











Method Statement & Risk Assessment

Project Name:	CRAIGENDORAN RISING MAIN		
Location of the Works:	CRAIGENDORAN, HELENSBURGH.		
Title of method statement:	ENVIRONMENTAL PROTECTION PROCEDURES DURING PIPE LAYING AT CRAIGENDORAN RISING MAIN.		
Scope of works	<p>The task involves the installation of HDPE Rising Main and includes the following works:</p> <ul style="list-style-type: none"> • Re-Fuelling. • Fuel Storage. • Plant Precaution. • De-Watering Procedures. 		
Reference:		Date:	01-04-2016
Prepared By:	D Fall	Rev:	00

1. Record of revisions/additions								
Rev:	Date: 01 - 04 - 2016	Details of revision:						
00		Original Document						
2. Parties to the Contract								
Client: Scottish Water								
PSDP: ABV								
Principal Contractor: Cleantech Civils								
Contractor								
Sub-Contractor								
Site Management								
Name	Company	Job Title	Contact					
Killian Smith	Cleantech Civils	Contracts Director						
Darren Fall	Cleantech Civils	Contracts Manager						
Teresa Mylott	Cleantech Civils	EHS Manager						
Paul Cusack	Cleantech Civils	Site Foreman						
		Site Engineer						
3. Personnel Protective Equipment Required:								
								Name any other:
Hi-Viz Vest/Jacket	Safety Boots	Hard Hat	Coveralls	Safety Gloves	Hearing Protection	Eye Protection	Respiratory Protection	
✓	✓ No rigger boots allowed	✓	✓ Task Dependent	✓ Task dependent	✓ Task dependent	✓ Task dependent		
4. Labour Requirements:								
<ul style="list-style-type: none"> 3 x General Operative (trained DD operators) Site Foreman (With CAT & JENNY) Engineer 1 x Dumper Driver 				<ul style="list-style-type: none"> 3 x Machine Driver 1 x Trained Butt Fusion & Electrofusion Welder 				
5. Plant & Equipment Required:								
<ul style="list-style-type: none"> Safety Barriers 3 x 360 Excavator 1 x Submersible Pump & Generator Traffic management equipment (barriers; signs; cones; etc...) 1 x Plate Compactor 				<ul style="list-style-type: none"> Goal posts & bunting 1 x Track dumper Cat & Jenny 1 x Road Saw Butt Fusion Welder Vacuum Pipe Lifter 				
6. Training								
<ul style="list-style-type: none"> CPCS Training Appropriate CPCS Training for operating the required plant CAT & Jenny Sigma Training Street Works Training TM installers 				<ul style="list-style-type: none"> Manual Handling Training Full Driving Licences Abrasive wheel training 				
7. Permits								
<ul style="list-style-type: none"> Permit to Dig 				<ul style="list-style-type: none"> Road Opening Licence 				



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8. COSSH & Chemicals

- | | |
|--|--|
| <ul style="list-style-type: none"> • Concrete • Diesel • Petrol | <ul style="list-style-type: none"> • Plasticiser • Plant oils and lubricants |
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9. Emergency Procedures

First Aiders: Paul Cusack
Location of First Aid Box: Site Office; Mobile Welfare Units & Vans
Location Of the nearest hospital: **The Victoria Infirmary, Helensburgh.**
Location of Fire Extinguishers: Site Office; vehicles & excavators
Location Of Assembly Point: Site Works Entrance

Emergency Site Evacuation:

In the event of a fire/site evacuation, alarm area will be sounded.
 Upon hearing the alarm, all persons are to stop work immediately and assemble at the assembly point at the works entrance.

Excavation collapse:

