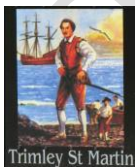


3rd PARTY REVIEW
OF
tpa Transport Planning Associates
Land adjacent to Reeve Lodge, High Road, Trimley St Martin
TRANSPORT ASSESSMENT



TRIMLEY ST MARTIN PARISH COUNCIL
37 Meadowlands
Kirton
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



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Final

1.0 EXECUTIVE SUMMARY

- 1.0.1 The purpose this report is to review the accuracy and sufficiency of Transport Planning Associates' transport assessment supporting an outline planning application (ref no. DC/20/5279/OUT) for 139 new homes (including provision of up to 46 affordable homes), land for a 2-form entry primary school with pre-school at land adjacent to Reeve Lodge, High Road, Trimley St Martin.
- 1.0.2 The Site is located to the southwest of the centre of Trimley St Martin and immediately adjacent to High Road and the 4-arm roundabout of High Road (north), Howlett Road, High Road (south), and Goslings Way. The Site is bordered by residential dwellings accessed via Goslings Way to the north, High Road to the east and agricultural land to the south and west.
- 1.0.3 Policy SCLP12.65: Land adjacent to Reeve Lodge, High Road, Trimley St Martin of the Suffolk Coastal Local Plan (adopted September 2020) allocates the Site, for approximately 150 dwellings (to include affordable housing), a Primary School (2-form entry with a pre-school) and open space.
- 1.0.4 This report identifies that there are errors and deficiencies within the tpa Transport Assessment but, due to the existing capacity in the local highway network, it is unlikely that (once corrected) the proposed development will have a significant, or even notable impact on the highway (with simple improvements).
- 1.0.5 The report also identifies that there are issues with the proposed design of the 5th Arm to the Howlett Way / High Road Roundabout which gives access to the site which will need to be addressed as well as further issues of incompatibility with agreed improvements to the roundabout resulting from the consented development DC/20/1860/OUT Outline Application (With some matters reserved) for Phased construction of up to 340 dwellings with open space, a new Early Years Facility, new roundabout access from Howlett Way, a foul water pumping station and associated landscaping at Land Off Howlett Way, Trimley St Martin, Suffolk.

2.0 TRANSPORT ASSESSMENTS

2.1 Industry Standards

2.1.1 A Transport Assessment is a comprehensive and systematic process that sets out various transport issues relating to a proposed development. It identifies what measures will be taken to deal with the anticipated transport impacts of the proposed development scheme in relation to all forms of travel. National guidance recommends an iterative approach to the assessment where as a first step the improvement of accessibility and encouragement to use sustainable travel should take precedence over measures to increase traffic capacity and increased use of vehicles. Notwithstanding, the above safety and congestion are key issues which must be identified and addressed in the report.

2.1.2 With smaller development or development that is unlikely to generate any demand on the road network, the transport issues arising out of development proposals may not require a full Transport Assessment. In these instances, a simplified report in the form of a Transport Statement may be more appropriate. In this particular case the housing level and Primary School (2-form entry with a pre-school) would require a more detailed assessment and accordingly consultants tpa have undertaken a reasonably detailed Assessment of the development proposals which cover the following areas:

- Chapter 2: *Planning Policy*;
- Chapter 3: *Existing Highway Context*;
- Chapter 4: *The Scheme*;
- Chapter 5: *Trip Generation and Attraction*;
- Chapter 6: *Vehicle Trip Distribution*;
- Chapter 7: *Future Year Traffic Scenarios*;
- Chapter 8: *Capacity Assessment*; and
- Chapter 9: *Summary*.

The approach and contents of the tpa Transport Assessment would appear to be acceptable for these development proposals.

2.1.3 Following the withdrawal, in October 2014, of The Department for Transport Document (March 2007) 'Guidance on Transport Assessment' guidance on the preparation of supporting documentation in highway assessment terms can be found in the Planning Practice Guidance (PPG) suite of documents and in particular in "Travel Plans, Transport

Assessments and Statements in decision taking”. This guidance is intended to assist all stakeholders in determining whether an assessment may be required and, if so, what level and scope that assessment should include.

