Scoring Matrix

Group	Discipline			Constraint	Weighting		Route Option				
							Blue	Green	Red	Purple	Pink
Engineering Assessment incorporating Scheme Costs	Geotechnics			Contamination impact from Pre-Cast Concrete Site	1.0		52.0	63.0	30.0	45.0	43.0
				Construction Impacts on or near Water Courses	1.0		46.0	70.0	71.0	50.0	74.0
				Shallow Bedrock resulting in additional excavation cost	2.0		62.0	61.0	54.0	49.0	42.0
				Crossing Soft Ground-Peat/Alluvium	3.0		60.0	63.0	70.0	60.0	59.0
				Soft Ground (Weathered Till), resulting in poor earthwork stability and limited potential for re-use. (Scores reflect route length)	3.0		51.0	59.0	75.0	67.0	67.0
				Constrained land take requires retaining structures	3.0		79.0	58.0	52.0	36.0	31.0
				Limit the potential need for additional retaining structures to minimise land take in development areas	3.0		65.0	65.0	52.0	40.0	35.0
				Drumlin land scape affect on earthworks	4.0		57.0	52.0	66.0	44.0	38.0
				Areas of potentially contaminated land	5.0		64.0	58.0	53.0	50.0	52.0
					25.0	***TOTAL***	1535.0	1488.0	1485.0	1228.0	1189.0
	Drainage			Impact of road runoff	2.0		43.0	46.0	60.0	58.0	74.0
				Flood compensation required	4.5		62.0	81.0	61.0	45.0	46.0
				Watercourse crossings	2.0		45.0	69.0	47.0	59.0	58.0
				Drainage requirements	2.0		41.0	45.0	65.0	54.0	77.0
				N.Ireland Water infrastructure	2.0		73.0	48.0	45.0	47.0	48.0
					12.5	***TOTAL***	679.0	778.5	706.5	640.5	723.0
	Highways	Engineering	*General*	Alignment Constraints	12.0		88.0	52.0	52.0	42.0	38.0
				Services	2.0		56.0	56.0	70.0	45.0	50.0
				Junctions	3.0		74.0	56.0	56.0	54.0	37.0
				Buildability	8.0		87.0	63.0	67.0	62.0	35.0
					25.0	***SUB-TOTAL***	2086.0	1408.0	1468.0	1252.0	947.0
			Structures	Structures Required	12.5		68.0	54.0	63.0	34.0	45.0
					12.5	***SUB-TOTAL***	800.0	637.5	750.0	412.5	537.5
		Const. Costs		Construction Cost	12.5		44.0	58.0	27.0	78.0	71.0
					12.5	***SUB-TOTAL***	550.0	725.0	337.5	975.0	887.5
					50.0	***TOTAL***	3341.0	2700.5	2465.5	2589.5	2330.0
	Land	Ownership Constraints	*Land Ownership*	Impact on Residental	4.0		91.0	65.0	52.0	61.0	42.0
				Impact on Agricultural Holdings	3.0		34.0	70.0	69.0	78.0	84.0
				Impact on Industrial	3.0		58.0	56.0	60.0	40.0	35.0
				Landowner Resistance	5.0		84.0	68.0	60.0	68.0	48.0
					15.0	***SUB-TOTAL***	1060.0	978.0	895.0	938.0	765.0
			Accommodation Works	Severance	5.0		51.0	69.0	67.0	77.0	78.0
				Cost of Acc. Works	5.0		80.0	64.0	58.0	61.0	58.0
					10.0	***SUB-TOTAL***	640.0	640.0	595.0	645.0	630.0
		Land and Compensation Costs		Land and Compensation Costs	12.5		95.0	57.0	36.0	63.0	34.0
					12.5	***SUB-TOTAL***	1187.5	712.5	450.0	787.5	425.0
					37.5	***TOTAL***	2851.5	2284.5	1903.0	2314.5	1765.0
Engineering Assessment incorporating Scheme Costs Total					***125.0***	***TOTAL***	***8520.0***	***7372.5***	***6664.5***	***6898.5***	***6149.5***
Traffic Assessment	Traffic			Relief of congestion on A31 Magherafelt	20.0		63.0	59.0	64.0	54.0	33.0
				Provides Benefit for strategic traffic	20.0		72.0	52.0	60.0	48.0	26.0
				Reliability of the network	5.0		56.0	36.0	50.0	41.0	28.0
				Accident benefits	10.0		45.0	52.0	68.0	60.0	28.0
				Integration to Regional/National transport link	5.0		57.0	53.0	48.0	46.0	24.0
				Benefits to Cost Ratio (BCR)	15.0		70.0	58.0	25.0	77.0	37.0
Traffic Assessment Total					***75.0***	***TOTAL***	***4765.0***	***4055.0***	***4025.0***	***4230.0***	***2275.0***
Environmental Assessment	Environmental			Impact on cultural heritage designations	10.0		30.0	41.0	43.0	85.0	40.0
				Impact on known archaeological features	7.0		28.0	45.0	54.0	56.0	39.0
				Impact on existing planting (woodland / hedgerows)	13.0		42.0	68.0	59.0	54.0	50.0
				Impact on existing landform	5.0		69.0	62.0	71.0	69.0	52.0
				Impact on areas of sensitive habitat	9.0		38.0	61.0	62.0	79.0	56.0
				Impact on areas of faunal interest	9.0		37.0	60.0	62.0	73.0	53.0
				Proximity to settlement (indicator of air / noise / visual impacts)	30.0		95.0	65.0	62.0	42.0	30.0
				Impact on land use (severance / landtake / amenity)	12.0		87.0	64.0	61.0	44.0	39.0
				Impact on watercourses and water quality	5.0		45.0	66.0	67.0	65.0	56.0
Environmental Assessment Total					***100.0***	***TOTAL***	***6181.0***	***6056.0***	***5973.0***	***5770.0***	***4212.0***

	Route Option				
	Blue	Green	Red	Purple	Pink
Assessment Grand Total	***19466.0***	***17483.5***	***16662.5***	***16898.5***	***12636.5***

A low score is the most favourable on this sheet

Scoring		
	5	**Very High**
	4	**High**
	3	**Medium**
	2	**Low**
	1	**Very Low**

worst ← → best

Blue	Green	Purple	Red	Pink
8520.0	***7372.5***	***6898.5***	***6664.5***	***6149.5***

worst ← → best

Blue	Purple	Green	Red	Pink
4765.0	***4230.0***	***4055.0***	***4025.0***	***2275.0***

worst ← → best

Blue	Green	Red	Purple	Pink
6181.0	***6056.0***	***5973.0***	***5770.0***	***4212.0***

worst ← → best

Blue	Green	Purple	Red	Pink
19466.0	***17483.5***	***16898.5***	***16662.5***	***12636.5***

