergic to paint possible so that special ar				ase contac	ct me as so	on as
(SGDSB Principal / Vic-principal, Mang	ger of Plant or I	Maintenar	nce Coordinator)	_		

### **WORKING AT HEIGHTS**

### **Procedure:**

All Superior Greenstone District School Board Contractors, Sub-Contractors working at heights shall exercise caution and safe practices appropriate to the elevated work structure (i.e. any structure or device that is used as an elevated work base for persons or means of access or egress). The following directives serve as a practical guide to ensure the safest practical means of accessing an elevated work area.

### **Scaffolding**

- Install and secure all necessary planks and test all scaffold planks prior to use. Immediately report and tag out any damaged planks.
- On scaffolding where a staff member can fall 2.4 metres (8feet) or more, guardrails must be installed or a <u>fall-arrest system</u> must be worn.
- The scaffold should be braced to prevent lateral movement.
- Scaffold Inspection Tags must be fixed to the scaffolding prior to commencing any work.
  - Green Safe for use scaffolding inspection tag
  - Yellow Caution scaffold inspection tag
  - Red Do not use scaffold inspection tag

### Inspection tags are available from school Head Custodian

- Do not climb up or down the scaffold frame, a portable ladder should be made available
- Do not use scaffolds for the storage of material and do not overload a scaffold.
- Scaffolds must be able to support at least four times their designated load capacity.



SGDSB Scaffold Site:		/ 1 器器 :
	CAUTION SCAFFOLD INSPECTION TAG	
DATE ERECTED D/M/Y	EXPECTED DATE/REMOVAL D/M/Y	10000 FO
THIS SCAFFOLD WAS BUILT FO	OR THE FOLLOWING WORK	
THIS SCAFFOLD WAS BUILT FO	OR THE FOLLOWING WORK	110 000

# DO NOT USE THIS SCAFFOLD KEEP OFF

THIS SCAFFOLD IS BEING ERECTED
OR TAKEN DOWN
ONLY AUTHORIZED EMPLOYEES
USING REQUIRED
PERSONAL PROTECTIVE
EQUIPMENT MAY WORK
ON THIS SCAFFOLD

DATE:	
SCAFFOLD NO:	
SIGNATURE:	



### **Elevating work Platforms**

The safe directives for the two basic types of elevating platforms – boom and scissor machines are outlined below:

- All elevating work platforms must be engineered tested to meet relevant standards and must be checked each day before use by a trained worker.
- Be familiar with the manufacturer's operating manual and emergency controls.
- Only staff that has received fall arrest training is permitted to operate and utilize a powered boom platform and/or a scissor lift.
- A boom machine is not intended for lifting materials.
- Check for overhead power lines before moving or operating an elevating work platform.

Mobile equipment such as personal lifting equipment is essentially tools used in the field for carrying out various jobs.

Proper maintenance and an understanding of load capacity is a must to prevent accidental injury and machinery breakdown.

### **REMINDERS:**

- 1) Only authorized and qualified persons are permitted to operate personal lifts
- 2) Ensure safe working conditions and environment prior to start a job.
- 3) Properly maintain tools, equipment, protective eye wear, hard hats and all other protective gear.
- 4) A pre-check of the unit, its equipment, safety devices and work platform for mechanical operation and housekeeping is a must prior to utilization of equipment.
- 5) Personnel working on or about work platforms must be aware of and keep clear of moving parts or pinch points.
- 6) When a person is climbing down from the lift, 3 point contact must be maintained.

### STANDARD SAFETY AND CHECK LIST:

- 1) Standard personal safety equipment gloves, boots, hard hat and safety glasses.
- 2) Necessary rigging gear where required.
- 3) Shall not be loaded in excess of its rated working load.
- 4) Shall only be used on firm level surfaces.
- 5) Shall be used only in accordance with the written instructions of the manufacturer.

### **Regulations:**

Provincial Occupational health and safety regulation 32, 33, 42, 68, 74, 75, 76 Part IV – 67.(1) d

A document purporting to certify the results of a test or an analysis of any equipment, machine, device, article, thing or substance and purporting to be certified by an inspector is evidence of the order, decision, writing or document, and the facts appearing in order.

Section. 144 (8) under Regulation 213/91 – Construction Project – requires that:

An elevating work platform shall have signs that are clearly visible to an operator at its controls indicating:

- a) The rated working load.
- b) All limiting operation conditions including the use of outriggers, stabilizers and extended axles.
- c) Name and Address of the owner.
- d) Maintenance and inspection record tag shall be attached to the elevating work platform near the operator's station. While it is being done, on or near live exposed parts of the installations, equipment or conductors.

### **Anchor Points**

Contractors must install all temporary or permanent anchor points prior to commencing any tasks that require fall protection.

Must have anchor points capable of withstanding a 5000 pound shock unless a deceleration device in use limits fall to 2 feet, in which case a 3000 pound anchor point may be used.

### **LOCKOUT TAGOUT**

### **Procedure:**

To prevent personal injury, which results from exposure to, or contact with electrical, mechanical, hydraulic, pneumatic, thermal, chemical and/or gravity stored energy sources (i.e.: suspended loads, charged air and water lines).

To prevent personal injury or damage to equipment due to the accidental operation of equipment and/or release of stored energy (i.e.: suspended loads, charged air and water lines).

### Scope:

This procedure applies to all maintenance and custodial employees of Superior Greenstone District School Board and all contractors and sub-contractors workings for Superior Greenstone District schools.

### **Definition:**

"A set of work practices and procedures designed to guarantee no worker will come in contact with an uncontrolled energy source."

### Responsibilities;

Every person working for Superior Greenstone District School Board is required to know, understand and follow the General Lockout Procedure and any specific procedures which apply to their work.

### **General Guidelines:**

Lockout procedures are a form of personal protection for workers. When deenergizing and isolation of equipment is required to ensure safety of workers and limit unnecessary equipment damage, lockout procedures will be followed.

Lockout procedures at Superior Greenstone District School Board incorporate the use of two devices:

- 1) Personal lock
- 2) A "DANGER White "Men working on machinery" tag

### **Personal Lock:**

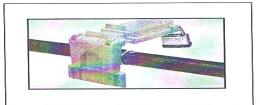
- Belong to one person only.
- Are not transferable.
- Are supplied to all maintenance and custodial staff at SGDSB.
- Are available through the maintenance coordinator by requisition.

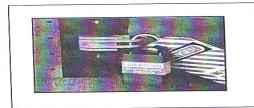
### White "Danger" tags:

- Are used by each employee working on the equipment.
- Must always accompany each personal lock.
- Must be secured to the personal lock.
- Must state the reason the switch is open.
- Must state the name of the person doing the work (printed).
- Must show the current date.
- White "Danger" Tags are not to be used without a personal lock.

### Lockout tags are available from the Head Custodian









### **Reminders:**

- 1) Do not rely on control interlocks as protection against accidental start-ups. Lock out each piece of machinery independently.
- 2) Disconnect electrical motor leads is not a recognized lockout procedure.
- 3) White "Danger" tags must always be used when a personal lock is placed on a disconnect switch. The personal lock and the white tag combine to ensure the safety of people.
- 4) Pulling fuses is not a substitute for lockout.
- 5) Relying on switch position is not a substitute for lockout.
- 6) Assuming job is too small to require locking out is not acceptable.
- 7) Failure to test to verify energy status must be performed.
- 8) Information tags do not equal lockout devices
- 9) Personal Protective Equipment must be worn.
- 10)Identify all equipment to be locked out. Be aware of the other energy sources in addition to electrical sources (batteries or charged air, hydraulic, steam or water lines).

### **Regulations:**

Provincial Occupational health and safety regulation 32, 33, 42, 68, 74, 75, 76 Section 42. (1) Under Regulation 851 – Industrial Establishments – requires that:

Supply to electrical installations, equipment or conductors shall be disconnected, locked out of service and tagged before work is done, and while it is being done, on or near live exposed parts of the installations, equipment or conductors.

### Section 42. (6)

If a Tag is used as a means of communication, the tag,

- a) shall be made of non-conducting material;
- b) shall be secured to prevent its inadvertent removal;
- c) shall be placed in a conspicuous location;
- d) shall state the reason the switch is disconnected and locked out;
- e) shall show the name of the worker who disconnected and locked out the switch; and
- f) Shall show the date on which the switch was disconnected and locked out.

### **LOCKOUT PLANNING STEPS**

Specific lockout procedures will vary depending on the work and the process which must be shut down. The following chart can help you develop specific procedures.

- 1. Locate area, Identify equipment, machinery, etc.
  - 2. Identify all energy sources
  - 3. Determine parts to be locked out
  - 4. Determine proper lockout methods
    - 5. Notify affected personnel
      - 6. Shut down equipment
        - 7. Lock out equipment
    - 8. Tag locked-out equipment
      - 9. Verify: zero-energy state
        - 10. Perform the work

### LOCKOUT PROCEDURES

### **Procedures:**

The following pages are attached to the SGDSB Site General Lockout Procedures

- 1) Electrical Lockout Procedure
- 2) Procedure For Removing Locks & Tags Left On Equipment
- 3) Lockout Procedure Audits
- 4) Mobile Equipment (vehicles, genie lifts, floor scrubbers etc...)
- 5) Testing / Troubleshooting
- 6) Energy Management Systems Delta Controls Procedure
- Procedure for Troubleshooting Circuit Breakers when tripped on a fault or suspected fault
- 8) Procedure for Working In Live Control Panels
- 9) Procedure for Testing Live Electrical Circuits

### 1) Electrical Lockout Procedure:

- 2) Identify all equipment to be locked out. Be aware of the other energy sources in addition to electrical sources (batteries or charged air, hydraulic, steam or water lines).
- 3) Stop the equipment or arrange to have it stopped. (**Energy Management System**)
- 4) Verify all test meters are functional by testing a known power source, deenergizing test and re-energizing to test. This will ensure equipment is not faulty and in good working condition.
- 5) Check to ensure the switch to be locked out coincides with the equipment stopped. Verify with cable markers and labels possible.
- 6) **Certified electricians** are permitted to enter electrical panel(s), install new electrical equipment and supply new power source for SGDSB.
- 7) **Hydro permits installations and inspections** must be entered in the electrical log book.
- 8) If the voltage is 600 volts or less, turn switch on front of panel to off, then pull the handle (standing on either side of the door) to the off position. This isolates the equipment. If the voltage is greater than 600 volts, call an

- electrician. Only electricians are permitted to operate disconnects greater than 600 volts.
- 9) Once power has been disconnected, install a lock(s) and fully completed white tag(s) on the disconnect switch handle(s). Each person working on the equipment must attach their own personal lock(s) and tag(s) to the switch handle(s) for each piece of equipment. Use multi-lock devises if necessary.
- 10) Attempt to start the equipment. If the equipment can be remove started, contact the maintenance coordinator and ask for a start on the equipment which has been locked out.
- 11)Proceed with work planned

### Removing Locks and tags:

- 1) Personal locks and white tags must be removed by the person(s) who installed them when they leave the job, leave the property or complete the work on the equipment.
- 2) If the work has been completed, remove all personal lock(s) and white tag(s)
- 3) If the voltage is 600 volts or less, push the handle (stand on either side of the door) to the ON position.
- 4) If the voltage is greater than 600 volts, call an electrician. Only electricians are permitted to operate disconnects at greater than 600 volts.
- 5) Inform the Head Custodian that the work has been completed.