- 2.1.4 For major development the Transport Assessment is normally accompanied by a Travel Plan, which is a report containing a package of measures tailored to the transport needs of the development aimed at increasing travel choices and reducing reliance on the private car. Travel Plans are typically requested to accompany planning applications when the scale of a development meets with the threshold requiring a Transport Assessment. Examination of the East Suffolk Council Planning Portal for this application shows that consultants tpa have submitted a Framework Travel Plan although this commission does not review the adequacy of that document.
- 2.1.5 Transport Assessments are required to identify the impact on the entire transport system in the vicinity of the development. This means that ‘person trips’ by all modes of transport to/from the development are considered and not just vehicle trips on the local road network (this includes walking and cycling). This requires a multi-model assessment which can involve using recent census data and also the TRICS database for different modes of travel. Consultants tpa have adopted this approach within their report and more detail of that assessment is provided later in this report.
- 2.1.6 Where an extension to an existing use is proposed or housing in a residential area it may be the case that a survey of the present levels of traffic generation or those of an adjacent site with a similar use can be used. This approach has not been taken within the tpa assessment and on balance having reviewed other consented adjacent development and the supporting information we would suggest that the ‘from scratch’ approach adopted by tpa gives a more robust assessment as the impacts of adjacent development look to be slightly understated and overly optimistic in relation to sustainable travel modes.
- 2.1.7 Within a Transport Assessment, developer funded mitigation measures are required to be identified to accommodate the ‘person trips’ where detrimental development impact or existing deficiencies in infrastructure have been identified. Such measures are usually secured through “Grampian planning conditions”, or binding legal agreements such as a Section 106 Planning Agreement (Town and Country Planning Act) followed by a Section 278 Highways Agreement (Highways Act) to deliver the improvement. These agreements may include a requirement to fund and carry out the improvement work or a financial contribution towards an Authority lead initiative (typically supporting additional bus services

etc). The tpa report follows this format and identifies local highway improvements that form access to the site from the High Road/ Howlett Way roundabout shown in tpa drawing no. 1808-54 PL02 'Proposed Site Access Arrangement and Roundabout Improvements'.

- 2.1.8 Developments are now constantly being encouraged to reduce the amount of vehicle traffic they will generate through the introduction of non-car infrastructure improvements and services. The tpa Transport Assessment does not indicate that there will be any further improvements to the local non-motorised user infrastructure stating that 'the site is already highly accessible by non-car modes, with the proposals seeking to tie into the existing pedestrian and cycle infrastructure within the vicinity of the site. However, it is typical that there will be separate discussions with the Local Planning Authority and Highway Authority for sustainable transport contributions and it is understood that Suffolk County Council have already requested a contribution of £127k from this development as well as £59k towards resurfacing existing rights of way.

Final

3.0 DETAIL OF THE tpa TRANSPORT ASSESSMENT

3.1 Chapter 2: Planning Policy

- 3.1.1 The Transport Assessment covers the relevant national and local policy and guidance pertaining to development, National Planning Policy Framework (2019), National Planning Guidance (Updated 2015), Suffolk Coastal Local Plan (2020), Suffolk Local Transport Plan (2011), Suffolk Guidance for Parking (2019).
- 3.1.2 Most notably attention is drawn to 'The Suffolk Coastal Local Plan'. This was formally adopted in September 2020 and covers the period to 2036. The Local Plan would have been subject to its own rigorous consultation process which requires a 'duty to cooperate' with neighbouring authorities including town and parish councils and would have been subject to examination in public and found 'sound' by government inspector prior to its adoption. Accordingly, any policy compliant planning application submitted on an allocated site within the adopted Local Plan would be exceptionally difficult, if not impossible, for the Local Planning Authority to refuse without significant legal ramifications/costs.
- 3.1.3 The adopted Local Plan Policy SCLP12.65: *Land adjacent to Reeve Lodge, High Road, Trimley St Martin* allocates this site for approximately 150 dwellings (to include affordable housing), a Primary School (2 form entry with a pre-school) and open space. The principle of this proposed development (ref no. DC/20/5279/OUT) for 139 new homes (including provision of up to 46 affordable homes), land for a 2-form entry primary school with pre-school is therefore compliant with Policy SCLP12.65.

3.2 Chapter 3: Existing Highway Context

The Site

- 3.2.1 The Transport Assessment contains an adequate description of the site, local Pedestrian and cycle accessibility, Public transport services (Bus and Rail) as well as a brief review of local services and facilities.

Local Highway Network

- 3.2.2 The report also briefly describes the local highway network in the vicinity of the site sufficient for the purposes of the assessment.

