### 3.0 BASELINE ANALYSIS

### **INTRODUCTION**

3.1 This section of the reports sets out some of the original research and analysis undertaken as part of this study. This includes consideration of the urban design, townscape and heritage features of the six sites, the market for development in the area and the development potential of the identified sites and an analysis of flood risk and transportation and contamination issues.

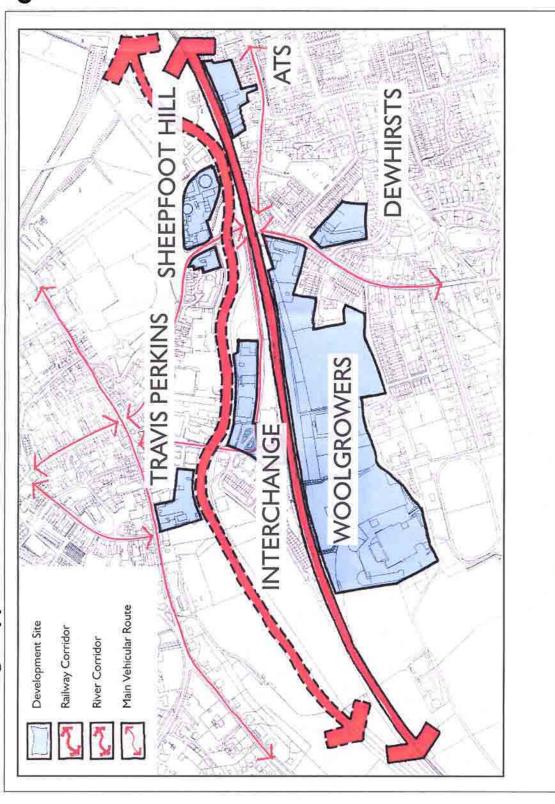
### URBAN DESIGN, TOWNSCAPE & CONSERVATION

3.2 Several of the identified sites lie within an historic and sensitive environment. As such, analysis of the key features of this environment is required. This includes an appraisal of the existing urban design and townscape which provide the context for new development and also a review of the historic features which have shaped the town and must be considered in developing proposals for these sites

### **Urban Design & Townscape**

3.3 The following pages provide an appraisal of the urban design and townscape characteristics of the 'River-Rail Corridor' and of each of the six identified sites. This sets out the key urban design and townscape features and other design issues to be reflected in the development proposals for each site.

# Urban Design Appraisal



# GENERAL OVERVIEW

Development sites are spaced out in a linear pattern along both the railway line and the river corridors.

The development sites are split apart by very strong urban seams which run between Malton and Norton, these are created by the river and railway corridors.

The main vehicular routes between Malton and Norton cross these seams at two distinct points, which create problems in allowing a steady manageable flow of traffic between the two communities.

Vehicular traffic dominates movement between the town communities, with pedestrians and cyclists having to share the same routes.

There is little useful pedestrian access between the development sites along the river, which has had the effect of reducing the opportunity for well designed public spaces to exist along the river.

The development sites consist mainly of brownfield type areas, however the Woolgrowers and ATS sites do have a more rural context in either the type of area that face on to, or the type of area which they contain within their site boundary.

The towns have a good architectural vernacular to draw inspiration from, as well as an interesting historical urban fabric.

The development sites also possess views of the towns and the surrounding countryside which should be considered in the proposed schemes.





LEGEND

Main Transport Roure

Views Out of Development S

Neighbouring Area That Could Be Effected by Development Sto

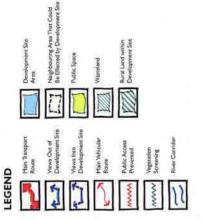
The development site is split by one of the two routes over the river, the build up for the bridge has created an interesting level change between the road surface and the

ing this movement due to the bottleneck created by road and rail meeting together at the southern side of the river, will create create problems for the type of access The amount of traffic which flows along this route has created problems of maintainneeded for any proposed development. Attractive views out of the site are predominately restricted to views south across the river, however the quality of the buildings vary in this direction. The main views into the site that need to be considered important in the design of the site are the homes, school and small businesses which surround the site on its northern boundary. There is no access to the site from the river, nor along the majority of the riverbank on both sides; this possibility for pedestrian access needs to be explored.



### **DEWHIRSTS**





The development site is defined by the housing which surrounds the majority of its boundary, with only a small access point in the north western corner.

The width of the road is good at this point as it obviously had to deal with large service vehicles which would've had to have had access to the site for the clothling factory that was previously housed there.

The development site is screened heavily by mature Leylandi hedging along the western edge of the site.

