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| <b>MEETING:</b> | Cabinet                            |
| <b>DATE:</b>    | Wednesday, 25 July 2018            |
| <b>TIME:</b>    | 10.00 am                           |
| <b>VENUE:</b>   | Reception Room, Barnsley Town Hall |

## SUPPLEMENTARY AGENDA

### Items for Decision/Recommendation to Council

#### Place Spokesperson

15. A628 Dodworth Road/Broadway Junction Improvement (Cab.25.7.2018/15)  
(Pages 3 - 76)

To: Chair and Members of Cabinet:-

Councillors Houghton CBE (Chair), Andrews BEM, Bruff, Cheetham, Gardiner, Howard, Miller and Platts

Cabinet Support Members:

Councillors Franklin, Frost, Daniel Griffin, Pourali, Saunders and Tattersall

Chair of Overview and Scrutiny Committee

Chair of Audit Committee

Diana Terris, Chief Executive

Rachel Dickinson, Executive Director People

Matt Gladstone, Executive Director Place

Wendy Lowder, Executive Director Communities

Julia Burrows, Director Public Health

Andrew Frosdick, Executive Director Core Services

Alison Brown, Service Director Human Resources and Business Support

Michael Potter, Service Director Business Improvement and Communications

Neil Copley, Service Director Finance

Katie Rogers, Communications and Marketing Business Partner

Anna Marshall, Scrutiny Officer

Ian Turner, Service Director, Council Governance

Chris Braithwaite, Senior Council Governance Officer

Corporate Communications and Marketing

Please contact Ian Turner on email [governance@barnsley.gov.uk](mailto:governance@barnsley.gov.uk)

25<sup>th</sup> July, 2018

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**BARNSELY METROPOLITAN BOROUGH COUNCIL**

**This matter is a Key Decision within the Council's definition and has been included in the relevant Forward Plan**

**REPORT OF THE  
EXECUTIVE DIRECTOR PLACE**

**A628 Dodworth Road / Broadway Junction Improvement**

**1. PURPOSE OF REPORT**

- 1.1 The purpose of this report is:
- 1.2 to consider the options and outline the preferred solution to address congestion on the A628 Dodworth Road / Broadway Junction, between the town centre and M1 Junction 37;
- 1.3 to seek approval to undertake all statutory procedures required to deliver the scheme,
- 1.4 outline the impact of the proposed scheme on the public open space, and the options proposed to address such.
- 1.5 to consider whether to appropriate land from public open space purposes to highway purpose
- 1.6 to seek approval to enter into negotiations with Sheffield City Region regarding the SCRIF funding Agreement for a contribution of £1.171m towards the delivery of highway improvement scheme (subject to planning approval).

**2. RECOMMENDATIONS**

- 2.1 **It is recommended that Cabinet:**
- 2.2 **Approves the A628 Dodworth Road / Broadway Junction Improvement totalling £4.352M (as detailed in Section 7 Financial Implications) and amends the Council's approved capital programme accordingly.**
- 2.3 **The Executive Director of Place be authorised to undertake all necessary steps to secure the scheme.**
- 2.4 **The Service Director for Environment and Transport be authorised to;**
  - **seek planning permission for the scheme attached detail in appendix 1.**
  - **under the terms of the Barnsley Contract Procedure rules, if necessary, seek tenders for any aspect of the project and appoint the successful tender on the basis of most economically advantageous**

**bid; and or consider whether the works, services or goods can be provided in-house, subject to value for money considerations,**

- **agree the relocation of the area designated for the emergency helicopter landing within the retained area of greenspace**

**2.5 The Executive Director of Core Services in consultation with the Executive Director of Place be authorised to:**

- **negotiate the terms and conditions of a Funding Agreement with Sheffield City Region, and that Cabinet delegate the final approval of the terms of the Funding Agreement to the Cabinet Spokesperson – Place.**
- **make and publish a Side Roads Order under sections 14 and 125 of the Highways Act 1980 to deal with the required changes to the existing highway network to accommodate the scheme, to submit the order to the Secretary of State for Transport for confirmation and to take all necessary steps to secure confirmation of the Order including (if necessary) supporting the order at a local public inquiry.**

**2.6 Cabinet approve in principle the appropriation of up to 6 hectares of land identified in plan attached at appendix 1, from public open spaces to highway purposes and the Service Director for Regeneration and Property, be authorised to undertake statutory consultation and**

- **if no relevant objections to the consultation are received, to appropriate the land for highway purposes.**
- **if relevant objections to the notice are received a report to be brought to cabinet to consider making a decision whether to appropriate.**

### **3. INTRODUCTION**

3.1 The A628 Dodworth Road leading from Junction 37 of the M1 motorway to the Barnsley town centre is one of the key radial routes within the borough. Over time, both the population of the borough and levels of car ownership have increased, meaning that capacity of the road, particularly at peak times, has declined.

3.2 In response to this, there have been a number of incremental measures implemented to accommodate traffic growth within the confines of the existing highway network. In 2006 the Dodworth by-pass was constructed to the west of the M1 motorway and in 2015 improvements were carried out to the M1 Junction 37 gyratory which included the signalisation of the M1 Junction 37 gyratory and the introduction of additional lanes on some of the approaches. These previous improvements have yielded significant benefits including revocation of the Air Quality Management Area (AQMA) that existed within Dodworth by reducing queuing and improving journey times relative to what they would have been. In turn they have also helped to keep the section of the M1 close to junction 37 free flowing.

- 3.3 The section of Dodworth Road that has proven to be more difficult to address in respect of congestion has been the crossroad junction with Broadway and Pogmoor Road. The focus has been on improving the operation of the traffic signals so that they are able to detect which approaches have the longest queues and increase the amount of green time allocated accordingly. The traffic signals are operating at full capacity, and regrettably, nothing more can be done within the confines of the existing highway to improve the efficiency of this signal controlled junction further, to address current congestion level and capacity constraints within an existing AQMA. Therefore a long term solution is required that will provide sufficient capacity to ensure that the current and future growth aspirations of the borough can be accommodated.
- 3.4 This report details the feasibility and design that has already been carried out to identify a solution to address the issues highlighted in 3.1 – 3.3 above, including the testing of numerous potential solutions, and will explain the reasoning behind the preferred option. It also details the steps taken to secure external funding that will complement the council's own capital investment to deliver the proposed scheme if approved.

#### **4. PROPOSAL AND JUSTIFICATION**

- 4.1 The proposal is for the council to commence statutory procedures, including a planning application submission for the scheme attached at Appendix 1, to address the congestion issues at A628 Dodworth Road / Pogmoor Road crossroads. This scheme involves the construction of a new gyratory along the A628, stopping the right turn movement into Broadway from the A628 Dodworth Road (West), an additional ahead lane eastbound into Barnsley, and will form a new one way road through part of Penny Pie Park.

##### Existing Situation

- 4.2 In 2016, AECOM were commissioned to carry out an assessment of the A628 Dodworth Road / Pogmoor Road crossroads to ascertain the current capacity of the junction, and also its likely future capacity having regard to current growth that has been committed to as well as additional planned future growth aspirations.
- 4.3 Aecom's report concluded that the Dodworth Road / Pogmoor Road crossroads junction is at full capacity once committed developments in the vicinity (such as employment sites nearest to M1 Junction 37 Capitol Business Park) are factored in. This conclusion is supported by the anecdotal evidence from those using that route on a daily basis that regularly experience long queues on each approach in both the morning and afternoon peak periods.

## Air Quality

- 4.4 In 2005, partly due to the levels of congestion at the Dodworth Road / Pogmoor Road crossroads junction, an Air Quality Management Area (AQMA) was declared on the section of Dodworth Road between Townend Roundabout and M1 J37. Since then, this AQMA has been subject to various interventions to reduce traffic emissions such as those referred to in paragraphs 3.1 - 3.3. These interventions, coupled with the penetration of newer, less polluting vehicles into the vehicle fleet have resulted in a reduction in air pollution concentrations in this AQMA between M1 J37 and Dodworth Road / Pogmoor Crossroads in particular. However, a continued increase in traffic congestion could well jeopardise this progress. Highways, Engineering and Transportation will ensure that all relevant ecological, noise and air quality surveys that are required to feed in to the statutory processes are completed to ensure that any issues that are identified can be fully considered.
- 4.5 In addition to the environmental considerations described in 4.4 it is notable that Horizon Advanced Learning Centre situated on Dodworth Road, currently operates staggered start and finish times in order to mitigate the impact of school traffic on the highway network. Originally there were 5 staggers with each school year starting and finishing half an hour apart. This posed significant challenges for the school by lengthening the school day considerably reducing opportunities for after school activities. Since opening, the number of staggers has been reduced to 4 and the school has reported significant benefits as a result of this. Although no formal proposal has been presented, the council need to be mindful that the school may wish to explore further reductions in the number of staggers if conditions on the highway network permit them to do so. If the reduction in the number of staggers is feasible in the future, it would be necessary to look at improving pedestrian crossing facilities to accommodate higher volumes than at present. The scheme will provide the necessary measures required to ensure that it has the potential to improve pedestrian safety outside the school.

## Future Growth

- 4.6 In addition, to the environmental impact of the congestion and any potential safety benefits, it is also important to recognise the detrimental impact on productivity as a result of increased journey times and the potential adverse impact on the town centre, which has previously experienced significant leakage of retail expenditure to out of town destinations such as Meadowhall. To address this the Council is investing substantial amounts into regenerating the town centre but for the benefits of these investments to be fully realised it will be important to ensure that key radial routes into and out of the town centre remain relatively free-flowing, particularly during peak times.
- 4.7 The evidence therefore shows that there are compelling reasons to increase the capacity of the Dodworth Road/Broadway/Pogmoor Road junction based on existing congestion and committed development. However, to inform the amount of additional capacity that needs to be provided it is necessary to consider likely levels of future growth.

- 4.8 The Council's Core Strategy aims to deliver 21,000 homes and 17,500 jobs on top of base development, and forms part of the current development plan for the borough until 2026, and identifies Urban Barnsley as the area where the most development should take place in order to enhance Barnsley's role as a sub-regional town.
- 4.9 Future growth aspirations of the borough are also identified in the Economic and Housing Strategies and the emerging Local Plan, which aim to significantly increase the local business base and number of new jobs in an attempt to close a substantial gap between the borough's job density and the regional and national averages. This is considered essential for the wellbeing and prosperity of the borough and its residents.
- 4.10 The Core Strategy is not a spatial plan, so traffic modeling such a strategy presents a challenge. However Aecom have concluded that "it seems very reasonable to expect that the Core Strategy development would have a similar spatial distribution to the development of the emerging local plan, given the development levels in the emerging local plan and Core Strategy are broadly similar, the difference being that the Core Strategy would be delivered a few years earlier (2026 as opposed to 2033). Therefore the results of the local plan traffic modelling assessment for the junction/corridor can be used as a reasonable proxy for the purposes of understanding the potential impact of the Core Strategy".
- 4.11 The current congestion levels and capacity constraints, in addition to the level of traffic that will be generated from current planning permissions and together with the employment and housing opportunities identified in the existing Core Strategy, means that without highways improvements or a massive shift from private car usage to public transport and active travel (which the council are fully committed to encouraging), the future growth aspirations of the borough, i.e. the current Core Strategy will be unable to be accommodated.

#### Modal Shift

- 4.12 The starting point for the council when seeking to address capacity issues on the network is to consider whether or not it would be possible to achieve the necessary modal shift from private car usage to more sustainable modes of transport such as public transport or active travel (cycling & walking). Not only would these potentially be a better way of addressing health and air quality but they would also be a more effective way of reducing carbon emissions and the associated impact of climate change.
- 4.13 In terms of active travel, the Council is involved in a number of initiatives to promote walking and cycling. Over the past 4 years, £3.9m external capital funding has been secured and provided improved and new cycleways within the borough (including Dearne Valley Enterprise Corridor and Pontefract Road to Town Centre) and £1.1m external revenue funding has been secured to promote and encourage active travel in the borough including the Cycle Hub, Dr Bike and Bike Loans. The Council is

currently developing its Active Travel Strategy and will seek to ensure that walking and cycling routes are considered and promoted throughout the design and delivery of any potential highway improvements in the borough. However it is recognised that it is unlikely that the modal share of active travel within the borough will increase to such an extent that it would not be necessary to improve the capacity of the Dodworth Road/Broadway/Pogmoor Road junction.

- 4.14 In respect of modal shift from car to bus, bus patronage has been falling within the borough and this mirrors both the national and regional trend. This is despite significant investment over previous decades in bus priority measures such as bus lanes delivered elsewhere in the borough and investment in newer vehicles. To address this, the Barnsley Bus Partnership was established and is working with the commercial and statutory public transport sector to enhance the bus network, services and ticketing initiatives. However, the increasing congestion on Dodworth Road is continuing to have a detrimental impact on service quality and significant increases in journey times for buses using this corridor between Barnsley Town Centre and Dodworth. Stagecoach have confirmed that in 2000, inbound journeys took 10 mins in both the AM and PM peak. By April 2017, journey times for the inbound AM peak had increased to 26 mins, with the PM peak increasing to 17 minutes. In addition, the, outbound journeys in the AM and PM peak in 2000 took 10 mins. By April 2017, journey times for the outbound AM peak had increased to 14 mins, with the PM peak increasing to 16 minutes. Not only does this make bus use less attractive as a potential travel mode to members of the public, but in a deregulated bus market, the financial viability of providing a bus service along Dodworth Road becomes more difficult to justify as increasing levels of investment are regularly required to maintain the same levels of service and punctuality, and as a result at least one of the bus operators has had to reduce the frequency of their services. In addition to the above, the Dodworth Road corridor does not benefit from any bus priority measures largely due to not being able to be accommodated within the confines of the existing highway. The council acquired a parcel of land at the time when the Dodworth by-pass was constructed, for a potential park and ride. Regrettably, due to the confines of the site, the unfeasibility of providing bus priority measures in the vicinity and park and ride not proving to be as effective as was originally envisaged elsewhere within the borough, the proposal could not be progressed.
- 4.15 In contrast, the borough has seen a notable increase in rail patronage which mirrors the national trend. This has been particularly evident of the Hallam Line which can in part be attributed to the introduction of the fast Sheffield to Leeds service via Meadowhall, Barnsley and Wakefield Kirkgate. In 2015 the Council published its Rail Vision, which is in the process of being updated to reflect significant changes that are likely to emerge through Northern Powerhouse Rail and HS2 as well as the commitments contained within the various franchises. This process has involved significant engagement with Network Rail, South Yorkshire Passenger Transport Executive, both city regions, rail operators and numerous other stakeholders. However there are no firm proposals in the short to medium term of delivering rail improvements that would sufficiently offset car journeys along Dodworth Road during peak times.

- 4.16 Based on the above, the existing highway network has to be expanded to increase capacity and so BMBC Highways, Engineering and Transportation Service have produced a number of highway design solutions, (see section 5), with the primary objectives being to:
- improve the strategic highway access from the M1 J37 to Barnsley;
  - alleviate congestion at the A628 Dodworth Road / Pogmoor Road crossroads;
  - alleviate congestion on the M1 J37 Southbound exit;
  - incorporate where feasible, design opportunities to encourage active travel (walking and cycling);
  - facilitate future growth identified in the Core Strategy,
- 4.17 An indicative assessment of the highway options was carried out, with potential solutions further modelled by AECOM to assess the benefits and disbenefits at peak travel times (morning peak 08:00-09:00am and evening peak 17:00-18:00pm), focusing on overall journey times, vehicle flows and an evaluation of the network performance, and after significant testing of the network layout options, the proposed Dodworth Road Highway scheme when compared to the other potential options is predicted to have the greatest level of benefit in terms of, capacity, reduction in journey times and reduced delays.
- 4.18 The preferred scheme is attached at Appendix 1. This scheme has the greatest impact on the greenspace when compared to the other potential options. All of the options encroached into the greenspace to some degree; however this scheme is predicted to have the greatest level of benefit in terms of, capacity, reduced journey times and reduced delays. But in contrast, unlike some of the alternative options, it does not result in demolition of any residential properties.
- 4.19 To minimise future disruption for local people and highway users, the proposed scheme will be designed to ensure that it has sufficient capacity to deal with the employment and housing opportunities contained within the existing Core Strategy, along with the proposals contained within the emerging Local Plan. It will also provide better access to the redeveloped Town Centre from the M1 and to the western side of the borough.

#### Greenspace Impact

- 4.20 Whilst having a positive effect on the traffic flow and accessibility of Barnsley, it is recognised that the proposed Dodworth Road Highway scheme significantly encroaches into the area known as Penny Pie Park, however this would occur with each of the potential options assessed, but in contrast, unlike some of the alternative options, it does not result in the acquisition and demolition of any residential properties.
- 4.21 Therefore a Greenspace Appraisal (see appendix 2) has been carried out by Aecom, using Green Flag Assessment criteria to identify compensatory measures

to address the impact of the delivery of the proposed A628 Dodworth Road Highway improvement scheme, and to suggest potential solutions that could upgrade and enhance the green space. This piece of work explores these effects, against a number of impact receptors, including access; facilities and features; and noise and visual amenity before suggesting potential solutions to compensate for the impact of the proposed scheme.

- 4.22 Based on the standards established within the Council's Green Space Strategy, a Green Space Assessment has been conducted for the Pogmoor and Town End neighbourhood area, and the impact of the proposed scheme has been assessed as follows;
- 4.23 **Child and Youth Facility Sites:** There are 2 youth facilities serving Pogmoor and Town End, one of which is within Penny Pie Park and comprises a Multi-Use Games Area (MUGA) and outdoor gym. There are also 2 LEAP standard play facilities serving the area, one of which is located within Penny Pie Park. The proposed scheme will impact on these facilities and there is a need to ensure they are relocated within the retained park area.
- 4.24 **Outdoor Sports Facilities:** There are 10 Local Neighbourhood Sports facilities (LNSF) within the Pogmoor and Town End neighbourhood area, although only 4 of these have public access. Penny Pie Park has a LNSF function as it includes sufficient space for informal sports play. The proposed scheme will need to ensure the relocation of the MUGA and outdoor gym within the retained park area. Although the proposed scheme will result in a reduced quantity of greenspace available for the informal sports there are other facilities available in the vicinity e.g. Pogmoor Recreation Ground and therefore it is unlikely to negatively impact on neighbourhood accessibility to this type of green space and there will be no significant impact on the provision of District and Borough level sports facilities in the neighbourhood as a result of these proposals.
- 4.25 **Allotment Sites:** There are 3 allotment sites within the neighbourhood area. The proposed scheme will not significantly impact on neighbourhood accessibility to this type of green space.
- 4.26 **Parks and Open Space:** There are no District or Borough level Parks within the Pogmoor and Town End neighbourhood area. There are, however, 20 Local Neighbourhood Green Spaces serving the area. One of these is Penny Pie Park which, at 4.92ha, is the largest green space of this type in the neighbourhood area. Currently the majority of the neighbourhood area is within the 400m catchment area for this type of green space. The proposed scheme will result in a reduced quantity of greenspace available. The proposals in the greenspace appraisal will seek to provide qualitative improvements.
- 4.27 **Natural Area Sites:** There will be no significant impact on the provision of and accessibility to the single Natural Area within Pogmoor and Town End as a result of the proposals.

