
Job name: Green Lane, Chesterton

Job No: C86354

Note No: C86354-JNP-XX-XX-RP-C-1007

Date: 14/03/2023

Prepared by / Approved by: Sam Hinson / Martin Hitchcock

Subject: Response to LLFA Comments

1. Introduction

- 1.1 Oxfordshire County Council (OCC) have commented on the outline planning application at Green Lane, Chesterton, Bicester (reference: 23/00173/OUT).
- 1.2 Within the OCC comments (Appendix A) there is a section of comments from the Lead Local Flood Authority (LLFA). Each of the points raised by the LLFA are quoted within this technical note with responses provided to each.
- 1.3 *'Clarify how the development will be phased. Provide phasing plan to illustrate this, each phase should be able to stand alone and have adequate flood mitigation measures in place.'*
- 1.4 A drainage phasing plan is provided within Appendix B. The phases shall be carried out in the following order to ensure that each phase has drainage infrastructure in place: Phase A, Phase B, Phase C.
- 1.5 Phase D is the eastern field and will be served by a separate drainage system to the rest of the development. Phase D can therefore be constructed at any point and independently of Phases A to C.
- 1.6 Within each phase the detention basins and flow controls shall be constructed at as early stage as possible within the works. During construction flows will be directed into the basins to ensure that surface water run-off is attenuated throughout.
- 1.7 *'Provide details of the existing ditch, provide ownership details and consent to discharge surface water. Ensure the existing ditch has enough capacity to take the proposed loads from the development.'*
- 1.8 Details of the existing ditch network are provided in Appendix C. Two separate ditch systems exist as indicated on the plan. Ditch A runs along the southern boundary and Ditch B bisects the site splitting it into a western parcel and an eastern parcel.
- 1.9 Ditch A currently serve the western development parcel. Post-development the western parcel will continue to discharge to this ditch to mimic the existing situation. At the proposed outfall point, the northern bank of the ditch is within the site boundary (as shown on the Existing Ditch Network plan, Appendix C), the developer therefore has a riparian right to discharge natural flows to the ditch, subject to ordinary watercourse consent.

- 1.10 Ditch B currently serves the eastern development parcel. Post-development the eastern parcel will continue to discharge to this ditch to mimic the existing situation. At the proposed outfall point, the ditch is entirely within the site boundary (as shown on the Existing Ditch Network plan, Appendix C), the developer therefore has a right to discharge natural flows to the ditch, subject to ordinary watercourse consent.
- 1.11 With respect to the capacity of the ditches, any flooding from the ditches associated with discharge of surface water from the development will not impact the development itself, as the connection points are downstream of the site. However, to ensure that the development does not increase flood risk downstream, the outfall rates for all storm events will be restricted to below greenfield rates (Q_{bar}) to provide a significant betterment over the existing situation and not exceed natural flows.
- 1.12 An existing greenfield (Q_{bar}) rate of 2.8 l/s/ha has been calculated. The outfall for each parcel for all events up to the 1in100 + 40% climate change will be restricted to a rate of 2 l/s/ha. This has been agreed with the LLFA and LPA (Correspondence included in Appendix D).
- 1.13 Notwithstanding the above, the capacity of both ditches has been calculated at the two outfall points (as shown on the Existing Ditch Network plan, Appendix C). The western outfall rate is 6.2 l/s, the ditch capacity here is 794 l/s. The eastern outfall rate is 0.7 l/s, the ditch capacity here is 814 l/s. In both cases the proposed discharge rate is a small fraction of the ditch capacity. Calculations for the capacity of the ditches are included in Appendix E.

Document Issue Record

Technical Note No	Rev	Date	Prepared	Reviewed	Approved
C86354-JNP-XX-XX-RP-C-1007	P01	07/03/2023	SH	MAH	MAH

List of Appendices

Appendix A Oxfordshire County Council Consultation Response

Appendix B Drainage Phasing Plan

Appendix C Existing Ditch Network

Appendix D Correspondence

Appendix E Ditch Capacity Calculations

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Appendix A

**Oxfordshire County Council
Consultation Response**

**OXFORDSHIRE COUNTY COUNCIL’S RESPONSE TO CONSULTATION
ON THE FOLLOWING DEVELOPMENT PROPOSAL**

District: Cherwell

Application no: 23/00173/OUT

Proposal: Outline planning application for up to 147 homes, public open space, flexible recreational playing field area and sports pitches with associated car parking, alongside landscaping, ecological enhancements, SuDs, green/blue and hard infrastructure, with vehicular and pedestrian/cycle accesses, and all associated works (all matters reserved except for means of access)

Location: Land South Of, Green Lane, Chesterton

Response Date: 16/02/2023

This report sets out the officer views of Oxfordshire County Council (OCC) on the above proposal. These are set out by individual service area/technical discipline and include details of any planning conditions or Informatives that should be attached in the event that permission is granted and any obligations to be secured by way of a S106 agreement. Where considered appropriate, an overarching strategic commentary is also included. If the local County Council member has provided comments on the application these are provided as a separate attachment.

Assessment Criteria
Proposal overview and mix /population generation

OCC’s response is based on a development as set out in the table below. The development is based on a SHMA mix.

Residential	
1-bed dwellings	15
2-bed dwellings	45
3-bed dwellings	53
4-bed & larger dwellings	34
Commercial – use class	<u>m²</u>
Other (Agriculture)	149000

Based on the completion and occupation of the development as stated above it is estimated that the proposal will generate the population stated below:

Average Population	369.71
Nursery children (number of 2- and 3-year olds entitled to funded places)	10.11
Primary pupils	45.47
Secondary pupils including Sixth Form pupils	35.7
Special School pupils	0.90
65+ year olds	38.62

Application no: 23/00173/OUT

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General Information and Advice

Recommendations for approval contrary to OCC objection:

If within this response an OCC officer has raised an objection but the Local Planning Authority are still minded to recommend approval, OCC would be grateful for notification (via planningconsultations@oxfordshire.gov.uk) as to why material consideration outweighs OCC's objections, and to be given an opportunity to make further representations.

Outline applications and contributions

The anticipated number and type of dwellings and/or the floor space may be set by the developer at the time of application which is used to assess necessary mitigation. If not stated in the application, a policy compliant mix will be used. The number and type of dwellings used when assessing S106 planning obligations is set out on the first page of this response.

In the case of outline applications, once the unit mix/floor space is confirmed by reserved matters approval/discharge of condition a matrix (if appropriate) will be applied to establish any increase in contributions payable. A further increase in contributions may result if there is a reserved matters approval changing the unit mix/floor space.

Where a S106/Planning Obligation is required:

- **Index Linked** – in order to maintain the real value of S106 contributions, contributions will be index linked. Base values and the index to be applied are set out in the Schedules to this response.
- **Administration and Monitoring Fee - £14,795**
- This is an estimate of the amount required to cover the monitoring and administration associated with the S106 agreement. The final amount will be based on the OCC's scale of fees and will be adjusted to take account of the number of obligations and the complexity of the S106 agreement.
- **OCC Legal Fees** The applicant will be required to pay OCC's legal fees in relation to legal agreements. Please note the fees apply whether a S106 agreement is completed or not.

Security of payment for deferred contributions - Applicants should be aware that an approved bond will be required to secure a payment where a S106 contribution is to be paid post implementation and

- the contribution amounts to 25% or more (including anticipated indexation) of the cost of the project it is towards and that project cost £7.5m or more
- the developer is direct delivering an item of infrastructure costing £7.5m or more
- where aggregate contributions towards bus services exceeds £1m (including anticipated indexation).

A bond will also be required where a developer is direct delivering an item of infrastructure.

