Shobnall Parish Council

Traffic Management Report

B5017: Shobnall Road

Prepared by

Progress10

Design

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Mission Statement.

Progress10 Design Ltd., have been appointed by **Shobnall Parish Council** to produce a report which will provide an understanding of existing traffic flows on Shobnall Road in Shobnall Parish.

This report will provide detailed flow figures with a flow diagram and commentary on the current traffic issues. It will provide advice on current levels of flow and available road capacity in 2016/17. These flows will be compared against road-type category and theoretical capacity in accordance with the Design Manual for Roads and Bridges.

In addition, **Progress10** will consider heavy commercial vehicle flows and traffic management related to routing strategies. Advice will be offered regarding Parish Council initiatives with regard to managing existing HCV approved routes and the negotiation of new routes for the future.

The report will also provide guidance on the Neighbourhood Plan requirements for the consideration of committed development flows against future new development proposals, and provide a list of committed development documents for reference.

The issues addressed in this report will be linked to Neighbourhood Plan policies and the report should be appended to the Neighbourhood Plan and referenced within the related policy items.

The following report seeks to provide a general overview of the current traffic flow quantum and will include the spreadsheet analysis from the Automatic Traffic Counter sites.

Assessment views are provided and guidance offered with regard to Shobnall Road where survey has taken place by Automatic Traffic Counter.

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SHOBNALL PARISH COUNCIL

TRANSPORT REPORT – B5017 SHOBNALL ROAD

1. Introduction.

Progress10 have previously provided two Transport Reports to inform the Neighbourhood Plan. This third report is a more focused document and will provide the Parish Council with mechanisms to help achieve aims through the Neighbourhood Plan.

Subsequent to the development process for the Neighbourhood Plan, Shobnall Parish Council have commissioned **Progress10** to complete further survey work by Automatic Traffic Counter (ATC), and consider a number of traffic management and future development issues within the parish.

Survey work is to be specifically targeted on Shobnall Road with wider consideration of heavy commercial vehicle routing and options for the consideration of future development proposals to address committed development traffic flows.

The ATC surveys will cover the Shobnall Road route into the Parish with two ATC's providing detailed information on flows and vehicle categories.

The intention is to have detailed information on local existing traffic flows within Shobnall Road so that should there be a need, future increases in traffic flow and therefore impact, can be identified as new development builds out and the resulting traffic generation is evident on the local highway network.

Progress10 have had these surveys completed and provide below a detailed report on the findings of the survey work and offer a view on highway capacity.

In the future it will be possible to check development impact against the base flow figures provided within this report.

2. Parish Council Proposals.

Shobnall Parish Council want to strengthen the weight of the Neighbourhood Plan by providing data and referenced documents which must be considered by developers linked to future planning application proposals. (Table 6, P21 and Appendices).

The intention is to provide as much protection as possible, for the Shobnall Road route into the Parish, against future traffic flow growth.

The Parish Council require current traffic flow figures from automatic counters which will identify accurately the existing traffic flows.

Progress10 note that there is some new development delivery traffic which will be captured by the traffic counters:

Those developments (at the time of the ATC surveys) are:

Forest Road (south) – early site access traffic only.

Land at Red House Farm (Reservoir Road) – being built out (with regular heavy commercial deliveries with materials and trade vehicles).

This construction traffic has where possible been identified and removed from flow figures and these adjusted figures are provided within a table which supplements the traffic flow data for clarity. Construction traffic is considered 'temporary' and not background flow.

It should be noted that the volume of delivery traffic to the Red House Farm site (via Reservoir Road) has been identified and removed from analysis tables.

In addition, there has been liaison between **Progress10** and the developer's engineers for the Forest Road (south) site clarified that the recent access to the site meant that only limited delivery traffic was in play.

Progress 10 consider that this would not constitute a material change in the daily variation on traffic flows and therefore would not be specifically identified.

Shobnall Parish Council are also keen to identify traffic calming options for the Shobnall Road route into the Parish and this report provides recommendations on this requirement.

3. Shobnall Road (Forest Road route) description.

Travelling west bound from Shobnall Parish along the B5017 Shobnall Road becomes Forest Road at the boundary between the Parish of Shobnall and the neighbouring Parish of Outwoods.

Generally, Shobnall Road is long and straight with residential properties on both sides for much of its length.

Forest Road continues this character and Shobnall Road also supports some small businesses and a public house.

Carriageway width is on average 6.6 metres wide along the subject length of Shobnall Road with the narrowest point being in the vicinity of the transition from Shobnall Road to Forest Road, where the width is 6.4 metres.

This width was noted amidst a slight narrowing of the carriageway width for a distance of approximately 120 metres within the 860 metres surveyed by **Progress 10** at the site visit.

The B5017 Shobnall Road has waiting restrictions along much of the target length which are either Total Prohibition (double yellow lines), or 8am to 6pm Mon – Sat (single yellow lines) which with the exception of some short lengths maintain a clear carriageway on both sides for the working day.

The double yellow lines are predominant on the south side of Shobnall Road/Forest Road and the daytime single yellow line is employed on the northern side and allows for some overnight residential parking particularly fronting the terraced properties which have no direct access for off street parking.

Both types of traffic regulation order regulate on street parking and the double yellow lines also protect junction visibility for side roads.

There are footways on both sides of Shobnall Road which provides good connectivity for pedestrian trips and there are several bus stops locally which are served by a regular bus service.

A good number of residential properties do have off street parking along the length of Shobnall Road.

These features are all taken into account in the assessment of road type within the Design Manual for Roads and Bridges and allow the road to be categorised and a theoretical capacity identified for traffic flow capacity.

Forest Road (south) Development footway provision.

It is noted that there is a length of verge on the southern side of Forest Road immediately to the east of the current temporary access to the Forest Road (south) development site.

Progress 10 have checked the planning permission detail for this site and it is clear at 4.2.3 in the White Young Green Travel Plan document that there is an intention to provide footway links on this southern side of Forest Road which will link back to the existing footway on Shobnall Road. (Can be viewed at: P2012/01359 on ESBC planning web site)

4. Automatic Traffic Counters.

The ATC units record a number of traffic flow characteristics which inform regarding the: volume of vehicle flow, types of vehicles and traffic speeds at the specific location of the counter.

Vehicle flow: is presented in tables, one for each direction of flow and in daily and weekly format. Pie charts and bar charts are also provided in the spreadsheet analysis.

Vehicle types: ATC counts categorise the recorded vehicles into vehicle types and the tables provided allow percentage flows against background flows to be calculated. This allows heavy commercial vehicles to be identified both in numbers and direction of flow.

Traffic speeds: Are given specifically for the location of the ATC itself. The ATC surveys which inform this report are only intended for the assessment of traffic flows and not speeds specifically though the speed figures are a good guide for future comparisons.

5. Automatic Traffic Counter sites and assessment criteria:

At the site visit **Progress10** noted that two of the approved residential development sites which will affect Shobnall Road had commenced.

The larger site at the top of Reservoir Road was well under way with road hierarchy in place within the site and houses under construction.

Progress10 made a visit to the site office where information was gathered on the route into the site for service and delivery vehicles during construction.

The intention here was to ensure that the placement of the traffic counters would allow the majority of delivery vehicles to be discounted with regard to this site. This would allow a more accurate background flow to be identified and therefore the capacity assessment for Shobnall Road would be robust.

