



SWHBBISjv/Connect Roads

A35 CHIDEOCK COMMUNITY SEVERANCE AND PEDESTRIAN SAFETY SCHEME (AWN 141)

Feasibility Study





SWHBBISjv/Connect Roads

A35 CHIDEOCK COMMUNITY SEVERANCE AND PEDESTRIAN SAFETY SCHEME (AWN 141)

Feasibility Study

TYPE OF DOCUMENT (VERSION): FINAL

PROJECT NUMBER: 70035407

REPORT NUMBER: 70035407/CHD/FEA/1/2

DATE: JANUARY 2019

WSP
Keble House
Southernhay Gardens
Southernhay East
Exeter
Devon
EX1 1NT

Phone: +44 (0)1392 267500

Fax: +44 (0)1392 267599

wsp.com



QUALITY CONTROL

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks	First Draft	Second Draft	Final Report	
Date	9th July 2018	16th Nov 2018	25th January 2019	
Prepared by	Neil Nicholson	Neil Nicholson	Neil Nicholson	
Signature	<i>N. Nicholson</i>	<i>N. Nicholson</i>	<i>N. Nicholson</i>	
Checked by	Lee Sydenham	Lee Sydenham	Lee Sydenham	
Signature	<i>Lee Sydenham</i>	<i>Lee Sydenham</i>	<i>Lee Sydenham</i>	
Authorised by	Lee Sydenham	Lee Sydenham	Lee Sydenham	
Signature	<i>Lee Sydenham</i>	<i>Lee Sydenham</i>	<i>Lee Sydenham</i>	
Project number	70035407	70035407	70035407	
Report number	70035407/CHD/FEA/ 1/0	70035407/CHD/FEA/ 1/1	70035407/CHD/FEA/ 1/2	

CLIENT

Accepted By: Katherine Bright, WSP (on behalf of Connect Roads)

CONTENTS

1	INTRODUCTION	1
1.1	BACKGROUND	1
1.2	PROJECT BRIEF	1
1.3	OBJECTIVES.....	2
2	EXISTING CONDITIONS	3
2.1	GENERAL	3
2.2	NON-MOTORISED USER FACILITIES.....	5
2.3	TRAFFIC SIGNS AND ROAD MARKINGS	13
2.4	PUBLIC TRANSPORT SERVICES	15
2.5	TRAFFIC FLOWS.....	15
2.6	VEHICLE SPEEDS	15
2.7	STATUTORY UNDERTAKERS	17
3	PERSONAL INJURY COLLISION ANALYSIS.....	18
3.1	GENERAL	18
3.2	COLLISION SEVERITY	18
3.3	COLLISION FREQUENCY.....	18
3.4	COLLISION LOCATIONS	19
3.5	COLLISION TYPES.....	19
3.6	VULNERABLE ROAD USERS	20
3.7	COLLISIONS BY WEATHER, ROAD SURFACE AND LIGHTING CONDITIONS.....	20
3.8	CONTRIBUTORY FACTORS	21
3.9	SUMMARY.....	21
4	STAKEHOLDER CONSULTATION.....	23
4.1	GENERAL	23
4.2	DORSET POLICE.....	23
4.3	DORSET COUNTY COUNCIL	23
4.4	CHIDEOCK PARISH COUNCIL	23

5	SUMMARY OF IDENTIFIED ISSUES.....	25
5.1	GENERAL.....	25
6	POTENTIAL OPTIONS FOR REMEDIAL MEASURES.....	31
6.1	GENERAL.....	31
6.2	OPTION 1 – PROVISION OF AVERAGE SPEED CAMERAS	31
6.3	OPTION 2 – NEW TRAFFIC SIGNAL CONTROLLED PEDESTRIAN CROSSING FACILITY AT THE EASTERN END OF THE VILLAGE (LOCATION 1)	32
6.4	OPTION 3 – NEW TRAFFIC SIGNAL CONTROLLED PEDESTRIAN CROSSING FACILITY AT THE EASTERN END OF THE VILLAGE (LOCATION 2)	33
6.5	OPTION 4 – TRAFFIC SIGNS AND ROAD MARKINGS IMPROVEMENTS	33
6.6	OPTION 5 – IMPROVED PEDESTRIAN CROSSING FACILITIES AT THE SIDE ROAD JUNCTIONS ALONG THE A35	34
6.7	OTHER OPTIONS CONSIDERED AND DISCOUNTED AT AN EARLY STAGE	35
7	CONCLUSIONS AND RECOMMENDATIONS.....	37
7.1	CONCLUSIONS.....	37
7.2	RECOMMENDATIONS	39

FIGURES

Figure 1	Village Location Plan
Figure 2	Study Area
Figure 3	Existing Footway Locations

APPENDICES

Appendix A	Collision Location Plans
Appendix B	Indicative Layout Drawings of the Proposed Improvement Options

1 INTRODUCTION

1.1 BACKGROUND

- 1.1.1. WSP has been commissioned by the South West Highways / Balfour Beatty Infrastructure Services Joint Venture (SWHBBISjv), on behalf of Highways England, to undertake a Feasibility Study to consider community severance and pedestrian road safety issues at three villages on the A35 in Dorset – Morcombelake, Chideock and Winterbourne Abbas. This report considers the A35 through the village of Chideock, which is located approximately 3 km to the west of Bridport and approximately 1 km to the east of Morcombelake.
- 1.1.2. The A35 passes through Chideock in an east-west direction. The village is situated on both sides of the A35 with several side roads, and numerous dwellings and businesses having direct frontage access onto the trunk road. The A35 in this location is a single carriageway road that provides for longer distance trips from Hampshire in the east to Devon/Cornwall in the west, as well as local commuting, commercial, shopping and delivery traffic. The location of the village is shown on Figure 1.

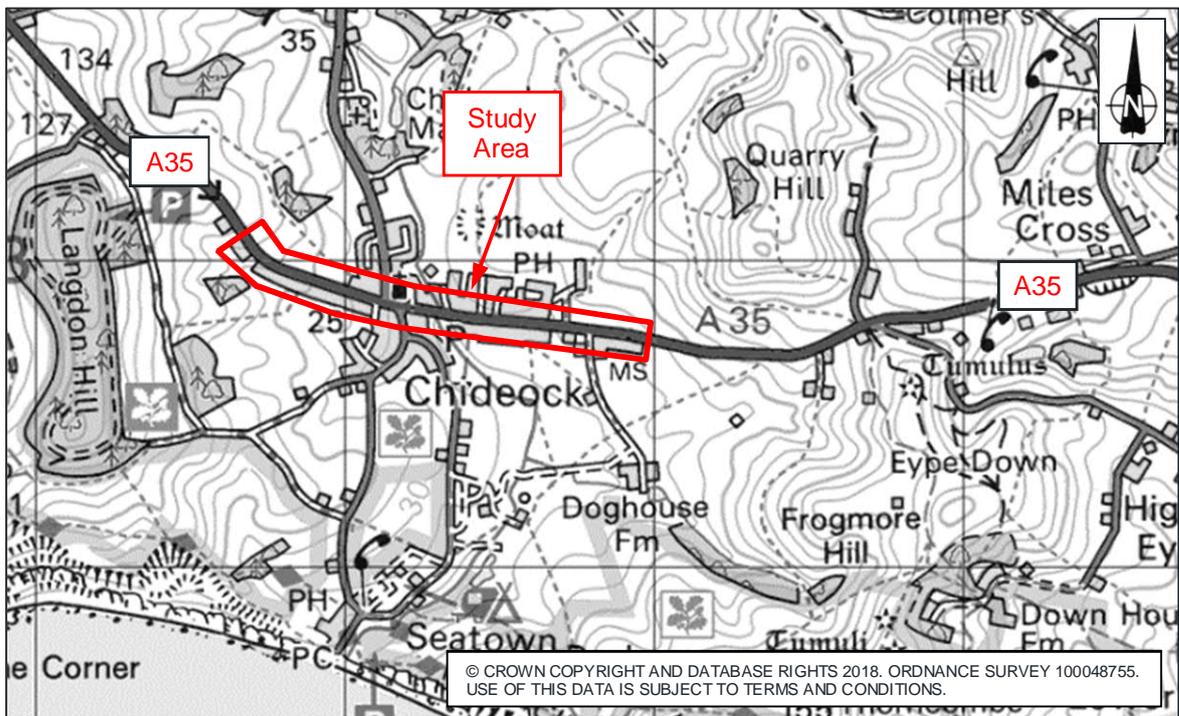


Figure 1 – Village Location Plan

- 1.1.3. The primary objective of this Feasibility Study is to complete a detailed investigation of severance issues for Non-Motorised Users (NMUs) such as pedestrians, cyclists and equestrians influenced by the presence of the A35 trunk road in the village of Chideock. The study will also consider potential issues such as vehicle speeds and other road safety concerns that could be attributed to the A35 trunk road.

1.2 PROJECT BRIEF

- 1.2.1. Highways England outlined the overall intentions for the study in the project brief, with the main purpose of this Feasibility Study to make recommendations for deliverable preferred options and outline cost estimates in relation to NMU improvements for the three villages of Chideock, Morcombelake and Winterbourne Abbas.

1.2.2. The commissioned work was broken down into the following three phases:

- Phase 0 – Inception Report (completed);
- Phase 1 – Feasibility Study (this document in relation to the village of Chideock, as well as document numbers 70035407/MOR/FEA/1/* and 70035407/WA/FEA/1/* which relate to the villages of Morcombelake and Winterbourne Abbas respectively);
- Phase 2 – Preferred Option, agreed with Highways England, which will include the production of a conceptual Scheme Appraisal Report (SAR) and a Walking, Cycling and Horse Riding Assessment and Review (WCHAR) in accordance with HD 42/17.

1.2.3. A desk-based review of environmental conditions on the A35 at Chideock has been undertaken, along with the other 'Dorset Villages' of Morcombelake and Winterbourne Abbas. A separate environmental report, "A35 Dorset Villages Community Severance and Pedestrian Safety Environmental Review" (document reference 70035407/ENV/2) has been produced for in conjunction with this Feasibility Study.

1.3 OBJECTIVES

1.3.1. The objectives of this Feasibility Study are the following:

- Provide a summary of the existing conditions, including current NMU facilities and difficulty of crossing, along the A35 within the village of Chideock;
- Analysis of the recent Personal Injury Collision data over a 5-year period;
- Review of existing vehicle speeds on the A35 through the village;
- Identification of problem areas and potential road safety issues;
- Summary of comments and issues raised from stakeholder engagement;
- Identify potential options for improvements;
- Conclusions and recommendations.

2 EXISTING CONDITIONS

2.1 GENERAL

2.1.1. Chideock is a village in the district of West Dorset, situated approximately 3 km to the west of Bridport and approximately 1 km to the east of Morcombelake. The village area is located on both sides of the A35 trunk road. Although some of the village is accessed via the local road network, a large proportion of the properties and businesses are accessed directly off the trunk road itself. The A35 trunk road in the study area is subject to a 30mph speed limit, which is 'urban' in nature with street lighting present.

2.1.2. This Feasibility Study assesses the village of Chideock and considers the layout and operation of the A35 within the extents of the 30mph speed limit. Figure 2 shows the extents of the study area in greater detail.

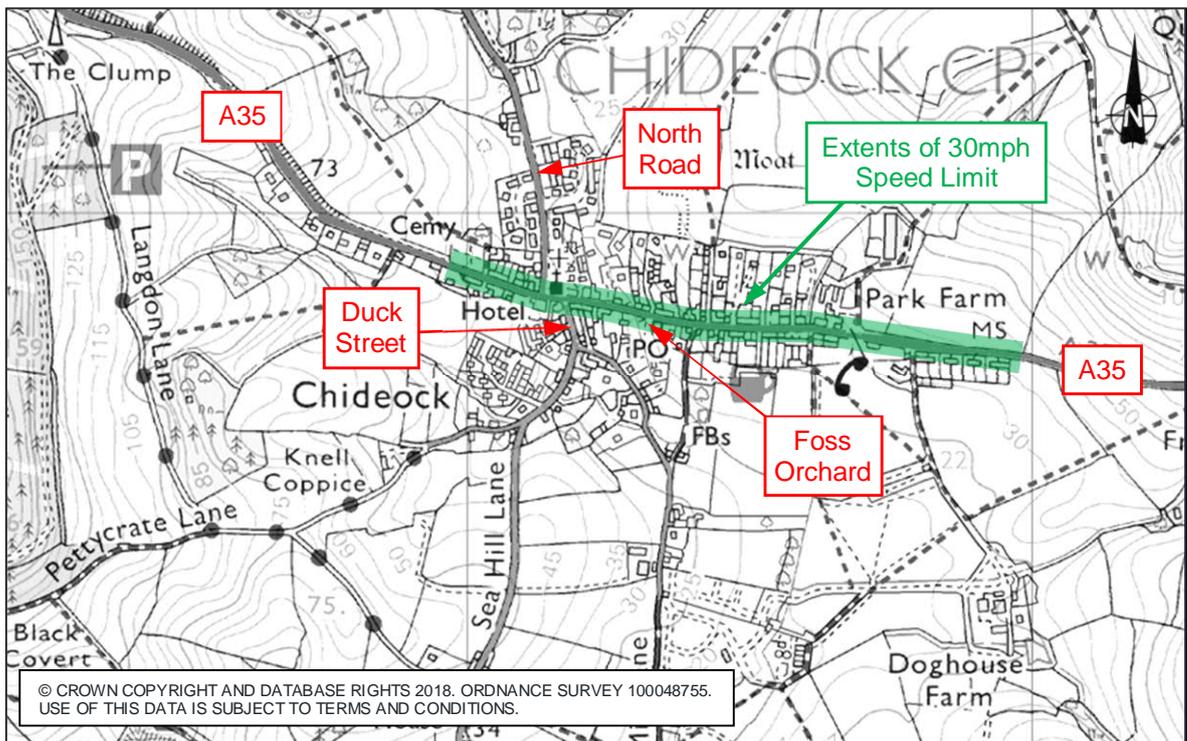


Figure 2 – Study Area

2.1.3. The following site visits have been undertaken by the WSP study team to observe the existing conditions in the village and highway layout of the A35 in Chideock:

- Thursday 25th January 2018 during daylight conditions (between 12:00pm and 1:00pm), when the weather was fine and the road surface was dry.
- Friday 18th May 2018 during daylight conditions (between 9:30am and 11:45am), when the weather was fine and the road surface was dry.

2.1.4. 40mph speed limit 'buffer zones' are provided on the A35 to the west and east of the 30mph speed limit covering Chideock. The western 40mph speed limit buffer zone is provided for a length of approximately 620m along the A35 and the eastern 40mph speed limit buffer zone is provided for a length of approximately 1.4 km.

- 2.1.5. To the west of the western 40mph speed limit buffer zone, the A35 is subject to the national speed limit (between the villages of Chideock and Morcombelake). To the east of the eastern 40mph buffer zone, the A35 is subject to a 50mph speed limit.
- 2.1.6. The A35 to the west of Chideock is provided with a climbing lane section in the westbound direction which commences approximately 180m to the west of the start/end of the 30mph speed limit. The two-lane westbound climbing lane section of carriageway is subject to a 40mph speed limit for approximately 430m, and then further west is subject to the national speed limit for approximately 470m. It then terminates just before the village of Morcombelake, where the posted speed limit reverts back to 40mph. In the eastbound direction on this section of A35 carriageway (which is a single lane wide) two nearside Escape Lanes are provided for errant vehicles travelling downhill to use in order to leave the carriageway in an emergency before they enter the Chideock village area.
- 2.1.7. The A35 trunk road within the study area is a single carriageway road with longitudinal dashed 'warning line' road markings provided in the centre of the carriageway separating the eastbound and westbound traffic lanes for the majority of the extents of the 30mph speed limit, as shown on Photograph 1 (apart from in the vicinity of a traffic signal controlled pedestrian crossing facility where zig-zag road markings are provided in the centre of the carriageway, in accordance with the guidance stated in the Traffic Signs Manual).



