A38 Derby Junctions - TR010022

Planning Act 2008
Infrastructure Planning (Examination Procedure) Rules 2010

Evidence on Access Matters for Euro Garages Ltd

October 2019

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1.0 INTRODUCTION

1.1 This statement has been produced by William Booker on behalf of Euro Garages Ltd (EG) in relation to the proposed A38 Derby Junctions proposals being promoted by Highways England.

1.2 Mr Booker is a Director of Singleton Clamp and Partners Ltd (T/A SCP) Transportation Planners and Consulting Engineers with office in Manchester, Leeds and London. Mr Booker holds a BSc in Civil Engineering from Manchester University and has over 35 years' experience in providing transport and highways advice on development related matters for a range of proposals for many companies and local government authorities.

1.3 Mr Booker is well acquainted with the proposals from Highways England and their consultants Aecom and has attended the majority of the consultation meetings.

1.4 The statement sets out the areas of concern raised on behalf of EG in relation to the proposals to alter the Markeaton junction in relation, in the main to the proposed amendments to the accesses to the service station owned by EG, known at EG Mackworth, in Markeaton.

1.5 The existing junction of the A38 with the A52 is a four arm at grade roundabout. The A38 is a dual two lane carriageway road with localised widening on the approach to the Markeaton roundabout and is a Trunk Road which is under the control of highways England. The A52 locally runs between Ashbourne and Derby City centre and is controlled by either Derbyshire County Council or Derby City Council.

1.6 Three of the four arms at the junction are signalised with only the A52 arm from the city centre being priority controlled. Pedestrian facilities are provided to all arms.

1.7 The location of the service station is illustrated below at Figure 1 together with the neighbouring McDonalds site. Both sites share twin accesses onto both the A38 (northbound) and the A52 Ashbourne Road. The A38 access is by means of a half moon style access designed to accommodate left turns into and out from the site only. The access onto the A52 is also a half moon style access however in this case all access movements are permitted.
1.8 The approximate area of the EG site is highlighted in red and the approximate McDonalds site boundary is highlighted in blue.

1.9 The land upon which the accesses onto the highway are constructed is not owned by EG but the service station operates with the benefit of comprehensive rights of way over this land. The rights of way are highlighted at Appendix SCP 1, which is a copy title plan DY103730. The area coloured light brown represents the defined rights of way.

1.10 Appendix SCP 2 identifies the McDonalds site boundary and is a copy of title plan DY220642.

1.11 Further information supplied on behalf of Highway England identifies the position of the boundary to the public highway around the site and is attached at Appendix SCP 3.

1.12 From the above information it can be seen that there have been a number of changes to the public highway in and around the site over the years and that part of the land comprised with the rights of way, as illustrated on Appendix SCP 1 is now evidently considered by highways England or its agent to have become adopted as public highway. The mechanism through which these
alleged amendments to the position of the highway boundary may have occurred is not clear to EG and its rights are reserved. For practical purposes within this report, however, it is assumed that the highway boundary as represented on behalf of Highways England and shown on the plan provide at Appendix SCP 3 is correct.

1.13 It is important to appreciate that the operation of the service station relies entirely on the effective availability of the offsite rights of way. Consequently, any interference with these rights and any deficiency will prejudice the operation and value of the service station.

1.14 It is acknowledged that EG have been represented at a number of meeting carried out by Highways England and their consultants and a number of issues that have been raised have been dealt with. There remains, however, some very serious and material concerns which are dealt with within this Statement which still need to be addressed.

1.15 EG are willing to continue to discuss matters with Highways England in an attempt to reach agreement and/or further narrow issues.

1.16 For clarity it is acknowledged by EG that there is support for the overall scheme but they have reasonable concerns in respect of the proposed accesses to and from the site.
2.0 EXISTING CONDITIONS

2.1 The EG service station is located adjacent to the existing at grade roundabout between the A38 and the A52. The service station is located on the western side of the roundabout and access is available to the A38 (northbound) and the A52.

2.2 The A38 is classed as a trunk road and the highway authority for the A38 is Highway England and the local highway authority maintains the A52. The A52 is a major route between Ashbourne and Derby City Centre.

