



Black Dike Lane Danger Reduction Scheme **Feasibility study**

Background

Residents of Black Dike Lane and Manor Close submitted a petition to the Council (presented by Councillor Hook at Full Council on 21st October 2021). Various concerns were raised by the residents.

The petition was reported to an Executive Member decision session meeting in January 2022. The preferred option was to note the petition and add the issues to the proposed 2022/23 programmes for further investigation and development of potential solutions.

The project was added to the 2022/23 Danger Reduction programme for review at feasibility stage.

The petition

The wording on the petition is as below:

“We, the undersigned residents of Black Dike Lane, Manor Close and other residents with garages in Black Dike Lane, are concerned about the risk of a serious accident due to vehicles driving at an inappropriate speed and the increasing volume of large vehicles using the lane.

“Black Dike Lane is partly a single-track country lane and partly a narrow residential lane with 31 houses (including those in Manor Close), a blind corner and, along most of its length, no footpaths.

“We consider that the lane is now unsafe for both pedestrians, especially the four residents who use wheelchairs and children, and riders of the horses and children’s ponies stabled in the lane.

“We petition that the council produces a plan to address the problems highlighted and work with partners to achieve this including speed reduction, restricting access to large vehicles and possibly gated closure of the lane at the junction with the A59”.

It has since been confirmed that the horse riders use the length of Black Dike Lane between “Dunelm” and Station Road before proceeding along Long Ridge Lane towards Millfield Lane, which is a busier and potentially a more hazardous route than Black Dike Lane.

Existing layout

The existing layout is shown in **Annex A**.

Black Dike Lane is located within Upper Poppleton to the northwest of York and links the A59 to Station Road / Long Ridge Lane.

From its junction with the A59, it is a rural road with a 60mph speed limit. Immediately prior to reaching the outskirts of the residential area the speed limit reduces to 30mph. It is a single lane road leading up to this, bounded by verges on either side. The road width here is between 3.0 to 3.75m (wider towards the A59 end).

It forms a “T” junction with the A59, with a give way for vehicles joining the A59. The give way markings are badly faded and in need of refresh. The kerb radii are large, resulting in a wide entrance into Black Dike Lane, serving as a speed reduction lane for left turning vehicles entering Black Dike Lane.

The speed limit is 60mph on both the A59 and the initial length of Black Dike Lane. Black Dike Lane is not signed for the speed limit as you enter the lane, however it is signed with a 7.5t weight restriction (except for access). The lane at this point has footways on either side and these continue for a short distance. A sign warning of pedestrians in the road (for 500 yards) is provided at the point of termination of the footways.

Thereafter, the lane continues as a single width lane with wide verges either side.

Immediately prior to the commencement of the properties, the speed limit changes to 30mph. The signs are positioned at 1.15m above ground level in the verge and are therefore directly in the eye line of most motorists. This speed limit continues for the remainder of Black Dike Lane to its junction with Station Road.



There are only 2 lighting columns present, both on the southern side within the residential section.

The single lane road continues up to the junction with Manor Close. Thereafter, to its termination at the Station Road junction, Black Dike Lane is wider and can accommodate two-way traffic.

At its junction with Station Road, Black Dike Lane forms a crossroads with Long Ridge Lane directly opposite. Black Dike Lane traffic needs to give way at the junction, however, the road markings are badly faded and there is no accompanying give way sign.

Black Dike Lane is adopted for its full length. The land registry plans indicate that many of the verge areas fronting the properties are adopted highway despite them having been landscaped by residents.

It is not a bus route or a primary gritting route.

Road surface condition

The 2021 carriageway annual condition survey shows the residential section of Black Dike Lane as being mostly category 3-4 with pockets of grade 5. The section between the A59 to the properties is mostly grade 3.

Category 3 classification is that the surface is in a mid-life condition, whereas category 4 indicates that the road is functionally impaired. Grade 5 is structurally impaired.

There is currently no proposal to resurface Black Dike Lane in the near future, although some localised maintenance repairs may be undertaken in the near future.