Photograph 1 – Longitudinal road markings in the centre of the A35 carriageway

- 2.1.8. At the western and eastern ends of the 30mph speed limit, there are lengths of hatched road markings which are provided in the centre of the carriageway. The hatched road markings are provided for approximately 30m at the western end of the 30mph speed limit (which continue into the adjacent 40mph speed limit). At the eastern end of the 30mph speed limit, the hatched centre road markings are provided for approximately 170m (which continue into the adjacent 40mph speed limit). Photographs 14 and 15 in this report show the existing hatched road markings.
- 2.1.9. The width of the A35 running carriageway has been measured at several locations within the extents of the 30mph speed limit at Chideock (where longitudinal dashed line road markings are provided in the centre of the carriageway). The carriageway width (kerb to kerb) has been measured to be typically between 6.9m and 7.9m wide within the village.

2.2 NON-MOTORISED USER FACILITIES

FOOTWAYS

- 2.2.1. Within Chideock there is a continuous footway on the northern side of the A35 that is provided between the western end of the 30mph speed limit and the Park Farm access (located near the eastern end of the village, as shown on Figure 3). The footway on the north side of the A35 through Chideock is provided for a length of approximately 800m.
- 2.2.2. The footway on the north side of the A35 crosses a major/minor priority junction (North Road, as shown on Figure 3) as well as several private accesses. It was observed during the site visit on 18th May 2018 that, at the junction with North Road, dropped kerbs are only provided on the east side of the junction bellmouth by the entrance into the adjacent church (and no tactile paving is provided on either side of the junction to assist partially sighted pedestrians) – see Photograph 2.



Photograph 2 – Lack of dropped kerbs on the west side of the North Road junction

- 2.2.3. On the south side of the A35, footways are provided intermittently in the following locations:
- (a) Between the Chideock Hill Cottage residential property (within the extents of the 40mph speed limit to the west of Chideock) to The Clock public house, opposite the North Road junction – approximate length of 600m (it should be noted that there is no footway currently provided outside The Clock public house);
 - (b) Between The Clock public house and the Courthay residential property (located approximately 50m to the east of the Duck Street junction) – approximate length of 90m;
 - (c) Between the River Winniford bridge and the traffic signal controlled pedestrian crossing facility beside the Post Office (Foss Orchard) – approximate length of 50m;
 - (d) Between the uncontrolled pedestrian crossing facility (beside the Wickham Cottage residential property) and the eastern end of the 30mph speed limit – approximate length of 400m.

2.2.4. Figure 3 shows the locations of the existing footways located adjacent to the A35 through Chideock.

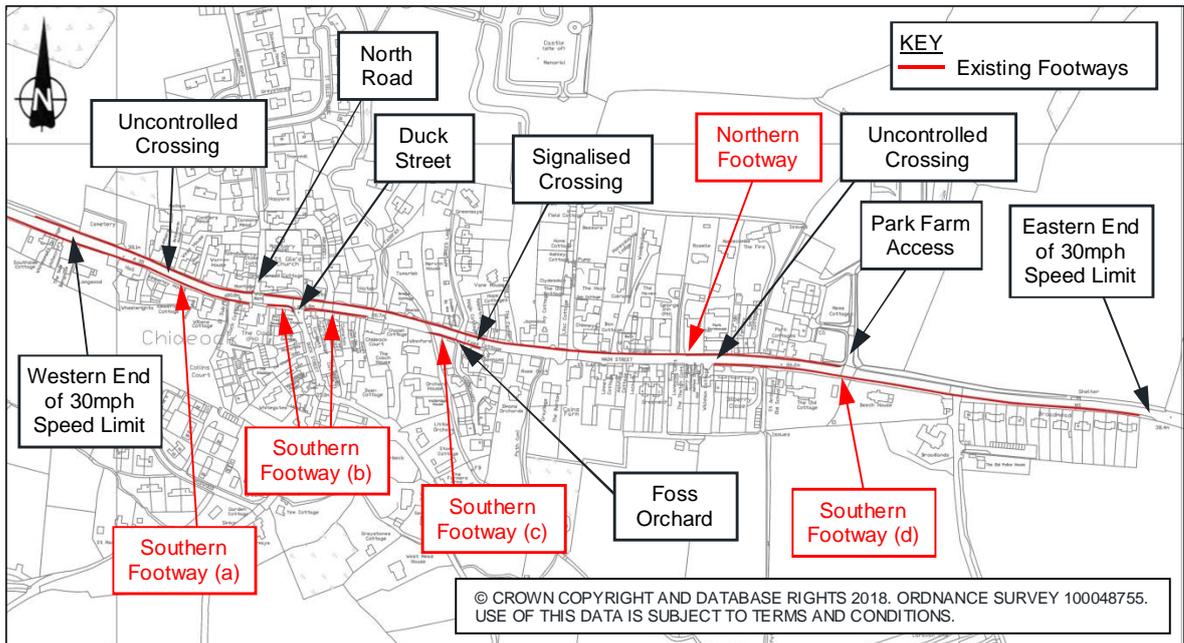


Figure 3 – Existing Footway Locations

2.2.5. On the south side of the A35, the various footways cross several private accesses. The southern footway section (b) crosses a major/minor priority junction (Duck Street). No dropped kerbs or tactile paving are currently provided on either side of this junction to assist visually or mobility impaired pedestrians, as shown on Photograph 3.



Photograph 3 – Lack of dropped kerbs on both sides of the Duck Street junction

2.2.6. The southern footway section (c) in the vicinity of the Post Office crosses the Foss Orchard access junction (see Photograph 4). It was observed during the site visits that this junction is frequently used by vehicles turning into and out of the access, primarily to use the car park for the Post Office and the Central Convenience Store.



Photograph 4 – Southern footway crossing the Foss Orchard access junction

- 2.2.7. The footway located on the north side of the A35 carriageway within Chideock varies in width and is typically between 1.6m and 1.9m wide. Therefore, the widths of the northern footway conform with the acceptable minimum footway width of 1500mm (1.5m) stated in the Department for Transport (DfT) document “*Inclusive Mobility*”.
- 2.2.8. On the south side of the A35 carriageway, the footways are generally between 1.5m and 1.7m wide which is in excess of the acceptable minimum width of 1.5m described in “*Inclusive Mobility*”. However, some short sections of footway on the south side of the A35 were measured on site to be less than 1.5m wide, at the following locations:
- 1.2m beside Chideock Village Hall (as shown on Photograph 5);
 - 1.3m in front of the row of terrace houses to the east of the Duck Street junction (as shown on Photograph 6);
 - 1.4m at the westbound bus stop adjacent to the Foss Orchard junction (as shown on Photograph 7).
- 2.2.9. It should be noted that the document “*Inclusive Mobility*” also states that the absolute minimum width of a footway is 1.0m, although footway widths between 1.0m and 1.5m should only be provided for a maximum length of 6m. All 3 locations listed above have footways that are less than 1.5m wide for lengths significantly in excess of 6m.



Photograph 5 – Narrow section of footway beside Chideock Village Hall



Photograph 6 – Narrow section of footway to the east of the Duck Street junction



Photograph 7 – Narrow section of footway to the west of the Foss Orchard junction

- 2.2.10. At the eastern end of the footway on the north side of the A35 carriageway, it was observed during the site visits that no dropped kerbs are provided where the footway ends (at the location of the access for Park Farm, where a ‘public right of way’ is provided). There are no other properties along the northern side of the A35 from this point eastwards. This lack of dropped kerbs could present a tripping hazard to mobility impaired pedestrians at the end of the footway.



Photograph 8 – Lack of dropped kerbs at the eastern end of the northern footway

- 2.2.11. It should be noted that no information is readily available in respect to the current volumes of pedestrians using the footways in Chideock.

PEDESTRIAN CROSSING FACILITIES

- 2.2.12. A traffic signal controlled pedestrian crossing facility is provided in the centre of the village, adjacent to the Post Office (as shown on Photograph 9).



Photograph 9 – Existing traffic signal controlled pedestrian crossing facility

- 2.2.13. An assessment of the visibility along the A35 from the crossing points of the existing signalised pedestrian crossing facility was undertaken during one of the site visits. It was observed that the visibility in all directions from the southern crossing point appeared to be in excess of 70m (from an 'x' distance of 1.5m back from the kerbline), which is the preferred minimum visibility distance for pedestrian crossing facilities on a road with design speed of 50 kph (30mph) as stated in the Design Manual for Roads and Bridges (DMRB) Advice Note TA 90/05 *"The Geometric Design of Pedestrian, Cycle and Equestrian Routes"*.
- 2.2.14. From the northern crossing point, the visibility westwards along the A35 appeared to be in excess of 70m. However the visibility eastwards was measured on site to be in the region of 55-60m (from an 'x' distance of 1.5m back from the kerbline) which is less than the preferred minimum visibility distance of 70m for pedestrian crossings on a road with a 50 kph design speed. As shown on the left-hand side of Photograph 9, the visibility eastwards in this location is restricted by the horizontal alignment of the road and adjacent property walls.
- 2.2.15. In addition, it was observed on site that the forward visibility to the primary traffic signal head on the A35 eastbound approach to the signalised crossing facility is approximately 160m, and on the westbound approach the forward visibility to the primary signal head is approximately 180m. These distances are in excess of the Desirable Minimum Stopping Sight Distance (SSD) of 70m for a road with a design speed of 50 kph (30 mph).
- 2.2.16. It was observed during the site visits that both of the crossing points at the existing signalised pedestrian crossing facility conform with the requirements for mobility / visually impaired users at crossing facilities, as described in the Department for Transport (DfT) document *"Inclusive Mobility"* (i.e. they include dropped kerbs with a maximum 6mm kerb upstand and tactile paving with a colour that contrasts with the adjacent footway surfacing). It should be noted that the crossing points are currently buff in colour when the DfT document *"Guidance on the Use of Tactile Paving Surfaces"* recommends that red coloured tactile paving should be used (except where a crossing facility is provided in a conservation area where relaxations of the colour requirements are acceptable, and it is understood that Chideock is located in a conservation area).

2.2.17. Two uncontrolled pedestrian crossing facilities are also provided across the A35 in Chideock, which are provided with dropped kerbs and tactile paving. They are situated at the following locations:

- Adjacent to the eastbound and westbound bus stops at the western end of the village (near the village hall) – see Photograph 10;
- Between the eastbound and westbound bus stops (approximately 40m to the east of the George Inn public house) – see Photograph 11.



Photograph 10 – Existing uncontrolled crossing facility near the village hall



Photograph 11 – Existing uncontrolled crossing facility to the east of the George Inn

2.2.18. An assessment of the visibility along the A35 from the crossing points of the two existing uncontrolled pedestrian crossing facilities was undertaken during one of the site visits. At the pedestrian crossing facility near the village hall (shown on Photograph 10), it was observed that the visibility in all directions from both crossing points appeared to be at least 70m (from an 'x' distance of 1.5m back from the kerbline), which is the preferred minimum visibility distance for pedestrian crossing facilities on a road with design speed of 50 kph (30 mph) as stated in the DMRB Advice Note TA 90/05 "*The Geometric Design of Pedestrian, Cycle and Equestrian Routes*".

- 2.2.19. At the pedestrian crossing facility to the east of the George Inn (shown on Photograph 11), it was observed that the visibility in all directions from both crossing points appeared to be at least 70m (from an 'x' distance of 1.5m back from the kerbline), which is the preferred minimum visibility distance for pedestrian crossing facilities on a road with design speed of 50 kph (30 mph) as stated in the DMRB Advice Note TA 90/05 "*The Geometric Design of Pedestrian, Cycle and Equestrian Routes*". Although it is noted that the visibility westwards from the crossing point on the south side of the A35 carriageway is partially obstructed by the adjacent traffic sign and telegraph pole, as shown on Photograph 12.



Photograph 12 – Visibility westwards along the A35 from the southern crossing point

- 2.2.20. It was observed during the site visits that all of the crossing points at both of the existing uncontrolled pedestrian crossing facilities are provided with features for mobility / visually impaired users that conform with the requirements for crossing facilities as described in the DfT document "*Inclusive Mobility*" (i.e. they include dropped kerbs with a maximum 6mm kerb upstand and tactile paving with a colour that contrasts with the adjacent footway surfacing).
- 2.2.21. No information is readily available in respect to the volume of pedestrians using the crossing facilities in the village.

OTHER NON-MOTORISED USER FACILITIES

- 2.2.22. No specific facilities for cyclists are provided on the A35 trunk road in Chideock, and no routes on the National Cycle Network pass through the village.
- 2.2.23. There is one bridleway in Chideock that adjoins the A35 on the south side of the carriageway, located adjacent to the Rose Cottage B&B (approximately 70m to the east of the Foss Orchard access junction). As shown on Photograph 13, this is signed from the A35 as a public footpath to Seatown but it is not indicated to be a bridleway. The southern end of the bridleway adjoins Mill Lane (a road between Seatown and Duck Street in Chideock). A bridleway direction sign is provided where this bridleway adjoins Mill Lane.
- 2.2.24. It was observed during the site visit that the visibility from the end of this footpath / bridleway of westbound vehicles approaching on the A35 is notably restricted by adjacent vegetation (although the visibility of approaching eastbound vehicles was adequate), and no footway is provided adjacent to the A35 carriageway at the entrance to the public footpath. It is understood that this footpath is used by pedestrians walking between Chideock and Seatown, as well as the caravan parks to the south of the village. The level of usage of this bridleway by equestrians is unclear.



Photograph 13 – Entrance onto the bridleway from the A35 in Chideock

2.3 TRAFFIC SIGNS AND ROAD MARKINGS

- 2.3.1. The A35 through Chideock has a permanent posted speed limit of 30mph, which commences just to the west of Chideock Village Hall and terminates at the eastern end of the built-up area of the village. Therefore the total distance of the 30mph speed limit is approximately 1 km). The terminal 30mph speed limit traffic signs at the both ends of Chideock are shown on Photographs 14 and 15.