- The person discovering the incident must raise the alarm.
- Contact First Aiders (if necessary), and members of the Site Safety, Health & Environmental Team, or a member of Site Management by mobile phone or in person to raise the alarm.
- Give clear and concise information on the nature and location of the incident and other relevant details (e.g. injuries sustained/buried personnel).
- Under no circumstances is the person discovering the incident to risk his/her own personal safety by attempting to deal with the situation alone. If trained/competent help is in the area and there are trapped/injured personnel requiring immediate attention/rescue and it is safe to do so, then help may be given until members of the emergency response team arrive or the emergency services.
- In the event of a trench collapse where no injuries are involved, necessary remedial works may be carried out to make the area safe but only with authorisation from Site Management Team
- In consultation, with the Site Manager, the nature, location and level of the Emergency will be defined.
- Emergency Services shall be notified (if required)
- General Operative may be assigned to prevent any unauthorised access by other site personnel into the area of the incident (if required) until the Emergency Services arrive/the IP is secured and transferred to the compound/the incident scene is made safe.
- The site personnel in the vicinity of the incident scene shall be evacuated from the immediate area and instructed to report to the site assembly point (if necessary).
- The Site Manager or delegate performs a roll call in conjunction to ensure all personnel are present and accounted for.
- No unauthorised personnel will be allowed enter the area while remedial works/rescue operation is taking place.
- Any vehicles obstructing emergency access to be removed.
- A member of the site emergency response team will be allocated at the site entrance to meet the emergency services upon their arrival on site and direct them to the incident scene (if required).
- Upon arrival at the scene the emergency services will be briefed and they will take control of the incident scene.
- All resources available on site will be at the disposal of the emergency services.
- The incident is investigated and those actions deemed appropriate by CLEANTECH HSE Management

Electrical Emergencies {Electric Shock or Contact with Electricity}

- When the alarm is raised. Staff will call the emergency services. (Phone number 999 or 112) to notify fire brigade and ambulance if appropriate, and give details and location of the accident / Incident.
 - The machine driver should be instructed to stay in the cab of the machine and to not touch any part of the machine.
 - If you come across an incident in which you suspect that a victim has been electrocuted, never touch or move the person.
 - If casualty is still in contact with the cable, use something rubber to break the connection between the casualty and the live cable/wire.

- The site manager will co-ordinate crowd control, they shall be helped in this task by any two General operatives as appointed by the site manager.
- The site manager will arrange to have a General Operative wait at the site entrance so to direct the Emergency services to the site of the Accident / Incident.
- The trained first aiders will assess the situation and will administer first aid treatment if required he/she will also co-ordinate if necessary the rescue operations and will establish the details of injury etc.
- When the emergency services arrive they will take over co-ordination of the rescue aided by the First Aiders.
- The site manager will contact the casualty's next of kin.
- The emergency coordinator will appoint a person to go to the hospital if a casualty or casualties are taken there and will keep the Site Manager informed.
- The site manager will contact the next of kin.
- The site manager will inform Head office immediately of the situation.
- The area is to be cordoned off until the investigation has been completed.

10. Methodology

Pre-start

1. Permit to Dig Register & Permits in place prior to any ground penetration, Ground surveyed by a CAT 5 & trained Sigma Permit authoriser communicated to operators & services clearly marked on the ground
2. Assume all lines and services are live.
3. All site personnel entering site will receive a site specific induction, all necessary paperwork will be completed such as manual handling training records, CPCS and CPCS or equivalent and will be recorded on site.
4. All site specific rules must be adhered to by all operatives at all times including wearing the mandatory PPE (hard-hat, high-vis vest, steel-toe cap boots).
5. Prior to construction works beginning all necessary control measures will be put in place to safe guard the health & safety of all employees of Cleantech Construction, and members of the public.
6. Leave emergency equipment (First Aid, Extinguisher, Spill Kit) out near the works area ensure that a copy of the emergency procedures plan is on site and located in a known location
7. Site Supervisor to ensure that everybody is completely aware of the scope of works and have read this method statement and are familiar with the reporting and emergency procedures
8. All supporting documentation should be read prior to works i.e. Method Statement, JSSP, Construction Drawings etc.
9. Erect all necessary signage to serve notification that construction work, particularly excavation work is in progress in accordance with chapter 8
10. Ensure safe access is provided to the work area; keep all public areas free of obstructions.
11. Drawings must be present on site for all utilities including electrical; telecom; fibre optic; water & foul.

Machinery required for works under overhead services shall be height restricted – equipment with potential to exceed 8metre in height. Excavator shall be restricted by raising of jib to permitted height, key on control system switched on to engage the height limiter on the machine.

