

Technical Note

Project:	Land Between Shelfanger Road and Heywood Road, Diss		
Subject:	Transport and Highway Access Considerations		
Author:	Emma Marshall		
Date:	13.03.2020	Project No.:	5153233.109

Document history

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
Rev 0.1	Draft Issue to Client	EM	LB	CY	CY	08.03.20
Rev 1.0	Second Issue to Client	EM	LB	CY	CY	13.03.20

Client signoff

Client	M Scott Properties
Project	Land Between Shelfanger Road and Heywood Road, Diss
Project No.	5153233.109
Client signature / date	

Introduction

Atkins has been commissioned by M Scott Properties Ltd. to prepare supporting transport and highways information to support representations for a proposed residential development at Land West of Heywood Road and East of Shelfanger Road in Diss, Norfolk, in accordance with Policy GNLP0250/0342/0119/0291 of the Greater Norwich Local Plan.

The proposed site is being considered to be allocated for the development of at least 200 homes subject to an *'acceptable design and layout being achieved, and relevant infrastructure issues being addressed'*. The specific matters relating to infrastructure addressed within this TN include the following:

- Provision of a road linking Shelfanger Road with Heywood Road, including frontage footways to connect with facilities and connection with/improvements to the existing public right of way.

The following sections of this Technical Note will provide details on the site schematic plan, with commentary on the associated road and pedestrian connections, as well as plans for improvements to, and tie-ins with the existing Public Rights of Way (PROW).

Baseline Conditions

The proposed site lies to the north of Diss and is situated between Shelfanger Road and Heywood Road. Shelfanger Road (B1077) is subject to a 30mph speed limit and connects Diss to Shelfanger and further villages to the north, and the A1066 to the south. It is approximately 6-metres wide with a 2-metre wide footway along the western edge. Heywood Road is also subject to a 30mph speed limit and is approximately 5-metres wide with a 2-metre wide footway provided along the eastern side, connecting Diss with the village of Burston to the north.

Highway Design and Access

In accordance to the Policy GNLP0250/0342/0119/0291, two access points to the site have been proposed with a link road connecting the access through the site. The proposed general arrangements and highway access plan is provided in Appendix A, and a swept-path analysis for a refuse vehicle is provided in Appendix B. These indicative designs have been designed to standards according to the Design Manual for Roads and Bridges (DMRB), and road markings in accordance with the Traffic Signs Regulations and General Directions (2016).

The proposed highway design involves a main 6-metre wide residential street through the proposed development allowing for frontage development. The proposed link road would provide connectivity to the existing local road network via Shelfanger Road to the west and Heywood Road to the east. This offers primary vehicular and pedestrian access through the site to residential properties and access to any minor access roads from the link road. The 6-metre road width is designed to accommodate potential future provision of a bus service through the site.

Access to the proposed development will be provided from Heywood Road and Shelfanger Road in the form of a priority T-junction. Each junction has a turning radii of 10-metres for inbound and outbound vehicles, considered suitable for HGV's and the proposed bus service.

Road Speed and Visibility

Due to the anticipated volume of traffic and road geometries, it is considered that the 30mph national speed limit on roads with street lighting is appropriate for this development. This proposal is also in line with the adjacent Shelfanger Road and Heywood Roads, which are both restricted to 30mph.

Visibility splays 2.4 metres from the site access stop line to Shelfanger Road suggest visibilities of 90 metres in both directions. Splays taken from the access road to Heywood Road show a visibility of 90-metres to the right and 84 metres to the left. This reduced visibility is due to the proximity of the access to a bend in Heywood Road. These values are all in accordance with the DMRB guidelines, which states a desirable minimum distance of 70 metres should be achieved on 50 kph (31mph) roads.

Swept-Path Analysis

The swept-path analysis provided in Appendix B using a 2.49-metre wide and 9.93-metre long refuse vehicle shows some slight overhang at both proposed site access junctions. As this presents a 'worst-case' scenario, with the likely frequency of such a vehicle utilising the access junctions being relatively low, the measured overhang is not considered to be an issue. Based on this, regular car and LGV traffic is expected to not experience any issue with the proposed site access junction geometries.