The County Infrastructure Funding Team can provide the full policy and advice, on request.

Application no: 23/00173/OUT

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Transport Schedule

Recommendation

No objection subject to the following.

- Section 106 Contributions as summarised in the table below and justified in this Schedule.
- An obligation to enter into a Section 278 agreement as detailed below.
- Planning Conditions as detailed below.
- Note should be taken of the informative stated below.

S106 Contributions

Contribution	Amount	Price base	Index	Towards
Highway works	To be identified	To be identified	Baxter	Improvement scheme at the junction of Green Lane and The Hale.
Public transport services	£166,551	December 2021	RPI-x	Improvement of bus services in Chesterton.
Public transport infrastructure	£11,223	December 2021	Baxter	Bus stop infrastructure in the vicinity of the Green Lane/Alchester Road junction.
Travel Plan Monitoring	£1,558	December 2021	RPI-x	Monitoring of Residential Travel Plan for a period of five years.
Public Rights of Way	£44,000	Q4 2022	Baxter	Improvements to the public rights of way in the vicinity of the development
Total				

Key Points

- The County's revised parking standards must be adhered to.
- A long section will be required.
- The Oxfordshire Electric Vehicle Infrastructure Strategy must be adhered to.
- A Construction Traffic Management Plan will be required.

- A Travel Plan and Travel Information Pack will be required.
- Standard measures and conditions for applications affecting public rights of way are set out.
- Design items to note for on-site proposals are set out.

Comments

Transport Development Control

The planning application is accompanied by a Transport Assessment (TA). This is considered to be a suitable level of submission for a development proposal of this size. The County's comments on the TA are set out below.

- Paragraph 2.3.15. It should be noted that the County is working to revised car parking standards which have been recently adopted. These can be found on the County's website.
- Section 2.4. The revised parking standards referenced above also contain the County's latest cycle parking standards.
- Section 2.6 notes the recent appeals allowed for the adjacent Great Wolf (19/02550/F) and Bicester Sports Association (19/00934/F) sites.
- Section 3.4.4 notes that the consented Great Wolf development would provide a £1.6m contribution , secured through the S106 Agreement, towards a new public bus service linking Chesterton to Bicester town centre and the railway station.
- Section 3.7 presents a personal injury accident analysis for the area and concludes that "*Overall, the assessment does not highlight any significant safety issues or patterns which suggest any safety issue.*" This conclusion is considered to be sound.
- Paragraph 3.7.7 notes that "*There is a small cluster of accidents at the junction of Green Lane / The Hale and whilst assessment does not identify a significant trend in the causation factors of the accidents and these are relatively low in number, there would be merit in an improvement scheme being considered in this location to refresh road markings, improve signage and enhance the visibility and reading of the junction. The applicant would be willing to provide a contribution towards a safety improvement scheme at this location.*" The size of this contribution is not specified but can be identified and included in the Section 106 agreement for this development.
- Section 4.3 presents site access arrangements. These are considered acceptable and can be the subject of a Section 278 agreement. However, a long section has not been provided and this is considered necessary. Further details are given below under the **Road Agreements** heading.
- Section 4.4 presents a proposed package of cycle improvements in the area around the site. These are welcomed and can be included in the Section 278 agreement.
- Paragraphs 4.6.4 - 4.6.10 consider car an cycle parking standards. It should be noted that the County has recently adopted new standards which should be applied to this development proposal at the reserved matters stage. The new standards can

be accessed on the County's website.

- Paragraphs 4.6.11 and 4.6.12 consider provisions for electric vehicles. Provisions should be compliant with the **Oxfordshire Electric Vehicle Infrastructure Strategy**. Specifically, reference should be made to Policy EVI 8 which sets out requirements for new developments.
- Section 5.4 sets out a Sustainable Transport Strategy which is to be delivered through a Travel Plan. This is dealt with under the **Travel Plan** heading below.
- Section 6 presents traffic impact assessment. The assessment uses conventional trip generation, distribution, assignment and capacity assessment techniques. The methodology and data employed are considered sound. The assessment presents capacity analysis for surrounding junctions and demonstrates that the development proposals will have no significant adverse traffic impact. It concludes that "*...no highway improvements are needed to mitigate the impact of the development as the impact is very small and well below a level that could be considered 'severe' in line with the requirements of the NPPF.*" This conclusion is considered sound.

Given the size and location of the proposed development a Construction Traffic Management Plan will be required. This can be submitted in discharge of a condition of planning permission.

Public Transport

Where relevant and appropriate, the County seeks to secure public transport services and infrastructure contributions from the promoters of development schemes in order to promote sustainable growth and support positive travel habits amongst new residents.

Section 3.4 of the Transport Assessment acknowledges that the public transport provision to Chesterton is currently extremely poor with only one journey into Bicester town centre at 0725 and no return journey. However, it correctly notes that the County has secured a significant financial contribution towards a bus service to the Great Wolf leisure resort which will be located to the west of Chesterton village.

The County has adopted a standard per dwelling charge for public transport services from non-strategic development, which is now £1,133. For a proposed development of 147 dwellings that results in a contribution of **£166,551** indexed to RPIx at December 2021. This will be utilised for the improvement of bus services in Chesterton.

If the first occupation on the development site occurs prior to the opening date of the Great Wolf leisure resort, the full contribution will be payable on first occupation. Should first occupation take place after the opening of the Great Wolf resort, then 50% of the contribution will be payable on first occupation and 50% on the first anniversary of first occupation.

The exact route of the bus around Chesterton is not confirmed at the present time and therefore the nearest bus stop locations are unknown. Rather than requesting direct delivery of stops on Green Lane, a public transport infrastructure contribution of

£11,223 is requested to provide two new poles, flags and timetable cases, plus a two bay shelter, in the vicinity of the Green Lane/Alchester Road junction.

The Council would expect measures to promote public transport, including introductory travel offers, to be included through the Travel Plan.

Travel Plan

There are no public transport services available for residents of Chesterton and so it is highly likely that the car will be the main mode of travel for trips outside of walking and cycling distance. A S106 contribution should be sought to provide some sort of bus service. This is discussed within paragraph 4.3.7 of the Travel Plan but no details are proposed.

Pedestrian and Cycle infrastructure improvements are welcomed.

A full Residential Travel Plan will be required for a development of 147 dwellings. This should be **produced prior to first occupation** and then be updated within three months of occupation of 50% of the site (73rd dwelling) once adequate survey data is available. Further information regarding the required criteria can be found within appendices 5 and 8 of the County's guidance document **Transport for New Developments: Transport Assessments and Travel Plans** (March 2014).

A Travel Plan has been submitted to support this application. Further information is required before it will meet the criteria outlined in the guidance document. It is therefore recommended that the applicant consult the guidance document and the points below, to ensure all criteria has been met before resubmitting.

A travel plan monitoring fee of **£1,558** (RPI index linked) is required to enable the travel plan to be monitored for a period of five years.

A Residential Travel Information Pack will also be required. This should be produced prior occupation and then distributed to all residents at the point of occupation. This will ensure all residents are aware of the travel choices available to them from the outset. Further information regarding the criteria can be found within the County's guidance document.

Electric vehicle charging should be provided within residential boundaries as well as within the car park for the playing field. Cycle parking should be provided for each dwelling and for users of the playing field.

Further information and advice can be sought from the County's Travel Plans team travelplan@oxfordshire.gov.uk

Specific comments regarding the submitted Travel Plan are set out below.

- A Residential Travel Plan is required for this development.

