

FALKIRK COUNCIL

Subject: ERECTION OF A SINGLE WIND TURBINE (225KW, 45.9 METRES IN HEIGHT TO TIP) WITH TEMPORARY ACCESS TRACK AT SITE TO THE SOUTH WEST OF THE LEYS, DENNY FOR INTELLIGENT LAND INVESTMENTS LTD – P/12/0208/FUL

Meeting: PLANNING COMMITTEE

Date: 1 May 2013

Author: DIRECTOR OF DEVELOPMENT SERVICES

Local Members: Ward - Denny and Banknock

Councillor Jim Blackwood
Councillor Brian McCabe
Councillor John McNally
Councillor Martin David Oliver

Community Council: Denny and District

Case Officer: Brent Vivian (Senior Planning Officer), Ext. 4935

1. DESCRIPTION OF PROPOSAL / SITE LOCATION

- 1.1 The application seeks full planning permission to erect a 45.9 metre high (to blade tip) mono pole wind turbine. The ground level at the site of the proposed turbine is 195 metres above Ordnance Datum (AOD). Proposed ancillary works include a temporary access track and substation. The proposed turbine and construction access would be positioned along existing field boundaries to minimise the loss of productive land. Existing tracks to access the site would be used where possible. The proposed turbine would be connected to the national grid.
- 1.2 The application site lies to the north of Banknock, ranging in height from 155 metres AOD to a high point of 215 metres AOD. The site sits lower than the hills to the north, which rise to 350 metres AOD. The land uses of the area are mainly arable/grazing land with large forested areas to the immediate north and west.
- 1.3 The applicant proposes to make a payment of £5000 per megawatt of installed capacity to a local community organisation i.e. £1125 per year for each year the turbine operates. The process for disbursing the payments would be arranged with a relevant community organisation.
- 1.4 The following information has been submitted in support of the application:-
 - A Supporting Turbine Statement;

- Noise Emission Information;
- A Landscape and Visual Assessment; and
- An assessment by DKM Aviation Partners Limited in response to an objection by Cumbernauld Airport.

2. REASON FOR COMMITTEE CONSIDERATION

- 2.1 The application requires consideration by the Planning Committee as it has been called in by Councillor McCabe.

3. SITE HISTORY

- 3.1 There is no relevant planning history for the application site.

4. CONSULTATIONS

- 4.1 The Council's Roads Development Unit have advised that an informative should be attached to any grant of planning permission requesting the undertaking of pre and post construction road surveys and a culvert condition survey (if necessary). This is due to the possibility of damage to Myothill Road during the infrastructure delivery stage due to the restricted horizontal and vertical alignment of this road.
- 4.2 The Council's Environmental Protection Unit have noted that the noise information accompanying the application indicated that the resultant noise levels at the closest sensitive receptor should be well below the guidance limits and should not cause any nuisance. They advise that a competent assessment of noise emissions would be required if noise complaints are received. They note that a Contaminated Land Assessment would be required if made ground, suspect substances or odours are encountered during construction works.
- 4.3 Scottish Water have no objection in relation to the application.
- 4.4 The Civil Aviation Authority (CAA), National Air Traffic Services (NATS) Safeguarding and the Ministry of Defence (MOD) have not raised any aviation related concerns. The MOD have requested that they be notified if planning permission is granted.
- 4.5 The British Airports Authority (BAA) have no objection to the application subject to conditions requiring the submission of a Radar Navigation Scheme to prevent the impairment of the performance of aerodrome navigation aids and/or the efficiency of air traffic control services, and implementation of the approved Radar Navigation Scheme prior to the turbine being erected.