There are no particular views out of the site, however the size and height of development needs to be considered because of possible views into the site from the backs and between gaps in the properties that surround the site.





## LEGEND Hate Tempors Roue Development Site Views Out of Line 1 The 1 Magistroning Area T Development Site Development Site Development Site Many Whoult Access Hate Spece Many Whoult Access Route Public Access Waterland Waterland Work Carridge Many Severing Roue Prove Carridge Many Severing Many Severing Many Severing Many Severing

The development site is confined by the railway line on its northern boundary, and a series of buildings of varying heights and architectural styles on its other boundaries.

Access to the site at the present moment is confined to a narrow entrance/exit point which feeds onto a main road which runs along the southern side of the development site.

The main view allowed out of the site is across the railway line and river, towards conservation land, distant rural landscape and existing developments such as converted warehouses and industrial units which sit on the northern bank of the river.

Views into the site come from across the river from development site 3 and the neighbouring housing and businesses to the east of that site, which will effect peoples perception of the site; there is also the views from the backs of properties that run around from the eastern to southern side of the site.

There is no access to the conservation land from the site because of the railway line, which prevents access to a major community asset in this part of Norton.





### LEGEND





Development Stra Area









www

The development site is confined to limited access which exists at the north west corner of the site; however this could be improved if access is allowed through the neighbouring car park on the eastern boundary of the site.

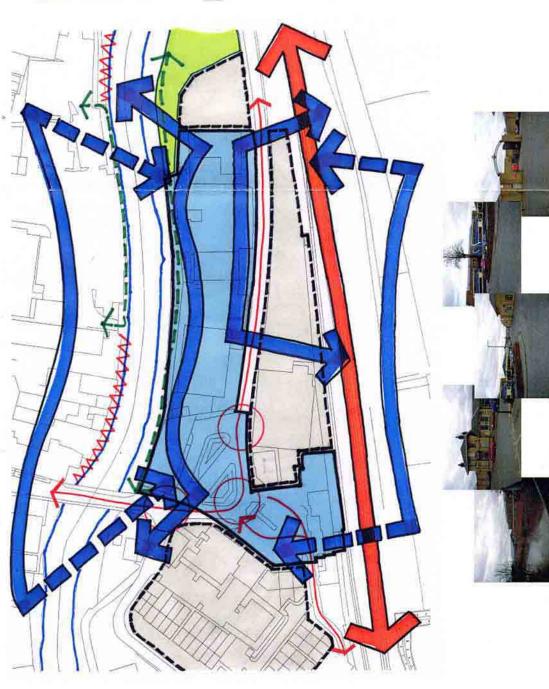
The main road along its northern boundary is busy, with existing flow problems resulting from the poor movement allowed at junctions along this road.

There are varied views allowed out of the development site; the different views are created because of the extreme level changes through the site. Views into the site are restricted to views from across the river, which will effect peoples perception of the site from their homes and the open space next to the

There is no access to the site from the river, nor along the majority of the riverbank on both sides; this possibility for pedestrian access needs to be explored.



## INTERCHANGE



### LEGEND





Development Ske Ayea



Views Out of Views Into

Neighbouring Area That Could Be Effected by Development Ste



Public Space







MANA

m

The development site is severely confined by the river and railway corridor, which creates its linear form, there is the possibility of many access points to the site from the main road which runs along its southern boundary. The main road along the southern boundary is busy, with existing flow problems resulting from the poor movement allowed at junctions along this road.

There are varied views allowed out of the development site; the different views are created because of the extreme level changes across from the site, as Malton rises above the site on the hillside opposite. Views into the site are restricted to views from directly across the river and down from Malton and from houses on the hillside from Norton, these views will effect peoples perception of the site from their homes and businesses; the open space next to the site though is dedicated to car parking which has created a negative image of the area which surrounds the site. There is access to the site from the river; however this is restricted to pedestrian movement along a narrow unattractive path. The space outside the station is basic and is primarily dominated by the service access and goods yard for the neighbouring supermarket; the space does not give a positive impression of Malton when arriving by train.

& Partners Nathaniel Lichfield Development Plannin Orban Design Economic



### LEGEND





















WW

The development site is defined by the railway line running along its northern boundary, and the series of Victorian Villas running along its southern boundary.

There is no real access along the length of the site, except along the residential road which runs next to the southern edge of the site, with its surface in different states of There are varied views allowed out of the development site; the different views are created because of the extreme level changes across from the site; as Malton rises above the site on the hillside opposite. Views into the site are restricted to views down from Malton and from houses on the hillside from Norton, these views will effect peoples perception of the site from their homes and businesses. There are varying degrees of development land within the site boundary, some brownfield with existing industrial structures, and pockets of rural land that have had no previous development; careful consideration needs to taken in maintaining this diversity of land use i.e. maintaining good public open space and creating appropriate mixed use development.