			MEAN				
			Route Option				
			Blue	Green	Red	Purple	Pink
Geotechnics			76.8	78.3	78.2	64.6	59.5
Drainage			34.0	38.9	35.3	32.0	36.2
Highways	Engineering	*General*	99.6	66.9	68.9	60.1	45.3
		Structures	40.0	31.9	37.5	20.6	26.9
	Construction Costs		27.5	36.3	16.9	48.8	44.4
Highways Total			167.1	135.0	123.3	129.5	116.5
Land	Ownership Constraints	Land Ownership	53.0	48.9	44.8	46.9	38.3
		Accommodation Works	32.8	33.3	31.3	34.5	34.0
	Land and Compensation Costs		62.5	38.1	24.4	40.6	23.1
Land Total			148.3	120.3	100.4	122.0	95.4
Engineering Assessment Total			426.0	368.6	333.2	344.9	307.5
Traffic Assessment Total			238.3	202.8	201.3	211.5	113.8
Environmental Assessment Total			309.1	302.8	298.7	288.5	210.6
Assessment Grand Total			973.3	874.2	833.1	844.9	631.8

worst ← → best

Blue	Green	Red	Purple	Pink
973.3	874.2	844.9	833.1	631.8

			MEDIAN				
			Route Option				
			Blue	Green	Red	Purple	Pink
Geotechnics			83.0	78.5	74.5	61.0	60.5
Drainage			34.0	38.0	34.8	31.3	35.0
Highways	Engineering	*General*	103.5	65.0	65.0	56.0	42.0
		Structures	37.5	37.5	37.5	18.8	25.0
	Construction Costs		25.0	37.5	12.5	50.0	50.0
Highways Total			180.8	137.8	129.8	124.5	116.5
Land	Ownership Constraints	Land Ownership	55.0	49.0	45.0	45.5	40.0
		Accommodation Works	32.5	35.0	30.0	35.0	35.0
	Land and Compensation Costs		62.5	37.5	25.0	37.5	25.0
Land Total			146.5	117.3	96.0	124.5	94.5
Engineering Assessment Total			437.5	372.3	339.8	343.0	312.3
Traffic Assessment Total			247.5	197.5	195.0	207.5	105.0
Environmental Assessment Total			311.5	308.5	299.5	288.5	222.0
Assessment Grand Total			1006.0	886.8	852.0	833.0	655.5

worst ← → best

Blue	Green	Purple	Red	Pink
1006.0	886.8	852.0	833.0	655.5

			EXPERT				
			Route Option				
			Blue	Green	Red	Purple	Pink
Geotechnics			79.0	64.0	78.0	52.0	61.0
Drainage			19.0	31.5	29.0	22.5	28.5
Highways	Engineering	*General*	72.0	76.0	82.0	68.0	56.0
		Structures	50.0	37.5	37.5	37.5	25.0
	Construction Costs		25.0	37.5	12.5	50.0	50.0
Highways Total			147.0	151.0	132.0	155.5	131.0
Land	Ownership Constraints	Land Ownership	49.0	48.0	41.0	36.0	36.0
		Accommodation Works	10.0	40.0	30.0	40.0	40.0
	Land and Compensation Costs		62.5	37.5	25.0	37.5	25.0
Land Total			121.5	125.5	96.0	113.5	101.0
Engineering Assessment Total			357.5	340.0	314.5	370.5	313.5
Traffic Assessment Total			315.0	300.0	245.0	220.0	135.0
Environmental Assessment Total			308.0	324.0	293.0	285.0	275.0
Assessment Grand Total			980.5	964.0	862.5	915.5	723.5

worst ← → best

Blue	Green	Red	Purple	Pink
980.5	964.0	915.5	862.5	723.5

	Blue	Green	Red	Purple	Pink
Engineering Assessment Total	1	0	3	1	15
Traffic Assessment Total	1	1	0	0	18
Environmental Assessment Total	0	0	0	0	20
Assessment Grand Total	0	0	0	0	20

Blue	Green	Red	Purple	Pink
5%	0%	15%	5%	75%
5%	5%	0%	0%	90%
0%	0%	0%	0%	100%
0%	0%	0%	0%	100%

ROADS Service

mouchelparkman

A31 Magherafelt Bypass

Public Consultation Day
24th October 2007

Exhibition of Proposed Route Corridors

An Agency within the Department for Regional Development
www.drdni.gov.uk

INVESTOR IN PEOPLE

INTRODUCTION

Roads Service Western Division have commissioned Mouchel Parkman to progress the design of the A31 Magherafelt Bypass. The existing A31 trunk road passes directly through Magherafelt where narrow streets and multiple junctions cause the high volume of traffic to become congested to the detriment of both the local and wider community. The bypass is proposed to relieve congestion in the town, improve the quality of life for residents and improve journey travel times for strategic traffic along the A31 corridor.

Proposals for the A31 Magherafelt Bypass were first included in the 1976 - 1996 Magherafelt Area Plan. This proposed route was accepted subject to landscaping and provision of a safe means of access to the Ballyronan Playing Fields. A section of this route, Meadowbank Road, was constructed approximately 20 years ago by a private developer in order to facilitate access to housing.

This historical route is included in the Magherafelt Area Plan 2015 - Draft Plan and the Regional Strategic Transport Network - Transport Plan (RSTN-TP) 2015. Within the RSTN-TP 2015 the A31 between Castledawson and Moneymore has been classified as a Trunk Road.

The current and planned development of the town, the location of environmentally sensitive areas such as woodland or streams and the geology and terrain were considered for a large study area around the town of Magherafelt to the east and west.

- The Eastern Corridor offers the best options for improvement strategies that hug the town closely and alternatives that extend out beyond the ribbon development and industry, while an extension north of the Eastern Corridor allows the possibility of a link to the A6 and improvements to the A31 Castledawson Road.
- The Western Corridor offers little scope for an improvement strategy that hugs the town boundary due to the hilly terrain and existing development. Alternatives to the west that extend out beyond the town would have a major impact on the landscape and environment due to the need for large rock cuttings, particularly at Mullaghboy Hill.

It was concluded that the Eastern Corridor would be considered further.

Three route corridors have been identified within the Eastern Corridor. The route corridors proposed have been developed based on minimising the impact on the local environment and the community during both the construction of any works and the lifetime of the new road.

The route corridors shown in this brochure illustrate a range of options for the proposed A31 bypass and are aimed at encouraging public feedback.

Within the reduced study area, combinations of any or all of the route corridors shown may be investigated and developed further.

Roads Service wish to consider all viewpoints during the selection process of the project. Accordingly, members of the public and all interested parties are invited to give their opinions on the route corridors shown.

There will be a further exhibition once the Preferred Route Corridor is selected.

PLEASE NOTE: If you live, or your property is located anywhere within the study area, then you may still be affected by the project proposals.

SCHEME OBJECTIVES

The objectives for the A31 Magherafelt Bypass:

- To improve road safety
- To relieve traffic congestion within Magherafelt
- To improve the quality of life for residents
- To reduce journey travel times along the A31 corridor
- To improve the road network between the north and south of the Province
- To minimise the impact on the natural and built environment

ROUTE CORRIDOR OPTIONS

Three route corridor options are being considered at this stage;

THE BLUE ROUTE CORRIDOR (AREA PLAN ROUTE);

Commences at the southern end of Magherafelt on the A31 Moneymore Road opposite Coolshinney Road and extends to the east of the town settlement, crossing Killyfaddy Road. The route corridor then links into Meadowbank Road as indicated in the Area Plan, this section is heavily constrained due to residential properties and the Meadowbank Sports Complex. The route corridor then crosses Ballyronan Road and continues north on a left hand curve, to meet Aughrim Road. It then extends north west towards the A31 Castledawson Road, crossing Pound Road and terminating just north of the existing A31 junction with Pound Road, close to Sperrin Integrated College.

