

Designer's Hazard and Risk Assessment

<i>Project : Waterloooville – S278 Agreement Highway Works</i>	<i>Designer : Mayer Brown</i>
<i>Date : June 2013</i>	<i>Stage of Work : Construction</i>

Hazard	Consequences	Severity	Likeli-hood	Risk Before	Risk Reduction Measures	Risk After
Live Traffic	Injury from impact	High	Low	Med	Wear high visibility clothing. *	Low
	Accidents to other road users -by unexpected movements on foot -by unexpected movements by vehicle -by parking in inappropriate places	Med	Med	Med	Agree operating hours. * Park vehicles off the carriageway away from the works. If on verge, leave 1.2m clearance to the edge of the carriageway, do not impair visibility. * Provide cones and/or warning signs and other appropriate traffic management. * Create rules for design and implementation of traffic management schemes (including pedestrian/cycle routes). * Include requirements for routine inspections and maintenance of traffic management schemes. * TTRO's arranged to close sections of road as agreed with the HA. *	Low

Key

- Measures to avoid during design.
- * Measures to control risk at source.

Hazard	Consequences	Severity	Likelihood	Risk Before	Risk Reduction Measures	Risk After
Existing Statutory Undertakers Plant and Apparatus (Including high voltage electricity cables)	Damage to existing apparatus, Electric shock, Fire, Death	High	Med	Med	Design scheme to avoid necessity to expose or relocate plant. • Seek record plans and drawings from SU's for working adjacent to their plant and make available to Contractor. • <i>(refer to SAC document)</i> Contact statutory authorities to enable them to locate plant routes by use of CAT scan etc and mark on site. * Carry out scan survey and trial excavations by hand digging where necessary to locate underground services. * <i>(refer to SAC document and stats drawings)</i> Provide barriers and cordons where appropriate to restrict access. * Co-ordinate service works with all statutory undertakers in advance of commencement to ensure co-ordinated sequence of working. •*	Low
Existing Statutory Undertakers Plant and Apparatus (Including high voltage electricity cables)	Damage to apparatus or operators by striking overhead apparatus	High	Med	Med	Define rules for working under or near overhead cable apparatus. *	Low

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Hazard	Consequences	Severity	Likelihood	Risk Before	Risk Reduction Measures	Risk After
Noise and Vibration (including nuisance to public)	Damage to/loss of hearing	Med	Med	Med	Design scheme to minimise breakout of hard surfaces. • Limit choice of plant and machinery. • Apply restrictions on working hours to socially acceptable times. * Use of protective equipment. * Information training. *	Low
Substances Hazardous to Health	Causes of skin irritation, burns, or death. Explosions	High	Low	Med	Design to avoid substances known to be hazardous. • Use of protective equipment. * Information training. *	Low
Slipping, tripping and falling	Physical injury from impact	High	Low	Med	Design to avoid working at height. • Maintain level and even surfaces * Information training. *	Low
Storage Areas	Physical injury from impact	Low	Low	Low	Contractor to agree suitable/unsuitable areas for storage of plant and materials with Overseeing Organisation. *	Low

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Hazard	Consequences	Severity	Likelihood	Risk Before	Risk Reduction Measures	Risk After
Erection of Lighting Columns Traffic Signals and Sign Posts	Physical injury from equipment falling.	High	Med	Med	Traffic signals designed with NAL sockets which should aid installation. • Define rules for support and slinging of columns. * Restrict/control access to work locations during erection. * Provide barriers/cordons where appropriate. * Provide traffic management measures *	Low
Trimming Vegetation / Removing trees	Physical injury	High	Med	High	Define rules for removal of trees/vegetation. * Restrict/control access to work locations during removal. * Provide barriers/cordons where appropriate. * Provide traffic management measures if necessary*	Low

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Hazard	Consequences	Severity	Likelihood	Risk Before	Risk Reduction Measures	Risk After
Deep excavations	Collapse/Falls	High	Med	Med	Design to avoid deep excavations where possible. • Define rules for working in or adjacent to trenches* Use suitable trench supports* A safe system of working is put in place and operated for the entire duration of the works. * Restrict/control access to work locations during removal. * Provide barriers/cordons where appropriate. * Provide traffic management measures if necessary* Work in pairs, where possible. *	Low

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Hazard	Consequences	Severity	Likelihood	Risk Before	Risk Reduction Measures	Risk After
Amendments / Installation of safety fencing	Physical injury from operative falling from height. Physical injury from fencing/objects falling onto cars below.	High	Med	Med	Define rules and a safe system of working to be put in place and operated for the duration of the safety fencing works. * Work in pairs, where possible. * Restrict/control access to work locations during removal and installation. * Provide barriers/cordons where appropriate. * Provide traffic management measures if necessary*	Low
Debris falling from elevated Maurepas Way	Physical injury from operative falling from height. Physical injury from objects pedestrians below.	High High	Med Med	Med Med	Define rules and a safe system of working to be put in place and operated for the duration of the works. * Restrict/control access to work locations during removal and installation of construction materials. * Provide suitable barriers/cordons where appropriate. * Provide traffic management measures if necessary*	Low Low

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