

Wokingham - Town Centre  
Risk Assessment

		Severity (S)				
		1	2	3	4	5
Probability (P)		Minor	Moderate	Serious	Major	Catastrophic
1	Extremely Unlikely	1	2	3	4	5
2	Unlikely	2	4	6	8	10
3	Likely	3	6	9	12	15
4	Extremely Likely	4	8	12	16	20
5	Almost Certain	5	10	15	20	25

POSITIVES	
P1	Consultation with businesses, residents and key interest groups undertaken extremely well
P2	Raised crossings a real benefit to mobility users
P3	Contractor exceptionally communicative during delivery
P4	The public realm improvements are excellent - and have led to an improved town centre offer
P5	Very clear controlled and uncontrolled crossings present in the scheme.
P6	Pedestrians can use the controlled crossings to get to all areas of the town, or use the courtesy crossings if they feel able to and shorten journeys
P7	De-cluttering of the street and high quality materials has dramatically increased the look and usability of the area
P7	York Stone is significantly less slippery (especially in the wet)

Ref	Risk	Evaluation post Stage 3 Audit			Notes	Mitigated Evaluation			Notes	Impact on project objectives	Recommendation	Lesson Learned	
		Probability	Severity	Risk Classification		Probability	Severity	Risk Classification					
R1	The same material has been used for the kerb-line and the channel and so some pedestrians may struggle to see the upstand between. This may lead to increased slips and falls as pedestrians fail to appreciate the level difference.	3	3	9	<p><b>M1/M2 Kerb/Channel staining</b> Staining materials are available that change the pigmentation of stone or concrete finishes.</p> <p><b>M1</b> Stain could be applied to the top of the kerb line to enhance the colour differentiation between the footway, kerb and channel line. A new colour to the designs palate would need to be chosen to ensure a contrast.</p> <p><b>M2</b> A dark stain could be applied to the kerb face to enhance the 'shadow effect' of the kerb face and enhance the contrast between the top of the kerb and the side. The channel will darken over time as rubber from tyres are deposited on the surface. This has already &amp; will continue to enhance the colour differential between the channel and kerb. This could be assisted by providing a dark stain to the channel line.</p>		2	3	6	Natural weathering has already reduced assessed risk between opening & final SA3	Medium	Source suitable material & apply a test section in line with M2. If acceptable apply to entire area, if not consider M3 or accept risk	Ensure future design consider material/colour contrast factors for channels and kerbs
R2	In some locations there is a relatively small upstand between the carriageway and the footway (50mm rather than the 125mm 'standard') and it may be difficult for pedestrians to see the upstand. This may lead to increased slips and falls as pedestrians fail to appreciate the level difference.	3	3	9	<p><b>M3 Tactile Guidance</b> A rumble/tactile sensation on top surface of the kerb would provide additional warning of the kerb-line and enhance awareness of any level drop. This could be achieved by:</p> <p>a) pedestrian studs b) kerb machining - this could be a</p> <ol style="list-style-type: none"> <li>weathering process, to provide limited additional textural differences, or</li> <li>evasive process, to provide ruts in the material to simulate ribbed corduroy</li> <li>machined to create a ridge which is filed with a brass or stainless steel strip</li> </ol>		2	3	6	Staining options as for R1 are preferential but pedestrian studs as per the indicative photo could provide benefit if staining option is not feasible.	Medium	Await outcome of mitigations for R1 as this may assist R2. If required consider alternative of M3	Ensure future design consider material/colour contrast factors for channels and kerbs
R3	The upstands between loading pads and carriageway has been reduced to approximately 30mm to enable vehicles to enter the loading pads without causing damage to the kerb. This might make the upstand difficult to see and result in trips	3	3	9	<p><b>M1/M2 Kerb/Channel staining</b> Staining materials are available that change the pigmentation of stone or concrete finishes.</p> <p><b>M1</b> Stain could be applied to the top of the kerb line to enhance the colour differentiation between the footway, kerb and channel line. A new colour to the designs palate would need to be chosen to ensure a contrast.</p> <p><b>M2</b> A dark stain could be applied to the kerb face to enhance the 'shadow effect' of the kerb face and enhance the contrast between the top of the kerb and the side. The channel will darken over time as rubber from tyres are deposited on the surface. This has already &amp; will continue to enhance the colour differential between the channel and kerb. This could be assisted by providing a dark stain to the channel line.</p>		2	3	6	There is a noticeable reduction in the number of trips & falls reported	Medium	Source suitable material & apply a test section in line with M2. If acceptable apply to entire area, if not consider M3 or accept risk	Ensure future design considers that where the carriageway and footway are to be similar levels at crossings and key feature for example they seek to use flush to 6mm upstands only and elsewhere have a minimum kerb height of 50mm.