The Blue Route Corridor is approximately 3.4km long.

THE PURPLE ROUTE CORRIDOR;

This begins similar to the Blue Route Corridor on the A31 Moneymore Road opposite Coolshinney Road and extends easterly towards Killyfaddy Road. It continues in a north-easterly direction towards Ballyronan Road south of the golf club and concrete works. The route corridor then crosses Loves Road through to Aughrim Road. It then extends north-westerly to the A31 Castledawson Road south of the Polepatrick Cemetery.

The Purple Route Corridor is approximately 5km long.

THE PINK ROUTE CORRIDOR;

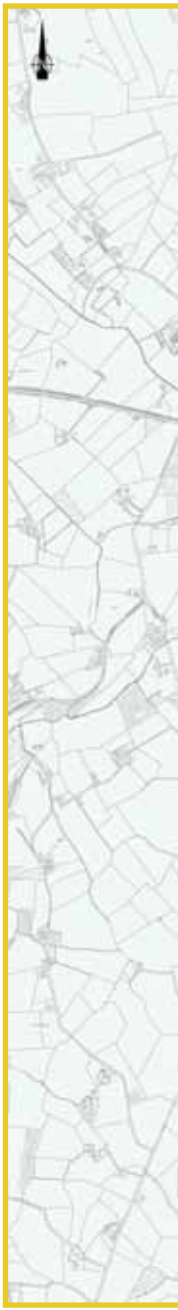
Begins on Moneymore Road, south of Ballymoghan Road and sweeps in a wide loop around the east of Magherafelt, crossing Ballymoghan Road, running north of Killowen Hill. The route crosses Killyfaddy Road just south of the Ballymoghan Drain and crosses Ballyronan Road just north of the overhead power lines. It extends north-easterly on a left hand curve crossing Loves Road and Aughrim Road. It then continues north crossing Killyneese Road west of the sewage works terminating at the A6 Castledawson Roundabout.

The Pink Route Corridor is approximately 6.2km long.

THE THREE PROPOSED ROUTE CORRIDORS

The illustration shown, details the three route corridors that have been proposed for the A31 Magherafelt Bypass.

- THE BLUE ROUTE CORRIDOR (AREA PLAN ROUTE)
- THE PURPLE ROUTE CORRIDOR
- THE PINK ROUTE CORRIDOR



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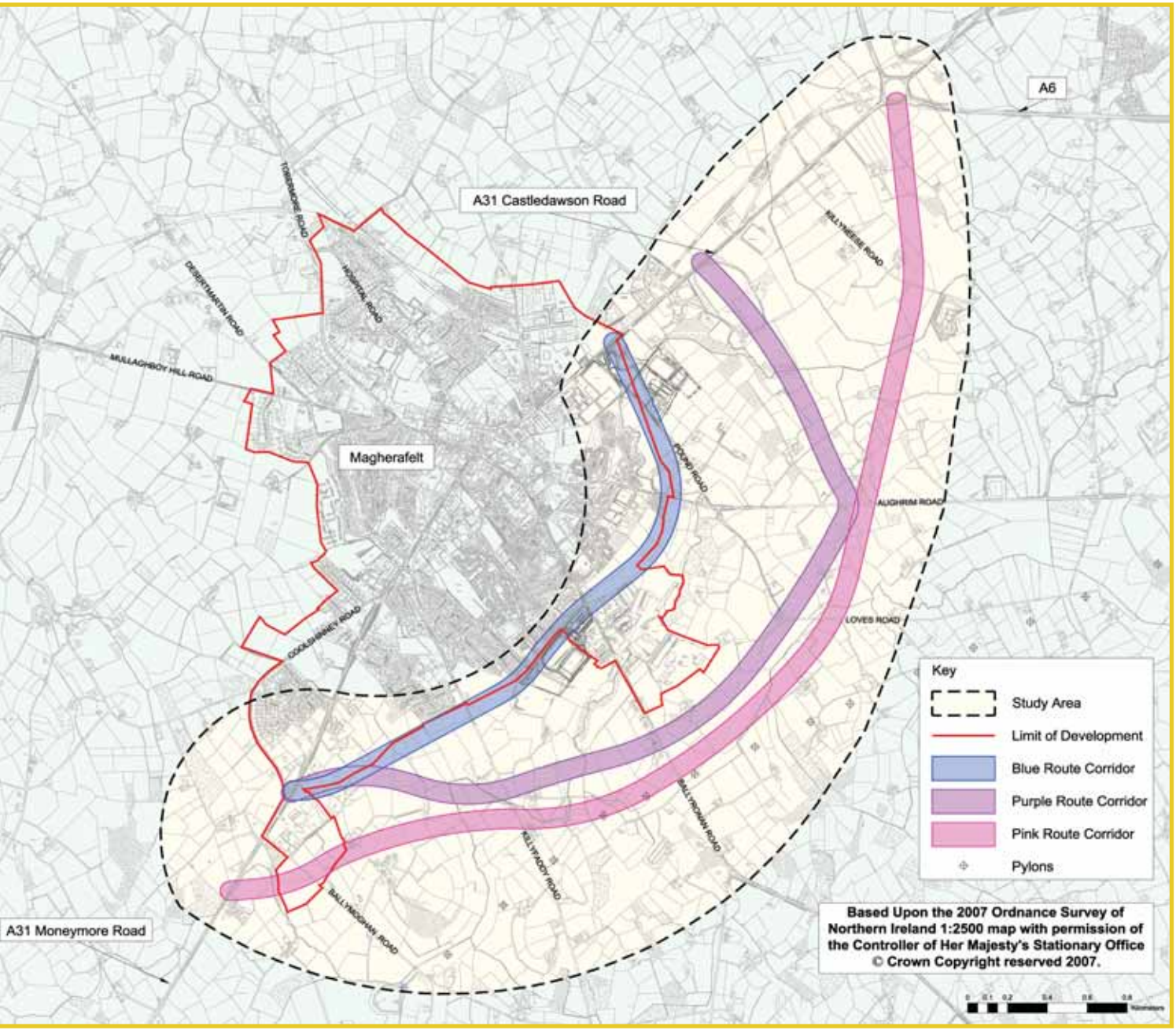
A6
A31 Castledawson Road
Magherafelt
A31 Moneymore Road
TOBERMORE ROAD
HOSPITAL ROAD
DESERTMARTIN ROAD
MULLAGHBOY HILL ROAD
COOLSHINNEY ROAD
KILLYMEESE ROAD
ECCLES ROAD
ALGHRIM ROAD
LOVES ROAD
BALLYNORMAN ROAD
KILLYVALLY ROAD
BALLYMACOMAN ROAD
Key
Study Area
Limit of Development
Blue Route Corridor
Purple Route Corridor
Pink Route Corridor
Pylons
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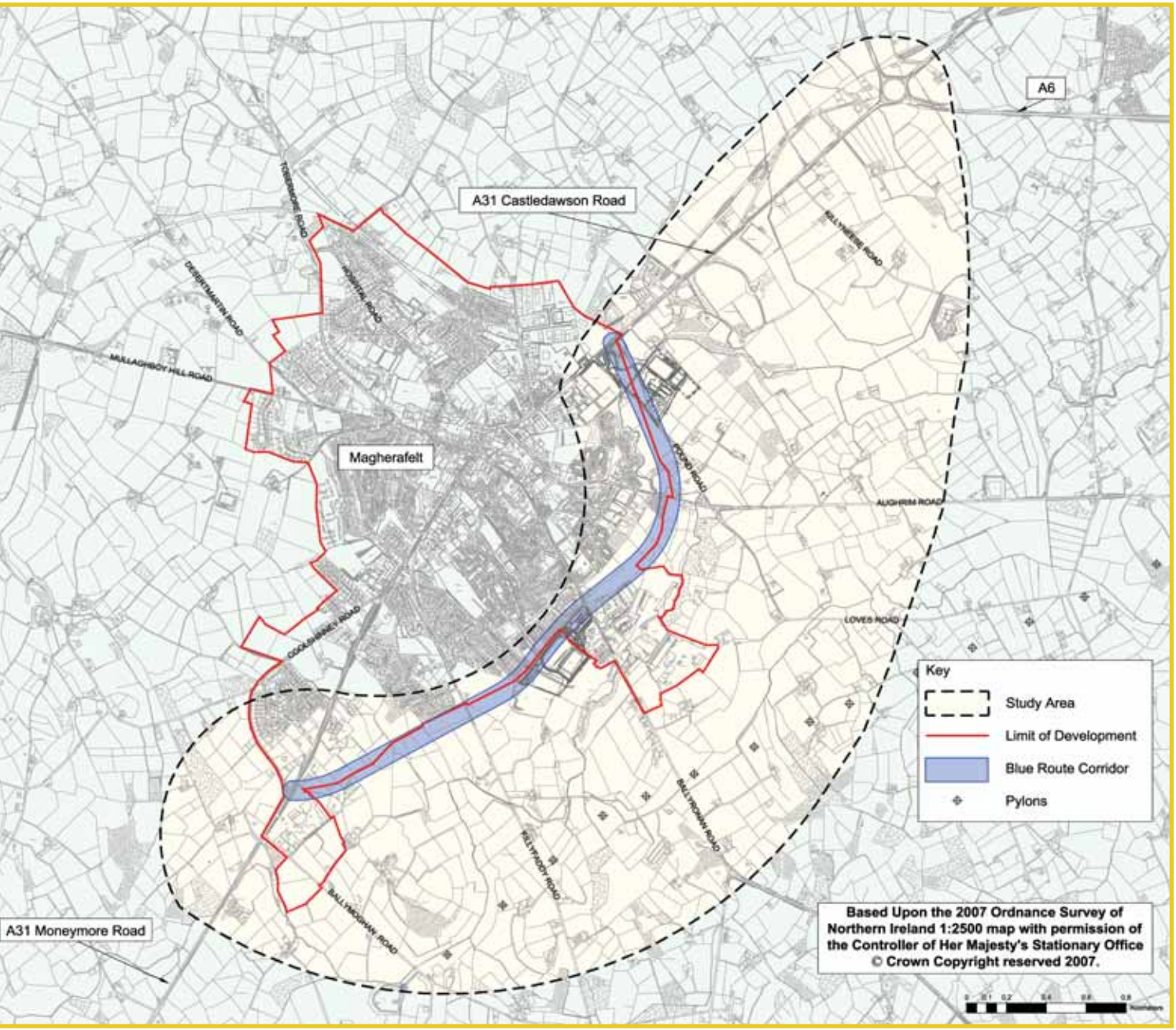
BLUE ROUTE CORRIDOR