Speed

Speeding within the residential section of Black Dike Lane is noted by residents as one of their primary concerns. A speed concern had been submitted to North Yorkshire Police (NYP) and a speed survey was undertaken between 5th and 12th January 2022, with the logger being positioned on a BT pole near to a house called "Sils Maria" within the 30 limit.

Mean speeds were recorded at 19.56mph (east) and 17.95mph (west). The highest mean flows occurred at peak times and leading up to Midnight, suggesting that commuter traffic may use Black Dike Lane (there have been reports and observations of "rat-running" on Black Dike Lane).

85th percentile speeds were recorded at 24mph in both directions, and a top speed of 37.2mph in both directions.

Compliance with the signed speed limit is good – only 0.9% of vehicles exceeded the speed limit, and 0.1% (east) and 0.3% (west) exceeded the enforcement speed level. The recommendation from NYP as a result was that no further action is required.

Despite the evidence to indicate no speed concerns, it is likely that there is a perceived risk to pedestrians, heightened by the narrowness of the road, lack of footways and proximity of the properties.

Mean speed (mph)	East	West
Midnight – 7am	15.55	15.72
7am – 9am	20.62	18.49
10am – 3pm	18.03	16.67
4pm – 6pm	20.63	19.25
8pm - Midnight	21.22	18.60

No survey was undertaken within the 60mph on the approach to the village, so it is not clear if any speeding occurs on the approach from the A59.

Highway Regulation are currently advertising a change to the speed limit on the A59 to extend the existing 40mph limit to a point west of Hodgson Lane junction. This would extend it across the mouth of Black Dike Lane. The proposals were reported to Executive Member decision session in December 2022 and January 2023, and approval was given to advertise the speed limit change. Advertisement took place in April 2023 and a report is due to be presented to Executive Member decision session for approval to extend the 40 limit.

If this change is approved, there would be a justification to reduce the speed on Black Dike Lane from 60 to 40 also. This could be achieved by amendment to the decision session report to include Black Dike Lane (and additional advertisement). This action has been requested and if implemented would go a long way in managing speeds into the residential section of Black Dike Lane. Highway Regulation are progressing the amendment.

Accident data

There have been no recorded accidents on Black Dike Lane over the period 2019-2021 inclusive. However, there have been three accidents on the A59 in the vicinity of the Black Dike Lane junction. 2 Slight, 1 Serious.

The two slights involved drivers turning into Black Dike Lane and poor decisions from vehicles following behind.

The accident resulting in a serious injury was located 38m west of the junction and was due to a very poorly timed overtake.

The nature of Black Dike Lane is such that residents perceive there to be a risk of accident. This is not substantiated by the accident data, but it is noted that no records of near misses or damage only incidents are available. As stated earlier, the lack of footways is a contributing factor to this perceived risk.

Traffic flows

The traffic flows were recorded during the period 5th – 12th January 2022. The table below provides a summary of the key traffic flows.

Weekday traffic flows are low with an average of 132 vehicles eastbound and 102 westbound. Weekend averages drop to 77 eastbound and 72 westbound, with a more even balance of flows.

Average peak time flows are higher eastbound, with weekday AM peak at 40 vehicles compared to 23 westbound. Similarly, PM peak flows are 24 and 16 respectively.

The average peak flows during the weekend are considerably less.

	EASTBOUND			WESTBOUND		
	Average Daily Flow	Average AM Peak Flow (7-9am)	Average PM Peak Flow (4-6pm)	Average Daily Flow	Average AM Peak Flow (7-9am)	Average PM Peak Flow (4-6pm)
Average:	117	29	21	94	18	14
Weekday	132	40	24	102	23	16
Weekend	77	4	12	72	7	10
Monday	120	42	23	121	31	17
Tuesday	152	55	24	94	25	11
Wednesday	138	48	28	108	23	22
Thursday	144	36	27	97	18	10
Friday	101	18	16	85	18	12
Saturday	83	5	9	74	7	8
Sunday	71	2	14	70	7	12

Graphs are provided below showing the distribution of average traffic flow by hour.