R4	Because of the success of the scheme in influencing vehicle speed and driver behaviour the scheme offers an enhanced pedestrian experience. Some people are choosing to cross the road away from crossing points provided and some locations have a 30mm upstand on one side of the road and 50mm on the other. This could result in trips as people subconsciously think both sides are the same height.	3	3	9	<p><b>M1/M2 Kerb/Channel staining</b> Staining materials are available that change the pigmentation of stone or concrete finishes.</p> <p><b>M1</b> Stain could be applied to the top of the kerb line to enhance the colour differentiation between the footway, kerb and channel line. A new colour to the designs palate would need to be chosen to ensure a contrast.</p> <p><b>M2</b> A dark stain could be applied to the kerb face to enhance the 'shadow effect' of the kerb face and enhance the contrast between the top of the kerb and the side. The channel will darken over time as rubber from tyres are deposited on the surface. This has already &amp; will continue to enhance the colour differential between the channel and kerb. This could be assisted by providing a dark stain to the channel line.</p>		2	3	6	Natural weathering has already reduced assessed risk between opening & final SA3	Medium	Source suitable material & apply a test section in line with M2. If acceptable apply to entire area, if not consider M3 or accept risk	Ensure future design consider material/colour contrast factors for channels and kerbs
R5	Throughout the scheme, standard gully tops have been used - which have relatively large holes. Although this allows maximum water capture, pedestrians walking across the road in heels might get their feet stuck in the gully tops and risk falling - or being struck by passing vehicles.	1	2	2	<p><b>M10 Heel friendly gully top</b> Providing gully tops which are heel friendly will reduce the likelihood of people crossing the road getting 'stuck' in the grate.</p>		1	2	2	No reports of this occurring to date. Cost & disruption considered high to benefit received	Low	Accept Risk	Ensure future design considers heel friendly gully grates in areas with a large numbers of pedestrians
R6	In some localised areas, the footway levels drop suddenly and unexpectedly. This may result in pedestrians falling.	3	1	3	<p><b>M13 Isolated Level Adjustment</b> Areas and levels to be reviewed but it is doubtful that improvement can be made as the varying shop threshold levels and drainage requirements make adjustments difficult.</p>		1	1	1		Low	Identify areas, review design levels & adjust if feasible. If not accept risk	
R7	The slot drains used throughout the scheme may be hard to distinguish during intense rainfall. This might result in people wearing heels getting stuck in slots and falling.	2	2	4	None		2	2	4	Part of design considerations	Low	Accept risk	
R8	Although there is a change in material, there is not a significant colour differentiation between footway and loading pads. Pedestrians, especially visually impaired, may not appreciate that they should not be walking in the loading area (at least for some parts of the day). There is a risk that pedestrians will be struck by manoeuvring vehicles.	3	3	9	<p><b>M12 Tactile Loading Studs</b> Additional tactile studs could be installed around the loading area to highlight to visually impaired pedestrians the areas where loading and parking may take place.</p>		2	3	6	The level access created by the scheme including the lay-by areas is extremely beneficial for disabled users. This benefit may create situations where people may feel at risk entering areas where vehicles are permitted but such situations, where drivers need to be attentive, are adequately covered by the highway code. The use of planters, cycle stands, sign posts, benches and other street furniture was considered during the design process and whilst some of these could be used to assist this will not prevent access into the parking areas in all directions neither is it necessary to actually restrict it.	Medium	Monitor and consider M12	Ensure future design considers material/colour contrast for channels, kerbs and similar areas for parking