### **Conservation & Archaeology**

- 3.4 Malton is thought to have been the site of a settlement since the bronze age although the earliest surviving evidence of a substantial settlements dates back to roman times when the Deventio was constructed. It is likely that the settlement remained through Saxon and Norman times although the C12<sup>th</sup> saw the emergence of the current form of the town based around the then walled market square with entrances at Old Maltongate, Wheelgate, Greengate and Yorkersgate as remains the case.
- 3.5 Two of the sites, Sheepfoot Hill and Travis Parkins lie within the Malton Conservation Area and the ATS site falls within the Norton Conservation Area. As such, specific regard should be given in the design of development proposals for these sites to the architectural and design features which characterise the towns. These are effectively set out in the Malton & Norton Conservation Area Assessments.
- 3.6 In addition, discussions with the County Archaeological Officer have revealed that all of the sites being considered have potential for archaeological remains. As such, a desk based study of this potential should be requested as part of any planning applications and, where necessary as a result of findings, trail trenches may be required. Evidence available to date suggests that the Sheepfoot Hill site may be of particular interest due to its proximity to the Roman Derventio. In addition, it is understood that the ATS site lies close to an former burial site and may also be of particular importance.

### THE MARKET FOR DEVELOPMENT

### **Land Use Overview**

3.7 Set out below is an assessment of the market for development of the range of potential land uses considered for the six sites identified. This is followed by an assessment of the development potential of each site, taking account of the specific characteristics and constraints of each site

### Residential

3.8 Given the current strength of the residential property markets across the UK, it is perhaps inevitable that there is a perceived demand for new build housing in the Malton/Norton area. Values have risen considerably during the last 2/3 years, with local agents

- suggesting sales revenues now often achieve or exceed £150 per sq ft. Whilst this reflects significant growth, it is still somewhat less than values currently being achieved in other North Yorkshire market towns such as Ripon and Boroughbridge.
- 3.9 Malton and Norton are still not seen as established Leeds commuting centres and local opinion is that demand for any new housing would either be locally generated or would come in the main from commuters to York. Given healthy rises in York housing values, the assumption is that some current York residents would relocate to the east, taking advantage of enhanced values of their current properties and buying into 'better value' accommodation in the Malton/Norton area.
- 3.10 Whilst there is apparently little proven demand at the moment for retirement homes in Malton and Norton, this trend is clearly continuing and it is accepted that some degree of specialist 'McCarthy & Stone' type accommodation would prove popular in current market conditions.
- 3.11 The 'buy-to-let' phenomenon remains strong, and again some local agents believe demand would come from this sector, should appropriate residential development take place on any of the subject sites.
- 3.12 Given the above, those national housebuilders we have spoken to have inevitably confirmed their interest in development opportunities in Malton and Norton, subject only to the matter of the scale of eventual proposals. (Some of the subject sites are rather small for the national builders and it is assumed that demand for these would come from smaller, more locally based developers).
- 3.13 Given increased housing values, it is inevitable that there is evidence of demand from both first-time buyers and lower income families for Affordable Housing in the area. This view is supported by the Ryedale Housing Needs Survey Update of 2003, which projected an annual requirement for some 321 new affordable housing units per annum, to meet newly emerging need alone.
- 3.14 Clearly, as outlined further below, the economics of development of several of the subject sites will mean that a significantly reduced amount of affordable housing can be achieved but it is assumed that elsewhere the Council will seek to achieve levels in line with their adopted policies.

### Offices

- 3.15 Malton and Norton have not been perceived as traditional office locations and the local market has principally tended to involve local demand for relatively small suites in existing buildings.
- 3.16 Inevitably, much of the supply to date has therefore been to some degree sub-standard, e.g. with limited car parking provision, lacking modern IT supply etc. Rents are currently in the region of £7-£8 per sq ft, up to a maximum of perhaps £10 per sq ft. Local landlords have commented that they are 'struggling' to achieve better rental levels and are clearly sceptical as to the potential for any significant amount of new-built speculative accommodation.
- 3.17 We can, however, imagine demand on a relatively limited scale for small suites of say 1,250 sq ft to 2,500 sq ft on both freehold and leasehold bases.
- 3.18 However, given current rental levels and the relatively high cost of construction, land values would tend to be low, with little potential to meet any abnormal site development costs, e.g. in respect of flood prevention, contamination etc. Comment has also been made as to the limited level of labour supply available in the vicinity.
- 3.19 In the circumstances, it is not anticipated that demand for office sites would attract large commercial developers from outside the immediate area and much will therefore depend on support from more locally based investors and builders.
- 3.20 Anecdotal evidence cited by both AMION and Ryedale District Council, suggests relatively strong demand for subsidised small business starter units. Whilst it is not possible to undertake a detailed analysis of this sub-sector because the nature of demand is that it often remains hidden, it is understood that the only other provision of this type, the Old Brewery in Malton, which is operated by Ryedale District Council, has a waiting list of potential tenants.