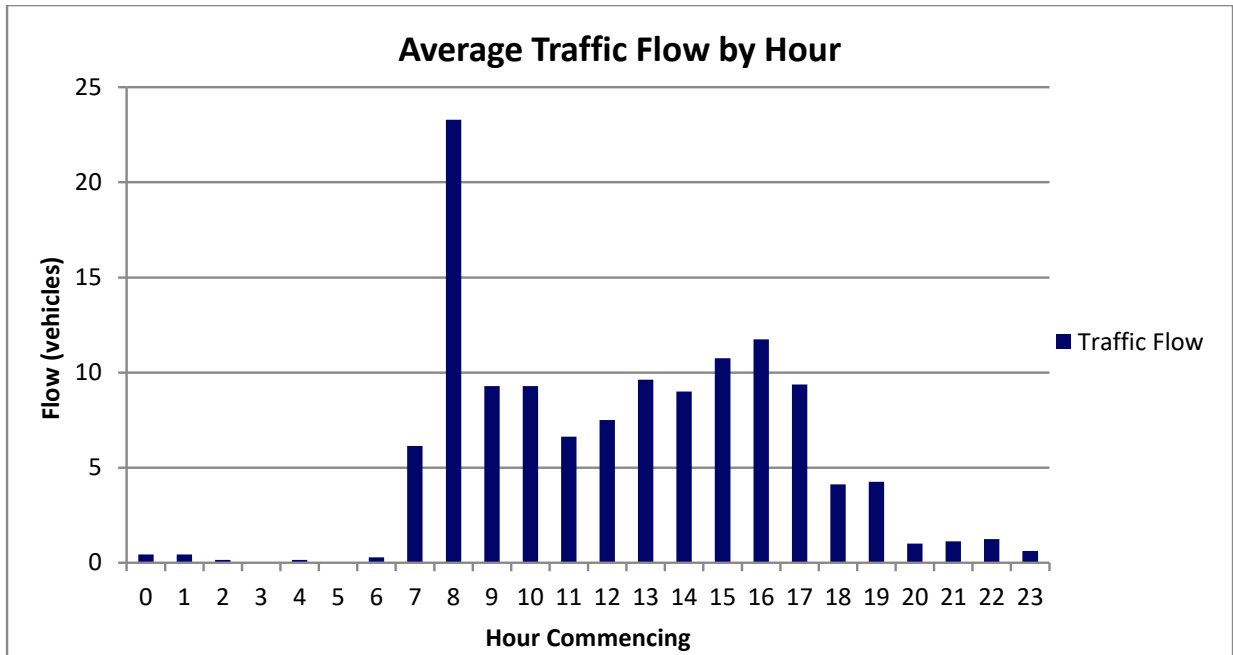
The average traffic flow counts illustrate that the dominant flow of traffic in an eastbound direction (from A59) is at its peak during 08:00-09:00, reaching an average of 23 vehicles/hour. This is almost double the next peak which is 12 vehicles between the hours of 16:00 and 17:00.

Average traffic flow by hour westbound does not exceed 10 and the distribution throughout the working hours is more even.