Photograph 14 – Terminal 30mph speed limit signs at the western end of Chideock



Photograph 15 – Terminal 30mph speed limit signs at the eastern end of Chideock

- 2.3.2. It can be seen from Photographs 14 and 15 that the terminal 30mph speed limit traffic signs on yellow backing boards are supplemented with '30' roundel speed limit road markings in the eastbound and westbound directions appropriately. Photograph 14 also shows that the terminal 40mph speed limit signs at the western end of the village (exiting the built-up area) are not supplemented with a '40' roundel road marking.
- 2.3.3. The majority of the study area within the 30mph speed limit is provided with street lighting and therefore speed limit repeater signs are not provided or required. The exception to this is at the eastern end of the village where no street lighting is provided for approximately 200m and appropriate 30mph repeater signs are provided in both directions.
- 2.3.4. "SLOW" road markings are currently provided on the A35 carriageway at the following locations:
- Eastbound traffic lane, approximately 50m downstream of the start of the 30mph speed limit;
 - Eastbound traffic lane, adjacent to the bus stops located at the western end of Chideock;
 - Westbound and eastbound traffic lanes, at the location of the Fairfax private access;
 - Westbound traffic lane, at the location of the public footpath / bridleway approximately 70m to the east of the Foss Orchard access junction;
 - Eastbound traffic lane, adjacent to the Park Farm access;
 - Westbound traffic lane, approximately 150m downstream of the start of the 30mph speed limit.
- 2.3.5. A 'Pedestrians In Road Ahead' advance warning traffic sign, to diagram number 544.1 in the document *"Traffic Signs Regulations and General Directions 2016"* (TSRGD), is located at the western end of the footway at the eastern end of the village (supplemented with a "No Footway for 250 yds" sign plate). This sign is positioned on the south side of the A35 carriageway for vehicles travelling westbound along the A35 (see Photograph 12). No other similar traffic signs are provided on the A35 in Chideock to warn road users of other locations where pedestrians could be walking on the carriageway, where footways are not provided on the south side of the A35.

- 2.3.6. The 'Pedestrians In Road Ahead' traffic sign is supplemented with a Vehicle Activated Sign (VAS). This VAS displays a '30 Slow Down' message to traffic travelling westbound when activated. This VAS is owned by the Parish Council, who indicated that it is currently not operational.

2.4 PUBLIC TRANSPORT SERVICES

- 2.4.1. Bus services X51 and X53 operate along the A35 through the study area, which provides 18 buses during a typical weekday in both directions. On a typical Saturday, there are 13 buses in the westbound direction and 14 in the eastbound direction. On a typical Sunday, there are 11 buses in the westbound direction and 12 in the eastbound direction.

- 2.4.2. There are 4 locations where bus stops are provided on the A35 trunk road in Chideock. They are situated at the following locations:

- Westbound and eastbound 'kerbside' bus stops located to the east of the village hall (at the western end of the village);
- Westbound and eastbound 'kerbside' bus stops either side of the River Winniford bridge (near the Post Office in the centre of the village);
- Westbound and eastbound 'kerbside' bus stops to the east of The George Inn;
- Westbound and eastbound 'kerbside' bus stops near the eastern end of the 30mph speed limit.

- 2.4.3. The majority of the bus stops on the A35 in Chideock are provided with features for mobility impaired users that conform with the requirements of the DfT document "*Inclusive Mobility*", as they are provided with raised access kerbs and a guidance/safety line set back from the kerblines. The only two bus stops where these features are not provided adequately are the ones located at the eastern end of the village (a guidance/safety line is not provided on the raised access kerbs of the eastbound bus stop, and the westbound bus stop is not provided with either of these features).

- 2.4.4. No information is readily available with regards to the current patronage at each of the bus stops.

2.5 TRAFFIC FLOWS

- 2.5.1. Traffic flow data has been obtained from the Maintaining Agent for the 12-month period of 01/04/2017 to 31/03/2018, which indicates that the two-way Annual Average Daily Traffic (AADT) flow on the A35 to the east of Chideock (at London Inn) was 16,371 vehicles per day. The proportion of HGVs (i.e. vehicles over 5.2m long) is shown from this data to be 14% during this 12-month period.

2.6 VEHICLE SPEEDS

- 2.6.1. The speed of vehicles travelling along the A35 at Chideock was recorded using radar equipment during the 3 day period of Wednesday 13th May to Friday 15th May 2018, located at the following two locations:

- Site 1: A35 approximately 40m to the west of the junction with North Road (at the western end of the village)
- Site 2: A35 approximately 100m to the west of the start of the 30mph speed limit at the eastern end of the village

- 2.6.2. Table 1 summarises the results of the surveys along the A35 in both directions at Site 1, including the 85th percentile speed and the mean average recorded speed throughout this 3 day period.

Location	Mean Average Speed (mph)	85th Percentile Speed (mph)	Posted Speed Limit (mph)
A35 westbound	27.3	32.4	30
A35 eastbound	25.5	30.4	30

Table 1 – Vehicle Speed Survey Results (Site 1: Western End of Chideock)

2.6.3. The A35 trunk road at Chideock has a posted mandatory 30mph speed limit. It can be seen from Table 1 that the recorded 85th percentile vehicle speeds on the A35 in both directions were slightly above the speed limit (during the survey period) at the western end of Chideock (although in the eastbound direction the 85th percentile speed is only slightly higher than the 30mph speed limit). The mean average vehicle speeds were below the posted speed limit in both directions. The vehicle speeds in the westbound direction are slightly higher than the eastbound direction, which could be attributed to vehicles accelerating as they approach the start of the nearby 40mph speed limit (to the west of Chideock) as they exit the village uphill.

2.6.4. Table 2 below summarises the results of the surveys along the A35 in both directions at Site 2, including the 85th percentile speed and the mean average recorded speed throughout this 3 day period.

Location	Mean Average Speed (mph)	85th Percentile Speed (mph)	Posted Speed Limit (mph)
A35 westbound	28.1	33.4	30
A35 eastbound	33.9	40.6	30

Table 2 – Vehicle Speed Survey Results (Site 2: Eastern End of Chideock)

2.6.5. The A35 trunk road at Chideock has a posted mandatory 30mph speed limit. Therefore it can be seen that the recorded 85th percentile vehicle speeds on the A35 in both directions were in excess of the speed limit (during the survey period) at the eastern end of Chideock. The higher vehicle speeds in the eastbound direction could be attributed to vehicles accelerating as they approach the start of the 40mph speed limit as they exit the village uphill (to the east of Chideock), and in the westbound direction vehicles will be approaching a fixed speed camera. The environment in the village slightly changes in this location – the road is slightly wider (albeit it is provided with hatched central road markings), there is no footway on the north side of the carriageway, and the land on the north side of the A35 is fields rather than being built-up.

2.6.6. The speed survey data covers all vehicle types and does not provide a breakdown of light and heavy vehicle categories.

2.6.7. It was observed during the site visit on 18th May 2018 that fixed speed cameras are provided on the A35 in Chideock at the following locations:

- Eastbound speed camera adjacent to the village hall, at the western end of the village;
- Westbound speed camera in the vicinity of the westbound bus stop at the eastern end of the village.

2.6.8. Data for the eastern fixed speed camera has been obtained from Dorset Police, which shows that during the 2 year period of 2016-2017 this speed camera was activated by 1,230 vehicles.

2.7 STATUTORY UNDERTAKERS

2.7.1. The following Statutory Undertaker's equipment is currently located in the vicinity of the A35 within the extents of the 30mph speed limit at Chideock:

- BT Openreach underground cables;
- Western Power Distribution overhead and underground cables;
- Southern Gas Networks – low and medium pressure mains;
- Wessex Water – distribution mains and sewers.

2.7.2. It is considered unlikely that any of the proposed highway improvement options described in Section 6 of this report could have a significant adverse impact on any of the existing Statutory Undertaker's equipment.

3 PERSONAL INJURY COLLISION ANALYSIS

3.1 GENERAL

3.1.1. Personal Injury Collision (PIC) information for the A35 through Chideock has been obtained for the 6 year period from 1st January 2012 to 31st December 2017. The section of the A35 where the collision data has been analysed is between the following locations:

- A point 100m to the west of the western end of the 30mph village speed limit
- A point 100m to the east of the eastern end of the 30mph village speed limit

3.1.2. 'Damage only' collisions have not been included in the following detailed assessment as they are not consistently reported to the Police and therefore could be misleading or possibly biased.

3.1.3. A total of 8 PICs were recorded within the study area during the 6 year period. Appendix A includes a plan showing the locations of the PICs.

3.2 COLLISION SEVERITY

3.2.1. Of the 8 PICs that were recorded in the study area, 2 were serious and 6 were slight in severity (no fatal collisions took place during the 6 year period). Therefore on this section of the A35, 2 (25%) of the 8 PICs were fatal / serious in severity.

3.2.2. National average severity figures for A-roads in built-up areas (with a speed limit of 40mph or less) have been taken from the DfT document "*Reported Road Casualties Great Britain: 2016 Annual Report*" (RRCGB). This indicates that 14% of PICs that occurred on built-up A-roads (in 2016) were fatal or serious in severity. Therefore this indicates that the proportion of fatal / serious collisions on the A35 in the study area (25% within the extents of the 30mph speed limit) is higher than the national average for this type of road.

3.3 COLLISION FREQUENCY

3.3.1. During the 6 year assessment period, 8 PICs were recorded on the A35 at Chideock. This equates to an average of 1.3 PICs per year.

3.3.2. The annual collision frequency on this section of the A35 has been compared with the values predicted using the process described in the Cost and Benefit to Accidents: Light Touch (COBALT) User Guide, produced by the DfT. This process predicts the PIC frequency based on the link type and the recent AADT flows on the A35 in Chideock and does not take the specific highway geometry into account.

3.3.3. The COBALT formula predicts a collision frequency of 2.4 PICs per year for this type of road and the current traffic volumes. Therefore the observed PIC rate on this section of the A35 (1.3 PICs per year) is lower than the predicted frequency for this type of road.

3.4 COLLISION LOCATIONS

3.4.1. Table 3 summarises the various locations of the PICs that occurred within the study area during the 6 year assessment period.

Location	Number of PICs	Percentage of Total	Collision Reference Numbers
A35 at the location of the traffic signal controlled pedestrian crossing facility	2	25%	4, 5
A35 at the location of the George Inn	2	25%	7, 8
A35 junction with North Street	1	13%	1
A35 just to the east of the Duck Street junction	1	13%	2
A35 at the River Winniford bridge	1	13%	3
A35 near Ruins Lane	1	13%	6
TOTAL	8	100%	-

Table 3 – Personal Injury Collision Locations

3.4.2. It can be seen from Table 3 that there are a couple of locations where more than one PIC occurred during the 6 year period. They are the following:

- A35 at the location of the traffic signal controlled pedestrian crossing facility, adjacent to Foss Orchard. 2 PICs occurred in this location. 1 of which was serious in severity, which involved a pedestrian being struck by a car. The other PIC in this location was a rear shunt collision on the eastbound approach to the traffic signal stopline (which was slight in severity).
- A35 at the location of the George Inn. 2 PICs occurred in this location. 1 of which was serious in severity, which involved a head-on collision between opposing vehicles (where a driver travelling eastbound along the A35 mistakenly drifted onto the westbound traffic lane). The other PIC involved a vehicle pulling out of a private access and colliding with a motorcycle travelling along the A35 (which was slight in severity).

3.5 COLLISION TYPES

3.5.1. The different types of collision that have occurred on the A35 within the study area during the assessment period have been assessed and are summarised in Table 4.

Collision Type	Number of Collisions	Percentage of Total
Rear Shunt Collision	3	38%
Loss of Control	2	25%
Pedestrian Collision	1	13%
Head-On	1	13%
Side Impact (T-Bone)	1	13%
TOTAL	8	100%

Table 4 – Personal Injury Collision Types

3.5.2. A reasonable proportion (38%) of the PICs that occurred on the A35 in the study area were rear shunt collisions. All of the rear shunt collisions were slight in severity and they all took place at different locations in Chideock. All 3 rear shunt collisions took place during the morning period of 9am to midday.

3.5.3. Both of the two 'loss of control' PICs took place on the downhill section of the A35 in the eastbound direction at the western end of the village (which were both slight in severity).

3.6 VULNERABLE ROAD USERS

- 3.6.1. During the 6 year assessment period, none of the PICs within the study area involved equestrians or pedal cycles.
- 3.6.2. 1 of the PICs involved a pedestrian, which was serious in severity. This collision took place at the traffic signal controlled pedestrian crossing facility in the centre of the village, and involved a vehicle travelling westbound failing to stop at a red traffic signal and then collided with a child pedestrian using the crossing facility.
- 3.6.3. This is the only PIC involving pedestrians on the A35 in Chideock, so it is not considered to be statistically significant in terms of the general assessment of road safety in the village.
- 3.6.4. 1 of the PICs that occurred on the A35 within the study area involved a motorcycle, which was slight in severity. This collision involved a vehicle pulling out of a private access (in the vicinity of the George Inn) and colliding with a motorcycle travelling eastbound along the A35.
- 3.6.5. This is the only PIC involving motorcyclists on the A35 in Chideock, so it is not considered to be statistically significant in terms of the general assessment of road safety in the village.

3.7 COLLISIONS BY WEATHER, ROAD SURFACE AND LIGHTING CONDITIONS

- 3.7.1. An assessment has been made of the PIC data by weather, road surface and lighting conditions. The conditions recorded in the PIC data (during the 6 year period) have been compared with the national average statistics for built-up roads taken from RRCGB 2016.
- 3.7.2. All 8 PICs that were recorded on the A35 in Chideock during the 6 year period took place in fine weather conditions.
- 3.7.3. Table 5 shows that the proportion of PICs that occurred on a wet road surface is lower than the national average for built-up roads in 2016.

	A35 at Chideock		RRCGB 2016	
	Number of Collisions	%	Number of Collisions	%
Dry	7	87%	77366	75%
Wet / Flood	1	13%	23787	23%
Snow / Ice	0	0%	1179	1%
Other / Unknown	0	0%	698	1%
TOTAL	8	100%	103030	100%

Table 5 – Personal Injury Collisions by Road Surface Conditions

- 3.7.4. Table 6 shows that the proportion of PICs that occurred during the hours of darkness is similar to the national average for built-up roads in 2016.

	A35 at Chideock		RRCGB 2016	
	Number of Collisions	%	Number of Collisions	%
Daylight	6	75%	74652	72%
Darkness	2	25%	28372	28%
Unknown	0	0%	6	0%
TOTAL	8	100%	103030	100%

Table 6 – Personal Injury Collisions by Light Conditions

3.8 CONTRIBUTORY FACTORS

3.8.1. The PIC data for the study area contained contributory factor information for the A35 collisions. Table 7 summarises this information. It should be noted that some of the collisions included reference to more than one contributory factor.

Contributory Factor	Frequency	Percentage of Collisions
Failed to look properly	4	50%
Loss of control	2	25%
Defective brakes	1	13%
Disobeyed pedestrian crossing facility	1	13%
Failed to judge other persons path or speed	1	13%
Fatigue	1	13%

Table 7 – Summary of Contributory Factors

3.8.2. Table 7 indicates that the most prominent contributory factor that was recorded in the details of the PICs on this section of the A35 is “Failed to Look Properly”, which account for 50% of the PICs in Chideock.

3.9 SUMMARY

3.9.1. The following conclusions can be drawn from the assessment of the Personal Injury Collisions (PICs) that have been recorded on the A35 within the study area (the existing extents of the 30mph speed limit in Chideock) during the 6 year assessment period:

- 8 PICs occurred within the study area during the 6 year assessment period;
- The annual collision frequency on this section of the A35 trunk road (1.3 PICs per year) is lower than the predicted national average collision rate for this type of road (2.4 PICs per year);
- The proportion of fatal and serious collisions in the study area is higher than the national average for built-up A-roads (although no fatal collisions were recorded on the A35 in Chideock during the assessment period);
- There are 2 locations where more than 1 PIC took place on the A35 in Chideock – the traffic signal controlled pedestrian crossing facility in the centre of the village (2 PICs) and at the location of the George Inn (2 PICs);
- The only PIC involving a pedestrian was serious in severity and took place the traffic signal controlled pedestrian crossing facility in the centre of the village;
- The other serious PIC was a head-on collision between opposing vehicles that took place on the A35 at the location of the George Inn;
- The most prominent type of PIC on the A35 in Chideock is rear shunts (38% of the PICs that occurred during the 6 year period);
- The proportion of collisions that occurred in adverse weather or road surface conditions is lower than the national average for built-up roads (in 2016);
- The proportion of collisions that occurred during the hours of darkness is similar to the national average for built-up roads (in 2016);
- The most frequently recorded contributory factor was “Failed to Look Properly”;



- No PICs involving equestrians or pedal cyclists took place on the A35 in Chideock during the 6 year assessment period;
- 1 PIC involving a motorcyclist took place on the A35 in Chideock during the 6 year period.