### 2 Procedure For Removing Locks and Tags Left On Equipment:

- When a personal lock and white tag is left on after the completion of a job, every attempt must be made to contact the person(s) responsible. People so contacted will be asked to return to the site and remove their personal lock and white tag.
- 2) If the person(s) cannot be contacted or does not return to remove the lock(s) and tag(s) the school supervisor shall ensure that re-energizing the equipment will not result in personal injury or equipment damage.
- 3) Locks and tags can be removed by someone other than the person(s) who owns them:

- a. After the actions described in section 1) and 2) have been taken, and
- b. After the Plant Department Maintenance Coordinator or Plant Manager responsible for the facility authorizes the supervisor to remove them.
- 4) In every situation where locks and tags are removed by a person other than the person who installed them, the school supervisor performing the removal is responsible for the following:
  - a. Completing an incident report or initiating a full investigation, depending on the circumstances surrounding the incident.
  - b. Communicate the change in status of the equipment to the entire people schedule to work on or near the equipment.

### **Personal Locks:**

- 1) The following criteria is used in selecting these locks:
  - must be a keyed lock (keyed differently)
  - should be durable and of good quality
  - should be corrosion resistant
- 2) Personal locks must be kept personal. Keys must not be given to another person.
- 3) A white Danger tag must always accompany a personal lock when the lock is used as described in any Lockout Procedure.

### 4) Lockout Procedure Audits:

- 1) The attached form is used when conducting lockout audits on site.
- 2) Completed forms are to be forwarded to the Manager of Plant Services when they are completed.
- 3) Maintenance Working Foreman and or Head Custodians to perform audits on Contractors and or Sub-Contractors.
- 4) Maintenance Coordinator to perform audits on SGDSB staff and or Contractors.

### LOCK OUT PROCEDURE AUDIT FORM

LOCATION:					
DATE:					
NAME:					
EMPLOYEE NU					
SCHOOL SUPE	RVISOR:				
DEPARTMENT	:				
TYPES OF ENERGY	ENERGY SOURCE IDENTIFIED	PERSONAL LOCKS IN PLACE	WHITE DANGER TAG IN PLACE	COMMEN T	OTHER DEVICES IN PLACE
ELECTRICAL					
MECHANICAL					
HYDRAULIC					
PNEUMATIC					
THERMAL					
GRAVITY					
IS THE LOCKO DONE? YES NO ARE THE GEN TO ENSURE TH	REAL OR SPE	ECIFIC STAND			
YES NO					
ARE THESE ST	ANDARDS/PR	OCEDURES B	EING FOLLO	WED?	
YES NO					
COMMENTS:					
PERSON(S)		CONDUCTING			AUDIT:

## 4) Mobile Equipment Electrical Lockout Procedure:

- 1) The first person locking out a given piece of mobile equipment (genie lift, lifting equipment, custodial equipment etc..) must lock out the master switch, male plug end and the electrical control panel breaker by installing his/her personal lock and a complete white danger tag where required.
- 2) Worker must test to make sure the mobile equipment cannot be started before commencing work. Stored pressure must be released from all hydraulic, air or water systems before systems are worked on.
- The personal lock and white tag shall be attached to the master switch, control panel and the male plug on the equipment's permanent trailing cable.

## 5) Equipment Testing and Troubleshooting Procedure:

This equipment testing procedure is a form of personal protection for workers. When testing or troubleshooting is required, the following procedure is to be followed to ensure the safety of workers and to limit unnecessary equipment damage.

Testing / Adjusting / Troubleshooting procedure at superior Greenstone District School Boards incorporates the use of a white warning

When equipment's power is used to "Adjust, Measure or Position", the White Warning Tag shall be used.

When either the master switch, or the electrical disconnect is turned on, person(s) must attach a completed **White Warning Tag** to the source(s) to identify testing / troubleshooting.

While testing, adjusting or troubleshooting is in progress, no other work will take place until testing or troubleshooting is completed.

When testing or troubleshooting is completed, the **White Warning Tag** must be removed and equipment locked out to make repairs.

When working on equipment with more than one energy source, a lock and personal tag may be used to isolate one source, while testing/troubleshooting is being performed on another part of the equipment.

# 6) Energy Management Systems - Delta Controls Procedure

All SGDSB schools currently each have a Delta Energy Management control system installed and administered by the SGDSB Plant Department Maintenance Coordinator, Plant Manager and John McCready of Great Northern Controls:

These systems are mainly used for night setback purposes and are not controlling the entire building control system in most cases. Local room thermostats will most often still provide room temperature control.

When problems with room temperature or fan unit operation are encountered it is important that they are approached in the following method:

- 1) <u>Safety First!</u> Never assume that a fan, pump, or heating element that is not running will stay that way while you work on it. Lock out procedures must be followed for <u>all</u> equipment. When a fan or other equipment is under the control of an Energy Management System we <u>only</u> interrupt control voltage level signals. Breakers and the main power supply remain the same as before the Energy Management System went in, so, *Lock and Tag out!*
- Check the room thermostat to ensure it has not been set wrong. Many baseboard heaters and reheat coils operate independent of Energy Management Systems.
- 3) Test Voltage meter on a known power source. Test, de-energize and test again (blown fuse in a meter will give no potential difference)
- 4) Check voltage supply to Energy Management Panels. Power supply to panels must be 110-124 volts.
- 5) Check the breakers and fuses that feed the heating, cooling and ventilation system.
- 6) Check your air compressor if a pneumatic control system is used. Many <u>overheat</u> problems are caused by air system failure. Listen for air leaks in control piping; Make sure air tanks are not full of water, check belts, internal overloads and manual resets are not tripped.
- 7) Check filters and change them if they are dirty. Dirty filters are the main cause of complaints of stuffiness. Check heating and cooling coils and clean them if they are plugged.
- 8) If all the above steps have been carried out and the problem still exists then call me at the Red Rock Board Office 1-807-886-9998, or my cell phone at 807-229-5205. I may be able to check your system remotely and advise you.
- 9) Failing getting a hold of me, call Wayne Chiupka at the Marathon Board Office1-807-229-0436 ext 228, or his cell 807-229-7379. Final approach John McCready from Great Northern Controls at 807-345-5300 office or

cell 1-807-627-5913 and he can check the system remotely and advise what action to take.

# 7) Procedure for Troubleshooting Circuit Breakers when tripped on a fault or suspected fault

- 1) Do not attempt to reset until the fault is cleared.
- 2) Turn off all loads
- 3) Isolate power to faulty circuit breaker and lock out isolation switch / breaker
- 4) Check load side for faulty circuit or equipment to this circuit.
- 5) If no fault is found or suspected, then remove lock and tag and turn isolation switch / breaker back on.
- 6) Turn load back on.
- 7) If all okay, turn main breaker back on first and then all secondary breakers one at a time. Apply load in an orderly sequence.
- 8) If breaker trips again contact a certified electrician to check inside electrical panel for loose connection(s), bad contacts or mechanical defect and contaminants. Check continuity on contacts for open or high resistance (breaker in closed position).
- 9) If breaker has to be changed, tag breaker as per lockout procedure.

# 6) Procedure for Working In Live Control Panels:

Fire alarm panels, instrument panels, telephone systems and energy management systems are used to control stationary equipment on site. These panels are usually located in large cabinets. On occasion wires must be installed or removed from the terminal blocks to assist in live troubleshooting or equipment addition / removal.

Electrical work within the cabinet does not require a complete power outage inside the enclosure for the following reasons:

- 1) there are no exposed 208 volt or greater bus bars
- 2) potential fault current is very low

3) distribution panels are not control panels (i.e.: lighting/power panels)

Before work starts in a control cabinet, the voltage potential must be identified. Use specific procedure "A Testing Live Electrical Circuits".

If the voltage is greater than 150 volts to ground, then no work is allowed inside the panel without gloves. If a barrier can be installed to isolate the voltage sources, then work can proceed without gloves.

If, for some reason, you need to work beyond the limits of this procedure, contact the Plant Department Maintenance Coordinator or Plant manager.

### 9) Procedure for Testing Live Electrical Circuits:

Definition of "testing" as it applies to live electrical equipment:

There are times when electrical personnel are required to troubleshoot testing to be done with electrical circuits and equipment energized. Testing, in this context, is defined as the use of a meter device to determine voltage, current and/or resistance readings towards identifying problems with electrical equipment.

Testing for the purpose of troubleshooting does not include any repair or construction work which might be required to return equipment to regular operation condition.

Normal repair or construction work on equipment can only be done after the equipment has been de-energized and all lockout procedures have been followed.

Certified Electricians are the only workers authorized by SGDSB to enter live electrical panels (lighting panels, power panels), install new electrical circuits and equipment.

# This applies to any voltage

# **CONFINED SPACE**

### **Recognizing a Confined Space**

A sign often identifies confined spaces, but this may not be the case where access is controlled.

Confined spaces may include, but are not limited to, sewers, tunnels, manholes, utility vaults, piping, storage tanks, process vessels, pits, excavations, and other similar type of enclosures.

Each confined space will require a hazard assessment and development of a plan to determine the precautions to be taken.

Confined spaces at SGDSB are identified on the confined space audit drawing.

No entry or work in a confined space can commence without a written, approved Confined Space Entry Permit and reviewing the SGDSB Health & Safety Reference Manual.

Contractors, Sub-Contractors must submit certificate of Confined Space training

Confined Space Entry Permit and SGDSB Health & Safety Reference Manual are available from the school Head Custodian