## Proposals to compensate for the impact of the scheme on the green space

- 4.28 The proposals in the Greenspace appraisal will seek to address and compensate for the impact of the proposed scheme on the greenspace known as Penny Pie Park, by enhancing the facilities on offer, and create a high quality, functional and attractive environment for the neighbourhood area. The existing LEAP, MUGA, Outdoor Gym facility will be retained and relocated in the vicinity known as Penny Pie Park, with new footpaths and children's cycle path proposed. Pogmoor Recreation Ground will benefit from improved pedestrian access with provision of footpath, benches and dog fouling bins. Sugdens Recreation ground on Stocks Lane will be upgraded from an EPA to a NEAP, which has a wider catchment area of 1000m, as oppose to 400m.
- 4.29 The emergency services helicopter currently has permission to land in the area known as Penny Pie Park, which provides swift access to Barnsley District General Hospital. This permission will still be retained within the vicinity , and access for the ambulance will be relocated as part of the proposals.

## Planning Application

- 4.30 If the preferred option is supported, it will be subject to a planning application where it will be necessary for the Council, as the applicant, to demonstrate that the benefits of the proposal outweigh the identified disbenefits so that the scheme is capable of complying with the development plan as a whole when having regard to other material considerations. This will involve detailing the proposals that will be delivered to reduce the level of harm.
- 4.31 It will be for Planning and Regulatory Board (PRB) to determine if the proposed qualitative improvements to the existing open space and wider public benefits outweigh the reduced quantity of land and fragmentation of the park (including the loss of opportunities for large scale events). PRB will make its judgement on planning merits alone and separately from any judgement on appropriation.

## Appropriation of Land

- 4.32 In order to deliver the proposed scheme it may be necessary to formally appropriate up to 6 hectares of land for highway purposes as identified in appendix 1 in accordance with section 122 of the Local Government Act 1972. The power to appropriate land is generally delegated to the Service Director for Regeneration and Property under the constitution.

As the land being appropriated is public open space, the Council must publish a notice in a local paper for two consecutive weeks and consider any relevant objections arising from the consultation before the appropriation can go ahead. The recommendations take this into account and reserve the final decision on appropriation to Cabinet unless no relevant objections are received.

## Legal Analysis

### Highways Orders

- 4.38 The scheme involves the construction of a new gyratory system which will interface with existing classified roads, namely A628 Dodworth Road, Pogmoor Road and Broadway. This will involve the construction of new highways, improvements to Dodworth Road, Pogmoor Road and Broadway, relocation of the access into the Horizon College, stopping up of parts of existing highways and the stopping up and provision of new private means of access to premises.
- 4.39 The changes will be dealt with by means of a Side Roads Order made under section 14 and 125 of the Highways Act 1980. This order will be published and there will be an opportunity for objections and representations which are considered by the Secretary of State for Transport who is the confirming Minister.
- 4.40 If there are objections which cannot be resolved the Secretary of State has the power to call a public inquiry to hear the objections.

### Sheffield City Region Funding

- 4.41 Barnsley MBC have prepared and submitted a full business case to Sheffield City Region as phase 1 of the M1 Junction 37 Economic Growth Corridor scheme to contribute towards highways infrastructure improvements necessary to alleviate current congestion at A628 Dodworth Road / Pogmoor Road crossroads and unlock capacity constraints to deliver future growth aspirations of the borough. This has progressed through the appraisal process and approved a contribution of £1.17m SCRIF resources towards the scheme.
- 4.42 Negotiations with Sheffield City Region regarding the SCRIF funding Agreement for a contribution of £1.17m towards the delivery of highway improvement scheme are progressing, and, (subject to planning permission approval and satisfactory funding conditions), it is proposed that the council enter into the SCRIF Funding Agreement for a contribution of £1.17m towards the delivery of scheme.

### Delivery

- 4.43 Delivery of the works will be considered under the terms of the Barnsley Contract Procedure rules to ensure that the works are delivered successfully ensuring best value for money in terms of cost, quality of work and actual delivery timescales to maximise expenditure
- 4.44 Consideration will be given as to whether the works, services or goods can be provided in-house, subject to value for money considerations, or whether it is necessary to seek tenders for any aspect of the project and appoint the successful tender on the basis of most economically advantageous bid. If the latter, the procurement of the works will be via the YORCIVILS framework contract which has already been established and complies with OJEU regulations. This option was

used successfully for the delivery of the SCRIF funded Highway Improvement scheme at M1 J36 Hoyland.

## **5. CONSIDERATION OF ALTERNATIVE APPROACHES**

- 5.1 Do nothing: The current congestion levels and capacity constraints, in addition the level of traffic that will be generated from current planning permissions and together with the employment and housing opportunities identified in the existing Core Strategy, means that without highways improvements or a massive shift from private car usage to public transport and active travel (which the council are fully committed to encouraging), the future growth aspirations of the borough, i.e. the current Core Strategy will be unable to be accommodated.
- 5.2 Modal Shift : The starting point for the council when seeking to address capacity issues on the network is to consider whether or not it would be possible to achieve the necessary modal shift from private car usage to more sustainable modes of transport such as public transport or active travel (cycling & walking).
- 5.3 In terms of active travel, the Council is involved in a number of initiatives to promote walking and cycling. As detailed in section 4.13, over the past 4 years, £3.9m external capital funding has been secured and provided improved and new cycleways with the borough and £1.1m external revenue funding has been secured to promote and encourage active travel in the borough The Council is currently developing its Active Travel Strategy and will seek to ensure that walking and cycling routes are considered and promoted throughout the design and delivery of any potential highway improvements in the borough. However it is recognised that it is unlikely that the modal share of active travel within the borough will increase to such an extent that it would not be necessary to improve the capacity of the Dodworth Road/Broadway/Pogmoor Road junction.
- 5.4 Public Transport, Bus Patronage: As identified in section 4.14, bus patronage has been falling within the borough and this mirrors both the national and regional trend. To address this, the Barnsley Bus Partnership was established and is working with the commercial and statutory public transport sector to enhance the bus network, services and ticketing initiatives. However, the increasing congestion on Dodworth Road affecting journey times for buses using this corridor between Barnsley Town Centre and Dodworth Not only makes bus use less attractive as a potential travel mode to members of the public, but in a deregulated bus market, the financial viability of providing a bus service along Dodworth Road becomes more difficult to justify. In addition to the above, the Dodworth Road corridor does not benefit from any bus priority measures largely due not being able to be accommodated within the confines of the existing highway. The council acquired a parcel of land at the time when the Dodworth by-pass was constructed, for a potential park and ride. Regrettably, due to the confines of the site, the unfeasibility of providing bus priority measures in the vicinity and park and ride not proving to be as effective as was originally envisaged elsewhere within the borough, the proposal could not be progressed.

- 5.5 Public Transport, Rail Patronage: In contrast, the borough has seen a notable increase in rail patronage which mirrors the national trend, This has been particularly evident of the Hallam Line which can in part be attributed to the introduction of the fast Sheffield to Leeds service via Meadowhall, Barnsley and Wakefield Kirkgate. As detailed in 4.15, the Council published its Rail Vision in 2015, which is in the process of being updated to reflect significant changes that are likely to emerge through Northern Powerhouse Rail and HS2 as well as the commitments contained within the various franchises. Significant engagement with Network Rail, South Yorkshire Passenger Transport Executive, both city regions, rail operators and numerous other stakeholders has taken place. The outcome being that It is not possible to significantly increase rail frequencies along the Penistone Line to encourage modal shift for those commuting into the borough from the West. In addition there are no proposals to increase the frequency of services along the Hallam Line within existing franchises so there is no prospect in the short to medium term of delivering rail improvements that would sufficiently offset car journeys along Dodworth Road during peak times
- 5.6 Based on the above, the existing highway network has to be expanded to increase capacity. In terms of design options, BMBC Highways, Engineering and Transportation Service produced a number of alternative options to alleviate the congestion issues. (A summary of the options tested and discounted is shown below, full details are within the associated appendices).
- 5.7 **Option A** (see Appendix 3) - The construction of a roundabout in the greenspace between roadway and Horizon Community College and a diverted Pogmoor Road (16 variants were tested). The short and limited stacking space for queuing vehicles limits capacity of this option for certain movements, and coupled with three adjacent road junctions, present co-ordination challenges.
- 5.8 **Option B** (see Appendix 4) - The construction of left turn flares at the existing crossroads (4 variants were tested). This option requires Compulsory Purchase of third party land, along with development in the greenspace and did not resolve all forecast issues.
- 5.9 **Option C** (see Appendix 5) - The construction of a roundabout in the greenspace, linking into the access to Horizon Community College and a diverted Pogmoor Road (8 variants were tested). This option presents navigational challenges for pedestrians and cyclists and does not resolve all forecast capacity issues.
- 5.10 **Option D** (see Appendix 6) - The construction of a roundabout to replace the existing crossroads. This option requires Compulsory Purchase of third party land, along with development in the greenspace and did not resolve all forecast capacity issues.
- 5.11 **Option E** (see Appendix 7) - The construction of a gyratory in the greenspace, with a diverted Pogmoor Road. This option did not resolve all forecast capacity issues.

- 5.12 **Option F** (see Appendix 8) - The construction of a left turn flare from Dodworth Road (West) into Pogmoor Road. This option requires Compulsory Purchase of third party land to accommodate the flare, and would severely impact on residents' vehicle movements to access / egress their properties, in addition, this option did not resolve all forecast capacity issues.
- 5.13 **Option H** (see Appendix 9) - Dualling of Dodworth Road between the crossroads and junction 37 of the M1, with additional short turn left flares from Dodworth Road in to both Pogmoor and Broadway. This option requires Compulsory Purchase of significant third party land to accommodate the flare and additional lanes and in addition, this option did not provide a comparable level of capacity when compared to the preferred option G (Appendix 1).

## **6. IMPLICATIONS FOR LOCAL PEOPLE/SERVICE USERS**

- 6.1 One of the Council's key priorities is to create a thriving and vibrant economy, create more and better jobs, good business growth, and to connect local people with these opportunities.
- 6.2 The delivery of the proposed scheme ensures the facilitation of employment and housing opportunities identified in the existing Core Strategy, contributing to the provision of employment land to attract new investment and / or allowing existing businesses to stay in the area and expand.
- 6.3 The delivery of any highway improvement scheme will impact on the road users during construction. However, once completed, the scheme will:
- reduce congestion and queue lengths leading to time saving benefits for road users;
  - improve safety in the vicinity of Horizon Community College;
  - improve cycling and walking routes in the vicinity and
- 6.4 A green space appraisal has been carried out to understand the impact of the scheme and to identify any additional greenspace improvements that are required to enhance the remaining greenspace in the vicinity of the scheme, see section 4.20 – 4.29.

## **7. FINANCIAL IMPLICATIONS**

- 7.1 Consultation on the Financial Implications of this report has taken place with representatives of the Service Director (Section 151 Officer) Finance.
- 7.2 The estimated cost of the recommended option (option G) totals £4.352M. The Council has subsequently set aside funding totaling £2.181M from the 2020 Capital Programme Fund for the scheme.
- 7.3 In addition to the Council's own resources, a successful bid for funding via the Sheffield City Region Investment Fund (SCRIF) totaling £1.171M has recently been secured, subject to agreeing a SCRIF funding Agreement following full planning consent for the scheme.

7.4 Furthermore, an additional £1.000M of Sheffield City Region funding has also been approved for the scheme, following realignment of the South Yorkshire Passenger Transport 2018/19 budget.

7.5 Full financial implications are shown in Appendix A to this report.

## **8. EMPLOYEE IMPLICATIONS**

8.1 There are no issues arising directly from this report.

## **9. COMMUNICATIONS IMPLICATIONS**

9.1 A robust communications plan has been developed with representatives from Executive Director of Core Services. This will be reviewed continually throughout the delivery of the project to ensure that timely and accurate information is provided through appropriate press releases via local press, social media/website updates, local member briefings, public information events and engagement with key stakeholders.

## **10. CONSULTATIONS**

10.1 Discussions have been held with local members, the local Member of Parliament and Highways England. The need for the highway improvement scheme is acknowledged and supported.

10.2 Public information and Stakeholder events will take place as part of the statutory planning process regarding the Highway improvement scheme.

10.3 Consultation has taken place with representatives of Core Services Directorate regarding the financial implications, asset management and risk management issues.

10.4 Consultation has taken place with representatives of Communities Directorate, Core Services Directorate and Place Directorate regarding the greenspace implications and potential compensatory measures.

## **11. THE CORPORATE PLAN AND THE COUNCIL'S PERFORMANCE MANAGEMENT FRAMEWORK**

11.1 This report contributes to the delivery of the overarching '**Thriving and Vibrant Economy**' priority set out in the Council's Corporate Plan 2015 - 2018.

11.2 In the short term the delivery of the proposed scheme will assist with delivering the council's Core Strategy, which forms part of the current development plan for the borough until 2026, and the following outcomes;

- Create more and better jobs and good business growth; and
- Create more and better housing.

11.3 In the longer term, the scheme will be designed to ensure it has the capacity to deal with the proposals contained within the emerging Local Plan which will supersede

the Core Strategy if adopted, and will also provide better access to the redeveloped Town Centre from the M1 and western side of the borough, contribute delivering the following outcomes:

- Develop a vibrant Town Centre, and
- Strengthen our visitor economy.

## **12. PROMOTING EQUALITY, DIVERSITY AND SOCIAL INCLUSION**

- 12.1 Better connectivity, affordable and inclusive travel, a cleaner environment and a healthier population are all key aims of the Barnsley Transport Strategy 2014 – 2033.
- 12.2 The proposed scheme supports the principles of the Barnsley Transport Strategy 2014 – 2033, and once completed will provide better connectivity and opportunities for local people to access work and assisting in addressing social exclusion.

## **13. RISK MANAGEMENT ISSUES**

- 13.1 The project benefits from a detailed risk register which is reviewed on a regular basis by officers and the Council's Risk and Governance Manager
- 13.2 At the moment the main risk relating to this proposed development is that this report is not approved, and the council is unable to further explore the opportunities set out in section 5.
- 13.3 A project risk register has been developed, and risks relating to funding, consultation and traffic management issues as a result of the development have been identified. It is envisaged that once approval is given to go ahead with a more detailed scheme design, a detailed project risk register will be produced which will become a valuable governance tool for the Strategic Sites Board.
- 13.4 A number of risks relating to each option have been set out within section 5 of this report.

## **14. HEALTH, SAFETY AND EMERGENCY RESILIENCE ISSUES**

- 14.1 Health and Safety issues will be identified during scheme preparation and addresses as part of the Construction (Design and Management) Regulations 2015.

## **15. COMPATIBILITY WITH THE EUROPEAN CONVENTION ON HUMAN RIGHTS**

- 15.1 The delivery of the proposed scheme does not require private property rights. The rights of individuals are safeguarded through the statutory planning process of securing planning consent and authority to modify the highway network.

## **16. CONSERVATION OF BIODIVERSITY**

- 16.1 Highways, Engineering and Transportation Service will ensure that all relevant ecological, noise and air quality surveys that are required to feed in to the statutory processes are completed to ensure that any issues that are identified can be fully considered.

## 17. GLOSSARY

|       |                                       |
|-------|---------------------------------------|
| POS   | Public Open Space                     |
| PRB   | Planning Regulatory Board             |
| SCR   | Sheffield City Region                 |
| SCRIF | Sheffield City Region Investment Fund |

## 18. LIST OF APPENDICES

Appendix A: Financial Implications

- Appendix 1: Preferred Scheme Option
- Appendix 2: Greenspace Appraisal
- Appendix 3: Scheme Option A
- Appendix 4: Scheme Option B
- Appendix 5: Scheme Option C
- Appendix 6: Scheme Option D
- Appendix 7: Scheme Option E
- Appendix 8: Scheme Option F
- Appendix 9: Scheme Option H

## 19. BACKGROUND PAPERS

AECOM Scheme Options summary

If you would like to inspect background papers for this report, please email [governance@barnsley.gov.uk](mailto:governance@barnsley.gov.uk) so that appropriate arrangements can be made

Financial Implications/Consultation

.....  
*(To be signed by senior Financial Services officer  
where no financial implications)*

## Report of the Executive Director Place

## Highways : M1 Junction 37 - Economic Growth Corridor – Phase 1

| i) <b>Capital Expenditure</b>                 | <u>2018/19</u>  | <u>2019/20</u>    | <u>2020/21</u> | Later Years |
|-----------------------------------------------|-----------------|-------------------|----------------|-------------|
|                                               | £               | £                 | £              | £           |
| Construction Costs                            | 591,118         | 3,761,020         |                |             |
|                                               | <b>591,118</b>  | <b>3,761,020</b>  | <b>0</b>       | <b>0</b>    |
| <b>To be financed from:</b>                   |                 |                   |                |             |
| 2020 Future Council Priorities                | -91,118         | -2,090,020        |                |             |
| Sheffield City Region Investment Fund (SCRIF) | -500,000        | -671,000          |                |             |
| Sheffield City Region                         | 0               | -1,000,000        |                |             |
|                                               | <b>-591,118</b> | <b>-3,761,020</b> | <b>0</b>       | <b>0</b>    |
|                                               | <b>0</b>        | <b>0</b>          | <b>0</b>       | <b>0</b>    |
| ii) <b>Revenue Effects</b>                    | <u>2018/19</u>  | <u>2019/20</u>    | <u>2020/21</u> | Later Years |
|                                               | £               | £                 | £              | £           |
|                                               | 0               | 0                 | 0              | 0           |
| <b>To be financed from:</b>                   |                 |                   |                |             |
|                                               | <b>0</b>        | <b>0</b>          | <b>0</b>       | <b>0</b>    |