- Further information is required about the onsite facilities for pedestrians and cyclists.
- Details of car parking levels are required.
- The anticipated date of first occupation should be stated.
- Table 5.4. It is not stated where on the site distances were measured from. If distances were taken from the access to the site, those living at the furthest point will have further to travel and will take longer than highlighted.
- Table 6.2. Census data can be used to set indicative targets, but baseline data should be gathered within three months of occupation of 50% of the site (73rd dwelling). This should then be followed by surveys in years 1, 3 and 5.
- Paragraph 6.1.12. Monitoring data should be provided to the County's Travel Plans team within one month of collection.
- A sample residential travel survey is required.
- It is not stated who will be the interim Travel Plan Coordinator (TPC) until the role is occupied. This is useful information for the Travel Plans team to establish a monitoring related dialogue as soon as possible.
- It is not stated what budget the TPC will have to undertake the actions identified within the action plan.
- Any community transport services within Chesterton that would be useful for residents should be identified?
- Information about site-based deliveries is required.
- It is not stated who will be responsible for implementing the actions outlined within the action plan. Such as Developer, Sales office staff, TPC, Residents etc. nThis should be added to the action plan.
- For developments of 80 dwellings or more personalised travel planning should be offered to all residents. This should this be included within the action plan.
- Are there any identified barriers for the promotion of sustainable active travel modes, for example the lack of bus services? How will the actions within the action plan seek to mitigate any barriers?
- Paragraph 8.7.1 – This will be dependent on whether the identified targets have been met. If not, monitoring should continue, and data will be required in years 7 and 9.

Rights of Way

Oxfordshire County Council manages the legal record and access functions on the public rights of way and access land network. In addition to the statutory functions of recording, protecting and maintaining public rights of way, part of the authority's role includes securing mitigation measures from residential and commercial developments that will have an impact on the public rights of way and access land network in order to make those developments acceptable. This work meets the aims and outcomes of the adopted Oxfordshire Rights of Way Management Plan 2015 – 2025.

www.oxfordshire.gov.uk/rowip. Oxfordshire County Council's Walking and Cycling Design Guides need to be referred to when public rights of way are intended or need to become urbanised utility access routes.

This development proposal will impact on the surrounding PRow network and a Section 106 contribution of **£44,000** is requested. The contribution would be spent on improvements to the public rights of way in the vicinity of the development in the impact area up to 2km from the site. Primarily this is to improve the surfaces of all routes to take account of the likely increase in use by residents of the development as well as new or replacement structures like gates, bridges and seating, sub-surfacing and drainage to enable easier access, improved signing and protection measures such as anti-motorcycle barriers. New short links between existing rights of way would also be included, including on Green Lane.

Standard measures/conditions for applications affecting public rights of way are set out below. These apply to PRowS inside and immediately adjacent to the site and the County is keen to see new connections to PRowS inside the site and provided to a high standard, agreed with County's Countryside Access team.

- 1. Correct route of public rights of way.** Note that it is the responsibility of the developer to ensure that their application takes account of the legally recorded route and width of any public rights of way as recorded in the definitive map and statement. This may differ from the line walked on the ground and may mean there are more than one route with public access. The legal width of public rights of way may be much wider than the habitually walked or ridden width. The Definitive Map and Statement is available online at www.oxfordshire.gov.uk/definitivemap.
- 2. Protection from breaks in public rights of way and vehicle crossings/use of public rights of way.** Many public rights of way (PRow) are valuable as access corridors and as continuous wildlife and landscape corridors. As a matter of principal, PRowS should remain unbroken and continuous to maintain this amenity and natural value. Crossing PRowS with roads or sharing PRowS with traffic significantly affects wildlife movements and the function of the PRow as a traffic free and landscape corridor. Road crossings of PRowS should be considered only as an exception and in all cases provision must be made for wildlife access and landscape, and with safe high quality crossing facilities for walkers, cyclists and equestrians according to the legal status of the PRow. Vehicle access should not be taken along PRowS without appropriate assessment and speed, noise, dust and proximity controls agreed in advance with the County's Countryside Access team.
- 3. Protection, Mitigation and Improvements of routes.** Public rights of way through the site need to be integrated with the development and provided to a standard to meet the pressures caused by the development. This may include upgrades to some footpaths to enable cycling or horse riding and better access for commuters or people with lower agility. The package of measures needs to be agreed in advance with the County's Countryside Access team. All necessary PRow mitigation and improvement measures onsite need to be undertaken prior to first occupation so that new residents are able to use the facilities without causing additional impacts and without affecting existing users to ensure public amenity is maintained.

- 4. Protection of public rights of way and users.** Routes must remain useable at all times during a development's construction lifecycle. This means temporary or permanent surfacing, fencing, structures, standoffs and signing need to be agreed with the County's Countryside Access team and provided prior to the commencement of any construction and continue throughout. Access provision for walkers, cyclists and horseriders as vulnerable road users needs to be maintained. This means ensuring noise, dust, vehicle etc impacts are prevented.
- 5. Temporary obstructions and damage.** No materials, plant, vehicles, temporary structures or excavations of any kind should be deposited / undertaken on or adjacent to the Public Right of Way that obstructs the public right of way whilst development takes place. Avoidable damage to PRow must be prevented. Where this takes place repairs to original or better standard should be completed within 24hrs unless a longer repair period is authorised by the County's Countryside Access team.
- 6. Route alterations.** The development should be designed and implemented to fit in with the existing public rights of way network. No changes to the public right of way's legally recorded direction or width must be made without first securing appropriate temporary or permanent diversion through separate legal process. Note that there are legal mechanisms to change PRow when it is essential to enable a development to take place. But these mechanisms have their own process and timescales and should be initiated as early as possible – usually through the local planning authority. Any proposals for temporary closure/diversion need to have an accessible, level, safe and reasonably direct diversion route provided with necessary safety fencing and stand-off to ensure public amenity is maintained for the duration of the disturbance.
- 7. Gates / right of way.** Any gates provided in association with the development shall be set back from the public right of way or shall not open outwards from the site across the public right of way.

Road Agreements

A long section has not been provided and will be required to ensure compliance with the Equalities Act 2010. This must include details of the vertical alignment to determine appropriate carriageway and footway gradients. They will need to be DDA compliant i.e. maximum 1:21 or 5%. This will be required at the Section 278 stage.

Some areas of refuse vehicle tracking indicates the vehicle overhanging the footway. This is a concern for conflict. The lane overhang at the entrance should be reduced as it appears to track entirely over opposite lane.

Items to note for on-site proposals are set out below.

- The application will need to comply with the County's Street Design Guide.

- Cycling facilities must accord with LTN1/20.
- If shared surface areas are proposed for adoption they will require 6.0m width with 0.8m maintenance margins behind the kerb-line.
- Where a Traffic Regulation Order is required on the public highway, the local Councillor will need to be pre-consulted for their comments.
- All new developments will need a 20mph speed limit and supporting Traffic Regulation Order and self-enforcing measures.
- Carriageways that are straight for over 70m will require some form of traffic calming to ensure vehicle speeds are less than 20mph.
- Where there is no footway adjacent to the carriageway a 6.0m metre wide shared surface block paved carriageway with a minimum 0.8m grass margin on either side is required.
- Junction and Forward Visibility Splays and dimensions must be in accordance with the County's Street Design Guide and dedicated to the County if they fall out of the existing highway boundary.
- Any vertical deflection along bus routes, such as table tops, to be subject to agreement with bus operators.
- No private drainage is to discharge onto any area of existing or proposed adoptable highway. The drainage proposals will be agreed at the Section 38 Agreement stage once the drainage calculations and detailed design are presented. The County has published Local Standards and Guidance for Surface Water Drainage on Major Development in Oxfordshire to assist developers in the design of all surface water drainage systems, and to support Local Planning Authorities in considering drainage proposals for new development in Oxfordshire. The guide sets out the standards that are applied by the County in assessing all surface water drainage proposals to ensure they are in line with national legislation and guidance, as well as local requirements.
- Foul and surface water manholes should not be placed within the middle of the carriageway, at junctions, tyre tracks and where informal crossing points are located.
- Trees must not conflict with streetlights and must be a minimum 10.0m away and a minimum 1.5m from the carriageway. Trees that are within 5.0m of the carriageway or footway will require root protection.
- Trees within the highway will need to be approved by the County and will carry a commuted sum. No private planting to overhang or encroach the proposed adoptable areas.
- Visitor parking bays parallel to the carriageway, can be adopted but accrue a commuted sum. Any other bays, echelon or perpendicular or private, bays will not be considered for adoption.
- No property including balconies should be within 0.5m of the proposed highway. No doors, gates, windows, garage doors or gas/electric cupboards must open over the proposed highway.
- The Highway boundary needs to be checked with the County's Highway Records, highway.records@oxfordshire.gov.uk, to determine whether or not it coincides with

