
Infrastructure Health and Safety Association

List of Solutions and/or Controls for the Top Primary Causal Factors Identified for Masonry and Bricklayer Trades

Defined Risk Statement: Working at heights can pose serious unintended and adverse effects to the safety and well-being of a Masonry and Bricklayer Trade worker, and nearby fellow workers.

Background:

Originally in 2015 and then again in 2019, IHSA partnered with the Ministry of Labour, Training and Skills Development (MLTSD) and industry-recognized subject matter experts to conduct a root-cause analysis on the causes construction workers in residential roofing falling while working at heights.

A total of **48 primary causal factors** were identified, ranked, and prioritized. All 48 primary causal factors were voted on, and based on the votes, a [Top 10](#) list was created. This collective process was open, transparent, and collaborative. The ranking and prioritization of causal factors was done using employer and worker votes only. The MLTSD and IHSA did not participate in voting.

Based on the results of the Phase One Working at Heights Root Cause sector workshop, it was determined that the most effective way to complete the solutions and controls portion was to conduct individual trade specific workshops. Having Phase 2 split out into specific trades allowed for more targeted solutions and recommendations to emerge to reflect the uniqueness and complexity of the varied work tasks involved in working at heights during residential construction

Siding and Outside Finishing trades Root Cause Control Workshop Introduction:

On July 15, 2021 IHSA hosted, an in-person Root Cause Control Workshop to determine the top health and safety concerns within the **Masonry and Bricklayer Trades**.

This workshop included peer-recognized subject matter experts from labour and management, who came together in person to review and prioritize causal factors for the Masonry and Bricklayer Trades. Then most importantly the group identified solutions and controls for the top ranked causal factors. Note that the scope of this exercise did not include assessment of the listed solutions/controls. This list provides information on specific controls or activities that can be undertaken by the industry and/or regulator for the development or the support of a control. Although not part of the scope, it is understood that control performance should be specified, observable, measurable and auditable.

This is a supporting document for [the root-cause control workshop](#) report (a separate document) that should be referred to when using this information.

MASONRY / BRICKLAYER TRADES

Top 10 Root-Causes: Worker Falls When Working at Heights

Priority	Category	Root-Causes
1	Environment	Weather
2	Environment, Culture, People	Site Conditions
3	Culture	Old Work Practices
4	Process, Culture, Tools & Machines	Training
5	Process, Culture, Tools & Machines	Equipment Setup and Dismantling
6	Culture	Underground Economy
7	Culture	No Fall Protection Start to Finish
8	Process, Culture, Tools & Machines	Personal Protective Equipment (PPE)
9	Tools & Machines	Ladders
10	People	Fit for Duty
11	Tools & Machines	Scaffolds
12	Culture	Worker Non-Compliance
13	Environment, Culture, People	Workplace Violence and Harassment

Root-Cause details & Solutions/Controls that may reduce risk

1. Weather (Environment)

- a) Snow and ice not being cleared, causes scaffold plank to be slippery.
- b) Inclement weather causes muddy ground conditions and instability of scaffold. (Potential for fall and struck-by incidents).
- c) When salt is not available on site (due to cost) workers will bang planks and ice, snow, debris falls down on brackets causing unsafe conditions.
- d) Falls from same level and or falling to lower level (slip, trip and fall events).
- e) Snow piled on the tarps and not being removed or cleared.
- f) Excessive Heat – high temperature (40 degrees) causes worker fatigue and tired.
- g) Windy conditions may result in stop work at certain conditions. Tarped materials etc. act as sail causing hazards.
- h) Rain and muddy ground conditions.
- i) Failing of IRS if Management does not require and monitor proper level ground conditions re scaffold setup. It becomes an issue right from the start.
- j) Site assessments not being completed due to supervisors being overloaded with work.
- k) Worker congestion due to high traffic areas around scaffold causes workers to rush and take shortcuts.