### Retail

3.21 Again, the bulk of existing retail outlets in Malton and Norton is in traditional town centre buildings, which are often seen as being either inadequate, or of the wrong size to attract national retailers. Consequently the majority of traders are of a local nature,

paying rents, which generally significantly lower than levels achieved in other North Yorkshire centres.

3.22 Whilst there would appear to be some potential for new retail development in the towns, the subject sites are not, in the main, appropriate, with the obvious exception of the Interchange. For the reasons given below, this site is, however, unlikely to come forward for any form of retail re-development and in the circumstances we must conclude that new shopping outlets will not form a significant, if any, part of the eventual development of the six sites.

### Industrial

- 3.23 Existing industrial areas are inevitably located outside the town centres and cater in the main for local demand. Rents are modest, in the region of £3.25 to £3.50 per sq ft and, whilst Amion Consulting's Report of 2002 claims evidence of demand, they imply this is for relatively small units on 'flexible occupancy terms'. Such schemes are hardly commercially attractive and offer relatively low potential land value and an inability to absorb abnormal site development costs.
- 3.24 Again, the majority of the subject sites are not deemed to be particularly suitable for any form of industrial development, given their size, location etc. It is considered the potential 2000 sq m that might be located on the Woolgrowers' land would be more than adequate to meet demand in the short to medium term.

### Leisure/Food & Drink

- 3.25 Both the Amion Report and local opinion suggests that existing restaurants and bars lack 'overall quality', with only a few examples breaking traditional moulds and providing more modern, fashionable facilities and service.
- 3.26 Despite this, there is undoubted scepticism regarding potential to provide new-built accommodation, be it in the town centres, or in any emerging river frontage location.
- 3.27 Such development has, however, tended to take place in other market towns in the region and we suspect the same will eventually happen in Malton and Norton, but only probably once a degree of residential development has taken place, i.e. once new potential customers have taken up residence.

- 3.28 Inevitably, much will, however, depend on interest from both developers and potential tenants and the degree to which any such accommodation can be integrated into what are generally residential schemes. Traditionally, housebuilders have not tended to welcome restaurants, bars etc., in development proposals, given they are seen as relatively unattractive neighbours to open market dwellings.
- 3.29 With regards leisure and sports facilities, the Amion Report agrees these are 'limited' and see scope for such development, including a local sports complex and modern swimming pool. Inevitably, some development within this category could generate acceptable levels of land value, but equally others, including say a swimming pool, would not, and would tend to require a significant degree of public funding.

### **Site Potential**

### Sheepfoot Hill

- 3.30 In two parts on either side of Castlegate, Sheepfoot Hill suffers from a multiplicity of ownerships and occupation, the Fitzwilliam Estate suggesting their freehold interest is subject to as many as 13 tenancies. Despite the positive attitude of both the Estate and Second Site Properties (who control the former gasholder site), site assembly must therefore be assumed to be complex and time-consuming, particularly as a number of the tenants could be difficult to relocate to alternative accommodation. The above would, however, only tend to apply to the larger part of the site, lying to the east of Castlegate, as we understand the western portion is owned entirely by the Fitzwilliam Estate, with some potential for full vacant possession.
- 3.31 In addition to potential problems of site assembly and vacant possession, other constraints at Sheepfoot Hill include:
  - Contamination issues, particularly to the former gasholder site.
  - Proximity of the Listed Castlegate Bridge.
  - Adjoining residences.
  - Listed Buildings and Conservation Area status.
  - Flooding potential.
  - Highways congestion and air quality problems.

- Need for archaeological investigations.
- 3.32 Despite the above, the Sheepfoot Hill site clearly has potential for a mixed residential scheme of both open market and affordable dwellings and, particularly on the western part of the site, specialist housing for the elderly. The site is well located for central facilities and does offer considerable potential for the upgrading of the riverside frontage.
- 3.33 An alternative scheme could incorporate restaurant/bar accommodation, given the site's location, but this might not be easy from a design/layout point of view, with potential for conflict between commercial and residential uses.