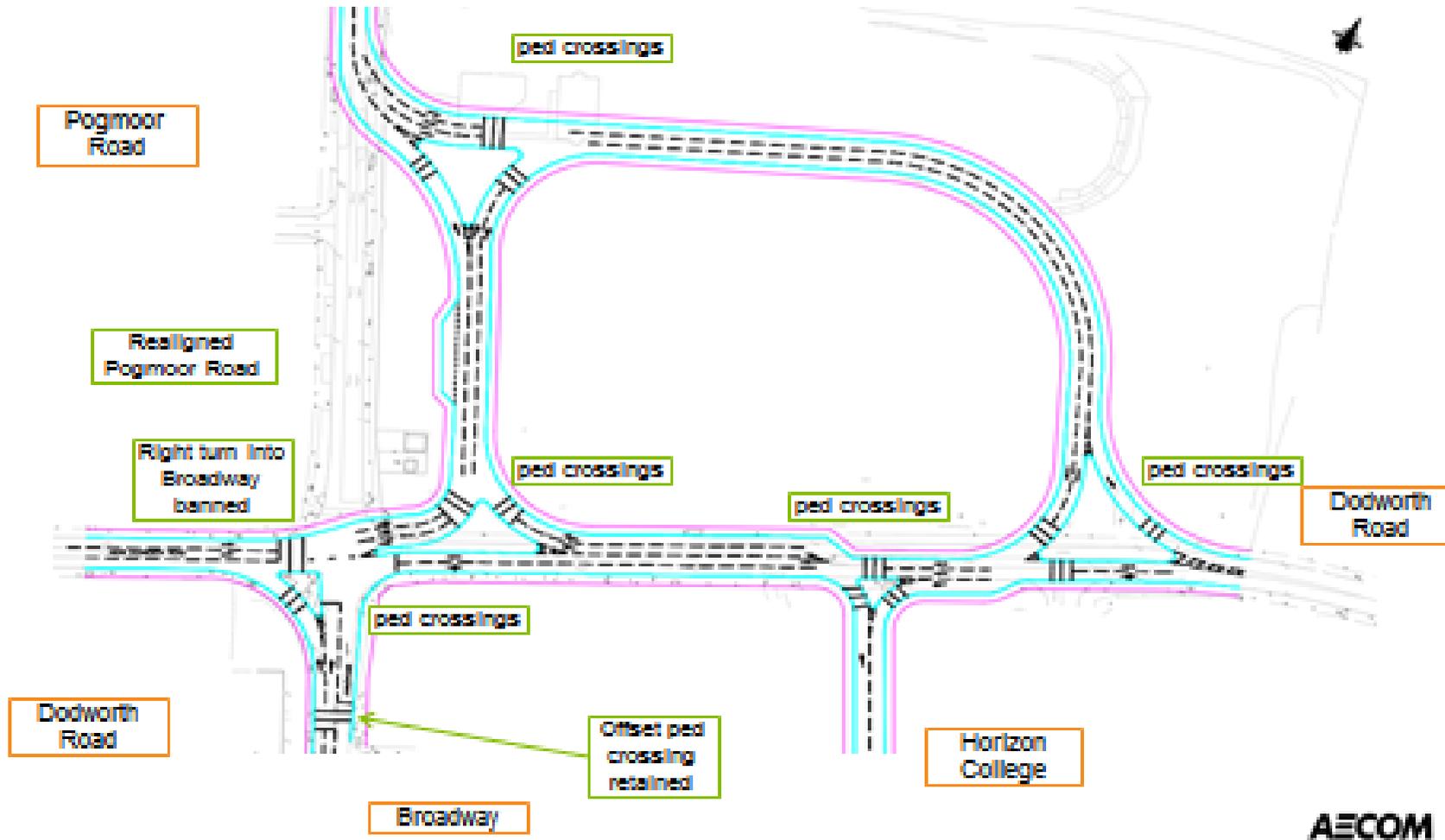
| <b>Impact on Medium Term Financial Strategy</b> | <u>2018/19</u> | <u>2019/20</u> |
|-------------------------------------------------|----------------|----------------|
|                                                 | £              | £              |
| MTFS                                            | 0.000          | -0.317         |
| Effect of this report                           | 0.000          | 0.000          |
| <b>Revised Medium Term Financial Strategy</b>   | <b>0.000</b>   | <b>-0.317</b>  |

Agreed by: ...  ...On behalf of the Service Director and Secion 151 Officer -Finance

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# Preferred Option

## Signalised Gyratory Option G



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# DODWORTH ROAD GYRATORY GREENSPACE APPRAISAL

JUNE, 2018



**CONFIDENTIAL**

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Delivered.



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| Project Role                           | Name           | Position                 | Actions Summary | Date       |
|----------------------------------------|----------------|--------------------------|-----------------|------------|
| Researcher                             | Lucy Sykes     | Graduate Urban Designer  |                 | 14/12/2017 |
| Project Manager / Technical Specialist | Pratibha Bhatt | Senior Urban Designer    |                 | 31/05/2018 |
| Qualifying Body                        |                |                          |                 |            |
| Director/QA                            | Becky Mather   | Regional Design Director |                 | 31/05/2018 |
| Technical Specialist                   |                |                          |                 |            |

| Document Name             | Revision | Date       | Alterations                                                                                                                 |
|---------------------------|----------|------------|-----------------------------------------------------------------------------------------------------------------------------|
| 60545510_MasterplanReport | 001      | 29/01/2018 | NA                                                                                                                          |
| 60545510_MasterplanReport | 002      | 02/02/2018 | Updated existing landuse map as per comments and added cost section. MUGA complies with planning policy on all the options. |
| 60545510_MasterplanReport | 003      | 06/11/2018 | Final Greenspace Appraisal Report                                                                                           |
| 60545510_MasterplanReport | 004      | 19/07/2018 | Replaced Fig 2.1 and added Fig 2.5                                                                                          |

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# 1. INTRODUCTION

AECOM have been commissioned to assist Barnsley Metropolitan Borough Council to prepare a Greenspace Appraisal to address the impact of the delivery of the proposed A628 Dodworth Road highway improvement scheme, and to suggest potential solutions that could upgrade and enhance the Local Neighbourhood Green Space known as Penny Pie Park.

Barnsley Metropolitan Borough Council commissioned AECOM to undertake a high level assessment of the cumulative impact of the forecast traffic in and out of Barnsley via Junction 37 of the M1 Motorway. Of particular consideration was the impact of traffic at the existing Dodworth/Pogmoor Road junction.

It was concluded that the crossroad junction was nearing capacity and would be unlikely to accommodate the additional forecast development traffic that will be generated from current planning permissions, together with the employment and housing opportunities identified in the existing Core Strategy, and be able to operate within capacity.

The starting point for the council when seeking to address capacity issues on the network is to consider whether or not it would be possible to achieve the necessary modal shift from private car usage to more sustainable modes of transport such as public transport or active travel (cycling & walking). Not only would these potentially become a better way of addressing health and air quality but they would also be a more effective way of reducing carbon emissions and the associated impact of climate change. In terms of active travel, the Council is involved in a number of initiatives to promote walking and cycling. Over the past 4 years, £3.9m external capital funding has been secured and provided improved and new cycleways within the borough (including Dearne Valley Enterprise Corridor and Pontefract Road to Town Centre) and £1.1m external revenue funding has been secured to promote and encourage active travel in the borough including the Cycle Hub, Dr Bike and Bike Loans. The Council is currently developing its Active Travel Strategy and will seek to ensure that walking and cycling routes are considered and promoted throughout the design and delivery of any potential highway improvements in the borough. However, it is recognised that it is unlikely that the modal share of active travel within the borough will increase to such an extent that it would not be necessary to improve the capacity of the Dodworth Road/Broadway/Pogmoor Road junction.

Therefore a number of highway design solutions were produced, and after significant testing of the network layout options, the proposed Dodworth Road Highway scheme, when compared to the other potential options, has the greatest impact on the greenspace when compared to other options. All of the options encroached into the greenspace to some extent, but this scheme is predicted to have the greatest level of benefit in terms of capacity, reduction in journey times and reduced delays, but in contrast, unlike some of the alternative options, it does not result in the demolition of any residential properties. It will provide better access to the redeveloped Town Centre from the M1 and to the western side of the borough, and will be designed to have sufficient capacity allowing the future growth aspirations of the borough to be accommodated.

This piece of work will explore these effects before suggesting potential solutions to address the impact of the proposed Dodworth Road Highway scheme on the Local Neighbourhood Green Space known as Penny Pie Park.



Pogmoor Road entrance to Penny Pie Park

## 2.AIMS AND OBJECTIVES

The proposed Dodworth Road Highway scheme Greenspace Appraisal aims to assess the impact of the proposed Dodworth Road Highway scheme on the Local Neighbourhood Green Space known as Penny Pie Park. It also aims to illustrate potential options to reduce the level of harm through landscape and public realm upgrades to Penny Pie Park, Pogmoor Recreation Ground and the upgrading of play facilities nearby to address the impact of the scheme and compensate for the loss of green space.

This will be captured within an indicative Greenspace Appraisal, detailing options that could provide an alternative to compensate for the lost green space within Penny Pie Park.

The scope of the Greenspace Appraisal report includes:

- Qualitative appraisal of Penny Pie Park and Pogmoor Recreation Ground to review existing facilities using the Green Flag Award assessment and guidelines.
- Review the function of Pogmoor Recreation Ground and suggest improvements to compensate for loss of green space facility within Penny Pie Park.
- **Study of the existing land use by mapping significant green space/ leisure/ community facilities and public rights of way within a 2 mile radius of the park, in order to identify any shortfalls in the area.**
- A high level review of Local and National Planning Policy and greenspace standards to help inform the assessment of the land use and facilities on Penny Pie Park and the wider Barnsley area.
- Assess the impact of the proposed highway scheme on Penny Pie Park, and suggest potential mitigation measures through landscape and public realm upgrades to Penny Pie Park, Pogmoor Recreation Ground and upgraded play facilities nearby.
- A broad brush cost appraisal for the potential opportunities and upgrades based on the high level Greenspace Appraisal options.

## 3. BASELINE, OPPORTUNITIES AND CONSTRAINTS

### 3.1.1 DESCRIPTION OF PENNY PIE PARK

Penny Pie Park is a Local Neighbourhood Green Space which covers an area of 4.92ha. It is bordered by Pogmoor Road to the west, Dodworth Road/A628 to the south, and the Barnsley to Huddersfield rail line to the north. The park is approximately 500m to the east of Junction 37 of the M1, with Dodworth Road acting as a primary vehicular route into Barnsley Town Centre.

Within the park are several recreational facilities, including a children's play area, a Multi-Use Games Area (MUGA), and outdoor gym equipment. A cleared site and pick up area in the south-east facilitates the landing of air ambulances by agreement with Parks Services. Mature trees and hedgerow of low density provide a soft landscaped border against Pogmoor Road and Dodworth Road, whilst domestic fencing and mature trees border the eastern edge of the park. The northern edge of the park slopes down an embankment towards the rail line, and is populated with high density vegetation which provides an effective border from the railway itself. Whilst the open grassland is maintained across the park, an area of landscape diversity is present in the north of the park, defined by longer grass and semi-enclosed by a cluster of trees.



Formal entrance to Penny Pie Park with Welcome board



MUGA ,Outdoor Gym and Children facilities at Penny Pie Park



Pogmoor /Dodworth Road connecting Junction 37 to M1 abutting Penny Pie Park

### 3.1.2 DESCRIPTION AND REVIEW OF POGMOOR RECREATION GROUND

Whilst the Dodworth Road Highway scheme directly impacts Penny Pie Park, Pogmoor Recreation Ground immediately to the north of the rail line has been identified as a suitable area that could be enhanced to compensate for the loss of green space on Penny Pie Park. Therefore for this reason, the context of Pogmoor Recreation Ground has been considered within the Greenspace Appraisal, although the Green Flag Award and Green Space assessments will focus primarily on Penny Pie Park.

Pogmoor Recreation Ground is located off Pogmoor Road and can be accessed via Glendale Close which is serviced by a small car park with 15 parking spaces. It is also accessible by foot via St. Owens drive. The Park is surrounded by housing developments on two sides, with the DVSA driving test centre and car park on the east. The Barnsley to Huddersfield railway link runs to the south of the site. The Pogmoor Recreation Ground is adjacent to Penny Pie Park and is divided only by the railway link.

The facilities include a green grass pitch which is home to the local football team, AFC Pogmoor. The car park serving the ground is considered to be inadequate and not fit for the purpose, and is currently being extended and resurfaced by the Council, along with patch repairs to the existing pitch area. The Ground is also used by dog walkers within the surrounding area, although there is a lack of suitable footpath, dog litter bins and benches within the grounds.



Existing football pitch - Pogmoor Recreation Ground



Entrance and car parking at Glen Close



View of Penny Pie Park from Pogmoor Recreation Ground across the railway link



Entrance to Pogmoor Recreation Ground from St. Owen's Drive

### 3.1.3 GREEN FLAG AWARD ASSESSMENT

The following assessment has been carried out in accordance with Green Flag award guidelines and considers the existing quality, facilities and features of Penny Pie Park only. This will help to inform future opportunities and potential upgrades to the Park. Pogmoor Recreation Ground, as compensatory green space, has not been considered within this assessment.

The Green Flag Award scheme recognises and rewards well managed parks and green spaces, and sets the benchmark standard for the management of recreational outdoor spaces on a national and global level. The Green Flag Award assessment includes the following criteria which is used to assess the quality and environment of park spaces:

- A welcoming place
- Healthy, safe and secure
- Well maintained and clean
- Environment
- Management
- Biodiversity, landscape and heritage
- Community involvement
- Marketing and communication

A summary of the assessment which was undertaken for Penny Pie Park is shown in assessment sheets 1, 2 and 3.

Note: The overall GFA value of 50 is not a full representation of the overall score that might be achieved for Penny Pie Park. It is based on site observations from site visit carried out for this purpose and is not a representation of the views/feedback of the park users or any other organisation involved in the development and use of the green space/Penny Pie Park.

### Green Flag Award Score Sheet



|           |       |      |      |           |           |             |
|-----------|-------|------|------|-----------|-----------|-------------|
| 0/1       | 2/3/4 | 5/6  | 7    | 8         | 9         | 10          |
| Very poor | Poor  | Fair | Good | Very Good | Excellent | Exceptional |

|                          |                |
|--------------------------|----------------|
| Name of Green Space      | Penny Pie Park |
| Managing organisation    | Parks services |
| Judge(s)                 | AECOM          |
| Date of Desk Assessment  | 13/12/2017     |
| Date of Field Assessment | 13/12/2017     |

#### Scoring

- + Each category must be scored out of 10
- + Work out the average score for desk assessment and multiply by 3 (score out of 30)
- + Work out the average for field assessment and multiple by 7 (score out of 70)
- + By adding the two scores together you will get a final mark
- + For a site to pass each section they must reach a minimum of 15 on the desk assessment and 42 on the field assessment.
- + An overall score of 66 must be scored for a site to achieve Green Flag Award status
- + Rounding up or down of numbers must be done at the very end of each assessment, when you multiple the average.

#### Strengths and Recommendations

- + Comments and recommendations must be included against each category in the feedback sections. They should be detailed enough to provide constructive information to applicants

|                              |    |                               |    |
|------------------------------|----|-------------------------------|----|
| Desk Assessment (minimum 15) | 12 | Field assessment (minimum 42) | 38 |
| Total Score                  | 50 | Green Flag Awarded            | NO |

## Field Assessment 2

| A welcoming Place                                                                                                                                                             | Score | Biodiversity, Landscape and Heritage                                                                                                               | Score     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1. Welcome<br>2. Good and Safe Access<br>3. Signage<br>4. Equal Access for All                                                                                                | 4     | 19. Management of Natural Features, Wild Fauna and Flora<br>20. Conservation of Landscape Features<br>21. Conservation of Buildings and Structures | 5         |
| Healthy Safe and Secure                                                                                                                                                       | Score | Community Involvement                                                                                                                              | Score     |
| 5. Appropriate Level of Quality Facilities and Activities<br>6. Safe Equipment and Facilities<br>7. Personal Security<br>8. Control of Dogs/Dog Fouling                       | 4     | 22. Community Involvement in Management and Development<br>23. Appropriate Provision for the Community                                             | 7         |
| Well Maintained and Clean                                                                                                                                                     | Score | Marketing and Communication                                                                                                                        | Score     |
| 9. Litter and Waste Management<br>10. Horticultural Maintenance<br>11. Arboricultural Maintenance<br>12. Building and Infrastructure Maintenance<br>13. Equipment Maintenance | 5     | 24. Marketing and Promotion<br>25. Appropriate Information Channels<br>26. Appropriate Educational and Interpretational Information                | 5         |
| Environmental Management                                                                                                                                                      | Score | Management                                                                                                                                         | Score     |
| 14. Managing Environmental Impact<br>15. Waste Minimisation<br>16. Chemical Use<br>17. Peat Use<br>18. Climate Change Adaption Strategies                                     | 4     | 27. Implementation of Management Plan                                                                                                              | 4         |
|                                                                                                                                                                               |       | <b>Total</b>                                                                                                                                       | <b>38</b> |

Note: The GFA value of 38 for the field assessment is not a full representation of the overall score that might be achieved for Penny Pie Park. It is based on site observations from site visit carried out for this purpose and is not a representation of the views/feedback of the park users or any other organisation involved in the development and use of the green space/Penny Pie Park.

## Desk Assessment 3

|                                                      | Score     |
|------------------------------------------------------|-----------|
| 1. Presentation                                      | 4         |
| 2. Health, Safety and Security                       | 3         |
| 3. Maintenance of Equipment, Buildings and Landscape | 3         |
| 4. Litter, Cleanliness, Vandalism                    | 5         |
| 5. Environmental Management                          | 4         |
| 6. Biodiversity, Landscape and Heritage              | 4         |
| 7. Community Involvement                             | 7         |
| 8. Marketing and Communication                       | 5         |
| 9. Overall Management                                | 5         |
| <b>Total</b>                                         | <b>40</b> |
| <b>Average (divide by 9)</b>                         | <b>4</b>  |
| <b>Out of 30 (average x 3)</b>                       | <b>12</b> |

### SUMMARY OF PENNY PIE PARK GREEN FLAG AWARD ASSESSMENT

Following a series of site observations, it was assessed that Penny Pie Park currently does not qualify for the Green Flag award. The score of the assessment totalled 50 and fell short of the **minimum qualifying score of 66 which is requisite for the green flag awards. A summary of the reasons for this shortfall are outlined below:**

- **The Park is difficult to access given the presence of Pogmoor Road and Dodworth Road** along its western and southern edges. Crossing points on these roads are considered to be inadequate and infrequent.
- The park lacks sense of arrival, and is only formalised with the presence of one welcome board in the north western corner.
- There is inadequate signage to communicate the presence, functionality, and facilities that **the park offers.**
- The footpaths which serve the park and road system are of low quality, and contribute to perceptions of a poor quality environment.
- An inadequate number of dog litter bins, waste bins and seating serve the park.
- **Whilst shrubs help to define the park edges, overgrown shrubs in some areas reduce the functionality of the park area.**
- **Upon analysis, it is considered that whilst the park offers a pleasant recreational environment, the space is not being used to its full potential.**

### 3.2 EXISTING LAND USE

Penny Pie Park is located in a predominantly urban setting, within the western edges of the Barnsley settlement area. Land to the west of the park by the M1 is designated as green belt land. However, land within a green belt is used for a variety of purposes, and cannot be assumed to be recreational green space.