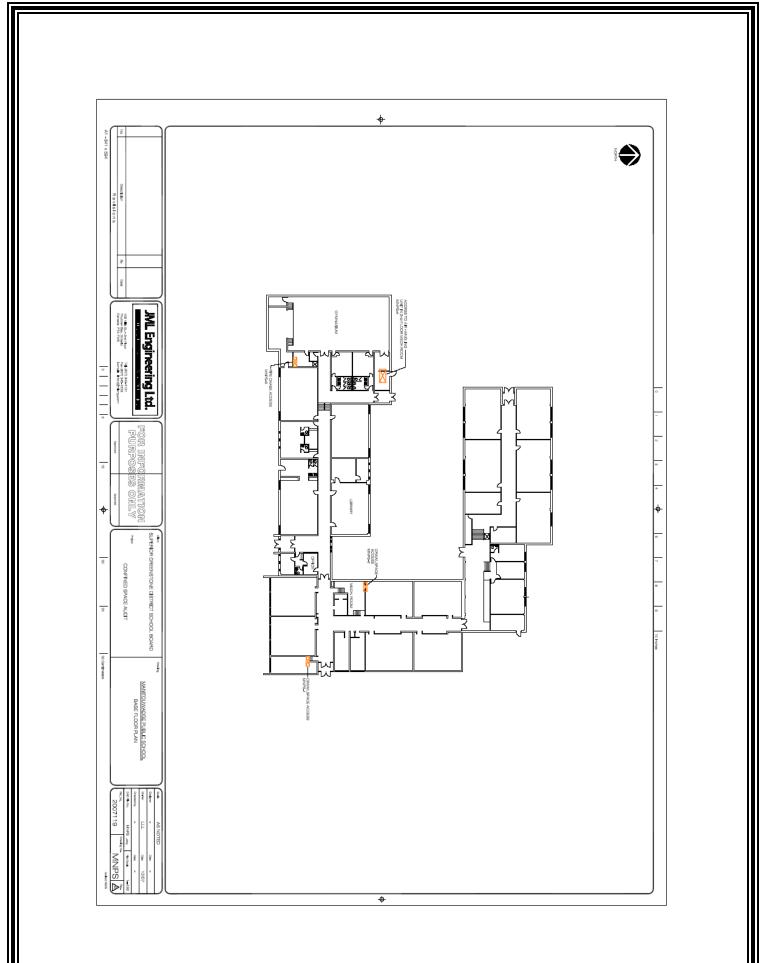
# **Under Review**

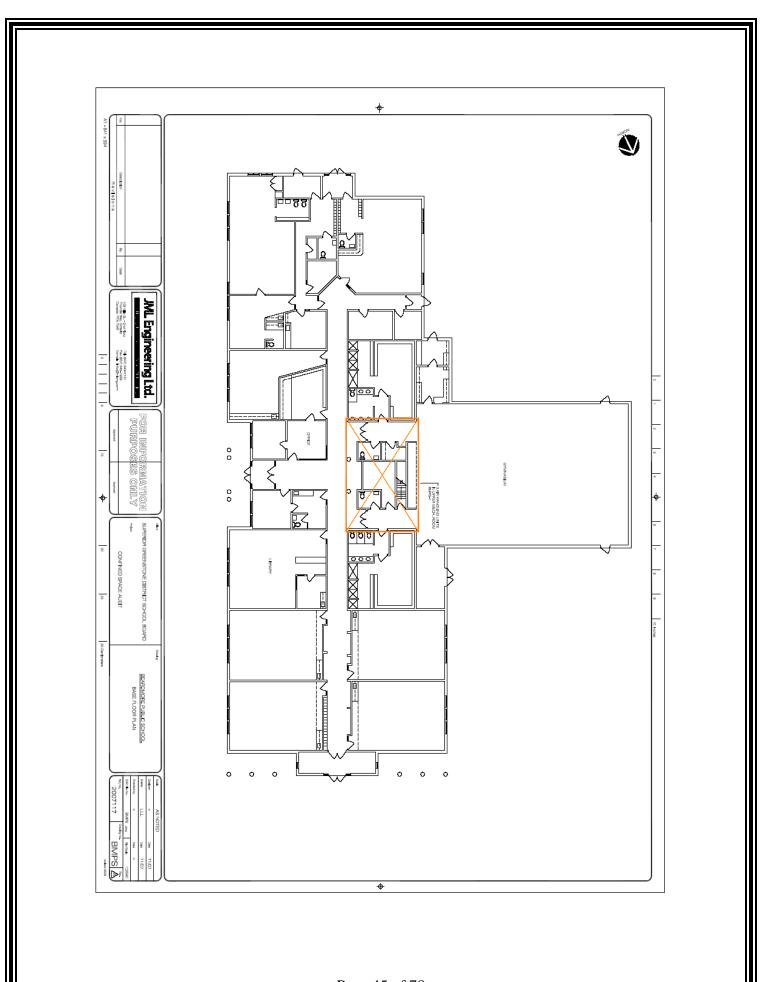
# **Confined Space Entry Permit**

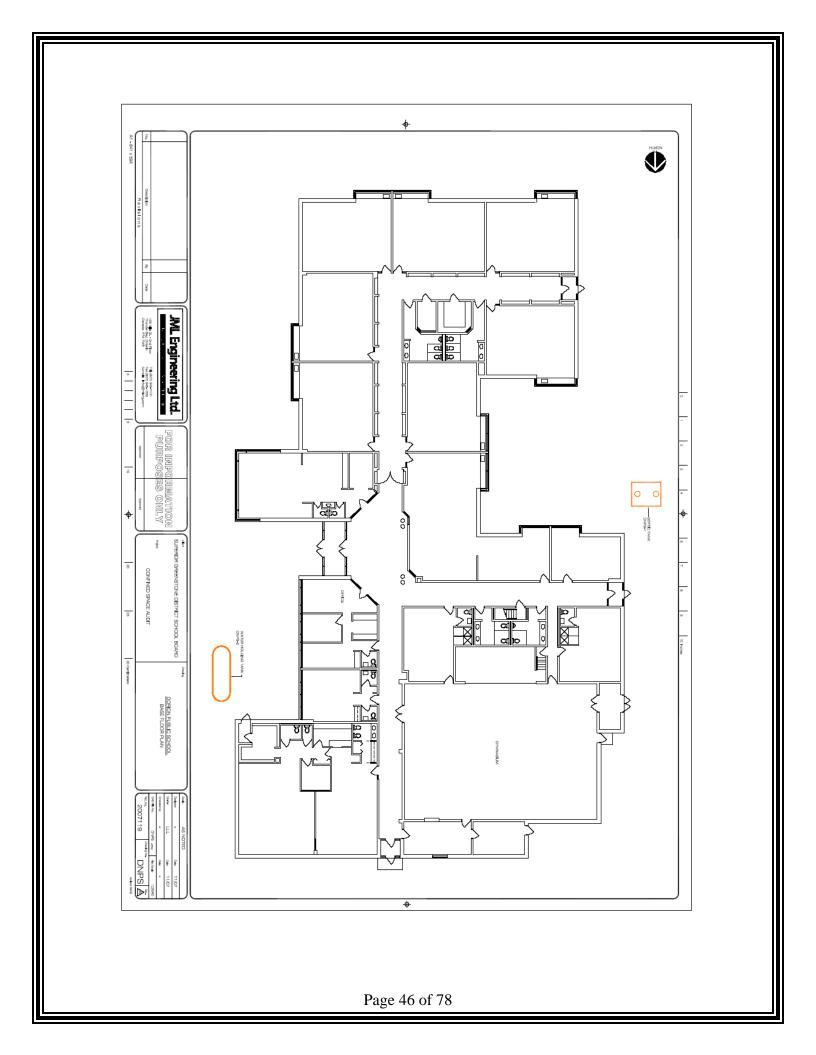
Job Descript	tion							
Issued (Date/Time)				Expiry (Da	ate/Time)			
Location								
Worker(s) As	ssigned							
Attendant				Superviso	r			
Hazards & Testing Procedures Reviewed				Emergency Procedures Reviewed				_
Gas Lines Isolated				Rescue Procedures Reviewed				
All Valves Locked Out				Combustible Material Removed				
Electrical Switch	hed, Locked Out and Tes	ted		Communications and Alarm System Tested				
Equipment Imm	nobilized			Ground Fault Interrupter Tested				
Purging or Vent	tilation Required			Permit Posted at Entrance of Confined Space				
PPE to be used	l:							
Sampling Equipment Date Cal			librated	By Whom				
campang 2q	arpmone	Date ou	moratoa					
				_				<del>-</del>
	Permissible Levels		Time	Results	Time	Results	Time	Results
O <sub>2</sub>	19.5% to 23%							
Combustibility	0% to 10% of LEL (cold work) 0% to 1% of LEL (hot work)							
со	0 to 10 ppm							
H₂S	0 to 5 ppm							
Permit Void if: Significant deviation from conditions cited above occurs Change in personnel Permissible Date or Time has Expired  I have reviewed the site and the above conditions have been met. The space is safe to enter.  Supervisor		1. 2. 3. I und out a	Extended permit to					