Road Safety

3.2.3 The Transport Assessment has considered the existing Personal Injury Accident (PIA) data (latest 60 months) but only that which was recorded at the High Road / Howlett Way roundabout. No dates are provided but we assume the 60-month period quoted is up to 31st December 2019. This showed only one slight PIA in the five-year period (Recorded in March 2015). This accident was classified as “slight” and involved a collision between a cyclist and car. This analysis is insufficient in its present format and the Highway Authority should be requesting a more detailed analysis. The extents of the study area should cover Howlett Way to include the entry and exit to the A14 gyratory and cover the High Road between the roundabout and A14 to the North and also approximately 1.5km South as this covers the area impacted by the distributed traffic from the development. The accident analysis should be undertaken using full non-confidential STATS19 data which should be obtained from the County Council.

Existing Traffic

3.2.4 A Manual Classified Counter (‘MCC’) survey was undertaken at the Howlett Way / High Road roundabout, on Thursday 2nd May 2019 between the hours of 0730-0930 and 1600-1900. At the time of the survey the roundabout had 5-arms due to a temporary construction access being utilised for works to the railway line to the south of the Site. This survey is considered acceptable being pre-Covid 19 traffic conditions and occurred in neutral period. The morning and evening peak hour periods taken forward for assessment are 08:00-09:00 and 17:00-18:00 respectively, which is typical for such assessments and is consistent with other transport assessment work undertaken in the area.

Existing Roundabout Capacity

3.2.5 The Howlett Way / High Road roundabout has been modelled using the ARCADY module within Junctions 9 Transport Research Laboratory (TRL) junction modelling software. The ARCADY software is used to predict capacities, queues, deltas and accident risk at roundabouts. The surveyed (2019) AM and PM peak period traffic counts have been loaded into the model with the highway geometric parameters taken from the topographical survey of the roundabout. The inputs into the model seem acceptable and are considered to be representative of the actual junction layout.

3.2.6 The modelling output results have been compared with the actual 2019 surveyed queues and whilst there are minor differences between the simulated and observed figures these are not considered significant due to the very low level of queuing that occurs at the junction in the peaks periods. The results indicate the current junction operates within theoretical

Ratio of Flow to Capacity (RFC) being less than 0.85 - this being the industry standard comparator. It is therefore reasonable to accept the model as being representative of the actual operation of the roundabout and therefore a validated model.

Existing travel characteristics

- 3.2.7 The 2011 Census data has been used to ascertain the existing journey to work travel patterns of those living locally. The data has been extracted for the 'Suffolk Coastal 012' mid-layer super output area ('MSOA'), which extends over Trimley St Martin, Kirton, Falkenham and the Port of Felixstowe. At this time the DfT has not released any new travel Census data and therefore the 2011 data is still considered appropriate for use in Transport Assessments where no other more relevant data has been collected.
- 3.2.8 The Census data shows that of all person trips 83.78% occur by private vehicle either as driver or passenger. Bearing in mind the location of the site this level trips does not appear to be under-estimated.

3.3 Chapter 4: The Scheme

- 3.3.1 East Suffolk Planning application No. DC/20/5279/OUT states that the proposals are for an Outline Application with some matters reserved (access to be considered) for the erection of up to 139 new homes (including provision of up to 46 affordable homes), land for a 2-form entry primary school with pre-school, open space, SUDS and all associated infrastructure provision. An illustrative site layout is provided within the appendices of the Transport Assessment.

Access

- 3.3.2 It is proposed that site access will be achieved by reinstating the former construction access arm of the Howlett Way / High Road roundabout to create a permanent 5th arm on the junction. The 5th arm being position between the High Road (south) and Goslings Way shown on tpa drawing number 1808-54 PL02.
- 3.3.3 The access arm has been designed to have a carriageway width of 6.0 metres and has a 2.0 metre footway and 3.0 metre shared pedestrian cycleway either side of the carriageway. As part of the proposals, it is suggested that minor infrastructure changes are proposed to other parts of the roundabout that predominantly involve kerb line amendments.