In order to understand the context of the park, Figure 1.1 shows the designated areas of green space within a 2 mile radius. Green space in this context refers to all typologies which are defined in the Barnsley Green Space Strategy (2016 update), including parks and open space; child and youth facilities; outdoor sports facilities; green ways; natural and semi-natural areas; allotments and churchyards & cemeteries. The map also shows Public Rights of Way (PROW) and parks & gardens of historic interest.

For the purpose of the map, only significant spaces have been identified, including the District level and Borough level Outdoor Sports Facilities.

Figure 1.1 shows that Penny Pie Park is in proximity to a number of green spaces of varying sizes and typologies, the closest of which is Pogmoor Recreation Ground. A considerable portion of green space within the 2 mile radius is located to the east of Barnsley Town Centre at Dearne Valley Country Park. Despite some PROW permeability across the M1, this highway acts as a significant barrier to green space in the west. Likewise, the Barnsley to Huddersfield rail line also limits access to green spaces to the north.

The PROW network is most established in the greenbelt to the west and the north-east of the study area. There is an opportunity to extend the PROW network across Penny Pie Park, helping to connect wider north-south linkages.

Designated school grounds and Shaw Lane Sports/Barnsley Rugby Football Club account for a considerable proportion of green space within the study area. However, public access to these facilities may be limited.

- District/Borough Level Outdoor Sports Facilities
- 1- Silkstone Golf Club
  - 2- Dodworth Miners Welfare Football Club
  - 3- Shaw Lane Sports/Barnsley Rugby Football Club
  - 4- Barnsley Lawn Tennis Club
  - 5- Honeywell Sports Centre
  - 6- Barnsley Community Football Club

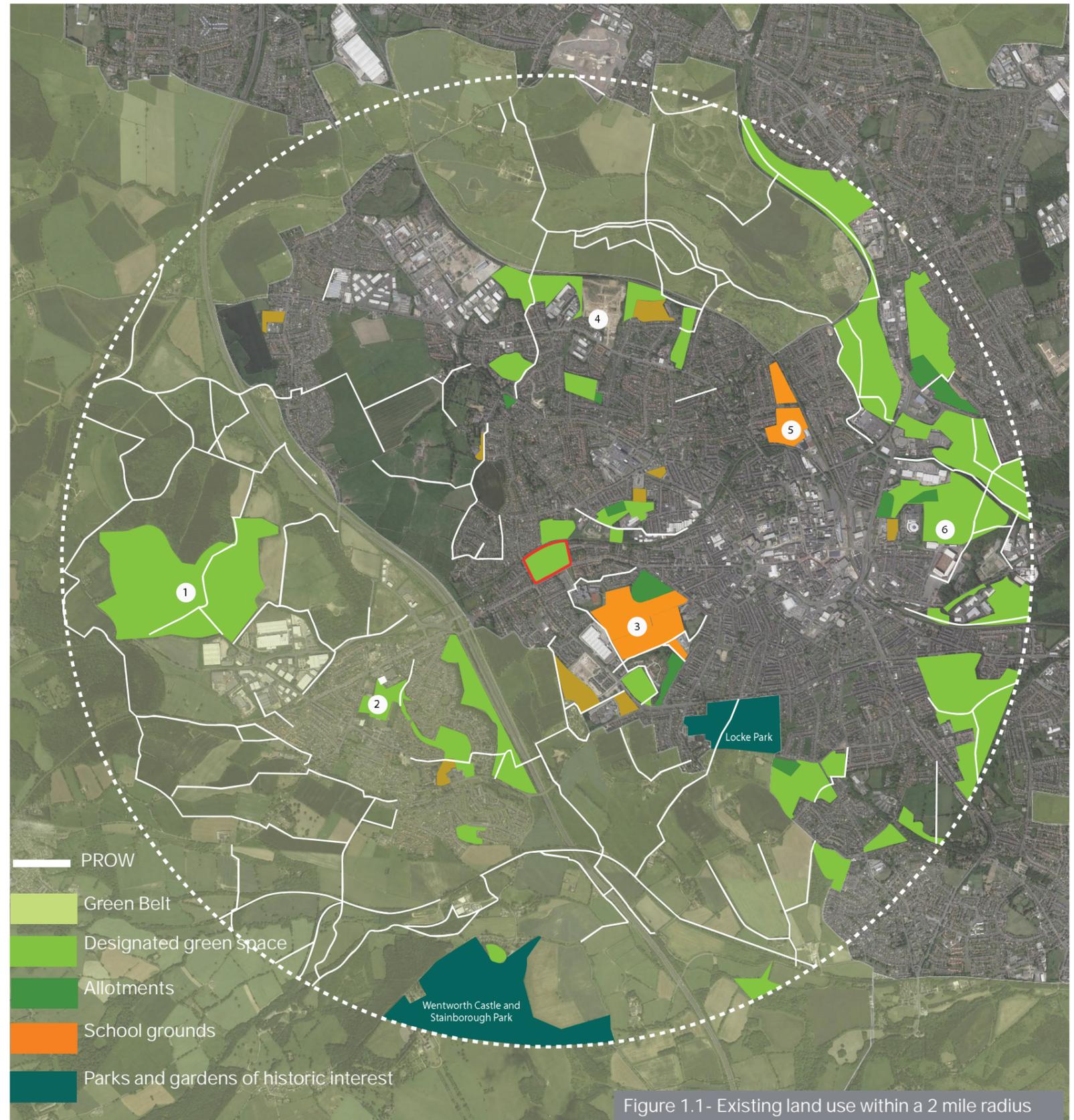


Figure 1.1 - Existing land use within a 2 mile radius

### 3.3 LOCAL AND NATIONAL STANDARDS

#### NATIONAL PLANNING POLICY FRAMEWORK (2012)

The National Planning Policy Framework (NPPF) was published in March 2012 and forms the key national planning policy document, and is also a material consideration in planning decisions.

Paragraphs 69 to 78 focus on the promotion of healthy communities and in particular, encourage access to high quality open spaces and opportunities for sport and recreation. It tells how Local Authorities should identify specific needs and qualitative or quantitative deficits, and/or surpluses of open space, sports and recreation in Paragraph 73.

The assessments used to identify this local surplus and deficit within the Pogmoor and Town end Neighbourhood area are outlined in the document below.

#### NATIONAL PLANNING PRACTICE GUIDANCE (NPPG)

National Planning Practice Guidance (NPPG) provides additional guidance to the NPPF, including in relation to open space, sports and recreation, in the form of an online resource.

#### BARNSELY EMERGING LOCAL PLAN (2018-2033)

Barnsley Metropolitan Borough Council is in the process of producing a new Local Plan for Barnsley which will replace the existing Statutory Development Plan, and which currently includes the Core Strategy, the Unitary Development Plan, and the Joint Waste Plan. This document is expected to be adopted in late 2018. Of the existing local plan documents, the below policies are considered to be of relevance to the proposed Dodworth Road highway scheme, Greenspace Appraisal.

#### BARNSELY UNITARY DEVELOPMENT PLAN (2000)

Policy BE7 (Public Art) outlines how the provision of work of art in public and in developments will be encouraged. This will be considered within the Greenspace Appraisal proposals.

#### BARNSELY CORE STRATEGY (2011)

The Barnsley Core Strategy was adopted in September 2011 and sets out the long term strategy for the development of Barnsley.

Strategic Objective 3 within the document states the ambitions of the council to secure safe, healthy and inclusive communities, and to promote wellbeing. By encouraging safe park design, especially in relation to the proposed Dodworth Road highway scheme, the Greenspace Appraisal options for the park will help to support this policy.

Policy CSP 26 (New Development and Highway Improvement) states the requirement for all new development to be designed and built to provide safe, secure and convenient access for all road users. The layout and design of the access points within the proposed park interventions will take into account the access and safety of a variety of users.

Policy CSP 29 (Design) states how development should contribute to place making and be of a high quality which contributes to a healthy, safe and sustainable environment. Development should also contribute towards attractive and successful neighbourhoods. The Greenspace Appraisal will help to maintain a level of access to community and recreational facilities for the Pogmoor and Town End neighbourhood area.

Policy CSP 33 (Green Infrastructure) outlines the commitment of the Council to maintain and enhance a network of Green Infrastructure across Barnsley. It particularly states how developer contributions can be used to create and improve Green Infrastructure. Despite the loss of green space at Penny Pie Park, the Greenspace Appraisal options will consider how the Green Infrastructure network could be enhanced as part of the Proposed Dodworth Road highway scheme.

Policy CSP 35 (Green Space) states that development proposals which result in the loss of green space will only be allowed should an appropriate replacement green space of an equivalent level of accessibility and community benefit be provided. It is hoped that the Greenspace Appraisal options for the park will enhance the local offering and provide an equal or enhanced level of benefit to the park users.

Policy CSP 36 (Biodiversity and Geodiversity) states how development is expected to conserve and enhance the biodiversity features of the borough. Where this is not the case, effective mitigation and/ or compensatory measures must be ensured.

## GUIDANCE FOR OUTDOOR SPORT AND PLAY: BEYOND THE SIX ACRE STANDARD (2015)

Produced by Fields in Trust, the guidance provides recommended guidelines to ensure that the provision of outdoor sport, play and informal open space is of a sufficient size to enable effective uses; is of a quality to maintain longevity and in close proximity to dwellings; and to encourage its continued use. It is recommended within the guidance that Equipped/Designated Play Spaces are promoted in the form of:

- Local Areas for Play (LAPs) for young children.
- Locally Equipped Areas for Play (LEAPs) for children who can play independently.
- Neighbourhood Equipped Areas for Play (NEAPs) aimed at older children.

For each of the open space typologies, a minimum size and minimum dimension of each facility is provided. This detail has been used to help determine the layout of proposals at Penny Pie Park.

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## BARNSELY PLAYING PITCH STRATEGY 2016-2019 (2016)

The document seeks to guide the future provision and management of sports pitches and community use services in the Barnsley Metropolitan Borough area, and provides a strategy against which Playing Pitch Facilities can be assessed. Within the Strategy, Barnsley is divided into sub areas, within which Penny Pie Park falls into the Central sub area. For each recreational site within the Central sub-area, an action has been provided to ensure its provision, enhancement or protection.

Penny Pie Park is not listed as a site with playing pitch facilities, although it is in proximity to a number of Sites listed within the document, including the Horizon Community College and Pogmoor Recreation Ground.

## BARNSELY GREEN SPACE STRATEGY (2016 UPDATE)

The Barnsley Green Space Strategy was originally adopted by BMBC in 2006 as a strategy for managing local green spaces, and establishing standards for the council to achieve across the Borough. This document has since been updated in order to reflect current planning policy guidance. The Council has established five aims to help maintain local green spaces, as outlined within the document:

- To protect important green spaces from development;
- To create new green spaces and to improve existing ones;
- To create and protect a network of green ways that develop links between green spaces, towns and villages and the countryside;
- To encourage everyone to use green spaces by making sure there are enough of them of the right type and quality in places where people can easily get to them; and
- To make sure we look after and maintain our green spaces so they continue to be used by everyone, now and in the next generation.

As well as definitions for each typology, the strategy provides a set of accessibility standards for the distance between each of the green space typologies and quality standards to determine the size of each space.

For the purpose of this project, the Green Space Strategy is a valuable tool to help identify the value of Penny Pie Park and determine whether the impact of the proposed Dodworth Road highway scheme will result in a shortfall of certain types of green space.

## POGMOOR AND TOWN END GREEN SPACE ASSESSMENT (2016)

Based on the standards established within the Green Space Strategy, a Green Space Assessment has been conducted for the Pogmoor and Town End neighbourhood area. Conducted by Barnsley Metropolitan Borough Council, a summary of the 2016 assessment for this neighbourhood area is provided in Table 1.1 and Table 1.2.

The Neighbourhood Area does not have the range of green spaces to meet local standards, and access to green space is notably constrained by major roads and railway line. According to the Green Space Assessment (2016), Penny Pie Park is the largest park within the Pogmoor and Town End area at 4.92 ha. Sugdens Recreation Ground at Stocks Lane is 3.00 ha. However, all other parks and open spaces within the neighbourhood area are below 1.00 ha.

Table 1.1 shows if there is any deficit of certain green space typologies within the Pogmoor and Town End neighbourhood area, the quality of those which exist, and if there is any opportunity to address the findings within the proposed highway scheme development.

It suggests there is an opportunity to provide the following types of green space to help meet the neighbourhood deficiency:

- District green space
- Locally equipped area for play
- Neighbourhood equipped area for play
- Youth facility
- Local neighbourhood sports facility
- Green ways
- Natural areas

Table 1.2 indicates the green space typologies which are provided at Penny Pie Park, their quality and the value of the assets. The park currently provides a range of typologies, the majority of which are of a good and improving quality. Given the high value of all of the present typologies, these green spaces should be retained within the park boundary if possible, or the provision should be offset elsewhere if possible within the neighbourhood following the development of the proposed highway scheme.

Table 1.1 - Neighbourhood Access and Typology of Green Space, (Extract from Pogmoor and Town End Green Space Assessment 2016)

| Type                       | Green spaces you should expect       | Are these spaces provided?                                             | Do these spaces meet our standards for accessibility, quality and value? |
|----------------------------|--------------------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Parks and open spaces      | Local neighbourhood green space      | Yes but mostly small sites                                             | Fair to High quality but mixed value                                     |
|                            | District green space                 | No, deficient                                                          | No green space to assess                                                 |
|                            | Possible borough green space         | Yes, but not within the area                                           | Good quality and High value                                              |
| Child and youth facilities | Equipped play areas                  | Partly - the west and south east is deficient                          | Good quality and high value                                              |
|                            | Local equipped area for play         | Partly, but access is constrained                                      | Good quality and high value                                              |
|                            | Neighbourhood equipped area for play | No, Deficient                                                          | No Green Space to assess                                                 |
|                            | Youth facility                       | Mostly deficient                                                       | Fair quality and mixed value                                             |
| Outdoor sports facilities  | Local neighbourhood sports facility  | Partly                                                                 | Fair to High quality and High value                                      |
|                            | District sports facility             | Yes                                                                    | Good quality and High value                                              |
|                            | Possible borough sports facility     | Yes but only in adjoining areas and limited in range of types of sport | Most Fair to Good quality and all High value                             |
| Green ways                 | Green ways should be provided        | Limited provision                                                      | Fair quality and High value                                              |
| Natural areas              | Natural areas should be provided     | No, Deficient, only one within the area                                | Fair quality                                                             |
| Allotments                 | Allotments should be provided        | Yes - 3 sites                                                          | Mixed quality and value                                                  |

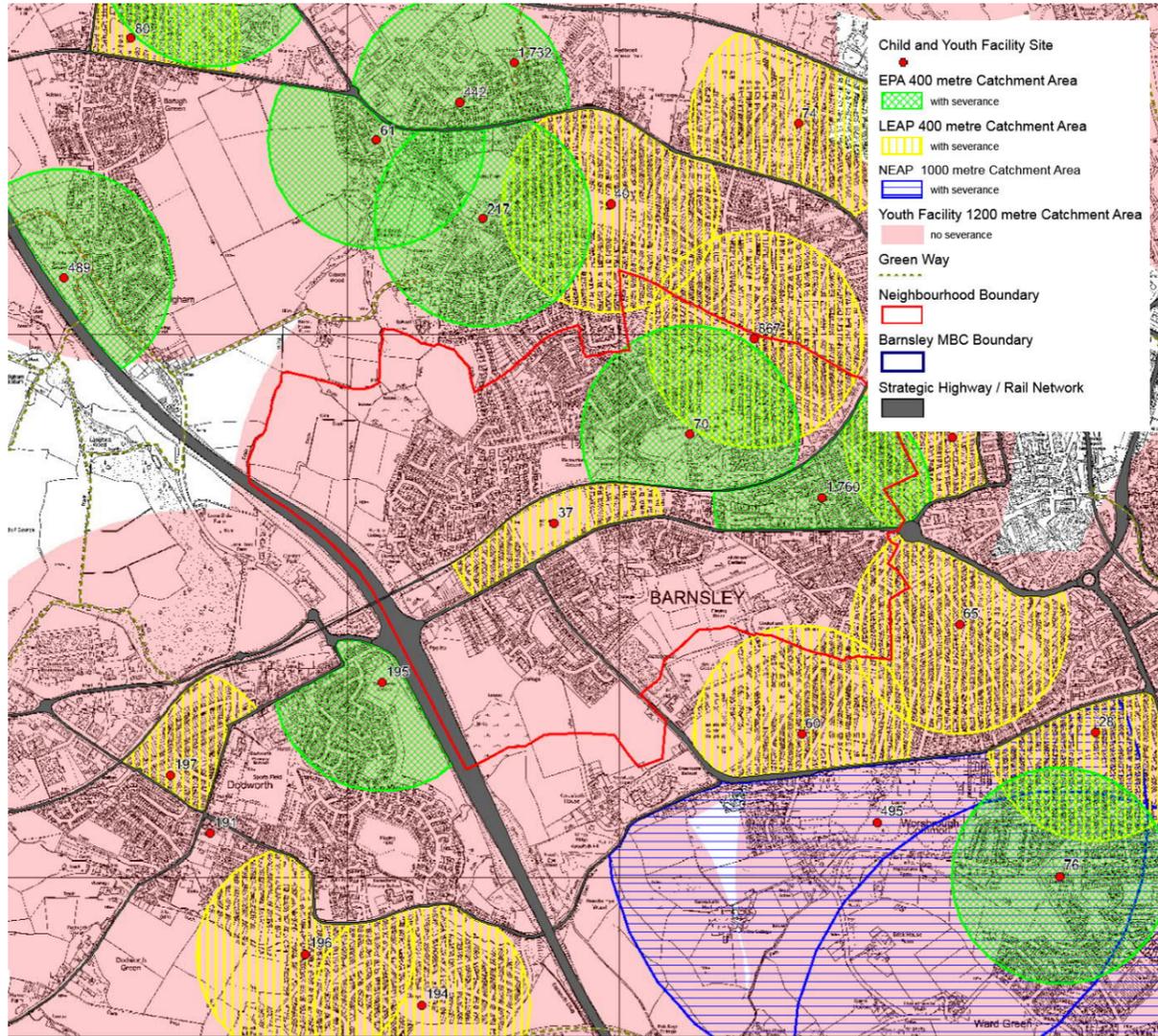
| Typology in Penny Pie Park                                     | Quality            | Value |
|----------------------------------------------------------------|--------------------|-------|
| Park and Open Space- Local Neighbourhood Green Space           | Good and Improving | High  |
| Child and Youth Facility- Local Equipped Area for Play (LEAP)  | Good and Improving | High  |
| Child and Youth Facility- Youth Facility                       | Good and Improving | High  |
| Outdoor Sports Facilities- Local Neighbourhood Sports Facility | Fair and Stable    | High  |

Table 1.2 - Green space typology within Penny Pie Park (Summary as taken from Pogmoor and Town End Green Space Assessment 2016)

# POGMOOR AND TOWN END CATCHMENT AREAS

The standards as established within the Green Space Strategy have informed a series of maps for the Pogmoor and Town End neighbourhood area.