10.1. Initial Stage

1. All on site must complete CLEANTECH site safety induction.
2. Works to be supervised by CLEANTECH site management.
3. All operatives to have read and signed this Method Statement
4. All underground services to marked and depths determined. Route of the proposed excavation to be determined
5. Reflective Signage will be erected on the approaches to the works in accordance with street works to an approved traffic management plan.
The Traffic Management plan; barriers; cones; signs; traffic signals is put in place by a competent traffic management company. A safety at road works operator will be present at the works zone at all times. All traffic management equipment will be in accordance with street works. Formal inspections of the traffic management plan is carried out twice daily.
6. Prior to excavating a permit to dig will be completed by the Approved Permit Authoriser and signed off by the excavator drivers and ground workers; excavation controls with respect to underground services are as follows:
 - Obtain up to date exiting services drawings;
 - The area is surveyed by a trained sigma location of underground services permit authoriser using a calibrated Cat 4 +Cat & Genny Locator.
 - Any existing services identified, appropriate depths ascertained and marked on drawings
 - Information communicated to operatives via the permit to dig form.
 - Hand digging to take place close to services
 - Special care is taken when using picks & crow-bars; they must be of nonconductive material
 - Hand-tools are used within 0.5 m of a buried service
 - Services are never used as hand or foot holds & are supported if exposed. Extreme care is taken if joints are exposed.
 - An emergency plan is in place should any damage occur to an underground service.

Approved code of practice for avoiding underground services and avoid danger from overhead services is adhered to at all times
7. Goal posts bunting and signage erected where necessary.

10.2. Protection of the Environment during the works laying the 710mm Pipe in Craigendoran

8.	All fuel containers to be marked up and stored on a bunded area in a locked container.
9.	All small plant and stationary equipment to be placed on plant nappies at all times.
10.	Spill Kits are to be made available in designated areas of the site and their locations highlighted with signage and details of the location included in the site induction.
11.	All fuel for the plant to be stored in a double skinned bunded fuel bowser and placed in a designated location in the site compound.
12.	Fire extinguishers to be placed in areas of suitable access in close proximity to the fuel storage location.
13.	The location of all extinguishers to be made available in designated areas of the site and their locations highlighted with signage and details of the location and correct usage to be included in the site inductions.
14.	The re-fuelling will take place at the designated fuel bowser location. The bowser will not be brought out to fuel the machines from its location and at no time shall the bowser be brought to the shore/Beach.
15.	All items of plant to have biodegradable oil only. Plant operators will be provided with all necessary information for the correct use of plant containing biodegradable oil and details about the oil type will be included in the site inductions.
16.	All plant will be provided with spill kits and checked regularly to ensure there is an adequate supply available.
17.	As the works will be in tidal conditions, de-watering will not be effective when the water is in the immediate area of the works. Pipe laying can commence after the water has drained naturally from the area to be excavated.
18.	Localised pumping may be required for areas of construction or pipe laying. A pump can only be used with the outfall hose connected into a plant nappy functioning as a settlement area and assist with the removal of hydrocarbons if present.
19.	All Pumps will be seated on bunded plant nappies at all times.
20.	A temporary settlement bund can be set up at the compound area for any dewatering requirements or with the assistance of concrete trucks and will be maintained at regular intervals as necessary.
21.	All plant inspections will be made on a daily basis, any leaks or concerns will be brought to the managers attention and the plant will be excluded from any further works until repaired.
22.	The inductions will include a dedicated section to protection of the surrounding environment and regular tool box talks will include information on environmental protection.
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11. Environmental	
1.	<p>Waste Management</p> <ul style="list-style-type: none"> • A waste management plan will be prepared for the project and available at the site office for inspection • Waste shall be controlled and managed at all times • Waste shall be transferred by appropriately registered carriers and only removed to licensed sites • Wastes shall be kept in a secure manner, suitably contained and labeled • Hazardous wastes shall be kept separately and securely labeled containers for the task and disposed of in accordance with the Hazardous Waste Regulations
2.	<p>Waste minimization CLEANTECH shall endeavor to minimize waste streams in line with the principles of the waste hierarchy</p> <ul style="list-style-type: none"> • Avoidance of waste at source • Reduction of waste volumes • Re-use of uncontaminated spoil within the works • Arrange for recycling of the waste • Disposal as a last option
3.	<p>Operations of vehicles and plant To ensure minimal impact from the operation of vehicles and plant, operators shall give due regard and implement the following</p> <ul style="list-style-type: none"> • Minimize route and journey mileage to and from and around site • Prevent nuisance to the community caused by parking, spoil from vehicle movements, noise and access restrictions • Ensure prevention of spillage of spoil, fuels, coolants, hydraulic oils and other vehicle fuels • Maintain vehicles • Ensure all vehicles and machinery are turned off when not in use • Ensure suitable control for the means of access and egress to public highway
4.	<p>Noise and nuisance Care shall be taken by the CLEANTECH Civil Works to ensure good image and relations with the local community by the following</p> <ul style="list-style-type: none"> • The use of offensive language, behavior and or discourtesy to the public prohibited • Excessive noise from plant, equipment, vehicles and employees being monitored • Strict compliance with noise and working hour restrictions • Excessive emissions of dust, fumes and odors • CLEANTECH will ensure a high standard of housekeeping and litter control on all sites at all times
5.	<p>Water Protection:</p> <ul style="list-style-type: none"> • Fuels, oils, greases and hydraulic fluids must be stored in bunded compounds a minimum of 50m from the watercourse. • Excavators will be modified to operate with biodegradable hydraulic oil. • Diesel to be stored in double skinned tanks/diesel bowsers – refueling of plant to only take place if drip trays are in position • Refuelling of machinery will be carried out in bunded areas. • Runoff from machine service and concrete mixing areas must not enter the watercourse; • Stockpile areas for sands and gravel will be kept to a minimum size, 50m away from the watercourse; • Runoff from the above will only be routed to the watercourse via suitably designed and sited settlement ponds/filter channels; • Settlement ponds should be inspected daily and maintained regularly; • Temporary crossings will be designed to the criteria laid down for permanent works; • Watercourse banks will be left intact if possible. • If they have to be disturbed, all practicable measures should be taken to prevent soils from entering the watercourse.