2.3 The location of the EG service station together with the McDonalds site at this major junction means that drivers using both the trunk road and the A52 are able to be used to provide fuel, refreshment and rest for passing motorists. The sites are highly prominent and visible to passing motorists and are well used as a consequence.

2.4 The accesses are detailed below at Figure 2.

**Figure 2 – Existing Site Accesses**

2.5 To the north of the access onto the A52 there is an egress from Markeaton Park which is a priority controlled access catering for left turns out only.
2.6 As can be seen the half moon arrangements operate in clockwise manner and feed both the EG service station and McDonalds. Two-way movement is available at both access points into the EG service station.

2.7 In terms of delivery of fuel EG has confirmed that the tanker enters from the A52 and exits onto the A38. The routing plan is attached at Appendix SCP 4.

2.8 Vehicles attending the EG to fuel and or use the on-site facilities have been surveyed on Wednesday 23rd October 2019 between 0700 hrs and 1900 hrs. The data is attached at Appendix SCP 5. The survey covered a 12-hour period on a typical weekday and the information can be summarised as follows:

   a) A total of 1852 motorised vehicles entered and left the site during the 12-hour period surveyed.
   b) On a daily basis around 62% of the vehicles entered the site directly from the A52
   c) On a daily basis around 32% of the vehicles entered the site directly from the A38
   d) On a daily basis around 8% of the vehicles entered the site from McDonalds
   e) On a daily basis around 50% of the vehicles left the site towards the A52
   f) On a daily basis around 35% of the vehicles left the site towards the A38
   g) On a daily basis around 15% of the vehicles left the site and entered the McDonalds car park

2.9 The data illustrates a reasonable level of cross visitation between the EG service station and McDonalds and also provides information concerning the level of traffic to the EG that would be diverted onto the A52 access with the closure of the ingress onto the A38 as proposed within the current scheme.

2.10 Additionally, the data also illustrates the level traffic travelling between the service station and the McDonalds.

2.11 The data also illustrates the level of movement by OGV1 and OGV2 to and from the site and there are around 50 two-way movements over the 12-hour period surveyed with around 40% entering the site from the A38. There vehicles would need to leave the A38 and then pass through the gyratory to enter the site through the proposed signalised access junction should the ingress from the A38 be lost as proposed.
3.0 JUNCTION IMPROVEMENT PROPOSED BY HIGHWAYS ENGLAND

3.1 The current proposals by Highways England in relation to the Markeaton Junction are illustrated at Appendix SCP 6 and include significant works to enable the grade separation of the A38/A52 junction. The removal of the through traffic along the A38 would lead to a significant reduction in traffic flow passing through the proposed junction with the A52.

3.2 It is clear that the visibility currently experienced by the overall site will be materially reduced simply by removal of the through traffic travelling along the A38 by passing the road under the A52. This component of trade will simply be lost unless provision is made to mitigate this by providing advance warning signs so that a proportion of A38 traffic that will freely flow through the junction can be alerted to the existence of the services.

3.3 The more detailed drawing of the proposed accesses as they impact upon EG and McDonalds is illustrated at Appendix SCP 7. The swept path for a large HGV entering and leaving the EG site is illustrated together with delivery vehicles accessing the McDonalds site.

3.4 The plan has been considered in detail and a number of points are worthy of mention notably:

- a) The two-lane stacking distance for the egress is nearer 20 m than 25m as stated in the Transyt.
- b) The kerb radius for the left run from the A52 is only 3.5m.
- c) The kerb radius for the left turn out of the site is 10m
- d) The width of the entry into the site is 12m (up to the proposed pedestrian island)
- e) The swept path of the large HGV would, in order to keep within, the inner lane appear to strike the kerb radius and then within the site passes within 200mm of the kerb line. The swept path as drawn illustrates the vehicle turning in the EG site within a 17m turning circle.

3.5 Locally, the A52 would be amended to include a signalised junction with the EG/McDonalds site and a new access to Markeaton Park. There would also be signalised crossing points on the A52 for non-motorised users in the form of TOUCAN crossings.

3.6 On the A38 it was initially proposed to close off both ingress and egress from the overall site. EG and McDonalds were then informed that whilst private accesses onto slip roads would not normally be considered that an egress only would be permissible in this case.
3.7 The consultant acting for Highway England has provided confirmation of the suitability of the
design for the egress for a left turn out only.