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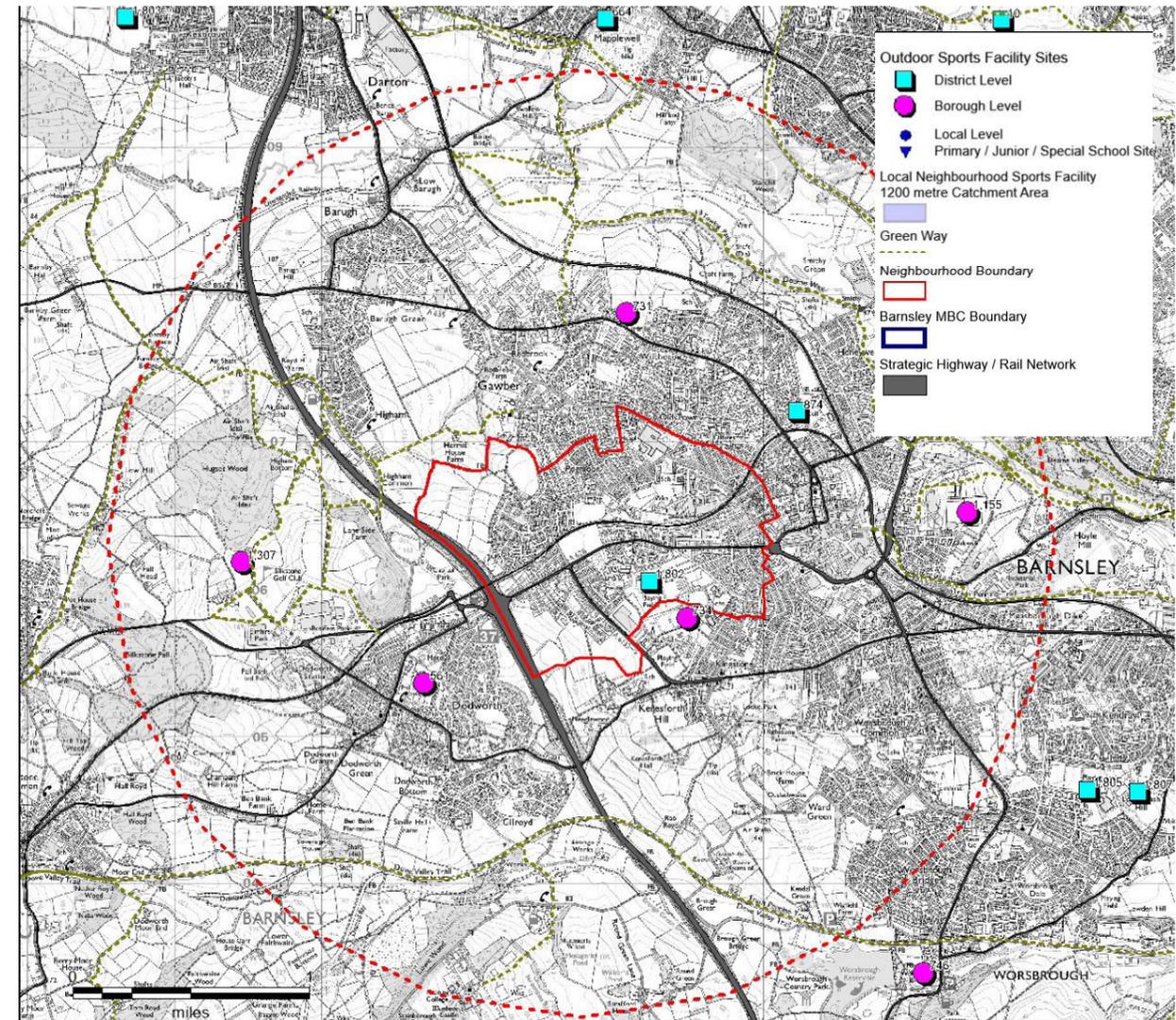


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Figure 2.1- Current child and youth facilities within 2 mile radius

### Child and Youth Facility Sites

There are 2 youth facilities serving Pogmoor and Town End, one of which is within Penny Pie Park and comprises a Multi-Use Games Area (MUGA) and outdoor gym. There are also 2 LEAP standard play facilities serving the area, one of which is located within Penny Pie Park. The proposed scheme will impact on these facilities and there is a need to ensure they are relocated within the retained park area.

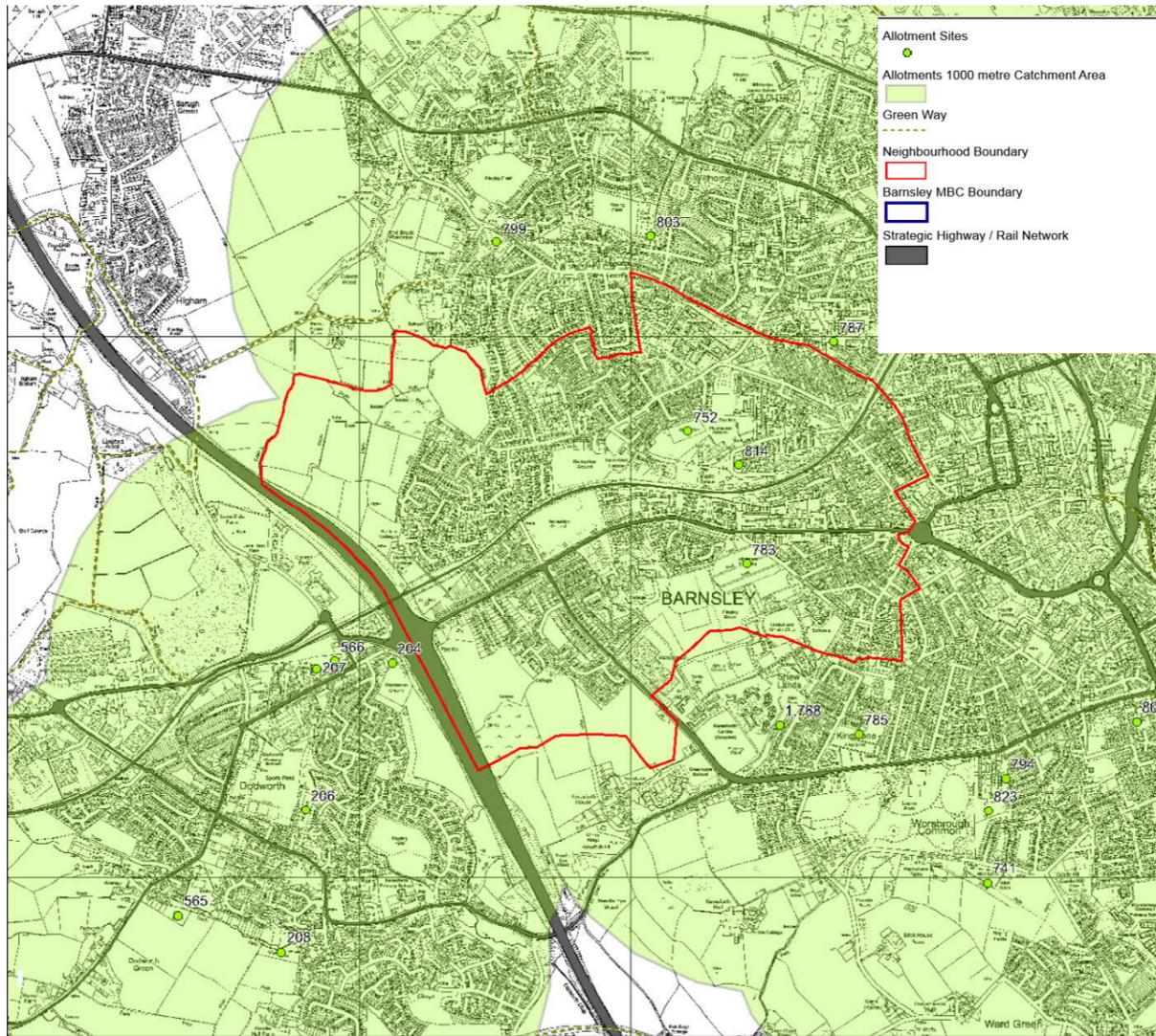


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Figure 2.2- Outdoor Sports facilities within 2 mile radius

### Outdoor Sports Facilities

There are 10 Local Neighbourhood Sports facilities (LNSF) within the Pogmoor and Town End neighbourhood area, although only 4 of these have public access. Penny Pie Park has a LNSF function as it includes sufficient space for informal sports play. The proposed scheme will need to ensure the relocation of the MUGA and outdoor gym within the retained park area. Although the proposed scheme will result in a reduced quantity of greenspace available for the informal sports there are other facilities available in the vicinity e.g. Pogmoor Recreation Ground and therefore it is unlikely to negatively impact on neighbourhood accessibility to this type of green space and there will be no significant impact on the provision of District and Borough level sports facilities in the neighbourhood as a result of these proposals.



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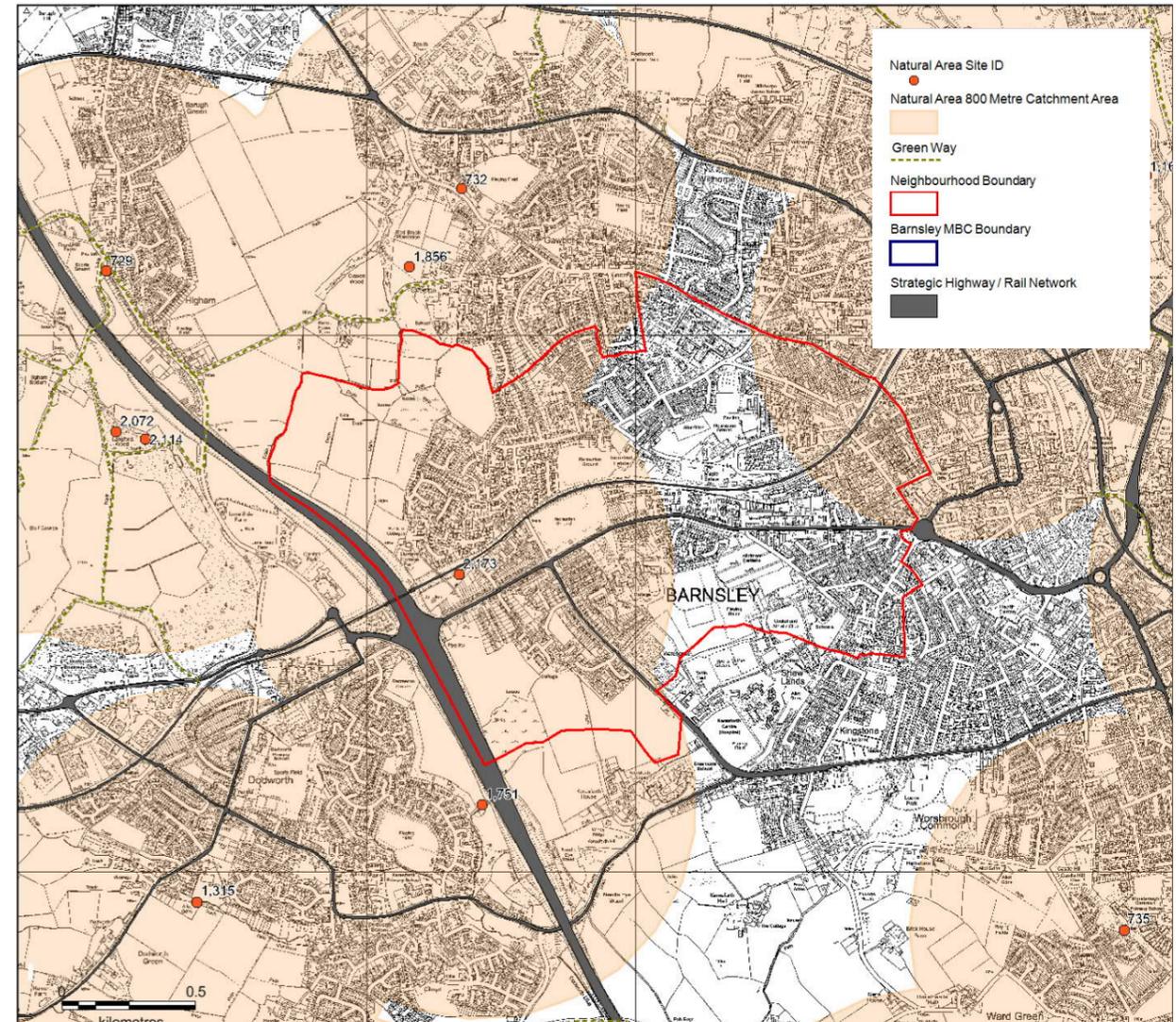
Figure 2.3- Allotments within 2 mile radius

Allotment Sites

There are 3 allotment sites within the neighbourhood area. The proposed scheme will not significantly impact on neighbourhood accessibility to this type of green space.

Parks and Open Spaces

There are no District or Borough level Parks within the Pogmoor and Town End neighbourhood area. There are, however, 20 Local Neighbourhood Greenspaces serving the area. One of these is Penny Pie Park which, at 4.92ha, is the largest green space of this type in the neighbourhood area. Currently the majority of the neighbourhood area is within the 400m catchment area for this type of green space. The proposed scheme will result in a reduced quantity of greenspace available. The proposals in the greenspace appraisal will seek to provide qualitative improvements.



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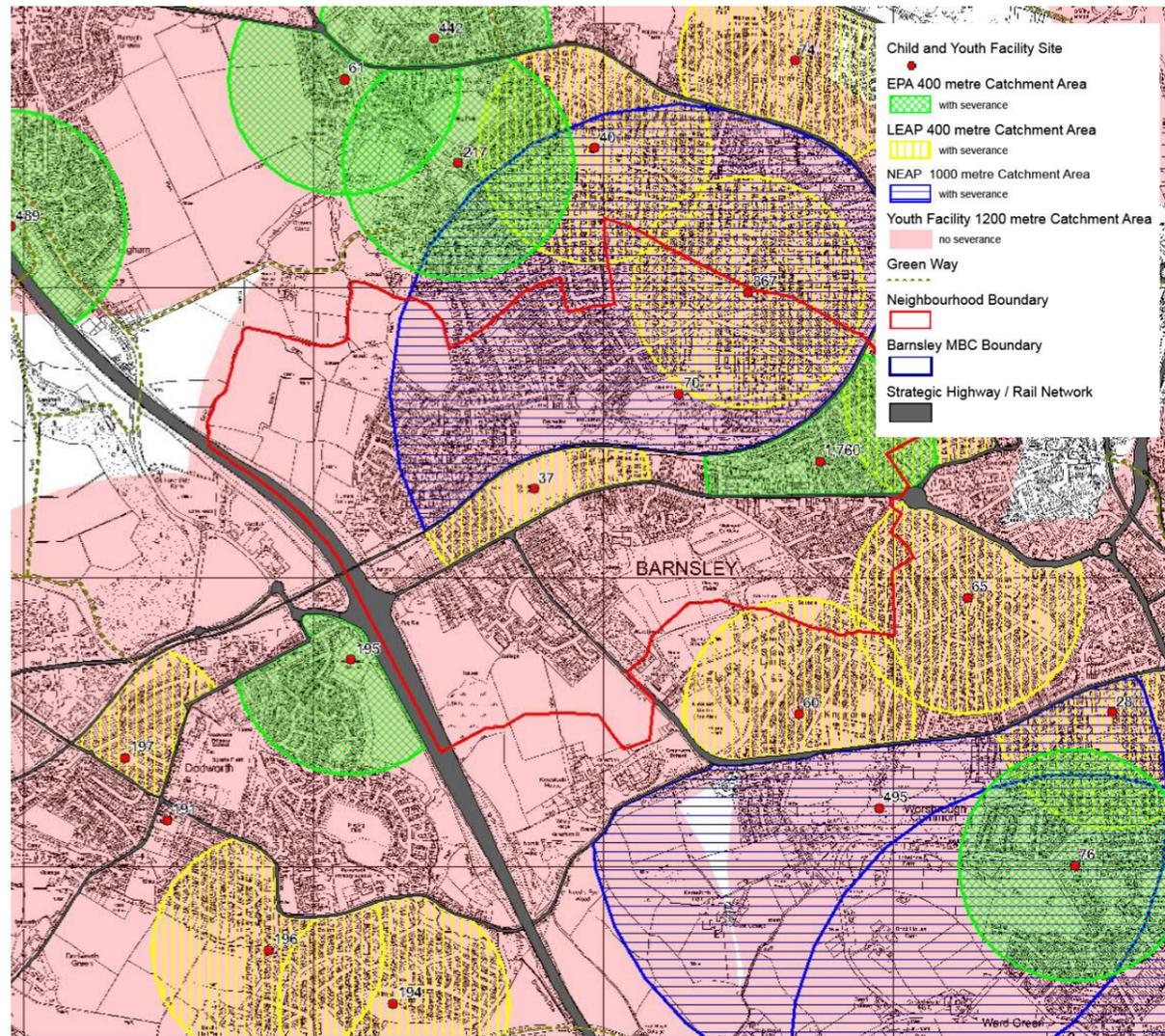
Figure 2.4- Natural Area Sites within 2 mile radius

Natural Area Sites

There will be no significant impact on the provision of, and accessibility, to the single Natural Area within Pogmoor and Town End as a result of the proposals.

# POGMOOR AND TOWN END CATCHMENT AREAS

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Figure 2.5- Enhanced child and youth facilities within 2 mile radius

## Child and Youth Facility Sites

The existing LEAP, MUGA, Outdoor Gym facility will be retained and relocated in the vicinity known as Penny Pie Park, with new footpaths and children's cycle path proposed. Pogmoor Recreation Ground will benefit from improved pedestrian access with provision of footpath, benches and dog fouling bins. Sugdens Recreation ground on Stocks Lane will be upgraded from an EPA to a NEAP, which has a wider catchment area of 1000m, as oppose to 400m.

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## 4.IMPACT OF GYRATORY ON PENNY PIE PARK



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Figure 3.1- The intended layout of the Dodworth Road Gyratory

AECOM have been commissioned to assist Barnsley Metropolitan Borough Council in preparing a Greenspace Appraisal to address the impact of the delivery of the proposed A628 Dodworth Road Highway improvement scheme, and to suggest potential solutions that could upgrade and enhance the green space known as Penny Pie Park.

Barnsley Metropolitan Borough Council commissioned AECOM to undertake a high level assessment of the cumulative impact of the forecast traffic in and out of Barnsley, via Junction 37 of the M1 Motorway. Of particular consideration was the impact of traffic at the existing Dodworth/Pogmoor Road junction.

It was concluded that the crossroad junction was nearing capacity and would be unlikely to accommodate the additional forecast development traffic that will be generated from current planning permissions, together with the employment and housing opportunities identified in the existing Core Strategy, and be able to operate within capacity.

