

COLLINS DEMOLITION LTD	MECHANICAL DEMOLITION OF A TEMPORARY BUILDING STRUCTURE	
CDL 2.27		Revision 1

This activity briefing is to be read in conjunction with the main site methodology and risk assessment before works can commence.

Scope: Mechanical demolition of a concrete structure.

Plant & Equipment			
High Reach D-Rig Excavator 	Hydraulic Shear 	Rotation grab 	

Mandatory PPE:

Hard Hat (EN397)	Hi-Vis Vest (EN471)	Safety Boots (BS EN 345 - 1)	Gloves (BS EN 388)	Safety Glasses (EN 166B)	Ear Protection (EN 352-1)	Full Face Mask	Overalls	Seat Belts	Harness
									
✓	✓	✓	✓	✓	✗	✗	✗	✓	✗

Certificates & Training Required



Site Manager: Colin Galagher

Works Supervisor: Connor Graham

Site Arrangements: As seen in Main Site RAMS

Local Hospital: Royal Berkshire Hospital, Reading, RG1 5AN

Relevant COSHH Assessments

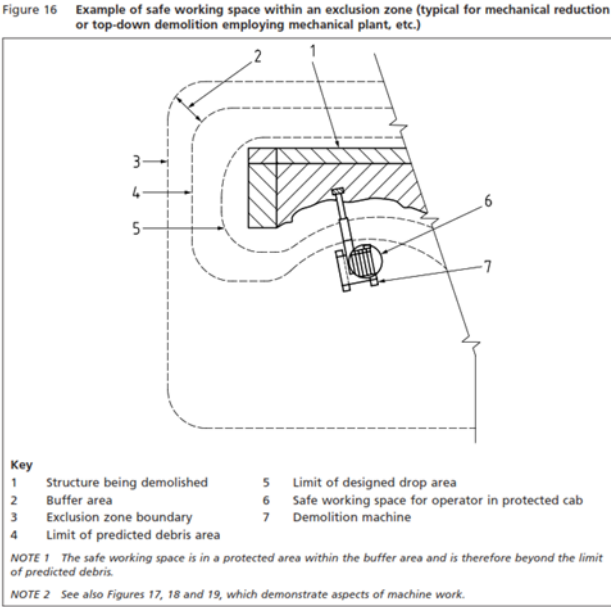
COSHH 003 Brick and Block
 COSHH 005 Crushed Concrete
 COSHH 008 DIESEL
 COSHH 011 Mobil Super 2000 X2 10W-10
 COSHH 014 Compressed Air
 COSHH 018 Antifreeze Concentrate
 COSHH 019 EP2 Grease
 COSHH 020 Clean AdBlue Urea Solution
 COSHH 024 Comma All Seasons Screen wash
 COSHH 032 VCS Ready Mixed Mix 40 60
 COSHH 033 Hydraulic Oil Volvo
 COSHH 034 Part Synthetic Engineer Oil VDS-4 10W



HOLD POINT: Operators are to complete a Pre-Work Check Sheet on plant prior to works commencing

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1. A Demolition exclusion zone is to be formed around the structure in accordance with BS6187 taking into account the predicted debris area. This will be done using HERAS style fencing (see erection of fencing methodology). Example of a demolition exclusion zone for mechanical reduction of a structure shown below in Figure 16 from BS6187.
2. Once the exclusion zone has been formed and adequate signage is affixed the Demolition Specification highreach Volvo 360-excavator will equip a hydraulic sheer or Rotational Grab in the plant attachment changing area. All hydraulic pipes will be attached to the Excavator in accordance with the manufacture's specification and checked for any leaks or damage prior to works commencing.
3. The Excavator will then enter the exclusion zone to begin the demolition works. It will be positioned facing the structure with the tracks in line to allow for the excavator to track back quickly where required. The drive sprockets are to be kept to the rear to all for maximum stability whilst operating



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Denotes Heras fenced exclusion zone.



Denotes Direction of Demolition

Plan Showing Exclusion zone and Direction of Demolition

Heras fencing adjacent to the Woodland area will be erected in such a way as to avoid any disturbance to the tree line but offering security for the Demolition works.