3.8 This would at least allow for the delivery tanker to continue to serve the EG site and would also
allow some vehicles to exit onto the A38. However, in terms of entry ingress would only be
achieved via the A52 signalised junction.

3.9 A later addition to the proposals retained allowing vehicles to exit the EG site to the north without
the need for use of the McDonalds car park roads which would have required the grant of a right
of way.

3.10 An assessment of the operational capacity of the current proposals has been provided to EG on
17th October 2019. The assessment of the signalised gyratory junction was undertaken using
Transyt.

3.11 It is not proposed to review the results in detail at this stage other than to indicate the saturation
flow for the egress arm (arms 93 and 94) from the EG/McDonalds suggested of 1900 pcu per
hour per lane appears to be excessive give the lanes are turning lanes. Additionally, the length
available for two lane stacking is nearer 20m than the stated 25m in the Transyt assessment.
This is likely to over estimate capacity at the egress and therefore under estimate the potential
queues on the egress arm into the site.

3.12 The radius for a vehicle turning left turn out is around 13m and the radius for the right turn out is
around 15m and this follows an18m right hand bend in the access road which effectively reduces
the lane widths available.
4.0 COMMENTS ON BEHALF OF EG TO THE ACCESS PROPOSALS

4.1 As has been stated earlier currently the EG site benefits for an ingress and egress to and from the A38 and this will be reduced to an egress only onto the slip road.

4.2 The proposed access from the A52 will become signalised and there are concerns in respect of these proposals which are highlighted below.

4.3 It is noted that the current scheme retains two-way movement at the northern end of the site which is welcomed by EG.

4.4 In terms of the proposed removal of the ingress from the A38 it is considered that in geometric terms an ingress could still be provided to the site from the slip road and this provision would leave EG in no worse position that it is currently in with regards to physical access from the A38.

4.5 To ingress the site from the A38 northbound the current proposals will now include a drive length of around 160m and require a driver to pass though 3 sets signals (including a Toucan). This is clearly attractive than the current provision.

4.6 Based upon the traffic survey carried out on 23rd October the potential level of traffic that would be diverted by the closure of the direct ingress from the A38 would add 300 turning movements to the A52 signalised site access junction including 25 HGV’s. Clearly there also be diverted traffic associated with the McDonalds to add to movements at the access junction off the A38 as well.

4.7 It should also be noted that it is considered that the removal of the ingress will require an Order to stop the access up as will also be necessary for the proposed closure of Enfield Road.

4.8 There is also a potential issue in relation to the policing of the proposed exit only from the overall site givee the limited area of highway available within which to install a ‘No Entry’ system which would normally traffic regulation order. The length of any Order would only be 5m in length.

4.9 The no entry signage suggested at Appendix SCP 7 at the southern end of the EG service station is also not accepted as this would unduly and unnecessarily limit the ability for vehicles from McDonalds entering the EG site to take advantage of the facilities on the site. There is no justifiable reason to prevent this type of movement.

4.10 Turning to the access junction onto the A52 there are a number of concerns to highlight.
4.11 The junction geometry for the left turn into the site from the A52 is only 3.5m and normally from an A Road a 10m radius would be anticipated. The radius proposed is less than that normally required by Local highway Authorities for roads in residential areas where normally a 6m radius would be required.

4.12 As noted earlier the swept path for a large HGV is particularly tight on entry to the site. indeed, the vehicles appears to strike the kerb on the A52 when turning into the site and the vehicle then runs no more than 200mm from the kerb edge. The turn into the EG service station is extremely tight and is in effect a 17m turning circle as the movement is in effect a U turn from the A52. This compares to the normally requested 25m turning circle within a delivery area by highway authorities.

4.13 It is noted that assessment indicates that the HGV no longer requires to pass into lane 2 in order to manoeuvre into the site however this is at the cost of striking the kerb and having an extremely tight turning circle.

4.14 The issue associated with the tight turning circle is one of wheel scrub and the impact upon the road surfacing. The maintaining authority for this section of the A52 will surely not want to be constantly resurfacing this area due to the impact of the 100 or so HGV’s that visit the EG service station per day.