The second site at the land south of Forest Road was only in its very early stages of preliminary access and **Progress10** visited the site office and spoke to the senior engineer for the site who confirmed that at the time of the traffic counters being on site there was only limited delivery traffic visiting the site.

Progress10 considered that the use of a third counter to eliminate this small amount of traffic was not necessary and that the impact on the background flow figures would be non-material when daily variations in traffic flow were considered.

5.1 Automatic Traffic Counter Locations:

Descriptions of ATC locations:

ATC1: Lamp Column opposite 75, Forest Road (south side).

ATC2: Lamp column immediately west of Price Court/A38 (north side) on Shobnall Road.

Note: A diagram of the ATC locations is included at Appendices 1.

5.2 Vehicle classifications.

The Design Manual for Roads and Bridges provides specific vehicle classifications which are used in automatic traffic count surveys. The ATC's used for the Shobnall traffic flow surveys align with these classifications.

For the purposes of this report and in liaison with the Paris Council**, Progress10** have selected out the OGV1 & OGV2 (commercial and heavy commercial vehicles (HCV), with 3 to 6 or more axles). This selection from the Traffic Sense ATC data matches as closely as possible data from previous County Highway Authority classification counts on the B5017 Shobnall Road.

6. Site description and D.M.R.B. road categories. Theoretical capacities.

Design Manual for Roads and Bridges Volume 5 includes the guidance in: TA 79/99 Amendment No.1 - Traffic Capacity of Urban Roads.

This document allows the highway network to be assessed and categorised into urban road types and provides traffic capacity figures for these road types.

This allows the capacity of a road to be identified and the existing traffic flows set against that capacity which gives a guide to the remaining available capacity on the subject road.

This guidance would allow future traffic impact to be compared to existing flow and available capacity, to demonstrate the scale of impact of new traffic on the subject road.

The guidance assesses the subject road via local feature categories such as: speed limit, side roads, parking and loading, at grade pedestrian facilities, frontage and direct access frequency to property, traffic regulation orders (TRO's), and road width.

6.1 – Shobnall Road.

The B5017 Shobnall Road is the west to east link into the Parish of Shobnall having immediately passed through the Parish of Outwoods.

Shobnall Road has residential property to both sides along its full length with a small number of businesses, a school and a public house.

A large number of the residential properties do not have off street parking and therefore the public highway sustains an amount of on street parking when the local traffic regulation orders are not in force.

Specifically, this is on the north side of Shobnall Road where the single yellow line restriction allows overnight parking between: 6pm and 8am and all day on Sunday.

There are a small number of side road points of access, either adopted or private.

Shobnall Road has a system of Traffic Regulation Orders which are designed to control general on street parking and around junctions to protect visibility splays for emerging traffic.

There is a system of street lighting with a 30mph speed limit, however the road has no traffic calming features, though any on street parking does affect some calming of traffic speed as through flow vehicles have to give way to opposed traffic where there is demand. This effect is similar to that which would be achieved by a kerbed build out with priority working.

Road width is quite consistent and has an average width of 6.6 metres. The table below demonstrates the measured widths on site at 20 metre increments and demonstrates that there are no notable narrow sections along the subject length of Shobnall Road.

Design Manual for Roads and Bridges – route category.

Matching the site features against the guidance criteria in the Department for Transport document: TA 79/99 and particularly against the provided tabular guidance in the TA, Shobnall Road is categorised as an Urban All Purpose Road, type 2 as detailed in: Table 2: 'Capacities of Urban Roads One-way hourly flows in each direction'.

This is taken from: DMRB TA 79/99 Vol 5 S3 Ch3 – TA 79/99 Amendment No.1: Determination of Urban Road Capacity.

The average width of the carriageway along Shobnall Road is nominally 6.6 metres and therefore the site is considered to be a **UAP2** road with a traffic capacity of **1260** vehicles per hour.

N.B. Progress10 note that this capacity is given against a carriageway width of 6.75 metres where the average width of Shobnall Road is 6.6 metres. This makes this capacity assessment robust as a narrower carriageway reduces the capacity.

It should be noted therefore that set against the UAP2 road-type due its stronger feature compliance, the fact that the average width of this road is less than that for a UAP2 road category does mean that the capacity is lower than 1260vph in practical terms though the 1260vph capacity is retained appropriate to the classification in calculations later in this document.

6.2 Shobnall Road widths were measured at 20 metre intervals along the subject length and the following table demonstrates the chainage points and measured widths. The subject length has been agreed with the Parish Council as the PC consider this represents the most constrained section of Shobnall Road.

Table 1: Chainage Zero is at the ATC2 location. Chainage 860m is at the ATC1 location.

Chainage	Width	Chainage	Width	Chainage	Width	Chainage	Width
0m	6.7m	220m	6.7m	440m	6.5m	660m	6.65m
20m	6.7m	240m	6.6m	460m	6.45m	680m	6.6m
40m	6.4m	260m	6.6m	480m	6.5m	700m	6.7m
60m	6.6m	280m	6.5m	500m	6.5m	720m	6.7m
80m	7.4m	300m	6.6m	520m	6.5m	740m	6.9m
100m	9.4m	320m	6.4m	540m	6.6m	760m	6.75m
120m	8.7m	340m	6.5m	560m	6.6m	780m	6.7m
140m	8.1m	360m	6.55m	580m	6.6m	800m	6.75m
160m	8.0m	380m	6.5m	600m	6.7m	820m	6.65m
180m	7.75m	400m	6.5m	620m	6.8m	840m	6.75m
200m	7.4m	420m	6.5m	640m	6.6m	860m	6.7m

Table 1: Survey widths at 20 metre chainages on the B5017 Shobnall Road.

N.B. *The figures shown in **green** demonstrate the flared widening of the carriageway outside the public house (that commences under the A38 flyover). This probably demonstrates a historical frontage alignment outside the public house which has become part of the public highway over time. As a result, **Progress10** have not included these figures for the calculation of average width over the subject length of Shobnall Road.*

It can be seen from the above table that the following dimensions are clear:

Wide point: 6.9 metres Narrow point: 6.4 metres Average width: 6.6 metres

Neighbourhood Plan Policy links: Transport and Highways - T1, T2, T4 & T7.

7. Traffic survey results.

7.1 - Whilst the full traffic count data is appended to this report in spreadsheet format, the following tables (2,2a,3 & 4), pick out the specific details related to peak flow hours and average flow hours for all vehicles which were specifically classified.

Heavy commercial vehicle volumes (OGV1 & OGV2), are also identified at Table 2.

The percentage of classified vehicles recorded is an industry recognised standard for assessment and the proportion of percentages against classified flows can be calculated against the differential between total recorded flows and categorised flows.

These figures are also shown below.

SHOBNALL ROAD SURVEY	TOTAL TWO-WAY TRAFFIC FLOW (CLASSIFIED WEEKDAY AVERAGE)				TWO WAY (W/D AVE)
COUNTER SITE	8am – 9am	1pm – 2pm	5pm-6pm	Total flow 7am – 7pm 12hr classified vehicle flow	No. OGV1 & 2 7am – 7pm 12hr classified vehicle flow (% of total)
ATC 1 (FOREST RD)	959	659	868	8,890	879 (9.9%)
ATC 2 (SHOBNALL RD)	1142	755	979	10,322	1016 (9.8%)

Table 2: Peak hour OGV1 & 2 flows (classified) and total traffic flows of traffic.