Public Right of Way (PRoW) and Pedestrian Access

It is proposed that two-metre wide footways will be provided adjacent to all associated major and minor residential access roads within the development, with links tying into the existing pedestrian network provision along Heywood Road and Shelfanger Road. Footways on these external roads are currently provided on the opposite side of the road to the site access junctions. It is considered that discussions with South Norfolk Council will need to be sought, to understand the requirements for a pedestrian crossing on both Shelfanger Road and Heywood Road.

The PRoW within and abutting the proposed site, Diss RB25, FP7 and FP26, will be maintained and upgraded where appropriate. Diss FP7 and FP26 are both public footpaths bordering the development to the north, providing east-west connectivity for the northern residences of the town. Diss RB25 runs north-south between land parcels GNLP0291 and GNLP0342 in the Greater Norwich Local Plan. It is currently classified as a restricted byway, allowing access to all users besides mechanically propelled vehicles, including pedestrians, cycles and equestrian. It is considered that as part of any residential development a portion of this by-way should be upgraded to provide a gravel bound track which crosses the proposed link road via a table top arrangement or a pedestrian crossing to accommodate all users of the PRoW.

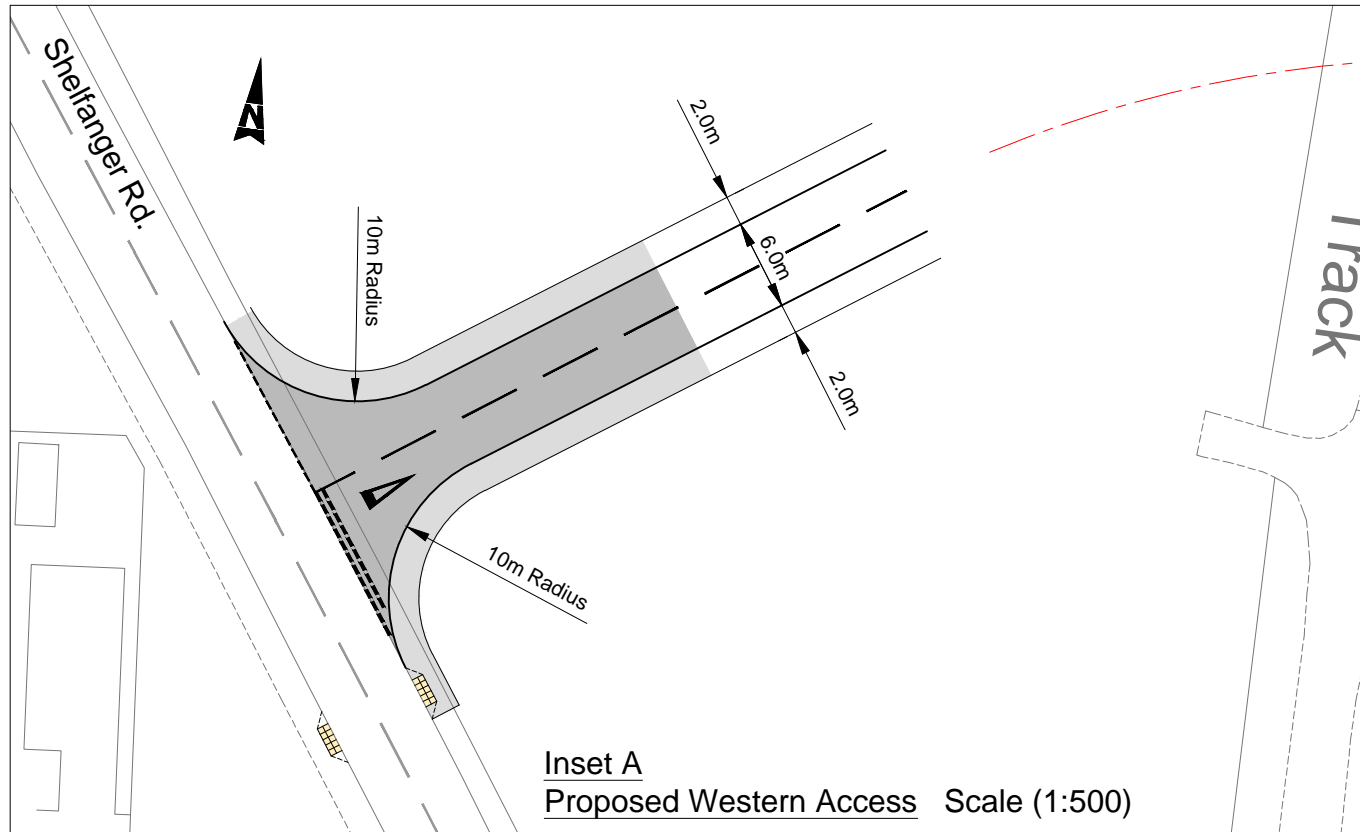
All PRoW routes will tie-in with the proposed pedestrian links through the site.

