Envision AESC UK Battery Plant, Site Access,
IAMP ONE, Sunderland
Reference number GB01T21B34/RSA/001

29/06/2021

STAGE 1 ROAD SAFETY AUDIT

SYSTRA

ENVISION AESC UK BATTERY PLANT, SITE ACCESS, IAMP ONE, SUNDERLAND

STAGE 1 ROAD SAFETY AUDIT

IDENTIFICATION TABLE	
Client/Project owner	Envision AESC UK Ltd
Project	Envision AESC UK Battery Plant, Site Access, IAMP ONE, Sunderland
Study	Stage 1 Road Safety Audit
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1. INTRODUCTION

1.1 Introduction

1.1.1 This report details the findings of a Stage 1 Road Safety Audit and makes recommendations to improve road safety of a new site access on the International Advanced Manufacturing Park (IAMP), in Sunderland. The new site access will provide access to the proposed Envision AESC UK Battery Plant, which will be located to the north of the A1290 and to the west of the new spine road that runs through the IAMP site.

1.2 Project Sponsor

1.2.1 The Project Sponsor is: Envision AESC UK Ltd, Washington Road, Sunderland, Tyne and Wear, SR5 3NS.

1.2.2 The Design Organisation is:

RPS, Sherwood House, Sherwood Avenue, Newark, Nottinghamshire, NG24 1QQ.

1.3 Audit Team

1.3.1 The Audit was undertaken by:

SAFETY AUDIT TEAM LEADER	SAFETY AUDIT TEAM MEMBER
Peter Hill BEng CEng MICE Director	James Quigley MA MSc CMILT
Peter Hill Design Services Limited	Associate Director
809 Wilmslow Road	SYSTRA Ltd
Didsbury	Milburn House, Dean Street
Manchester, M20 2QR	Newcastle Upon Tyne, NE1 1LE

1.4 Background

1.4.1 Envision AESC UK Ltd, are currently in the process of obtaining planning permission for the construction of a new battery plant on the IAMP site in Sunderland.

1.4.2 The proposed development will be accessed from a new priority ghost island junction constructed on the western side of the existing spine road that runs through the IAMP site and connects to the A1290 to the south and east of the new development.

1.4.3 The development will also have an emergency access located on the A1290 approximately 300m to the east of Cherry Blossom Way.

1.4.4 The proposals audited in this report consist of the following:

- The new priority ghost island junction located on the western side of the internal spine road within the IAMP site;
- The amendments to the existing shared footway / cycleway that runs along the western side of the spine road to facilitate the new site access junction;
- The proposed pedestrian connection to the internal spine road to the south of the new site access, and;
- The provision of the new emergency site access junction on the A1290 to the east of Cherry Blossom Way.

1.5 Information Provided for Audit

1.5.1 The Audit Team were not informed of any Departure from Standards with regard to the design of the proposed highway works.

1.5.2 The Audit comprised an examination of the following documents, provided prior to the site visit.

DOCUMENT REF/DATE	DOCUMENT TITLE
NK020439P SK-011 rev P01 Dated: 04/06/21	Envision AESC UK Battery Plant Planning Support. Site Plan

1.6 Site Visit

1.6.1 The Safety Audit Team visited the site together during the hours of daylight between 16:45 and 17:45 on Wednesday 23rd June 2021.

1.6.2 It should be noted that at the time of the site visit the country was still within a period of lockdown with travel restrictions due to the Covid-19 pandemic. Pedestrian, cyclist and traffic flow levels were therefore anticipated to be lower and/or different to normal operating conditions.

1.6.3 The weather was sunny and dry during the site visit. The carriageway and footways were dry during the site visit.

1.6.4 Traffic flows along the spine road of IAMP and the A1290 were both light during the site visit and no queuing was observed on either road or at any of the junctions or site accesses.

1.6.5 Pedestrian activity was light on both roads with only a few pedestrians observed using the shared footway / cycleway during the site visit.

1.6.6 Cyclist activity was also light during the audit with the majority of cyclists that were observed were using the shared footway / cycleway facility running along the A1290.

1.6.7 Although no actual speed measurements were taken, observed traffic speeds appeared to be consistent with the 30mph speed limit on the IAMP spine road and the 40mph speed limit on the A1290.

1.7 Scope of Audit

1.7.1 The Audit has been undertaken with reference to the Design Manual for Roads and Bridges Standard GG119. The Audit Team has not been involved with the design of this scheme.