4.15 Also as noted in relation to the Transyt work there would appear to be an over estimate of the capacity of the arms leading from the site. The use of 1900 pcu per hour per lane is disputed for a 20m long arm with 100% turning movements. This is considered to be critical to the safe operation of the access proposals for EG and McDonalds sites and has a potential impact upon road safety on the A52. If drivers leaving the site are unable to do so in a reasonable time there is a risk of them taking risks at the junction or vehicles will simply back up into the site and stop the from working in an effective manner.

4.16 The Stage 1 Road Safety Audit has been requested from HE and at the time pf preparing this Statement the document had not been released. It is therefore necessary to reserve the right to add to comments made to date.

4.17 Additionally, the proposals from Highways England extend into the site and go beyond the highway boundary. The access scheme does not indicate the EG right of way that exists with McDonalds and there can be no assumption that McDonalds would be a willing party to amending the right of way. To assist we have prepared a plan of our understanding the rights of way on the proposed access plan and this is attached at Appendix SCP 8.
4.18 The private rights of way support the existing access arrangements with both the A38 and A52 and it appears evident that the scheme proposals would interfere with the private rights of way.

4.19 It is considered that this element needs to be carefully considered by the HE and their consultants and amendments made to any necessary Orders before this scheme can be implemented.
5.0 RECOMMENDED AMENDMENTS TO THE PUBLISHED SCHEME

5.1 There are a small number of amendments recommended to the Inspector that could be employed to help to ease the concerns from EG which are:

   a) Remove the No Entry signs at the bottom of the EG. They are unnecessary for the scheme and are locate on private land in any case.

   b) Minor kerb adjustments to ease the movement for HGV’s into the site from the A52. The proposals are illustrated on Appendix SCP 9 to assist matters. The recommended improvements would widen the entry into the EG service station marginally to provide at least 500mm clearance from the vehicles and the kerb and can be achieved within the highway or within the EG service station. Additionally, it is recommended that a short taper be introduced before the entry radius to ensure the HGV does not strike the kerbline.

   c) The turn for HGV’s from the A52 into the site is still very tight and therefore it is requested that HE carefully consider the materials to be used on the tight bend in order to minimise the need for maintenance of the surfacing.

5.2 The suggested amendments are not material to the overall scheme and are readily achievable but as noted earlier the requested Road Safety Audit report has yet to be released by HE so further comments/recommendation may well come forward.

5.3 Additionally, HE has been requested to provide advance warning signs in advance of the proposed junction and our clients await a response on this matter.

5.4 The acquiring authority needs to acknowledge that its scheme will interfere with EG’s exiting permanent rights of way which are fundamental to the operation of the service station. It is necessary for the acquiring authority to establish the extent of additional land over which new rights will be needed by EG in order to satisfactorily use the revised access arrangements. The acquiring authority will need to ensure that it has all requisite rights to acquire permanent rights of way over this additional land for the benefit of the service station to ensure that these can be granted in default of agreement between the landowners. A draft overlay plan has been prepared for discussion with Highways England and its surveyors in order to commence this process.
6.0 CONCLUSIONS

6.1 EG has instructed a review and appraisal of the proposals on the A38 Derby junctions in so far as they are likely to impact upon the operation of the accesses to EG Mackworth.

6.2 Currently the overall site has access to both the A38 and A52 using priority accesses. The access is achieved from the half moon islands located within the public highway. The overall site is well located and visible to drivers on the A38 and A52 and provides refreshment, fuel and rest for drivers.

6.3 The proposals to create a grade separated junction at Markeaton would lead to the A38 through traffic being removed from the A52/A38 junction. The visibility of the site to motorists on the trunk road will therefore be reduced dramatically as well there being a material reduction in traffic passing the site along the slip roads.

6.4 EG has actively attended meetings with HE and their consultants and note that certain concerns have already been dealt within a satisfactory manner however there are some issues that are still to be addressed in a satisfactory manner.

6.5 A 12-hour traffic survey carried out on 23rd October 2019, Appendix SCP 5, illustrates that the EG site alone catered for around 1850 vehicles in the 12 hours period surveyed. Approximately 32% of the inbound traffic to the EG used the existing ingress from the A38. This traffic would need to use the proposed signalised access from the A52.