- 4.6 Cumbernauld Airport have objected to the application as they consider the proposed development to represent an unacceptable hazard to aviation within the 0.5 kilometre Safeguarding Boundary of Cumbernauld Aerodrome, the 6 nautical mile Wind Vortex radius of Cumbernauld Aerodrome, the Air Traffic Zone Boundary of Cumbernauld Aerodrome and the Circuit Pattern Boundary of Cumbernauld Aerodrome. They refer to CAA Policy and Guidance document CAP 764 in support of their objection. They indicate that the CAA are in the process of conducting a survey on the effects of wind turbine wakes on light aircraft. They consider that there are no mitigating factors included in the application.
- 4.7 Wind Farms Support (Atkins) have advised that the application has been examined in relation to communications used by the Telecommunications Association of the UK Water Industry (TAUWI) and they have no objections. The Joint Radio Company (JRC) does not foresee any problems with interference to any radio systems operated by the UK Fuel and Power Industry.
- 4.8 Stirling Council have no issue with the proposed development in terms of visual impact or other environmental interests within the Stirling Council area. Given the location of the proposed turbine and its comparatively modest height, they agree with the comments of the Supporting Planning Statement that it would be obscured from view to the north and west by local topography.
- 4.9 Falkirk Community Trust (Museum Services) have no objection to the application as the nearest known historic/archaeological site is approximately 200 metres to the south.

5. COMMUNITY COUNCIL

- 5.1 The Denny and District Community Council have not made any representations.

6. PUBLIC REPRESENTATION

- 6.1 No public representations were received in relation to the application.

7. DETAILED APPRAISAL

Under section 25 of the Town and Country Planning (Scotland) Act 1997, as amended, the determination of planning applications for local and major developments shall be made in accordance with the Development Plan unless material considerations indicate otherwise.

Accordingly,

7a The Development Plan

- 7a.1 The proposed development does not raise any strategic issues and has therefore been assessed against the Falkirk Council Local Plan alone.

7a.2 Policy EQ19 - ‘Countryside’ states:

“(1) The Urban and Village Limits represent the desirable limit to the expansion of settlements for the period of the Local Plan. Land outwith these boundaries is designated as countryside and will be subject to the detailed policies for specific uses indicated in Table 3.3. Development proposals in the countryside for uses not covered by these policies will only be permitted where:

- it can be demonstrated that they require a countryside location;*
- they constitute appropriate infill development; or*
- they utilise suitable existing buildings.*

(2) In circumstances where development meets the relevant countryside policy criteria, the scale, siting and design of development will be strictly controlled to ensure that there is no adverse impact on the character of the countryside. In particular:

- the siting should be unobtrusive, making use of natural features to integrate development into the landform and avoiding skylines;*
- building design should be sympathetic to vernacular building styles and comply with the design principles contained within the Council’s ‘Design Guide for Buildings in the Rural Areas’; and*
- boundary and curtilage treatments should be sympathetic to the rural area, with a preference for stone walling and hedging using native species.”*

7a.3 This policy provides for development proposals in the countryside where there is an essential need for a countryside location. Due to the nature of the proposal, and the need for generous buffer distances to protect residential amenity, the essential need for a countryside location is accepted. In addition, the scale and siting of the proposed wind turbine are considered to be acceptable within the countryside setting (see paragraphs 7a.5 and 7a.9), and the proposed design is typical of wind turbines found within the countryside. The application is therefore considered to accord with this policy.

7a.4 Policy EQ23 - ‘Areas Of Great Landscape Value’ states:

“The Council will protect Areas of Great Landscape Value from development which would be detrimental to its amenity and distinctive landscape quality. In addition to satisfying other relevant countryside policies, proposals within these areas will only be permitted where accompanied by a landscape and visual assessment demonstrating that the development can be accommodated without adverse impact on the landscape quality.”

7a.5 This policy protects Areas of Great Landscape Value from development that would be detrimental to their amenity and distinctive landscape quality. The proposed turbine is generally within an area of medium landscape sensitivity to wind energy development and the extent of the overall Area of Great Landscape Value within which the turbine would be visible is confined predominantly to the south. The landscape impact of the proposal is considered to be acceptable and the application is therefore considered to accord with this policy.

7a.6 Policy ST20 - 'Renewable Energy Development' states:

"The Council will support development required for the generation of energy from renewable sources, and the utilisation of renewable energy sources as part of new development, subject to assessment of proposals against other Local Plan policies. Renewable energy development will be viewed as an appropriate use in the countryside where there is an operational requirement for a countryside location."

7a.7 This policy supports development required for the generation of energy from renewable sources. Renewable energy development will be viewed as appropriate in the countryside where there is an operational need for a countryside location. The application is considered to accord with this policy.