4 STAKEHOLDER CONSULTATION

4.1 GENERAL

- 4.1.1. WSP has undertaken consultation with stakeholders such as representatives from Dorset Police, Dorset County Council and Chideock Parish Council. Consultees were invited (via email) to provide details of any issues or concerns they may have regarding the operation of the A35 in Chideock, particularly in relation to pedestrian safety, severance and vehicle speeds.

4.2 DORSET POLICE

- 4.2.1. Representatives from Dorset Police were contacted for their comments in relation to the A35 at Chideock. Although they have not provided any specific comments regarding any issues in this location, they have indicated that they received 1 speed complaint during 2017 for the A35 in the vicinity of Chideock (and they have received 3 complaints so far in 2018).

4.3 DORSET COUNTY COUNCIL

- 4.3.1. Dorset County Council have provided comments with regards to the operation of the A35 trunk road in Chideock. They identified the following issues in this location:

- The 30mph speed limit is well managed by the speed cameras.
- Poor footway provision on the south side of the A35 carriageway – consider the provision of a 'virtual footway'.
- There is a case for a pedestrian crossing or refuge island to be provided at the eastern end of the village, and careful traffic management in the centre of the village (in the vicinity of the bus stops and the signalised crossing facility).
- There is a local campaign to improve access to Seatown, which could potentially increase turning movements at the A35 / Duck Street junction.

4.4 CHIDEOCK PARISH COUNCIL

- 4.4.1. The Chideock Parish Clerk, was contacted for the Parish Council's comments in relation to this Feasibility Study. They provided some comments and concerns from the residents of Chideock, which included the following key points relating to pedestrian safety, severance and vehicle speeds on the A35 in Chideock:

- HGVs travel at inappropriate speeds through Chideock in order to have enough momentum to travel up the hills at both ends of the village (see Paragraph 2.6.3 of this report, although it should be noted that the speed survey data does not categorise vehicle types and therefore it is not possible to corroborate the Parish Council's point regarding HGV speeds);
- Additional measures are required to control the speed of vehicles in Chideock;
- Consider the implementation of weight restrictions on the A35, and the re-routing of long distance HGV traffic;
- Additional safe crossing areas are needed throughout the village;
- Children and elderly pedestrians are particularly vulnerable when having to cross the A35;

- Inadequate footway provision, and some properties have doorways that open directly onto the carriageway;
- Some sections of footway have an excessive crossfall, which can be dangerous for wheelchair users (see Option 16 in Table 13 of this report);
- No cycle lanes on the A35 in Chideock;
- Lack of bus stop lay-bys, which frequently leads to traffic congestion and delays when buses stop in the village;
- Refuse vehicles on collection days can also cause traffic congestion and delays when they stop along the A35;
- Inadequate width of the A35 to the east of the village for vehicles to pass equestrians or cyclists on the uphill section of carriageway, which can cause traffic congestion and delays;
- Traffic causes noise and vibration issues throughout the village;
- Drivers currently slow down for the existing speed cameras and then speed up when they have passed them – consider the provision of average speed cameras;
- Improved ‘village gateway’ signing at both ends of the village should be considered;
- The entrance to the public footpath / bridleway to Seatown is difficult to access for pedestrians due to the absence of a footway beside the A35 in this location (which also has limited visibility along the A35 in both directions at the end of the public footpath).

4.4.2. In addition, during the site visit on Friday 18th May 2018, the WSP Study Team were accompanied by representatives of the Parish Council. They identified the following additional concerns relating to the operation of the A35 in Chideock:

- Wheelchair users exiting the village hall can easily lose control and travel onto the carriageway due to the steep ramp and narrow footway in this location – consider the provision of pedestrian guardrailing beside the kerblines;
- Inadequate footway width in front of the terraced houses located to the east of the Duck Street junction, which also has raised steps for the doorways that are tripping hazards for pedestrians;
- Additional ‘Pedestrians In Road Ahead’ advance warning traffic signs are required along the A35 through the village;
- 40mph repeater traffic sign to the east of Chideock is located too close to the start of the 30mph speed limit;
- Lack of a footway outside the main entrance into The Clock public house so patrons have to step onto the A35 carriageway when leaving;
- Signing for the shop on the east side of the Foss Orchard access junction obstructs the visibility eastwards for vehicles waiting to turn onto the A35.

5 SUMMARY OF IDENTIFIED ISSUES

5.1 GENERAL

5.1.1. This section of the report summarises the current issues relating to the A35 at Chideock, as identified during engagement with stakeholders, the review of existing conditions, analysis of Personal Injury Collisions, and observations made during the site visits.

Intermittent footway provision

5.1.2. On the north side of the A35 carriageway, there is a footway provided for the entire length of Chideock where properties and businesses are located on the north side of the A35 trunk road through the village.

5.1.3. As identified in Section 2.2 of this report, on the south side of the A35 carriageway there is intermittent footway provision, with several sections where no footways are provided. The 30mph speed limit section of the A35 through Chideock is approximately 1.0 km long, of which footways are provided on the south side of the A35 carriageway for approximately 0.7 km. Consequently for approximately 0.3 km (300m) in total, there are no footways currently provided on the south side of the A35 in the village.



Photograph 16 – Lack of footway on the south side of the A35 carriageway

5.1.4. The possibility of providing lengths of footway on the south side of the carriageway has been considered, by potentially narrowing the carriageway width and the footway on the north side of the A35. However, due to the constraints of various residential properties on both sides of the A35 carriageway in these locations, it is unfeasible that the following cross-section geometric dimensions (in accordance with the mandatory requirements of the DMRB) can be provided if new footways are installed on the south side of the A35 carriageway (where they are not currently provided):

- 3.65m traffic lanes in both directions (7.3m total width), appropriate for an urban all-purpose single carriageway road (in accordance with the mandatory requirements of TD 27/05);
- 1500mm (1.5m) wide footways (the minimum acceptable width), or an absolute minimum width of 1000mm (1.0m) for a maximum length of 6m, as stated in the DfT document “*Inclusive Mobility*” and the mandatory requirements of HD 39/16.

- 5.1.5. The possibility of providing a 'virtual footway' on the south side of the A35 has also been considered, as suggested by Dorset County Council. However this type of facility is not recognised in the DMRB as a feature that can be used on the trunk road network, and it is considered that it could be unsafe to encourage additional pedestrians to walk on the A35 carriageway taking into account the significant traffic volumes observed during the site visits. Therefore, this option has been discounted due to 'virtual footways' not being included in the DMRB as well as the potential road safety concerns relating to additional pedestrians being encouraged to walk in the A35 carriageway.
- 5.1.6. It is noted that only one Personal Injury Collision (PIC) involving a pedestrian was recorded on the A35 in Chideock during the 6 year period of 2012-2017 (see Section 3.6 of this report). This PIC took place at the location of the traffic signal controlled pedestrian crossing facility where footways are provided on both sides of the A35 carriageway. No other PICs involving pedestrians took place on the A35 in Chideock during this period.
- 5.1.7. At present, there is one 'Pedestrians In Road Ahead' advance warning traffic sign on the A35 in Chideock (located at the western end of the footway on the south side of the carriageway at the eastern end of the village), which is supplemented with a "No Footway for 250 yds" sign plate. There are currently no other advance warning signs to warn road users of the absence of footways to the west of the River Winniford bridge and outside The Clock public house.

Narrow sections of existing footway

- 5.1.8. As stated in Section 2.2.8 of this report, there are a few locations on the south side of the A35 carriageway where there are sections of footway that are only 1.2m to 1.4m wide, which is less than the minimum acceptable width of 1.5m.
- 5.1.9. Consideration has been given to the possibility of narrowing the adjacent carriageway and/or the adjacent footway on the north side of the A35 in these locations in order to widen these narrow sections of footway on the south side of the carriageway.
- 5.1.10. However in all 3 locations (described in Section 2.2.8 of this report) it is not considered feasible to provide fully compliant cross-section geometric dimensions (i.e. a single carriageway road that is 7.3m wide and footways on both sides of the carriageway that are at least 1.5m wide) due to the existing A35 carriageway widths being measured on site as 7.3m or less in each of these locations, and the opposing footways on the north side of the A35 generally having the minimum acceptable width already.

Difficulty crossing the A35 carriageway at the western and eastern ends of the village

- 5.1.11. On-site observations and concerns raised by the Parish Council highlighted that the traffic volumes on the A35 are significant during the daytime, and that it is difficult to cross the A35 carriageway at the locations of the existing uncontrolled pedestrian crossing facilities.
- 5.1.12. The width of the A35 carriageway was measured on site to be 6.9m at the western uncontrolled crossing facility and 7.6m at the eastern uncontrolled crossing facility. Therefore there is no scope to provide pedestrian refuge islands in the centre of the carriageway in these locations (which would allow pedestrians to cross the carriageway in two movements).
- 5.1.13. The feasibility of a new traffic signal controlled pedestrian crossing facility on the A35 at the western end of the village has also been considered. This has been discounted at this stage for the following reasons:
- Due to the downhill (eastbound) gradient of the A35 in this location, it is considered that the provision of a signalised crossing facility located in the vicinity of the existing uncontrolled crossing could increase the risk of rear shunt collisions on the downhill approach to the traffic signals;

- The downhill approach to a signalised crossing facility could increase the risk of vehicles failing to stop in time at the signals, overshooting the stopline road markings, and potentially collide with a pedestrian crossing the road;
- Evidence of Personal Injury Collisions involving vehicles losing control on the A35 eastbound when travelling downhill at the western end of the village (see Section 3.5 of this report);
- Existing footway widths are inadequate to accommodate adequate pedestrian crossing 'landing areas' and traffic signal control equipment (and there is no scope to narrow the carriageway width of the A35 in order to widen the footway widths);
- Potential impact on the existing bus stops at the western end of the village (located adjacent to the existing uncontrolled crossing facility), and stationary buses at a bus stop could obstruct visibility at an adjacent traffic signal controlled crossing facility;
- Impact of street lighting upgrade (required at a signalised crossing facility) on the potentially environmentally sensitive area and on residents living adjacent to a signalised crossing facility;
- Traffic queues on the A35 eastbound approach to a signalised crossing facility could extend back past the existing escape lane on the downhill approach to the village;
- Various statutory undertakers located on the A35 in the vicinity of the location of the existing uncontrolled pedestrian crossing facility (i.e. SGN low pressure gas mains, BT openreach cables, and Wessex Water distribution mains).

5.1.14. The provision of a zebra crossing facility on the A35 in the vicinity of the location of the existing uncontrolled crossing facility at the western end of the village has also been discounted for predominantly the same reasons as a potential traffic signal controlled crossing facility.

5.1.15. In addition, it is considered that the provision of zebra crossing facilities on the A35 trunk road in Chideock are inappropriate. Local Transport Note (LTN) 1/95 states that "*where a crossing is thought necessary but crossing flows are relatively low and traffic flows are no more than moderate, then a zebra crossing may be suitable*" as well as "*where gaps are few, and waiting times long because people feel it may be hazardous to establish precedence, a zebra crossing is likely to be unsuitable*". Therefore, the provision of zebra crossing facilities on the A35 in Chideock has been discounted, because it has significant traffic volumes with relatively limited gaps in the traffic flows during the daytime (as observed during the site visits).

5.1.16. At the eastern end of the village, the possibility of a new traffic signal controlled pedestrian crossing facility has also been considered. Two possible locations for this facility have been identified (see Sections 6.3 and 6.4 of this report):

- At the western end of the footway on the south side of the A35, where the existing uncontrolled pedestrian crossing facility is located;
- At the eastern end of the footway on the north side of the A35, adjacent to the Park Farm access junction (where there is a lack of an existing pedestrian crossing facility).

High severity ratio of Personal Injury Collisions

- 5.1.17. 25% of the PICs that took place on the A35 in Chideock were serious in severity during the 6 year period of 2012-2017 (although no fatal collisions have been recorded on the A35 within the village during this period). This is higher than the national average proportion of 14% for fatal or serious collisions on built-up A-roads (in 2016).
- 5.1.18. One of the serious collisions took place at the existing traffic signal controlled pedestrian crossing facility in the centre of the village, which involved a westbound vehicle travelling through a red traffic signal and colliding with a child pedestrian who was using the crossing facility. As stated in Paragraph 2.2.13 of this report, the SSD to the primary traffic signal heads on both approaches to the signalised crossing facility are in excess of the Desirable Minimum SSD of 70m for a road with a design speed of 50 kph (30 mph).
- 5.1.19. The other serious PIC occurred on the A35 at the location of the George Inn, which was a head-on collision involving an eastbound vehicle crossing over onto the opposing traffic lane and colliding with a westbound vehicle. It should be noted that “fatigue” was the contributory factor recorded for this serious collision.
- 5.1.20. Therefore it is considered that both of these serious collisions appear to have involved driver negligence (i.e. driving while fatigued or disobeying a traffic signal) rather than being caused by the highway layout of the A35.

Excessive vehicle speeds

- 5.1.21. As shown on Tables 1 and 2 of this report, the 85th percentile vehicle speeds on the A35 in Chideock are shown to slightly exceed the posted 30mph speed limit in both directions (32.4mph westbound and 30.4mph eastbound at the western end of the village, and more notably exceed the posted speed limit at the eastern end of the village with 85th percentile speeds of 33.4mph westbound and 40.6mph eastbound). However, the average vehicle speeds on the A35 at the western and eastern ends of Chideock are lower than 30mph, apart from in the eastbound direction at the eastern end of the village (which could be attributed to vehicles accelerating as they approach the start of the 40mph speed limit to the east of Chideock when they are leaving the village).
- 5.1.22. As stated in Section 3.2 of this report, the severity ratio of Personal Injury Collisions on the A35 in Chideock is higher than the national average for this type of road. The higher severity of collisions could potentially be associated with the higher vehicle speeds in the village.
- 5.1.23. It was observed during the site visit in May 2018 that the terminal 30mph speed limit traffic signage was appropriate and clearly visible to road users approaching Chideock at both ends of the village.
- 5.1.24. Option 1 described in Section 6.2 of this report has been identified to address the excessive vehicle speeds in Chideock.

Inadequate layout where the public footpath / bridleway adjoins the A35

- 5.1.25. A public footpath / bridleway adjoins the A35 (on the south side of the carriageway) adjacent to the Rose Cottage B&B, in the centre of the village approximately 70m to the east of the Post Office.
- 5.1.26. As shown on Photograph 13 (in Section 2.2 of this report), pedestrians or equestrians egress directly onto the carriageway at the end of this footpath / bridleway. In addition, the visibility of westbound vehicles approaching on the A35 is notably restricted by adjacent vegetation, as shown on Photograph 17.