KEY FEATURES

- Design speed limit 50mph, reduced to 30mph on Meadowbank Road.
- Potential for provision of footways and cycleways.
- Will provide good access links to town facilities.
- Route proposed in the draft Area Plan 2015.
- Utilises part of the existing road infrastructure at Meadowbank Road.
- Route passes through low-lying waterlogged ground and passes through Killyfaddy Hill.
- Passes at close proximity to dwellings, between the main settlement along Meadowbank Road and industrial and community facilities such as Meadowbank Sports Complex, Kilronan School and Sperrin College.
- Possibly affecting residential properties on Aughrim Road and Pound Road.

PLEASE NOTE: If you live, or your property is located anywhere within the study area, then you may still be affected by the project proposals.


A6
A31 Castledawson Road
Magherafelt
A31 Moneymore Road
TOBERMORE ROAD
DESERTMARTIN ROAD
HOSPITAL ROAD
MULLAGHBOY HILL ROAD
KILLYNEESE ROAD
FOVORD ROAD
ALGHRIM ROAD
LOVES ROAD
COOLSHINNEY ROAD
BALLYMAGHAN ROAD
KILLYMOON ROAD
BALLYRONAN ROAD
Key
Study Area
Limit of Development
Blue Route Corridor
Pylons
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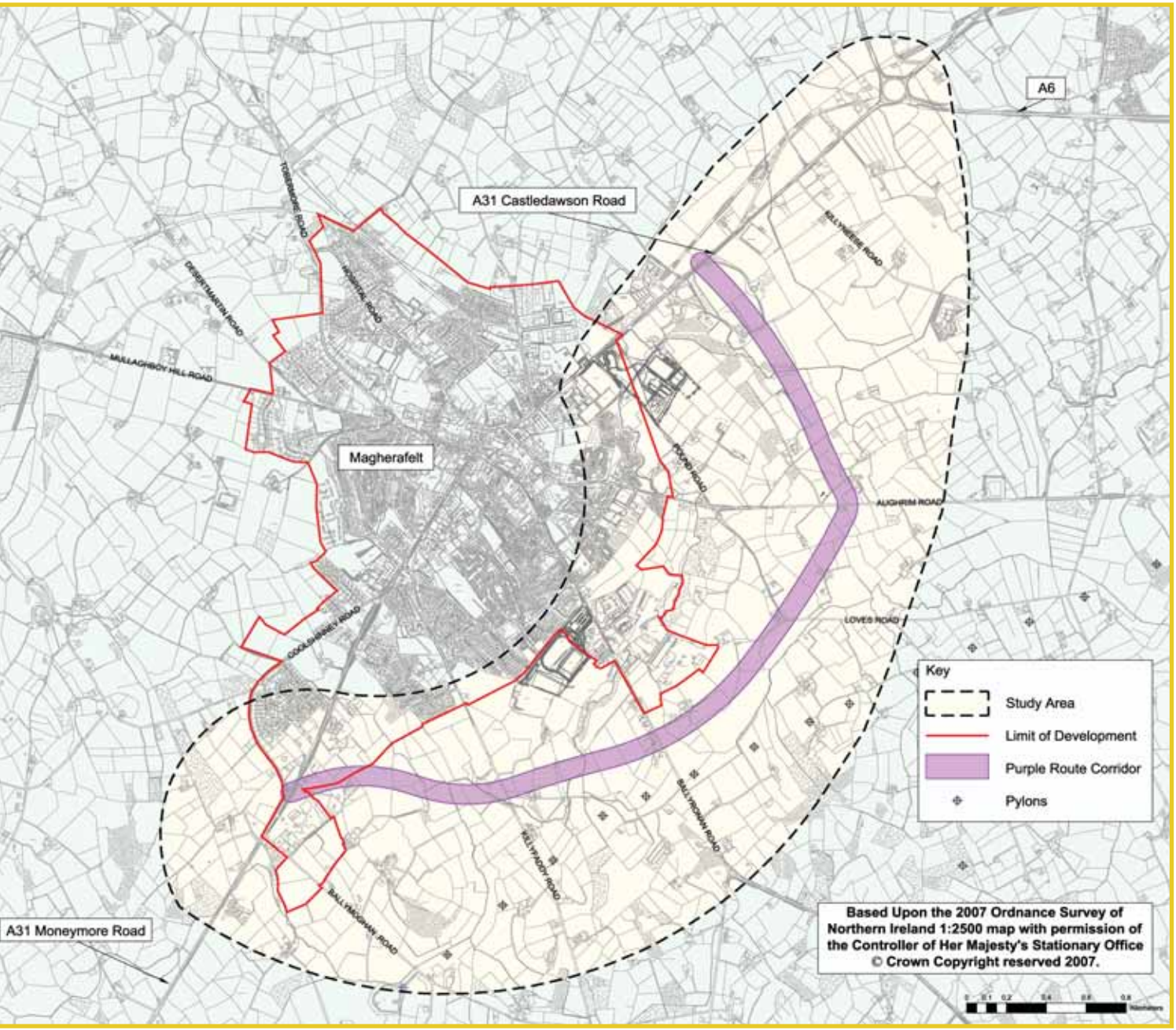
PURPLE ROUTE CORRIDOR

KEY FEATURES

- Design speed limit 60mph.
- Reduced noise and improved air quality to Magherafelt town.
- Avoids large drumlins and wooded areas.