Appendix A. Proposed General Arrangements and Access Plan

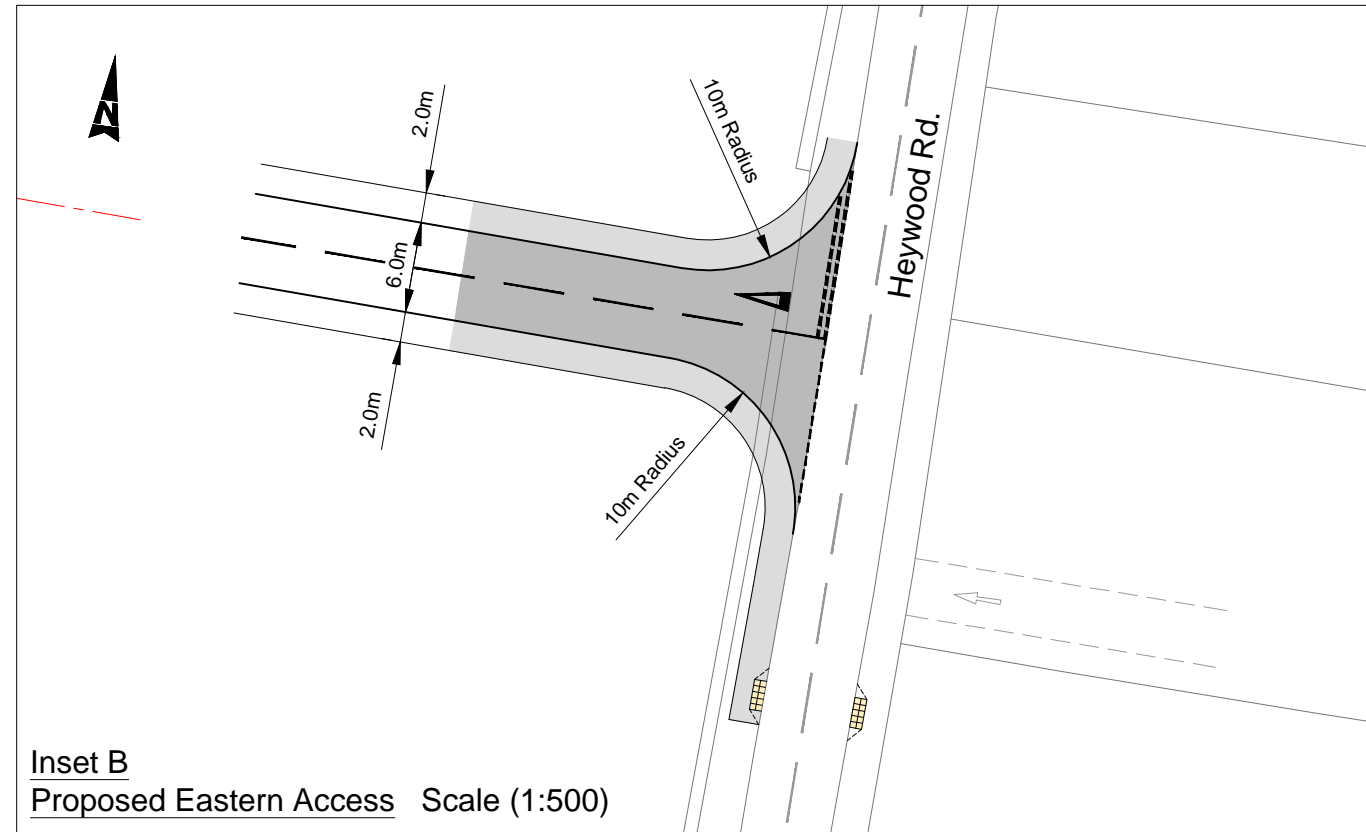
100
Millimetres
10
0



Proposed General Arrangement and Visibility Scale (1:2000)



Inset A Proposed Western Access Scale (1:500)



Inset B Proposed Eastern Access Scale (1:500)

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Key:

- Proposed Visibility Sight Lines
- Proposed Site Road Centre line (shown indicatively)
- Proposed new carriageway
- Proposed new footway
- Proposed tactile paving (Informal crossing point)

- Notes:**
- Preliminary design only - based on Ordnance Survey data.
 - Visibility sight lines based on the provisions of CD 123 (DMRB) for a speed limit of 30mph on the main road.
 - Proposed corner radii based on the provisions of CD 123 Cl. 5.6.1 for rural setting and no provision for the design vehicle. (16.5m Articulated Vehicle).
 - Proposed road markings to be in accordance with the 'Traffic Signs Regulations and General Directions' 2016
 - Extent of footway provision at new junctions to be confirmed.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION				
In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:				
CONSTRUCTION				
NONE				
MAINTENANCE/CLEANING				
NONE				
DECOMMISSIONING/DEMOLITION				
NONE				
It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement				
Rev.	Date	Description	By	Chkd. App'd
P1	05.04.20	DRAWING CREATED	AE	PDE