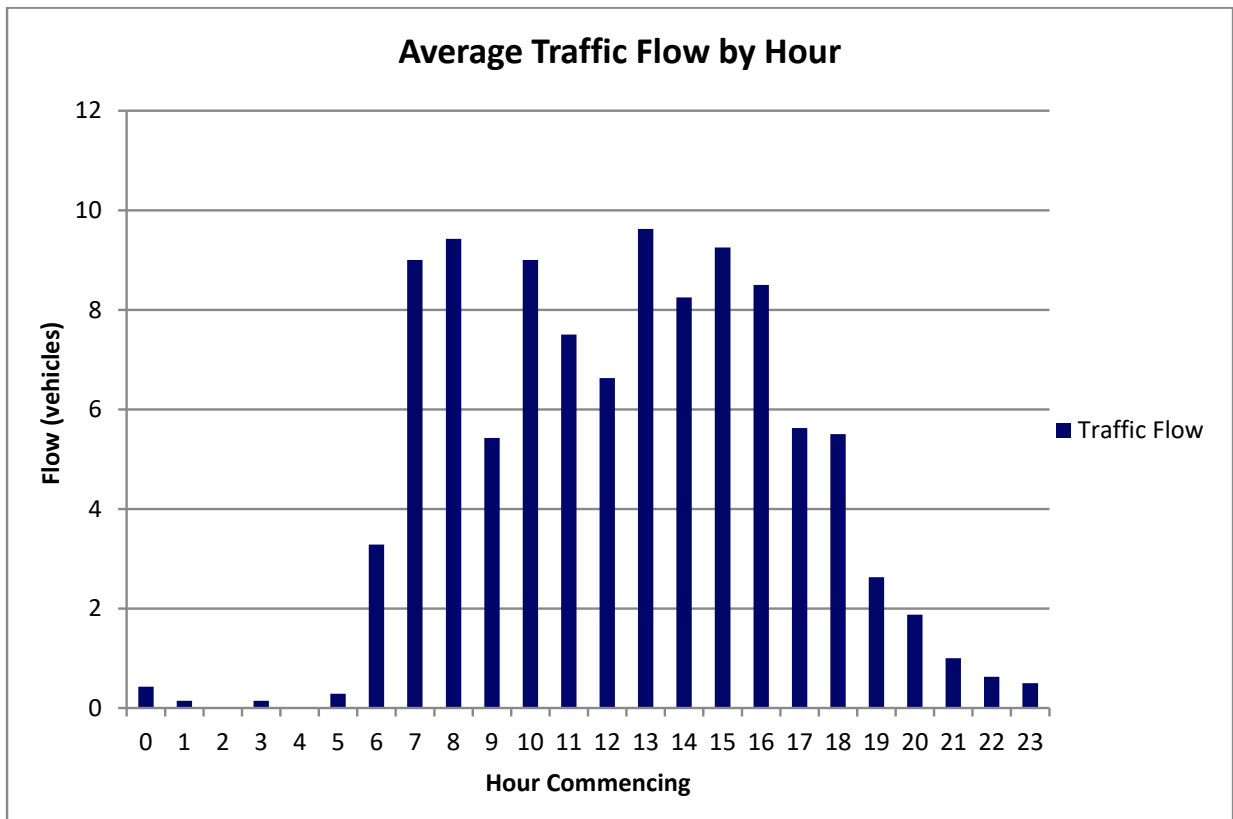
Queues are known to regularly build along the A59 from its signalised junction with Station Road, particularly at AM peak. The queues often extend up to the Black Dike Lane junction, sometimes beyond. Vehicles have been reported to be diverting off the A59 onto either Hodgson Lane or Black Dike Lane to avoid the queues, and observations have confirmed this.

The route using Black Dike Lane and proceeding along Long Ridge Lane to Millfield Lane is an attractive alternative to queuing on the A59, particularly for vehicles which are aiming to travel clockwise on the A1237. However, vehicles wishing to then join

the A1237 often find it difficult to do so, so the gain from using the alternative route is lessened. Traffic may also be using this route to reach Manor CoE School (a separate study is reviewing issues at the school).



Average traffic flow: Eastbound



Average traffic flow: Westbound

Restriction on access

Traffic levels on Black Dike Lane and more generally through Poppleton were considered during the planning and delivery of the Poppleton Bar Park & Ride site and A59/A1237 roundabout improvement scheme in 2012. Surveys undertaken at that time indicated that the majority (70%) of vehicles using Black Dike Lane had an origin or destination in Poppleton. This may have changed since.

A temporary restriction to prohibit vehicular access on Black Dike Lane was put in place during the construction works to discourage additional traffic using Black Dike Lane when queue lengths on the A59 were expected to be longer. This was to ensure that Black Dike Lane was not used by any vehicles other than those exempted from the restriction. This was in place until June 2014.

The potential to introduce this on a permanent basis could be considered as part of this project, with signs to diagram 619 "Motor Vehicles prohibited" with a supplementary plate "except for access" provided at the entrance to Black Dike Lane at either end. However, this sign does not appear to be widely understood and abuse is common. Enforcement of the restriction is unlikely to occur.