The starting point for the council when seeking to address capacity issues on the network is to consider whether or not it would be possible to achieve the necessary modal shift from private car usage to more sustainable modes of transport such as public transport or active travel (cycling & walking). Not only would these potentially become a better way of addressing health and air quality, but they would also be a more effective way of reducing carbon emissions and the associated impact of climate change. In terms of active travel, the Council is involved in a number of initiatives to promote walking and cycling. Over the past 4 years, £3.9m external capital funding has been secured and provided improved and new cycleways within the borough (including Dearne Valley Enterprise Corridor and Pontefract Road to Town Centre) and £1.1m external revenue funding has been secured to promote and encourage active travel in the borough including the Cycle Hub, Dr Bike and Bike Loans. The Council is currently developing its Active Travel Strategy and will seek to ensure that walking and cycling routes are considered and promoted throughout the design and delivery of any potential highway improvements in the borough. However, it is recognised that it is unlikely that the modal share of active travel within the borough will increase to such an extent that it would not be necessary to improve the capacity of the Dodworth Road/Broadway/Pogmoor Road junction.

Therefore, a number of highway design solutions were produced and after significant testing of the network layout options, the proposed Dodworth Road Highway scheme when compared to the other potential options, is predicted to have the greatest level of benefit in terms of capacity, reduction in journey times and reduced delays. It will provide better access to the redeveloped Town Centre from the M1 and to the western side of the borough, and will be designed to have sufficient capacity allowing the future growth aspirations of the borough to be accommodated.

Whilst having a positive effect on the traffic flow and accessibility of Barnsley, it is recognised that the proposed Dodworth Road Highway scheme significantly encroaches into the park. However, this would occur with each of the potential options assessed, but in contrast, unlike some of the alternative options, it does not result in the demolition of any residential properties.

This piece of work will explore these effects against a number of impact receptors, including access; facilities and features; and noise and visual amenity, before suggesting potential solutions to help address the impact of the proposed Dodworth Road Highway scheme on the urban environment of Penny Pie Park.

## 4.1 ACCESS

### IMPACT

- Formal access points into the park are likely to be lost under the proposed development. Informal access points, as achieved through the existing vegetative borders, are likely to be relocated.
- Desire lines across the open space which currently exist from the west and the north towards Horizon Community College are likely to be interrupted by the highway, altering user walking routes and impacting pedestrian experience as a result.
- The new junctions of the highway scheme will remove signage at certain points, potentially undermining user legibility.
- The existing footpath which runs across the north and the east of the park is likely to be shortened upon development of the highway scheme system, as its edges will be developed as part of the new highway.
- The crossing points which exist across the Pogmoor/Dodworth Road junction and along Dodworth Road, will be altered from their current position.



1- View across the existing Dodworth Road crossing point into the park



2- The existing Penny Pie Park Welcome Board 3- Informal entry opportunities



4- Entry into the Park via Grosvenor Gardens 5- Vegetative border to the south of the park



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Figure 4.1- Impact of the gyratory on park access

## 4.2 FACILITIES AND FEATURES

### IMPACT

- Several existing park facilities will be impacted as a result of the highway scheme, including the MUGA, the outdoor gym, the LEAP, and the air ambulance emergency landing site.
- Some trees will require removal should they overlap with the path of the proposed highway scheme. Others may also be lost as part of the proposed development as a result of the construction process.
- The open nature of the park is one of its current assets. However, the functionality of the green space, which will be located internally of the highway scheme, is likely to be reduced from its current state.
- Four bus stops will require relocation.
- An area of landscape diversity to the north of the Site will be compromised and reduced in size. Two benches are likely to be lost due to the layout of the proposed highway scheme.
- It is important to note that the layout of the proposed highway scheme will impact on Penny Pie Park and result in a reduced quantity of land available for public open space, as the fragmentation of the Park will reduce the opportunities for large events such as the fun fair, the proposed qualitative improvements to existing public open space which are an integral and necessary **part of the scheme will more than compensate for these dis-benefits, and the retained space** should still have the capacity to host smaller community events.



1- Desired line exit into A628 to Horizon College



2- Lost Bus Shelter on Pogmoor Road



3- Children facilities within Penny Pie Park



4- Air Ambulance turning circle and access.



5- Bench along footpath along east edge of site.



Figure 4.2 Impact of the gyratory on park facilities and features

### 4.3 NOISE AND VISUAL AMENITY

#### IMPACT

- The proposed highway scheme is likely to alter the views from houses facing onto the park as it will increase the amount of the highway network which will be within vicinity. Despite this, **residents are already overlooking a significant highway network, and so the impact would be minor.**
- **It is the views from within the park which are most likely to be affected by the proposed development** as the highway scheme will increase the presence of highway and transport infrastructure. As such, short views from within the park of the open green space will be interrupted by the highway scheme. Noise disturbance from the functioning of this network may impact on park users.
- The topography and the wooded nature of land to the north of the rail line means that views from dwellings in the immediate north at St Catherines Way/Pogmoor Road cul de sac are already **limited, and are unlikely to be affected. Existing tree cover also helps to address the spread of noise pollution** to these residential units.
- The visual impact from passing vehicles will be altered upon their passage through the park. There is an opportunity to utilise this enhanced exposure to create an attractive gateway into Barnsley Town Centre.
- For park users, noise is likely to increase as there is less opportunity to retreat from the road network or create distance between the road and the park user.



1 - Row of housing along A628 with altered views once the Gyratory is built.



2 - View from Park edge



3- Queuing traffic on Dodworth- Pogmoor road junction



4-Overgrown vegetation on Penny Pie Park reducing function and use.



5-MUGA and children facility on Penny Pie Park.



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Figure 4.3- Impact of the gyratory on visual amenity and noise

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# 5. GREENSPACE APPRAISAL OPTIONS

## 5.1 OPPORTUNITIES TO MITIGATE PENNY PIE PARK

Combined, the findings of the Green Flag Award assessment, the Pogmoor and Town End Green Space assessment, and the impact analysis have helped to identify potential opportunities for mitigation and enhancement within Penny Pie Park. Whilst the openness of the park is likely to be compromised, there is an opportunity to enhance the facilities on offer and create a high quality, functional and attractive environment for the neighbourhood area.

Following the Greenspace Appraisal, 3 potential options on Penny Pie Park are included in this section, with additional provisions to enhance Pogmoor Recreation Ground with new footpath trees and benches. High level budget cost for each option are also provided for reference.

In order to address the effects of the proposed Dodworth Road Highway scheme, the facilities and features of Penny Pie Park will require replacement, and connectivity across the park should be maintained. The Greenspace Appraisal proposes that formal access points into the park should be replaced in order to maintain legibility for users, and any loss of trees is quantified and offset within the park.

The MUGA, LEAP and outdoor gym equipment should either be retained on the park, or should be relocated within close proximity to ensure that the provision of this facility remains accessible. It is suggested that existing desire lines are formalised with the development of a footpath across the internal space of the Highway scheme system, whilst the provision of SUDS, if required, could help address the environmental impact. An area of differential planting and habitat improvement would help to address the loss of landscape diversity which currently exists.

At this stage, these Greenspace Appraisals represent broad brush options and potential opportunities that could be delivered to address the impact of the scheme and reduce the level of harm. It is envisaged that they will be used by the Council, as the planning permission applicant, as part of the planning approval process, but the proposals should be flexible enough to allow local stakeholders and users of the park, including the Friends of Penny Pie Park to and others to influence the delivery of the proposals. Under the Greenspace Appraisal options, it is proposed that formal access points into the park are to be replaced in order to maintain legibility for users, and the loss of trees is quantified and offset within the park.



Figure 4.4- Penny Pie Park and Pogmoor Recreation Ground

### 5.1.1 GREENSPACE APPRAISAL OPTION 1

It is possible to mitigate the effects of the gyratory within the remaining space of Penny Pie Park. This would include the reconfiguration of all facilities and features which are lost under the development, albeit in a reconfigured layout to what currently exists shown on figure 5.1.

This Greenspace Appraisal option 1, would include new footpaths/wanderloop for walking and a cycling path for children, with integrated landscape and benches at convenient locations, and fenced off along the gyratory to provide a safe environment.

This option will also includes a new footpath on Pogmoor Recreation Ground, interspersed with new benches and trees, linking both entrances on Pogmoor Recreation Ground.

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- Interventions
- ① Open informal space
  - ② Park entrances
  - ③ Desire line
  - ④ Landing site
  - ⑤ MUGA
  - ⑥ Parkland rails
  - ⑦ Children cycle path/ Wanderloop
  - ⑧ Habitat improvement
  - ⑨ NEAP
  - ⑩ Outdoor gym
  - ⑪ Avenue
  - ⑫ Public art
  - ⑬ New footpath -Pogmoor Recreation Ground



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Please refer to Table 5a and 6.1 for the details and costing of this intervention.

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Figure 5.1-Greenspace Appraisal Option 1

## OPTION 1- TABLE OF MITIGATIONS - PENNY PIE PARK AND POGMOOR RECREATION GROUND

Table 5a below provides a description of the feature which is proposed within Option 1, and shows an indicative time scale for the features delivery.

Table 5a: Description of mitigations proposed for Option 1

| Intervention                                  | Delivery Time scale | Option 1                                                                                                                                                                                                                                                                                                                           | Relevant Policy/ Documentation                                                                        |
|-----------------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| 1- Open informal space                        | Short               | Informal space with an open parkland character is to be maintained for a variety of functions. A swale will help to act as a buffer to the gyratory system and will deter users from getting too close to the highway network by providing a soft edge. This will maintain some sense of openness and amenity for local residents. | - Barnsley Green Space Strategy                                                                       |
| 2- Park entrances                             | Short               | Will be used to maintain the identity of Penny Pie Park and indicate access points. To include paving, signage, lights, planting, bins and benches.                                                                                                                                                                                | - Core Strategy Policy CSP 26                                                                         |
| 3- Desire lines                               | Short               | 1.8m wide tarmac footpath to facilitate the route currently taken by users of the park and students.                                                                                                                                                                                                                               | - Core Strategy Policy CSP 29                                                                         |
| 4- Landing site                               | Medium              | A suitably accessible and protected area will be relocated for the air ambulance. This will consist of a turning circle, flood lights and signage.                                                                                                                                                                                 |                                                                                                       |
| 5- Multi Use Games Area (MUGA)                | Medium              | The existing MUGA will either be relocated or replaced with a standardised unit. Fencing may need to be heightened in order to overcome the proximity of the unit to the new gyratory.                                                                                                                                             | - Guidance for Outdoor Sport and Play                                                                 |
| 6- Parkland rails                             | Short term          | 1.2m high park railings to contain the park to the north and the east. This will create a safe and contained environment for children and dog owners to run their pets.                                                                                                                                                            | -Core Strategy Policy CSP 29                                                                          |
| 7- Wander Loop/ Children's cycle path         | Short/Medium        | Provide an interesting and safe environment for children to cycle along the loop. Also be used as a footpath and connect to PROW network. The path will be clearly defined and will incorporate various stopping points, such as community art features or benches.                                                                | - Core Strategy Policy CSP 33                                                                         |
| 8- Habitat Improvement                        | Medium/Long         | An area of increased wildlife and landscape diversity will help to mitigate the loss of open green space. This will involve cyclical maintenance of the wildlife area.                                                                                                                                                             | - Core Strategy Policy CSP 33<br>- Core Strategy Policy CSP 36                                        |
| 9- Neighbourhood Equiped Area for Play (NEAP) | Short               | NEAP to allow for 8 pieces of play equipment, bins, benches and surfacing. This is required in order to ensure that these facilities are not lost within the neighbourhood area. This will be contained with fencing.                                                                                                              | -Guidance for Outdoor Sport and Play<br>-Barnsley Green Space Strategy<br>-Core Strategy Policy CSP35 |
| 10- Outdoor gym                               | Short               | Relocation of the existing 8 pieces of outdoor gym equipment which is present in the park, helping to maintain the current recreational opportunities.                                                                                                                                                                             | -Core Strategy Policy CSP35                                                                           |
| 11- Avenue (and landmark feature)             | Medium              | Footpath to be widened to create a high quality avenue which is visible on the approach into Barnsley. Trees and lighting to be maintained to create an attractive environment.                                                                                                                                                    | - Core Strategy Policy CSP 29                                                                         |
| 12- Public art                                | Medium/Long         | Public art incorporating Barnsley's mining/ glass making history.                                                                                                                                                                                                                                                                  | - Core Strategy Policy CSP 29<br>- UDP BE7                                                            |
| 13- New Footpath                              | Short               | New footpath with provision for benches and trees and linking the 2 entrances on Pogmoor Recreation Ground. Lighting to be considered to create safe environment.                                                                                                                                                                  | - Core Strategy Policy CSP 29                                                                         |

### 5.1.2 GREENSPACE APPRAISAL OPTION 2

It is possible to mitigate the effects of the gyratory within the remaining space of Penny Pie Park. This would include the reconfiguration of all facilities and features which are lost under the development, albeit in a reconfigured layout to what currently exists shown on figure 5.2.

This Greenspace Appraisal option 2 would include new footpaths/wanderloop for walking / cycle path for children, with integrated landscape and resting spaces/benches at suitable locations. This would be fenced off along the gyratory to provide a safe environment for walkers/outdoor gym users and children. The MUGA would be located in a 1.8m high fenced area within the gyratory for ensuring safety. A wanderloop with integrated landscape and suitable resting points/ benches is provided in the gyratory for dog walking and to encourage natural surveillance.

This option will also include a new footpath on Pogmoor Recreation Ground, interspersed with new benches and trees, linking both entrances on Pogmoor Recreation Ground.

- Interventions
- ① Open informal space
  - ② Park entrances
  - ③ Desire line
  - ④ Landing site
  - ⑤ MUGA
  - ⑥ Parkland rails
  - ⑦ Children cycle path/ Wanderloop
  - ⑧ Habitat improvement
  - ⑨ NEAP
  - ⑩ Outdoor gym
  - ⑪ Wander loop
  - ⑫ Public art
  - ⑬ New footpath -Pogmoor Recreation Ground

Please refer to Table 5b and 6.2 for the details and costing of this intervention.



Figure 5.2-Greenspace Appraisal Option 2

## OPTION 2- TABLE OF MITIGATIONS - PENNY PIE PARK AND POGMOOR RECREATION GROUND

Table 5b below provides a description of the feature which is proposed within Option 2, and shows an indicative timescale for the features delivery.

Table 5b: Description of mitigations proposed for Option2

| Intervention                                  | Delivery Timescale | Option 2                                                                                                                                                                                                                                                                                                                           | Relevant Policy/ Documentation                                                                          |
|-----------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| 1- Open informal space                        | Short              | Informal space with an open parkland character is to be maintained for a variety of functions. A swale will help to act as a buffer to the gyratory system and will deter users from getting too close to the highway network by providing a soft edge. This will maintain some sense of openness and amenity for local residents. | - Barnsley Green Space Strategy                                                                         |
| 2- Park entrances                             | Short              | Will be used to maintain the identity of Penny Pie Park and indicate access points. To include paving, signage, lights, planting, bins and benches.                                                                                                                                                                                | - Core Strategy Policy CSP 26                                                                           |
| 3- Desire lines                               | Short              | 1.8m wide tarmac footpath to facilitate the route currently taken by users of the park and students.                                                                                                                                                                                                                               | - Core Strategy Policy CSP 29                                                                           |
| 4- Landing site                               | Medium             | A suitably accessible and protected area will be relocated for the air ambulance. This will consist of a turning circle, flood lights and signage.                                                                                                                                                                                 |                                                                                                         |
| 5- Multi Use Games Area (MUGA)                | Medium             | The existing MUGA will either be relocated or replaced with a standardised unit. New high fencing to be provided in order to overcome the close proximity of the unit to the new gyratory to ensure safety.                                                                                                                        | - Guidance for Outdoor Sport and Play                                                                   |
| 6- Parkland rails                             | Short term         | 1.2m high park railings to contain the park to the north and the east. This will create a safe and contained environment for children and dog owners to run their pets.                                                                                                                                                            | -Core Strategy Policy CSP 29                                                                            |
| 7- Wander Loop/ Children's cycle path         | Short/Medium       | Provide an interesting and safe environment for children to cycle along the loop. Also be used as a footpath and connect to PROW network. The path will be clearly defined and will incorporate various stopping points, such as community art features or benches.                                                                | - Core Strategy Policy CSP 33                                                                           |
| 8- Habitat Improvement                        | Medium/Long        | An area of increased wildlife and landscape diversity will help to mitigate the loss of open green space. This will involve cyclical maintenance of the wildlife area.                                                                                                                                                             | - Core Strategy Policy CSP 33<br>- Core Strategy Policy CSP 36                                          |
| 9- Neighbourhood Equiped Area for Play (NEAP) | Short              | NEAP to allow for 8 pieces of play equipment, bins, benches and surfacing. This is required in order to ensure that these facilities are not lost within the neighbourhood area. This will be contained with fencing.                                                                                                              | -Guidance for Outdoor Sport and Play<br>-Barnsley Green Space Strategy<br>- Core Strategy Policy CSP 35 |
| 10- Outdoor gym                               | Short              | Relocation of the existing 8 pieces of outdoor gym equipment which is present in the park, helping to maintain the current recreational opportunities.                                                                                                                                                                             | -Core Strategy Policy CSP 35                                                                            |
| 11- Wanderloop                                | Short              | Wanderloop for walking, with trees and stopping points/benches for resting. Landscape and lighting integrated to create attractive environment.                                                                                                                                                                                    | - Core Strategy Policy CSP 29                                                                           |
| 12- Public art                                | Medium/Long        | Public art incorporating Barnsley's mining/ glass making history.                                                                                                                                                                                                                                                                  | - Core Strategy Policy CSP 29<br>- UDP BE7                                                              |
| 13- New Footpath                              | Short              | New footpath with provision for benches and trees and linking the 2 entrances on Pogmoor Recreation Ground. Lighting to be considered to create safe environment.                                                                                                                                                                  | - Core Strategy Policy CSP 29                                                                           |

### 5.1.3 GREENSPACE APPRAISAL OPTION 3

It is possible to mitigate the effects of the gyratory within the remaining space of Penny Pie Park. This would include the reconfiguration of all facilities and features which are lost under the development, albeit in a reconfigured layout to what currently exists shown on figure 5.3.

This Greenspace Appraisal option 3, would include new footpaths/wanderloop for walking / cycle path for children, with integrated landscape and resting spaces/benches at suitable locations. This would be fenced off along the gyratory to provide a safe environment for children and other users of the park. The MUGA would be located in 1.8m high fenced area within the gyratory for ensuring safety alongwith outdoor gym facilities . A wanderloop with integrated landscape and suitable resting points/ benches is provided within the gyratory for dog walking and to encourage natural surveillance.