7a.8 Policy ST21 - 'Wind Energy' states:

"Wind energy developments will be assessed in relation to the following factors:

- (1) The visual impact of the development, having regard to the scale and number of turbines, existing landscape character, and views from settlements, main transport corridors and other key vantage points. Development will not necessarily be excluded from Green Belts or Areas of Great Landscape Value, but must demonstrate particular sensitivity in terms of scale and design where these designated areas are affected;*
- (2) The ecological impact of the development, having regard to Policies EQ24 and EQ25, including impacts on both designated sites and protected species. In particular, developers will be required to demonstrate that there will be no adverse impact on migratory birds;*
- (3) The impact on the cultural heritage and the landscape setting of cultural features, having regard to Policies EQ12, EQ14, EQ16, EQ17 and EQ 18;*
- (4) The impact on aviation and telecommunications, with particular regard to the safeguarding zones and operational needs associated with Edinburgh, Glasgow and Cumbernauld airports;*
- (5) The impact on settlements and residential properties by virtue of noise and 'shadow flicker'; and*
- (6) Cumulative impacts in relation to the above factors, where there are existing developments in the area, or the development is one of a number of proposals for an area."*

7a.9 This policy outlines the considerations that wind energy developments will be assessed against. These considerations relate to visual and landscape impacts, ecology, cultural heritage, aviation, telecommunication, noise, shadow flicker and cumulative impacts. The matters have been assessed in the supporting information accompanying the application and the findings are generally accepted. The visual and landscape impacts are considered to be acceptable as the proposed turbine would not, overall, be a dominant feature in the setting. Contributing factors in that regard are the existence of blocks of woodland and topographical features which would limit visibility. The proposal includes a bridge crossing of a burn but no significant ecological impacts are anticipated subject to compliance with an approved Construction Method Statement. No loss of amenity to the nearest receptors is anticipated in relation to noise and shadow flicker. No objections have been made by telecommunication interests or the majority of aviation interests. Impacts on Cumbernauld Airport are considered to be acceptable for the reasons detailed in paragraphs 7b.10 to 7b.14 of this report. No significant cumulative impacts are anticipated.

7a.10 Accordingly, the proposal accords with the Development Plan.

7b Material Considerations

- 7b.1 The material considerations to be assessed are National Planning Policy and Guidance and the consultation responses.

National Planning Policies and Guidance

- 7b.2 The Scottish Government has set ambitious targets to meet Scottish energy needs from renewable energy sources.
- 7b.3 Scottish Planning Policy states that planning authorities should support the development of a diverse range of renewable energy technologies. Planning authorities should support the development of wind farms in locations where the technology can operate efficiently and environmental and cumulative impacts can be satisfactorily addressed.
- 7b.4 Planning Circular 2/2003 (Safeguarding of Aerodromes, Technical Sites and Military Explosives Storage Areas) provides details of the system of official safeguarding of aerodromes and technical sites. The Circular contains a list of the current officially safeguarded civil aerodromes.
- 7b.5 CAP 393 (Air Navigation: The Order and the Regulations), CAP 738 (Safeguarding of Aerodromes) and CAP 764 (Policy and Guidelines for Wind Turbines) are guidance documents prepared by the Civil Aviation Authority (CAA).
- 7b.6 CAP 393 specifies the minimum height at which aircraft are normally flown. It specifies that an aircraft shall not be flown closer than 500 feet to any person, vessel, vehicle or structure.
- 7b.7 CAP 738 describes the regulatory framework for safeguarding aerodromes. It outlines a safeguarding assessment procedure which includes a requirement to calculate if an obstruction infringes the Obstacle Limitation Surface (OLS). If a proposed development does not infringe the OLS and there are no associated issues, a response should be sent to the planning authority indicating that there is no safeguarding objection. Associated issues detailed in the guidance include birdstrike hazard, lighting and impacts on aeronautical systems and radar.
- 7b.8 CAP 764 provides CAA policy and guidance on a range of issues associated with wind turbines and their effect on aviation. The document considers the effects of turbulence caused by the wake of a turbine which extends stream wise behind the blades and the tower. The dissipation of the wake intensity depends on the convection, the turbulence diffusion and the topology (obstacles, terrain etc). The document recognises that aircraft wake vortices can be hazardous to other aircraft, and that wind turbines produce wakes of similar but not identical characteristics to aircraft. The CAA have received anecdotal reports of aircraft encounters with wind turbine wakes but there are a wide variety of views as to the significance of the turbulence and the CAA is currently investigating the effects of wind turbine wakes on aircraft. The document advises that, until the results of further research are known, analysis of turbulence can only be undertaken on a case by case basis, taking into account the proximity of the development and the type of aviation activity conducted. Turbulence is of particular concern to those involved in very light sport aviation such as gliding, parachuting, hang-gliding, paragliding or microlight operations.