There does exist a village-wide 7.5t weight restriction (except for access) - this includes the whole length of Black Dike Lane. The restriction is indicated by signs to diagram 622.1A ("Goods vehicles exceeding the maximum gross weight indicated prohibited") positioned at each of the entry points to the village. No other signs are required, hence the absence of such signs at the Station Road / Black Dike Lane junction.

The signs do not prevent the use of Black Dike Lane by vehicles exceeding 7.5t if they are requiring access to a destination within the zone. This would be very difficult to regulate and to enforce any abuse. Vehicles under 7.5t have a right of access.

Introducing a closure at the A59 junction would remove the issues being experienced but it would force "entitled" users to access Black Dike from the eastern end, having to divert from the A59 onto Hodgson Lane or Station Road, exacerbating any issues present there. A gated entrance would be difficult to introduce (legally and practically) and the management of such a facility would be almost impossible to control effectively.

Other factors

The speed survey and traffic data does not give details of the pedestrian activity along Black Dike Lane. Observations have indicated that pedestrian flow is very low.

Speed does not appear to be a problem (as evidenced by the speed survey data). However, even with compliant speeds, the fact that Black Dike Lane is narrow with properties fronting directly on to the road may give residents the feeling of it being a higher risk. There is little protection for pedestrians from passing traffic, as there are no worthwhile lengths of footway along the section westwards from Manor Close (a distance of at least 500 yards).

Bends in the road limit forward visibility. There is a left bend sign on the westbound approach, but this is not clearly visible due to vegetation. A right bend sign used to be present on the eastbound approach but seems to have been absent for several years (since before 2012).

The length of Black Dike Lane between the two bend sign locations is marked by edge of carriageway markings to diagram 1012.1 /1010 although these markings are badly faded. SLOW text is also present, but each marking is also faded.

As pedestrian volumes are very low, the need for a footway is also low and the author considers that provision of footways would not be supported. Discussion with a small number of residents confirms this, particularly if the verge areas would be lost. Providing footways would “urbanise” a pleasant rural environment and would presumably result in the loss of verges.

There are only two street lighting columns on Black Dike Lane, one opposite “Minfield” and the other at the junction with Manor Close. Some additional lighting may be required to reduce the perceived danger at night, although consideration needs to be given to the rural environment of the road and increased light pollution. The provision of repeater signs for the speed limit would also need to be reviewed.

Options considered and analysis.

a) Do nothing.

Doing nothing would not resolve the issues being experienced by residents and there would be continued concerns of risk of a serious accident and continued complaint. Given the strong feeling of residents (reinforced by the submission of the petition), failure to address the concerns would damage the reputation and credibility of the Council.

The speed limit through the residential area is deemed to be appropriate. However, the layout of the road is such that it is narrow and has bends, and these may be contributing to the feeling that it is unsafe.

As mentioned, speeds are generally compliant, and the risk is more likely to be perceived due to the absence of footways. There are no recorded injury accidents, but it is not known if there is a history of near misses or damage only incidents.

Traffic volumes are generally low and the restriction on the size of vehicles (by weight) still allows for these vehicles to pass along Black Dike Lane if for access purposes, but this could be to access any street within the restricted zone area.

b) Traffic management

The speed management plan is not clear as to the classification of Black Dike Lane. It appears to be classed as a residential area. Acceptable traffic management treatments would be:

- Road humps, speed tables or speed cushions
- Chicanes, traffic islands, mini roundabouts, and changes of priority.

Speed data recorded within the 30mph limit has proven that compliance of the speed limit is good despite the view of residents. It is not proposed to reduce speeds further by means of introducing traffic calming measures. In any case the layout would make it difficult to accommodate any such measures and they could be seen as being detrimental to the rural setting of the road. The introduction of traffic calming may also introduce adverse noise caused when vehicles bump over the measures, particularly in an environment where the ambient noise level is low.

Chicanes have the effect of narrowing the carriageway and encouraging drivers to reduce speed and could be considered more appropriate in villages, especially where road humps are deemed inappropriate. Black Dike Lane is very narrow in width and therefore Chicanes would not be a practical option. In addition, there is insufficient traffic flow for chicanes to operate effectively.