Progress10 advise that knowing the approved route for Reservoir Road deliveries is via the A38, it is possible to calculate the average number of daily HCV's visiting the Reservoir Road site. Table 2a below shows the difference in commercial vehicle flow to and from the Reservoir Road site:

Table 2a.

SHOBNALL ROAD SURVEY	7am – 7pm (incl non-classified vehicles)	No. OGV1 & 2 7am – 7pm total flow (incl non-classified vehicles)	Number of heavy commercial vehicle **trips** accessing Reservoir Rd site =	Number of heavy commercial **vehicles** accessing Reservoir Rd site =
ATC 1 (FOREST RD)	8,890	879	---	
ATC 2 (SHOBNALL RD)	10,322	1016	1016 – 879 = 137	137 trips divided by 2 trips per vehicle (in and out) = 69 vehicles.

Table 2a: 7am – 7pm OGV1 & 2 commercial vehicle flows (classified) and number of those vehicles accessing Reservoir Road site.

That number is 137 as shown above (1016 – 879 = 137). This route has been confirmed on site and via the planning application detail.

Calculating the adjusted 12 hour flow percentage of OGV vehicles.

The calculation below shows the adjusted percentage of OGV flow against the 12 hour flow when both the through flow and the OGV flow to the Reservoir Road site are considered.

The adjustment for the heavy commercial vehicle %-age to discount the delivery traffic to Reservoir Road has been made taking the differential in flow between ATC2 and ATC1 classification results for combined OGV1 & OGV2 numbers. The differential between OGV flow is also subtracted from the 12hr total flow so that:

Adjusted 12 hour flow (for Res Rd site) = 10,322 – 137 = 10,185 (where 137 = No of OGV vehicle trips to and from the Reservoir Road site).

The through flow of OGV vehicles is taken directly from ATC1 as this will exclude the OGV vehicles to the Reservoir Road site as the confirmed approved route for the site is via the A38 and therefore not along Forest Road where ATC1 was situated.

Therefore:

12 hour through flow (adjusted) = 10,185.

12 hour through flow of OGV vehicles (adjusted) = 879 (from ATC1).

Therefore the actual through flow percentage of OGV vehicles for Shobnall Road =

879 divided by 10,185 = 8.6%.

Note: For clarity, Table 2 shows the percentages direct from the ATC2 Shobnall Road counter and represents the traffic flows that include the Reservoir Road site access OGV traffic.

Progress10 note: Please note that the 137 figure counts as 137 vehicles in the ATC2 count however represents a rounded figure of 69 vehicles (ie. 137 trips), which travel west on Shobnall Road and turn right up Reservoir Road, then the same vehicles – adhering to the approved access route – leave and turn left out of Reservoir Road and hit ATC2 again eastbound. This generates the additional 137 vehicles on the ATC1 count.

The regular average working day flow (7am – 7pm), of heavy and commercial vehicles which use the target length of Shobnall Road is therefore 879, that being the number recorded at ATC1 (Forest Road).

This calculates as a significant percentage against the total flow for the road itself and equates to approximately 73 heavy and commercial vehicles per hour (average), across the twelve hour working day between 7am and 7pm.

7.2 The 24 hour flows.

Progress10 have also looked at the remainder of the day and found a significant set of heavy commercial vehicle figures when the full 24 hour day is considered.

Up to the 18 hour day (6am – 12 midnight), there is general increase in the OGV2 heavy commercial vehicle flow over the 12 hour day, however the remaining six hours of the day (12 midnight – 6am), there is a significant increase in the OGV2 heavy commercial vehicle flow along Shobnall Road.

The following table demonstrates that the number of OGV2 HCV's increases significantly in count and as a percentage of the OGV2 flow. This is a significant factor in the traffic characteristics of Shobnall Road which is predominantly residential in frontage property.

Count figures are taken from the ATC1 site on Forest Road in order to exclude the flows to the Reservoir Road development site during the working day.

Count figures from ATC 2 are shown for comparison.

SHOBNALL ROAD SURVEY	**12hr OGV2 flow** (incl non-classified vehicles)	**18hr OGV2 flow** (incl non-classified vehicles)	**24hr OGV2 flow** (incl non-classified vehicles)
ATC 1 (FOREST RD)	64	92	135
ATC 2 (SHOBNALL RD)	84	119	163

Table 3: It can be seen that the percentage of HCV's has increased, however more significantly this is largely from the midnight to 6am time period which shows an increase from 92 in the 18hr day (6am - midnight), to 135 (24 hours). This is an increase of 46% during those overnight hours (midnight to 6am), for ATC1.

ATC2 shows 119 (18hr day) and 163 (24 hours) giving a 37% increase overnight (midnight to 6am).

These significant increases are attributed to HCV distribution from local businesses by the Parish Council.

Note: 24hr figures include: 'non-classified vehicles' as a small number of vehicles may not be specifically classified if counter tubes are 'hit' at the same time by opposed vehicles – hence the slight difference in indicated %-age increase above.

Reminder note: For the purposes of this report **Progress10** have selected both the OGV1 and the OGV2 (heavy commercial vehicles (HCV), with 3 to 6 or more axles), as the defining categories for HCV flows. This falls in line with previous County Highway categorisation by ATC count on this road.

7.3 - The following table provides a comparison between: the theoretical traffic flow capacities of each site, the actual flows and the percentage of capacity left available to new traffic generation in January 2017. It shows the four busiest hours from the ATC surveys.

SHOBNALL ROAD A.T.C. SURVEYS	**a). D.M.R.B. ONE-WAY TRAFFIC FLOW CAPACITY** **b). BUSIEST ONE-WAY DIRECTION + (TOTAL FLOW)** **c). REMAINING ONE-WAY %-AGE CAPACITY (JANUARY '17)**			
SITE	8am – 9am	1pm – 2pm	4pm – 5pm	5pm- 6pm
ATC 1 (Forest Rd)	a). 1260 b). 641 (959) c). 49%	a). 1260 b). 337 (659) c). 73%	a). 1260 b). 482 (851) c). 62%	a). 1260 b). 458 (868) c). 64%
ATC 2 (Shobnall Rd)	a). 1260 b). 762 (1142) c). 40%	a). 1260 b). 389 (770) c). 69%	a). 1260 b). 556 (989) c). 56%	a). 1260 b). 527 (979) c). 58%

Table 4: Weekday average flows/2016 flows/remaining %-age capacity.

Progress10 Note: It is important to remember that the 1260vph one-way flow capacity shown in table 4 is robust due to the average width of Shobnall Road being less than the 6.75metres quoted in D.M.R.B. for a UAP2 road.

It is also important to note that the capacity figures for flows on the subject road are not directly related to the junction capacities at junctions which are impacted by generated traffic and which serve the subject road.

Junction modelling was addressed within the transport assessments provided with planning application details for committed developments. Staffs County Highway Authority have agreed provisional capital sums for local strategic highway network improvements against development impact at strategic junctions.

Existing Traffic Flows and Committed Development Traffic Generation.