Responses to Consultation

- 7b.9 The consultation responses are summarised in section 4 of this report. Cumbernauld Airport have objected to the application, whilst the matters raised in other consultation responses could be the subject of conditions or informatives of any grant of planning permission. The BAA have stipulated conditions in relation to the preparation of a Radar Navigation Scheme.
- 7b.10 The applicant requested DKM Aviation Partners Ltd to review the Cumbernauld Airport objection. DKM have queried some of the terms used by the Airport, in particular they consider that there is no particular significance to a 5km radius of the aerodrome for the purposes of obstacle limitation. They note the requirement (in CAP 738) to calculate if an obstruction infringes the Obstacle Limitation Surface (OLS). They cannot find any CAA or international reference to a Wind Turbine Vortex for an airport. They consider that the (legally defined) Aerodrome Traffic Zone (ATZ) is relevant, and that the circuit pattern of aircraft would normally be expected to remain within the Cumbernauld ATZ.
- 7b.11 DKM Aviation Partners Ltd note that the Cumbernauld ATZ extends to 2 nautical miles (3.704km) from the aerodrome. They advise that the application site is 3.72km from the aerodrome therefore it is reasonable to assume that it is on the boundary of the ATZ. They advise that aircraft flying in the circuit pattern at Cumbernauld are instructed by local flying procedures to fly at 1000 feet above the aerodrome elevation (1350 feet above mean sea level [amsl]). The proposed turbine to tip height would be 789 feet amsl, therefore the 1000 foot rule would be able to be satisfied for aircraft overflying the turbine, whilst also satisfying the requirement under CAP 393 for aircraft to be flown no closer than 500 feet to a structure. In addition, they note that Cumbernauld Airport have not suggested that the OLS is penetrated by the proposed turbine. In such circumstances, in accordance with CAP 738, there is no safeguarding objection on the grounds of physical obstruction unless there is an associated issue.
- 7b.12 DKM Aviation also note the existence of higher aerodrome obstacles in the area and higher ground rising to 1506 feet amsl. Taking account all of the above matters, they have difficulty in reconciling the Cumbernauld Airport objection that the proposed turbine, at 789 feet amsl and 3.72km from the aerodrome, would represent any significant hazard to aviation.