### Dewhirsts

- 3.34 Owned exclusively by Scothern Construction, with full vacant possession available, the Dewhirst's site is, in many respects, the 'cleanest' of the six under consideration. The owners have indicated they would prefer an income generating investment from a commercial development of the site, for long-term retention by their family business. However they have now accepted the principal of residential development and would be supportive of a move towards its allocation as such.
- 3.35 Given the somewhat lengthy timescales anticipated for other, more complicated sites, the Dewhirsts' site does have the potential to be brought forward in the short to medium, rather than longer, term. The owners have been asked for their comments on a proposed development of part of their site, with low-cost incubator/starter workshops, in conjunction with a publicly funded Development Trust. Their immediate reaction is that this would not tend to generate sufficient capital or rental income to meet their aspirations and would therefore be unacceptable to them at the present time.

### 3.36 Other Constraints might include:

- Traffic congestion in Welham Road.
- Relatively minor costs in respect of demolition
- Potential objections from residential neighbours.
- Proximity/competition from the nearby Woolgrowers' site (although this is likely to take place in a different timescale).

- 3.37 Owned in three parts by ATS, the Goodys Group and a Mr T Jones, with assumed potential for full vacant possession. The current access from the public highway is across the ATS forecourt. Whilst the Goody Group and Mr Jones are supportive of the principal of a re-development of the site, the National Property Manager for ATS has indicated they intend to retain representation in all their existing locations and it is not currently their policy to dispose of any of their sites. This should not, however, deter consideration of the site for re-development, as we believe an allocation for this would serve as a long-term inducement to ATS to consider a relocation to elsewhere in Malton/Norton.
- 3.38 In addition to ATS' attitude towards the site, other constraints would include:
  - Site assembly/potential for the 'ransoming' of the Goody Group and Mr Jones by ATS in respect of access.
  - Potential for flooding.
  - Objections from the tenants of the adjoining Buckrose Court.
  - Proximity of railway line.
  - Need for archaeological/ecological investigations.
- 3.39 The combined sites are deemed suitable for 3-4 storey residential development of say 50 apartments, coupled with the provision of a parking and servicing area immediately behind the Commercial Street shops.
- 3.40 As an alternative, should a residential scheme not be forthcoming, a car park and servicing area might be provided on the eastern part of the site, in isolation. This would, however, require not only the support of ATS (across whose land such a car park would be accessed), but also the availability of public sector funding.

### Travis Perkins

3.41 The Travis Perkins site is owned in its entirety by the Fitzwilliam Estate, with potential for full vacant possession. The Estate is aware of the site's development potential and seem keen to take this forward at the earliest opportunity. The site has potential for further

extension by the inclusion of the adjoining public car park, owned and managed by Ryedale District Council.

### 3.42 Constraints include:

- Listed wharf buildings and proximity of other Listed Buildings.
- Potential for flooding.
- Limited access.
- Need to retain provision of car parking.
- 3.43 The reduced site (i.e. Fitzwilliam Estates' part) has potential for a small-scale residential development of perhaps 14 open market dwellings, i.e. without any element of Affordable Housing.
- 3.44 This would include the retention of the listed riverside warehouse and construction of further new housing, to blend in with the adjoining Listed Buildings. Access would be off Yorkersgate.
- 3.45 The development of the extended site (i.e. incorporating Ryedale's car park) would, however, offer the opportunity for a more comprehensive and appropriate treatment of the area. This could involve up to 50 apartments, offices and even a restaurant/coffee bar. A more coherent design could be achieved, the benefits of the river frontage maximised and new employment opportunities created. On the negative side, however, the listed wharf building could be lost and an expensive reorganisation/re-building of the car park is required.
- 3.46 Whilst the location is appropriate for affordable housing, the anticipated abnormal development costs (if only in respect of flood prevention and replacement car parking) may mean that a reduced amount of affordable housing can be achieved.

### Interchange

3.47 Unfortunately, the Interchange site again has complicated ownership, with the Fitzwilliam Estate holding the freehold, subject to a number of long leasehold interests, apparently with 25 to 60 years outstanding. Clearly any eventual re-development of whole or part of this site, would therefore depend not only on the full support of the parties involved, but also on a viable appraisal and the relocation of several tenants.