- Passes outside the main settlement area, industrial facilities and community facilities.
- Severance to farm holdings.
- Passes through soft and compressible ground and areas of low lying waterlogged ground.
- Route corridor passes close to listed property.
- Affects properties on Ballyronan Road, Loves Road and Aughrim Road.

PLEASE NOTE: If you live, or your property is located anywhere within the study area, then you may still be affected by the project proposals.


A6
A31 Castledawson Road
TOBERMORE ROAD
DESERTMARTIN ROAD
HOSPITAL ROAD
MULLAGHBOY HILL ROAD
Magherafelt
KILLYNEESE ROAD
FOLDRD ROAD
ALGHRIM ROAD
LOVES ROAD
COOLSHINNEY ROAD
BALLYRONAN ROAD
KILLYHADDY ROAD
BALLYMAGHAN ROAD
A31 Moneymore Road
Key
Study Area
Limit of Development
Purple Route Corridor
Pylons
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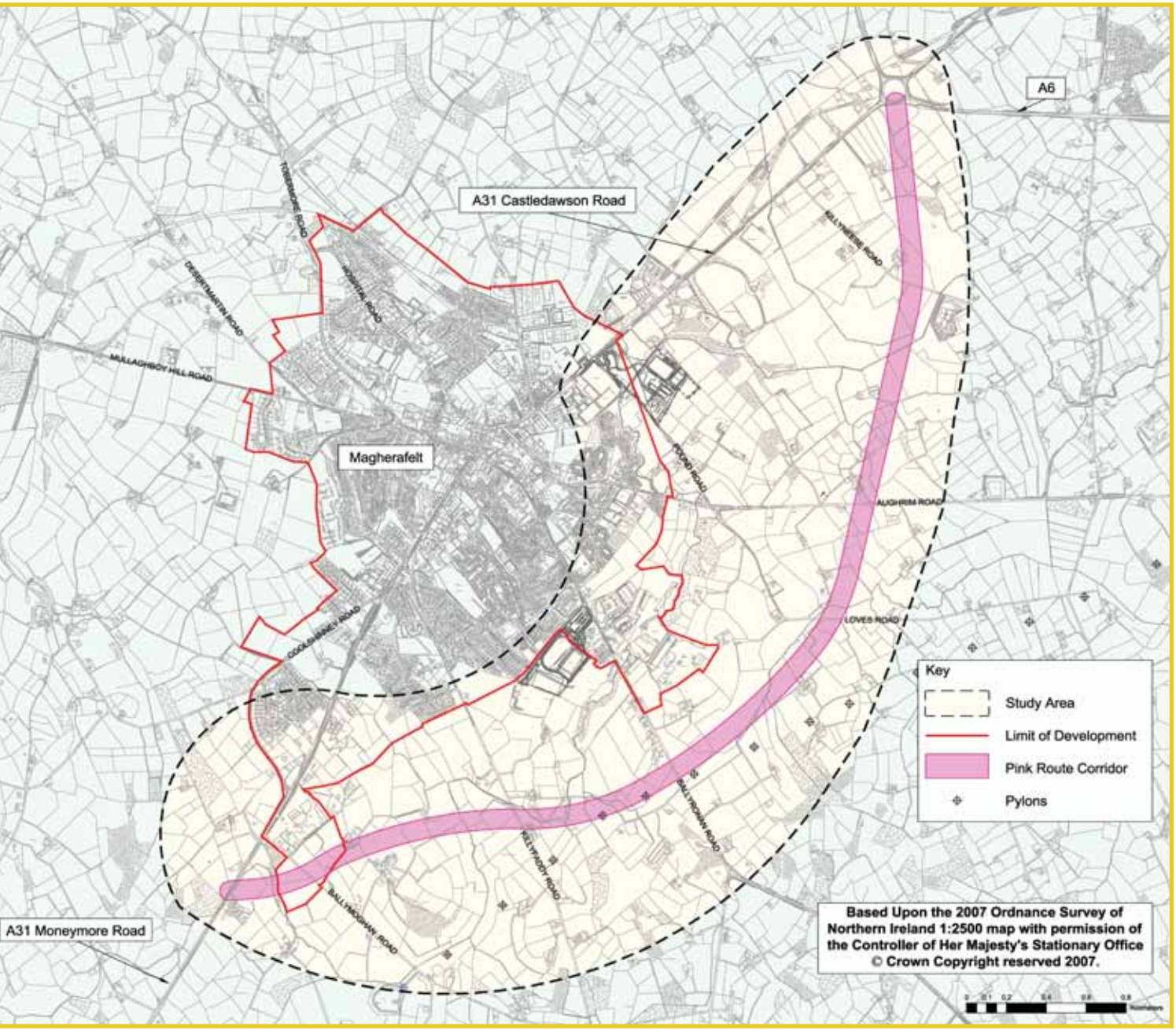
PINK ROUTE CORRIDOR

KEY FEATURES

- Design speed limit 60mph.
- Links; from south of Magherafelt directly to or near Castledawson roundabout and the A6.
- Passes outside the main settlement area, industrial facilities and community facilities.
- Reduced noise and improved air quality to Magherafelt town.
- Severance to farm holdings.
- Passes over Killowen Hill and Farm Hill.
- Passes through soft and compressible ground and areas of low lying waterlogged ground.
- Possibly affecting properties on Killyfaddy Road, Loves Road, Aughrim Road and Killyneese Road.