- 3.3.4 A secondary, emergency access is proposed onto High Road (south) to the south of the main site access from the roundabout. It is suggested that this will also serve as a shared footway / cycleway. In addition to footway/shared provision, the existing footpath and byway alignment through the site will be maintained and will provide additional entry and exit points for pedestrian and cycle access to the High Road.
- 3.3.5 Whilst the above non-motorised user provisions appear to be appropriate for the development there are concerns with the proposed layout of the 5th Arm site access to the Howlett Way / High Road roundabout. The swept path analysis drawings provided in the tpa Transport Assessment show that the swept path for refuse truck into and out of the site to and from the roundabout is very tight with the swept paths touching the nearside and offside kerb lines. Whilst Autotrak does provide a margin of error within the swept paths there is a concern that larger vehicles entering and leaving this arm of the roundabout will either over run the nearside kerb line or the kerb line of the central splitter island whereby there will be an increased risk of pedestrians and cyclists being struck by the turning vehicle. Accordingly, the road width and radii of the site access arm should be adjusted so that there is clear separation between the swept paths of the most onerous vehicle likely to frequently enter the site and the near side and off side kerb lines.
- 3.3.6 In addition to the concerns expressed in para 3.3.5 above, it is concerning that the highway proposals have not been subject to independent Road Safety Audit. Accordingly, the Highway Authority can have no confidence at this point that the access proposals will not introduce unidentified and hence unknown road safety problems. It therefore recommended that the scheme proposals are subject to independent Stage 1 Road Safety Audit in accordance with DMRB standard GG119 'Road Safety Audit' prior to determination by the Local Planning Authority.
- 3.3.7 On review of planning application DC/20/1860/OUT Outline Application (With some matters reserved) for Phased construction of up to 340 dwellings with open space, a new Early Years Facility, new roundabout access from Howlett Way, a foul water pumping station and associated landscaping at Land Off Howlett Way Trimley St Martin Suffolk, it would appear that the agreed improvements to the Howlett Way / High Road roundabout as part of this consented development are incompatible with those proposed in the tpa Transport Assessment. Whilst this will have design implications it will also have other modelling issues in that the final form of the roundabout has not been agreed with the Highways Authority and therefore unlikely to be correctly modelled in the future year scenarios. The applicant's consultants will need to reassess the junction proposals and

modelling in light of the agreed improvements to the roundabout resulting from application DC/20/1860/OUT.

Parking

- 3.3.8 Suffolk County Council's guidance on parking given in the '*Suffolk Guidance for Parking (2019)*' appears to have been adhered to for both residential and primary school elements of the proposed development.

Refuse and servicing

- 3.3.9 The Transport Assessment suggests that the design of the access will accommodate refuse collection and servicing vehicles. However, as identified and detailed in para 3.3.5 of this report further adjustments to the access need to be incorporated into the design layout to ensure safe operation of access and egress.

3.4 Chapter 5: Trip Generation and Attraction

Residential Trips

- 3.4.1 The Trip Rate Information Computer System (TRICS®) is a comprehensive database of traffic and multi-modal transport surveys, covering a wide range of development types in the UK and Ireland and is used extensively for Transport Assessment work. The database has been interrogated under land use code 03 – *Residential*, sub-category A – *Houses privately owned*, to derive trip rates for a sample of sites considered to reflect the proposed application site. According to the Assessment the search criteria used covered multi-modal surveys, weekday surveys, sites with dwelling numbers ranging between 50 and 250 and omitted sites in Greater London.
- 3.4.2 The extraction contains the total person trip rates from the selected criteria which have then taken the AM and PM Peak hour rates and multiplied these by the number of dwellings (139) to derive the total number of person trips. The results presented in Table 5.1 of the Transport Assessment indicate that the proposed housing development will generate 129 total person trips during the morning peak hour and during the evening peak hour 116 person trips will occur. Whilst there are some errors contained within the site selection the total person trip rates AM and PM appears reasonable for this site. Whilst further refinement could slightly increase the trip rate, owing to the small number of proposed dwellings, the total person trips are unlikely to increase significantly to the point where they would be critical to the overall assessment process.

3.4.3 To derive the modal transport share the person trip rates have been applied to the 2011 Census modal share characteristics for the Suffolk Coastal 012' mid-layer super output area. This is standard practice and is considered to provide a more refined and accurate assessment of the total of all trips in the modal share rather than extracting these from the TRICS® database. This is because it is unlikely that there will be a representative sample of surveys in the TRICS® database from the Suffolk Coastal area.

3.4.4 The results indicate that the proposed housing will generate 101 two-way vehicle trips during the morning peak and 91 two-way vehicle trips during the evening peak. This does not seem unreasonable given the location and public/sustainable transport options to the proposed development. Any further refinement in the trip calculation process is unlikely change the two-way trips by more than two or three vehicles in the peak periods. Accordingly, the housing element of the trip generation can be considered acceptable.

Primary school Trips

3.4.5 As with the residential trip rates the TRICS® database has been used to derive a trip rate for the school in this instance using code 04 – *Education*, sub-category A – *Primary*. It is understood that the proposed two form entry primary school will accommodate up to 420 pupils.