A review of the 60mph limit on the initial stretch of Black Dike Lane is being considered as an amendment to the 40mph extension being progressed for the A59. It is deemed to be a worthwhile treatment and would serve to reduce speeds of vehicles entering the 30mph section. The existing signage should be renewed as part of the speed limit change, alongside the introduction of repeater signs as necessary.

There are currently no vehicle activated signs (VAS) on Black Dike Lane. The 85th percentile speed is recorded at 24 mph both ways, therefore the criteria would **not** be satisfied.

The road markings along Black Dike Lane are faded and should be refreshed. This includes the edge of carriageway markings and SLOW text. The give way markings at both junctions should also be refreshed.

Due to the amount of concern of vehicles using Black Dike Lane to avoid queuing on the A59, a fact demonstrated by the traffic flow data, access into Black Dike Lane from the A59 could be reduced by means of preventing left turning vehicles from the A59. This would remove the dominant undesirable traffic from Black Dike Lane but negatively impact on residents who would usually access the lane from that direction, forcing them to use Hodgson Lane or Station Road. This is not supported by the ward member and is unlikely to be supported by residents.

c) Access restriction measures – HGV Vehicle access from A59

Physical width restrictions are a self-enforcing means of restricting road access for large vehicles. Posts or bollards are placed in the road at about 7 feet (2.1 metres) apart so that vehicles wider than this cannot pass between them. As an alternative route must be available for large vehicles such as refuse collection vehicles, their use in residential areas may be limited.

Many residents mistakenly ask for width restrictions to be introduced as a means of slowing traffic. Width restrictions do not, and are not intended to, reduce traffic speed.

As an alternative to a physical restriction, provision of signs to diagram 820 advising motorists that the route is unsuitable for heavy goods vehicles could be provided at the entry from A59, to compliment the current 7.5t access restriction.

d) Pedestrian facilities

Introducing footways would be difficult due to the lack of available road width and low threshold levels to properties. The obvious means would be to remove the verges fronting the properties to provide a worthwhile length of footway and to link up the occasional short section in place. Records show the road to be adopted however many of the adopted verge strips have been landscaped (presumably without consent). A footway immediately abutting properties would not be appropriate as doorways and windows would open on to the footway, presenting a hazard to passing pedestrians.

Providing a footway of 1.8m width on the opposite side would result in the path encroaching into the road, and thereby pushing vehicles closer to the properties.

Recommendation

The proposed treatment is shown in **Annex B** and comprises the following measures:

- i) Reduce the 60mph speed limit to 40mph including revising associated signage
- ii) Refresh Give Way markings at A59 junction.
- iii) Refresh Give Way markings at Station Road junction and introduce new Give Way sign to diagram 602.
- iv) Refresh all road markings on Black Dike Lane (SLOW text and edge of carriageway markings).
- v) Replace all faded or damaged signs.
- vi) Replace / relocate left bend sign.
- vii) Provide new right bend sign to diag 512.
- viii) Provide signs to diag. 820 (unsuitable for heavy goods vehicles) at A59 junction.
- ix) Provide new "pedestrians in road" sign to diag 544.1 with supplementary 500yards distance plate to reinforce existing sign.

Optional extras include the introduction of a "No Left Turn" restriction from A59 into Black Dike Lane. This is not supported by the ward member and is unlikely to be supported by residents.

The above measures are low key and will not be detrimental to the rural setting of the road. It is considered that these will satisfactorily address the main concerns without the need to introduce invasive measures. The ward member (Councillor Hook) is supportive of the recommendations.

Transport Board are asked to approve progression of the scheme to design stage with the aim to introduce the measures outlined in items (i) to (ix) above as shown in **Annex B**.

Residents and other stakeholders will need to be consulted on the proposals during design stage, and a report taken to Executive Member decision session in due course to seek approval to implement the works.

The cost of implementing the measures is anticipated to be in the region of £20,000 including fees.