4. The excavator operator will raise the boom and the arm to the working height required, using the grab attachment the operative will begin the demolition of the building from the top to the bottom.
5. Waste materials shall be segregated at point of demolition into appropriate waste streams. Materials shall be loaded directly into Skips sited within the working area at appropriate positions according to the point of Demolition.
6. Once in a secure position the hydraulic shear will be closed to perform the cut.



HOLD POINT: Where the shear is being used to lower any cut steel work to ground level the safe working load of both the shear and the excavator at its working height are not to be exceeded.

7. The operator will continue to proceed with cutting the steels in the structure working on a single bay of the structure at a time to ensure the structure does not become unstable throughout the demolition process.
8. Once the cut has been processed the operative is to pull away all debris caught within the attachment.

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HOLD POINT: If the structure becomes unstable during the process of demolition works are to stop and the demolition method reassessed.

9. Once the temporary building has been cleared down to the existing hard standing area any upstands i.e. block work or concrete pad stones shall be removed to remove all remaining hazards from the working area.
10. The resulting hardstanding area will be left in a clean and tidy state, free from debris and hazards for future use.



Temporary structure to be removed.

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HAZARDS	PERSONS AFFECTED & LIKELY HARM	RISK			ADDITIONAL CONTROL MEASURES	RESIDUAL RISK		
		L	S	R		L	S	R
Overturning of machine	Operator, other workers, sub-contractors, visitors, general public - minor scrapes to serious breaks, head injuries, crushing injuries possibly leading to death.	4	5	20 HIGH	- Only trained operatives are to operate machinery. - Collins representative will carry out daily inspections of the site reporting any defects to the relevant department to be rectified. Any defective plant is to be taken out of use until it has been signed off as repaired by an appropriately trained Collins service engineer. - Roll-over-protection-system (ROPS) and seat belts to be used. - All excavations are to have safe access and egress to them with a graded ramp in and out. - All shear edges are to have bunding or appropriate fencing around them to prevent plant and machinery from toppling in. - Any drop off point of excavations must have a bunding or stop blocks in place to prevent plant and machinery from reversing fully in to the excavation. - Ground is to be suitable for the plant operation, where required, boards are to be placed on the ground. - Plant and equipment to be parked on suitable flat ground, engine switched off and the parking brake on. - So far as is reasonably practicable, sharp bends, blind spots and steep gradients are to be eliminated. - When visibility is poor, a suitably trained Banksman is to be in place to aid in the reversing operation. - Any excavation over 2m in depth should have a suitable barrier consisting of guard rails. Toe boards should be provided around the surface of the works (Principal Contractor to supply fencing where needed). - Adequate additional lighting to be in place around any excavations (supplied by the Principal Contractor).	1	5	5 LOW
Collision with other plant, vehicles, persons on	Operator, other workers, sub-contractors, visitors, general public - minor injuries, scrapes, breaks possibly leading to death.	3	5	15 MED	- Roll-over-protection-system (ROPS) and seat belts to be used. - Sufficient distance between haul routes, other activities, walkways and structures. - Traffic routes, loading and storage areas need to be well designed with enforced speed limits, good visibility and the separation of vehicles and pedestrians where so far as is reasonably practicable.	1	5	5 LOW