Photograph 17 – Restricted visibility of approaching westbound vehicles

5.1.27. Therefore the restricted visibility, and the lack of a footway on the south side of the A35 in this location, could increase the potential for a pedestrian being struck by a passing vehicle as they wait to cross the A35 carriageway in this location. In addition, there could be increased potential for an equestrian being struck by a passing vehicle as they wait to enter the A35 carriageway in this location, although it was observed during the site visit that this footpath did not appear suitable for equestrians to use (in terms of its width).

5.1.28. Options to improve the layout in this location have not been progressed due to the following reasons:

- No Personal Injury Collisions involving pedestrians or equestrians have been recorded on the A35 in this location during the 6-year period of 2012-2017. Therefore, there does not appear to be an existing road safety problem in this location.
- The provision of a new kerbed build-out could improve the visibility along the A35 at the end of the public footpath. However, this will involve the narrowing of the A35 carriageway (which is currently 7.9m wide in this location) and the narrowing of the opposite footway on the north side of the carriageway (which is currently 1.9m wide). Therefore, this could introduce road safety risks related to the provision of a section of narrower footway beside the A35 (i.e. passing large vehicles creating 'backdraft' issues for pedestrians, or increased potential for a passing vehicle striking a pedestrian walking close to the carriageway).
- Alternatively, if the adjacent carriageway is narrowed without changing the layout of the existing footway on the opposite side of the road, this would result in a substandard carriageway width (which could increase the risk of head-on collisions);
- The provision of a new kerbed build-out may also require the relocation of adjacent drainage gullies and alterations to the road markings.
- The provision of adequate visibility in both directions along the A35 from an 'x' distance of 1.5m (the acceptable minimum 'set-back' distance stated in the DMRB Advice Note TA 90/05) is unlikely to be provided without the requisition of private land from the adjacent properties.

Inadequate provision of dropped kerbs where footways cross junctions

- 5.1.29. As shown on Photograph 2, 3 and 8 in Section 2.2 of this report, no dropped kerbs have been provided at the following locations:
- Footway on the west side of the junction with North Road;
 - Both sides of the junction with Duck Street;
 - At the eastern end of the footway on the north side of the A35, adjacent to the 'public right of way' on the Park Farm access road.
- 5.1.30. The absence of appropriate dropped kerb facilities in these locations could lead to mobility impaired pedestrians having difficulties crossing the North Road and Duck Street junctions, or having difficulties transferring between the eastern end of the footway and the adjacent 'public right of way' on the Park Farm access road.
- 5.1.31. The lack of tactile paving on both sides of the North Road and Duck Street junctions could increase the difficulty for visually impaired pedestrians to cross these side roads. In addition, as stated in Paragraph 2.2.5 of this report, the southern footway crosses the Foss Orchard junction (which was observed to be used frequently by vehicles), and it is considered that the provision of tactile paving on the footway on both sides of this junction could increase the conspicuity of this junction to visually impaired pedestrians.
- 5.1.32. It should be noted that no Personal Injury Collisions involving pedestrians have been recorded on the A35 during the 6-year period of 2012-2017 at the North Road, Duck Street, Park Farm access or Foss Orchard junctions.
- 5.1.33. Option 5 described in Section 6.6 of this report has been taken forward to address this issue.

6 POTENTIAL OPTIONS FOR REMEDIAL MEASURES

6.1 GENERAL

- 6.1.1. This section of the report outlines potential remedial measures considered by the WSP study team for the A35 in Chideock. The following options have been devised following consideration of the issues described in Section 5 of this report. Indicative layout drawings for the following potential options are shown in Appendix B of this report.
- 6.1.2. Indicative cost ranges for the design and construction have been suggested for remedial measures. These costs are indicative and should only be used for guide purposes only. The costs have been used as a comparison tool between options, and they may not be representative of the actual costs for the recommended works on the A35 at Chideock. Cost estimates are set out in a range and do not take temporary traffic management into account, or the costs to relocate statutory undertakers equipment.

6.2 OPTION 1 – PROVISION OF AVERAGE SPEED CAMERAS

- 6.2.1. Option 1 involves the provision of average speed cameras on the A35 in both directions through Chideock. These cameras could reduce the possibility of vehicles travelling through the village and exceeding the 30mph speed limit. A system of average speed cameras could be preferable to the provision of standard fixed speed cameras, as some motorists tend to speed up after they have passed a fixed speed camera, whereas the use of average speed cameras should increase the potential for motorists travelling through the village at a consistent speed.
- 6.2.2. The following table summarises the various advantages and disadvantages associated with this option.

Advantages	Disadvantages
1. Could increase the potential for motorists adhering to the 30mph speed limit when travelling through Chideock.	1. Does not provide direct improvements to pedestrian facilities on the A35 in Chideock.
2. Reduced vehicle speeds could assist pedestrians crossing the A35 at the existing uncontrolled pedestrian crossings.	2. Relatively expensive.
3. Reduced vehicle speeds could assist equestrians in accessing the A35 from the public bridleway adjacent to the Rose Cottage B&B.	3. Visual impact / May not be environmentally acceptable.
4. Could reduce the possibility of vehicles at both ends of the village starting to speed up as they approach the uphill sections of the A35 and the start of the 40mph speed limits to the west and east of Chideock.	4. Difficulties on locating the cameras / Potentially some objections from residents.
5. Could reduce the future collision severity ratio.	5. Running costs.

Table 8 – Option 1 Advantages and Disadvantages

- 6.2.3. Justification of this option would need to meet the requirements of CHE Memo 411/17 “Use of Speed Cameras on the SRN”. This process includes a requirement that other engineering measures have also been considered before proposing average speed cameras. It is understood that the use of average speed cameras is currently being considered on adjacent sections of the A35 and therefore any consideration of the use of cameras in Chideock would need to be consistent with the proposals elsewhere on the A35.
- 6.2.4. An indicative cost of this option would be between £150k and £250k.

6.2.5. A very approximate assessment has been carried out to ascertain the First Year Rate of Return (FYRR) relating to collision savings from the installation of average speed cameras on the A35 in Chideock. It has been assumed that the average speed cameras will cost £250,000 to install (based on the estimated need for 4 camera sites) and that this option could generate collision savings of 50% for speed-related PICs (i.e. rear shunts, head-on collisions, loss of control collisions etc.). The assessment has used the values stated in RRCGB for the average cost of prevention of £90,424 per reported PIC (in 2017). Taking account of the recent collision record on the A35 in Chideock (as shown in Appendix A), it has been calculated that the FYRR could be 18% based upon the predicted collision savings.

6.3 OPTION 2 – NEW TRAFFIC SIGNAL CONTROLLED PEDESTRIAN CROSSING FACILITY AT THE EASTERN END OF THE VILLAGE (LOCATION 1)

6.3.1. Option 2 involves the provision of a new traffic signal controlled pedestrian crossing facility on the A35 towards the eastern end of the village, located at the eastern end of the footway on the north side of the A35 carriageway, adjacent to the Park Farm access junction.

6.3.2. This is proposed following observations made during the site visits, and comments raised by the Parish Council, which indicated that it is currently difficult for pedestrians to cross the carriageway at this end of the village due to the significant traffic volumes (despite the presence of an existing uncontrolled pedestrian crossing facility on the A35 in this area of Chideock).

6.3.3. The location of the proposed signalised crossing facility for Option 2 has been chosen as there is currently an absence of a formal pedestrian crossing facility on the A35 where the footway ends on the north side of the carriageway, so at present pedestrians have to cross the A35 where full-height kerbs are provided on both sides of the road (which potentially makes it difficult for mobility impaired pedestrians to cross the A35 when they reach the end of the northern footway).

6.3.4. An indicative cost of this option would be between £100k and £150k.

6.3.5. The following table summarises the various advantages and disadvantages associated with this option.

Advantages	Disadvantages
1. Provides traffic control on the A35 at the eastern end of the village, allowing pedestrians to easily cross the carriageway.	1. Crossing facility is likely to only be used by the residents of approximately 20-30 dwellings (and no other significant trip ends) at the eastern end of the village.
2. May provide some vehicle speed reduction benefits with road users slowing down or stopping at the red traffic signals.	2. Does not provide any other improvements to pedestrian facilities in other areas of Chideock.
3. Visibility to/from the locations of the proposed pedestrian crossing points will be adequate along the A35 in both directions.	3. Highway land is restricted so some land take from residential properties may be required.
4. No existing residential properties located directly adjacent to the proposed location of this signalised crossing facility, which could be affected by it.	
5. Provides a new crossing facility for pedestrians to use at the end of the existing footway on the north side of the A35.	
6. Provides easier crossing of the carriageway for mobility impaired pedestrians.	

Table 9 – Option 2 Advantages and Disadvantages

6.4 OPTION 3 – NEW TRAFFIC SIGNAL CONTROLLED PEDESTRIAN CROSSING FACILITY AT THE EASTERN END OF THE VILLAGE (LOCATION 2)

- 6.4.1. Option 3 is similar to Option 2, but with the proposed signalised crossing facility being provided at a different location – where the existing uncontrolled pedestrian crossing facility is situated, approximately 40m to the east of the George Inn and approximately 120m to the west of the Park Farm access junction.
- 6.4.2. This option will upgrade the existing uncontrolled crossing facility with a traffic signal controlled crossing facility, at a location where pedestrians are currently used to crossing the A35.
- 6.4.3. The following table summarises the various advantages and disadvantages associated with this option.

Advantages	Disadvantages
1. Provides traffic control on the A35 at the eastern end of the village, allowing pedestrians to easily cross the carriageway.	1. Crossing facility is likely to be only used by the residents of approximately 20-30 dwellings (and no other significant trip ends) at the eastern end of the village.
2. May provide some vehicle speed reduction benefits with road users slowing down or stopping at the red traffic signals.	2. Does not provide any other improvements to pedestrian facilities in other areas of Chideock.
3. Visibility from the locations of the proposed pedestrian crossing points is adequate along the A35 in both directions.	3. Visibility westwards from the southern crossing point could be partially restricted by the adjacent traffic sign and telegraph pole (as existing). This may require a Departure from Standard or for the crossing to be relocated further east.
4. Removes any risks associated with the layout of the existing uncontrolled pedestrian crossing facility in this location.	4. Proposed signalised crossing facility will be installed directly in front of an existing residential property.
	5. Signalised crossing facility will be located on the exit side of the adjacent bus stops, which is not recommended in LTN 2/95.
	6. At least one existing bus stop may need to be relocated.
	7. Highway land is restricted so some land take from properties may be required.

Table 10 – Option 3 Advantages and Disadvantages

- 6.4.4. An indicative cost of this option would be between £100k and £150k.

6.5 OPTION 4 – TRAFFIC SIGNS AND ROAD MARKINGS IMPROVEMENTS

- 6.5.1. Option 4 involves the provision of the following minor improvements to traffic signs and road markings on the A35 in Chideock:
- An additional ‘Pedestrians In Road Ahead’ advance warning traffic sign to TSRGD diagram number 544.1 (with an appropriate “No Footway For xx yds” supplementary plate) for westbound traffic in the centre of the village (prior to the section of the A35 with no footway provision on the south side of the carriageway, west of Foss Orchard);
 - Replacement of the existing terminal speed limit traffic signs with new speed limit ‘gateway’ features at the western and eastern entries into the village, with ‘30’ terminal speed limit signs (to TSRGD diagram number 670) supplemented with “Welcome to Chideock, Please Drive Carefully” sign plates (to TSRGD diagram number 2402.1) on yellow backing boards;

- Provision of ‘dragon’s teeth’ road markings on the immediate westbound and eastbound approaches to the terminal 30mph speed limit traffic signs.

6.5.2. An indicative cost of this option would be between £50k and £100k. The following table summarises the various advantages and disadvantages associated with this option.

Advantages	Disadvantages
1. Improves the conspicuity of the start of the 30mph speed limit in both directions.	1. Does not provide improvements to pedestrian facilities on the A35 in Chideock.
2. Improves road users’ awareness of the possibility that pedestrians could be walking on the A35 carriageway to the west of the Foss Orchard junction.	2. This option does not provide any measures to reduce vehicle speeds on the A35 in Chideock.
3. Could provide road users with greater awareness that they are entering a village.	3. Minimal impact on safety and severance.

Table 11 – Option 4 Advantages and Disadvantages

6.6 OPTION 5 – IMPROVED PEDESTRIAN CROSSING FACILITIES AT THE SIDE ROAD JUNCTIONS ALONG THE A35

6.6.1. Option 5 involves the provision of dropped kerb facilities and tactile paving at the following locations along the A35 in Chideock:

- Dropped kerbs on the footway on the west side of the junction with North Road, with tactile paving supplementing the dropped kerbs on both sides of the junction;
- Provision of dropped kerbs and tactile paving on both sides of the junction with Duck Street;
- At the eastern end of the footway on the north side of the A35, adjacent to the ‘public right of way’ on the Park Farm access road – provision of dropped kerbs.

6.6.2. In addition, appropriate tactile paving could be provided on the footway on both sides of the Foss Orchard junction to warn visually impaired pedestrians that they are crossing a relatively busy junction.

6.6.3. An indicative cost of this option would be between £20k and £50k.

6.6.4. The following table summarises the various advantages and disadvantages associated with this option.

Advantages	Disadvantages
1. Will assist mobility impaired pedestrians to cross the side roads.	1. Does not provide improvements to other pedestrian facilities along the A35 in Chideock.
2. Reduces the possibility of pedestrians tripping over full height kerbs when crossing the side roads.	2. This option does not provide any measures to reduce vehicle speeds on the A35 in Chideock.
3. Allows mobility impaired pedestrians to transfer between the footway and the adjacent public right of way at the eastern end of the footway on the north side of the A35 carriageway.	3. Minimal impact on safety and severance.
4. Provides a warning to visually impaired pedestrians that they are crossing a junction.	

Table 12 – Option 4 Advantages and Disadvantages

6.7 OTHER OPTIONS CONSIDERED AND DISCOUNTED AT AN EARLY STAGE

6.7.1. The following table summarises the options that were also considered by the project team and discounted at an early stage during the Feasibility Study:

Option	Description	Primary Reason For Discounting
6	Do nothing	It is considered that highway improvements are required on the A35 at Chideock due to the excessive vehicle speeds at the eastern end of the village and the various pedestrian safety/ severance issues identified in Section 5 of this report.
7	Improved provision of footways on the south side of the A35	The existing widths of the A35 carriageway and the northern footway are not sufficient to allow them to be narrowed in order to provide sections of footway on the south side of the carriageway. Land acquisition from numerous properties would be required to provide compliant footway widths (1.5m minimum acceptable width) and a compliant carriageway width (7.3m in total).
8	Widening of existing narrow sections of footway	Insufficient width is currently available where the narrow sections of footway (i.e. less than 1.5m wide) are situated. Land acquisition from several properties would be required to provide compliant footway widths (1.5m minimum acceptable width) and a compliant carriageway width (7.3m in total).
9	Zebra or traffic signal controlled pedestrian crossing facility at the western end of the village	Reasons for discounting this option are listed in Paragraphs 5.1.13 to 5.1.15 of this report.
10	Improvements to the location where the public footpath / bridleway adjoins the A35	To improve the visibility along the A35 from the end of the public footpath would require narrowing the A35 carriageway and/or the opposite footway to a substandard width, which could increase the risks to motorists and pedestrians. This option would also require third-party land acquisition from adjacent properties as well as relocating existing drainage gullies and alterations to the existing road markings.
11	Provision of bus stop lay-bys	In the vicinity of all of the existing bus stops within Chideock, there is no space adjacent to the A35 carriageway to allow for the provision of appropriate lay-bys. A lay-by could be provided for the eastbound bus stop at the eastern end of the village, but this would require third-party land acquisition.
12	Provision of a 'virtual footway' on the south side of the A35 where no footways are provided.	See Paragraph 5.1.5 of this report
13	Provision of traffic calming islands in the centre of the carriageway.	This option has been discounted due to the insufficient carriageway width of the A35 through Chideock.
14	Provision of kerbed 'build outs' with priority systems in order to provide traffic calming.	This option has been discounted as these features could increase the potential for traffic congestion in Chideock.