12. Quality Controls

1. Work carried out in accordance with the specification documents.

2. Pipe welding test carried out in accordance with the specification

Risk Assessment		Assessment Date:		Assessed by:		
		March 2016		Killian Smith		
Hazard No.	Task	Hazard Identification and Foreseeable Risks	Risk Rating (Without Controls)	Control Measures	Methods of Monitoring Control Measures	Risk Rating (with Controls)
1.	Access /Egress	<ul style="list-style-type: none"> Unauthorised entry to site Injury to public Vehicle collision 	High	<ul style="list-style-type: none"> Banksman in place for any awkward reversing Mandatory PPE worn CLEANTECH induction complete Driving with due care & attention Adherence to site safety signage Never block access and egress routes with materials and equipment Site tidiness maintained by cleaning up during work, at end of day and(major) weekly to avoid slips and trips – Clean as you go. No protruding nails allowed: all such nails must be clawed out or hammered flat so as to foot injuries Routes delineated with barriers; barriers secured with sandbags where necessary Excavations backfilled as soon as possible Barriers erected around unattended excavations Open excavations attended. Access to the site must be controlled to ensure the safety of site employees and visitors. Sign in sign out to take place Ensure all plant is secured against unauthorised operation; removed the keys & prevent access to the cab 	Checks by Supervisor	Low
3.	Loading & Unloading	<ul style="list-style-type: none"> Falls from height Crushing 	High	<ul style="list-style-type: none"> Safe lift plan in place for lifts by mobile crane. Operator trained to the approved CPCS standard Vehicles should never be overloaded. Loads should be evenly distributed, secured and not protruding beyond the sides or back of the vehicle. Reverse beeper and flashing beacon fitted. All guards and covers to be in position and secured. 	Checks by supervisor GA3 inspections	Low