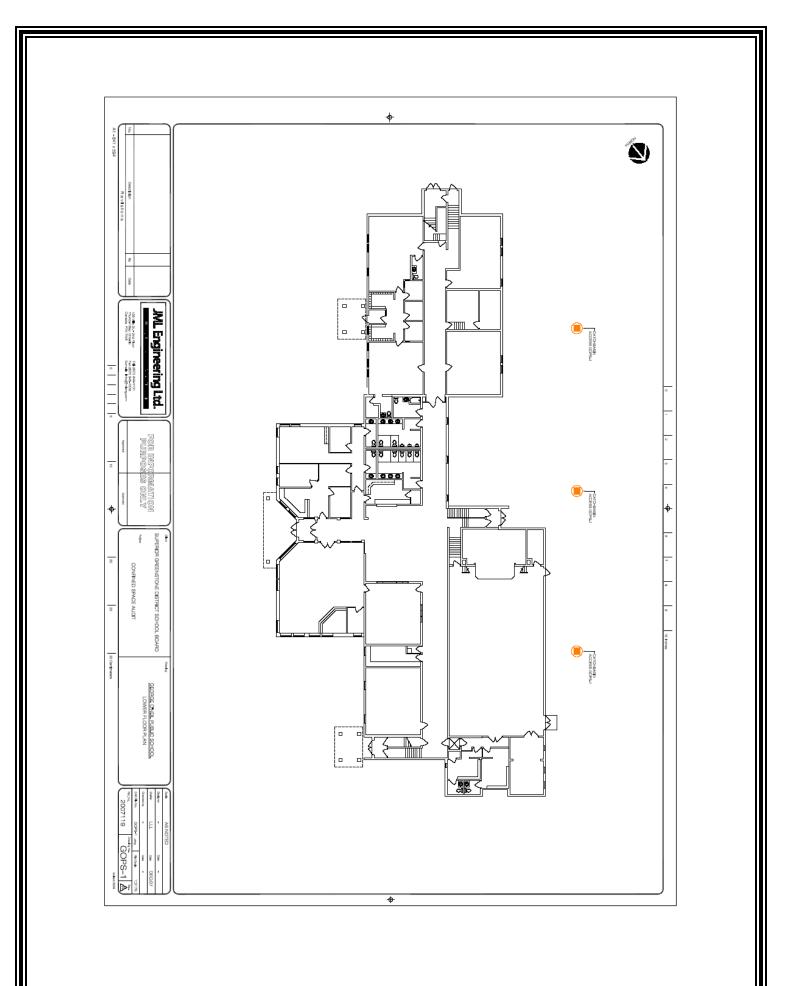
# DANGER CONFINED SPACE

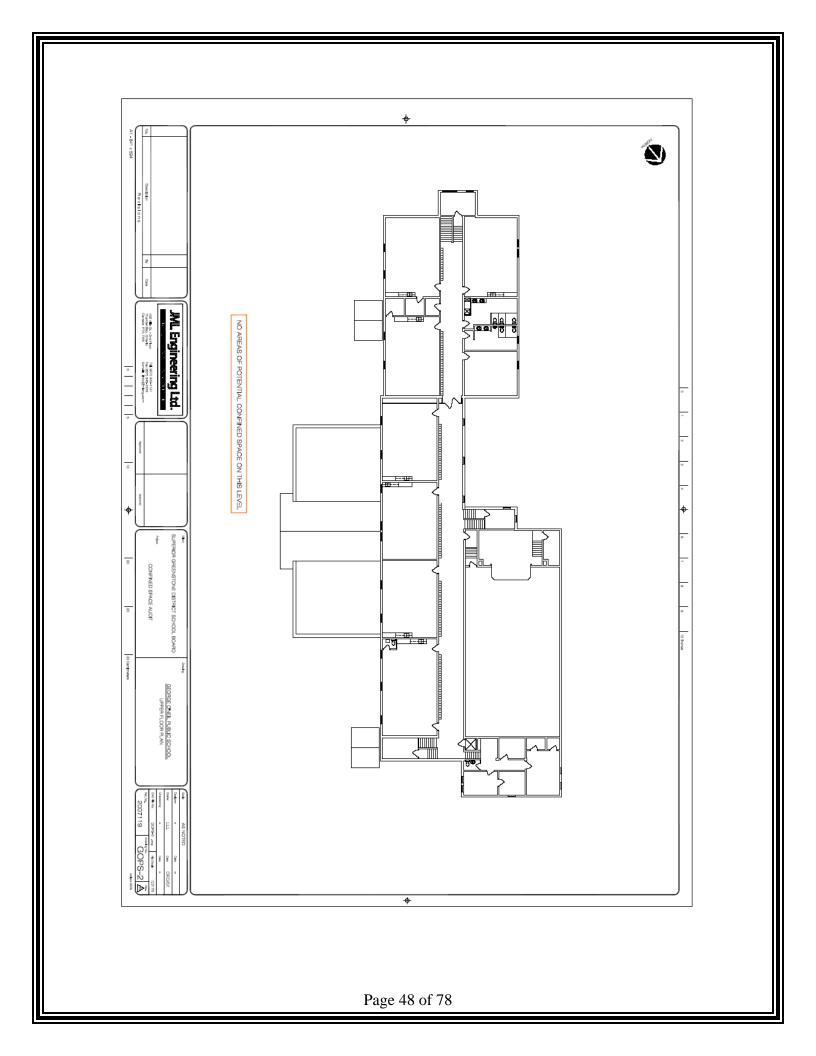
ENTRY BY PERMIT ONLY

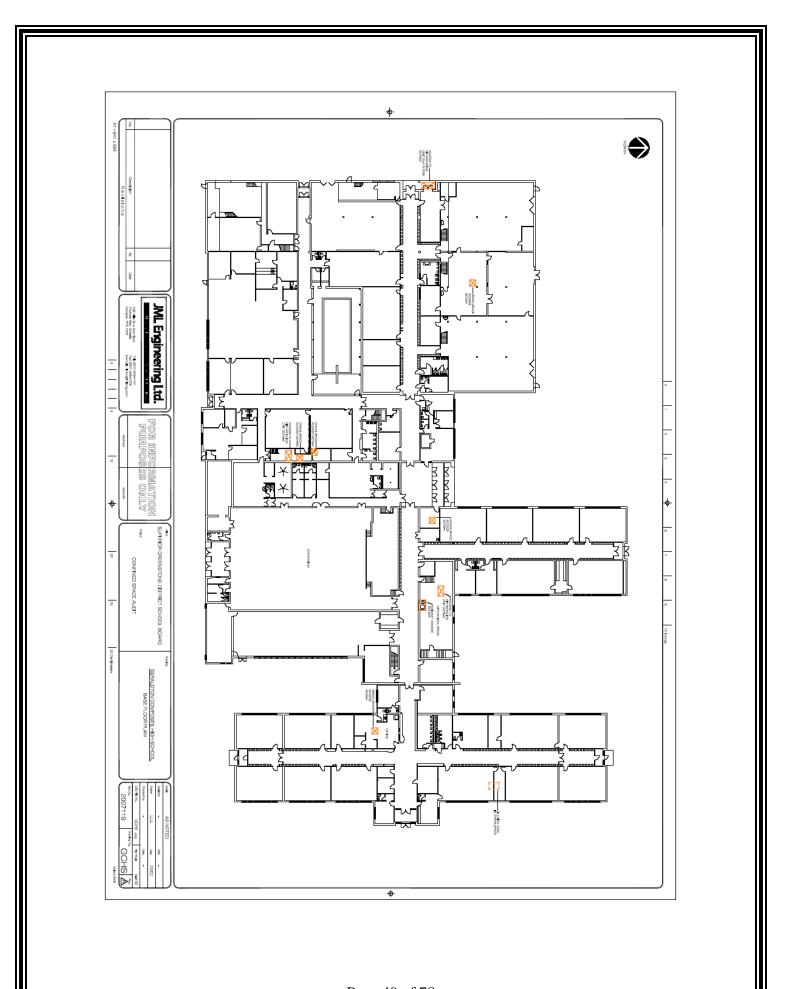


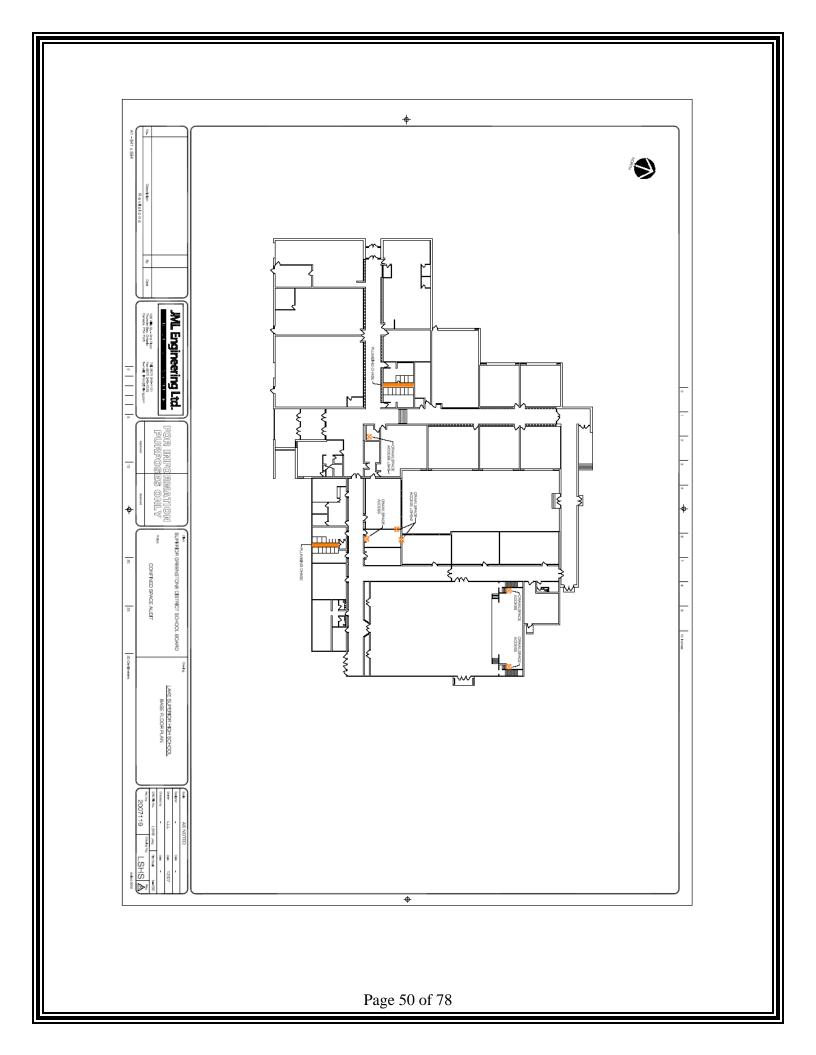


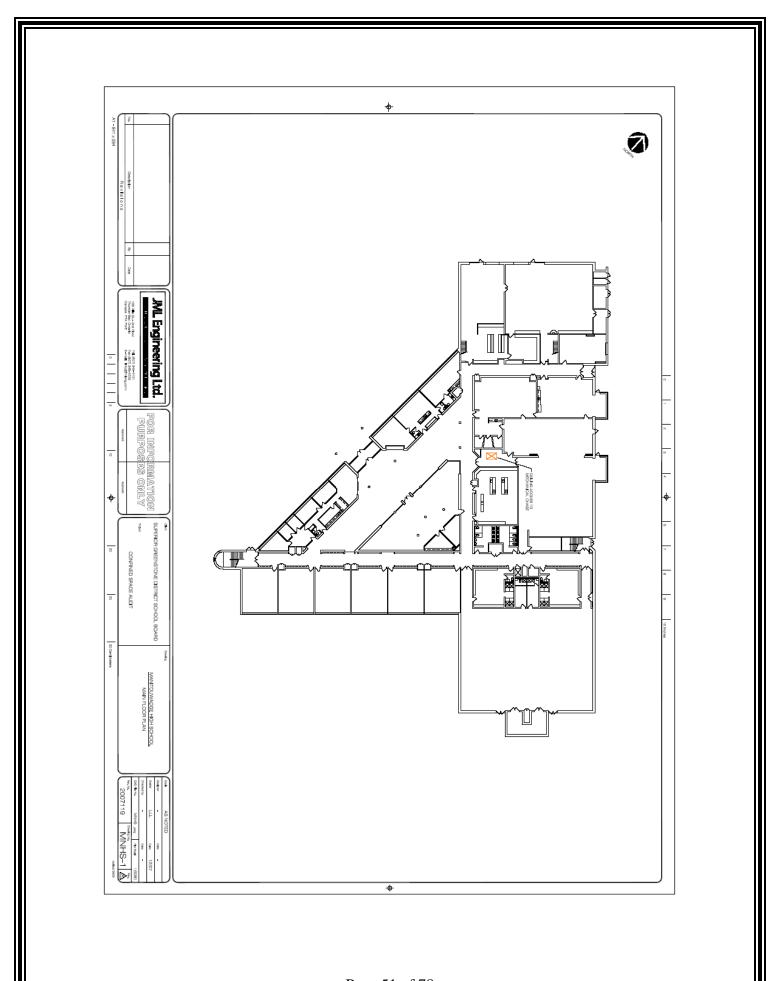


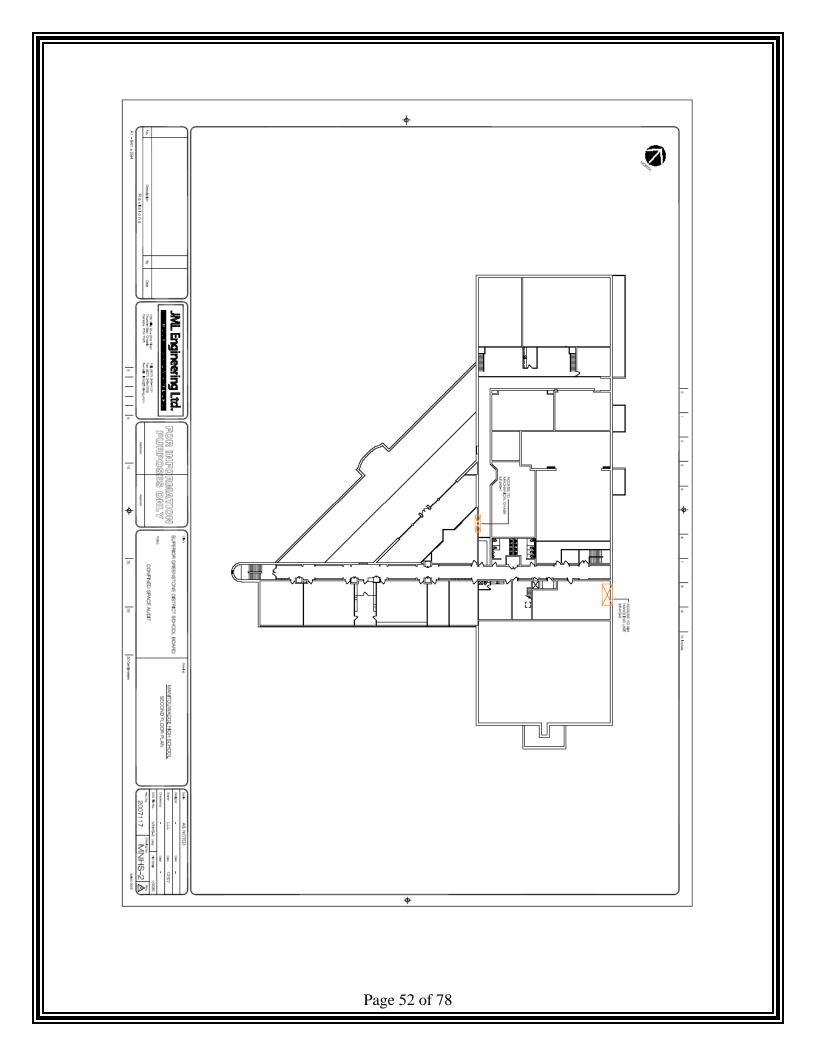


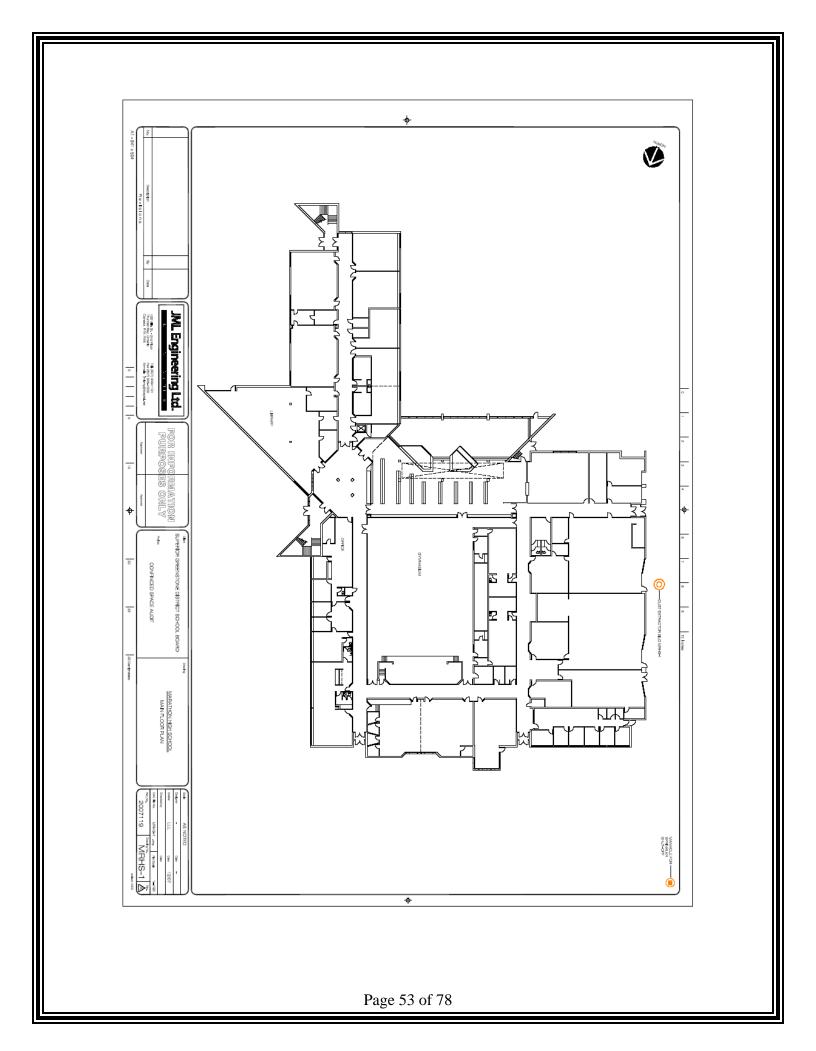


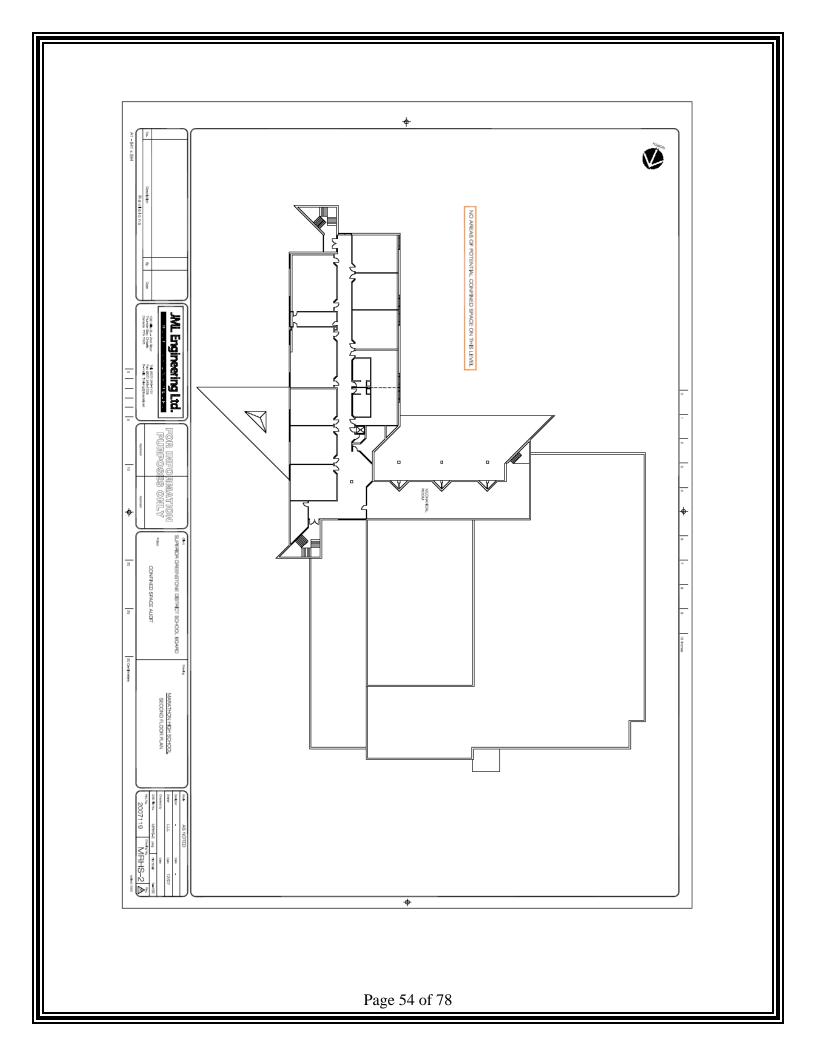


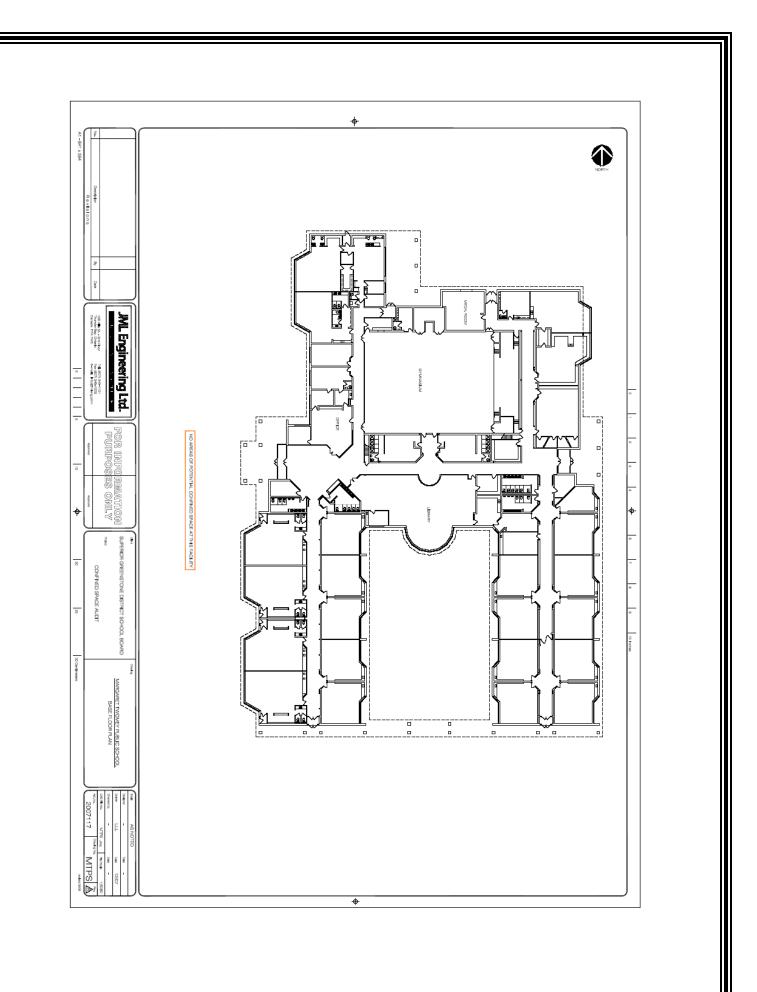


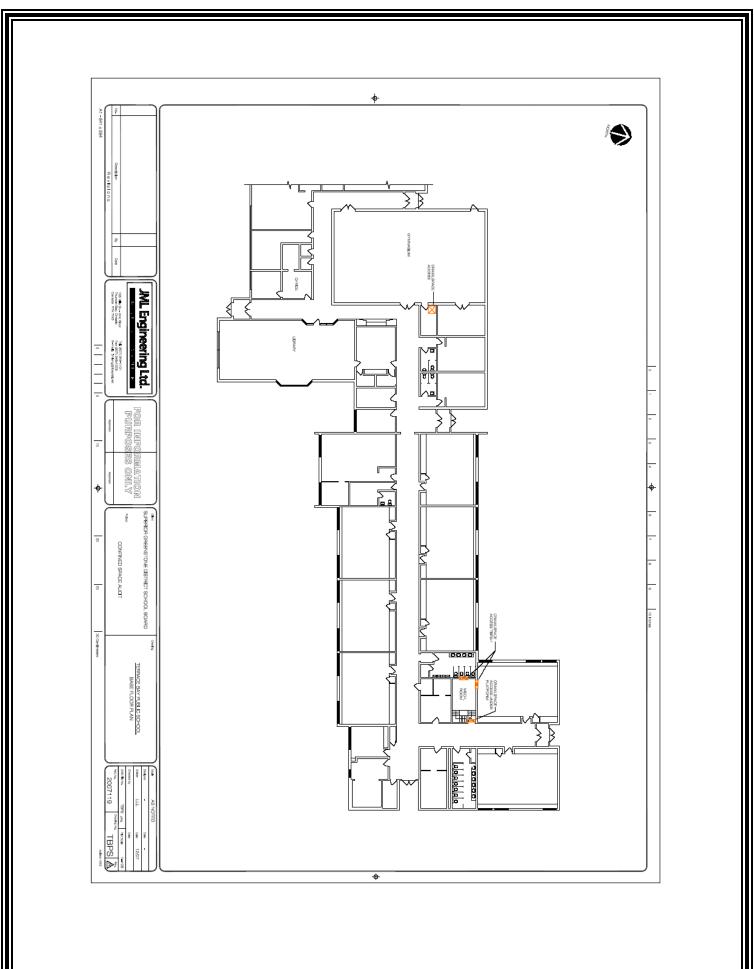


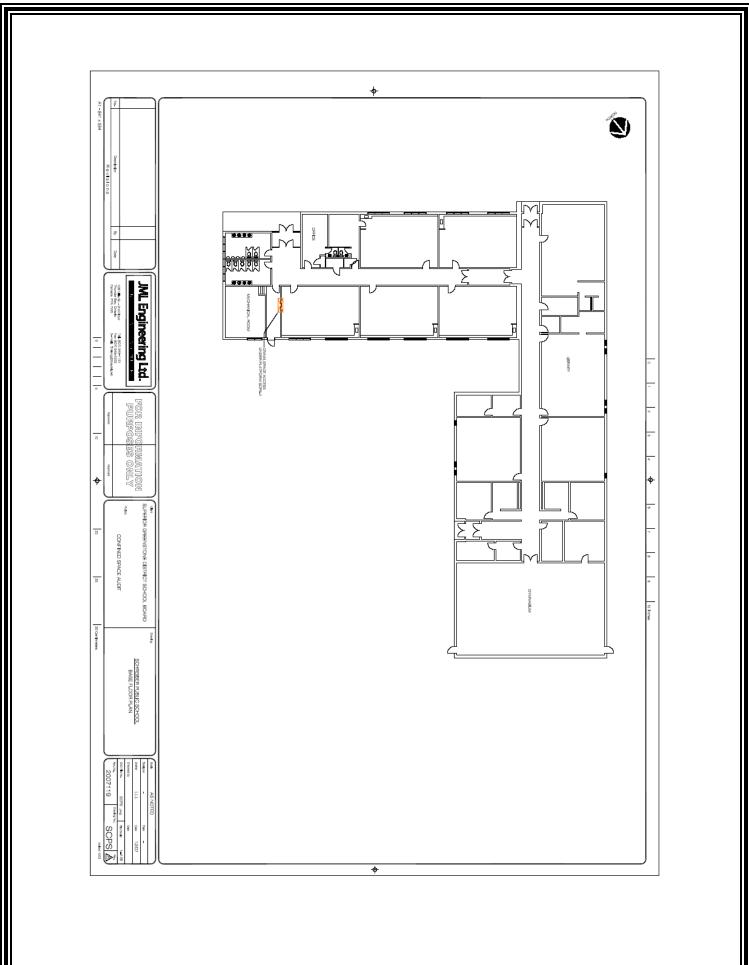


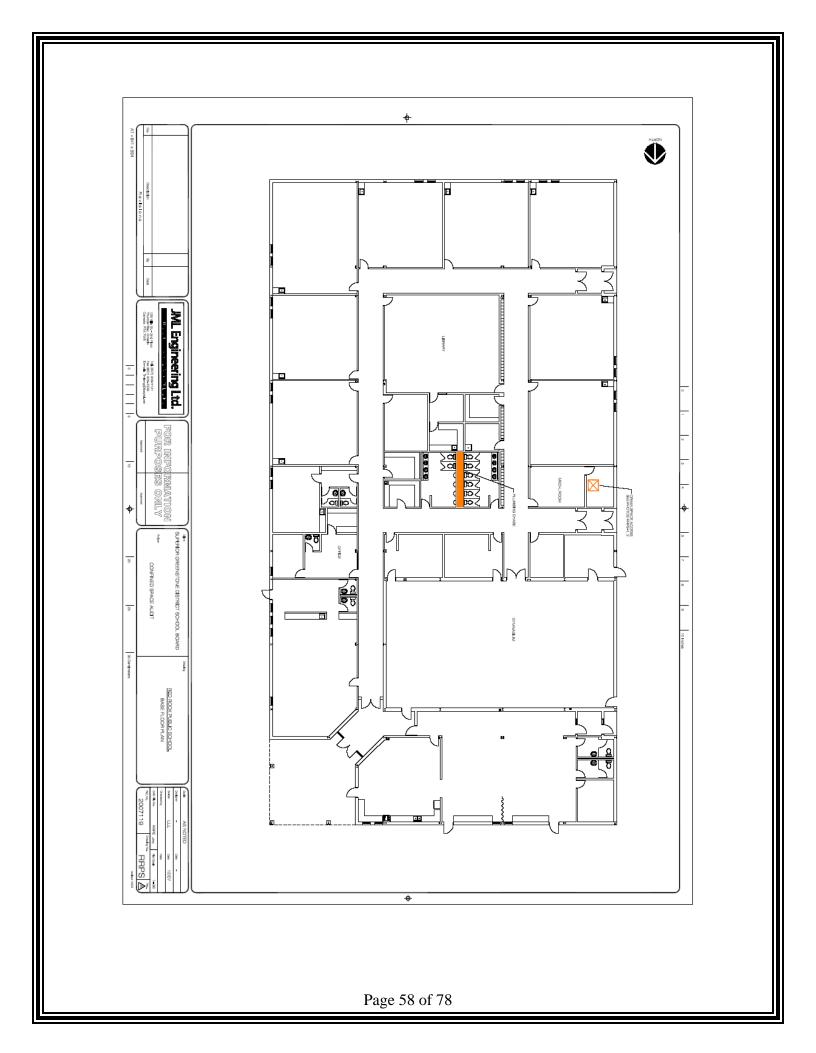


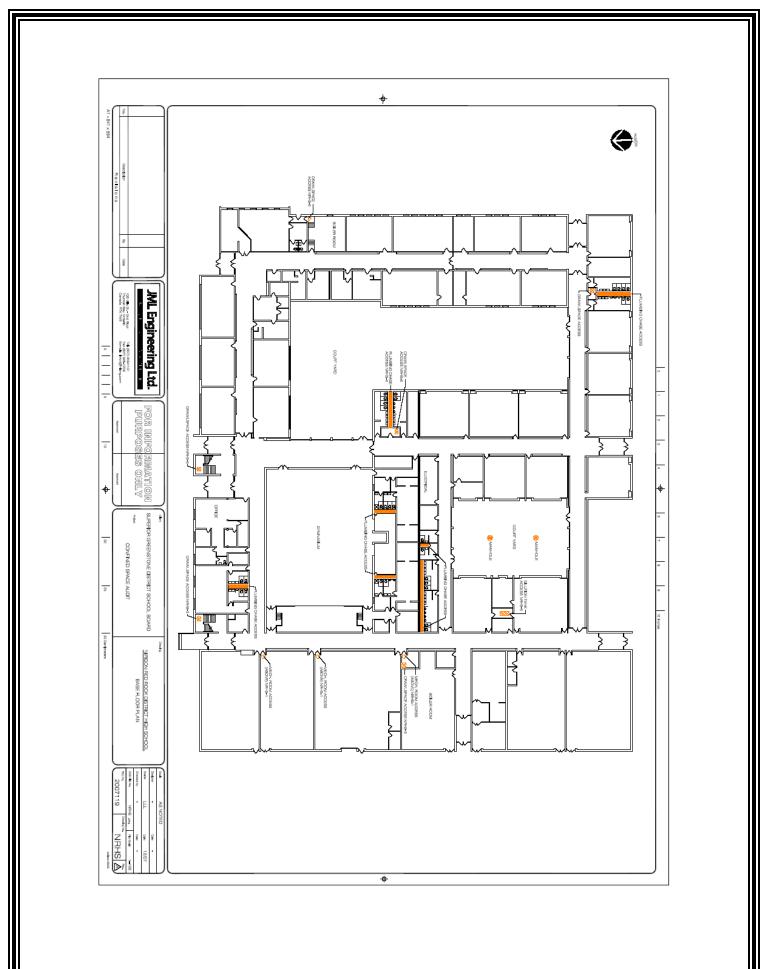












# **ASBESTOS ABATEMENT**

The Superior Greenstone District School Board maintains records and procedures that must be followed when working in buildings that contain asbestos.

As required by relevant Acts and Regulation, testing has been carried out to identify asbestos containing materials. The results of the testing are available in a binder which is kept on the site in the Yellow Safety Lockers for each site affected.

An Asbestos Management Plan has been implemented across the Board and contains specific roles and responsibilities for all who may come in contact with asbestos containing materials.