It is clear from the figures above in Table 4 that the residual capacity of Shobnall Road is low in the morning peak flow hour.

In addition, it is noted that these figures do not include for the committed development traffic impact covered later in this report.

Progress10 have considered committed traffic generation for the 4 sites listed in Table 5 (below), and made some simple analysis of the traffic impact that will occur on the target length of Shobnall Road once these developments are built out.

The industry recognised standard for calculating traffic generation from a development proposal is via the TRICS database (Trip Rate Indicator Computer System), which is a national database available for transport industry use. TRICS holds survey information for many development sites counted in recent years and offers a facility to match a proposed development to existing surveys within the database. This generates a 'trip rate' per dwelling for residential development for instance, which will give a robust estimate for traffic generation from the proposed development being assessed.

The County Highway Authority have agreed trip rates for development within local transport policies.

Progress10 believe that it is these trip rates which have been used for new developments around the Burton area within the CHA traffic survey model (called SATURN – a proprietary computer programme used for some transport assessments).

Unfortunately, the target length of Shobnall Road/Forest Road is not included in the original SATURN model so **Progress10** consider that it would be sensible to make a simple calculation of traffic generation from the committed development sites which will give an indication of the impact on residual flow capacity of the Shobnall Road/ Forest Road.

TRICS Trip Rates.

Residential sites surveyed in recent years within the TRICS database have been generating 8am – 9am peak flow trip rates of between 0.6 and 0.7 trips per residential unit, on the urban/rural fringe of developed town areas. This figure represents vehicles leaving a site and travelling to the site in the assessed hour.

Therefore, if a trip rate of 0.65 is applied to the development numbers of a residential development, a typical traffic generation figure can be derived.

In addition, vehicle trips would normally be considered to be split in direction of flow on the major road in tune with the counted flows on that road. For the Shobnall Road counter, ATC2, flows are 60% eastbound and 40% westbound as a weekday morning peak hour (8am – 9am), weekly average. This is the industry recognised approach for assessment.

It is normal practice to use the major road percentage split in traffic flow (recorded by ATC), therefore **Progress10** have used 60% in the table below.

The following table has been developed and demonstrates the likely traffic generation from the 4 committed developments that will impact on Shobnall Road. It should be noted that the traffic generation from the Lawns Farm development is difficult to determine without exhaustive examination of the multiple transport assessment documents which accompanied that application, however an assumption has been made which is estimated and designed to give a 'feel' for the likely impact.

SITE ADDRESS	HOUSING NUMBERS	TRIP RATE AT 0.65 = 'X' TRIPS	60% OF TRIPS = 'Y', (BUSIEST FLOW DIRECTION)	TRAFFIC CAPACITY USED AT ATC2
LAND AT RED HOUSE FARM	246	160	96	7.5%
FOREST ROAD NORTH	83	54	32	2.5%
FOREST ROAD SOUTH	300	195	117	9%
LAWNS FARM	40% of 2,500hss (NOTE: MIXED USE IS EXCLUDED FROM THIS FIGURE)	650 (SEE BELOW)	390	31%
			TOTAL %:	50%

Table 5: Shows the residual flow taken up by committed residential development. The figure for Lawns Farm is based on 40% of the residential numbers given the main access to this site is off the A38 and so is an estimate of the likely residential traffic generation onto Shobnall Road.

Note: ***This figure does not take into account any of the mixed use class traffic from Lawns Farm and is based on residential numbers only.***

Table 5 conclusion.

It is clear from the figures in Table 5 that the use of 50% of the overall D.M.R.B. capacity for the Shobnall Road/Forest Road route by committed residential development will take the B5017 to 110% its traffic capacity in the a.m. peak hour at ATC2 (Shobnall Road), shown in Table 4.

In addition, it will be at capacity in the a.m. peak hour at ATC1 (Forest Road), shown in the same Table (99% of capacity).

This conclusion is made more significant when the traffic generation from Lawns Farm for its mixed-use elements is considered. When these elements are also generating daily traffic flow, a proportion of the traffic will have impact on the Shobnall Road/Forest Road route.

It can be concluded that both identified a.m. peak hours in Table 4 would be taken to or over capacity by the committed residential development traffic, and will in fact, be taken significantly over capacity when the mixed-use element of Lawns Farm is generating.

Parish Council position. ***This is a significant position for Shobnall Parish Council as it will allow them to press future developers for significant amounts of mitigation or funding, and it will give them a robust position from which to negotiate with the County Highway Authority on the same grounds.***

The Parish Council should consider how it will address this position via the Neighbourhood Plan policies and supporting documents.

7.4 Conclusions on traffic flows and Heavy Commercial Vehicle flows.

Traffic flows.

Traffic flows show some hours where the residual capacity of Shobnall Road is low enough to be heavily impacted by the traffic generation from the committed developments.

The two morning peak hours will be significantly over capacity when committed development flows are realised.

It must be remembered that the figures shown in Table 4 are without the committed development traffic impact from the sites shown in Table 6 in section 10 of this report.

The crucial peak flow hours will be suffer over-capacity stress when the committed developments are built out. This will lead to extended vehicle queue lengths and affected junctions will take longer to clear.

Progress10 have shown at Table 5 that Shobnall Road will reach or go beyond maximum traffic flow capacity in a number of hours once all committed development is built out and is generating traffic onto Shobnall Road.

Parish Council position: ***Clearly, given the long term build out period of the committed developments it would currently be difficult to identify this point in time however the Parish Council are advised to update the ATC surveys on a 3 to 5-year basis so that traffic growth is available over time.***

The Parish Council will need to be pro-active in pursuing negotiations with any future prospective developers to ensure that the current data in this report together with committed development transport assessments are considered properly.

This will give protection to Shobnall Road for the future.

The evidence shown in the tables above should be used to achieve this as stated earlier in this section of the report.

Heavy Commercial Vehicles.

The figures shown in Tables 2, 2a & 3 above demonstrate clearly the detail of HCV flows along Shobnall Road (OGV1 & 2). Table 3 shows clearly that there is a marked increase in HCV flow overnight.

It is very likely that these HCV movements are generated from local businesses and can probably be attributed to the knowledge of local drivers or simply that approved HCV routes attached to original planning permissions are being ignored and this not necessarily within management knowledge.

Progress10 would observe that overnight vehicle flows are generally much lower than in the daytime and that there is no reason why the increase in overnight HCV flow should not use the proposed HCV routes detailed in Table 6 at section 10 of this report.

Parish Council position: ***The Parish Council should use this report evidence to liaise with local businesses that generate HCV's to confirm approved routes which where possible should use the proposed HCV routes in section 10 of this report, or those agreed with the Planning Authority.***

It may be beneficial to conduct an overnight survey 12 midnight – 6am), to collect vehicle ID's and identify the generating local businesses.

Neighbourhood Plan Policy links: Transport and Highways - T1, T2, T4 & T7.

8. Traffic speeds on the B5017 Shobnall Road.

It is clear from the ATC data at Appendix 2, that a significant amount of general traffic flow does travel at speeds in excess of the set 30mph speed limit. The level of compliance with the speed limit is particularly low in the evening and overnight periods.

Clearly Shobnall Road is an important local route within the Parish however it is also a predominantly residential road with a local school and a high frequency of private points of access and side road junctions both private and adopted.