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foot or fixed structures	Environmental impact				- Provision of a traffic management plan with passing arrangements in place. - Banksman to be utilised when operating near fixed structures, haul routes or walkways. - Audible warning is fixed and operational on all plant. - Restricted access to the demolition area. - All excavations are to have safe access and egress with a graded ramp in and out. - All shear edges are to have bunding or fencing around them to prevent plant and machinery from toppling in. - Any drop off point of excavations must have bunding or stop blocks in place to prevent plant and machinery from reversing fully in to the excavation. - Ground is to be suitable for the plant operating, where needed boards are to be placed on the ground. - Plant and equipment to be parked on suitable flat ground with the engine switched off and the parking brake on. - So far as is reasonably practicable, sharp bends, blind spots and steep gradients are to be eliminated. - When visibility is poor, a suitably trained Banksman is to be in place to aid in the reversing operation. - Area is to be set out for the Adblue, COSHH cube and diesel bowsers to be placed, where so far as is reasonably practicable this should be a fenced compound.			
Falling Debris	Operator, other workers, sub-contractors, visitors, general public - minor injuries scrapes, knocks, broken bones, cuts possibly leading to death	4	5	20 HIGH	- Operatives are responsible for making sure their load is stable before commencing a manoeuvre. - Pre-operational checks are completed on all plant and equipment and any damage or faults reported. - Ensure that the machine is large enough to carry out the work at arm's length, or that the machine is able to reach the structure safely. - EXCLUSION/DROP ZONE: Erect physical barriers and warning signs around / below area of works. - Banksmen will use two-way radios to keep in constant communication with the plant operator during the demolition phase. - Machines have highly reinforced cabs. - Foot traffic is to be kept to a minimum on site with pedestrians keeping adequate distance away from operating plant, all Collins staff are trained to get acknowledgement from the operator before approaching.	1	5	5 LOW

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					- Any building in risk of collapse prior or during demolition will be treated as high priority and demolished. - Warning signage to be located on plant stating the dangers and for acknowledgement to be obtained before approaching. - Travel and operations on gradients must be controlled to ensure machine stability.			
Premature collapse of part or all of structure	Operator, other workers, sub-contractors, visitors, general public - minor injuries scrapes, knocks, broken bones, cuts possibly leading to death	5	5	25 HIGH	- Site supervisor and machine operator to carry out walk around survey of the structure to assess the stability. - Advice will be obtained from a competent person if the site operatives are not sure of building and or structures construction. - To minimise the risk of overloading, the floor materials will need to be cleared on a regular basis, works will be stopped and the materials cleared from the floor into safety exclusions zones below. - Ensure through good supervision that the work is being carried out according to the method statement. - All works are carried out in compliance with 'BS6187:2011 Code of Practice for Demolition' and industry best practice as details in NFDC (National Federation of Demolition Contractors) guidance notes. - Each structure is naturally divided into structural bays. These bays are determined by any load bearing element of the structure i.e. upright columns, structural walls/rooms etc.	1	5	5 LOW
Projectiles	Operator, other workers, sub-contractors, visitors, general public - minor injuries scrapes, knocks, broken bones, eye damage, cuts possibly leading to death	4	5	20 HIGH	- EXCLUSION ZONE: Erect physical barriers and warning signs around / below area of works. The operative must ensure that the work area has adequate ventilation for the task at hand. - The appropriate eye protection will be worn for the task been carried out, operatives carrying out abrasive wheel work must wear high impacted graded eye protection in line with BS EN 166B. - Water suppression will be used on area being worked in the form of a dust boss.	1	5	5 LOW
Sharp objects when splitting site materials	Operator, other workers, sub-contractors, visitors, general public - minor injuries scrapes, knocks, broken bones, cuts possibly leading to death	4	5	20 HIGH	- Manual handling of material is to be kept to a minimum and carried mostly with machines where practical. - The appropriate gloves will be worn for the materials been handled. - Shorts are not permitted to be worn on site; appropriate clothing is to be worn. - Operatives are trained in good personal hygiene.	1	5	5 LOW