PLEASE NOTE: If you live, or your property is located anywhere within the study area, then you may still be affected by the project proposals.


A6
A31 Castledawson Road
Magherafelt
A31 Moneymore Road
TOBERMORE ROAD
DESERTMARTIN ROAD
HOSPITAL ROAD
MULLAGHBOY HILL ROAD
KILLYNEESE ROAD
FOVARD ROAD
ALGHRIM ROAD
LOVES ROAD
COOLSHINNEY ROAD
BALLYMAGHAN ROAD
KILLYMUDDY ROAD
BALLYRONAN ROAD
Key
Study Area
Limit of Development
Pink Route Corridor
Pylons
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THE ASSESSMENT PROCESS

GEOTECHNICAL ASSESSMENT

Geological processes determine the nature and physical characteristics of soils and rocks. Geotechnical Investigations are planned to determine the exact nature of the geology within the study area. These include the depth of different types of material and its characteristics. The preliminary information will be used to help select a preferred route corridor while more detailed information will be used to design the foundation for the road, any structures, and the angle of a safe slope for potential cuttings and embankments on the Preferred Route.

DRAINAGE ASSESSMENT

Ongoing drainage assessment will gather information regarding watercourses and 'northern ireland water' infrastructure to determine the potential drainage constraints associated with road/land drainage and flood plains within the study area that could affect the proposed scheme.

CONTACT WITH LANDOWNERS

Roads Service Lands Branch in conjunction with the LandAspects team will be acting as the contact point between the project team and the affected parties, visiting properties within the study area.

Both teams will be collating land information and endeavouring to keep relevant parties updated in the project process.

Your views are important. You can assist the design team by bringing to our attention any information that you may think should be considered in the development of any proposals.

TRAFFIC AND ECONOMIC ASSESSMENT

Analysis of traffic accident statistics has been undertaken to help identify local factors influencing road safety. These statistics will also be used in traffic modelling to establish key route corridor statistics.

Roadside interview, journey time & traffic surveys have been undertaken to establish travel patterns within and across the Magherafelt area. Traffic counts have been collected to establish traffic volumes and the types of vehicles on the road network surrounding Magherafelt.

Detailed analysis, including computer modelling, is currently being undertaken to quantify the economic benefits of alternative route options and to assist in the future development of junction design proposals.

ENVIRONMENTAL ASSESSMENT

Ongoing environmental assessment will gather information regarding environmental issues to determine the potential environmental constraints and impacts within the study area that could affect the proposed scheme. Initial investigations have taken place to ascertain;

- Landscape & Visual: records have been taken on the type of landscape that is present within the study area taking into consideration irregular field shapes and sizes and the quantity of hedgerows.
- Ecology: preliminary sites of ecological value have been determined within the study area from desktop analysis and initial site surveys. Further detailed site surveys will be undertaken over the next few months.

- Archaeology: sites of archaeological, industrial archaeology and cultural heritage importance have been identified within the study area. Detailed surveys are ongoing.
- Hydrology & Geology: the study area has been observed for watercourses thought to be of hydrological importance. The geology and the quality of soil types within the study area will also be assessed.

An investigation into features of land use and potential air quality and noise constraints will also be undertaken and any particular human environment constraints will be taken into account. Relevant planning policy constraints will also be considered.

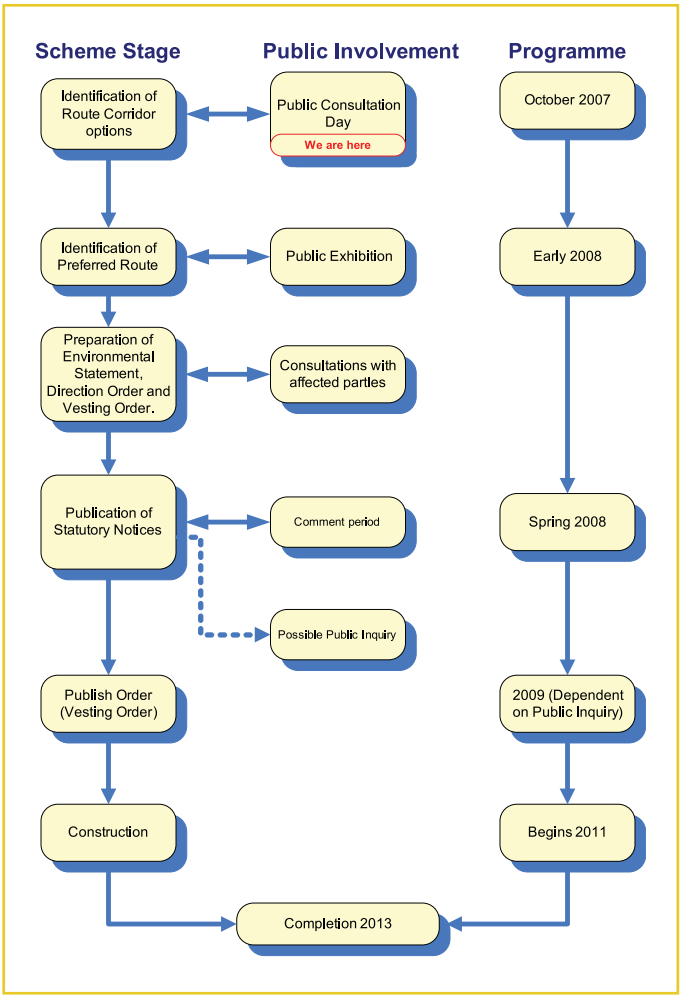
ENGINEERING ASSESSMENT

The engineering assessment will continue to develop the proposed alignments in light of the information and constraints gathered in order to develop practical engineering solutions to the road design issues. The alignment developed will balance the impact on the environment, the community and farmland, make best use of the terrain and geology, while optimising the benefits to traffic and non-motorised users to ensure that safe and efficient proposals are developed.

To gather and collate this information, further site surveys including walkover studies and geotechnical investigations will be carried out in the forthcoming months.

We are grateful for your ongoing cooperation with these studies.

SCHEME TIMETABLE



Roads Service is an Executive Agency within the Department for Regional Development. It is responsible for managing a safe, efficient and environmentally acceptable road network in Northern Ireland.