This road character is very important when potential hazard is considered.

Government statistics show that traffic speed and turning movements at junctions or points of access are two of the most prevalent causal factors of road traffic crashes at a national level, where drivers fail to see an approaching vehicle or misjudge speed and distance either for safe braking or time to emerge into traffic flow.

It is clear that non-compliance with set speed limits contributes to the above causal factors.

Progress10 therefore recommend that the issue of traffic speed is addressed by the traffic calming proposals in section 12.

9. Shobnall Road Flow Diagram and Appendices.

9.1. – Appendices 1 provides a diagram of the subject length of Shobnall Road together with ATC locations. Appendices 1 also provides ‘at a glance’ flow figures which show the average one-way vehicle flow in the hour: 8am – 9am together with residual capacity.

9.2. – At appendices 2 the detailed ATC spreadsheets provide the remaining detailed information from the automatic traffic counters in: table, chart and pie chart format. These appendices will provide further opportunity for comparison in any future survey work which may be pursued. **Progress10** Design will also archive these figures for future reference.

Neighbourhood Plan Policy links: Transport and Highways - T1, T2, T4 & T7.

10. Committed Development and future proposals.

Shobnall Parish Council hold concerns regarding future development proposals which will have a traffic impact on Shobnall Road.

They wish to develop and maintain evidence regarding existing traffic flows and road capacity which will allow them to more accurately assess new development impact.

The evidence in this report offers a position that will allow them to negotiate with developers to minimise any future traffic impact on Shobnall Road.

In addition, the Parish Council want to understand the necessary documents which are listed against committed development sites so that they can be referenced by new development proposals and used to confirm committed development flows. In addition, this report also provides available background traffic flows from the ATC records appended to this report.

The table on page 22 below provides the committed development site information together with a reference to the Transport Assessment documents which were ratified and accepted by the County Highway Authority when the subject sites gained their planning permissions.

Future prospective developers should reference these details, via the neighbourhood plan policies, and this document as an appendix to the Neighbourhood Plan, to ensure they comply with the level of detail that the Parish Council wish to see applied to the assessment of traffic generation.

Neighbourhood Plan Policy links: Transport and Highways - T1, T2, T3, T4, T6, & T7.

Table 6 showing: Committed Development.

This table should be referenced by prospective developers to ensure that all committed development (at the time of writing) is included within transport assessment work.

SITE ADDRESS	PLANNING REFERENCE	DATE OF PERMISSION	HOUSING NUMBERS	TRANSPORT ASSESSMENT
LAND AT RED HOUSE FARM LOWER OUTWOODS ROAD	P2012/01215 (NB – RES'D MATTERS IS: P/2015/01229)	12-11-2013 (APPEAL)	246	PHIL JONES ASSOC P_2012_01215 PROJ 844
FOREST ROAD NORTH	P/2014/01304	05-11-2014 (CONDITIONAL)	83	i-TRANSPORT ITM9265-001 06-10-2014
FOREST ROAD SOUTH	P2012/01359	06-01-2014 (APPEAL)	300	WYG TRANSPORT REF: RT74090-02
BRANSTON LOCKS LAWNS FARM	P/2012/01467	30-11-2012	2,500 + MIXED USE	DAVID TUCKER ASSOC SJT/10146-09 06-11-2012

Table 6: Committed developments and their Transport Assessment references on the related planning applications.

It is noted that the Phase 2 application for Red House Farm (P/2014/01530), was refused by ESBC and was dismissed at public inquiry 22-11-2016. This site was to be accessed from the north rather than from Reservoir Road/Shobnall Road.

11. Heavy Commercial Vehicle routing for the future.

Progress10 have surveyed all likely routes which may be used by heavy commercial vehicles to access the Burton area and/or use the B5017 Shobnall Road route for distribution and deliveries. Routes east of the A38 have also been considered.

It is clear that general access traffic to and from the Parish of Shobnall itself and which wishes to travel in a westbound or eastbound direction is likely to use the B5017.

There is however a clear opportunity to review signed routes and consider recommendations for the improvement of signed direction of traffic to and from the Burton area so that heavy commercial vehicles are not encouraged by local signing to also use the B5017 route when primary road access is available and more appropriate.

The best approach to this would be to develop an understanding of the existing routes and their current signing and then make recommendations to the County Highway Authority with regard to requests for changes to existing signing and also to recommend proposals for any beneficial changes to signing which may be identified.

In addition, it is necessary that preferred routes for delivery vehicles are identified which can later be conditioned where appropriate to new planning applications.

***Parish Council position:* The Parish Council should review existing planning permissions for the agreed service and delivery routes which are controlled by planning condition against the recorded permission. It would be useful to designate a small team of Parish Councillors to progress this work.**

This would put the Parish Council in a position to carry out some local monitoring and then if regular breeches of route are witnessed, an approach can be made to the planning authority for enforcement action.

Major highway network and Heavy Commercial Vehicles.

The major highway network should bear the majority of heavy commercial vehicle routing so that it can be managed through major junctions and along highways which have both the appropriate capacity and geometry to cater for these HCV's.

Progress10 note that the route from the A515 to the B5017 is less appropriate in geometry to suit heavy commercial vehicle traffic due to its rural nature and varying width. This leaves verge areas open to damage from heavy commercial vehicles and the resulting detritus which is often spread on the public highway can cause hazard to other vehicles.

This leaves verge areas open to damage from heavy commercial vehicles and the resulting detritus which is often spread on the public highway can cause hazard to other vehicles.

In addition, if access routes are agreed via a planning condition both the Highway Authority and the Planning Authority should have an interest in managing those positions so that they remain effective for the future.

Clearly there is always the opportunity that the use of sat-nav directions and also drivers unfamiliar to the area, will see some heavy commercial drivers stray onto less strategic routes however with proper management this should be kept to a minimum.

Parish Council position: ***It will be important that the Parish Council open dialogue with existing local businesses and new development owners – particularly commercial operations, to ensure awareness about routing is kept at a high level and in accordance Neighbourhood Plan policy. This is something that the Parish should seriously consider taking forward.***

The table on the following page demonstrates the proposed zonal considerations for commercial vehicle routing which if managed and enforced will minimise future additional heavy commercial traffic along Shobnall Road.

The ‘zones’ considered use the B5017/A5189 east-west line as a ‘horizontal’ axis and the A38 is taken as the north-south line for a ‘vertical’ axis.

These routes are readily identified through Google maps and are noted in the table below for guidance towards the agreement of appropriate access routes on future developments.

Table 7.

ZONE	ACCESS ROUTE TO SHOBNALL AREA	EGRESS ROUTE FROM SHOBNALL AREA	PROBABILITY OF COMPLIANCE
NORTH WEST AREA	A515 or A50 then A50/A511/A38	A38/A511/A50	LOW TO MEDIUM (A515/B5234/B5017 AT RISK)
SOUTH WEST AREA	A51/A518/A50/A511 or A51/A5192/A38/A5121 (SOURCE DEPENDANT)	A511/A50/A518 or A5121/A38/A5192/A51 (DESTINATION DEPENDANT)	LOW TO MEDIUM (A515/B5234/B5017 AT RISK)
NORTH EAST AREA	A50/A38 or A42/A511	A38/A50 or A511/A42 or A511	HIGH - LIMITED RISK TO SHOBNALL
SOUTH EAST AREA	A5/A38 or A42/A444 or A511	A38/A5 or A444/A42 or A511	HIGH - LIMITED RISK TO SHOBNALL

Table 7: The above table shows by road number the recommended routes for access and distribution which would give protection to Shobnall Road.