the site boundary at the proposed access junction. The highway boundary is usually identified along the roadside edge of the ditch.

- The County requires saturated CBR laboratory tests on the sub-soil likely to be used as the sub-formation layer. This would be best done alongside the main ground investigation for the site but the location of the samples must relate to the proposed location of the carriageway/footway.
- No Highway materials, construction methods, adoptable layouts and technical details have been approved at this stage. The detailed design and acceptable adoption standards will be subject to a full technical audit.

S106 obligations and their compliance with Regulation 122(2) Community Infrastructure Levy Regulations 2010 (as amended)

£To be identified Highway Works Contribution indexation to be identified using Baxter Index.

Towards

Improvement scheme at the junction of Green Lane and The Hale.

Justification

As set out in paragraph 3.7.7 of the Transport Assessment.

Calculation

To be identified.

£166,551 Public Transport Service Contribution indexed from December 2021 using RPI-x.

Towards

Improvement of bus services in Chesterton.

Justification

Where relevant and appropriate, the County seeks to secure public transport services and infrastructure contributions from the promoters of development schemes in order to promote sustainable growth and support positive travel habits amongst new residents.

The Transport Assessment acknowledges that the public transport provision to Chesterton is currently extremely poor with only one journey into Bicester town centre at 0725 and no return journey. However, it correctly notes that the County has secured a significant financial contribution towards a bus service to the Great Wolf leisure resort which will be located to the west of Chesterton village. The contribution from this proposed development will be used to further improve the proposed bus service.

Calculation

The County has adopted a standard per dwelling charge for public transport services from non-strategic development, which is now £1,133. For a proposed development of 147 dwellings that results in a contribution of **£166,551** indexed to RPIx at December 2021.

£11,223 Public Transport Infrastructure Contribution indexed from December 2021 using Baxter Index.

Towards

Bus stop infrastructure in the vicinity of the Green Lane/Alchester Road junction.

Justification

The exact route of the new bus service around Chesterton is not confirmed at the present time and therefore the nearest bus stop locations are unknown. Rather than requesting direct delivery of stops on Green Lane, a public transport infrastructure contribution is requested.

Calculation

To meet the cost of provision of two new poles, flags and timetable cases, plus a two bay shelter.

£44,000 Public Rights of Way Contribution indexed from Q4 2022 using Baxter Index.

Towards

Improvements to the public rights of way in the vicinity of the development.

Justification

The contribution would be spent on improvements to the public rights of way in the vicinity of the development in the impact area up to 2km from the site. Primarily this is to improve the surfaces of all routes to take account of the likely increase in use by residents of the development as well as new or replacement structures like gates, bridges and seating, sub-surfacing and drainage to enable easier access, improved signing and protection measures such as anti-motorcycle barriers. New short links between existing rights of way would also be included, including on Green Lane.

Calculation

Estimated contribution breakdown:

- Site and habitat surveys and assessments - 5%
- Landowner negotiations and agreement payments - 5-10%
- Outline/high-level design allowance - 5%
- Admin processes such as consultation, project management, etc - <5%
- Legal processes including temporary works closures, creation agreements and contracts, etc - 5%
- Detailed design, Walk&Talk, Early Contractor Involvement - 5%

- Materials, plant & equipment, works - 60%+
- Contingency/Risk and Ongoing cycle route quality standard retention -1 0-20%

All allocations are estimates. Any contribution would be aggregated across routes and activities and a longstop of 10 years will be requested.

£1,558 Travel Plan Monitoring Fee indexed from December 2021 using RPI-x.

Justification

To enable monitoring of the effectiveness of the Residential Travel Plan over a period of five years from first occupation.

Calculation

Appendix 12 (Travel Plan Monitoring Fees) of County guidance note Transport for New Developments: Transport Assessments and Travel Plans (March 2014) sets the Travel Plan monitoring fee for residential development at £1,240. Calculated as 31 hours at £40/hour to cover initial checks and set up and monitoring in years 0, 1, 3, and 5.

This is uplifted from March 2014 to December 2021 using RPI-x as follows:

- Index base data: RPI-x March 2014 = 254.3; December 2021 = 319.6.
- $319.6 / 254.3 \times \text{£}1,240 = \text{£}1,558$

S278 Highway Works

An obligation to enter into a S278 Agreement will be required to secure mitigation/improvement works, including:

- Site access arrangements as set out in drawing Nos.ITB4377-GA-001F, ITB14377-GA-001F and ITB14377-GA-006A;
- Off site cycle improvements as set out in drawing Nos.ITB14377-GA-003C and ITB14377-GA-004B.

This is to be secured by means of S106 restriction not to implement development until S278 agreement has been entered into. The trigger by which time S278 works are to be completed shall also be included in the S106 agreement.

Identification of areas required to be dedicated as public highway and agreement of all relevant landowners will be necessary in order to enter into the S278 agreements.

S278 agreements include certain payments, including commuted sums, that apply to all S278 agreements however the S278 agreement may also include an additional payment(s) relating to specific works.

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Planning Conditions

In the event that planning permission is to be given, the following transport related planning conditions should be attached.

Prior to the commencement of the development a Construction Traffic Management Plan prepared in accordance with Oxfordshire County Council's checklist, must be submitted to and approved in writing by the local planning authority. The construction works must be carried out in accordance with the details approved in the Construction Traffic Management Plan.

Prior to first occupation a Residential Travel Plan and Travel Information Pack shall be submitted to and approved by the Local Planning Authority.

Informative

The Advance Payments Code (APC), Sections 219 -225 of the Highways Act, is in force in the county to ensure financial security from the developer to off-set the frontage owners' liability for private street works, typically in the form of a cash deposit or bond. Should a developer wish for a street or estate to remain private then to secure exemption from the APC procedure a 'Private Road Agreement' must be entered into with the County Council to protect the interests of prospective frontage owners. Alternatively the developer may wish to consider adoption of the estate road under Section 38 of the Highways Act.

Officer's Name: Chris Nichols

Officer's Title: Transport Development Control

Date: 13 February 2023

Application no: 23/00173/OUT

Location: Land South Of, Green Lane, Chesterton

Lead Local Flood Authority

Recommendation:

Objection

Key issues:

- Provide phasing plan.
- Provide consent and confirm capacity to discharge surface water to the existing ditch.

Detailed comments:

Clarify how the development will be phased. Provide phasing plan to illustrate this, each phase should be able to stand alone and have adequate flood mitigation measures in place.

Provide details of the existing ditch, provide ownership details and consent to discharge surface water. Ensure the existing ditch has enough capacity to take the proposed loads from the development.