6.6 The outstanding issues are

   a) loss of the ingress from the A38

   b) the geometry of the proposed traffic signal controlled access onto the A52

   c) loss of ability to enter the EG site from McDonalds in the south

   d) issues associated with the existing rights of way granted to EG

   a) Loss of ingress from the A38

6.7 The loss of the ingress from the A38 is likely to lead to unnecessary trips through the A52 junction and through the traffic signal controlled access junction. There does not appear to be any geometric issues associated with providing an ingress from the A38.
6.8 The loss of the ingress appears to require a stopping up order and represents a diminution of access rights for EG. The proposals also appear to interfere with the private rights of way granted to EG at both the A38 and A52 accesses.

b) Geometric concerns at proposed A52 signal controlled junction

6.9 The geometry of the proposed traffic signal controlled access onto the A52 is of concern as the HE plans illustrate that in order to avoid passing into lane 2 an HGV would strike the limited radius kerb on the A52 and would have to pass within 200mm of the kerbline running into the EG site.

6.10 The turn into the EG site is in effect a U turn and the swept path illustrated is 17m which is well below the normally anticipated 25m turning circle required for a delivery yard. The potential issues of such a tight turn include wheel scrub and maintenance issues for the road surfacing at a location where there is a pedestrian route across the bellmouth.

6.11 It should be noted that any need to resurface this area would be likely to lead to the site being closed down as this will be the only vehicular access to the site.

6.12 There are also concerns relating to the modelling of the junction within the supplied Technical note which suggest that the capacity for the site access is likely to be overestimated and queueing underestimated.

6.13 The potential result of the above is to potentially create queueing issues within the site which could lead to risk taking to leave the site.

6.14 It is considered that some of the issues, notably the swept path issues could easily be resolved as suggested at SCP 9 and with careful thought the surfacing at the bellmouth could be reinforced.

c) Loss of ability for McDonalds traffic to enter the EG site from the south

6.15 The traffic survey identifies that there is a reasonable level of movement between McDonalds and the EG site from the south and the proposals would remove this option for movement. The proposed No Entry signs are located on private land within the control of EG and are not accepted. The proposed restriction is not considered to be essential for the safe operation of the proposals and if implemented would lead to additional and unnecessary right turn movements into the EG service station from the north.

6.16 It is therefore recommended that this element the proposal is deleted.
d) Private rights of Way

6.17 There is then the issue associated with the private rights of way which currently benefit EG which would appear to be interfered with by the proposed junction improvements, as illustrated on SCP 8. These legal issues need to be addressed by HE as addressed above.

Summary

6.18 Whilst EG do not oppose the principle of the overall scheme it is clear that there are material concerns in relation to the proposed access arrangements to serve the overall site which need to be addressed prior to confirmation of the scheme.

6.19 Some of the issues raised are relatively simple to undertake and adopt however the issue concerning the private rights of way needs to be addressed.

6.20 Unless fundamental issues relating to rights of way are effectively addressed it is likely that the adverse effect on the service station will be substantial and the compensation claim will need to be formulated on this basis.
These are the notes referred to on the following official copy

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SCP 3
SCP 4
**Driver Roles & Responsibilities.** Call S/S with ETA window. Enter site per site plan, approach site slowly and take note of parked vehicles within the forecourt, moving cars, pedestrians entering/leaving shop. Cordon off unloading area with cones and fire extinguishers. Entry or exit from this site may require encroachment into the opposite carriageway. Please take extra care and be vigilant for on-coming traffic. Ensure your route is clear before completing the required manoeuvre.

**Outbound route**

1. Leave terminal to join A38 North to Derby
2. Keep on A38. At Derby the garage comes up on an island
3. Turn left at the island. Caution- busy, fast island and then turn left into garage for an above ground delivery on the left of the forecourt.
4. SEE SITE PLAN

**Inbound route**

1. Exit garage to island, turn around and follow A38 back to Birmingham.
2. A38 at Birmingham, Follow into terminal. **CAUTION QUEING TRAFFIC DURING RUSH HOUR 0800-1000**

**Alternative route**

1. Join M6 South to M42 North
2. M42 to A42. Caution- busy motorways. A42 to M1 North
3. M1 leave at junction 24, turn left signed A50 Derby
4. A50 to A38, Junction turn right
5. Follow original route from here
SCP 6
SCP 8
SCP 9