Reports and special procedures are required any time work is carried out on asbestos containing materials, or if asbestos containing materials are accidently disturbed.

# Asbestos Abatement Removal Permit and SGDSB Health & Safety Reference Manual are available from the school Head Custodian

### **Designated Substances**

The Ontario Ministry of Labour (MOL) has "designated" substances for special attention. This is done in cases where a toxic substance or hazardous agent has significant impact on employees in Ontario. These designated substances require a detailed exposure assessment and control program in all workplaces where these substances are used.

SGDSB Contractors and or Sub-Contractors working in areas where Asbestos is present will be informed and provided with specific details.

Should direct involvement with Asbestos be part of the job scope, this will be specified in the bid package.

Asbestos is a naturally occurring fibrous material that looks similar to fibreglass. It is composed of millions of tiny fibres that can easily separate into small bundles or individual fibres. Asbestos fibres are only a health concern when small pieces of the materials become airborne and are inhaled into the lower portions of the lungs. The larger particles and fibres get trapped by nasal hairs or sticky mucous located in the upper respiratory system.

At Superior Greenstone District School Boards schools, asbestos is primary found in the following locations:

### **Piping and Boilers:**

- Pipes in high temperature environments installed prior to the late 1970s may be wrapped with insulation containing asbestos (approximately two (2) to four (4) inched thick) or wrapped with asbestos tape or paper. Elbows and T-joints are sometimes insulated with cements containing asbestos.
- Steam or hot water pipes installed prior to the mid 1970s may have been insulated with insulation containing asbestos. Occasionally cold water or other piping was asbestos insulated in older buildings.

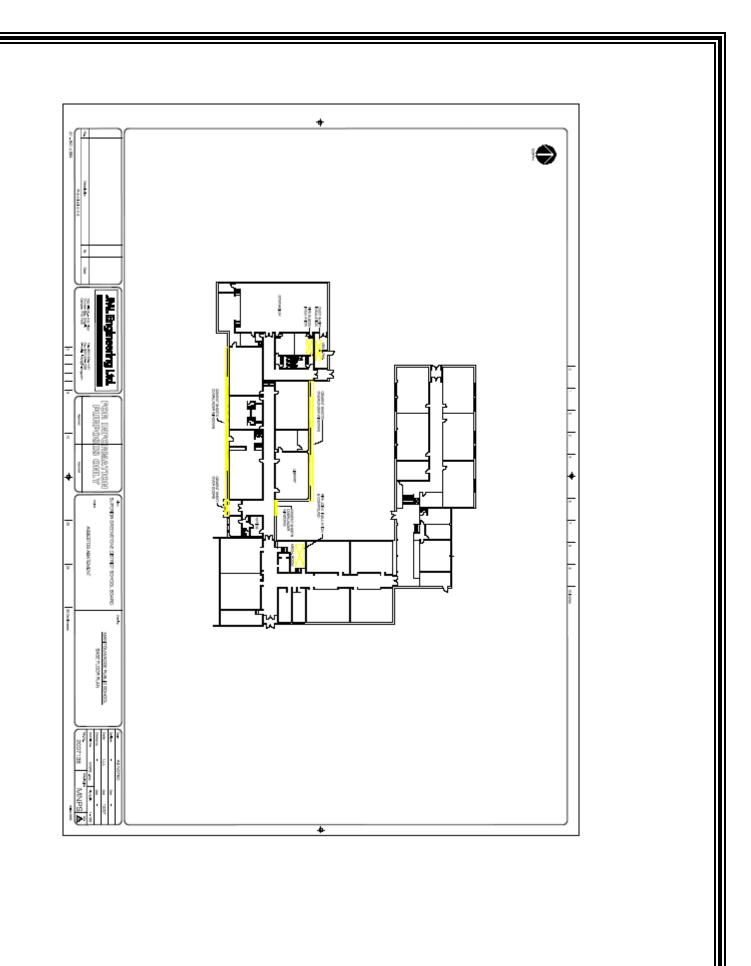
- Cement piping was often reinforced with asbestos in the past.
- Gaskets at piping (mainly high heat or corrosive lines) flanges were commonly asbestos containing.

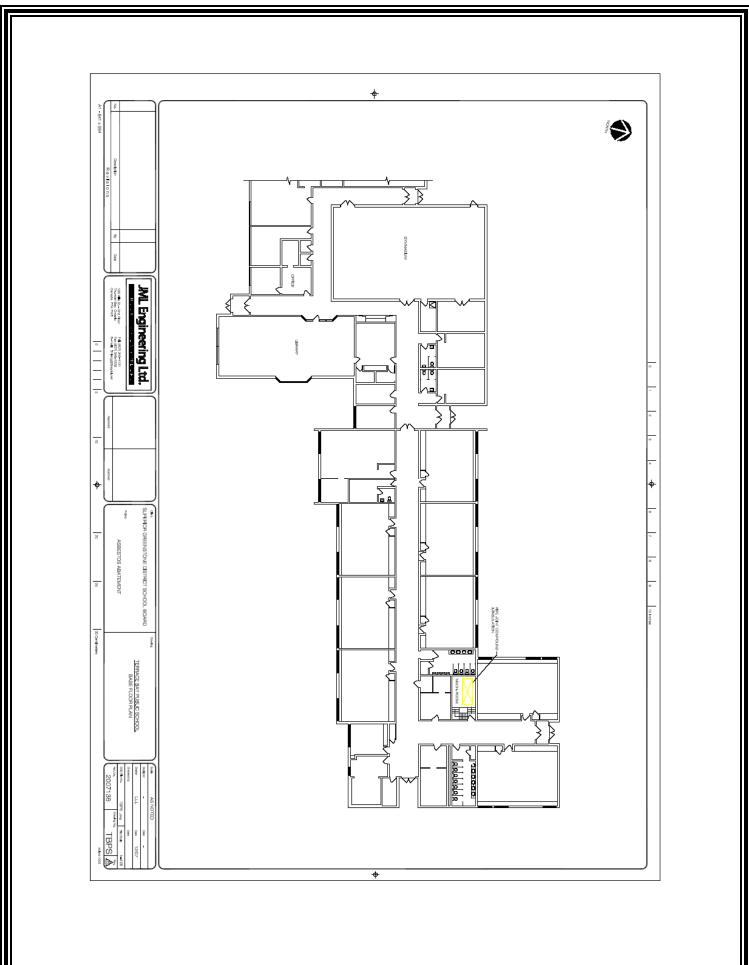
### **Boiler insulation Furnaces / Vessels:**