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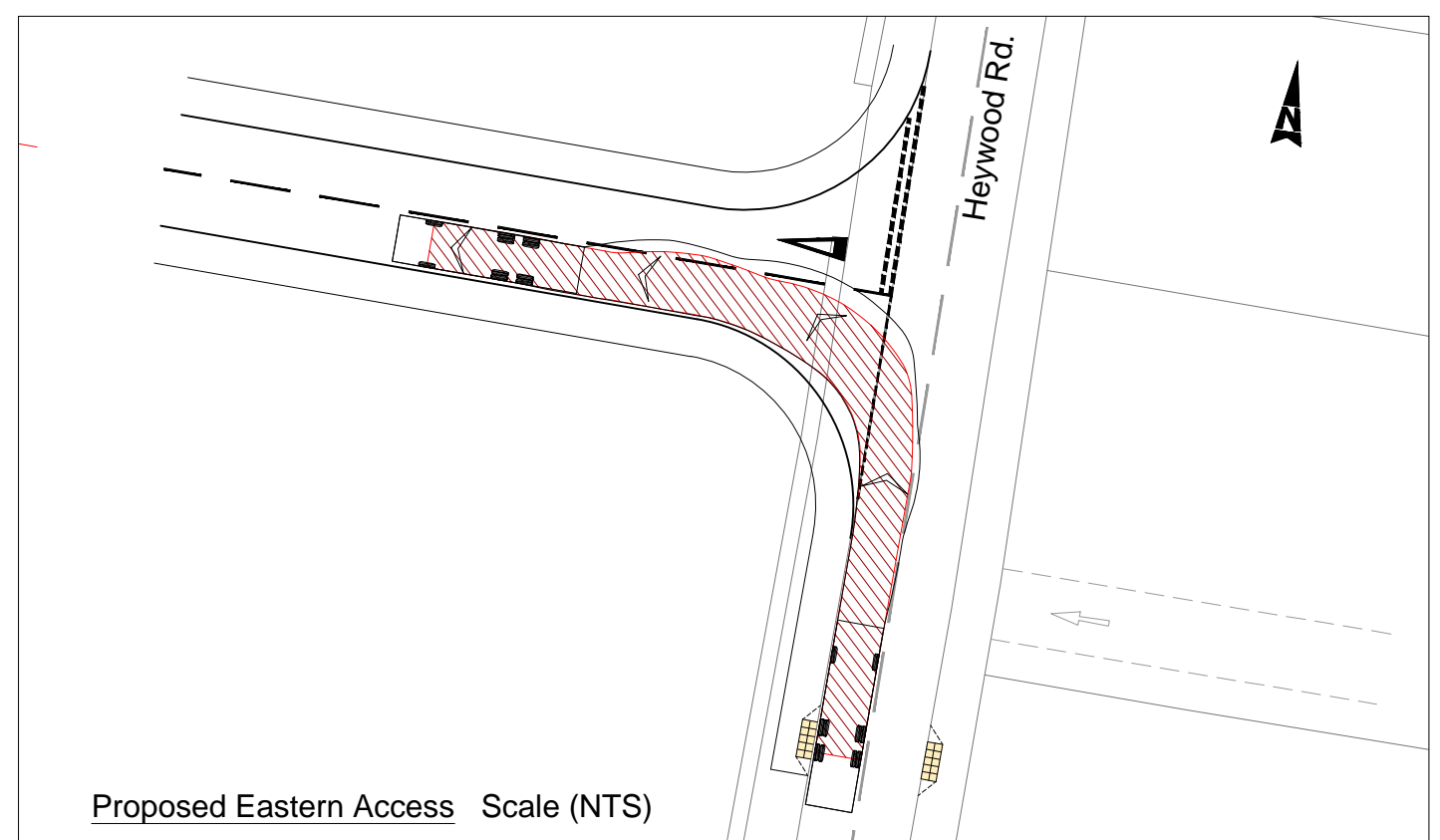
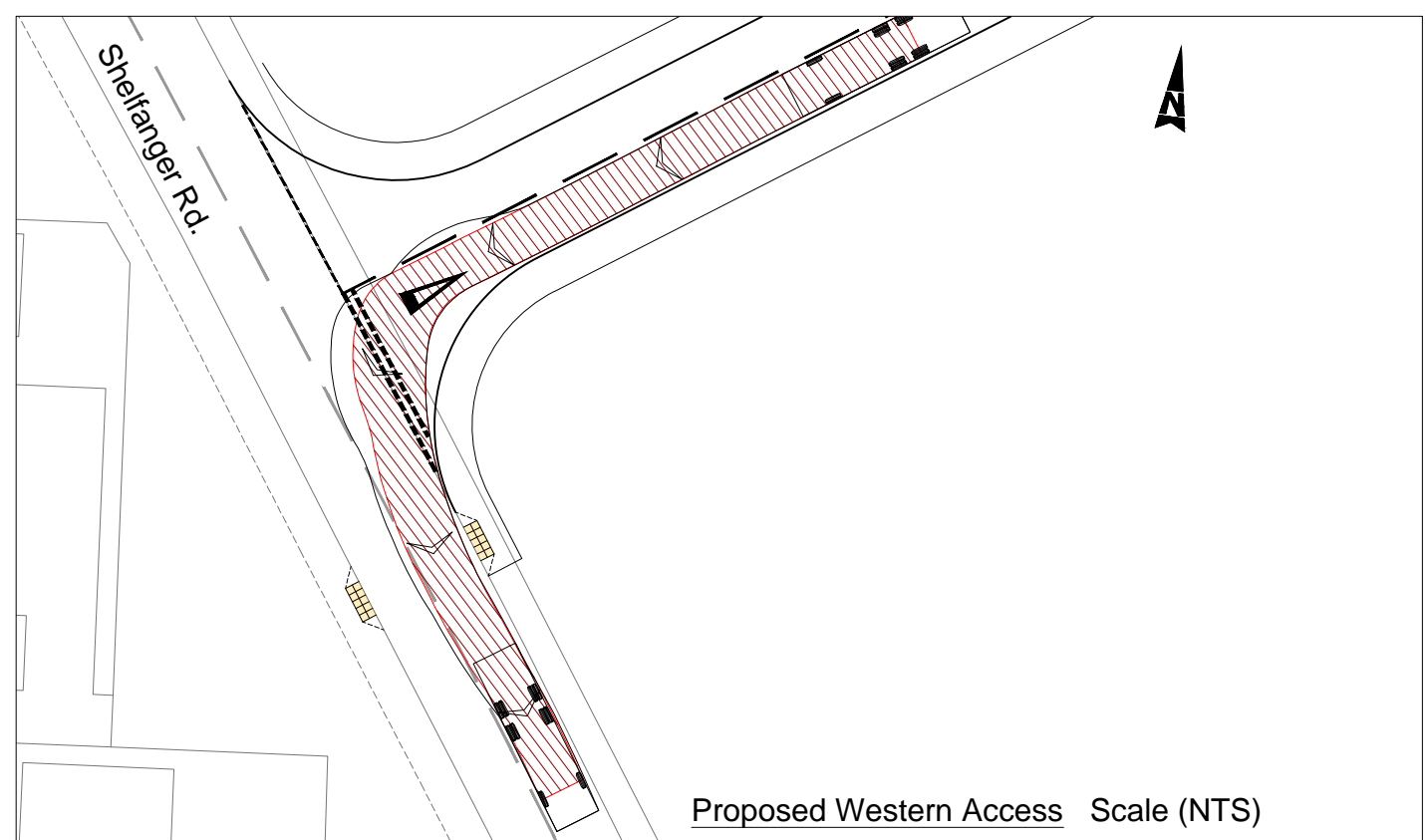