Option	Description	Primary Reason For Discounting
15	Provision of weight restrictions on the A35 through Chideock.	The provision of restrictions for large goods vehicles on the A35 would not be in line with the function of the Strategic Trunk Road Network.
16	Footway improvements to address the existing excessive crossfall issues on some sections of the northern footway, as noted by the Parish Council.	Some sections of the northern footway located to the east of the Post Office may have an excessive crossfall where the footway crosses some private driveways. An option to mitigate these sections of footway (providing more appropriate crossfall for mobility impaired users) has been discounted as this would involve realigning several private driveways (or impact on adjoining buildings), requiring third-party land to lower the footway level at the back of the footway.

Table 13 – Discounted Options

7 CONCLUSIONS AND RECOMMENDATIONS

7.1 CONCLUSIONS

7.1.1. This section of the Feasibility Study report includes WSP's recommendations with regards to the most suitable improvement option(s) to be taken forward for Highways England's consideration from those described in Chapter 6 of this report. These recommendations have been based upon the benefits and disbenefits of each option, the estimated costs of each option, the ease of deliverability, road safety benefits and the likely impact of each of the individual options upon the operation of the A35 trunk road in this location.

7.1.2. Departure from Standard approval may be required for some elements of the options considered.

OPTION 1 – PROVISION OF AVERAGE SPEED CAMERAS

7.1.3. This option will involve the provision of average speed cameras on the A35 in both directions through Chideock, which could increase road users' compliance with the 30mph speed limit in the village.

7.1.4. Option 1 is one of the more preferable options as it could moderate vehicle speeds throughout the whole extents of the 30mph speed limit at Chideock, which could assist pedestrians with crossing the A35 carriageway through the village area. An indicative FYRR of 18% has been calculated for this option, based upon the predicted collision savings.

7.1.5. However, this option would need to be provided in parallel with some of the other options, as it will not provide any direct improvements to pedestrian facilities on the A35 in Chideock.

OPTION 2 – NEW TRAFFIC SIGNAL CONTROLLED PEDESTRIAN CROSSING FACILITY AT THE EASTERN END OF THE VILLAGE (LOCATION 1)

7.1.6. This option will involve the provision of traffic signal controlled pedestrian crossing facility on the A35 at the eastern end of the village, located adjacent to the Park Farm access junction. This will mitigate the current difficulties for pedestrians crossing the A35 carriageway at this end of the village, due to the notable traffic volumes on the A35.

7.1.7. It is noted that no Personal Injury Collisions involving pedestrians have occurred at the eastern end of the village during the 6 year period of 2012-2017, and that there are no significant trip ends for pedestrians in this area of Chideock (apart from 20-30 residential dwellings).

7.1.8. However the only formal pedestrian crossing facility available for residents to cross the A35 (who live in the dwellings located on the south side of the A35 at the eastern end of the village) is an uncontrolled pedestrian crossing facility with no refuge island provided in the centre of the carriageway, to allow pedestrians to cross the A35 carriageway in two movements.

7.1.9. This option could provide potential safety benefits to local residents in this area of the village, in terms of safely crossing the A35 carriageway, and that Option 2 (or Option 3) could be implemented in conjunction with some of the other options to mitigate the impact that the operation of the A35 trunk road has on pedestrian movements and community severance in Chideock.

OPTION 3 – NEW TRAFFIC SIGNAL CONTROLLED PEDESTRIAN CROSSING FACILITY AT THE EASTERN END OF THE VILLAGE (LOCATION 2)

- 7.1.10. This option will involve the provision of traffic signal controlled pedestrian crossing facility on the A35 at the eastern end of the village, located where the existing uncontrolled crossing facility is situated. This will mitigate the current difficulties for pedestrians crossing the A35 carriageway at this end of the village, due to the notable traffic volumes on the A35.
- 7.1.11. It is noted that no Personal Injury Collisions involving pedestrians have occurred at the eastern end of the village during the 6 year period of 2012-2017, and that there are no significant trip ends for pedestrians in this area of Chideock (apart from 20-30 residential dwellings).
- 7.1.12. However the only formal pedestrian crossing facility available for residents to cross the A35 (who live in the dwellings located on the south side of the A35 at the eastern end of the village) is an uncontrolled pedestrian crossing facility with no refuge island provided in the centre of the carriageway, to allow pedestrians to cross the A35 carriageway in two movements. Option 3 will involve replacing this uncontrolled crossing facility with a traffic signal controlled crossing facility.
- 7.1.13. It should be noted that positioning the signalised crossing facility in this location would result in the crossing being located on the exit side of the adjacent existing bus stops, which is not recommended in Section 2.10 in LTN 2/95 “*The Design of Pedestrian Crossings*”.
- 7.1.14. This option could provide potential safety benefits to local residents in this area of the village, in terms of safely crossing the A35 carriageway, and that Option 3 (or Option 2) could be implemented in conjunction with some of the other options to mitigate the impact that the operation of the A35 trunk road has on pedestrian movements and community severance in Chideock.

OPTION 4 – MINOR SIGNS AND MARKINGS IMPROVEMENTS

- 7.1.15. This option will involve various minor improvements to the existing traffic signs and road markings on the A35 within Chideock (as described in Section 6.5 of this report). These improvements could improve the conspicuity of the start of the 30mph speed limit on the A35 at both ends of the village, and provide improved advance warning to road users that pedestrians could be walking on the A35 carriageway where no footways are provided.
- 7.1.16. However, this option may not provide significant benefits in terms of reducing vehicle speeds on the A35 in Chideock, and it will not provide improvements to pedestrian crossing facilities on the A35 in Chideock. Therefore, this option should be implemented in conjunction with some of the other options rather than in isolation.

OPTION 5 – SIDE ROAD PEDESTRIAN CROSSING IMPROVEMENTS

- 7.1.17. This option will involve the provision of improved dropped kerbs / tactile paving features on both sides of the North Road, Duck Street and Foss Orchard junctions (and at the eastern end of the footway on the north side of the A35 carriageway). This could assist mobility / visually impaired pedestrians with crossing the side roads when travelling along the footways beside the A35.
- 7.1.18. This option in isolation would not be preferable when compared with some of the other proposed options, as it will not affect vehicle speeds on the A35 in Chideock and will not provide any improvements to pedestrian crossing facilities across the A35 carriageway. However this option could be taken forward in parallel with some of the other options.

7.2 RECOMMENDATIONS

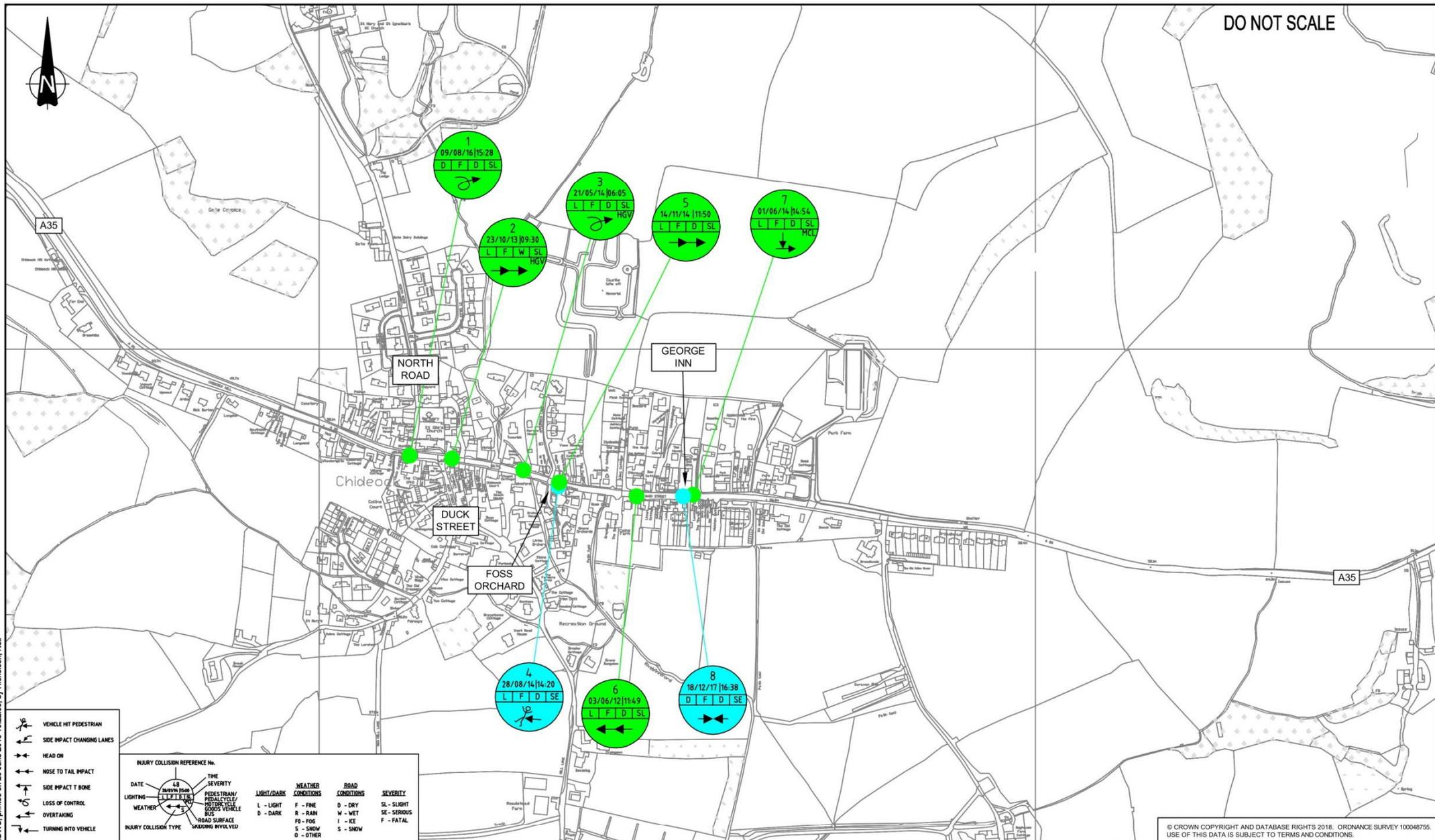
- 7.2.1. It is recommended that Options 1, 4 and 5 and Options 2 or 3 should be considered in order to be taken forward to Preliminary Design, as a combination of these options should mitigate the primary issue of excessive vehicle speeds on the A35 at Chideock (which could also reduce the severity ratio of collisions), as well as providing improved pedestrian crossing facilities on the A35 at the eastern end of the village and on the side roads.

Appendix A

COLLISION LOCATION PLANS



DO NOT SCALE



File name A35DORSETVILLAGESCOLLISIONS.DWG, printed on 26 June 2018 15:22:35, by Nicholson, Neil

- VEHICLE HIT PEDESTRIAN
- SIDE IMPACT CHANGING LANES
- HEAD ON
- NOSE TO TAIL IMPACT
- SIDE IMPACT T BONE
- LOSS OF CONTROL
- OVERTAKING
- TURNING INTO VEHICLE

INJURY COLLISION REFERENCE No.

DATE	SEVERITY	WEATHER	ROAD CONDITIONS	SEVERITY
LIGHTING	VEHICLE TYPE	ROAD SURFACE	ROAD SURFACE	SEVERITY
WEATHER	VEHICLE TYPE	ROAD SURFACE	ROAD SURFACE	SEVERITY
INJURY COLLISION TYPE	VEHICLE TYPE	ROAD SURFACE	ROAD SURFACE	SEVERITY

© CROWN COPYRIGHT AND DATABASE RIGHTS 2018. ORDNANCE SURVEY 100048755. USE OF THIS DATA IS SUBJECT TO TERMS AND CONDITIONS.

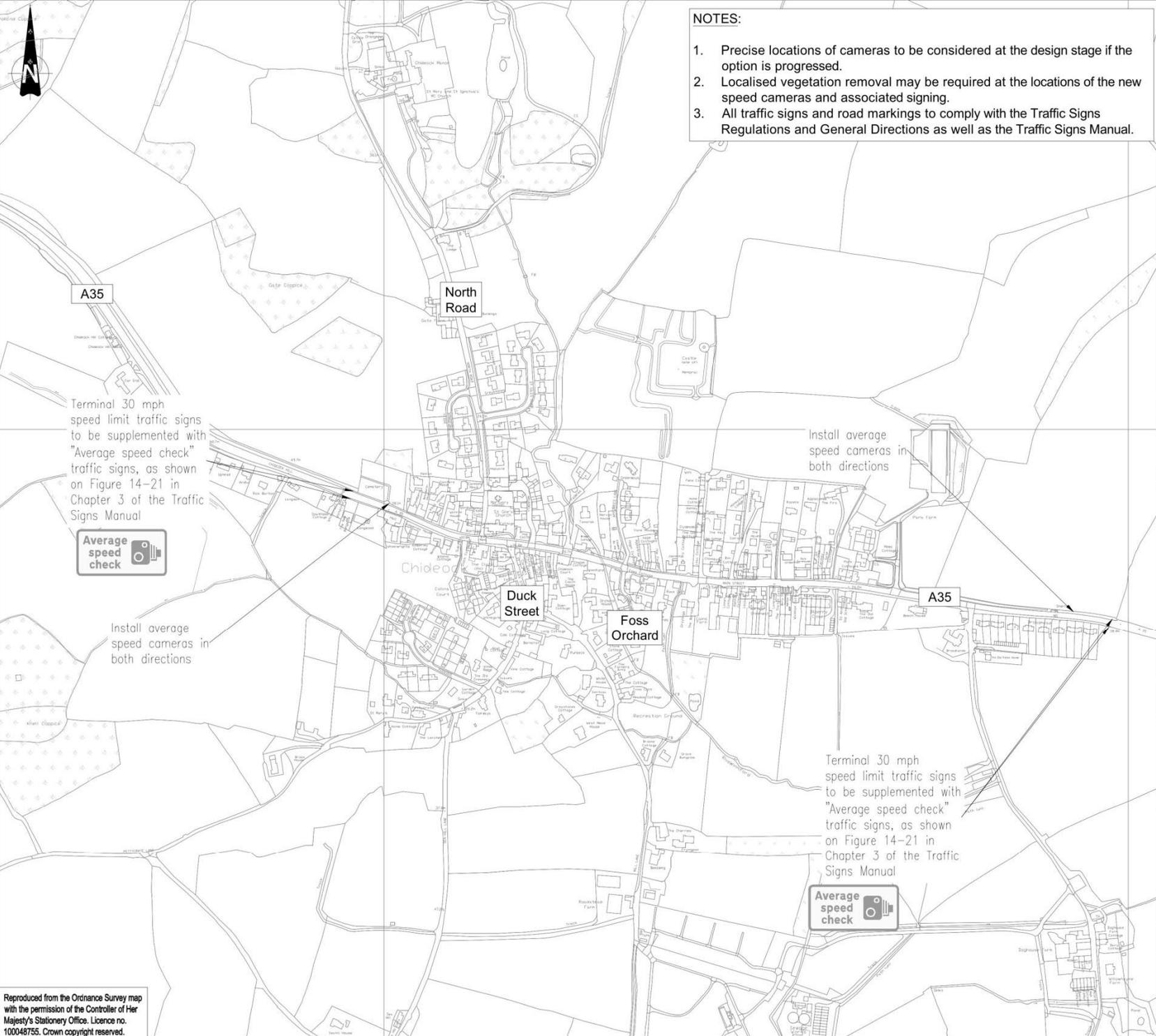
DRAWING STATUS: DRAFT	<p>1st Floor Keble House Southernhay Gardens Southernhay East Exeter EX1 1NT, UK</p> <p>T+44 (0) 1392 267 599 wsp.com</p>	CLIENT: SWHBBISjv / Connect Roads	PROJECT: A35 Chideock Community Severance and Pedestrian Safety Scheme	SCALE @ A3: 1:5000	CHECKED: NN	APPROVED: LS
		ARCHITECT: N/A	TITLE: Location Plan of Personal injury Collisions (1st January 2012 to 31st December 2017)	PROJECT No: 70035407	DESIGNED: -	DRAWN: JRP
				DRAWING No: Appendix A		REV: -
© WSP UK Ltd						