Parish Council position: Table 7 - The designated routes shown above are open to flexible interpretation by the Parish Council when considering development proposals and likely service and delivery routes.

The Parish Council will need to decide which route is the most likely to be practical and then in recommending an approved route for developments in response to planning application proposals, they will need to refer to the above options and use them to justify choice via Neighbourhood Plan policies.

Progress10 recommend that when a development proposal comes forward that the Parish Council use its location within Google mapping facilities to identify the appropriate route from the above table.

Heavy Commercial Vehicle routing strategy.

The Parish Council will need to be pro-active in managing the routing strategy via the Neighbourhood Plan and on a regular basis.

Reviewing planning applications will need a regular schedule by PC members who will need to recommend preferred approved routes to the Local Planning Authority as a consultation response to planning application proposals upon which the Parish Council are consulted.

Existing signing on routes west of Shobnall Parish.

Progress10 have examined the signing to the west side of Shobnall which are most likely to have route preferences for the Parish Council in order to recommend preferred routes against new development proposals.

In order to consider the potential need for changes to existing signing or the provision of new signing it has been necessary to visit the critical junctions on the routes identified in the zones at table 7 above. This sign survey has been completed for the western area only as the eastern area side is unlikely to impact directly on Shobnall Road itself.

The A515 is the key north south highway which would serve traffic that may access Shobnall Road from the west whether southbound or northbound.

The principle routes which carry traffic to the A515 are the A50 (to the north), and the A51 (to the south).

A50 and A51.

At the site inspection it was evident that neither of these two principle routes had traffic signs which directed traffic towards Burton via the A515.

The A50 directs traffic to Burton via the A511 whilst the A51 directs traffic to Burton via the A38.

It is easily concluded therefore that traffic is not influenced to travel through Shobnall Road from the west by any signing which is situated on these two principle routes.

A515.

The A515 is a significant local distributor route carrying traffic north and south between the A50 and A51 to the west side of the Burton area.

The A515 has several junctions along its length, a number of which provide opportunity to turn to the east and find a connecting link that will carry traffic to the B5017 Shobnall Road.

In contrast to the A51 and A50, a number of signs on the A515 at junctions on this road direct traffic along the B5017, or other B-roads that link to the B5017, giving Burton as the destination.

This is unusual given the major arterial routes to the north and south do not promote the use of the A515 as access to Burton. **Progress10** consider that this is an area of existing signage which could be changed to benefit the B5017 Shobnall Road.

Non local traffic.

Traffic not familiar with the use of the A515 to access Burton via the B5017 would in theory (and without sat nav or other local direction advice), choose the main arterial routes of the A50 & A51 rather than choose the A515 as the main arterial route signing directs there travel by primary routes rather than via the A515.

By default, therefore, it is very likely that the majority of heavy commercial traffic that is witnessed using the A515/B5017 route that impacts on Shobnall Road is:

- On a route regularly used by drivers of a local company.
- Drivers with local knowledge.
- Common to local businesses.
- Taking access to the area in question.

Existing sign installations.

Direction signs for traffic on public highways other than motorways generally have two forms.

The first are signs for primary routes which show white letters on a green background whilst the second for non-primary routes show black letters on a white background.

The A515 has both. This is reasonable as the A515 does act as a primary distributor road as a north south link between the A50 and the A51 however by virtue of the status of the primary route signs on the A515, there is reference to Burton via the B5017 which could be considered to promote through-traffic stress on Shobnall Road.

In addition, Burton is also signed via the B5017 at the B5234 cross roads with the A515 - this on a non-primary route direction sign (black letters on a white ground).

This non-primary sign use for direction to Burton via the B5017 is also evident at the five-arm roundabout on the B5017 route from the A515 to Outwoods and Shobnall.

Progress10 consider that there is a position here where the Parish Council could approach the County Highway Authority and ask them to consider 'patching' the signs to take away these directional references to Burton, via the B5017, as they are clearly dislocated from the two major east west routes of the A50 and the A51.

Given the significant traffic impact expected on Shobnall Road from the committed developments shown in this report at Table 5, it seems reasonable that there should be no directional references to Burton from the A515 when no traffic is directed to Burton via the A515 from the A50 and the A51.

The following local direction signs along the A515 have been observed to show Burton as the destination and direct traffic along a route which will impact on the B5017 Shobnall Road:

- Direction signs on all signed approaches to the five-arm roundabout on the B5017.
- Direction signs on the cross roads between the B5234 and the A515.
- Direction signs at the Newborough/Hanbury/Marchington road junction.

Parish Council position: ***These direction signs direct traffic to Burton in such a way that it would impact on the B5017 Shobnall Road and the Parish Council should recommend changes to the County Highway Authority that would by default promote the recommended routes in Table 4 above.***

These signs should probably see a replacement of the 'Burton' reference with directions to: Outwoods and Shobnall or both.

If the County Highway Authority would agree to amend the wording of the identified signs this, the adjusted sign detail would support the heavy commercial vehicle routing strategy outlined in this report and therefore lend strategic support to the policies in the Neighbourhood Plan.

It is important that the Parish Council pursue this course of action.

Neighbourhood Plan Policy links: Transport and Highways - T1, T2, T4, T6, & T7.

12. Shobnall Road traffic calming recommendations.

***Parish Council position:* At the autumn 2015 meeting between Urban Imprint (then BPUD), Progress10 and Shobnall PC, Progress10 made it clear to the Parish that they did not have any right to introduce traffic calming features on any public highway. This was re-iterated in the discussed notes which preceded this document.**

In discussion, the Parish Council representative expressed the continuing concern of the Parish that they would like to see some form of traffic calming on Shobnall Road.

Subsequent to this and having considered the site in some detail, Progress10 have developed options for traffic calming which the Parish Council could bring to the County Highway Authority as proposals.

This presentation to the CHA will open a channel of negotiation which could see the CHA consider this for the future.

Funding will be important and significant monies have been agreed from the committed developments which impact directly on Shobnall Road itself which may be able to be made available for local traffic calming and management funding.

Progress10 consideration of traffic calming.

The B5017 is a well used route into the heart of Shobnall Parish which can then give access to: Centrum Park to the south and the main shopping area to the north.

The significant traffic flow and the residential nature of the frontage property mean that the County Highway Authority are unlikely to allow any traffic calming features which would cause vertical deflection and therefore vibration to property. This type of feature would also have greater noise issues and potentially a negative impact on air quality.

Traffic calming therefore needs to be considered in a way more akin to traffic management.

This means that features such as: gateway signing, road markings and priority working are the most likely candidates for traffic calming treatments for this road.

Speed Limit adherence.

In addition, and given the issues on Shobnall Road with regard to speed limit adherence **Progress10** also consider that the provision of vehicle actuated signs showing approaching vehicle speeds would have a positive effect on speed limit adherence.