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Unauthorised use of machinery	Operator, other workers, sub-contractors, visitors, general public - minor injuries, knocks bangs, scrapes possibly leading to death	3	5	15 HIGH	- Principal Contractor is responsible for site security, with a minimum of secure fencing to be in place. - All plant is to be kept locked and the keys are to be kept secure when plant is not in use. - No untrained operatives are to operate plant and equipment. - Spot checks to be carried out by the health and safety team on operator qualifications on site audits. Keys to be removed while machine is unattended. - Keys and dead-man to be removed at the end of each working shift and stored in an allocated area. - Machines to be parked overnight in sight of security. - In the absence of security personnel, cab guards to be used if supplied with machine. - Keys to be distributed to trained and competent personnel only.	1	5	5 LOW
Vibration	Operator - Whole body vibration: Nausea - Vomiting - abdominal pain Loss of appetite, diarrhoea, tiredness.	2	3	6 MED	- Equipment is well maintained to avoid excessive vibration. - Vibration damping seats come as standard on plant. - Operatives are training to see the symptoms of WBV (Whole Body Vibration). - Consult a doctor at the first sign of vibration disease and ask about the possibility of changing to a job with less exposure.	1	3	3 LOW
Noise emission	Operator, other workers, sub-contractors, visitors, general public - minor to serious injuries, tinnitus, loss of hearing which could be temporary/permanent	2	3	6 MED	- Plant and equipment cabs designed to minimise the amount of noise exposure to the operator. - The Principal Contractor is responsible for identifying local noise-sensitive properties and supply them with advance warning including a contact number for registering complaints during works. - The Principal Contractor is responsible for assessment potential noise impacts and select noise control measures in accordance with British Standard BS5228 and the technical advice above. - All plant and equipment are maintained and serviced on a regular basis.	1	3	3 LOW
Spill of hazardous substances	Operator, other workers, sub-contractors, environment impact - minor burns, sickness, inhalation leading to respiratory problems and/or possible death.	2	5	10 MED	- Diesel bowzers have double bunded tanks. - Reporting procedure is in place for any faults with the equipment. - Spill kits are available with adequate materials for dealing with a spill and disposing of the COSHH waste correctly. - Fuelling and servicing operations to be carried out in specified areas away from watercourses.	1	5	5 LOW

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					• COSHH cubes are used for storing chemicals on site, these are banded to capture any spills. With a padlock to prevent unauthorised access. • Operatives are aware of the COSHH assessments and material data safety sheets (MSDS) and where to obtain them in the event of a spill. • Fenced off area is to be agreed with the Principal Contractor for the storage of the COSHH cube, AdBlue and for the bowzers to be parked up at night. • Bowzers are to be kept in a safe place away from high vehicle activity to prevent collision. • Fuelling and servicing operations to be carried out in specified areas away from watercourses. • Principal Contractor is responsible for supplying a top water draining management plan and provide this with instruction to Collins personnel on the measures to be taken.			
Dust / Fumes	Operator, other workers, sub-contractors - respiratory illness / occupational disease possibly leading to death	2	5	10 MED	• Water suppression will be used on area been worked in the form of a dust boss. • Water suppression used when required in the form of a tractor and bowser, spreading water over the area. • In dry periods, operatives are encouraged to keep all windows closed when operating plant. • Dust masks and respirators are available and Collins operatives face fit tested as required. • Operatives working near the lime/cement tankers are to wear overalls. • No chemicals are to be used in a confined space; most operations are carried out in a well-ventilated area. • Any operatives with concerns can report these to their supervisor/manager.	1	5	5 LOW
Falling from height	Operatives - serious injuries, breaks, fractures, head injuries possibly leading to death	4	5	20 HIGH	• 3 points of contact on machine at all times when entering and examining. • Plant and equipment are to be cleaned at the start or end of each shift making sure access steps are free from debris. • Thorough examination of harness and lanyards will be carried out by a competent 3rd party every 6 months • Immobilise machine before undertaking works on top of machine. • Use other aids where practicably possible to complete lengthy operations. • Refrain from this work in inclement weather.	1	5	5 LOW