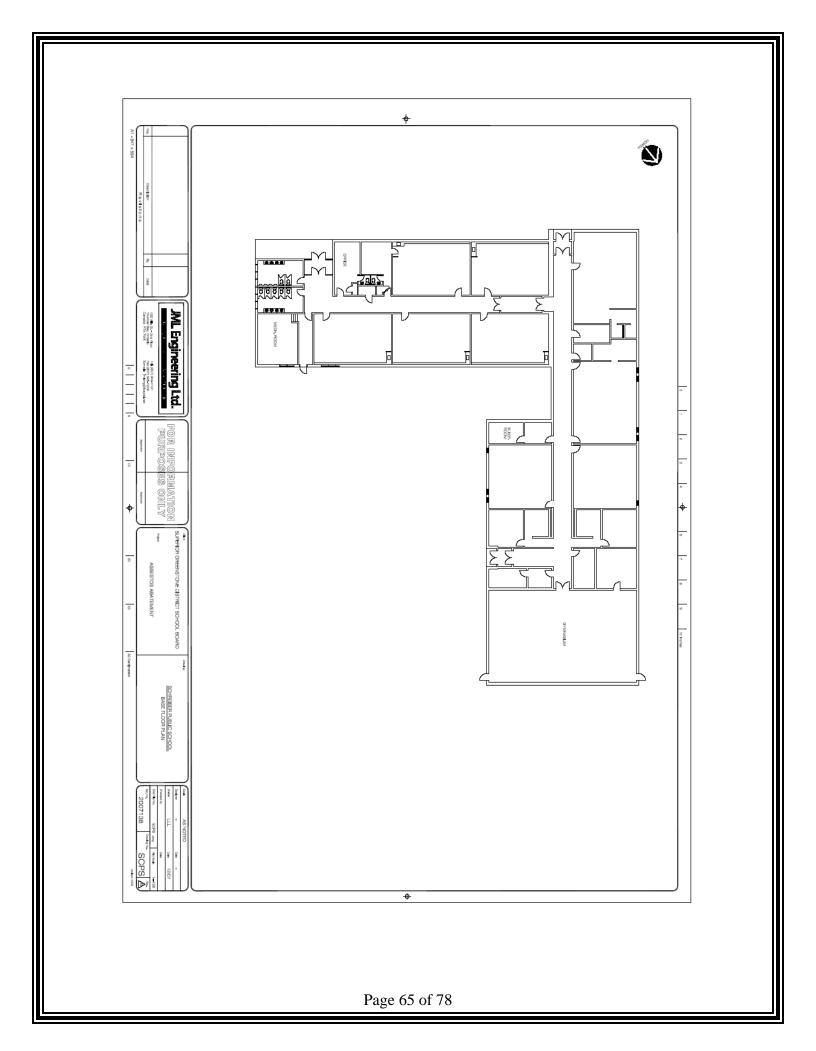
 Materials containing asbestos can still be found in some high heat applications. In furnaces and vessels, it is occasionally the first insulation layer next to the steel liner, flanges or joints.

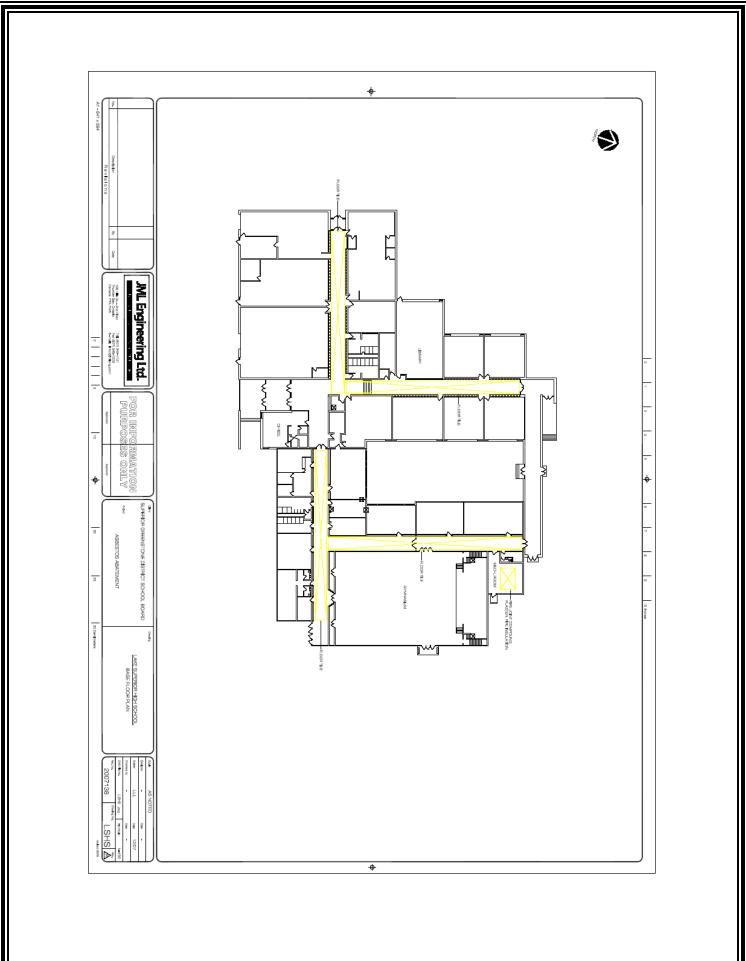
It may be found in cement asbestos boards (transite) used as siding, flooring materials, drywall joint filling compounds, shingles, plasters, boiler Insulation and coatings.

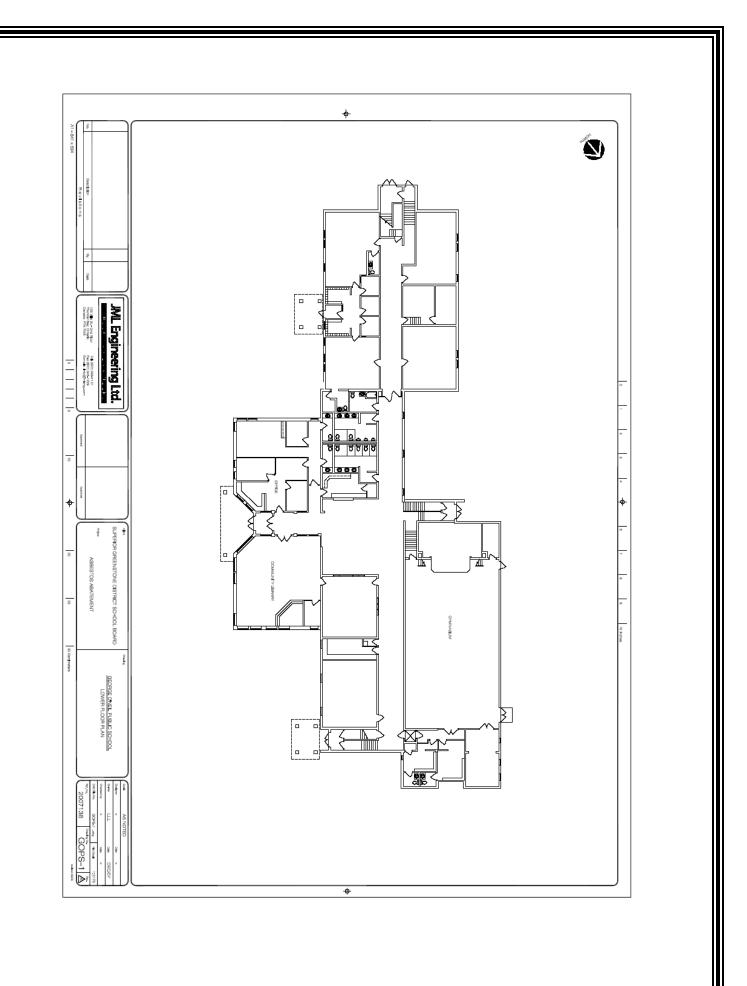
At SGDSB schools all asbestos-related work must be performed only by specified and approved asbestos contractors in compliance with Reg. 278/05 – Asbestos on construction projects and in buildings and repair operations.