Appendix B

INDICATIVE LAYOUT DRAWINGS OF THE PROPOSED
IMPROVEMENT OPTIONS



File name: \\UK.WSPGROUP.COM\CENTRAL DATA\PROJECTS\70035407 - DBFO A35 DORSET VILLAGES\10 MANAGE\10 WORK IN PROGRESS\03 AC-ADWORKING DRAWINGS\SKETCHES\70035407-CHD-SK-001-5.DWG, printed on 09 July 2018 10:02:18, by Nicholson, Neil



DO NOT SCALE

P01	27/06/2018	JRP	FIRST ISSUE	NN	L5
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: DRAFT



1st Floor Keble House, Southernhay Gardens, Southernhay East, Exeter, EX1 1NT, UK
T+ 44 (0) 1392 267 599
wsp.com

CLIENT: SWHBBISjv / Connect Roads

ARCHITECT: -

PROJECT: A35 Chideock
Community Severance and
Pedestrian Safety
Scheme

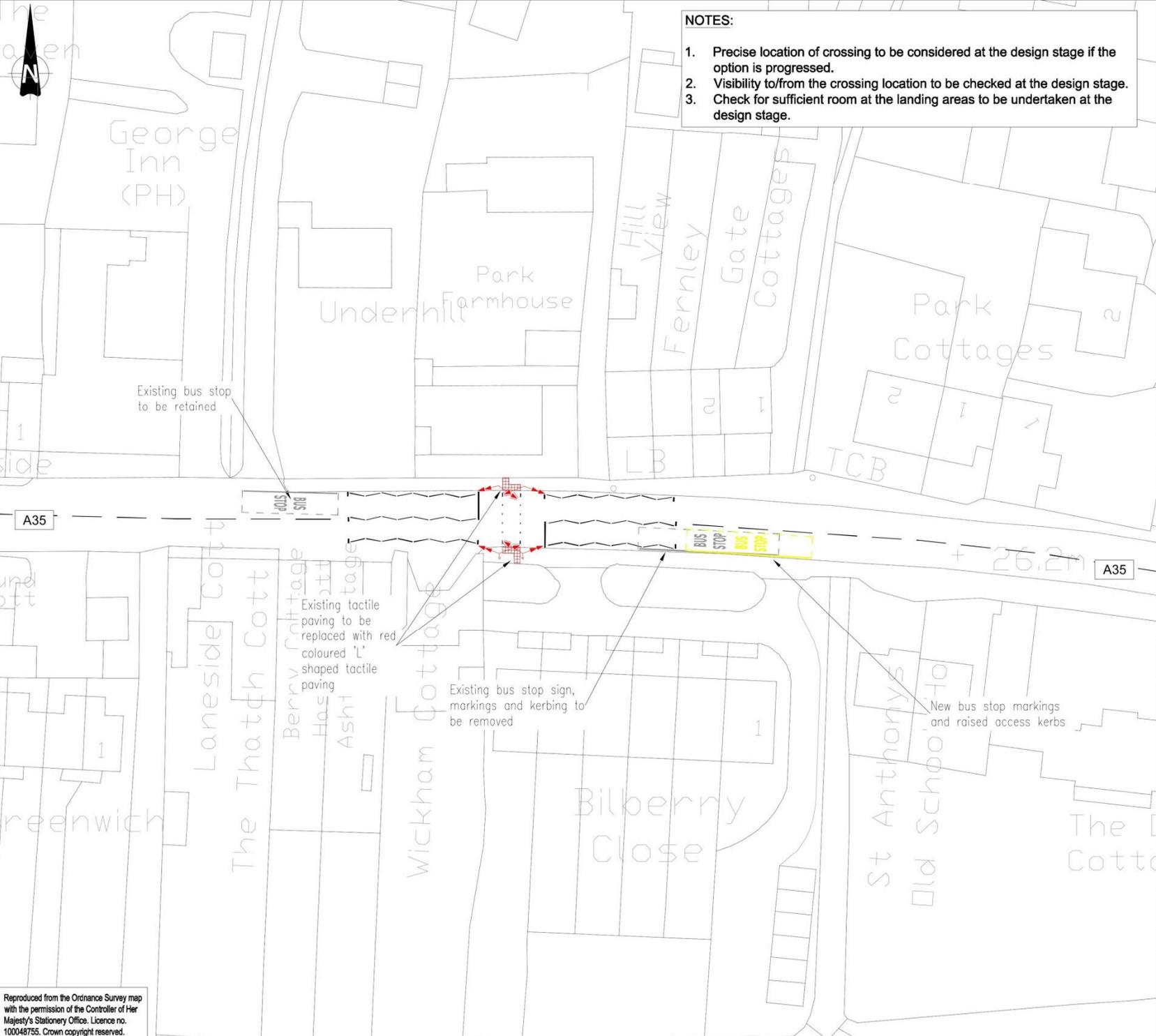
TITLE: Option 1
Provision of Average
Speed Cameras

SCALE @ A3: 1:5000	CHECKED: NN	APPROVED: LS
PROJECT No: 70035407	DESIGNED: JRP	DRAWN: JRP
DRAWING No: 70035407-SK-CHD-001	DATE: July 18	REV: P01

© WSP UK Ltd

Reproduced from the Ordnance Survey map with the permission of the Controller of Her Majesty's Stationery Office. Licence no. 100048755. Crown copyright reserved.

File name: \\UK\WSPGROUP\COMMON\CENTRAL DATA\PROJECTS\70035407\035407 - DBFO A35 DORSET VILLAGES\01 MANAGE\010 WORK IN PROGRESS\03 AC-ADWORKING DRAWINGS\SKETCHES\70035407-CHD-SK-001-5.DWG, printed on 09 July 2018 10:12:12, by Nicholson, Neil



- NOTES:**
1. Precise location of crossing to be considered at the design stage if the option is progressed.
 2. Visibility to/from the crossing location to be checked at the design stage.
 3. Check for sufficient room at the landing areas to be undertaken at the design stage.

DO NOT SCALE

P01	29/06/2018	JRP	FIRST ISSUE	NN	L5
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: DRAFT



1st Floor Keble House, Southernhay Gardens, Southernhay East, Exeter, EX1 1NT, UK
T+ 44 (0) 1392 267 599
wsp.com

CLIENT: SWHBBISjv / Connect Roads

ARCHITECT: -

PROJECT: A35 Chideock Community Severance and Pedestrian Safety Scheme
TITLE: Option 3 New Traffic Signal Controlled Pedestrian Crossing Facility (Location 2)

SCALE @ A3: 1:500	CHECKED: NN	APPROVED: LS
PROJECT No: 70035407	DESIGNED: JRP	DRAWN: JRP
DRAWING No: 70035407-SK-CHD-003	DATE: July 18	REV: P01

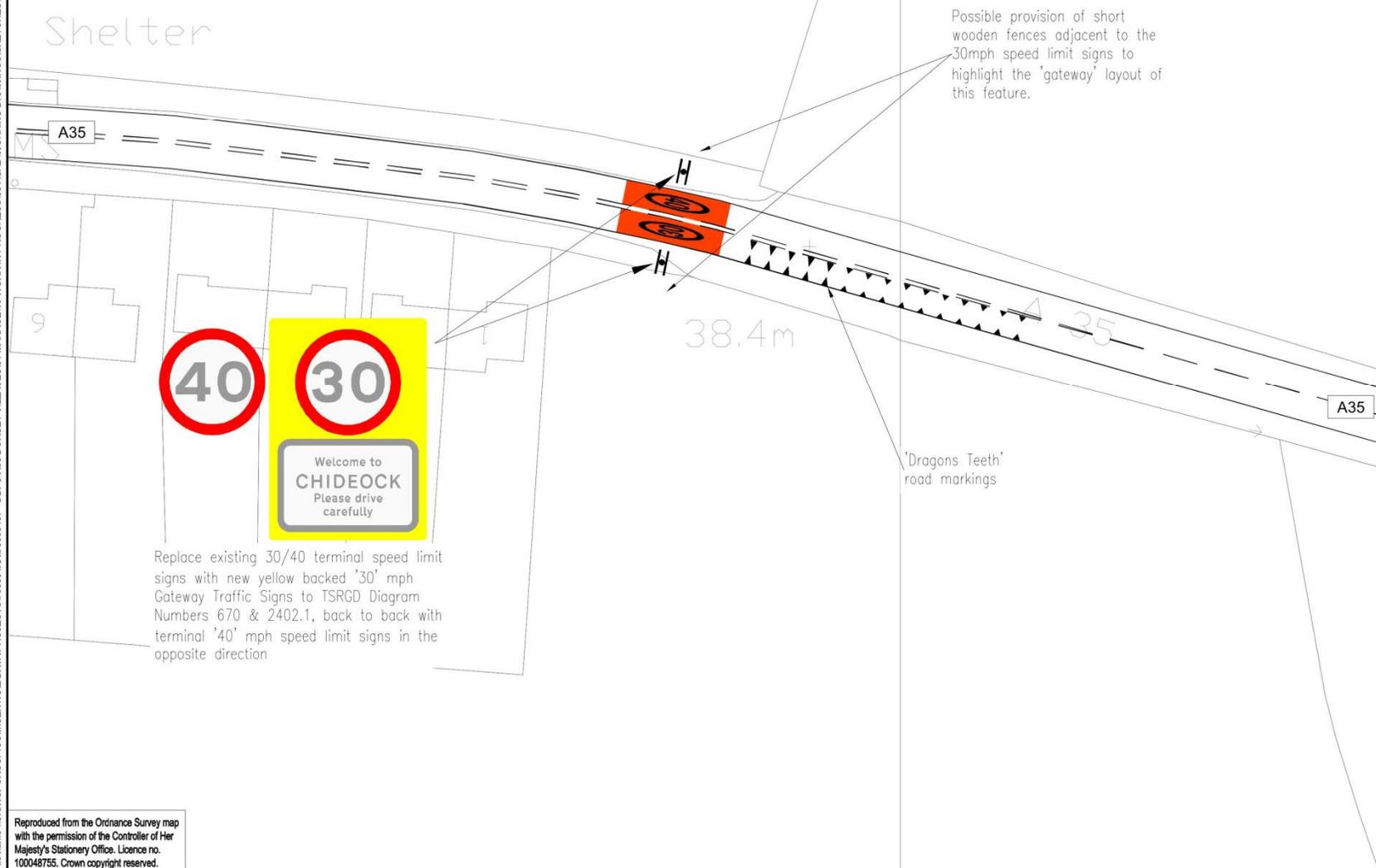
© WSP UK Ltd

Reproduced from the Ordnance Survey map with the permission of the Controller of Her Majesty's Stationery Office. Licence no. 100048755. Crown copyright reserved.

File name: \\UK\WSPGROUP\COMMON\CENTRAL DATA\PROJECTS\70035407\035407 - DBFO A35 DORSET VILLAGES\10 WORK IN PROGRESS\03 ACADWORKING DRAWINGS\SKETCHES\70035407-CHD-SK-001-5.DWG, printed on 09 July 2018 10:25:37, by Nicholson, Neil



- NOTES:**
1. Localised vegetation clearance may be required at the locations of the new traffic signs
 2. Clear visibility to the new terminal speed limit signs to be checked on site
 3. All new traffic signs and road markings to comply with the Traffic Signs Regulations and General Directions as well as the Traffic Signs Manual.



Replace existing 30/40 terminal speed limit signs with new yellow backed '30' mph Gateway Traffic Signs to TSRGD Diagram Numbers 670 & 2402.1, back to back with terminal '40' mph speed limit signs in the opposite direction

Possible provision of short wooden fences adjacent to the 30mph speed limit signs to highlight the 'gateway' layout of this feature.

'Dragons Teeth' road markings

DO NOT SCALE

P01	29/06/2018	JRP	FIRST ISSUE	NN	L5
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: **DRAFT**

1st Floor Keble House, Southernhay Gardens, Southernhay East, Exeter, EX1 1NT, UK
T+ 44 (0) 1392 267 599
wsp.com