The net effects of these features are:

- Entry Gateway: Highlights to approaching drivers a change in environment and therefore 'requires' a different and more courteous approach in driving behaviour.
- Road markings: sometimes allied to signs can alert drivers to potential hazard and the need for a more measured approach to driving in this area.
- Priority working: This feature requires one direction of flow to give way if opposed traffic is also nearing the feature. It can platoon traffic allowing easier egress from side road junctions and also provide gaps in traffic which present better opportunities for pedestrians to cross the road. This feature can also act as a minor deterrent to through traffic.
- Vehicle actuated speed signs: information to drivers who are exceeding the set speed limit.

Progress10 consider that traffic calming should be pursued for Shobnall Road, and that its effect would have impact in terms of through traffic flow and it would have a positive impact on traffic speeds.

Gateway features are probably a very favourable provision and Shobnall Parish Council should consider further ways to enhance the information to drivers about the residential environment that they are driving in. Many areas have local signs erected which are designed by school children for instance.

Road markings will have a limited effect though where they are allied to a sign, perhaps on the approaches to the school, they will highlight this hazard and raise driver awareness to it. Existing road markings should be maintained or renewed where necessary.

Priority working would involve the construction of build outs into the carriageway to force the give way requirement to one direction of traffic. These kerbed build outs will probably need to be lit and may need a keep right bollard on them to direct drivers and highlight the position of the kerbed build out so that it avoids vehicle impact if the driver does not recognise it.

***Parish Council position:* Traffic calming in conjunction with HCV routing.**

Progress10 consider that the most comprehensive way to calm traffic on Shobnall Road will be via the combined effects of future vehicle routing, particularly for heavy commercial vehicles and the resistance to future developments which may generate traffic that will impact onto Shobnall Road.

This will mean that with the Neighbourhood Plan in place, the Parish Council will need to remain very active on the traffic management and planning proposal fronts and deal quickly with new proposals. This will ensure that the neighbourhood plan policies carry the most weight at an early time and developers and the planning authority alike are very aware of issues that are of concern to the Parish Council.

This will lead to either a reduced amount of future development traffic impacting on Shobnall Road or further development possibly not gaining permissions.

Otherwise it is likely to see negotiable developer contributions allocated against traffic management improvements within the Parish itself and with a focus to mitigate traffic impact on Shobnall Road.

Given the Neighbourhood Plan policies and their strength, the Parish Council will find themselves in a position to negotiate with future developers for improvement monies where that is the preferred course of action.

Traffic Calming proposals.

Progress10 recommend that a mix of the proposed traffic calming features above be recommended to the County Highway Authority as a future proposal, once funding for such a scheme is identified by the CHA or the Parish Council.

Parish Council position: ***The Parish Council will need to negotiate with the County Highway Authority on such a scheme which would need to be designed in accordance with required guidance and design documents.***

If the principles of such a scheme are agreed with the CHA, it would be appropriate for the CHA or one of their appointed contractors to produce the technical design for the proposals.

Progress10 note that the County Highway Authority have recently agreed gateways for the C18 in Rangemore for Tatenhill and Rangemore Parish Council. Their detail is currently being considered by the CHA for installation this year.

Progress 10 recommended traffic calming scheme features.

Progress10 consider that liaison with Outwoods Parish Council would mutually benefit both Shobnall and Outwoods.

Therefore, there is an option to recommend a traffic calming scheme for the B5017 route which passes through Outwoods and Shobnall.

The following feature locations are recommended to the County Highway Authority:

Gateway features – to define areas where drivers need to be aware of the residential environment and proceed with awareness and appropriate vehicle speed.

Gateway 1.

In the vicinity of the Henhurst Hill/Postern Road junction area where the B5017 takes a significant change in environment from rural to residential. Specifically, at the point of change of speed limit. Facing eastbound traffic. No build out is proposed at this location.

Gateway 2.

In the vicinity of 19, Henhurst Hill where the double yellow lines commence. Facing eastbound traffic but should also be double sided. There are verges here which will accommodate the signs. Build out No2 is proposed at this location (see below).

Gateway 3.

Level with the eastern boundary of 59 Forest Road. This gateway is more difficult to locate as it would mean straddling the footway with two poles which would require pedestrians to walk below the sign. This would work and as with the other signing installations the design would be tested through the risk assessment process for any appropriate mitigation. This gateway should be double sided. Build out No3 is proposed at this location (see below).

Gateway 4.

The east side of the A38 flyover. This gateway would have signs which would primarily face west bound traffic and maintain attention of drivers regarding the need for courteous driving in a residential area. This gateway could also be double sided. Build out No4 is proposed at this location.

Build outs with priority working.

The combination of build outs with gateways would make clear and regular statements to through traffic about the residential nature of the highway environment within which they were driving.

Build outs will also cause interruption to traffic flow.

Build outs with priority working would ideally be located to coincide with the gateways however positioning and existing features such as: bus stops, junctions and other points of access may dictate where and if build outs could be installed.

Progress10 recommend that build outs, subject to detailed design by the County Highway Authority could be located at gateways 2, 3 and 4 **(numbered the same for the purposes of description)**.

It should be noted that a build out at gateway 3 may have to be adjusted due to the bus stop location.

It should also be noted that a proposal for a build out at gateway 2 may be affected by proximity to the bend in the road and the related forward visibility requirements and stopping site distances. There is probably sufficient room at this location to adjust as necessary.

The give way priority for approaching traffic should be as follows:

Build out at gateway 2: Eastbound traffic to give way to west bound traffic leaving Outwoods in a westerly direction.

Build out at gateway 3: Eastbound traffic to give way to west bound traffic leaving Shobnall in a westerly direction.

Build out at gateway 4: Westbound traffic to give way to east bound traffic leaving Shobnall in an easterly direction. (This to cater for the proposed roundabout for the Lawns Farm development). Note: this gateway may need removal should the roundabout be constructed.

Progress10 note to Shobnall PC: This gateway would be in close proximity to the proposed Lawns Farm roundabout. The proximity would mean that if east bound traffic gave way to west bound flow, the east bound traffic may queue onto the roundabout and block the free flow nature of the roundabout junction, therefore causing congestion.

It may be that should the Lawns Farm roundabout be constructed that it could be considered to replace the gateway which could be removed however that would be a consideration for the County Highway Authority at that time.

Road markings.

All of the gateway and priority working features would need to have the requisite road markings to accord with the Traffic Signs and General Directions Regulations 2015.

Vehicle Actuated Speed signs.

Progress10 recognised at section 8., above that vehicle speed was identified at levels which were in excess of the set speed limit in the ATC data.

It would be appropriate to combine vehicle actuated signs which identify a vehicles speed and advise the same to the identified driver on approach.

The gateway features with build outs will have some effect on speed control however at times of greater free-flow vehicles will still have potential to exceed the speed limit where driver awareness is not appropriate.

Vehicle actuated signs indicating speed, one for each flow direction and placed strategically to also provide protection in the vicinity of the school frontage are considered appropriate and are recommended to the County Highway Authority.

The above features would offer a reasonable level of traffic calming advice to drivers travelling through the B5017 Shobnall Road.

Traffic Regulation Orders.

It should also be noted that there would almost certainly be a need for changes to the existing traffic regulation orders which currently serve the B5017 Forest Road/Shobnall Road route.