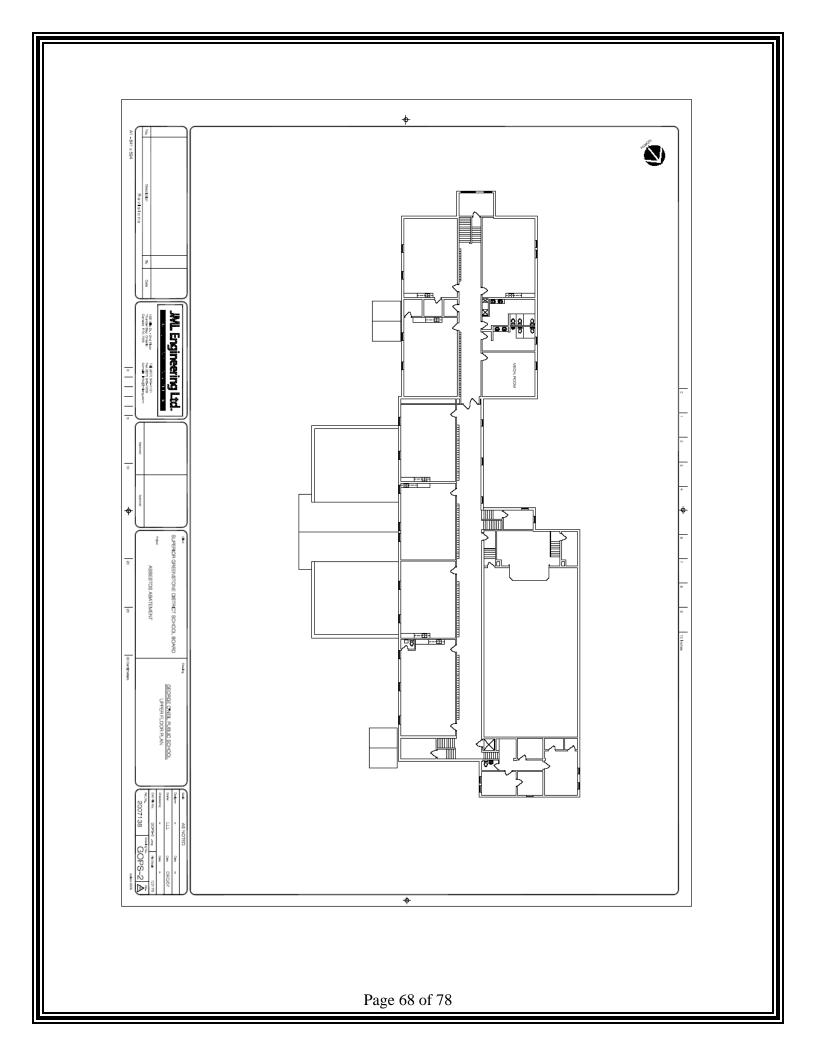


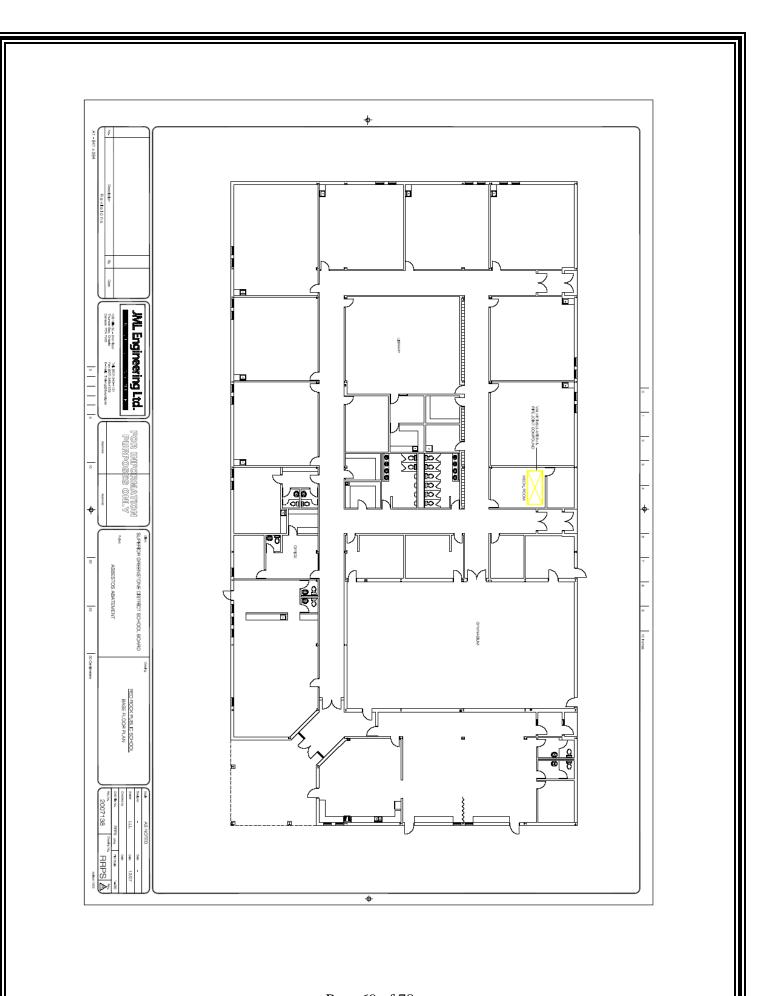


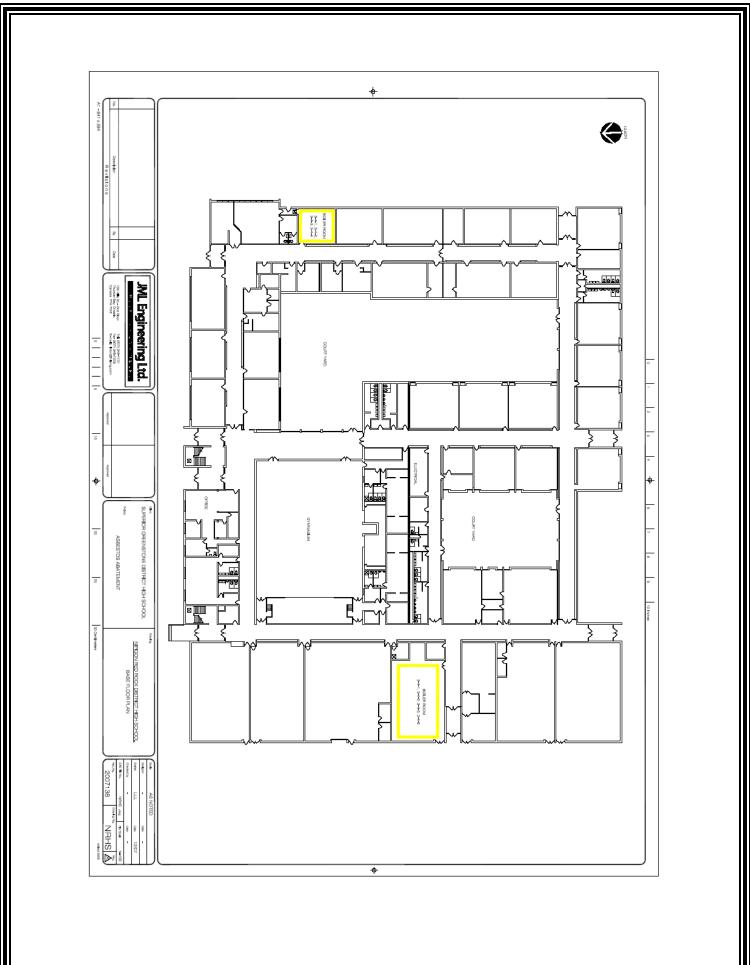


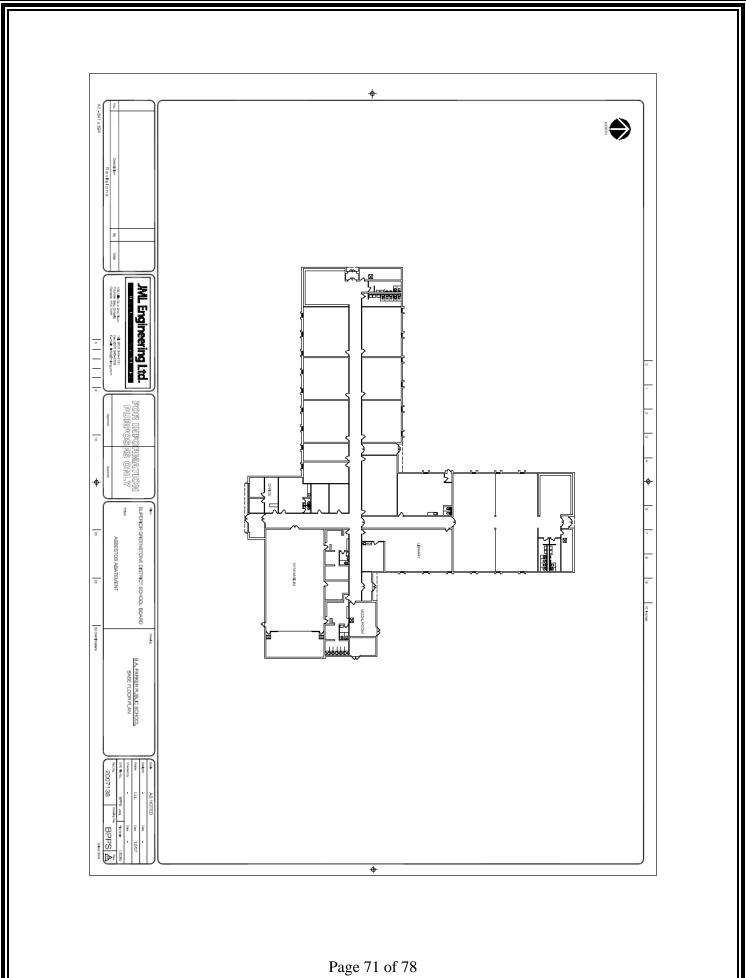


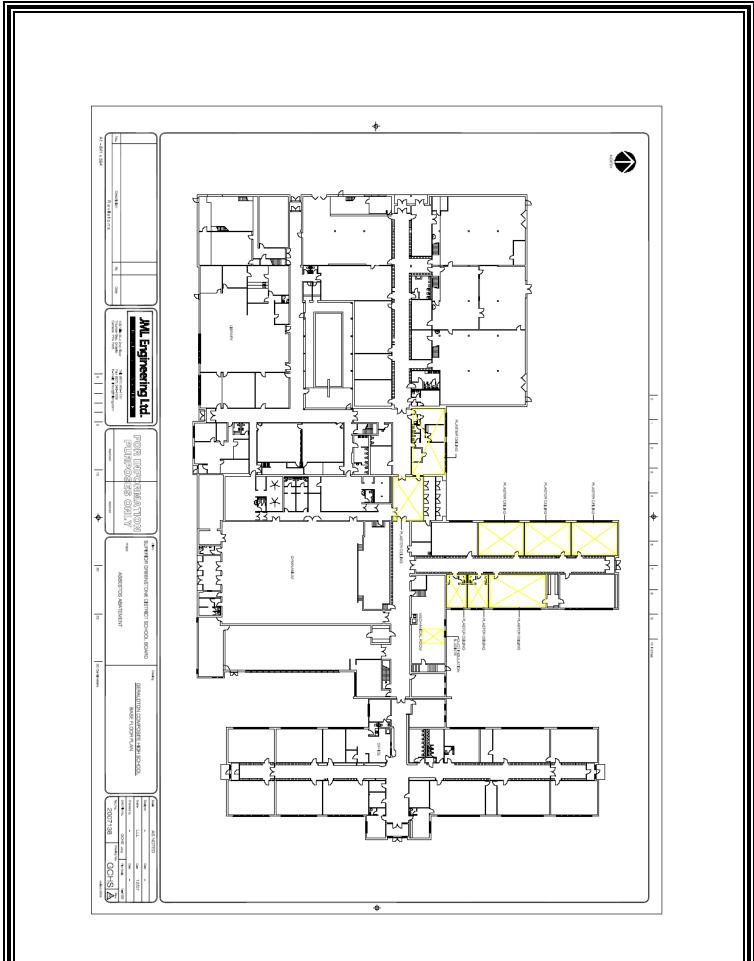












# ARC FLASH

# **Under Review**

# FLAMMABLE / COMBUSTIBLE MATERIALS

Flammable materials must be stored only in ULC approved containers with spring loaded caps and flame arresters in place.

Flammable or combustible materials must not be stored or situated in areas where welding, cutting or open flames are produced.

Large quantities of flammable materials must be stored outside in an isolated, fenced area, with spill containment and "No Smoking" signs.

All flammable or combustible materials must be clearly labelled as to their inherent dangers as per WHMIS regulations.

When transferring flammable liquids from one container to another, the containers must be grounded and bonded to prevent a discharge of static electricity.

# FIRE EXTINGUISHERS

Class "A" fires are fires in combustible materials such as wood, paper, cloth, rubber and many plastics. These may be extinguished by using:

- (a) Pressurized water extinguishers, or
- (b) ABC multi-purpose dry chemical extinguishers.

Class "B" fires are fires in flammable liquids, gases, or greases. These fires may be extinguished by using:

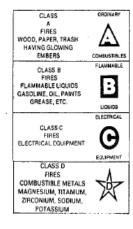
- (a) Standard dry chemical extinguishers,
- (b) Carbon dioxide extinguishers (CO2)
- (c) ABC multi-purpose dry chemical extinguishers

Class "C" fires are fires which involve energized electrical equipment where the Electrical non-conductivity of the extinguishing agent is of importance. These fires may be extinguished by using:

- (a) Carbon dioxide extinguishers (CO2)
- (b) Standard dry chemical extinguishers,
- (c) ABC multi-purpose dry chemical extinguishers.

Superior Greenstone Contractors and Sub-Contractors must know the locations and correct operating practices of fire fighting equipment for their area.

# Review extinguisher location with the Head Custodian





# **Superior-Greenstone District School Board**

### PLANT SERVICES DEPARTMENT

# **Acknowledgement/Sign off**

I have read and understood the following Plant Services procedure:

# Contractor & Sub-Contractor Health and Safety Standard Operating Procedures

Name:		
	(Print)	
Company:		-
	(Print)	
Position:		
Site/School:		-
Date:		
Cianadı		
Signed:		

### Note to Contractor, and Sub-Contractor:

- Please complete this form once procedure has been reviewed and forward the fully completed original to the Manager of Plant Services after making a copy for your records.
- If you have any questions about the procedure or this form, contact the Manager of Plant Services as soon as possible.

### SUPERIOR GREENSTONE DISTRICT SCHOOL BOARD

# TRAINING SIGN-OFF SHEET

# SGDSB Contractor & Sub-Contractor Health and Safety Standard Operating Procedures

My signature verifies that I have attended the training:

Location (Training Centre):
Name (please print):
Signature:
Date:

Note: Please complete this form and leave it at the training centre where directed.

If you have any questions about the procedure or this form, contact the Manager of Plant Services as soon as possible at 807-229-7379.

# **Superior-Greenstone District School Board**

Training Session:	(date and location)				
Training Evaluation Form (Please chand leave it where directed by your Trainer	· · · · · · · · · · · · · · · · · · ·				
Was the information provided in the trai	ning session useful for you?				
Yes No					
Comments:					
	ormation provided in the training session to				
Yes No					
Comments:					
What information from the presentations	s will be most useful to you?				
Did the presenters adequately answer you	ur questions?				
Yes No					
Comments:					
Was there information that you expected	to be covered in the training that was not?				
How could we do things better?					
Other Comments:					