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					- Any leading edges/staircases/openings are to be secured and signs erected to prevent unauthorised access. - All excavations are to have safe access and egress to them with a graded ramp in and out. - All shear edges are to have bunding and or fencing around them to prevent plant and machinery from toppling in. - Principal Contractor is to supply adequate lighting in key areas of the site. - Where working at height cannot be eliminated, tethering and or mitigation is to be implemented.			
Fragile structures	Operatives - serious injuries, breaks, fractures, head injuries possibly leading to death	4	5	20 HIGH	- Access is to be limited and secured. - Inspection: If remote inspection is not possible then access to the roof must be planned and any risks must be assessed and appropriate action taken to reduce the dangers. - If a fall protection system is already installed, ensure that the system has been maintained and inspected properly and that only trained and competent people use the system. - Where there are any fragile areas these need to be marked and secured to prevent entry.	1	5	5 LOW
Heavy items poor manual handling	Collins operatives - pulls, strains, torn ligaments break injuries to upper and lower back, slipped disc and hernias	4	3	12 MED	- Manual handling operations are to be avoided so far as is reasonably practicable, this can be done by using lifting aids. - All operatives are to assess the load before moving it - TILE (Task, Individual, Load, Environment). - No operative is to lift above their individual capability. - Where lifting aids cannot be used and it is possible to break the load down this is to be done. - Where a load cannot be split down operatives are to conduct a team lift with another individual, when lift is not in their individual capability. - Manual lifting of large items where so far as is reasonably practicable in adverse weather conditions.	1	3	3 LOW
Fire / explosion	Collins operatives, other workers, sub-contractors, visitors, general public -	4	5	20 HIGH	- No smoking in any Collins plant, equipment or vehicles. - Principal Contractor is responsible for site security, with a minimum of secure fencing to be in place. - Waste is to be kept in separate locked receptacles.	1	5	5 LOW

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	serious impact injuries, burns possibly leading to death				• Spread sand to area below cutting area if permissible. • EXCLUSION ZONE: Erect physical barriers and warning signs around / below area of works. The operative must ensure that the work area has adequate ventilation for the task at hand. • To reduce the risk of an uncontrolled fire no hot works must be undertaken within one hour of lunch or of the shift ending. Ensure permit is signed off. • Good level of housekeeping in and around site, all COSHH waste is to be disposed of correctly. • All cutting equipment i.e. guns, bottles to be fitted with correct safety valves and flash back arrestors. • All full and empty gas bottles to be stored in a safe area, preferably within a secure compound. Propane to be separated from oxygen by a minimum of 3 metres. No storage of bottles within the immediate boundary of any site. • Flammable liquids are kept locked in a COSHH cube on site. • Ensure that fire extinguishers are provided are close to hand at the works area. • Combustible materials kept away from the refuelling station. • Equipment to be shut down / isolated prior to starting refuelling operation. • Switch off the engine and apply the parking brake before leaving the vehicle cab. • Alert the site manager immediately in the event of a large spillage. • Operation of mobile phones is not allowed when refuelling.			
Slips trips and falls	Operator, other workers, sub-contractors, visitors, general Public - minor injuries, scrapes, knocks, broken bones and cuts	4	4	16 HIGH	• The Principal Contractor is responsible for supplying and maintaining safe access and egress to site and around site. • 3 points of contact on machine at all times when entering and examining. • Plant and equipment are to be cleaned at the start or end of each shift making sure access steps are free from debris. • Immobilise machine before undertaking works on top of machine. • All excavations are to have safe access and egress to them with a graded ramp in and out. • All shear edges are to have bunding and or fencing around them to prevent plant and machinery from toppling in. • Principal Contractor is to supply adequate lighting in key areas of the site.	1	4	4 LOW