Officer's Name: Kabier Salam

Officer's Title: LLFA Engineer

Date: 13/02/2023

Application no: 23/00173/OUT

Location: Land South Of, Green Lane, Chesterton

Education Schedule

Recommendation:

No objection subject to:

- **S106 Contributions** as summarised in the tables below and justified in this Schedule.

Contribution	Amount £	Price base	Index	Towards (details)
Primary and Nursery	£1,494,584	327	BCIS All-In TPI	The cost of building new primary school accommodation in SW Bicester
Secondary (including sixth form)	£1,196,532	327	BCIS All-In TPI	The cost of building a new secondary school in Bicester.
Secondary land costs	£126,288	Sept-21	RPIX	Towards the cost of acquiring land for secondary education purposes
SEN	£80,767	327	BCIS All-In TPI	Towards SEN capacity serving the Site
Total	£ 2,898,171			

S106 obligations and their compliance with Regulation 122(2) Community Infrastructure Levy Regulations 2010 (as amended):

£1,494,584 Primary School Contribution indexed using BCIS All-In Tender Price Index Value 327

Towards:

The cost of building a new primary school in SW Bicester, which would include additional nursery provision.

Justification:

The proposed development is located in the designated area for Chesterton CE Primary School. The school has already expanded to 1 form of entry in 2020. Numbers are growing rapidly, with 182 pupils on roll as of October 2022 (the Reception - Year 3 year groups are all at full capacity) and the school is over-subscribed for the 2023 Reception intake. The school does not have sufficient site area to expand further.

Currently, Chesterton CE Primary School accommodates pupils from outside its catchment area, predominantly living in Bicester, and needs to do so due to an existing shortage of primary school places in SW Bicester, where St Edburg's CE Primary School has been persistently and significantly over-subscribed from within its catchment areas since 2019. To address this shortage, St Edburg's CE Primary School is being expanded onto a split site within the Kingsmere development by building accommodation equivalent to a 1 form entry primary school. This will enable it to accommodate 3 forms of entry, including an expanded Nursery, with sufficient site area to expand to 4 forms of entry should that be required by local population growth. This will provide sufficient school places in SW Bicester for the local population, removing the need for children to travel outside of the town to school such as Chesterton, This expansion is therefore necessary to free up sufficient school places in the local area to meet the expected demand generated by the proposed development, and to make the proposed development acceptable in planning terms. The expansion is therefore directly related to the proposed development.

A S106 contribution is therefore required towards the cost of building the new accommodation. There is currently a £2.35m funding gap between the Section 106 funding already secured towards this project and the latest estimated cost of the project. Funding is therefore necessary to make the proposed development acceptable in planning terms.

Calculation:

Number of nursery and primary pupils expected to be generated by the proposed development	56
Estimated per pupil cost of building a new primary school, based on a 1- form entry school with nursery	£28,689
Pupils * cost	£1,494,584

£1,196,532 Secondary School Contribution indexed from TPI = 327

Justification:

The scale of housing growth in Bicester requires another new secondary school, in addition to that previously opened at SW Bicester, to meet the needs of already permitted development. Sufficient secondary school capacity to meet the needs of this site will be provided through the new secondary school planned as part of the southern section of the North West Bicester development. The school will be delivered in phases depending on the build out of the development. The first phase of at least 600 places is currently forecast to be required by 2028, although this is subject to the speed of housing delivery.

Calculation:

Number of secondary pupils expected to be generated	36
Estimated per pupil cost of a new 600-place secondary school	£33,237
Pupils * cost =	£ 1,196,532

£126,288 Secondary School Land Contribution indexed from RPIX September 2021**Justification:**

The proposed secondary school site is on land that forms part of the planning application reference 14/01641/OUT. This development would be expected to contribute proportionately towards the cost to the county council of acquiring this land.

Calculation:

Number of secondary pupils expected to be generated	36
Estimated per pupil cost of land for the new secondary school (using Sept 21 prices)	£3,508
Pupils * land cost per pupil	£126,288

£80,767 Special School Contribution indexed from TPI = 327

Justification:

Government guidance is that local authorities should secure developer contributions for expansion to special education provision commensurate with the need arising from the development.

Approximately half of pupils with Education Needs & Disabilities (SEND) are educated in mainstream schools, in some cases supported by specialist resource bases, and approximately half attend special schools, some of which are run by the local authority and some of which are independent. Based on current pupil data, approximately 0.9% of primary pupils attend special school, 2.1% of secondary pupils and 1.5% of sixth form pupils. These percentages are deducted from the mainstream pupil contributions referred to above and generate the number of pupils expected to require education at a special school.

The county council's Special Educational Needs & Disability Sufficiency of Places Strategy is available at <https://www.oxfordshire.gov.uk/residents/schools/our-work-schools/planning-enough-school-places> and sets out how Oxfordshire already needs more special school places. This is being achieved through a mixture of new schools and expansions of existing schools.

The proposed development is expected to further increase demand for places at SEN schools in the area, and a contribution towards expansion of SEN school capacity is therefore sought based on the percentage of the pupil generation who would be expected to require places at a special school, based on pupil census data. (This amount of pupils has been deducted from the primary and secondary pupil generation quoted above.)

Calculation:

Number of pupils requiring education at a special school expected to be generated	0.9
Estimated per pupil cost of special school expansion, as advised by Government guidance "Securing developer contributions for education" (November 2019)	£89,741
Pupils * cost =	£ 80,767

The above contributions are based on a unit mix of:

15 x 1 bed dwellings

45 x 2 bed dwellings

53 x 3 bed dwellings

34 x 4+ bed dwellings

It is noted that the application is outline and therefore the above level of contributions would be subject to amendment, should the final unit mix result in an increase in pupil generation.

Officer's Name: Louise Heavey

Officer's Title: Access to Learning Information Analyst

Date: 13 February 2023

Application no: 23/00173/OUT

Location: Land South Of, Green Lane, Chesterton

Archaeology

Recommendation:

An archaeological evaluation has been carried out on this site which recorded Roman remains. The evaluation report has been approved by Oxfordshire County Archaeological Service and will need to be submitted with the application, so a decision on the further archaeological mitigation can be made.

Key issues:

Legal agreement required to secure:

Conditions:

Informatives:

Detailed comments:

Officer's Name: Victoria Green

Officer's Title: Planning Archaeologist

Date: 30th January 2023

Application no: 23/00173/OUT
Location: Land South Of, Green Lane, Chesterton

Waste Management

Recommendation:

No objection subject to S106 contributions/

Legal agreement required to secure:

No objection subject to:

- S106 Contributions as summarised in the tables below and justified in this Schedule.

Contribution	Amount	Price base	Index	Towards (details)
Household Waste Recycling Centres	£13,812	327	BCIS All-In TPI	Expansion and efficiency of Household Waste Recycling Centres (HWRC)

S106 obligations and their compliance with Regulation 122(2) Community Infrastructure Levy Regulations 2010 (as amended):

£13,812 Household Waste Recycling Centre Contribution indexed from Index Value 327 using BCIS All-in Tender Price Index

Towards:

The expansion and efficiency of Household Waste Recycling Centre (HWRC) capacity.

Justification:

8. Oxfordshire County Council, as a Waste Disposal Authority, is required under the Environmental Protection Act 1990 (Section 51) to arrange:

“for places to be provided at which persons resident in its area may deposit their household waste and for the disposal of waste so deposited”;

and that

“(a) each place is situated either within the area of the authority or so as to be reasonably accessible to persons resident in its area;

(b) each place is available for the deposit of waste at all reasonable times (including at least one period on the Saturday or following day of each week except a week in which the Saturday is 25th December or 1st January);

(c) each place is available for the deposit of waste free of charge by persons resident in the area;”.