3.4.6 The primary school will be supported by a pre-school on site, although a separate calculation for the pre-school trip rate has not been undertaken. The reasons given are, whilst there is likely to be a level of trip attracted to the pre-school, they are not likely to be new trips to the local highway network as there will be a level of linked trips between the school and the pre-school as a result of siblings. This is a somewhat dubious statement and there is no evidence to support it. However, the additional reasoning is that school incorporated pre-schools typically start after 09:00 and end before 15:00. As such, any trips generated by the pre-school are likely to be outside of the peak periods. Whilst some pre-schools do have start and finish times outside of the peak hour periods not all do. Accordingly, for robustness a trip rate for the pre-school element should be calculated unless there will be a condition attached to the planning consent that prohibits pre-school operations to outside of peak hour periods.

3.4.7 Tpa's stated search criteria included: multi-modal surveys; weekday surveys only; sites with pupil numbers ranging between 82 and 472; surveys undertaken between 01/01/05 and 28/09/16 and omitted sites in Greater London and Ireland. The interrogation of the database resulted in a morning peak arrival rate of 0.342 vehicles per pupil and departure

rate of 0.214. In the Evening peak an arrival rate of 0.042 and a departure rate of 0.052 vehicle trips per pupil.

3.4.8 With the above comments in para 3.4.7 above noted and whilst the Transport Assessment states that Greater London and Ireland have been omitted, a review of the TRICS® site output file shows one site selected in Greater London and one in Ireland. This needs to be changed as it is not representative of the development area. Nevertheless, whilst this change will alter the number of trips, it is unlikely to materially impact the overall results.

3.4.9 The tpa assessment applies a reduction factor of 20% to the school trips to account for internalisation of site trips to the primary school. Given the size of the proposed residential development (139 no. dwellings) in comparison to the size of the proposed school (420 pupils), this is an over-estimate and a 5 to 7.5% reduction factor would be more in line with the overall development proposals.

3.4.10 The results indicate that the proposed primary school will attract 187 two-way external vehicle trips during the morning peak and during the evening peak 32 two-way external vehicle trips are likely to occur. On this basis the assessment can be said to be reasonable.

Total scheme trips

3.4.11 The totals of the residential and school trip generations have been combined to give the results in Table 5.5 in the Transport Assessment. Accordingly, it is estimated that the proposed development will generate 288 two-way external vehicle trips during the morning peak and during the evening peak 123 two-way external vehicle trips.

Table 5.5 Total proposed scheme external trips

	Morning peak		Evening peak	
	Arrive	Depart	Arrive	Depart
Residential	20	81	62	29
External school trips	115	72	14	18
Total	135	153	76	47

3.5 Chapter 6: Vehicle Trip Distribution

Residential

- 3.5.1 The trip distribution has been assessed against ‘Suffolk Coastal 012’ MSOA data and can be considered an industry standard approach. Although the Census data is relatively old (2011) the likely distribution is probably still reasonable for use unless there have been any significant new sites of employment which might impact on the area.
- 3.5.2 Table 6.1 of the Assessment provides the proportions of trips to the relevant destinations. This indicates that the majority of trips from the ‘Suffolk Coastal 012’ MSOA remain within the Suffolk Coastal district (63.45%). Journeys to Ipswich account for (25.04%) of trips from the local area.

Table 6.1 Distribution to local authority districts from the ‘Suffolk Coastal 012’ MSOA

Destination	Total drivers	Proportion
Suffolk Coastal	1,875	63.45%
Ipswich	740	25.04%
Babergh	95	3.22%
Mid Suffolk	71	2.40%
Colchester	41	1.39%
Others	133	4.50%

- 3.5.3 The routes from the site to each destination have been assigned to assess the likely distribution of vehicle trips across the local highway network. This resulted in the distribution of trips which are presented in Table 6.2 of the Assessment. The trips towards the A14 westbound via Howlett Way and via High Road north have been identified to take similar journey times although the distance travelled via Howlett way is approximately 1/2km longer than via High road. It is therefore likely that departures from the site would use a combination of both routes. Given the proximity of the site to Junction 59 of the A14, departures from the site are likely to be attracted in a greater proportion towards Junction 59 to travel westbound than via High Road. Arrivals to the site from the A14 (west) are required to travel to the site via junction 59 of the A14 and Howlett Way because there is no other alternative. The proportion of trips in the distribution Table 6.2 therefore do not align with the likely assignment of trips although for the purposes of the overall assessment is unlikely to have a material impact.