CLIENT: **SWHBBISjv / Connect Roads**

ARCHITECT: -

PROJECT: **A35 Chideock
Community Severance and
Pedestrian Safety
Scheme**

TITLE: **Option 4
Traffic Signs and
Road Markings Improvements
(Sheet 1 of 3)**

SCALE @ A3:	CHECKED:	APPROVED:
1:500	NN	LS

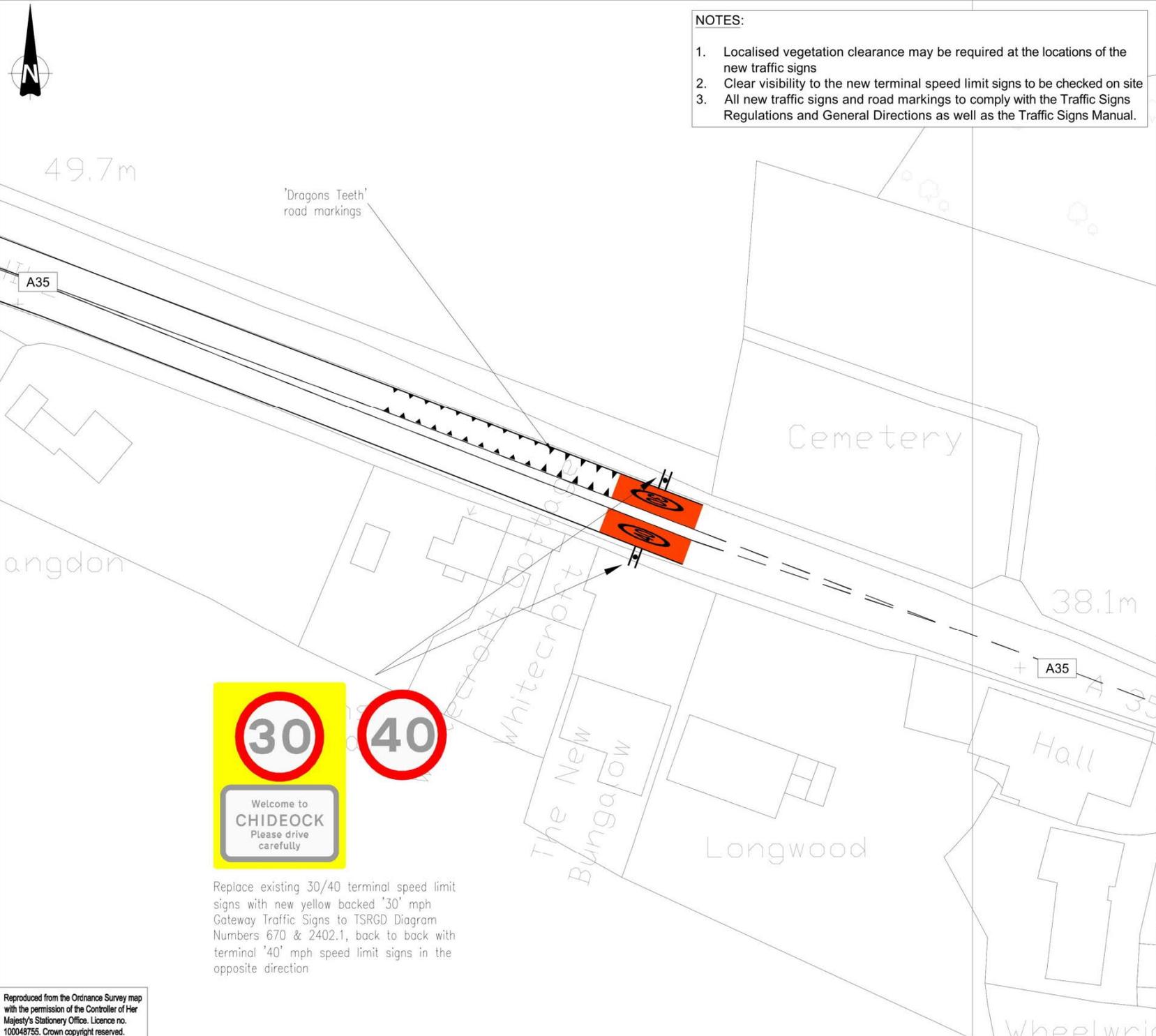
PROJECT No:	DESIGNED:	DRAWN:	DATE:
70035407	JRP	JRP	July 18

DRAWING No:	REV:
70035407-SK-CHD-004a	P01

© WSP UK Ltd

Reproduced from the Ordnance Survey map with the permission of the Controller of Her Majesty's Stationery Office. Licence no. 100048755. Crown copyright reserved.

File name: \\UK\WSPGROUP\COMMON\PROJECTS\70035407\70035407 - DBFO A35 DORSET VILLAGES\10 WORK IN PROGRESS\03 AC-ADWORKING DRAWINGS\SKETCHES\70035407-CHD-SK-001-5.DWG, printed on 09 July 2018 10:45:48, by Nicholson, Neil



- NOTES:**
1. Localised vegetation clearance may be required at the locations of the new traffic signs
 2. Clear visibility to the new terminal speed limit signs to be checked on site
 3. All new traffic signs and road markings to comply with the Traffic Signs Regulations and General Directions as well as the Traffic Signs Manual.



Replace existing 30/40 terminal speed limit signs with new yellow backed '30' mph Gateway Traffic Signs to TSRGD Diagram Numbers 670 & 2402.1, back to back with terminal '40' mph speed limit signs in the opposite direction

Reproduced from the Ordnance Survey map with the permission of the Controller of Her Majesty's Stationery Office. Licence no. 100048755. Crown copyright reserved.

DO NOT SCALE

P01	29/06/2018	JRP	FIRST ISSUE	NN	L5
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: **DRAFT**



1st Floor Keble House, Southernhay Gardens, Southernhay East, Exeter, EX1 1NT, UK
T+ 44 (0) 1392 267 599
wsp.com

CLIENT: **SWHBBISjv / Connect Roads**

ARCHITECT: -

PROJECT: **A35 Chideock Community Severance and Pedestrian Safety Scheme**

TITLE: **Option 4 Traffic Signs and Road Markings Improvements (Sheet 2 of 3)**

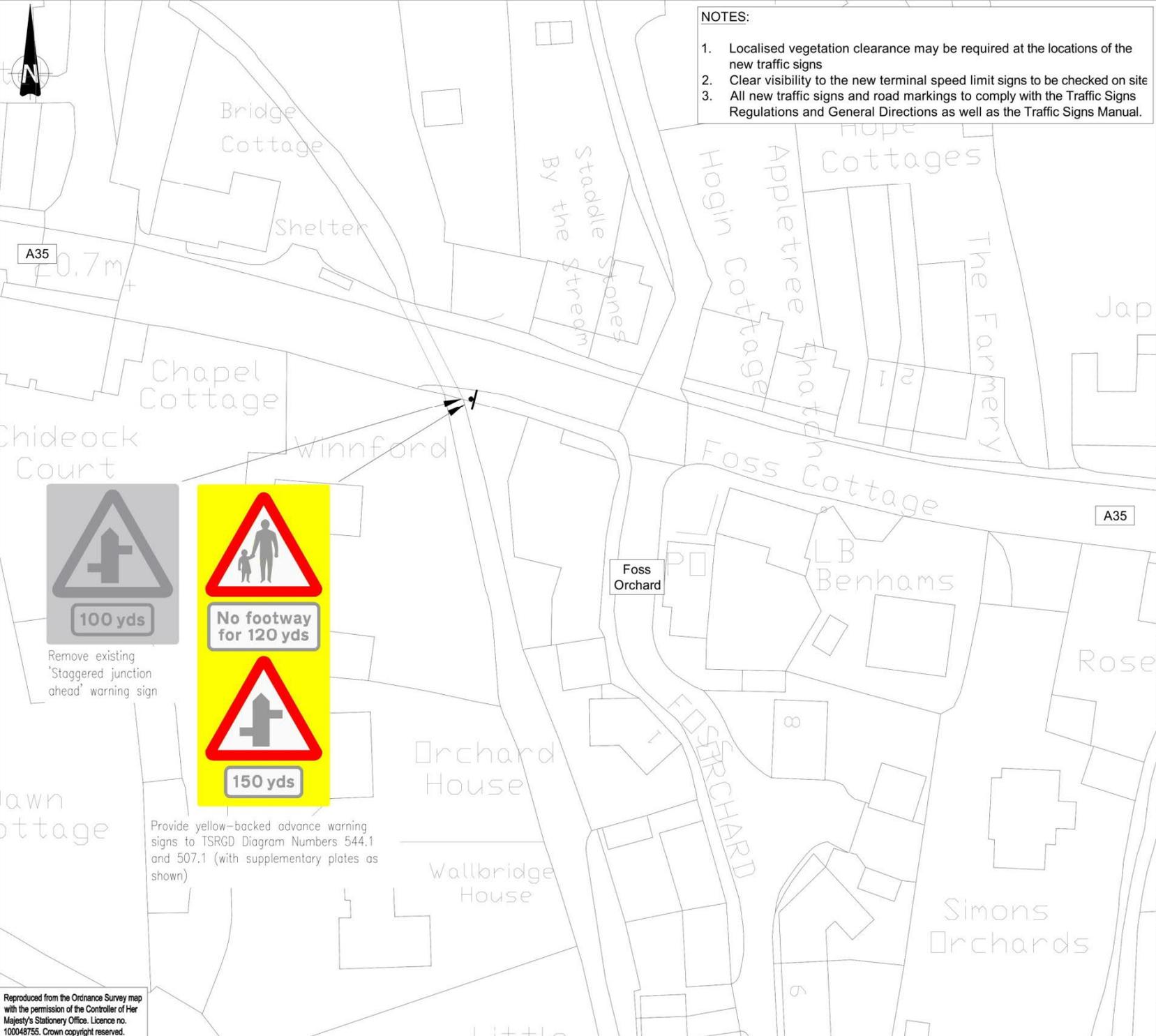
SCALE @ A3:	CHECKED:	APPROVED:
1:500	NN	LS

PROJECT No:	DESIGNED:	DRAWN:	DATE:
70035407	JRP	JRP	July 18

DRAWING No:	REV:
70035407-SK-CHD-004b	P01

© WSP UK Ltd

File name: \\UK.WSPGROUP.COM\CENTRAL DATA\PROJECTS\70035407\035407 - DBFO A35 DORSET VILLAGES\01 MANAGE\10 WORK IN PROGRESS\03 AC\DRAWING SKETCHES\70035407-CHD-SK-001-5.DWG, printed on 09 July 2018 11:06:22, by Nicholson, Neil



NOTES:

1. Localised vegetation clearance may be required at the locations of the new traffic signs
2. Clear visibility to the new terminal speed limit signs to be checked on site
3. All new traffic signs and road markings to comply with the Traffic Signs Regulations and General Directions as well as the Traffic Signs Manual.

DO NOT SCALE

P01	29/06/2018	JRP	FIRST ISSUE	NN	L5
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: **DRAFT**



1st Floor Keble House, Southernhay Gardens, Southernhay East, Exeter, EX1 1NT, UK
T+ 44 (0) 1392 267 599
wsp.com

CLIENT: **SWHBBISjv / Connect Roads**

ARCHITECT: -

PROJECT: **A35 Chideock
Community Severance and
Pedestrian Safety
Scheme**

TITLE: **Option 4
Traffic Signs and
Road Markings Improvements
(Sheet 3 of 3)**

SCALE @ A3:	1:500	CHECKED:	NN	APPROVED:	LS
-------------	-------	----------	----	-----------	----

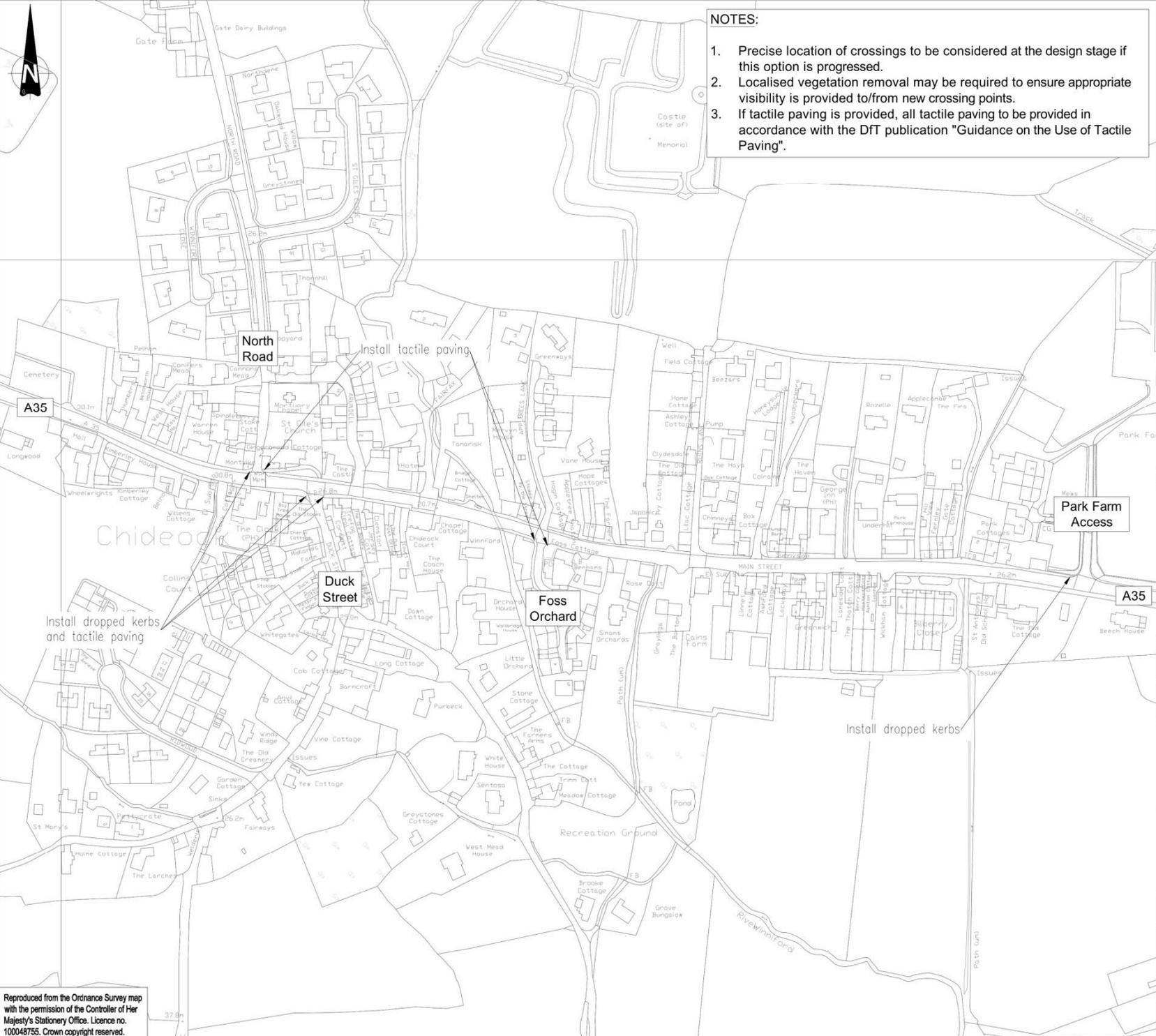
PROJECT No:	DESIGNED:	DRAWN:	DATE:
70035407	JRP	JRP	July 18

DRAWING No:	REV:
70035407-SK-CHD-004c	P01

© WSP UK Ltd

Reproduced from the Ordnance Survey map with the permission of the Controller of Her Majesty's Stationery Office. Licence no. 100048755. Crown copyright reserved.

File name: \\UK\WSPGROUP\COMMON\PROJECTS\70035407\0035407 - DBFO A35 Dorset Villages\01 MANAGE\10 WORK IN PROGRESS\03 ACADWORKING DRAWINGS\SKETCHES\70035407-CHD-SK-001-5.DWG, printed on 09 July 2018 11:10:54, by Nicholson, Neil



- NOTES:**
1. Precise location of crossings to be considered at the design stage if this option is progressed.
 2. Localised vegetation removal may be required to ensure appropriate visibility is provided to/from new crossing points.
 3. If tactile paving is provided, all tactile paving to be provided in accordance with the DfT publication "Guidance on the Use of Tactile Paving".

DO NOT SCALE

P01	29/06/2018	JRP	FIRST ISSUE	NN	L5
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: DRAFT



1st Floor Keble House, Southernhay Gardens, Southernhay East, Exeter, EX1 1NT, UK
T+ 44 (0) 1392 267 599
wsp.com

CLIENT: SWHBBISjv / Connect Roads

ARCHITECT: -

PROJECT: A35 Chideock Community Severance and Pedestrian Safety Scheme

TITLE: Option 5 Improve Pedestrian Crossing Facilities on the Side Roads

SCALE @ A3: 1:2,500	CHECKED: NN	APPROVED: LS
PROJECT No: 70035407	DESIGNED: JRP	DRAWN: JRP
DRAWING No: 70035407-SK-CHD-005	DATE: July 18	REV: P01

© WSP UK Ltd

Reproduced from the Ordnance Survey map with the permission of the Controller of Her Majesty's Stationery Office. Licence no. 100048755. Crown copyright reserved.



Keble House
Southernhay Gardens
Southernhay East
Exeter
Devon
EX1 1NT

wsp.com