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1. INTRODUCTION

- 1.1 This Road Restraints Risk Assessment (RRRA) has been prepared by Paul Basham Associates on behalf of Grainger PLC to support the outline application with all matters reserved apart from access for up to 164 dwellings at Land North of Woodcroft Farm, Phase 3, Horndean.
- 1.2 This report has been produced in accordance with the technical guidance set out in Hampshire County Councils 'Technical Guidance Note TG14 – Collision Risk Assessment, VRS & Passive Street Furniture' (HCC TG14).
- 1.3 There are two proposed points of access into the development site, the eastern access from Merritt Way and the western access from Wilkes Way. This assessment covers the western access road only and is not applicable to the eastern access where a RRRA is not required. The site location is shown within **Figure 1**.

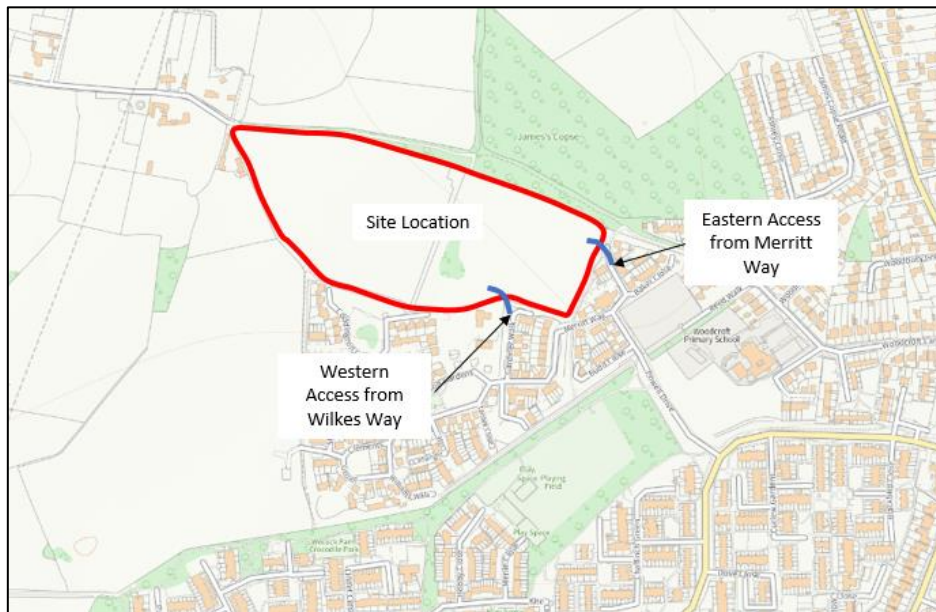


Figure 1: Site Location

- 1.4 The western access road will be subject to a 20mph design speed and is not a class A, B or C road. The western access road, bound by full height kerb and footway/cycleway, would be flanked by drainage features to the west, which are to be modest depressions which might accommodate standing water at times of heavy rainfall.
- 1.5 As the road does not currently exist there are no collisions and at present there have been no recorded Personal Injury Accident (PIA) data from Wilkes Way.
- 1.6 This Road Restraints Risk Assessment will assess the footway/cycleway improvements and crossing facilities to be introduced along the western access road and any potential hazards to vehicles leaving the carriageway.

2. APPRAISAL PROCESS AND RISK ASSESSMENT

- 2.1 With reference to Technical Guidance Note TG14, for roads with a speed limit of 50mph or greater and an AADT over 5000, the designer shall undertake an assessment in accordance with DMRB standard CD 377 – Requirements for Road Restraint Systems, which requires the RRRAP Assessment Tool to be used and the results shall be submitted as part of the design process, be it preliminary or detailed stage.
- 2.2 However, and as applicable to this scheme, roads with either a speed limit of less than 50mph or an AADT of less than 5000 (or both) that are not adjacent to railway lines – shall be undertaken using the “Local Authority Assessment” (LAA) following the “Provision of Road Restraint Systems on Local Authority Roads” (PRRSLAR) guidance.

2.3 Therefore, the overarching Appraisal Process, which includes the risk assessment itself, will follow the criteria and structure as set out within the PRRSLAR Guidance.