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					- Good standard of housekeeping is to be maintained on site. Any issues reported to the Principal Contractor. - Individuals are responsible for maintaining their Personal Protection Equipment (PPE) if they require new PPE, they must inform the Collins supervisor/site manager for replacements.			
Poor hygiene	Operator, other workers, sub-contractors, visitor's – sickness, skin conditions, disease (leptospirosis)	4	4	16 HIGH	- The Principal Contractor is responsible for suitable adequate welfare for Collins operatives, this includes toilets, washing facilities including, clean hot and cold, or warm, running water; soap or other suitable means of cleaning; towels or other suitable means of drying; and showers, where the nature of work is particularly dirty or there is a need to decontaminate. Dry room, running water, rest areas. These will also be maintained and monitored by the Principal Contractor. - Supervisor/managers are to brief the operatives on keeping the facilities clean.	1	4	4 LOW
Fouling of the road surfaces	Operator, other workers, sub-contractors, visitors, general public – slipping, skidding of vehicles leading to serious injury	3	4	12 MED	- Principal Contractor is responsible for monitoring and managing the condition of the roads external to the site. - Collins supervisors/managers should arrange for wheel/track cleaning facilities where necessary. Any concerns or issues will be highlighted to the Principal Contractor.	1	4	4 LOW
Hazardous substances	Operator, other workers, sub-contractors - long term disease, Mesothelioma, lung cancer leading to possible death	4	5	20 HIGH	- Principal Contractor is responsible for arranging and managing site surveys and soil sampling before the site works starts. - Collins operatives are trained on UKATA asbestos awareness. - Refurbishment and demolition survey to be undertaken prior to the works commencing, the survey will be relayed to all operatives on induction. - If unknown substances are found during demolition all work will stop and the Principal Contractor be made aware, works will commence once the integrity of the substance has been identified and the appropriate action taken. - All chemicals used are to have a COSHH assessment carried out and accompanied by a material safety data sheet (MSDS). Collins operatives will be made aware of these documents and control measures as well as where to find them if required.	1	5	5 LOW
Overhead services	Operator, other workers, sub-contractors - electric shock leading to respiratory problems, muscle convulsions, arrhythmia of the heart leading to possible	4	5	20 HIGH	- The Principal Contractor is responsible for contacting the utility supplier for details of supply. - Lines to be made dead where practical. If not practical, the steps below are to be taken. - Marking out the GS6 area must be conducted by a competent person. This must consist of advance warning signs of voltage, high (height specified by the electrical	2	5	10 MED

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	death				- company) from ground level of the cabs, crossing to be illuminated if working after dark. - All operatives are to be briefed on the details of the GS6 before working in the area. - Access routes are to be level, firm and well maintained to prevent tilting of plant once under the area. - If lighting is required it should be placed at ground level shining up to the cables. - Principal Contractor is responsible for maintaining the GS6 barriers, signs, ground conditions etc. - Access crossings are to be kept to a minimum. - If working under the GS6 plant being used to excavate should not be able to reach the overhead services			
Live services	Operator, other workers, sub-contractors - electric shock leading to respiratory problems, muscle convulsions, arrhythmia of the heart leading to possible death	4	5	20 HIGH	- The Principal Contractor is responsible for contacting the utility supplier for details of supply. - Isolation of services is only to be undertaken by a trained and authorised person. - No works are to commence until a physical cut/break is observed and the appropriate certifications have been issued if conducting demolition work in the vicinity of any services. - Permit to work are to be obtained and followed before any works commence. - All live services are to be marked up and warning signs/demarcation in place, all operatives on site are to be made aware at the induction stage of the location of these.	1	5	5 LOW
Excess water	Operator, other workers, sub-contractors, visitors, general public - could lead to spread of viruses/disease, drowning leading to death	4	5	20 HIGH	- Waterproof coats, leggings and wellingtons are to be made available to Collins operatives as required. - The Principal Contractor is responsible for suitable adequate welfare for Collins operatives, this includes toilets, washing facilities including, clean hot and cold, or warm, running water; soap or other suitable means of cleaning; towels or other suitable means of drying; and showers where the nature of work is particularly dirty or there is a need to decontaminate. dry room, running water, rest areas. These will also be maintained and monitored by the Principal Contractor. - Excess water on site is to be managed with the use of bowsers and pumps to eliminate the water and dispose of in a pre-agreed location with the Principal Contractor.	1	5	5 LOW

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Inclement Weather	Operator, other workers, sub- contractors, visitors, general public – symptoms of cold/flu, hypothermia, breaks	3	5	15 MED	• Winter Personal Protective Equipment supplied (thermal hat liners, coats, gloves) as required for Collins operatives. • The Principal Contractor is responsible for suitable adequate welfare for Collins operatives, this includes toilets, washing facilities including, clean hot and cold, or warm, running water; soap or other suitable means of cleaning; towels or other suitable means of drying; and showers where the nature of work is particularly dirty or there is a need to decontaminate, dry room, running water, rest areas. These will also be maintained and monitored by the Principal Contractor. • If gritting is required around the Collins compound, Collins site supervisor is to liaise with the Principal Contractor to arrange this. • Water proof coats, leggings and wellingtons are to be made available to Collins operatives as required.	1	5	5 LOW
					•			