1.7.2 The scheme has been examined and this report compiled only with regard to the safety implications for road users of the scheme as presented. It has not been examined or verified for compliance with any other Standards or criteria. However, in order to clearly explain a safety problem or the recommendation to resolve a problem, the Audit Team may on occasion have referred to a design standard for information only. (The diagram numbers (Dia.) specified in the report are those numbers referred to in The Traffic Signs Regulations and General Directions (TSRGD) 2016). However, any audit comments should not be construed as implying that a technical audit has been undertaken in any respect.

1.7.3 Furthermore, any recommendations included within this report should not be regarded as being prescriptive design solutions to the problems raised. They are intended only to indicate a proportionate and viable means of eliminating or mitigating the identified problem, in accordance with GG119, and in no way imply that a formal design process has been undertaken. There may be alternative methods of addressing a problem which would be equally acceptable in achieving the desired elimination or mitigation and these should be considered when responding to this report.

1.7.4 It is the Project Sponsor's responsibility to ensure that all problems raised by the Road Safety Audit Team are given due consideration. To assist with this, the Design Team must prepare a Road Safety Audit Response Report to the Road Safety Audit Report.

2. ITEMS RAISED IN PREVIOUS ROAD SAFETY AUDIT(S)

2.1.1 The safety audit team are not aware of any other road safety audits that have been undertaking on the proposals reviewed as part of this road safety audit.

3. ROAD SAFETY AUDIT DETAILS

3.1.1 Problem: – 1 Tie in to existing road layout.

Summary: Right turning lane appears to overlap adjacent right turning lane, risk of side swipe and/or head-on collisions.

The drawings show the provision of a new right turning lane will be provided to access the new development. The right turning lane shown is approximately 55m long and appears to overlap the right turning lane for the existing access located to the east of the new site access (See photo below of existing right turn). The drawings do not show the exiting right turning lane or how the new road markings will be tied into the existing road markings. In addition, HGVs were observed pulling into the central hatching to access the existing right turn lane. If the road markings are not correctly provided this will increase the risk of vehicles entering both right turning lanes too early increasing the risk of side swipe and/or head-on collisions.

Recommendation:

It is recommended that the drawings show how the new road markings will tie in with the existing road markings to ensure a safe layout is provided at the start of both right turning lanes and that auto-tracking is undertaken to demonstrate that large vehicles can safely undertake this manoeuvre.

3.1.2 Problem: – 2 Width of islands provided in new site access.

Summary: Narrow islands increases risk of cyclists waiting on an island being struck by a vehicle.

The new site access has several islands provided within the access to accommodate pedestrians and cyclists to cross the site access. The width of the islands do not appear to be wide enough to safely accommodate waiting cyclists. Narrow islands will increase the risk of a cyclists waiting on one of the narrow islands from being struck by a vehicle entering or leaving the new site access.

Recommendation:

It is recommended that width of the crossing points on the islands are sufficient to allow the anticipated volume of cyclists to safely wait without overhanging the adjacent traffic lanes.

3.1.3 Problem: – 3 Narrow entry and exit lane widths.

Summary: Risk of large vehicles overrunning footways / islands and striking waiting pedestrians or cyclists.

The lane widths of the entry and exit from the site appear narrow within the junction bell mouth where vehicles will be undertaking tight turning movements. If the lane widths are not sufficient to accommodate the swept path of large vehicles accessing the site this will increase the risk of them overrunning the footways and increase the risk of striking a waiting pedestrian or cyclists.

Recommendation:

It is recommended that the swept path of large vehicles are checked to ensure sufficient carriageway width has been provided for them to safely turn into and out of the site access.

3.1.4 Problem: – 4 A1290 Emergency access visibility.

Summary: Visibility obstructed by existing vegetation within verge areas.

The proposed emergency access onto the A1290 has poor visibility due to the overgrown verge areas (See photos below of visibility from existing access point).. If visibility is obstructed this will increase the risk of a vehicle leaving the emergency access pulling into the path of a vehicle increasing the risk of side swipe collisions.

Recommendation:

It is recommended that a suitable and permanent visibility splay is provided at the emergency access.

3.1.5 Problem: – 5 IAMP Spine Road.

Summary: No signage to warn shared footway/cycleway, increased risk of collisions and conflicts between pedestrians and cyclists.

There is a shared footway / cycleway that runs along the southern side of the A1290 which has signage to inform both pedestrians and cyclists that the route is shared. However, as you enter the IAMP Spine Road there is no signage to inform either pedestrians or cyclists if the footways are shared routes (See photo below of existing footway). This lack of signage on the IAMP Spine Road will increase the risk of collisions and conflicts between pedestrians and cyclists using the route.

Recommendation:

It is recommended that signage is provided along the IAMP Spine Road to indicate who is allowed to use the routes.