- 7b.13 DKM Aviation have considered the issue of wind turbine wakes and accept that turbine wakes can generate vortices and the amount of vortex is not clearly understood and is a matter of research. They note that Cumbernauld Airport quote extensively from CAA Safety Sense Leaflet 15C which relates to aircraft wake vortex. Whilst turbines produce wakes of similar but not identical characteristics to aircraft, some relevant facts can be read or deduced from the leaflet. These facts include: that wake vortex can be very significant in near still conditions; decay of turbulence is usually sudden and occurs more quickly in windy conditions; and vortices will always descend and dissipate. In considering the proposed development, DKM Aviation advise that the prevailing wind is from the west and south-west, therefore in the majority of days any short range turbulence would be blowing away from Cumbernauld Airport. They consider that a pilot would have to be flying below 167 feet (the height of the proposed turbine) and very close to the downwind side of the turbine to even come into contact with turbulence from the turbine. They consider that such a low flight would be almost impossible to conduct legally or safely given the high ground in the vicinity of the application site and the distance from Cumbernauld Airport. CAP 393 specifies that aircraft shall not be flown closer than 500 feet to any structure. DLM Aviation conclude that there is no evidence to support the suggestion by Cumbernauld Airport that there would be an unacceptable erosion of the current safety margin with a 6 nautical mile radius of Cumbernauld Airport, and on the periphery of the ATZ.
- 7b.14 Cumbernauld Airport have reviewed the DKM Aviation response but have not provided an opinion on the DKM submission as a means to support and substantiate their objection to the application. However, in their further comments they do quote from CAP 764 which considers the effects of turbulence caused by the wake of turbines. Whilst the responsibility of Cumbernauld Airport to safeguard the flying operation of their aerodrome is understood, CAP 764 advises that there is a wide variety of views on the significance of turbulence and that, until the results of further research are known, analysis of turbulence can only be undertaken on a case by case basis. In this case, the applicant's consultant would appear to have provided a site-specific assessment of the aviation risks taking into account the distance of the proposed turbine to the aerodrome, the height of the turbine above ground level, the surrounding topography and legal and safe flying height at the location. In contrast, Cumbernauld Airport appear to rely on general guidance and in effect promote a moratorium on most sites of wind turbine development within 6 nautical miles of the aerodrome until the results of further research is known. This appears to be contrary to the advice in CAP 764 which supports a case by case assessment. In addition, Cumbernauld Airport have not advised of any encroachment of the OSL. The conclusions of DKM Aviation, that there is no safeguarding issue to consider, and there are no valid reasons for considering turbulence from the proposed turbine as a safety concern to operations at Cumbernauld Airport, are therefore accepted.

7c Conclusion

- 7c.1 The application is considered to comply with the Development Plan for the reasons detailed in this report. The application is therefore recommended for approval subject to appropriate conditions. There are not considered to be any material considerations to justify a contrary recommendation.
- 7c.2 The report considers the objection to the application by Cumbernauld Airport. A decision to grant the application despite the objection by Cumbernauld Airport would not require notification of the application to the CAA as Cumbernauld Aerodrome is not an officially safeguarded aerodrome (the procedures are set out in Planning Circular 2/2003). The application is therefore not potentially subject to Scottish Ministers call in procedures.

8. RECOMMENDATION

8.1 It is therefore recommended that the Planning Committee grant planning permission subject to the following conditions:-

- (1) The development hereby approved shall be implemented in accordance with the plan(s) itemised in the informative below and forming part of this permission unless a variation is required by a condition of the permission or a non-material variation has been agreed in writing by Falkirk Council as Planning Authority.**
- (2) Before the development commences the exact details of the colour(s) of the proposed turbine and substation shall be submitted to and approved in writing by this Planning Authority. Thereafter, the development shall be carried out in accordance with the approved details.**
- (3) Before the development commences, the exact details of the surface finish of the proposed access track and any hardstanding areas shall be submitted to and approved in writing by this Planning Authority. Thereafter, the development shall be carried out in accordance with the approved details.**
- (4) Prior to the end of the first planting and seeding season following construction of the proposed turbine (or any alternative timescale that may be agreed in writing by this Planning Authority), the proposed access track and any hardstanding areas/disturbed land shall be soiled and grassed over, unless a minimum construction is required solely for the purposes of maintenance/turning as approved in writing by this Planning Authority. Thereafter, the development shall be carried out in accordance with the approved details.**
- (5) Prior to the end of the first planting and seeding season following construction of the proposed turbine (or any alternative timescale that may be agreed in writing by this Planning Authority), any existing landscape features (e.g. hedges, tracks, fences, trees) required to be removed/altered to enable access by construction vehicles, shall be reinstated in accordance with details approved in writing by this Planning Authority. Thereafter, the development shall be carried out in accordance with the approved details.**
- (6) A micro-siting allowance of 10 metres shall be permissible for the proposed turbine.**
- (7) Before the development commences, a Construction Method Statement for the proposed new bridge shall be submitted to and approved in writing by this Planning Authority. Thereafter, the development shall be carried out in accordance with the approved details.**