Table 6.2 Local route distribution

Route	Proportion
Northwest to the A14 (west)	50.39%
Northeast to the A14 (east)	26.84%
Southeast to High Road (south)	22.77%

3.5.4 The primary school is to serve the educational requirements of new homes in the area as well as the development proposals but may also serve a wider catchment area. For robustness it would have been appropriate to obtain the catchment area from the Education department at the County Council rather than assume trips based upon the size of the local villages of Trimley St Martin, Trimley St Mary, Walton and Kirton. Table 6.3 summarises the assumed proportions of the external trips attracted to the proposed school.

Table 6.3 Primary School trip distribution

Village	Proportion
Trimley St Mary / Walton	80%
Trimley St Martin	10%
Kirton	10%

3.5.5 Although it seems unlikely that 10% of school trips will arrive from Kirton as Trimley St Martin Primary school is on the Kirton Road to the southern extent of the village it is understood that the existing school will close once the new primary school is open. The estimation would therefore seem reasonable given the relative size of the village compared to the other areas within the likely catchment area. The Transport Assessment would nonetheless have been more robust had the catchment figures been obtained from the Education department. However, even if the assumptions in Table 6.3 are incorrect it is unlikely to have a material impact on the operation of the High Road / Howlett Way roundabout.

Total scheme traffic flows

3.5.6 The forecast scheme traffic flows are presented in Figure 6.1 and Figure 6.2 for the morning and evening peak hour periods respectively within the Transport Assessment. However, it appears that the ‘development traffic flows’ at the Howlett Way / High Road roundabout do not match the traffic flows in table 5.5 ‘total proposed scheme external trips’.

It would be beneficial and typical best practice for the flows to be split out into residential and educational to demonstrate how each total flow has been derived in the flow figures.

3.6 Chapter 7: Future Year Traffic Scenarios

3.6.1 TEMPro is the industry standard tool for estimating traffic growth, which is required when assessing the traffic impact of a development on the local highway network. The model forecasts the growth in trip origin to destination up to 2051 for use in transport modelling taking into account:

- Population;
- Employment;
- Housing;
- Car Ownership; and
- Trip Rates.

3.6.2 TEMPro growth factors have been obtained and used to factor growth between the year of 2019 and 2027, which aligns with the future year assessment within the adopted Felixstowe Peninsula AAP. In addition, growth factors were also derived between 2019 and 2036 which is consistent with a revised draft of the Felixstowe Peninsula AAP.

3.6.3 Origin and destination growth factors were derived for the 'Suffolk Coastal 012' MSOA for car drivers. The results have been adjusted to the National Traffic Model (NTM AF15) for urban principal road types and are presented in Table 7.1.

Table 7.1 TEMPro growth factors

Time period	Peak period	Local growth factors		NTM Adjusted
		Origin	Destination	
2019-2027	Morning peak	1.0457	1.0585	1.0843
	Evening peak	1.0551	1.0482	1.0839
2019-2036	Morning peak	1.0926	1.1267	1.1441
	Evening peak	1.1172	1.0975	1.1418

3.6.4 The approach to background growth is standard industry practice and the growth figures derived appear acceptable for use in the future year modelling scenarios.

Committed schemes

- 3.6.5 A list of committed developments is provided in Table 7.2 reproduced below which was taken from the Felixstowe Peninsula AAP. There were 9 residential sites which were considered as committed schemes within the local area.

Table 7.2 Felixstowe Peninsula AAP committed schemes sites

Site reference	Schemes	Indicative size (dwellings)
FPP4	Land north of Walton High Street, Felixstowe	400
FPP5	Land north of Conway Close, Felixstowe	150
FPP6	Land opposite Hand in Hand Public House, Trimley St Martin	70
FPP7	Land off Howlett Way, Trimley St Martin	360
FPP8	Land off Thurmans Lane, Trimley St Martin	100
DC/15/1128/OUT	Land North of Candlet Road, Felixstowe	560
DC/13/3821/OUT	Walton Green South, High Street, Felixstowe	190
DC/13/3069	Land west of Ferry Road Residential Centre, Ferry Road, Felixstowe	200
C13/0219	Land at and adjacent to Mushroom Farm, High Road, Trimley St Martin	66
DC/16/1919/FUL	Land on High Road	69
Total		2,978

- 3.6.6 The traffic flows associated with the land at and adjacent to Mushroom Farm on High Road were removed from the total committed scheme traffic flows as the flows associated with this scheme were recorded within the surveyed (2019) traffic flows.