9. Such places are known as Household Waste Recycling Centres (HWRCs) and Oxfordshire County Council provides seven HWRCs throughout the County. This network of sites is no longer fit for purpose and is over capacity.
10. Site capacity is assessed by comparing the number of visitors on site at any one time (as measured by traffic monitoring) to the available space. This analysis shows that all sites are currently ‘over capacity’ (meaning residents need to queue before they are able to deposit materials) at peak times, and many sites are nearing capacity during off peak times. The proposed development will provide 147 dwellings. If each household makes four trips per annum the development would impact on the already over capacity HWRCs by an additional 588 HWRC visits per year.
11. Congestion on site can reduce recycling as residents who have already queued to enter are less willing to take the time necessary to sort materials into the correct bin. Reduced recycling leads to higher costs and an adverse impact on the environment. As all sites are currently over capacity, population growth linked to new housing developments will increase the pressure on the sites.
12. The Waste Regulations (England and Wales) 2011 require that waste is dealt with according to the waste hierarchy. The County Council provides a large number of appropriate containers and storage areas at HWRCs to maximise the amount of waste reused or recycled that is delivered by local residents. However, to manage the waste appropriately this requires more space and infrastructure meaning the pressures of new developments are increasingly felt. Combined with the complex and varied nature of materials delivered to site it will become increasingly difficult over time to comply with the EU Waste Framework Directive 2008, enacted through the Waste Regulations (England and Wales) 2011 (as amended), maintain performance and a good level of service especially at busy and peak times.

Calculation:

Space at HWRC required per dwelling (m ²)	0.18	Current land available 41,000m ² , needs to increase by 28% to cope with current capacity issues. Space for reuse requires an additional 7%. Therefore, total land required for current dwellings (300,090) is 55,350 m ² , or 0.18m ² per dwelling
Infrastructure cost per m ²	£275	Kidlington build cost/m ² indexed to 327 BCIS
Land cost per m ²	£247	Senior Estates Surveyor valuation
Total land and infrastructure cost /m ²	£522	
Cost/dwelling	£93.96	
No of dwellings in the development	147	
Total contributions requested	£13,812	

Detailed comments:

Oxfordshire councils have ambitious targets to reduce the amount of waste generated and increase the amount recycled as demonstrated in our Joint Municipal Waste Management Strategy 2018-2023. Enabling residents of new dwellings to fully participate in district council waste and recycling collections is vital to allow Oxfordshire's high recycling rates to be maintained and reduce the amount of non-recyclable waste generated.

Given the pressing urgency of climate change and the need to embed the principles of the circular economy into all areas of our society, we encourage the applicant to consider including community spaces that help reduce waste and build community cohesion through assets such as community fridges, space for the sharing economy (library of things), refill stations, space for local food growing etc.

At the reserved matters application stage, we expect to see plans for how the developer will design the development in accordance with waste management policies in Cherwell District Council's waste planning guidance.

Bin storage areas must be able to accommodate the correct number of mixed recycling, refuse and food recycling bins; be safe and easy to use for residents and waste collection crews and meet the requirements of the waste collection authority.

The development will increase domestic waste arisings and the demand for all waste management services including Household Waste Recycling Centres (HWRCs).

Conditions:

In the event that permission is to be given, the following conditions should be attached:

Officer's Name: Mark Watson

Officer's Title: Waste Strategy Projects Officer

Date: 3 February 2023

Application no: 23/00173/OUT

Location: Land South Of, Green Lane, Chesterton

Landscape / Green Infrastructure

Comments

The District Council Landscape Officer should be consulted on the application.

Officer's Name: Haidrun Breith

Officer's Title: Landscape Specialist

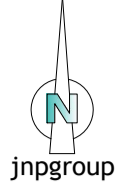
Date: 31/01/2023

Appendix B

Drainage Phasing Plan

Appendix C

Existing Ditch Network



General Notes

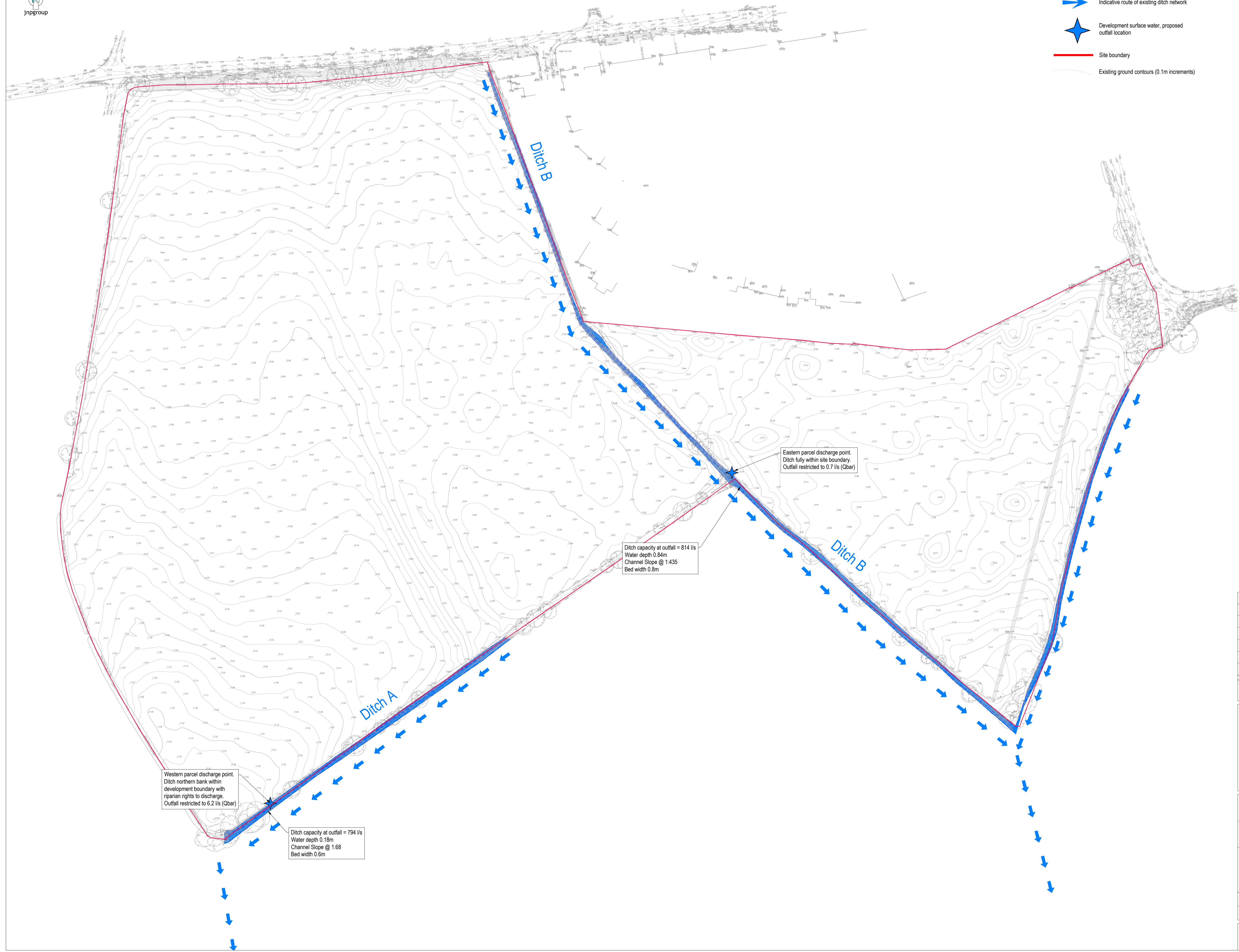
Legend

- Indicative route of existing ditch network
- Development surface water, proposed outfall location
- Site boundary
- Existing ground contours (0.1m increments)