- (8) At any time upon the direction of this Planning Authority, the wind turbine operator shall, at their own expense, employ an independent consultant, approved by this Planning Authority, to assess the level of noise emission from the wind turbine, in accordance with a scoping to be agreed in writing by this Planning Authority. The report shall be submitted for the written approval of this Planning Authority within one month of the direction of this Planning Authority and shall include details of any required measures to mitigate noise disturbance. Thereafter the development shall be operated in accordance with any approved mitigation measures.
- (9) Before the development commences, a Radar Mitigation Scheme to prevent the impairment of the performance of aerodrome navigation aids and/or the efficiency of the air traffic control services shall be submitted to and approved in writing by this Planning Authority in consultation with Glasgow Airport.
- (10) The proposed wind turbine shall not be erected until the Radar Mitigation Scheme approved as part of Condition 9 above has been implemented and the development shall thereafter be operated fully in accordance with the approved scheme.
- (11) In the event that the development hereby approved ceases to be used for the purpose for which it was designed, the operator shall inform the Planning Authority, and the wind turbine and related apparatus, access road and hardstanding shall be removed from the site. Within 2 months of the date on which the use ceases (unless otherwise agreed in writing by this Planning Authority), the site shall be reinstated in accordance with a scheme approved in writing by this Planning Authority.

Reason(s):

- (1) As these drawings and details constitute the approved development.
- (2-5) To safeguard the visual amenity of the area.
- (6) To provide some flexibility in siting to accommodate any site constraints that are currently unknown.
- (7) To safeguard the water environment and nature conservation interests.
- (8) To safeguard the residential amenity of the area.
- (9-10) In the interests of aviation safety.
- (11) To ensure the satisfactory removal of redundant wind turbine installations.

Informative(s):

- (1) In accordance with section 58(1) of the Town and Country Planning (Scotland) Act 1997 (as amended), this permission lapses on the expiration of a period of 3 years beginning with the date on which this permission is granted unless the development to which this permission relates is begun before that expiration.

- (2) For the avoidance of doubt, the plan(s) to which this decision refer(s) bear our online reference number(s) 01A, 02, 03, 04, 09A, 12, 13 and 14
- (3) The applicant is advised to contact Falkirk Council Roads Services and Development Services Structures Section before the development commences to arrange pre and post construction road surveys and a culvert survey (if necessary). The Falkirk Council contact officers are Gavin Davie, Area Roads Officer, Roads Services, Earls Road, Grangemouth, Tel. 01324 501133 and Ralph Ridley, Bridges and Structure Design Co-ordinator, Abbotsford House, David's Loan, Falkirk, Tel. 01324 504825.
- (4) The applicant is advised to notify Falkirk Council of any abnormal load details, through email address: abnormalloads@falkirk.gov.uk
- (5) The applicant is advised to cease all work on the affected part of the site in the event of any made ground, suspect material or odours being encountered during site works/operations following commencement of the development. In such an event, the applicant is advised to contact the Planning Authority immediately, carry out a contaminated land risk assessment in accordance with current guidance and legislation, undertake any necessary remediation works and only recommence works with the prior written approval of the Planning Authority.
- (6) Defence Infrastructure Organisation Safeguarding wishes to be notified of the progress of this proposal to verify that it will not adversely affect defence interests. The Organisation should be advised of the following:
 1. the date construction starts and ends;
 2. the maximum height of construction equipment;
 3. the latitude and longitude of every turbine.

This information is vital as it will be plotted on flying charts to make sure that military aircraft avoid this area. If the application is altered in any way Defence Infrastructure Organisation Safeguarding must be consulted again as even the slightest change might be unacceptable. The above information should be submitted to Falkirk Council and:

Defence Infrastructure Organisation
Kingston Road
Sutton Coldfield
West Midlands
B75 7RL

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Director of Development Services

Date: 23 April 2013

LIST OF BACKGROUND PAPERS

1. Falkirk Council Structure Plan
2. Falkirk Council Local Plan
3. Scottish Planning Policy
4. Planning Circular 2/2003 (Safeguarding of Aerodromes, Technical Sites and Military Explosive Areas Storage.
5. CAP 393 (Air Navigation: The Order and the Regulations)
6. CAP 738 (Safeguarding of Aerodromes)
7. CAP 764 (Policy and Guidance for Wind Turbines)