				<ul style="list-style-type: none"> • Windows, lights, mirrors and camera lens to be kept clean at all times. • The cab floor to be kept clean and free from any obstacles which may affect the safe operation of the Machine. • Ground workers to wear hi visibility vests at all times and hard-Hats. • Warning signs will be erected to alert pedestrians of Unloading/Loading Operations. • Ground workers to keep clear of plant at all times and not to approach until signalled to do so by the trained Operator while loading/unloading operations are underway. • All lifting equipment must be certified for its use and have proof of such inspections available to all supervisory staff. No work shall be carried out on site unless certification has been checked by Site Manager. • Loads to be tipped only on suitably level ground to prevent overturning. • All plant and equipment will be equipped with a Fire extinguisher. • Competent Garage Mechanics carry out servicing to plant as per the manufacturer's instructions. • The use of mobile phones will be prohibited during lifting operations. • When mounting or dismounting the machine the handholds and steps must be used and must be maintained in safe condition. • Access roads will be damped down during fine weather periods to prevent dust from rising. • Where the operators direct field of vision is obstructed a banks man should be available to assist the operator, this person should be adequately trained. 		
4.	Excavation of Trenches	<ul style="list-style-type: none"> • Underground services - gas, electricity or water • Falling materials or plant • Falls of persons • Ingress of water • Collapse of sides • Weakening of adjacent structures • Noise 	High	<ul style="list-style-type: none"> • Ground conditions established by a survey to identify the type of ground in which the excavation is to be carried out; means of trench support confirmed upon completion of trial holes • Remember that even work in shallow trenches can be dangerous. You may need to provide support if the work involves bending or kneeling in the trench. No one should be in the trench unless it is safe to be there. • Where possible ensure that all water sources are turned off before entering an excavation • Do not go into unsupported excavations that have not being battered to a suitable slope. Never work ahead of the support. 	Permit to Dig AF3 Checks by supervisor	Low

				<ul style="list-style-type: none"> • Do not store spoil or other materials close to the sides of excavations. The spoil may fall into the excavation and the extra loading will make the sides more prone to collapse • Contaminants removed following a suitable risk assessment and method statement • Employees and Management must ensure no-one enters an unsupported unsafe trench • Support materials on site before excavation starts. • Plant and materials kept away from the side of excavations to prevent undue pressure or ingress of exhaust fumes. • if the depth is a particular risk of anybody falling, suitable guard-rails placed and suitable access arrangements, such as ladders or ramps, provided • If there is a risk of water ingress, suitable methods and/or equipment provided to either prevent the entry of water or to remove water, e.g. water pumps • If plant could fall into the excavation, baulks or earth bunds should • Where excavations are dug next to structures, suitable preventative measures established in case of collapse, subsidence or damage • Inspections of excavations carried out prior to each shift, after any event likely to affect strength or stability be provided. • Record of inspections recorded on approved form AF3 daily • Suitable personal protective equipment [PPE] • The location of electric cables, drains, gas and water mains etc. will be determined and marked prior to the commencement work. Local ESB Networks staff to be consulted on underground services. Local authorities and, where necessary, scanning are to be used to determine service locations. • It will be the liability of the contractor to make good any damage done to such services during excavation work, to render them safe and secure without undue delay. • Excavations or openings will be properly sloped or shored at all times. A competent person must approve trench designs prior to entry. Warning lamps must be used during hours of darkness or low visibility. • Excavations or openings in floors must be properly fenced at all times. • During excavation work the surrounding areas must be maintained in an orderly and tidy condition. 		
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				<ul style="list-style-type: none"> Where vehicles have to tip materials into excavations, stop blocks can be used to prevent them from over-running. Remember that the sides of the excavation may need extra support. Always work outside the reach of an excavator bucket. Where this is not possible, use safe systems of work to prevent people being struck. Do not stand directly under the bucket. Safe means of access will be provided to excavations. Ladders will be in good condition, extend 1 metre above the excavation edge and be secured. Heavy vehicles are to be kept away from the edge of an excavation. At no time should materials be stored along the edge of an excavation. Flooded trenches should be "de-watered" as quickly as possible. Once emptied the trench is to be fully inspected prior to entry. All personnel on sites, where work at heights is being carried out, will wear safety helmets. Appropriate safety equipment will be used when necessary 		
5.	Laying of Pipes,	<ul style="list-style-type: none"> Entrapment due to fall/ roll of pipe. Operators direct field of vision obscured by load leading to contact with other persons or plant. Failure of lifting equipment. Inadequate supervision. Untrained Operatives Use of mobile phones by operators. Displacement of load Person being struck by suspended pipe causing serious injury of harm. Defective and broken skids causing crushing of limbs of entrapment of body parts. Manual Handling. 	High	<ul style="list-style-type: none"> Operator trained to the Approved CPCS standard as per the Construction Regulations. Vehicles should never be overloaded. Loads should be evenly distributed, secured and not protruding beyond the sides or back of the vehicle. Reverse beeper, flashing beacon, CCTV and or mirrors fitted Defective skids removed immediately from the line. Heavy duty gloves to be worn by operatives handling skids. All engines guards and covers to be in position and secured. Windows, lights, mirrors and camera lens to be kept clean at all times The cab floor to be kept clean and free from any obstacles which may affect the safe operation of the Machine. Ground workers to wear Hi Visibility Vests at all times and Hard-Hats. Warning signs will be erected to alert pedestrians of Unloading/Loading Operations. Traffic management must be in place where loading/unloading is being carried out on public roads. Loads to be tipped only on suitably level ground to prevent overturning of skip. 	Permit to Dig AF3 Checks by supervisor	Low
6.	Work at Height	<ul style="list-style-type: none"> Fall of a person a distance liable of causing personal injury 	High	<ul style="list-style-type: none"> Take into accounts the principles of prevention when working at heights. Work at height must be adequately planned and supervised 	GA3 Checks by supervisor	Low