For instance, if a build out is constructed where there is a single yellow line it is likely that it will be necessary to change a length to double yellow lines so that the vehicle stacking area on the give way side of the build out can accept queuing vehicles where otherwise on street parking may cause obstruction to through traffic.

The possible draw back to this is that it may disadvantage the currently available overnight parking for some property and this may lead to objections to the changes in waiting restrictions from local residents.

Progress10 recommend that the Parish Council pursue local liaison with residents who may be affected once a draft scheme is designed.

***Parish Council position:* Conclusion on Traffic Calming options.**

Progress10 would advise that with the recommendations in this report that the Parish Council open a dialogue with the County Highway Authority in order to establish if common ground on traffic calming recommendations can be agreed.

In particular, the funding stream for such work will need to be identified.

Once this position is reached it would be appropriate to produce a draft design drawing to identify features together with their type and location so that the Parish Council can liaise with residents prior to formal design.

Neighbourhood Plan Policy links: Transport and Highways - T1, T2, T4, T6, & T7.

13. Neighbourhood Plan Policy References.

Shobnall Neighbourhood Plan - 2016-2031 Regulation 15 Amended Draft – September 2016 Shobnall Parish Council. 20/09/2016

Section 7. Transport and Highways:

Progress10 recommend that the following Neighbourhood Plan policies be linked to the evidence in this report for future consideration of new development proposals:

- Policy T1 - Transport Assessment.
- Policy T2 – Highway Design and Traffic Calming.
- Policy T3 – Travel Planning.
- Policy T4 – Travel Planning.
- Policy T6 – Sustainable Transport.
- Policy T7 – Cycling and Pedestrian Routes.

Note: Policy T5 relates specifically to parking provision within new development only and is therefore excluded from this list.

14. Conclusion.

Shobnall Parish Council commissioned **Progress10 Design** to provide traffic survey data on Shobnall Road and make recommendations in a number of areas including: traffic management, heavy commercial vehicle routing and future development transport assessment.

Progress10 Design have completed this work and also provided break down of the data and assessed it against guidance criteria in the Design Manual for Roads and Bridges in order to give a view on road traffic capacities and current traffic flow conditions.

This report includes for location and network descriptions and provides information on: Automatic Traffic Counters, their function, vehicle categories and assessment data – both in tabular and flow diagram form. In addition, all ATC data is provided in the appendices.

Further sections of the report cover the remaining areas of assessment as listed.

Progress10 recommend this report be read in conjunction with the current version of the Neighbourhood Plan.

***Progress10 note to Parish Council:* The Parish Council should follow up on the recommended points of action in this report and open discussions with both the County Highway Authority/Planning Authority and where appropriate, local businesses, with regard to traffic calming and management issues and recommended heavy commercial vehicle routing. These actions to be for both existing development and future development proposals which impact on Shobnall Road.**

Neighbourhood Plan Policy

Each section of this report gives clear guidance on recommended courses of action to seek progress and remedy in the areas of concern which fall within the commission brief.

At the end of each section **Progress10** have noted each Neighbourhood Plan Policy link for easy reference and they are repeated at Section 12 of the report.

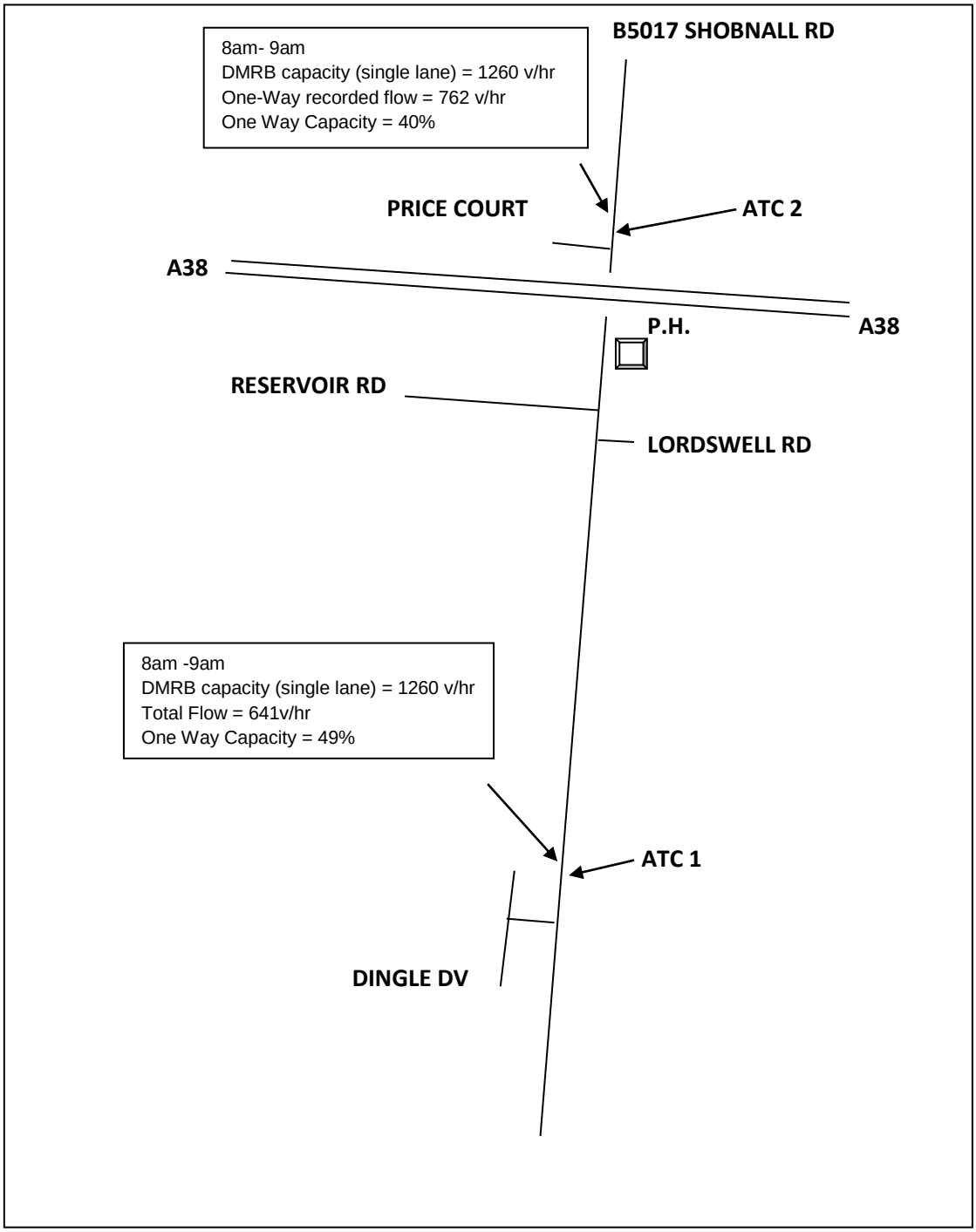
Nigel Curtis I.Eng M.C.I.H.T.

Progress10 Design Ltd January 2017

APPENDICES

APPENDIX 1: TRAFFIC FLOW DIAGRAM

Appendix 1: Diagram shows average weekday flows – 8am to 9am:



APPENDIX 2: TRAFFIC DATA FILES FROM A.T.C. 1 & 2

(SEPARATE SPREADSHEET FILE FROM TRAFFIC SENSE COMPANY).