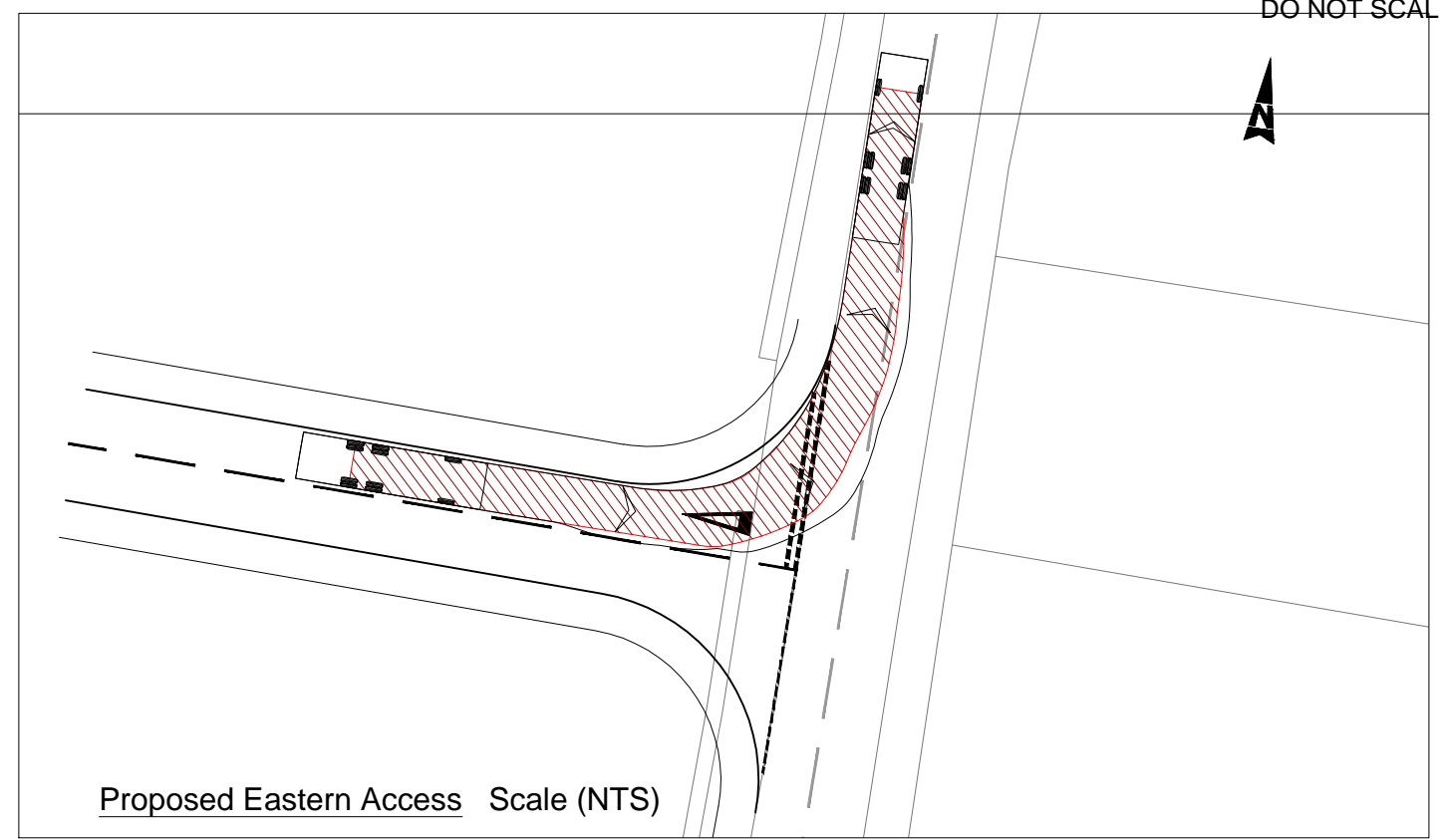
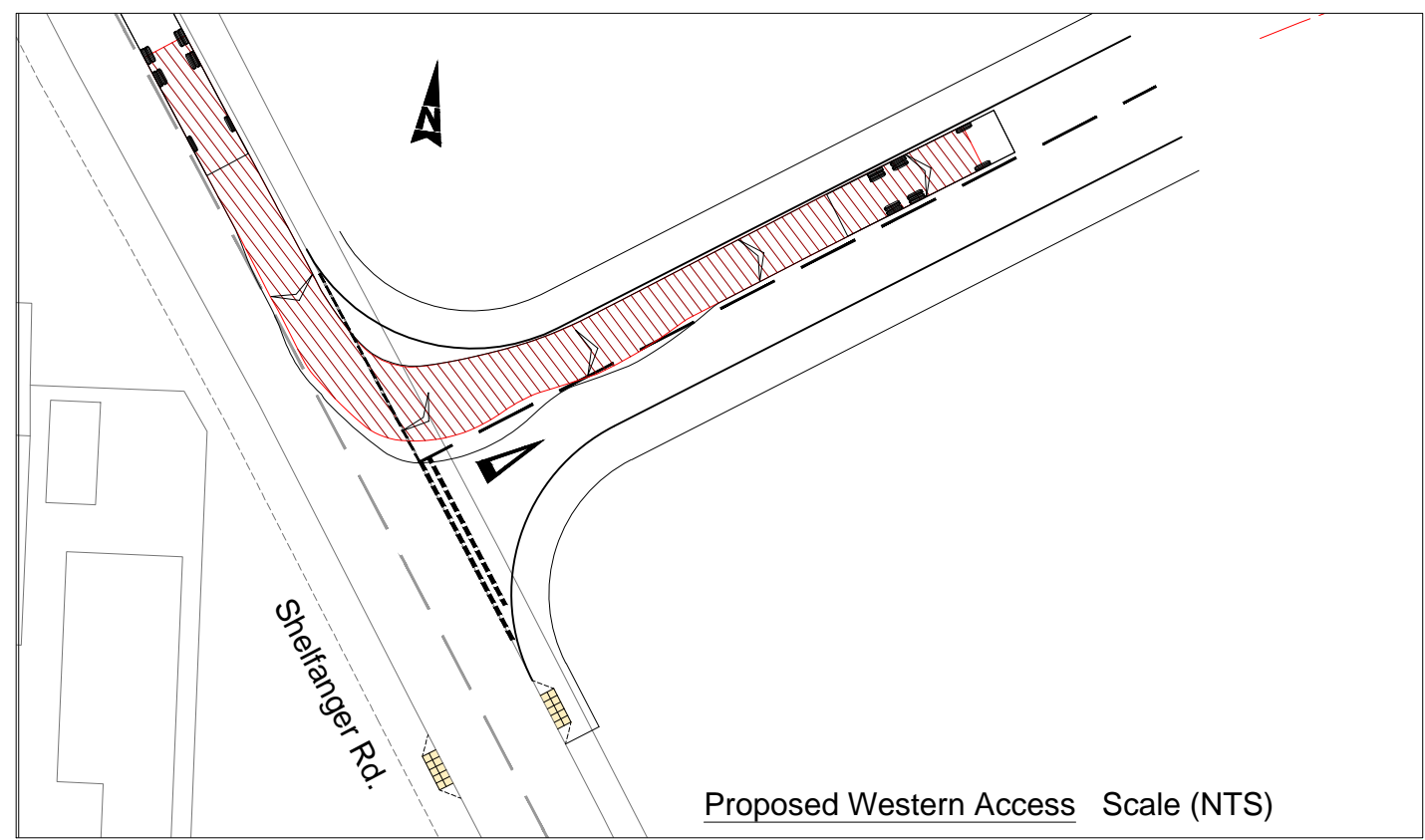
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Project Title		LAND WEST OF HEYWOOD ROAD. DISS			
Drawing Title		PROPOSED SITE ACCESS			
Scale	AS SHOWN	Designed	AE	Drawn	AE
Original Size	A3	Date	05.04.20	Date	05.04.20
Checked	PDE	Date	05.04.20	Authorised	
Drawing Number	DISS	Originator	ATK	Volume	HGN
HA PIN	XX	Date	DR	Number	0001
Project Ref. No.		Revision			P1