Solutions:

Item	Suggested Controls and Solutions
1	Make site assessments and inspections a regular daily requirement and using additional supervisory staff if necessary.
2	Add more supervisors to manage the workload.
3.	Salt worksite areas to ensure ground areas on site are not slippery.
5	Adjust the work scheduling to prevent fatigue by scheduling off peak hours (start early when really hot) to benefit worker safety and productivity.
6	Keep workers hydrated by providing an adequate ongoing supply of water.
7	Keep work in areas away from extreme weather.
8	Install fans on the scaffold to cool off workers during warm conditions.
9	Provide mist equipment to cool off workers during heat.
10	Build shaded areas with tarps and/or plywood for workers on hot days.
11	Regulate more worker breaks during heat.
12	Create internal policies regarding temperature and work times during extreme weather conditions.
13	Provide proper orientation of workers regarding weather condition hazards (heat, cold, rain, high winds etc.).
14	Develop a policy regarding work in poor weather conditions.

15	Rain, snow, muddy conditions require workers to flip planks on scaffold to keep clean.
16	Require appropriate Safety footwear requirement to prevent for work in slippery conditions.
17	Schedule work to avoid congestion of people and equipment around scaffold areas to prevent heavy traffic and poor ground conditions.
16	Require regular pre-use inspection of equipment and assessment of site conditions.
17	Conduct regular inspections of ground and floor for oil and other debris. Apply sand when necessary.

2. Site conditions (Environment, Culture, People)

- a) Scaffold must be properly erected, setup and installed requiring proper levelling and grading of ground by builder and this is often not the case.
- b) Weather conditions often create poor site working conditions that do not get corrected.
- c) Builder is not made accountable for not providing good work conditions with respect to grading, space for access and housekeeping.
- d) There is a gap in the legislation for builder vs employer/contractor responsibilities. The employer is responsible for grading of ground conditions for proper worksite safety. Builder is supposed to do it but does not have the equipment available (due to cost) and passes down the responsibility.
- e) Ungraded ground results in masonry contractor being pressured to work which results in unsafe work conditions.
- f) IRS is not working (re Right to refuse unsafe work). The builder points finger at contractor.
- g) Masonry workers could stop production but there is an attitude to get the job done and complete the task.
- h) MLTSD enforcement is inconsistent.
- i) Housekeeping is not being done on jobsites.
- j) Gravel or sand must be added to prevent muddy uneven ground conditions. This is often not done due to cost issues.
- k) There is no standard regarding ground surface level conditions (the contractor is held accountable and not the builder).
- l) Equipment to grade ground area should be made available and workers should be paid for the time to correct ground issues and it would get done.
- m) There is a culture of getting the work done even though it may be unsafe to do so, in order to get paid.
- n) Poor housekeeping outside - debris and materials are not cleaned up. Not enough labourers to do the clean-up etc.
- o) Ground conditions (frozen) gravel on surface etc. are not being cleared due to cost.
- p) Legislation specifies that level grading is required but it falls as a builder responsibility and MLTSD looks to the employer/contractor who does not have the equipment to do it.
- q) Falls on platform and from same level due to poor housekeeping. Debris and materials not being cleaned up causes a many hazards.

Solutions:

Item	Suggested Controls and Solutions
1	Builders must be responsible and accountable to provide safe site conditions at all times. Including completion of level, ground grading. (Masonry contractors do not have the equipment to do it).
2	Health and Safety Management responsibilities need to come from top down.
3	Implement suitable legislation to hold the builder accountable for specific work site safety responsibilities.
4	Improved attitude and safety culture of the builder is imperative.
5	Greater enforcement from MLSTD for shutting down site and remove the blame from the trade.
6	Supervisor (labour / foreman) quality and ownership for worksite clean-up is required.
7	Attitude and onus must fall on the builder (and not on the trade and/or bricklayer)
8	Contract must include specific conditions outlining builder responsibility and safety representative.
9	Build into the contract a requirement that the bricklayer trade be provided with available equipment (to be operated by an appropriately qualified individual) to grade the site to level ground, for scaffold safe use.
10	Builder required to include a contract provision that bobcat or back hoe equipment (with operator) will be hired to level the ground.
11	Culture and attitude of workers, trade need to get paid don't want to be sent home.
12	The labourer/foreman must make certain that a clean and level site is monitored to prevent unsafe conditions.
13	The on-site labour / foreman must be given the authority to hire and/or make adjustments to ground (bulldozer / apply gravel).
14	Include specific builder responsibilities in contract with respect to ground conditions.
15	Builder should be held responsible to provide equipment for use re ground condition repairs and grading.
16	Builder must be required to complete more inspections of the site conditions.