This option will also include a new footpath on Pogmoor Recreation Ground, interspersed with new benches and trees, linking both entrances on Pogmoor Recreation Ground.

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- Interventions
- ① Open informal space
  - ② Park entrances
  - ③ Desire line
  - ④ Landing site
  - ⑤ MUGA
  - ⑥ Parkland rails
  - ⑦ Children cycle path/ Wanderloop
  - ⑧ Habitat improvement
  - ⑨ NEAP
  - ⑩ Outdoor gym
  - ⑪ Wander loop
  - ⑫ Public art
  - ⑬ New footpath -Pogmoor Recreation Ground

Please refer to Table 5c and 6.3 for the details and costing of this intervention.



Figure 5.3-Greenspace Appraisal Option 3

1:2000@A3

### OPTION 3- TABLE OF MITIGATIONS - PENNY PIE PARK AND POGMOOR RECREATION GROUND

Table 5c below provides a description of the feature which is proposed within Option 3, and shows an indicative timescale for the features delivery.

Table 5c: Description of mitigations proposed for Option 3

| Intervention                                  | Delivery Timescale | Option 3                                                                                                                                                                                                                                                                                                                           | Relevant Policy/ Documentation                                                                          |
|-----------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| 1- Open informal space                        | Short              | Informal space with an open parkland character is to be maintained for a variety of functions. A swale will help to act as a buffer to the gyratory system and will deter users from getting too close to the highway network by providing a soft edge. This will maintain some sense of openness and amenity for local residents. | - Barnsley Green Space Strategy                                                                         |
| 2- Park entrances                             | Short              | Will be used to maintain the identity of Penny Pie Park and indicate access points. To include paving, signage, lights, planting, bins and benches.                                                                                                                                                                                | - Core Strategy Policy CSP 26                                                                           |
| 3- Desire lines                               | Short              | 1.8m wide tarmac footpath to facilitate the route currently taken by users of the park and students.                                                                                                                                                                                                                               | - Core Strategy Policy CSP 29                                                                           |
| 4- Landing site                               | Medium             | A suitably accessible and protected area will be relocated for the air ambulance. This will consist of a turning circle, flood lights and signage.                                                                                                                                                                                 |                                                                                                         |
| 5- Multi Use Games Area (MUGA)                | Medium             | The existing MUGA will either be relocated or replaced with a standardised unit. New high fencing be provided in order to overcome the close proximity of the unit to the new gyratory to ensure safety.                                                                                                                           | - Guidance for Outdoor Sport and Play                                                                   |
| 6- Parkland rails                             | Short term         | 1.2m high park railings to contain the park to the north and the east. This will create a safe and contained environment for children and dog owners to run their pets.                                                                                                                                                            | -Core Strategy Policy CSP 29                                                                            |
| 7- Wander Loop/ Children's cycle path         | Short/Medium       | Provide an interesting and safe environment for children to cycle along the loop. Also be used as a footpath and connect to PROW network. The path will be clearly defined and will incorporate various stopping points, such as community art features or benches.                                                                | - Core Strategy Policy CSP 33                                                                           |
| 8- Habitat Improvement                        | Medium/Long        | An area of increased wildlife and landscape diversity will help to mitigate the loss of open green space. This will involve cyclical maintenance of the wildlife area.                                                                                                                                                             | - Core Strategy Policy CSP 33<br>- Core Strategy Policy CSP 36                                          |
| 9- Neighbourhood Equiped Area for Play (NEAP) | Short              | NEAP to allow for 8 pieces of play equipment, bins, benches and surfacing. This is required in order to ensure that these facilities are not lost within the neighbourhood area. This will be contained with fencing.                                                                                                              | -Guidance for Outdoor Sport and Play<br>-Barnsley Green Space Strategy<br>- Core Strategy Policy CSP 35 |
| 10- Outdoor gym                               | Short              | Relocation of the existing 8 pieces of outdoor gym equipment which is present in the park, helping to maintain the current recreational opportunities.                                                                                                                                                                             | - Core Strategy Policy CSP 35                                                                           |
| 11- Wanderloop                                | Short              | Wanderloop for walking, with trees and stopping points/benches for resting. Trees and lighting integrated to create attractive environment.                                                                                                                                                                                        | - Core Strategy Policy CSP 29                                                                           |
| 12- Public art                                | Medium/Long        | Public art incorporating Barnsley's mining/ glass making history.                                                                                                                                                                                                                                                                  | - Core Strategy Policy CSP 29<br>- UDP BE7                                                              |
| 13- New Footpath                              | Short              | New footpath with provision for benches and trees and linking the 2 entrances on Pogmoor Recreation Ground. Lighting to be considered to create safe environment.                                                                                                                                                                  | - Core Strategy Policy CSP 29                                                                           |

### 5.1.4 PRECEDENT IMAGES





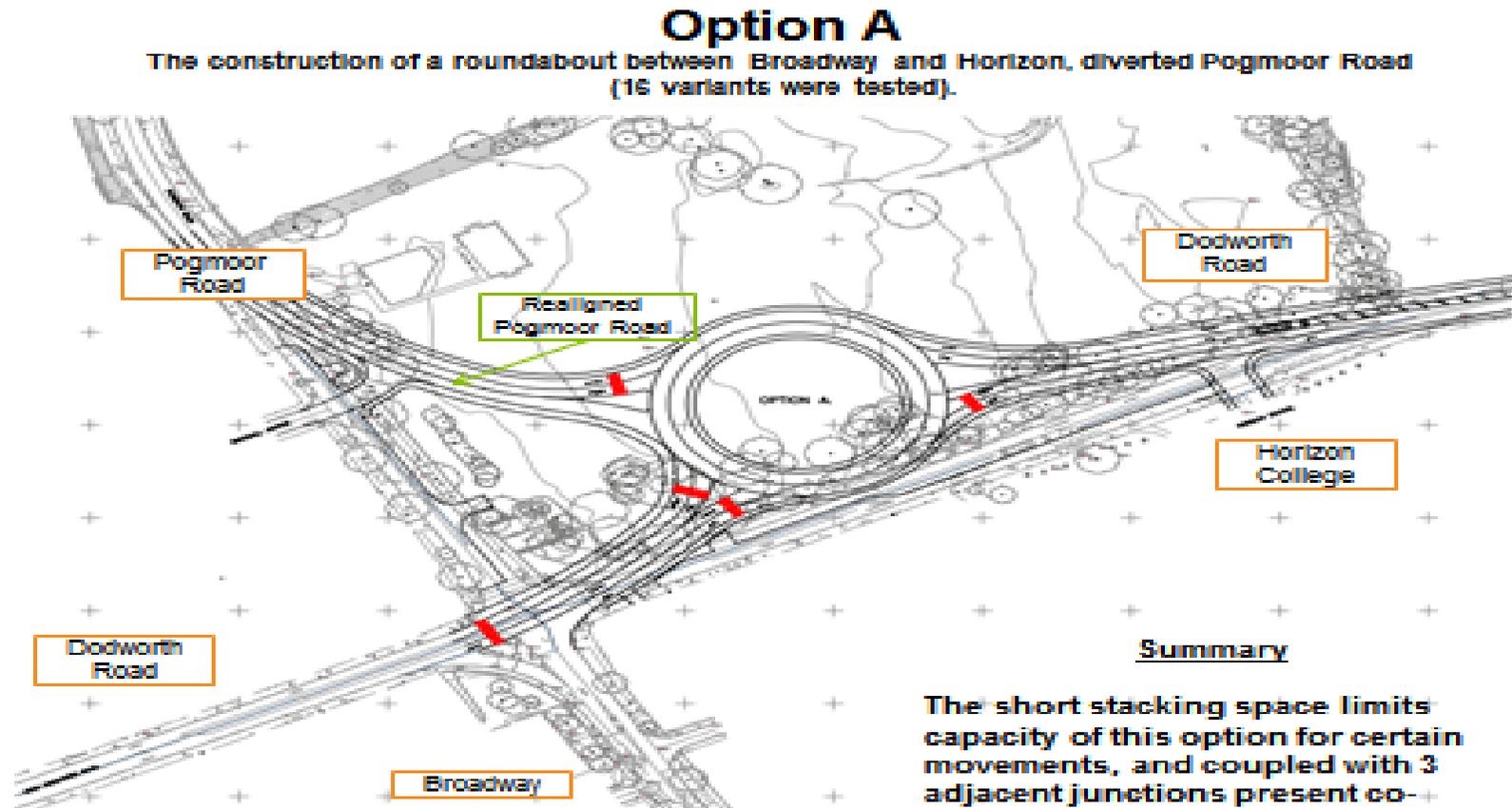
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**Option A**

**Description**

New junction between the Broadway / Pogmoor crossroads and the Horizon access. Pogmoor diverted from the crossroads to join Dodworth Road at the new junction.

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Summary

The short stacking space limits capacity of this option for certain movements, and coupled with 3 adjacent junctions present co-ordination challenges.

**AECOM**

### Sub Options Assessed following a high level review of all sub options

A total of 16 sub options were tested, but only Variant 16 was taken forward following a high level review.

- VARIANT 16
- Dodworth Road / Broadway – signalised T junction as existing. Dodworth Road / Diverted Pogmoor – signalised T junction, and Dodworth Road / Horizon – signalised T junction.

### Final Recommendation

Rejected

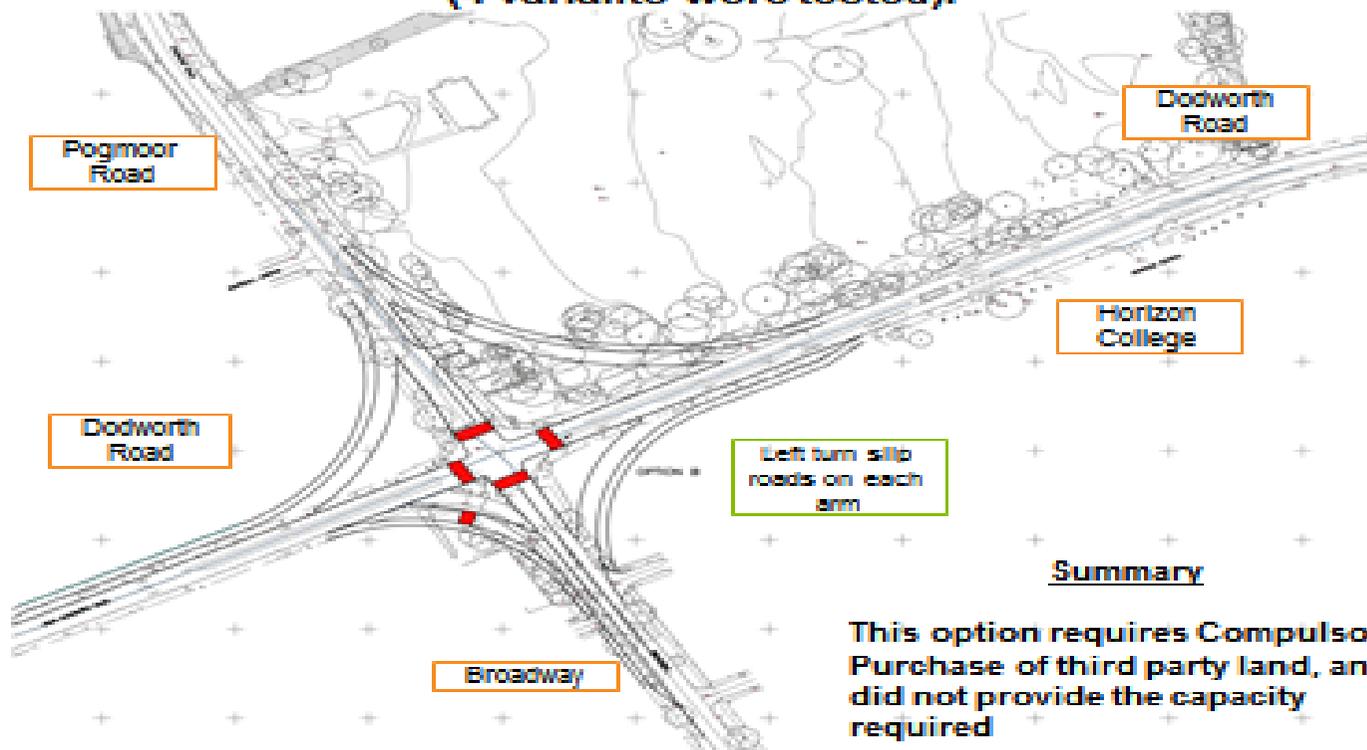
### Reason

Rejected, as this option required three sets of traffic lights at Broadway, the diverted Pogmoor Road and at the Horizon College. It was difficult to obtain a suitable co-ordination, and as such queues developed on the internal links resulting in blocking of junctions.

Option B

Description: Addition of left turn slip roads at the existing crossroads.

**Option B**  
The construction of left turn flares at the existing crossroads  
(4 variants were tested).



Summary

This option requires Compulsory Purchase of third party land, and did not provide the capacity required

**AECOM**

**Sub Options Assessed following a high level review of all sub options**

A total of 4 sub options were tested, none were taken forward.

**Final recommendation**

Rejected.

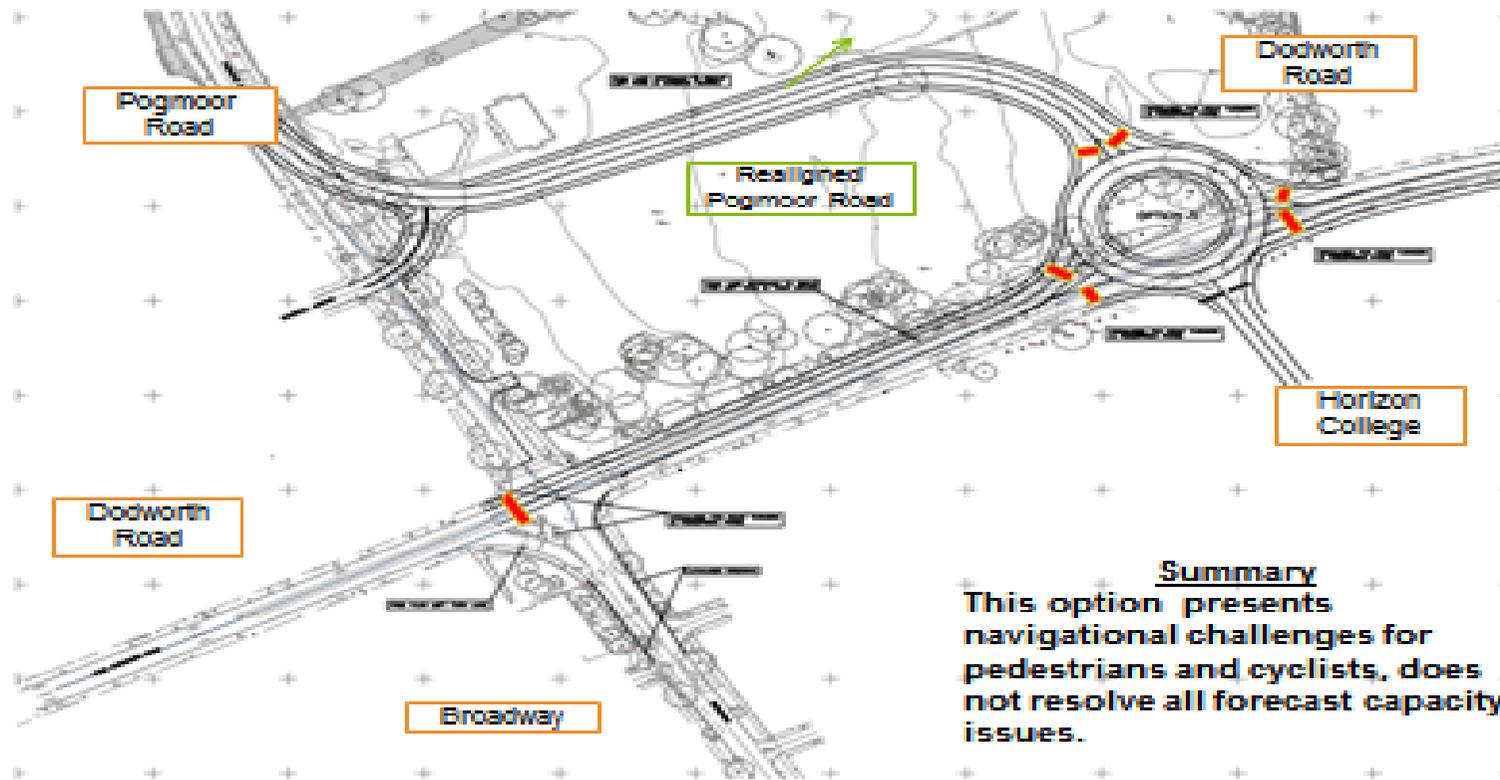
**Reason**

The capacity benefits did not outweigh the impact upon pedestrian movements and requirement for third party land.

Option C

**Description** Pogmoor diverted from the crossroads to join Dodworth Road at a new junction on Dodworth Road at the location of the Horizon access.

**Option C**  
**The construction of a roundabout linking into the access to Horizon Community College, and a diverted Pogmoor Road (8 variants were tested).**



**Summary**  
 This option presents navigational challenges for pedestrians and cyclists, does not resolve all forecast capacity issues.