YOUR VIEWS ARE IMPORTANT TO US

COMMENTING ON THE PROPOSALS

- Your views, together with those provided by other Statutory Consultees, are important to us. They will be carefully considered during the development of the proposals by Roads Service.
- Please ensure you have signed our Consultation Day register and feel free to discuss the proposals with any member of the team. We also have a one-to-one area for those who wish to talk in private. Your views will be noted for future reference.
- You are also invited to complete a questionnaire, available at this event. The completed form can then be placed in the box provided or sent to the addresses to the right.

Roads Service Lands Branch in conjunction with the LandAspects team *(a specialist Land Referencing and Landowners Liaison Division of Mouchel Parkman)* will be acting as a point of contact between the project team and parties collating land information, visiting properties and endeavouring to keep relevant parties updated.

PLEASE NOTE: The proposed designs as illustrated on the maps within are subject to further development. If you live or your property is located anywhere within the study area, then you may still be affected bt the project proposals.

Roads Service Lands Branch
Boaz House
Scarffes Entry
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BT79 1JB

Tel: **028 8225 4796**
Fax: **028 8225 4797**

LandAspects
C.O. / Mouchel Parkman
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30 Kinnegar Drive
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Tel: **028 9042 4117**
Fax: **028 9042 7039**
E-mail: **enquiries@landaspects.com**

Should you require this document in an accessible format e.g. Braille, audio-cassette, minority ethnic language etc, please contact either of the addresses above.

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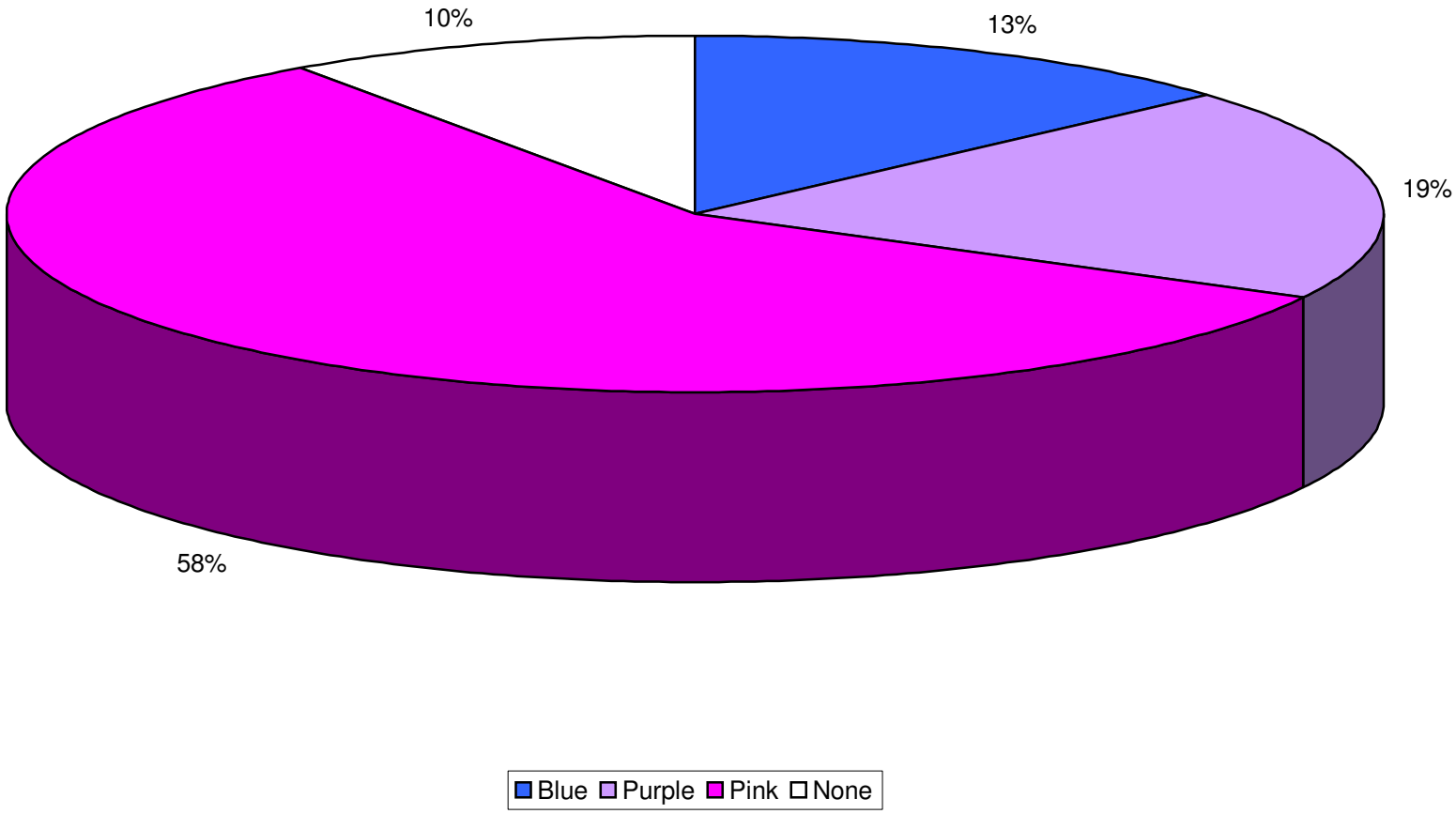
		Preferred Route Corridor				
Live Within		Blue	Purple	Pink	None	
Blue	52	7	10	30	5	52
Purple	32	5	2	20	5	32
Pink	32	8	2	19	3	32
Study Area	21	3	4	11	3	21
	137	23	18	80	16	137

		Preferred Route Corridor				
Live Within		Blue	Purple	Pink	None	
Blue	38%	5%	7%	22%	4%	38%
Purple	23%	4%	1%	15%	4%	23%
Pink	23%	6%	1%	14%	2%	23%
Study Area	15%	2%	3%	8%	2%	15%
		17%	13%	58%	12%	100%