3. Old Work Practices (Culture)

- a) Workers are experienced in the work and know how to do the work their way.
- b) In the 1960's – 70's homebuilding consisted of mostly bungalow's which did not require a high scaffold.
- c) Homebuilding changes include different building design now (larger and higher structures).
- d) Previously workers were not required to use PPE and there were no height limitations.
- e) New workers may not know the pitfalls of work, including scaffold access, egress and use.
- f) Hazards related to scaffold planks when they must be lifted. Workers often stand on the arm of scaffold to flip planks which happens often, creating a fall hazard.

- g) Workers are not tying off as it is fast paced work where workers are encouraged to rush, and discourages workers from tying off.
- h) Tying off slows worker productivity.
- i) Workers are not comfortable working with a harness.
- j) Labour workers are provided with WHMIS, WAH, and Worker Awareness training that is theory only but have no prior experience and are a concerned to train workers due to their unfamiliarity with the related site hazards including the scaffold.
- k) Workers are learning on-the-job work habits (good and bad) from other workers (e.g. climbing a scaffold).
- l) A new worker dismantling a scaffold is a big concern to experienced bricklayers as the work can be dangerous.
- m) 16 foot long scaffold planks overlap by 8 or 9 inches, while 8 foot long planks not nearly as much. When 8 foot long planks shift they can be dangerous.
- n) Various methods are used to go up scaffold. Stairs and manhole cover it most of the time.
- o) Ladders are used for 3 scaffolds heights levels while internal stairs are used if greater than 3 scaffolds.
- p) Worker mindset is not focused on safety.
- q) The practice of lifting up scaffold planks is dangerous as workers are not tying off.
- r) Attitude of workers performing piecework must change as their focus is on productivity and causes them to rush and neglect safety (harness is not comfortable and slows workers down).
- s) Scaffolds are rented and the frames and braces are often damaged. Inspection and setup are imperative.
- t) Climbing the frames is an acceptable culture as there is no proper training or equipment.
- u) Falls are occurring when accessing the scaffold where the peak of the house goes to the top of the scaffold and the foot-plank is not properly installed.

Solutions:

Item	Suggested Controls and Solutions
1	Specific on-the-job training practices regarding scaffold work and safety need to be mandated.
2	Worker access guidelines to scaffold must be implemented. (E.g. use ladders if 3 levels high, if not use internal ladders.
3	Use shorter planks so worker would know not to go beyond its' length.
4	Set requirements for suitable/safe plank length.
5	Change worker mindset on how to do the work. Develop a best practices guideline.
6	Need to raise the profile of the bricklayer to address safety concerns and shrinking workforce.
7	Engineer a tie off anchor point on a scaffold.
8	Develop a standard regarding use of plank length on a scaffold.
9	Make it a requirement that all cleats must be installed (to keep planks in place).
10	9' planks would be an improvement where there is an 8' span.
11	Make on the job training specific to scaffold work a requirement in addition to safety training.

12	Worker access to scaffold – use ladders if 3 levels high, if not use internal ladders.
13	Falls are occurring when accessing the scaffold. Peak of house, goes to top of scaffold and foot-plank not properly installed on scaffold.
14	Use shorter planks so worker would know not to go beyond that length.
15	Change mindset on how to do work (to discourage use of old methods).
16	Provide education and awareness of how old practices could result in harm or injury.
17	Need to raise the profile of the bricklayer to get higher pay and attract workers to the trade.
18	Cleats must be installed to keep plank in place.
19	Type of system being used (nail on the sides goes up and down etc.) requires more work to set up and cleats required on the system.
20	Require a specific scaffold system based on the height requirements.