4. AUDIT TEAM STATEMENT

4.1.1 We certify that this road safety audit has been carried out in accordance with GG119.

SAFETY AUDIT TEAM LEADER

Name: Peter Hill BEng CEng MICE
Signed

Peter Hill

Position: Director
Organisation: Peter Hill Design Services Limited

Date: 29th June 2021

SAFETY AUDIT TEAM MEMBER

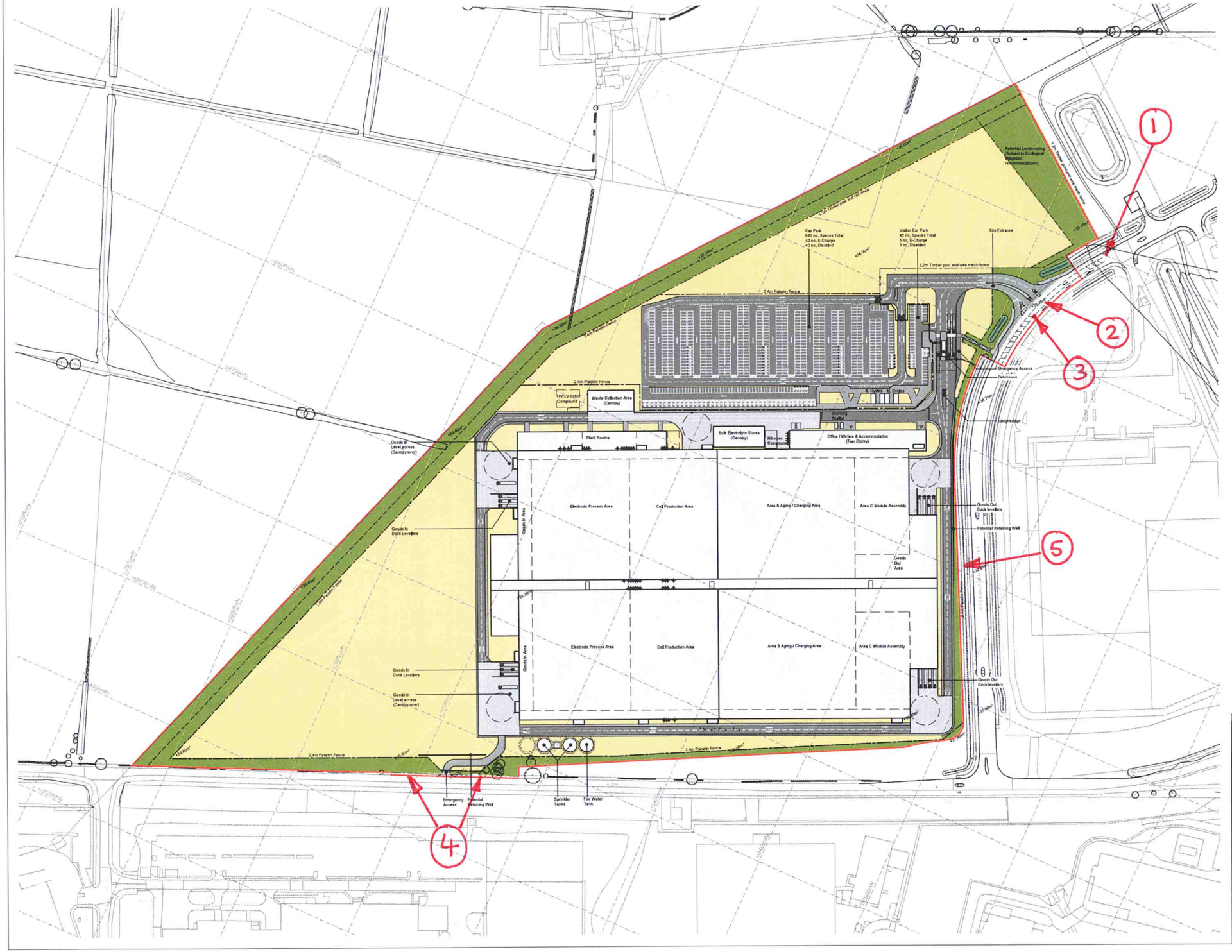
Name: James Quigley MA MSc MTPS
Signed: J. Quigley

Position: Associate Director
Organisation: SYSTRA Ltd

Date: 28th June 2021

Report Appendix A

PROPOSED ARRANGEMENT DRAWINGS & LOCATION OF SAFETY PROBLEMS



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Client

Envision AESC

Project

Envision AESC UK Battery Plant Planning Support

Title

Site Plan

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