- 3.6.7 Typically the Local Planning Authority in consultation with the Local Highway Authority would agree which committed planning applications would need to be accounted for within the Transport Assessment. No such indication is provided. In addition, The APP was adopted in 2017 and the list of approved permissions was only up to the end of March 2016. Five years have passed since and feasibly there could be other permissions within

the locality that should be taken into account. Accordingly, it is advised that confirmation of the agreed committed schemes list is provided by both the Local Planning Authority and Local Highway Authority.

- 3.6.8 The total committed scheme traffic flows are provided in Figure 7.1 and Figure 7.2 for AM and PM periods respectively. If there are additional committed developments that need to be accounted for the traffic flows will need to be updated in Figures 7.1 & 7.2 accordingly.

Total forecast base traffic flows

- 3.6.9 The total forecast base traffic flows are the sum of the forecast base (2027) and total committed scheme traffic flows. The total forecast base (2027) traffic flows are presented in Figure 7.3 and Figure 7.4 for the AM and PM peak periods respectively.

- 3.6.10 The total forecast base (2036) traffic flows are presented in Figure 7.5 and Figure 7.6 for the AM and PM peak periods respectively.

Total forecast traffic flows

- 3.6.11 The total forecast traffic flows are the sum of the total forecast base and the total proposed scheme traffic flows. The total forecast (2027) traffic flows are presented in Figure 7.7 and Figure 7.8 for the AM and PM peak periods respectively.

- 3.6.12 The total forecast (2036) traffic flows are presented in Figure 7.9 and Figure 7.10 for the AM and PM peak periods respectively.

- 3.6.13 Notwithstanding the previously discussed inaccuracies, the approach taken to calculate the Base and Forecast Traffic flows is correct even if the figures require further revision.

3.7 Chapter 8: Capacity Assessment

Existing roundabout layout

3.7.1 The Howlett Way / High Road roundabout has been modelled using the ARCADY module within Junctions 9 Transport Research Laboratory (TRL) junction modelling software. The validated base models for AM and PM peak period traffic have been updated with the forecast flows for 2027 with and without the proposed development (with improvements) as has the same flows predicted for 2036.

3.7.2 There is a full modelling report in Appendix B to the Transport Assessment and the modelling output results are presented in Table 8.1 (without proposed development) and 8.2 (with proposed development and associated junction improvements).

Table 8.1 4-arm High Road roundabout – Total forecast base modelling results

Arm	Total forecast base (2027)				Total forecast base (2036)			
	Morning peak		Evening peak		Morning peak		Evening peak	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
High Road (north)	0.66	2	0.57	1	0.70	2	0.60	1
Howlett Road	0.39	1	0.75	3	0.41	1	0.79	4
High Road (south)	0.78	3	0.43	1	0.83	4	0.45	1
Construction access	0.00	0	0.00	0	0.00	0	0.00	0
Goslings Way	0.07	0	0.12	0	0.07	0	0.12	0

Table 8.2 4-arm High Road roundabout with mitigation – Total forecast modelling results

Arm	Total forecast (2027) – Mitigation				Total forecast (2036) - Mitigation			
	Morning peak		Evening peak		Morning peak		Evening peak	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
High Road (north)	0.55	1	0.45	1	0.58	1	0.48	1
Howlett Road	0.43	1	0.80	4	0.45	1	0.84	5
High Road (south)	0.58	1	0.31	0	0.62	2	0.32	1
Proposed site access	0.28	0	0.07	0	0.29	0	0.07	0
Goslings Way	0.08	0	0.12	0	0.08	0	0.12	0

- 3.7.3 Broadly speaking the development site with proposed roundabout improvements does not impact on the operation of the junction and some arms of the roundabout benefit from the proposals. As presented, it can be said that the proposed development can be accommodated with the associated adjustments to the roundabout layout.
- 3.7.4 As previously identified at para 3.3.7 the proposed 'tpa' improvements to the roundabout are not compatible with those already agreed in planning application DC/20/1860/OUT at Land Off Howlett Way Trimley St Martin Suffolk. Accordingly, a revised design should be considered incorporating the objectives of the previously agreed scheme and discussed with Suffolk County Council Highways for acceptance. Once a revised layout is agreed it can be modelled using ARCADY to check that the scheme with the forecast 2027 and 2036 with development flows can still be accommodated within the local road network.