4. Training (Process, Culture, Tools & Machines)

- a) Many workers are not properly trained on scaffold equipment installation, setup and maintenance.
- b) Lack of available training (practical vs job site). Training is available through Scaffold Users Training program or is completed via on site practical training using simulated conditions.
- c) Labour and forklift drivers are required to install scaffold.
- d) Bricklayers should be aware/familiar with scaffold setup.
- e) Still using ladders, and or climb up the frames for access and egress to scaffolds.
- f) Falls from use of ladders is perceived to occur mainly due to slipping (ice, snow, mud) conditions.
- g) When there is a scaffold around the entire house, two ladders are required instead of one which increases potential for hazard/incidents.
- h) Often when ladders are used they are not tied off.
- i) Do not place scaffold braces at a location where a ladder is going to be positioned.
- j) Workers often climb the scaffold frame.
- k) Improper setup of equipment (ladder) is often due to brace locations. The Scaffold needs to be set up for safe access / egress.
- l) Zoom boom – workers not receiving proper training on operation.
- m) Unskilled trade has caused a shortage of workers.
- n) Seasonal and environmental conditions have an impact on worker requirements.
- o) Piecework culture encourages faster pace completion.
- p) Lack of training on equipment and operator qualifications (zoom boom, cherry pickers and license of operators).

Solutions:

Item	Suggested Controls and Solutions
1	Scaffold specific training must be provided (theory and practical/hands-on).
2	Training should be completed outdoors on a house, with scaffold and real-life work conditions (mud etc.).
3	Provide training on tools using real-life instruction (building, setup and dismantling a scaffold).
4	Make mandatory simulated hands on training etc. a requirement.
5	Provide instruction on building, setup and dismantling of scaffolds.
6	Provide appropriate scaffold instruction to labourers and the forklift driver.
7	Provide a safe set up angle for ladder use where it can be tied off at the top.
8	Provide instruction on scaffold access / egress for ladder use around braces. Outline how to climb and set up the ladder to access the scaffold at locations where there are braces and how to go between.
9	Proper ladder use should be followed at all times and must be tied off. (IHSA Ladder Use Guideline).

5. Equipment and set up and dismantling (Process, Culture, Tools & Machines)

- a) Poor or substandard scaffold equipment is often provided.
- b) Scaffold section and regulations are not being enforced due to few number of MLTSD inspectors.
- c) Boom truck equipment traffic in and out of the worksite.
- d) Set up of scaffold system is inadequate and often not secured with no guardrail (brackets or brace).
- e) Damaged equipment is provided and there are set up limitations due to site conditions and space.
- f) Improper scaffold set up due to lengths of plank used.
- g) When erecting the scaffold a lifeline is not used to tie off due to lack of anchor point not engineered into the design.
- h) Tarping of scaffolding for heating purposes and use of propane could cause light headed, or sickness in workers and could lead to a fall.

Solutions:

Item	Suggested Controls and Solutions
1	Engineered anchors into the scaffolding system.
2	When a scaffold is erected around the entire house make it mandatory to have 2 ladders available.
3	Implement the use of a horizontal lifeline setup for workers to tie-off.
4	Schedule a limited number of equipment to be used in the worksite by shift to avoid congestion.
5	Establish a daily schedule of scaffold equipment safety inspections (checking for damage, setup, guardrails, plank length, ground stability, and other related safety concerns).

6. Underground economy (Culture)

- a) Underground Economy workers are not adequately/properly trained.
- b) Workers are not unionized.
- c) Workers are paid cash and there is no connection between the company and worker.
- d) No supervision and no one is assigned to monitor work being completed.
- e) The faster work gets done the more profitable it is, resulting in workers cutting corners.
- f) Lower cost of doing business undercuts ethical contractor costs.
- g) It is extremely difficult for Government to enforce. No records on work being done.
- h) Building permits are often not being obtained.
- i) MLTSD is not made aware of work locations and can only enforce by obvious spot checks (e.g. re-roofing trade).
- j) Most private homes pay cash to framer, roofer etc. in order to get cheaper price for job.
- k) Many underground economy workers are retired from a labour union and are receiving a union pension and do it to supplement retirement income. Homeowners want to pay cash for lower price.