- 3.48 However, as with the ATS site, we suggest this should not deter consideration of the Interchange site for re-development, as an allocation would again serve as an inducement to both freeholder and leaseholders, to keep the matter under review.
- 3.49 Land ownership apart, the site is also subject to the following constraints:
  - The need to overcome existing use values and fund relocations.
  - Potential for flooding.
- 3.50 Given its location and the proximity of excellent transport connections, the Interchange site lends itself to an office development with supporting uses, such as small scale retailing, crèche, gym, cafes etc. This will potentially generate new employment opportunities, provide significant improvements to the environment and maximise benefits of the riverside location.
- 3.51 Unfortunately such a scheme is unlikely to take place in the short to medium term, given land tenure and problems of relocation.
- 3.52 Alternatively a single-storey retail-led scheme might be appropriate, providing for the identified needs for new shops with larger floor areas.
- 3.53 As with potential leisure/restaurant premises, any proposals for the Interchange site might have to wait until residential development has taken place elsewhere in Malton and Norton, providing the growth in population needed to justify additional retail and office development of this scale.
- 3.54 The skate park which is located immediately east of the site should be retained regardless of the nature of development which comes forward, given its value to the local community.

### Woolgrowers

3.55 The landowners of the Woolgrowers' site, including the Fitzwilliam Estate, Harrison Developments and Bisca Developments Limited, have formed a consortium to promote the comprehensive development of the land and have instructed planning consultants accordingly. The consortium are keen to promote a scheme and seem prepared to carry the not inconsiderable costs of promotion and investigation. Other parties with vested

- interests include Fitzwilliam's agricultural tenant, a Mr B Dunning and the Welham Bowling Club, whose greens lie in the centre of the site.
- 3.56 Given the size and history of the Woolgrowers' site, it is inevitable these are numerous constraints on its development. These include:
  - Potential for flooding and difficulties with surface water drainage;
  - Excessive infrastructure costs, particularly in respect of access/new highways;
  - The landscape and ecological impact of any new link road and river crossing;
  - Third party land required for access;
  - Contamination;
  - Loss of agricultural land;
  - Nature conservation issues; and
  - History/Inspector's adverse comments in 1999.
- 3.57 The landowners' consortium has suggested that a comprehensive re-development of the entire site could provide 930 sq. m office space, a leisure facility of 4047 sq m and some 21,463 sq m of residential use together with car parking for public use served by a footbridge over the railway.
- 3.58 The potential of this site is very much dependent on the scale of development proposed and the availability of public sector funding for highways infrastructure works. If only small scale development, which can be accommodated within the existing road network, is proposed then only residential use is likely to generate sufficient value to undertake remediation and flood alleviation works.
- 3.59 Larger scale development is predicated on the provision of a new access road into the site from York Road. If public funding is not available for this, again only a solely residential development will generate sufficient value. However, if public funding can be found to assist in delivering the new road link into the site, a mixed development incorporating other aspirations for the site including, perhaps, a new leisure centre and employment uses could come forward. The 'pros' and 'cons' of these alternative schemes inevitably involve new employment opportunities, housing, better transport links, loss of agricultural land and new leisure facilities.