4.0 SUMMARY AND ACTIONS

4.1 The tpa Transport Assessment

4.1.1 Although the tpa Transport Assessment contains errors, it has adequately demonstrated that the development can be accommodated within the existing highway network. As the 2019 base modelling demonstrates the Howlett Way / High Road Roundabout has significant spare capacity to the extent that even with the addition of this site along with the others already committed the junction will operate within capacity in the future year scenario's 2027 and 2036. The necessary corrections to the identified errors are highly unlikely to change this scenario. This is not surprising as the site is allocated in the 'Suffolk Coastal Local Plan' adopted in 2020 which had its own supporting Transport Assessment. Had this not been the case, the Plan would not have been found "sound" by the Secretary of State.

4.1.2 What is of concern is that the design proposals for the 5th Arm and further adjustments to the Howlett Way / High Road roundabout proposed within this proposed application are not compatible with previously agreed improvements yet to be implemented (App No. DC/20/1860/OUT at Land Off Howlett Way, Trimley St Martin, Suffolk) at the junction. In particular, the 5th Arm geometry appears to be too tight to allow ease of access and egress for all vehicles likely to use the arm on a frequent basis. Further more the proposals have not been subject to independent Stage 1 Road Safety Audit. Accordingly, prior to consideration by the Local Planning Authority and indeed any grant of consent the following actions are advised:

- The layout of the 5th Arm should be adjusted either by widening the width or adjusting the entry/exit radii to provide clear carriageway width between kerb lines for all vehicles expected to frequently use this arm of the junction to ensure that the risk of footway & central island over run is minimised.
- The design proposals of the agreed roundabout improvements as part of the requirements of Application DC/20/1860/OUT at Land Off Howlett Way, Trimley St Martin, Suffolk are reviewed and incorporated into the roundabout proposed design along with any further adjustments to ensure capacity at the junction is not compromised and remains within acceptable level.
- The design needs to be approved by Suffolk County Council Highways and will need to be subject to independent Stage 1 Road Safety Audit to DMRB Standard GG119. Any findings arising from the Safety Audit need to be incorporated into the design proposals prior to planning consent.

- 4.1.3 As the roundabout design will change from that presented in the tpa Transport Assessment as advised in para 3.1.4 above the future year modelling scenarios without development and with development with subsequently approved improvements will need to be remodelled with the Junctions 9 ARCADY traffic modelling software. In doing so the following matters should be reviewed and corrected where necessary to obtain the correct input traffic movements for the modelling as follows:
- In both the TRICS® selections for residential and school, there are sites listed in the selections (detailed in the output file) for Greater London and Ireland, despite the transport assessment stating that such sites are not included. These sites should be removed and the trip rates recalculated.
 - Given the proximity of the site to Junction 59 of the A14 departures from the site are likely to be attracted in a greater proportion towards Junction 59 to travel westbound than via High Road. This does not appear to be reflected in the traffic flow figures and therefore any necessary adjustments should be made.
 - The list of committed developments to be included in the future year scenario assessments 2027 and 2036 should be agreed with the Local Planning Authority East Suffolk Council and the Highway Authority Suffolk County Council and any necessary changes reflected in the future year with and without development scenario flow figures.
- 4.1.4 The Transport Assessment accident analysis should not be accepted in its present format further as more detailed analysis is required. The extents of the accident study area should be agreed by the Suffolk County Council as the Highway Authority but should at least cover Howlett Way to include the entry and exit to the A14 gyratory and cover the High Road between the roundabout and A14 to the North and also approximately 1.5km South as this covers the area impacted by the distributed traffic from the development. The accident analysis should be undertaken using full non-confidential STATS19 data which can be obtained from the County Council.
- 4.1.5 In the event that the revised accident analysis shows that there are pre-existing accidents types that could worsen as a result of the additional traffic generated by the proposed development then remedial interventions should be agreed and incorporated into the design package of works for this scheme which should then form a conditional requirement to any grant of consent.

5.0 COMPETENCY STATEMENT

- 5.0.1 The assessment in this report is based on established engineering principles and has been carried out by competent and experienced specialist highway and transport engineers registered with the Institution of Civil Engineers (ICE).

Final

6.0 LIMITATIONS AND ASSUMPTIONS

- 6.0.1 The purpose and scope of this report is strictly limited to that set out in the introduction.
- 6.0.2 This report is formulated on the basis of information and industry experience available at the time of preparation.
- 6.0.3 It is applicable to the named project only in accordance with the Client's instructions.
- 6.0.4 This report may only be distributed in its entirety, without amendment.

Final