		<ul style="list-style-type: none"> Falls of persons off the edge of structures 		<ul style="list-style-type: none"> Collective fall protection measures must be given priority – Trench boxes must have guard and mid rails. Inspections on equipment carried out (i.e., crowd control barriers, harnesses, fall arrest devices etc) Safe means of access to the work location provided using ladders 		
7.	Manual Handling	<ul style="list-style-type: none"> Ligament strains. Muscle strains. Fatigue. Abdominal hernias. Prolapsed/herniated discs. Paralysis. 	Medium	<ul style="list-style-type: none"> Full training and instruction provided in both induction and on- going safety training. Design out the need for manual handling where possible Mechanical aids used wherever possible Workers adhere to guideline weights & to only lift what they are able to lift Assess the load Weights marked on all loads. Lift smaller loads. Cutting pipes to length Mandatory PPE worn 	Checks By Supervisor	Low
8.	Unauthorised Access	<ul style="list-style-type: none"> Personal injury 	High	<ul style="list-style-type: none"> Unauthorised entry to the working area to be reported to site management. All barriers to be replaced to secure access 	Checks By Supervisor	Low
9.	Vehicle Fuels & chemicals & Dust	<ul style="list-style-type: none"> Fire Explosion Unintended release / spills Environmental Pollution 	High	<ul style="list-style-type: none"> COSSH assessments complete and communicated to workers Appropriate PPE worn Ensure employees have a spill kit available and know how to use it. Fuels stored in safe locations, away from sunlight and in a secure location Water suppression used Dust masks worn Face fit testing complete 	Checks By Supervisor	Low
10.	Slips, Trips & Falls	<ul style="list-style-type: none"> Cuts and bruises Laceration Serious bodily injury 	High	<ul style="list-style-type: none"> Workplace tidiness maintained by cleaning up during work, at end of day to avoid slips and trips – Clean as you go. Vigilance from employees as to the dangers from slips trips and falls. 	Checks By Supervisor	Low
11.	Working on or near roads,	<ul style="list-style-type: none"> Collision with plant or traffic Traffic Accidents. Inadequate Traffic Management Arrangements Misleading signs Close proximity of the public. Collision with plant or traffic 		<ul style="list-style-type: none"> Traffic management plan in accordance with chapter 8 Correct signing/coning/barriers in place for all roadwork's and path works; including site entrance signage Competent contractors implementing the TMP Employees operating stop/go batten or maintaining the system to have safety at roadwork's training Longitudinal & size safety zones in place 	General checks by supervisors. Recorded traffic management inspections	Low

		<ul style="list-style-type: none"> • Traffic Accidents. • Inadequate Traffic Management Arrangements • Misleading signs • Close proximity of the public 		<ul style="list-style-type: none"> • Tapering in accordance with chapter 8 • Class 3 hi-vis worn by TM installers • Signs in place in accordance with chapter 8 & made stable by sandbags • Consultation to occur with the local authority; appropriate permits obtained & appropriate controls implemented • Safe access and egress for vehicles, plant and persons • Safe crossing of traffic lanes. • Traffic management equipment maintained clean • Traffic control supervisor appointed who inspects traffic management arrangements twice daily • All delivery drivers to adhere to the rules of the road. • Hard hats; Hi-visibility clothing & steel toe capped boots must be worn at all times • Safe access for vehicles, plant and persons • Safe crossing of traffic lanes by site workers • Employees set out signs before moving onto work site. • Trained employees, measure out the distance for the roadwork's ahead signs/flashing warning signs as per traffic management plan, place signs on left hand side. • Trained employees, work back towards the site, placing signs as necessary. • All employees always stay on the verge if possible • Where there is two way traffic, repeat the procedure for traffic going in the opposite direction. • If portable traffic lights are to be used, Trained employees start using them before going in the opposite direction with signage & cones • Employees cone off the works area, always face the traffic when setting out cones for the lead in taper and always start from the verge. • Trained employees set up End of Roadwork's sign to show that the road is clear in both directions. • When removing the signs, trained employees always reverse the procedure • Site or works entrance signs installed 100m before entrance. • Continual monitoring of work in progress and traffic control 		
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Appendix 1 Trench support manufacturer's guidelines