### FLOOD RISK, TRANSPORTATION & CONTAMINATED LAND

### Flood Risk

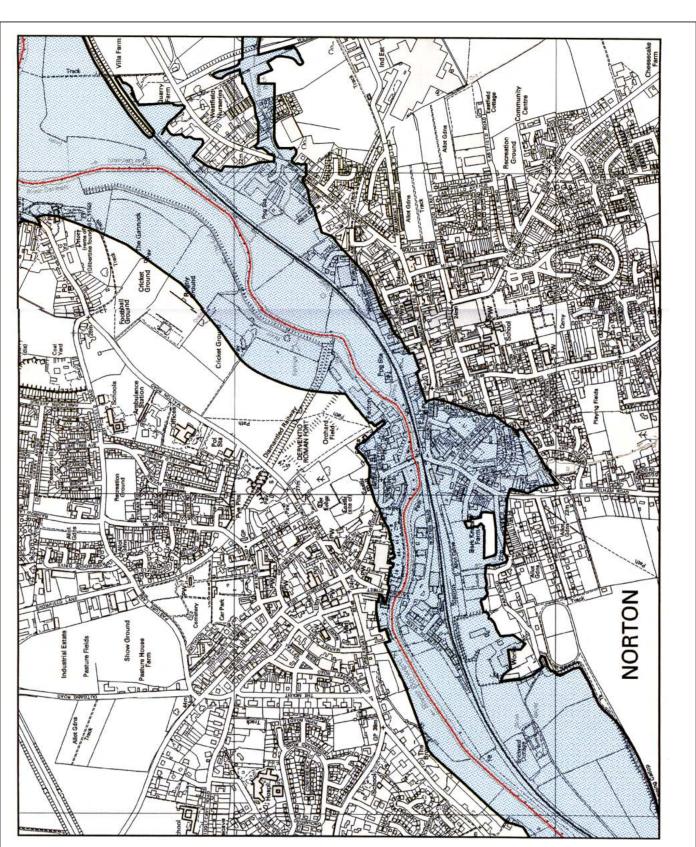
Overview

- 3.60 The initial elements of the study assessed the situation for the towns as a whole with regard to general flooding issues and established the following:
  - Extensive Modelling (on behalf of the Environment Agency) has been undertaken. The Environment Agency's plan of the flood plain is shown overleaf.
  - Flood Defences were installed to 1:50 year return plus a level of freeboard which varies dependent upon the type of defence structure;
  - The 1:50 year defence was determined on DETR cost \ benefit funding requirements;
  - PPG 25 suggests Development levels should be 1:100 + 600mm;
  - Floodplain compensation would be required where development and removal of floodplain was undertaken.
  - Malton \ Norton lies within a topographic basin, surrounded by areas of higher ground;
  - The groundwater is located very close to the topographic surface within the valley basin close to the River;
  - During periods of heavy rain, groundwater in the area appears to respond quickly and rises.

Flooding – Potential Improvement Options

- 3.61 With regard to the above, consideration was given to improving the flooding situation for the six sites by assessing the following potential options:
  - Increasing the whole river defences to provide protection in the event of a 1:100 year flood event;
  - 'Offline' storage of water in a flood event upstream to reduce and attenuate the volume of the River Derwent, or;
  - Engineering each individual site by way of raising floor and access levels and providing attenuation within the drainage design to mitigate surface water flows.





- 3.62 Increasing the flood defences along the full length of the towns is possible from an engineering perspective. To increase the flood protection to a 1:100 year event would mean the raising the flood defence levels by around 300mm. The defence infrastructure is owned, managed and maintained by the Environment Agency and this type of improvement, funded privately, has never been undertaken within UK and would require a myriad of assessments prior to implementation and in excess of £2M to construct. Hence, although technically feasible it is considered that this is not a practicable option to pursue.
- 3.63 With groundwater being so close to the topographic surface no areas of excavation for potential 'offline' storage have been identified although the whole catchment of the River Derwent has not been fully explored.
- 3.64 This leaves the option of each site being engineered separately to accommodate potential flood inundation and surface water flow issues. It is possible to engineer each site and development to accommodate the flooding issues, however each site offers differing challenges and in some cases opportunities for a general improvement in the overall flooding and surface water drainage for the towns.

Flooding Considerations for Site Development

- 3.65 The developers of each of the sites will have to demonstrate that their proposals comply with the requirements of PPG 25 given below, addressing each of the following issues:
  - 1. Site Location
  - 2. Existing Site Levels
  - 3. Details of Existing Flood Alleviation Measures
  - 4. Sources of Flooding
  - 5. Flooding History and Extents
  - 6. Structures Influencing Local Hydraulics
  - 7. Flood Probability
  - 8. Proposed Site Levels
  - 9. Flood Progress
  - 10. Sewer Hydraulics
  - 11. Displaced Flood Volume
  - 12. Impact of Displaced Water
  - 13. Impact on Fluvial or Coastal Morphology
  - 14. Climate Change Impacts
  - 15. Residual Flood Risk after Construction of any Defenses

3.66 The significance of each of the issues will vary for each site however there are common themes and in particular consideration of groundwater, surface water disposal and attenuation will be of great concern to the existing residents of the towns and Environment Agency.

Engineering of Sites to address Flooding Issues

- 3.67 In general this study proposes the adoption of structures, sites and building types that mitigate the risks of flooding by:
  - Raising Floor Levels
  - Using non living space at ground floor e.g. undercroft parking
  - Raising electrical circuits above ground floors
  - Suitable design of drainage schemes to accommodate storage and attenuation of surface water flows to reduce flow discharges at times of prolonged and heavy rainfall \ flood events
  - Groundwater management schemes incorporated within the proposals where appropriate to assist in the control of flooding.
- 3.68 Further consideration of flood alleviation works which would be required as part of any development of these sites is provided in Section 5 as part of detailed descriptions of the preferred options selected for each site.

### **Transportation, Access & Movement**

Overview of current conditions

- 3.69 This study has benefited from the works being undertaken by Mouchel on behalf of North Yorkshire County Council. Mouchel are presently preparing the Transport Strategy for Malton and Norton. A range of options are being considered that are set out below. These transport options are being assessed against developments proposed across the whole of Malton and Norton, not just the six sites of this study.
- 3.70 Malton and Norton suffer transportation issues similar to those of other market towns with narrow streets, space restricted junctions, a level crossing and, in addition, problems with access in and out of the towns from the A64. Development of the six

sites proposed in this study will lead to increased traffic movement and exacerbate these issues if improvements are not made.