Solutions:

Item	Suggested Controls and Solutions
1	Educate and awareness of homeowners is required regarding their liability on work paid for by cash.
2	Minimum requirements – re proof of training, CRA.
3	Homeowners to receive an information package when building permit is obtained.
4	CRA must monitor / enforce (not paying taxes, not covered by WSIB etc.).
5	Education for the homeowner.
6	Elimination of underground economy would create a level playing field for ethically registered businesses.
7	CRA must be notified in order to investigate re income and not paying proper taxes.
8	Private homeowners support the Underground Economy by advising work was completed by volunteers (my buddies). A CRA hotline is needed for reporting this type of work.

7. No fall protection from Start to Finish (Culture)

- a) When setting up a scaffold worker must always be reminded that fall protection and tie-off requirements apply.
- b) It is the responsibility of the worker and they often do not wear fall protection equipment.
- c) Workers are rushing due to piecework culture and do not think and don't put on a harness.
- d) Company should use same workers to set up and take down scaffold all the time.
- e) New labourer may not be experienced in erecting a scaffold.

- f) Maintaining a dedicated crew of workers to install and setup scaffold produces better results and work performance.
- g) Communication between workers is important at all times when on and around a scaffold.
- h) Workers are not tying off due to lack of equipment (anchor points) as it is too inconvenient.
- i) There is a lack of MLTSD enforcement and on-site monitoring or supervision.
- j) Worker laziness and indicate they are not comfortable wearing a harness.
- k) Materials for the project come in and parts of scaffold are removed to accommodate placement of supplies and the scaffold becomes unsafe.
- l) Piecework culture promotes rushing of work and cutting corners. Workers do not wear harness as it slows them down.
- m) Costs money and time to do work the proper and safe way.
- n) Harness is inconvenient and slows worker down.
- o) Harness and equipment Inspections are not happening as they are not being followed-up.
- p) Fall Arrest equipment is being shared due to lack of equipment and cost.
- q) Worker does not want to wear a harness because it is more difficult to do the job and not comfortable.

Solutions:

Item	Suggested Controls and Solutions
1	Implement a horizontal safety line for workers to tie-off on a scaffold.
2	Develop a product that allows worker to move back and forth and easily accessible. (Horizontal lifeline). If this is in place worker will use it.
3	Safety line is setup. Cost to set this up is also a factor.
4	Workers need to be paid for time it takes to work safely (i.e. tie off etc.).
5	WAH task specific training with respect to scaffold erection and dismantling is needed and use of appropriate fall protection equipment.
6	Need more standardized fall protection procedures for bricklayers.
7	Have more anchor points available.
8	Require a task specific system on how to apply fall protection training and use of equipment.
9	Developing standardized procedures on how to set up and take down and use the scaffold and use of fall protection equipment for bricklayers (e.g. tie off inside the house etc.)
10	Mandatory training on fall protection requirements specific to bricklaying needs to be monitored.
11	Scaffold training with respect to WAH needs to be mandatory.
12	Make a product that allows you tie off and move back and forth using a horizontal rail to attach lanyard to lifeline going across post to scaffold system.
13	For lack of tie-off points, use a safety line attached to inside of the house to tie off when setting up scaffold.
14	Increase supervision with respect to monitoring of compliance with WAH requirements.

8. Personal Protective Equipment (PPE) – (Process, Culture, Tools & Machines)

- a) PPE is available and is provided to workers.
- b) Harnesses – expiry dates and harness condition is not checked.
- c) Harness may be shared and will not fit all properly.
- d) Cost of safety equipment is expensive.
- e) Worker does not care and often does not wear PPE.
- f) Work environment at times not properly ventilated (propane heat under tarp; could cause fatigue and worse).
- g) Workers do not take adequate care of their fall protection equipment.