DM

A total of 11 sub options were tested, with Variants 3, 6 and 11 being taken forward following a high level review.

| Sub Options Assessed following a high level review of all sub options                                                                                                                                                                                                                                                                                                                                          | Final Recommendations | Reason                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>VARIANT 3:</b><br/>                     Dodworth Road / Broadway – signalised T junction as existing<br/>                     Dodworth Road / Diverted Pogmoor / Horizon – signalised roundabout</p> <p>Taken forward to the final junction assessments along with:<br/>                     Option C Variant 6<br/>                     Option C Variant 11, and<br/>                     Option G</p>  | <p>Rejected</p>       | <p>Rejected as when compared to the gyratory through Penny Pie Park (Option G) it did not offer comparable levels of capacity benefits.</p> |
| <p><b>VARIANT 6:</b><br/>                     Dodworth Road / Broadway – signalised T junction as existing<br/>                     Dodworth Road / Diverted Pogmoor / Horizon – signalised crossroads</p> <p>Taken forward to the final junction assessments along with:<br/>                     Option C Variant 3;<br/>                     Option C Variant 11, and<br/>                     Option G</p> | <p>Rejected</p>       | <p>Rejected as when compared to the gyratory through Penny Pie Park (Option G) it did not offer comparable levels of capacity benefits.</p> |
| <p><b>VARIANT 7</b><br/>                     Dodworth Road / Broadway – signalised T junction as existing<br/>                     Dodworth Road / Diverted Pogmoor / Horizon – signalised crossroads, but with a free flow left turn flare into Pogmoor</p>                                                                                                                                                   | <p>Rejected</p>       | <p>Rejected as the addition of the left turn flare into Pogmoor did not offer any additional benefit when compared to Variant 6 above.</p>  |

|                                                                                                                                                                                                                                                                                                                                                      |                 |                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>VARIANT 9</b><br/>                 Dodworth Road / Broadway – signalised T junction as existing<br/>                 Dodworth Road / Diverted Pogmoor / Horizon – signalised roundabout, but with grade separated pedestrian bridges to remove Pedestrian facilities from the roundabout.</p>                                                  | <p>Rejected</p> | <p>Rejected as the removal of the pedestrian facilities from the roundabout onto a grade separated solution did not offer any additional benefit when compared to the cost and impact of constructing bridges at the junction.</p>                                                                                                               |
| <p><b>VARIANT 10</b><br/>                 Dodworth Road / Broadway – signalised T junction as existing<br/>                 Dodworth Road / Diverted Pogmoor / Horizon -signalised roundabout, but roundabout elongated with a cut through the middle to take the Pogmoor Road to Dodworth Road westbound away from the circulatory carriageway.</p> | <p>Rejected</p> | <p>Rejected as the impact of having a link through the roundabout complicated the layout of the southwest node of the junction where it re-joined Dodworth Road, and did not offer any capacity benefits over the simpler variant 11 layout below.</p>                                                                                           |
| <p><b>VARIANT 11</b><br/>                 Dodworth Road / Broadway – signalised T junction as existing<br/>                 Dodworth Road / Diverted Pogmoor / Horizon -signalised elongated roundabout.</p>                                                                                                                                         | <p>Rejected</p> | <p>Taken forward to the final junction assessments along with:<br/>                 Option C Variant 3;<br/>                 Option C Variant 6, and<br/>                 Option G<br/>                 Rejected as when compared to the gyratory through Penny Pie Park (Option G) it did not offer comparable levels of capacity benefits.</p> |

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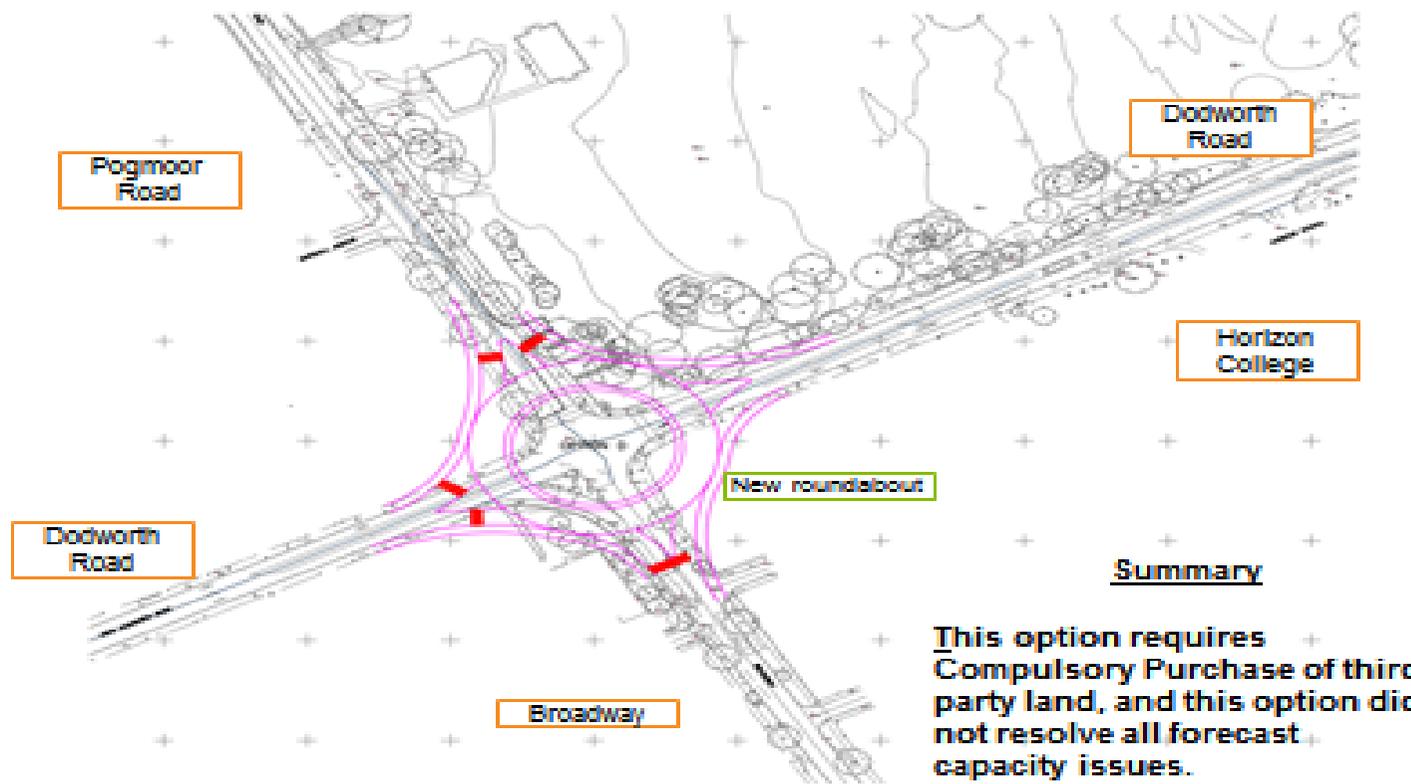
Option D

Description

New roundabout to directly replace the existing crossroads. No sub options

### Option D

The construction of a roundabout to replace the existing crossroads



**Sub Options Assessed following a high level review of all sub options**

N/A

**Final recommendations**

Rejected

**Reason**

The roundabout did not offer the required level of pedestrian provision and requirement for third party land.

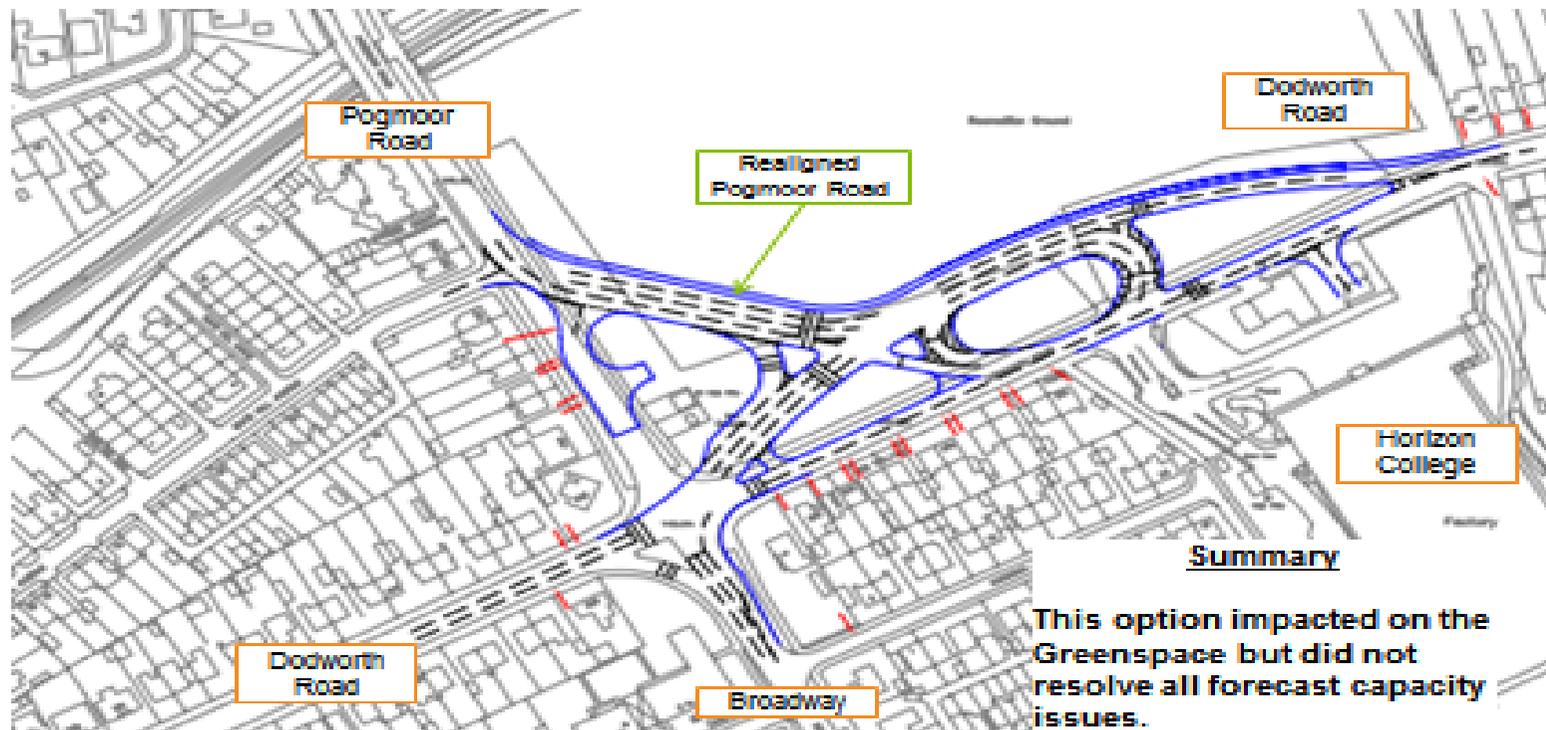
Option E

Description

Small gyratory with Pogmoor diverted away from the crossroads, and Horizon forming a new access into the junction. No sub options

**Option E**

**The construction of a gyratory in the green space, with a diverted Pogmoor Road.**



**AECOM**

**Sub Options Assessed following a high level review of all sub options**

N/A

**Final recommendations**

Rejected

**Reason**

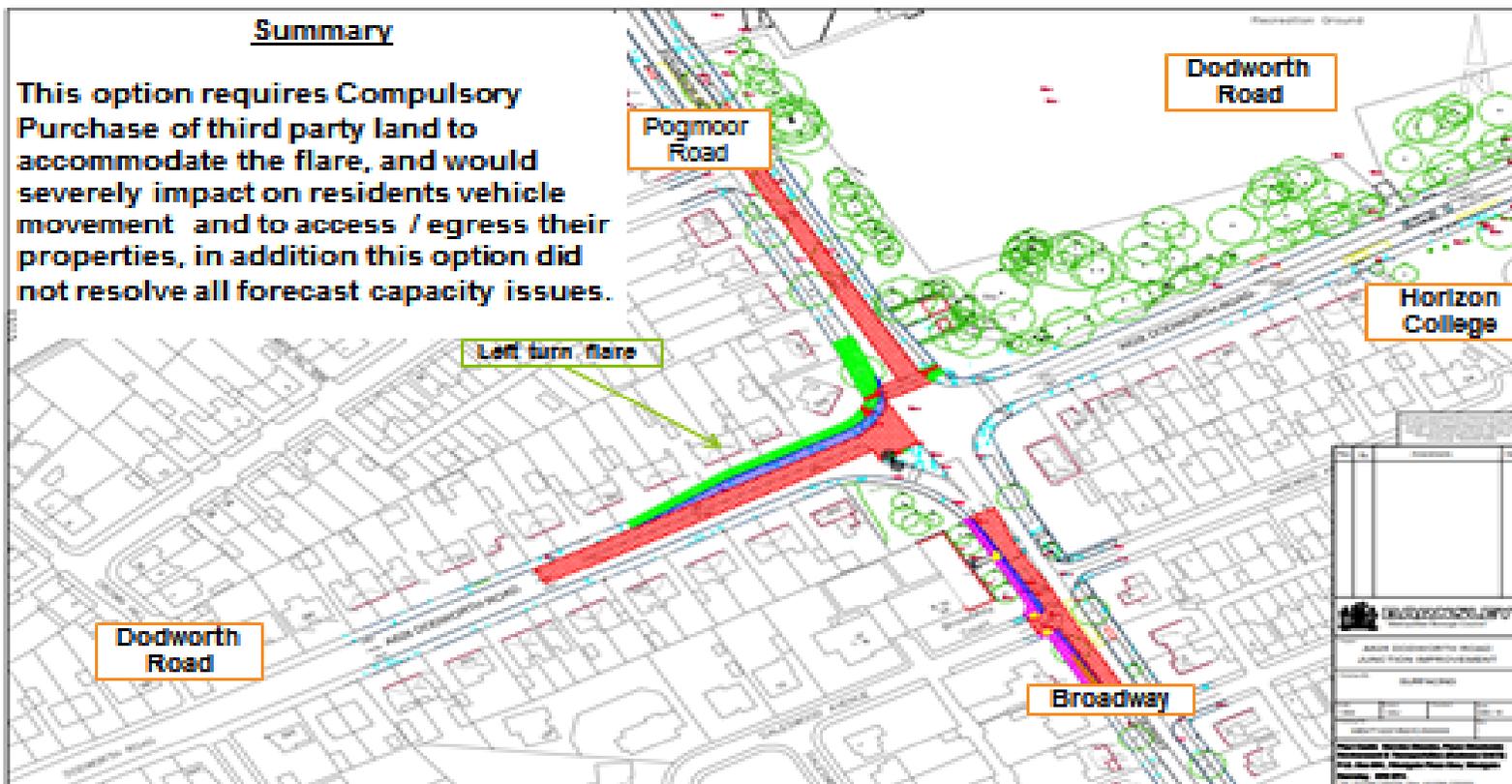
The gyratory did not provide sufficient capacity, with likely blocking back from some stop lines within the junction.

Option F

Description

Short left turn flare from Dodworth Road (W) into Pogmoor.

**Option F**  
**The construction of a left turn flare from Dodworth Road (West) into Pogmoor Road.**



**Sub Options Assessed following a high level review of all sub options**

No sub options

**Final Recommendation**

Rejected

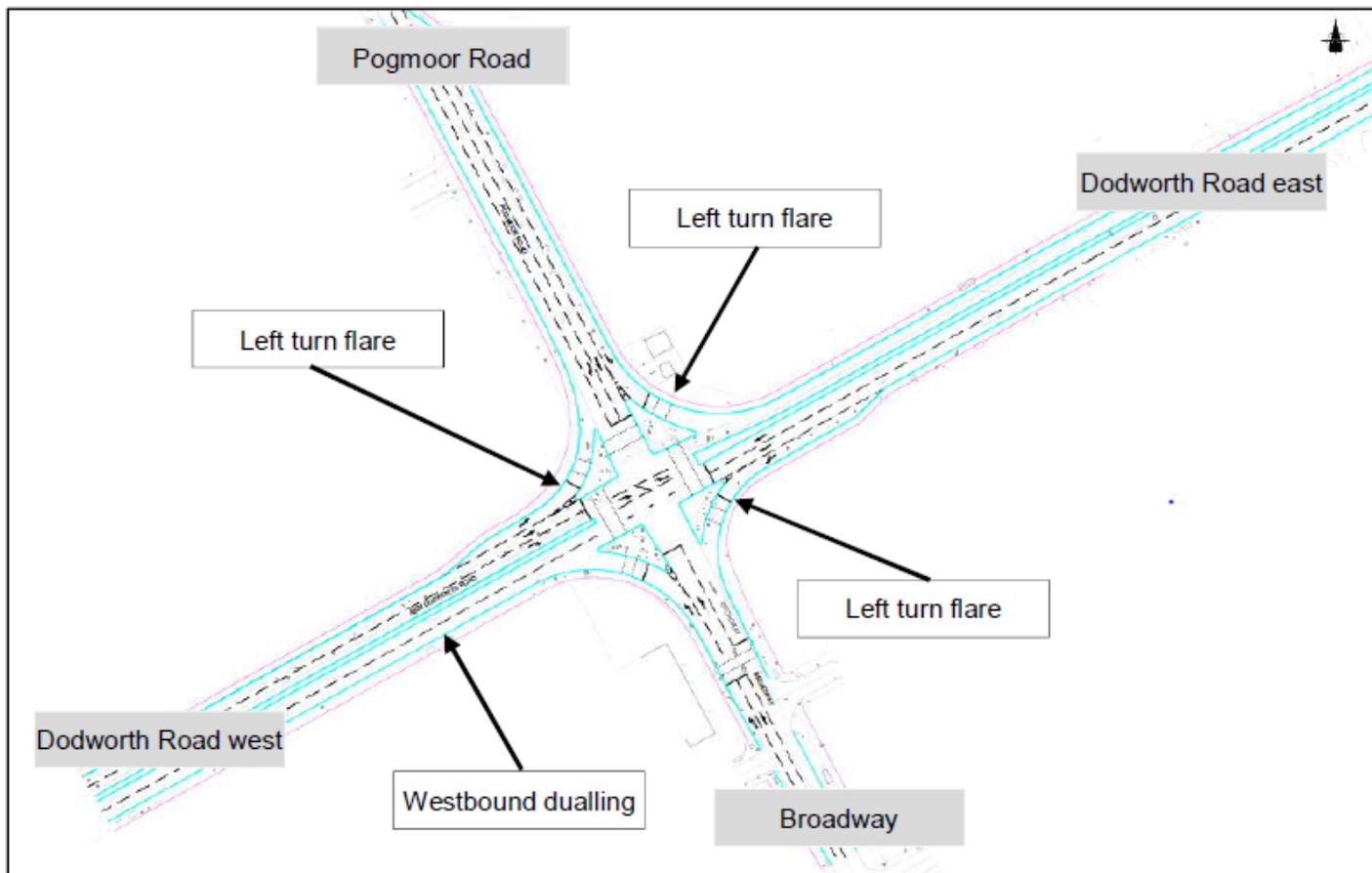
**Reason**

It did not provide sufficient levels of capacity.

Option H

Description

Dualling of Dodworth Road between the crossroads and junction 37 of the M1, with additional short left turn flares from Dodworth road into both Pogmoor and Broadway.



### Sub Options Assessed following a high level review of all sub options

A total of 4 sub options were tested

None taken forward

### Final Recommendation

Rejected

### Reason

Rejected as the provision of two exit lanes and additional short left turn lanes into both Pogmoor Road and Broadway did not provide a comparable level of capacity when compared to the preferred Option G

The following should be noted in relation to the above:

- Within each overall option, a number of sub options were initially tested at a high level, the differences being the method of junction control (roundabout or traffic signals, priority roundabout or signalised roundabout) as well as the location of pedestrian crossings within each junction.
- The options were tested using two methods:
  - High level assessment using either LINSIG or JUNCTIONS, this is a relatively cheap and simple method of assessing junction operation and was used to directly compare options so that only those that offered the most potential could be taken forward, and
  - More detailed assessment using VISSIM, this is a more expensive and time consuming methodology and as such was only used on the options that were considered to have the most benefit
    - Option C Variant 3;
    - Option C Variant 6, and
    - Option C Variant 11,
    - Option G.

- Option H was identified by BMBC following the agreement that Option G was the preferred solution and was assessed at a high level against Option G and was found to not provide comparable levels of capacity and as such was not assessed in detail and was rejected

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