### The Mouchel Study

3.71 At present the options under consideration within the Mouchel study are indicated within the table below:

Option	Detail
1	New Slip Road on A64 eastbound to Scarborough Road, Norton. This would provide an all-way junction to the east and allows traffic from Norton to access the eastbound A64 without having to travel through Malton.
2	New Roundabout to on A64 to provide all way turning movements between A64 and York Road. This would allow traffic to access the eastbound A64 from the western half of Malton.
3	New all movements grade separated junction connecting the A64 to the B1257 Broughton Road. This would allow access to the northern area of Malton and reduce the necessity to travel through Malton to gain access to the A64.
4	Option 3 plus a connector road to the Showfield Lane industrial estate.
5	New link road between Beverley Road and Norton Grove Industrial Estate. This would provide access to the south potentially a route to the east for traffic travelling north.
6	New link road between York Road and Welham Road Norton through the Woolgrowers site. This provides direct access to the west from Norton without the necessity to travel through Malton, thus reducing traffic flows at Butchers corner.
7	Options 2 and 6
8	Options 1, 2 and 3 plus reduction in capacity of Wheelgate (B1257) between junctions with Finkle Street and Butchers Corner.
9	Options 1, 2 and 3.
10	Options 1, 2, 3 and 4.
11	Options 1 and 5.
12	Options 1 and 5 plus HGV restrictions, except for access along Castlegate and Norton Road.
13	Options 2 and 6 plus HGV restriction except for access along Castlegate and Norton Road.
14	Option 3 plus HGV restriction, except for access, along Castlegate and Norton Road.
15	Options 3 and 6 plus HGV restriction, except for access, along Yorkersgate between Butchers Corner Junction and Horsemarket Road.
16	Options 1, 2 and 3 plus HGV restriction, except for access along Castlegate and Norton Road.
17	As option 12 but with one way system operating along Castlegate and Norton

	Road.
18	Options 1 and 3 plus HGV restriction except for access along Castlegate and Norton Road.

3.72 These options and the modelling of them is ongoing and the final transport schemes that come forward as a result of this modelling are yet to be determined. Although ongoing, this modelling has highlighted several general issues impacting upon the development of the six identified sites. These are discussed below.

### Junctions with the A64

- 3.73 The current layout of junctions with the A64 to both the east and west of the site means that traffic can only leave or join the road in one direction. The western junction only enables eastbound traffic to leave the A64 to enter Malton and traffic leaving Malton to join the A64 westbound. Similarly, the eastern junction only enables traffic to enter Norton if it is travelling westbound but join the A64 travelling eastbound or westbound. The implication of this, is that a great deal of traffic, particularly HGV traffic seeking to access Norton Industrial Estate, is forced through Malton town Centre and known traffic blackspots at Butcher Corner and the level crossing.
- 3.74 It is our view that the current access arrangements with the A64 are inadequate and certainly not sufficient to support the scale of development proposed within this study, in transportation terms. In order to enable the scale of development proposed, the improvement to the western A64 junction and its connection via a new link road to Norton are considered vital. In addition, a multi-directional junction to the east would enable HGV's accessing Norton Industrial Estate to avoid travelling through the town centre and traffic blackspots at Butcher Corner and the level crossing. Such improvements will provide direct benefits in terms of improved access to Norton and will reduce the number of journeys through the Malton road network.
- 3.75 The current lack of efficient access into and out of the twin towns, is holding back the development of Malton and Norton and makes them less attractive places in which to live, work and do business. Given the current emphasis placed on market towns as foci for new development, economic development and social/community life in rural areas by local regional and national planning and economic development policies and strategies, it is particularly important that this issue is resolved.

- 3.76 In order to facilitate the comprehensive development of the Woolgrowers site and accommodate additional traffic flows as a result of the development of other sites considered as part of this study a new road linking Norton to York Road is required. The significant challenge in delivering this scheme is the connection of the link road to the existing road network within Norton. Park Road is not considered to be a suitable link to take the potential traffic generated from the significant development of the Woolgrowers site and traffic from the link road, although some element of traffic taken from the development could be via this route.
- 3.77 It is considered that a new junction located within the Woolgrowers site is required. A preliminary new arrangement has been sketched that incorporates traffic control extending across the level crossing, a new alignment of Welham Road and construction of a new junction generally within the area of the Woolgrowers Site (see overleaf). It is considered appropriate to take this preliminary layout forward through discussion with all parties including North Yorkshire County Council, Railway Inspectorate and Mouchel in order to assess options and the implications and feasibility of this junction layout.

### Contamination

3.78 Contamination issues are addressed in Section 5 as part of detailed descriptions of the preferred options selected for each site.