Solutions:

Item	Suggested Controls and Solutions
1	Have workers complete a digital inspection of harness.
2	Make worker accountable for use of PPE safe equipment.
3	Offer incentives for safety.
4	Employer to check workers harness periodically.
5	Require proper respiratory equipment PPE for the work being done where there is a risk of workers losing consciousness due to hazardous atmospheric conditions (e.g. CO etc.).

9. Ladders (Tools & Machines)

- a) Ladders need to be kept in a convenient safe location for access and must be tied off during use.
- b) Scaffold systems are not designed for climbing and require use of ladders.
- c) Scaffold set up and dismantling of braces requires workers to climb on scaffold frames rather than getting on and off a ladder.
- d) Scaffold requires a need to have more than one ladder *available*.
- e) Most ladders on site are window dressing, only to create the perception of a safe worksite and to have in the event MLTSD comes around.
- f) Ladders are not tied off at top when used.

Solutions:

Item	Suggested Controls and Solutions
1	Establish a designated area near scaffold to store ladders.
2	Develop a monitoring system to make certain ladders are tied off during use.

10. Fit for duty (People)

- a) Alcohol / substance use on site.
- b) Addiction.
- c) Workers think they can work faster.
- d) Numbing of aches and pain from injury.
- e) Substance use has been happening for years.
- f) Stress related fatigue.
- g) Chronic pain results in use for self-medication purposes.
- h) Substances are utilized to deal with lack of sleep issues.
- i) Workers are using substances/alcohol during breaks.
- j) It is tolerated due to a shortage of labour and a need to get the work done.
- k) Use is difficult to detect on the job.
- l) Concerns related to worker use when working alone.
- m) Workers, employers, companies don't care.
- n) Fatigue can result causing potential unsafe conditions.
- o) Workers often use substances in order to work through pain.
- p) Mental health and stress can causes distraction if individual is at work.
- q) Double shifting of work. A full time trade worker sometimes works full time for one employer and takes cash jobs on the side on evenings and/or weekend.

Solutions:

Item	Suggested Controls and Solutions
1	Foreman should monitor for use and address the issue.
2	Employers need to have a policy and procedure in place to deal with employee substance use at work.
3	Union has support resources for workers to get assistance/support.
4	Owner and foreman need to do checks.
5	EFAP solutions need to be made available and employees made aware.
6	Related practices, policies and procedures must be implemented.
7	Enforcement of policies must be maintained by employer / supervisor.
8	Fit for duty guideline with respect to testing and screening are required.
9	Accommodation of work must be made if employee has a disease.
10	Personal technology like a fit bit device to monitor, sleep, rest, heart rate etc., to monitor fitness.
11	Supervisor – Safety Talk and assessment for worker fitness and check fitness of worker.
12	Every morning supervisor hold meeting inquiring if worker has any problems.

11. Scaffolds (Tools & Machines)

- a) Trades use various types of scaffold equipment.
- b) When employers mix different types of scaffolds, and parts get mixed, scaffold can become unstable.
- c) In setups where one scaffold has been setup around the base of a house, the space between houses may be a problem (re clearance for materials and equipment).
- a) Masonry trade uses their own scaffold. When a scaffold is needed elsewhere, the workers move it.
- b) A standard scaffold system of different make or types is not possible due to dismantling, damage and braces broken, full of mud etc. Mixing of makes and equipment sizes creates a problem with respect to stability of the scaffold.
- c) A builder would have to have a scaffold system remain on project for their own use and would require adequate space.
- d) Space between houses: With a 3 ft. scaffold, 2" X 6" plank is used (remove braces) until height is attained. Space between 6 ft. piece of wood can be very uncomfortable walking on 2" x 6" plank.
- e) Design of the house:
 - when you reach the scaffold maximum height in order to finish the peak, you sometime cannot go up any higher and are forced to use the scaffold not as intended. Minimum space is available for use of brick on gables.
 - Design of houses has changed and builders are building homes in tighter and tighter spaces/lots. There is minimal space and limitation of the how close they are together for access and set up of systems (5 ft between).
 - For building approval if you only have X amount of space available, this would dictate what application of finishing could be put on the house.
- f) Different system of scaffolding
 - Eliminate side brackets (crank system).
 - Set up time built into contract.
- g) Being able to move it on 3 sections high (overhead wires) vs 2 sections.