Appendix B. Swept-Path Analysis of Proposed Highway Access

100
Millimetres
10
0

DO NOT SCALE



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Key:

Vulture 2225 (with Mercedes Econic 2628LL 6x4 chassis)

Overall Length 9.930m
Overall Width 2.490m
Overall Body Height 3.749m
Min Body Ground Clearance 0.302m
Track Width 2.490m
Lock to lock time 4.00s
Wall to Wall Turning Radius 9.100m

- Notes:**
1. Preliminary design only - based on Ordnance Survey data.
 2. Vehicle Swept Path Analysis based on the provisions of CD123.
 3. Vehicle swept paths shown on this drawing equate to the worst case design vehicle which is expected to use the priority junctions.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION					
In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:					
CONSTRUCTION					
NONE					
MAINTENANCE/CLEANING					
NONE					
DECOMMISSIONING/DEMOLITION					
NONE					
It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement					
Rev.	Date	Description	By	Chkd	App'd
P1	05.04.20	DRAWING CREATED	AE	PDE	

Drawing Status: **FOR INFORMATION**

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Project Title		S2		LAND WEST OF HEYWOOD ROAD. DISS	
Drawing Title					
VEHICLE SWEEP PATH ANALYSIS					
Scale	Designed	Drawn	Checked	Authorised	
AS SHOWN	AE	AE	PDE		
Original Size	Date	Date	Date	Date	
A3	05.04.20	05.04.20	05.04.20		
Drawing Number	Originator	Volume	Project Ref. No.		
HA PIN	- ATK -	- SPA -			
XX	- DR - D -	0001	Revision		
Location	Type	Role	Number	P1	