3. THE RISK ASSESSMENT (LAA METHOD)

3.1 A site risk assessment has been carried out using the Risk Scoring criteria as shown in the PRRSLAR guidance. The risk assessment for the proposed condition is shown in **Table 1**.

Factor	Priority Rank	Risk Factor Score
Location	0 - All other Roads	0
	1 - Rural U & B roads, Urban C Roads	
	3 - Rural A roads, Urban B roads	
	6 - Urban A Roads	
Layout Factor	0 - Straight alignment and/or complies with TD9	0
	1- One step below desirable minimum R with superelevation of 5%	
	2- Two steps below desirable minimum R with superelevation of 5%	
	3- Three steps below desirable minimum R with superelevation of 5%	
	4- Four steps below desirable minimum R with superelevation of 5%	
	5- Five steps below desirable minimum R with superelevation of 5%	
Layout Factor (P2)	0- No reason for lane changing/ manoeuvres	0
	2- Some potential for lane changing, overtaking, positioning manoeuvres or avoiding action	
	3- High likelihood of lane changing, overtaking, positioning manoeuvres or avoiding action	
Collision - Longitudinal Features	0- Individual spot hazard	1
	1- Series of individual hazards less than 50m apart or a longitudinal hazard that may be reached	
	2 - Longitudinal hazard that is highly likely to be reached resulting in harm or a spot hazard downstream of a feature which may guide the vehicle towards a hazard	
Collision - Severity of Outcomes	0- Percentage of KSI for primary hazard <20%	0
	1- Percentage of KSI for primary hazard 20 - 30%	
	2- Percentage of KSI for primary hazard >30%	
Consequential- Secondary Incidents	0- No secondary events likely	0
	1- When damaged or collapsed the feature could give rise to the risk of secondary vehicular incidents	
Consequential- Network Disruption	0- No impact on network availability	0
	1- If hazardous feature was damaged or collapsed this could give rise to network disruption for more than one day	
Consequential- Cost of damage	0- No significant cost implications	0
	1- If Significant cost of repair or replacement following collision	
Total Priority Score		1

Table 1: Risk Assessment

3.2 The risk assessment classifies the site as Low Priority. The risk site categories are defined in Table 5.2 from the PRRSLAR Guidance and are shown below in **Figure 2**.

CATEGORY	RISK LEVEL	OUTCOMES
Higher Priority Site	Risk cannot be accepted save in extraordinary circumstances.	Where the risk assessment has defined a site as Higher Priority the installation of a RRS is justified in terms of the level of risk. Further consideration is then required to determine if the site meets the other appraisal criteria. Even at high risk sites non-RRS interventions may reduce the risk to a level where a RRS can be omitted.
Medium Priority Site	Intervention may be required to introduce control measures to drive residual risk towards the Lower Priority Site category. The residual risk can be tolerated only if further risk reduction is impracticable or requires action that is grossly disproportionate to the reduction in risk achieved.	Where the risk evaluation has identified a site as Medium Priority a RRS may be justified however a non-RRS approach to reducing the risk may prove sufficient to negate the need for a RRS. If suitable effective measures cannot be introduced then the appraisal process would normally continue in order to consider the other criteria.
Lower Priority Site	Level of risk regarded as generally acceptable. Further effort to reduce risk is not likely to be required as resources to reduce risk would be grossly disproportionate to the risk reduction achieved.	Where the risk evaluation identifies a site that is lower priority further appraisal is not required and the level of risk does not normally support installation of a RRS. Simple low cost measures that could reduce the risk can still be considered.

Table 5.2 - Site Risk Categories

Figure 2: Site Risk Categories

4. SUMMARY AND CONCLUSIONS

- 4.1 Based on the design criteria above and the proposed road layout, the site is classed as a “Low Priority Site”. This means Level of risk regarded as generally acceptable. Further effort to reduce risk is not likely to be required.
- 4.2 Where the risk evaluation identifies a site that is lower priority further appraisal is not required, and the level of risk does not normally support installation of a RRS or PS street lighting apparatus.