Solutions:

Item	Suggested Controls and Solutions
1	Include time re setup of scaffold into contract.
2	Standardized scaffold for all trades.
3	Architect should not design gables constructed with bricks.

12. Worker Non-Compliance (Culture)

- a) Working safe is considered by some workers as being more time consuming.
- b) Supervisor not appropriately trained.
- c) IRS not working.
- d) Lack of policies procedures in place by employer.
- e) Transient workforce.
- f) The trade needs to be made more attractive (wages, benefits etc.).
- g) Lazy workers.
- h) Attitude that the work is too difficult to do safely.
- i) Lack of training.
- j) Lack of guidance and or penalties being enforced.
- k) Lack of supervision.
 - Supervisor not competent.
 - Supervisor not enforcing it.
 - Supervisor not providing training.
 - Supervisor not taking action.
- l) Attitude of not wanting to do it.
- m) No fear of violations or penalties.
- n) Shortage of skilled workers.
- o) Convenience and alternatives.

Solutions:

Item	Suggested Controls and Solutions
1	Better on-site supervision is required.
2	Improved training and guidance of supervisor.
3	Attract new workers/immigrants into the trade.
4	Improve culture and image of the trade.
5	Recruitment of new workers keen to work in compliance.
6	Promote the trade and its benefits.
7	Target immigration and culture of skills.
8	Cross training for trade and skills (brick and stucco for example).
9	Training center to offer 3-4 week trade orientation to learn skills (quick cut saw, use machine, mix mortar and scaffold set up).
10	Government training subsidy and offer financial incentives to employer for training.
11	Pay scheme and charging rates and based on what is acceptable.

13. Workplace Violence / Harassment (Environment, Culture & People)

- a) Disgruntled and threatened workers.
- b) Workplace violence and harassment policy and procedures.
- c) Risk while working at heights on scaffold system.

Solutions:

Item	Suggested Controls and Solutions
1	Split disgruntled crews up that are working at heights.
2	Contract management re WAH and safety requirements.
3	Training to diffusing situations; conflict and aggression; and follow policies and procedures.

Recommendations and Conclusions:

The controls and solutions listed in this document are for the top primary causal factors that may contribute to workers falling, while working at heights, in the Masonry and Bricklayer trade in the Low-Rise Residential Construction sector. Given recent fatalities in the sector, along with injury/fatality data available from the Workplace Safety and Insurance Board (WSIB) for Residential Roofing, it is important that specific solutions targeting systemic weaknesses be implemented immediately.

Based on the list of controls/solutions provided by the subject matter experts from industry, research and government (regulator), the following five action items are recommended:

- 1. Address the lack of political will through greater enforcement of non-compliance and collaboration to focus on top industry issues identified in this workshop report (i.e. underground economy, equipment use and practices)**
 - ✓ Sector must address the identified key issues impacting safety in the sector.

- 2. Promotion of industry specific fit for duty, mental health and wellness resources.**
 - ✓ Provide tailored support to workers, supervisors and other support staff.

- 3. Greater implementation and enforcement of trade specific working at heights training.**
 - ✓ Trade and or site specific training and practices to be adopted and enforced.

- 4. Address the negative impacts of the piecework culture**
 - ✓ Adverse effects of the piecework culture must be addressed.

- 5. Requirement/Adoption of a Masonry specific best practices and procedures for job sites (safety, clean-up, multi-trade use etc.)**
 - ✓ Adoption and requirement of a Best Practices document

The above five recommendations provide a systemic foundation for reduction in fall related incidents while working at heights in the masonry and bricklayer trade. If ignored, the solutions listed for the top ranked primary causal factors will just serve as “band-aid” solutions. Based on the Swiss Cheese model of accident causation, risk assessment and root-cause analysis theory, we must focus on the causal factors and not just the symptoms.