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P01	14/03/2023	First Issue	SHMAHAMAH
Rev	Date	Description	Drn/CHK/ST/Agpt
Subsidiary			
S2 - Suitable for Information			

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Client: **Wates Developments**

Job: **Land South of Green Lane, Chesterton**

Title: **Existing Ditch Network**

Classification: **FI_60_20**

Scale @ A1: **1:1000**

Project - Originator - Volume/System - Level/Location - Type - Discipline - Number

C86354 - JNP-XX-XX-DR-C-2009 P01

Document/Drawing Number

Appendix D

Correspondence

Martin Hitchcock

From: Littler, Adam - Oxfordshire County Council <Adam.Littler@Oxfordshire.gov.uk>
Sent: 27 April 2022 13:14
To: Sam Hinson
Subject: RE: C86354 Green Lane, Chesterton - Pre-application Advice

Dear Sam,

Thank you for the explanation.

The LLFA would be happy to accept a WRAP of 3 and 2l/s/ha as per the below reasoning.

Best,

Adam.

From: Sam Hinson <Sam.Hinson@jnpgroup.co.uk>
Sent: 27 April 2022 13:04
To: Littler, Adam - Oxfordshire County Council <Adam.Littler@Oxfordshire.gov.uk>
Cc: Martin Hitchcock <Martin.Hitchcock@jnpgroup.co.uk>
Subject: RE: C86354 Green Lane, Chesterton - Pre-application Advice

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Hi Adam,

Thank you for your email

Qbar has been calculated based on the IH124 methodology with *ICP SuDS* correction for small catchments. The Wallingford maps indicates the site as WRAP class 1 which is representative of well drained permeable soils, this results in a Qbar of 0.4 l/s/ha.

However, we know from ground investigations that shallow groundwater is present on the site. The site is underlain by the Cornbrash Formation, towards the south this is in turn overlain by Kellaways Clay. We would suggest therefore, that a WRAP class of 3 is more appropriate which, according to the WRAP soil definition, is representative of "*Permeable soils with shallow ground-water in low lying areas*". This results in a Qbar rate of 2.8 l/s/ha.

We have gone with 2 l/s/ha as the 'Local Standards and Guidance for Surface Water Drainage on Major Development in Oxfordshire' document states that discharge rates should be limited to Qbar for rainfall events up to and including the 1 in 100 year event (including 40% climate change allowance) or 2 l/s/ha whichever is the greatest.

I would be grateful if you could confirm if you are happy with this approach.

Regards,

Sam Hinson
Civil Engineer



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From: Littler, Adam - Oxfordshire County Council <Adam.Littler@Oxfordshire.gov.uk>
Sent: 26 April 2022 16:48
To: Sam Hinson <Sam.Hinson@jnpgroup.co.uk>
Subject: RE: C86354 Green Lane, Chesterton - Pre-application Advice

Dear Sam,

Thank you for the below.

I would just add that the 2l/s/ha is a maximum. Discharge ,must be at Greenfield rates, where possible we would expect to see further reductions.

Cherwell contact is Tony Brummell: Tony.Brummell@Cherwell-DC.gov.uk

Please do let me know if you have any further queries.

Many thanks,

Adam.

From: Sam Hinson <Sam.Hinson@jnpgroup.co.uk>
Sent: 26 April 2022 15:19
To: Littler, Adam - Oxfordshire County Council <Adam.Littler@Oxfordshire.gov.uk>
Cc: Martin Hitchcock <Martin.Hitchcock@jnpgroup.co.uk>; Adina Tivichi <adina.tivichi@Jnpgroup.co.uk>
Subject: C86354 Green Lane, Chesterton - Pre-application Advice

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Adam,

Thank you for your time last week.

As requested, please find attached our working drainage layout and a copy of the FRA.

The following is a summary of our discussion, please feel free to add to this:

- The strategy is based on a central wet swale or pipe which will convey flows to the existing ditch at the south-west corner of the site. The site is shallow so level raising will be required to drain via gravity.
- A number of detention basins will be spread through the site, each with a separate outfall into this central swale / pipe.
- The base of the basins will be set 300mm above groundwater levels.
- 6 months of groundwater monitoring will be required. **Note: we commenced monitoring in February.**
- Traditional headwalls should be avoided if possible and consideration given to a gabion basket filter system at the outfalls from the basins.
- Flow rates can be restricted to 2 l/s/ha
- Minimum Cv values of 0.95 and 0.9 should be used.
- FEH13 rainfall data should be used.
- Traditional gullies should not be used, at least on the main development roads. Roads should drain by filter strips or swales.
- Permeable paving should be used on paths and drives. Provided the base of the construction is 1m above groundwater level these will not need to be tanked.
- Tree pits / rain gardens should be considered wherever possible.
- Basins should be designed up to the 1 in 100yr +40% event with a 300mm freeboard above this.
- A good maintenance & management plan will need to be submitted.
- Down the line, as-built plans of all drainage infrastructure will be required.

I think we were discussing contacting South and Vale drainage team regarding the proposals and approvals for the connections to the ditches. The site is actually in Cherwell, can you confirm who would be best to contact?

Many thanks for your help.

Regards,

Sam Hinson

Civil Engineer



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Martin Hitchcock

From: Tony Brummell <Tony.Brummell@Cherwell-DC.gov.uk>
Sent: 11 May 2022 16:47
To: Sam Hinson
Cc: adam.littler@oxfordshire.gov.uk
Subject: RE: C86354 Green Lane, Chesterton - Pre-application Advice [Filed 27 Jul 2022 09:54]

Thank you for the clarification. Please continue to liaise closely with me as your site strategy develops. I can then assist in ensuring it meets our requirements.

Tony Brummell CEng FICE FCIWEM MCIHT
Building Control and Flood Risk Manager

Cherwell Building Control Service
Communities Directorate
Cherwell District Council

Direct Dial: 01295 221909
tony.brummell@cherwell-dc.gov.uk
www.cherwell.gov.uk

www.facebook.com/cherwelldistrictcouncil
Twitter @Cherwellcouncil

From: Sam Hinson <Sam.Hinson@jnpgroup.co.uk>
Sent: 10 May 2022 07:46
To: Tony Brummell <Tony.Brummell@Cherwell-DC.gov.uk>
Cc: adam.littler@oxfordshire.gov.uk
Subject: RE: C86354 Green Lane, Chesterton - Pre-application Advice

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Hi Tony,

Thank you for visiting the site and for your comments.

Regarding the discharge rates I put the following to Adam who was in agreement. I would be grateful if you could confirm if you are also happy with this approach:

Qbar has been calculated based on the IH124 methodology with ICP SuDS correction for small catchments. The Wallingford maps indicates the site as WRAP class 1 which is representative of well drained permeable soils, this results in a Qbar of 0.4 l/s/ha.

However, we know from ground investigations that shallow groundwater is present on the site. The site is underlain by the Cornbrash Formation, towards the south this is in turn overlain by Kellaways Clay. We would suggest therefore, that a WRAP class of 3 is more appropriate which, according to the WRAP soil definition, is representative of "Permeable soils with shallow ground-water in low lying areas". This results in a Qbar rate of 2.8 l/s/ha.