R9	Visibility to and from pedestrians attempting to cross the road may be blocked by vehicles loading or parking in the bays. They may therefore walk into the road in front of approaching vehicles and be struck.	2	3	6	<b>M15 Vehicle Speed</b> Because of the success of the scheme in influencing vehicle speed and driver behaviour the scheme offers an enhanced pedestrian experience compared to before. Although speeds appear to be reduced through informal observations, this can change over time. Monitoring of driver attitude to speed and other behavioural aspects should be implemented to determine any change over time or to assist with future phases of the environmental improvement programme. Any consideration should only be considered as part of wider town centre strategy.	2	3	6	This is a risk for any town centre where the competing demands of loading, parking, shopping, active travel and vehicle travel come together. Observations conclude that currently the scheme successfully influences vehicle speed and has considered the competing parking/loading activities during the design.	Low	Accept risk but monitor driver behaviour, their changing influences and impacts on town centre users.	Use monitoring data to further form policy for town centre use and future environmental enhancement scheme phases
R10	Vehicle as a weapon and terrorist attacks may occur due to the open nature of the scheme.	1	5	5	<b>M14 Consider merits of a specific risk assessment on security and crime</b> The Council considers this low risk and the design reflects a balance of needs and favouring aspects that have greatest day to day benefits for users. A risk assessment could identify mitigations for crime and security	1	5	5	The scheme scope was to create open & useable space in the town centre. This is a policy issue that should be considered by the authority as a whole rather than scheme by scheme so as to assist the production of project scope.	Medium	Accept risk but can be reviewed as part of an overall town centre strategy if considered necessary	
R11	The delineation of the 'road' through the market area is subtle and drivers may veer from this path onto the footway. This may result in conflicts with pedestrians	2	3	6	<b>M11 Additional Communication</b> Appropriate use of loading pads (including timescales) and appropriate use of the 'road' within the market area to be communicated with local shops and businesses Leaflets and media to raise awareness of how to use a courtesy crossing (i.e. with consideration of others)	1	3	3	Observation conclude that the new environment has significant benefits for highway users compared to previous layout	Low	Accept risk but Implement M11	In addition to communications around the construction of a project there needs to be continuous communications focus on the intended outcomes, benefits and expected user experience in order to achieve greater understanding of a scheme prior to its completion
R12	Visually impaired pedestrians may have difficulty seeing the brass studs due to their similar colour to the York Stone behind (which as it is a natural product, has a significant variation in colour and is darker than might be expected in places).	3	3	9	<b>M6 Highlight pedestrian crossing (stud area) by staining paving</b> Additional colour differentiation could be introduced to pedestrian crossing areas (demarcated by the brass studs) by a) staining the York Stone underneath the studs b) replacing the slabs/blocks around the studs with a contrasting colour c) treating the brass stud to make it stand out against the York Stone	2	3	6	The studs used are a common enhancement in public realm schemes, and their use is in line with the recommendations from Guide Dogs. However, applying a treatment to the York Stone or the stud is recommended should a suitable workable solution be found.	Medium	Source suitable options & material & if necessary apply a test section. If acceptable apply to entire area, if not accept risk	Future schemes should seek to provide paving of a different contrasting colour at tactile crossings
R13	Loading and parking is provided in raised bays located within the 'footway' adjacent to the road. Car doors and people stepping from vehicles may be struck by passing vehicles if parking too close to road.	1	2	2	None	1	2	2	There are two areas for loading/unloading and disabled parking provided by the scheme. One offers access on the outside & the other on the inside giving users choice based on their own preference. Parking on the carriageway or in designated parking spaces is no different to existing locations in the town centre, i.e. outside the post office. The provision should not alter this risk from a traditional on-carriageway space and creating level access from the spaces does assist disabled users.	Low	Accept risk	
R14	Clarity of where to park/load - Disabled parking bays not individually delineated (normally there is a hatch between cars to ensure that rear entry can be maintained).	2	1	2	<b>M16 Install additional signing</b> Install disabled logos as agreed	1	1	1	Monitor. Disabled logos on the ground are to be implemented for each disabled space and will help guide drivers to park with sensible gap between vehicles.	Low	Implement Logos & amend signing where beneficial for clarity	
R15	Brass studs may be slippery in wet and too warm for guide dogs in the summer months	1	2	2	None	1	2	2	These have been tested and they do not get warmer than the surrounding York Stone paving during hot weather. The specified & installed studs are produced to be compliant with the Department for the Environment, Transport and the Regions (Now DfT) 'Guidance on the Use of Tactile Paving Surfaces - DETR 1998'. The supplier's stud range indicates testing and having passed pendulum slip tests in both wet and dry conditions.	Low	Accept risk	Various stud types are available & a review of stud type & application should be on a scheme by scheme basis
R16	Courtesy crossings tend to be poorly understood by pedestrians and increase the fear of a collision. This may lead to pedestrians beginning to cross and then stopping, or starting to cross after initially looking like they would wait, with conflicts with road users resulting	3	3	9	<b>M11 Additional Communication</b> Appropriate use of loading pads (including durations) and appropriate use of the 'road areas' within the market area to be communicated with local shops and businesses Leaflets and media to raise awareness of how to use a courtesy crossing (i.e. with consideration of other users)	2	3	6		Low	Implement M11	In addition to communications around the construction of a project there needs to be continuous focus on the intended outcomes and benefits in order to achieve greater understanding of the scheme before its completion
R17	The material used for the raised crossing is the same as used on the footway (albeit a different size). It is possible that some pedestrians will miss-read this as a continuation of the footway and cross into the path of vehicles.	2	4	8	<b>M11 Additional Communication</b> Appropriate use of loading pads (including durations) and appropriate use of the 'road areas' within the market area to be communicated with local shops and businesses Leaflets and media to raise awareness of how to use a courtesy crossing (i.e. with consideration of other users)	2	3	6	Monitor and if there is a tangible problem, staining can still be considered. The crossings already appear different and will not be cleaned as frequently and will discolour more rapidly due to vehicle use. A colour differentiation exists naturally already as a consequence and highlighted discussed during the final stage 3	Low	Implement M11	In addition to communications around the construction of a project there needs to be continuous focus on the intended outcomes and benefits in order to achieve greater understanding of the scheme before its completion