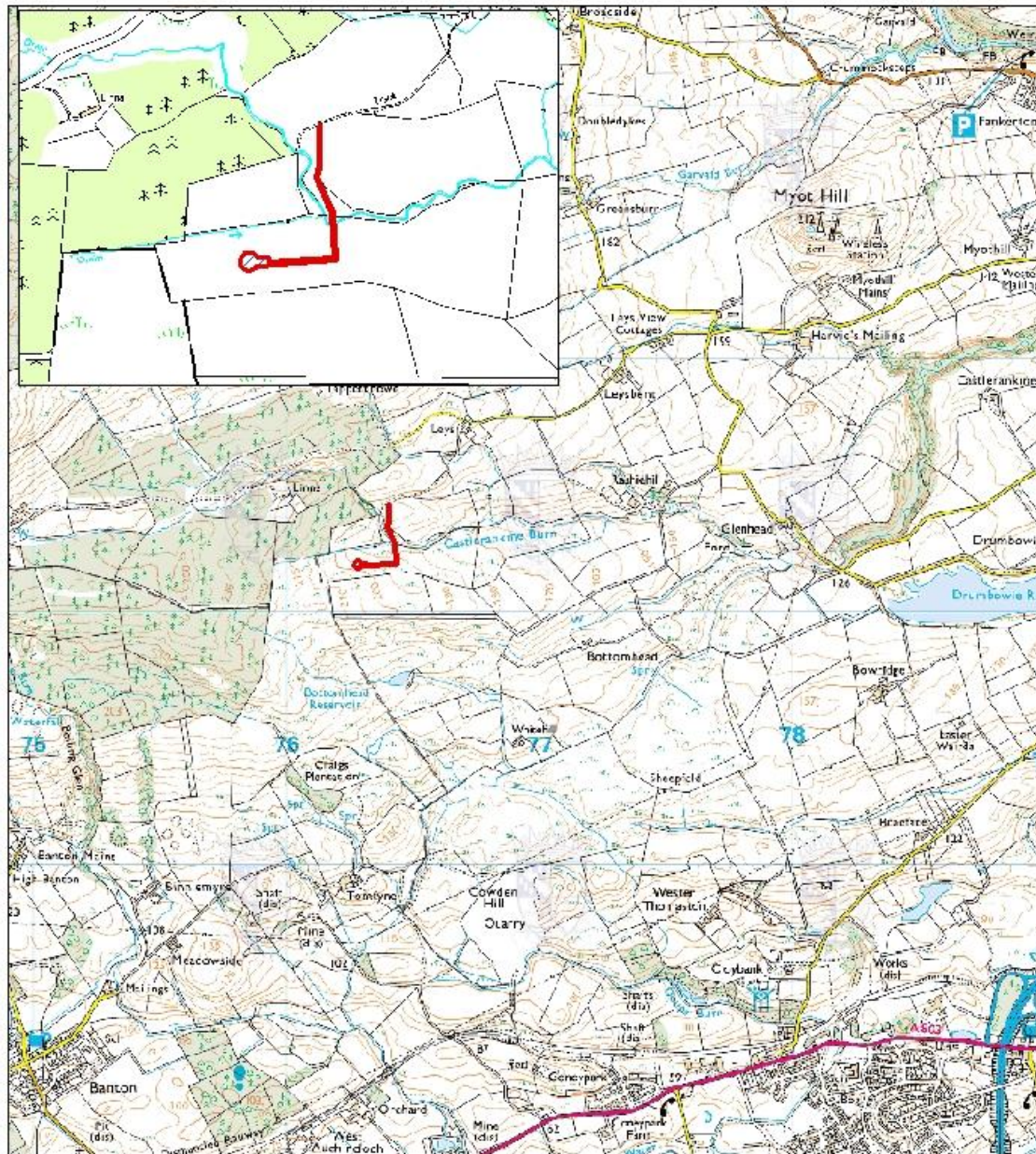
Any person wishing to inspect the background papers listed above should telephone Falkirk 01324 504935 and ask for Brent Vivian, Senior Planning Officer.

Planning Committee

Planning Application Location Plan

P/12/0208/FUL

This plan is for location purposes only. It should not be interpreted as an exact representation of the application site.



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