We have gone with 2 l/s/ha as the 'Local Standards and Guidance for Surface Water Drainage on Major Development in Oxfordshire' document states that discharge rates should be limited to QBar for rainfall events up to and including the 1 in 100 year event (including 40% climate change allowance) or 2 l/s/ha whichever is the greatest.

Regards,

Sam Hinson

Civil Engineer



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From: Tony Brummell <Tony.Brummell@Cherwell-DC.gov.uk>

Sent: 09 May 2022 09:53

To: Sam Hinson <Sam.Hinson@jnpgroup.co.uk>

Subject: RE: C86354 Green Lane, Chesterton - Pre-application Advice

Sam

I have now visited the site. Subject to any comments the LLFA might have I agree with the overall surface water drainage strategy you are developing. We require as much linear swale drainage as possible with a minimum of piped drainage and the avoidance of end-point SuDS features. Wherever practical, highways should be drained to roadside swales rather than underground systems.

The development layout should be designed such that all linear swale features and open drainage courses are located within the public realm. They should be located within adoptable public open space areas and be readily accessible for maintenance. Similarly, detention basins should be within adoptable open space areas and be readily accessed.

I see that the total discharge rates from the detention basins add to 9.80 l/s and that all site drainage will be directed to a minor watercourse at the south-western corner of the site. Downstream of your site this "Ordinary Watercourse" is very poorly formed and maintained and includes many undersized culverts whose inverts are not consistent with the hard bed levels. The watercourse runs through Little Chesterton and eventually joins the Wendlebury Brook. It already receives discharges from a large area of under-drained sports pitches and is proposed to serve a large development to the north-west. We will be seeking a drainage solution from your site that will limit the discharge to well under the QBAR rate. Can you tell me what the calculated QBAR is.

So in summary at this stage, I am comfortable with the principles you are developing but would like more clarity on the detail.

Tony Brummell CEng FICE FCIWEM MCIHT
Building Control and Flood Risk Manager

Cherwell Building Control Service
Communities Directorate
Cherwell District Council

Direct Dial: 01295 221909
tony.brummell@cherwell-dc.gov.uk
www.cherwell.gov.uk

www.facebook.com/cherwelldistrictcouncil
Twitter @Cherwellcouncil

From: Sam Hinson <Sam.Hinson@jnpgroup.co.uk>
Sent: 27 April 2022 15:17
To: Tony Brummell <Tony.Brummell@Cherwell-DC.gov.uk>
Cc: adam.littler@oxfordshire.gov.uk
Subject: RE: C86354 Green Lane, Chesterton - Pre-application Advice

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Dear Tony,

We are the consulting engineers working on the drainage design for the above scheme.

We have started discussions with the LLFA regarding the proposed strategy (see a summary below).

The strategy includes the discharge to existing ditches bounding the site. We would be grateful for any comment on the proposals and confirmation of whether you will need to provide consent for any of the works, i.e. the construction of the outfalls.

I have attached a copy of the current version of the drainage layout.

Please do not hesitate to contact me if you require any further information.

Regards,

Sam Hinson
Civil Engineer



Brighouse · Bristol · Chesham · Glasgow · Hartlepool · Leamington Spa · Sheffield

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From: Littler, Adam - Oxfordshire County Council <Adam.Littler@Oxfordshire.gov.uk>

Sent: 26 April 2022 16:48

To: Sam Hinson <Sam.Hinson@jnpgroup.co.uk>

Subject: RE: C86354 Green Lane, Chesterton - Pre-application Advice

Dear Sam,

Thank you for the below.

I would just add that the 2l/s/ha is a maximum. Discharge ,must be at Greenfield rates, where possible we would expect to see further reductions.

Cherwell contact is Tony Brummell: Tony.Brummell@Cherwell-DC.gov.uk

Please do let me know if you have any further queries.

Many thanks,

Adam.

From: Sam Hinson <Sam.Hinson@jnpgroup.co.uk>

Sent: 26 April 2022 15:19

To: Littler, Adam - Oxfordshire County Council <Adam.Littler@Oxfordshire.gov.uk>

Cc: Martin Hitchcock <Martin.Hitchcock@jnpgroup.co.uk>; Adina Tivichi <adina.tivichi@Jnpgroup.co.uk>

Subject: C86354 Green Lane, Chesterton - Pre-application Advice

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Adam,

Thank you for your time last week.

As requested, please find attached our working drainage layout and a copy of the FRA.

The following is a summary of our discussion, please feel free to add to this:

- The strategy is based on a central wet swale or pipe which will convey flows to the existing ditch at the south-west corner of the site. The site is shallow so level raising will be required to drain via gravity.
- A number of detention basins will be spread through the site, each with a separate outfall into this central swale / pipe.
- The base of the basins will be set 300mm above groundwater levels.
- 6 months of groundwater monitoring will be required. **Note: we commenced monitoring in February.**
- Traditional headwalls should be avoided if possible and consideration given to a gabion basket filter system at the outfalls from the basins.

- Flow rates can be restricted to 2 l/s/ha
- Minimum Cv values of 0.95 and 0.9 should be used.
- FEH13 rainfall data should be used.
- Traditional gullies should not be used, at least on the main development roads. Roads should drain by filter strips or swales.
- Permeable paving should be used on paths and drives. Provided the base of the construction is 1m above groundwater level these will not need to be tanked.
- Tree pits / rain gardens should be considered wherever possible.
- Basins should be designed up to the 1 in 100yr +40% event with a 300mm freeboard above this.
- A good maintenance & management plan will need to be submitted.
- Down the line, as-built plans of all drainage infrastructure will be required.

I think we were discussing contacting South and Vale drainage team regarding the proposals and approvals for the connections to the ditches. The site is actually in Cherwell, can you confirm who would be best to contact?

Many thanks for your help.

Regards,

Sam Hinson

Civil Engineer



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Appendix E

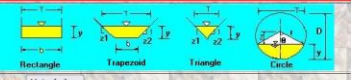
Ditch Capacity Calculations

Western Ditch

The open channel flow calculator

Select Channel Type: Trapezoid

Velocity(V)&Discharge(Q) Select unit system: Meter(m)



Channel slope: 0.0147 m/m	Water depth(y): 0.18 m	Bottom width(b): 0.6 m
Flow velocity: 0.7944 m/s	LeftSlope (Z1): 7.3 z1/y	RightSlope (Z2): 3.3 z2/y
Flow discharge: 0.2222 m³/s	Input n value: 0.035 or select n	
Calculate!	Status: Calculation finished	Reset
Wetted perimeter: 2.55 m	Flow area: 0.28 m²	Top width(T): 2.51 m
Specific energy: 0.21 m	Froude number: 0.76	Flow status: Subcritical flow
Critical depth: 0.16 m	Critical slope: 0.0253 m/m	Velocity head: 0.03 m

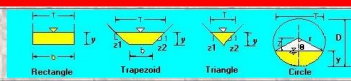
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Eastern Ditch

The open channel flow calculator

Select Channel Type: Trapezoid

Velocity(V)&Discharge(Q) Select unit system: Meter(m)



Channel slope: 0.0023 m/m	Water depth(y): 0.84 m	Bottom width(b): 0.8 m
Flow velocity: 0.8136 m/s	LeftSlope (Z1): 2.1 z1/y	RightSlope (Z2): 2.1 z2/y
Flow discharge: 1.7522 m³/s	Input n value: 0.035 or select n	
Calculate!	Status: Calculation finished	Reset
Wetted perimeter: 4.71 m	Flow area: 2.15 m²	Top width(T): 4.33 m
Specific energy: 0.87 m	Froude number: 0.37	Flow status: Subcritical flow
Critical depth: 0.52 m	Critical slope: 0.0192 m/m	Velocity head: 0.03 m

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