ASSEMBLY

ANCILLARIES

A Assemble by laying panels flat using MGF 4-leg chains provided

B Telescopic struts adjusted to required width and locked into position within panel pockets using pins and retaining clips provided

C Second panel lowered onto struts and locked into position before releasing chains

D Box lifted into vertical position for use

E Excavate to max 1.0m below ground level (if site conditions permit)

F Lower Base into excavation and release chains

G Dig and push Base to Base depth advancing in maximum 300mm increments by pushing each panel down using excavator bucket avoiding damage to lifting points or panel

H Lower Top onto Base and connect together to form single box ensuring all 4 top to base connection points are fully secured

I Dig and push assembled box to box depth / required depth if additional top required repeat steps G to H

J On achieving final depth batter back open ends. Install ladder and edge protection. NB. MGF Endsafes panels can be used in lieu of a batter

K **Maintenance**
Prior to permitting entry always ensure:-

- Panels are installed plumb, square and level to each other
- All components are fitted and show no signs of damage or distress
- Safe means of access/egress is provided from within the box

L **Removal**
Removal is a reverse of installation ensuring material is backfilled and compacted as extraction proceeds.

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GENERAL
Current health and safety legislation requires that construction equipment users formulate a site specific Safe System of Work (SSoW) to undertake the works they are proposing. This document is intended to provide sufficient product specific guidance on handling, installing, maintaining and removing MGF equipment to allow the SSoW to be completed. It should always be read in conjunction with the product specific technical files and the site specific design information (including any residual risks to be managed on site) provided by MGF or others.

Users of this equipment should be both familiar with and competent in its use. MGF can provide toolbox talks and training material / advice on request.

MGF excavation systems can be supplied with a full range of site safety products and ancillaries. These products are designed to comply with current best practice and meet the requirements of the Lifting Operations & Lifting Equipment Regulations, Work at Height Regulations and the Confined Spaces Regulations.

For MGF contact details or further information visit www.mgf.co.uk

SAFETY TIPS

1. If used in very weak, problematic or saturated ground always ensure a site specific temporary works design is provided.
2. Always inspect lifting points prior to every lifting operation and ensure all personnel are well clear of operation.
3. Box should never be flown above the base of the excavation by more than 150mm (subject to a risk assessment).
4. Only access the box via a suitable secured ladder placed within the box. Never enter via the end/faces of an unsupported excavation.
5. Always ensure all pins and retaining clips are correctly fitted prior to use.
6. If box becomes stuck in the ground only use designated extraction chains to release each corner at a time. N.B. Extraction loads of up to 50Tn can be generated.
7. Do not allow personnel to enter the box whilst excavator is moving box.
8. Always ensure the box is evenly supported by the ground on opposite faces to avoid boxes becoming unstable.
9. Always work from a position of safety. Avoid working above on an unsupported edge, an unprotected edge or under a suspended load.
10. Very heavy equipment to be installed by competent groundwork contractors only.
11. Take care to avoid accidentally striking struts or using struts for lifting/moving the box.

IF IN DOUBT ASK!

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Guidance for Safe Systems of Work: Trench Boxes

Drawing No. **GSSW02.1A** Rev **A1**
Date of first issue

Method Statement communication register

The given talk is taken from the above method statement.

TALK BY:

DATE:

LOCATION:

Interpreter:

LIST OF ATTENDEES: I received and understood the above method statement. I will carry out work activities in accordance with CLEANTECH safety & environmental policies and procedures.

	NAME	SIGNATURE	COMPANY
1			
2			
3			
4			
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14			