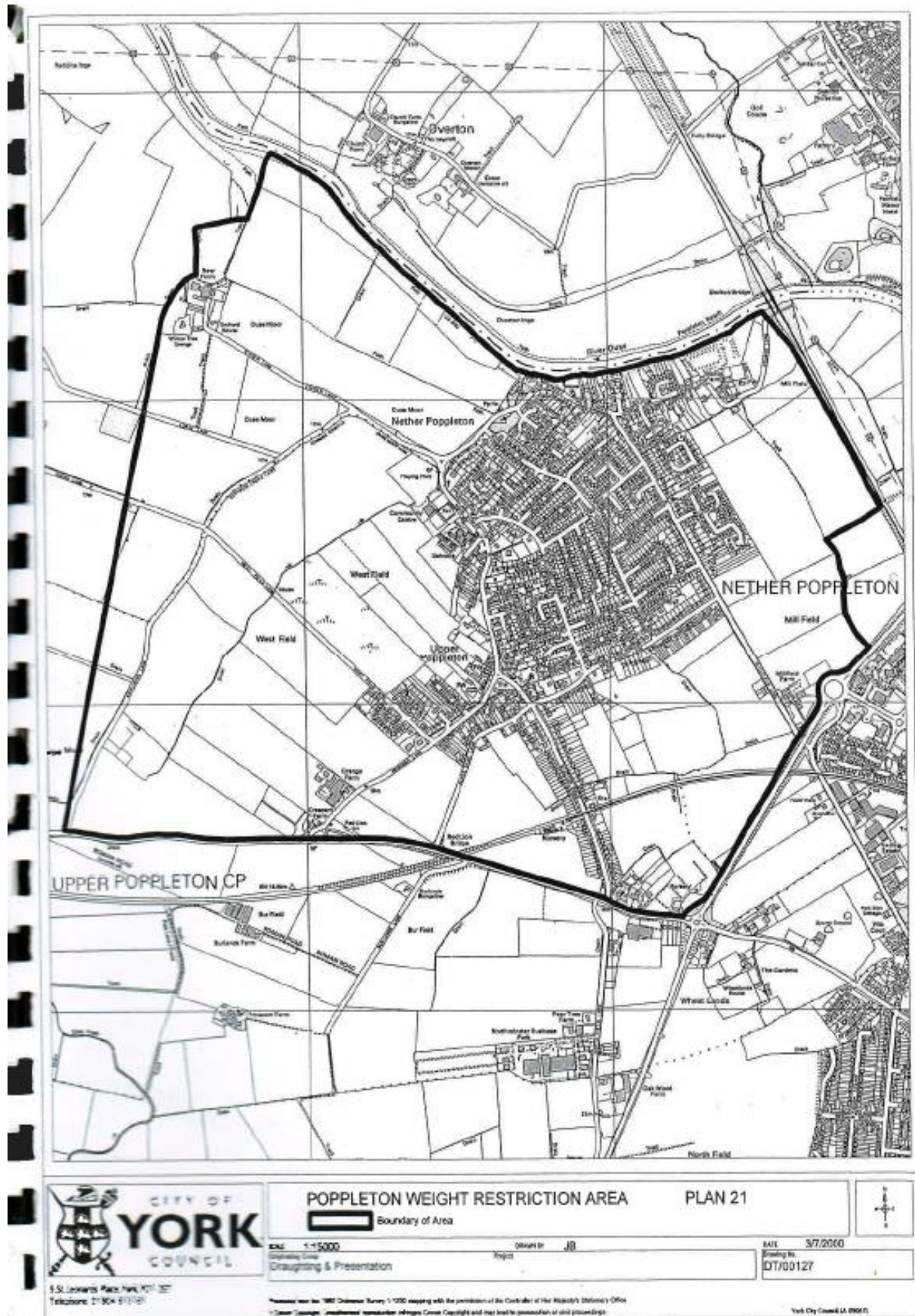
Annex A – Existing Signs and Road Markings

Annex B – Proposed Signs and Road Markings

Annex C – Land Registry Plan



Annex D – Poppleton Weight Restriction Area



POPPLETON WEIGHT RESTRICTION AREA

PLAN 21

 Boundary of Area

SCALE 1:15000
 Drawing Date
 Drafting & Presentation

DRAWN BY JB

DATE 5/7/2000
 Drawing No. DT/00127

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