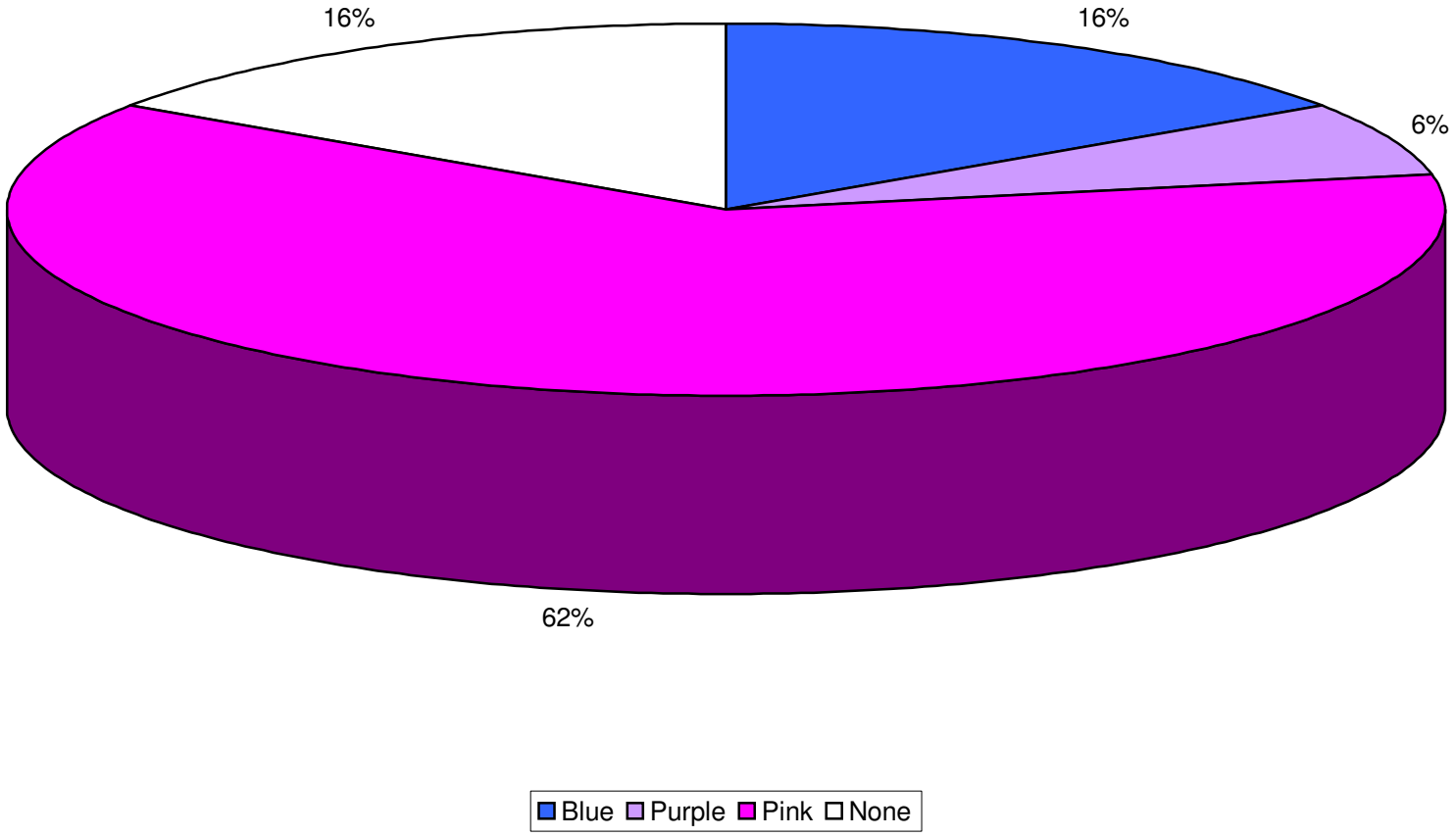
Assumptions:

1. If someone is affected by multiple route corridors then their preference is counted within each route which affects them
   e.g. affected by the Blue and Pink and prefer Pink, then they are counted as two people;
   one that lives in the Blue and prefers Pink and one that lives in the Pink and prefers the Pink
2. Only the people within the study areas preferences have been counted
3. If someone has given two preferences each has been counted separately, this happened on 3 occasions
   i.e. either route than the one I live on

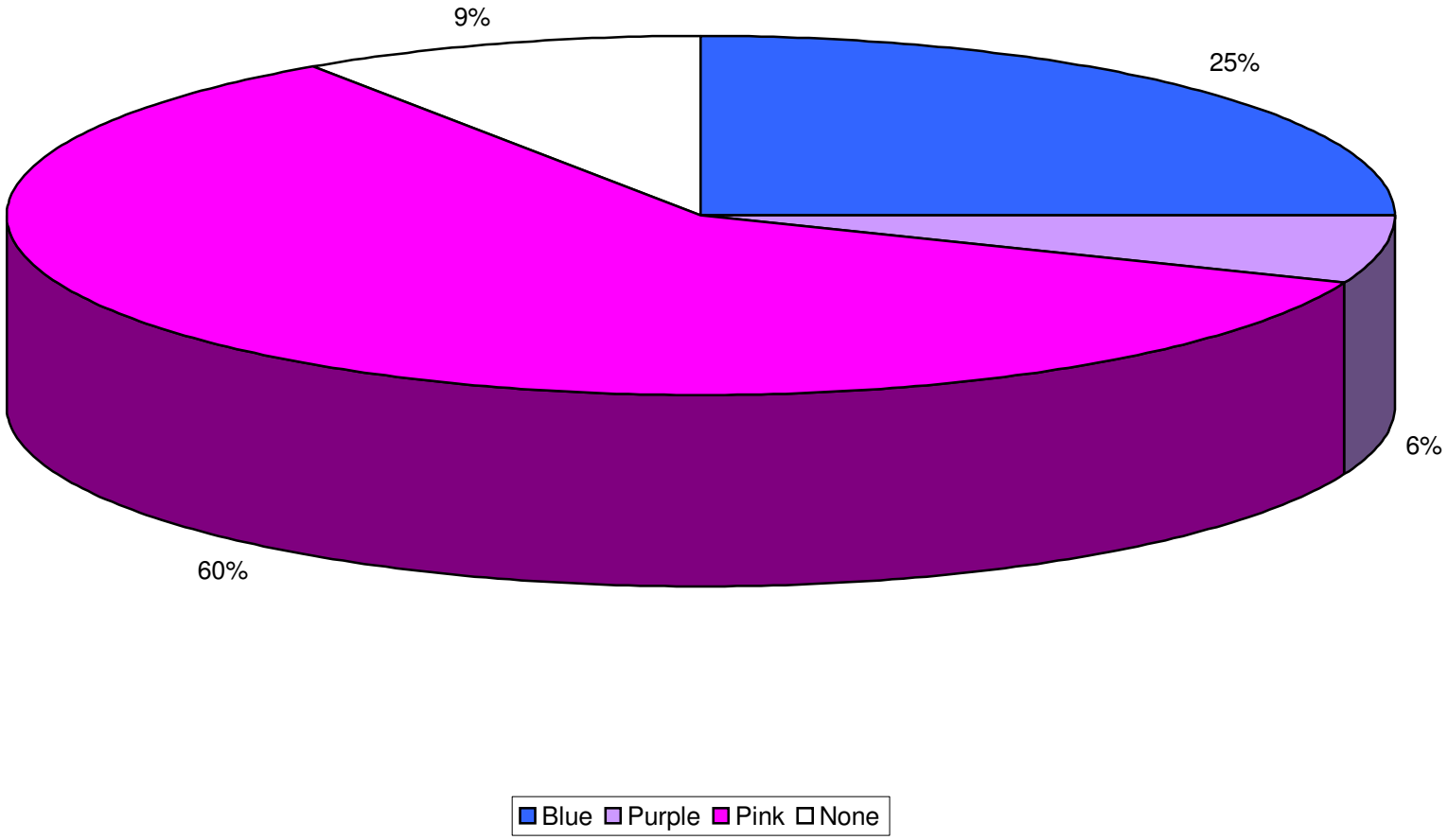
Those Affected by the Blue Route Corridors' ~ Preferred Route Corridor



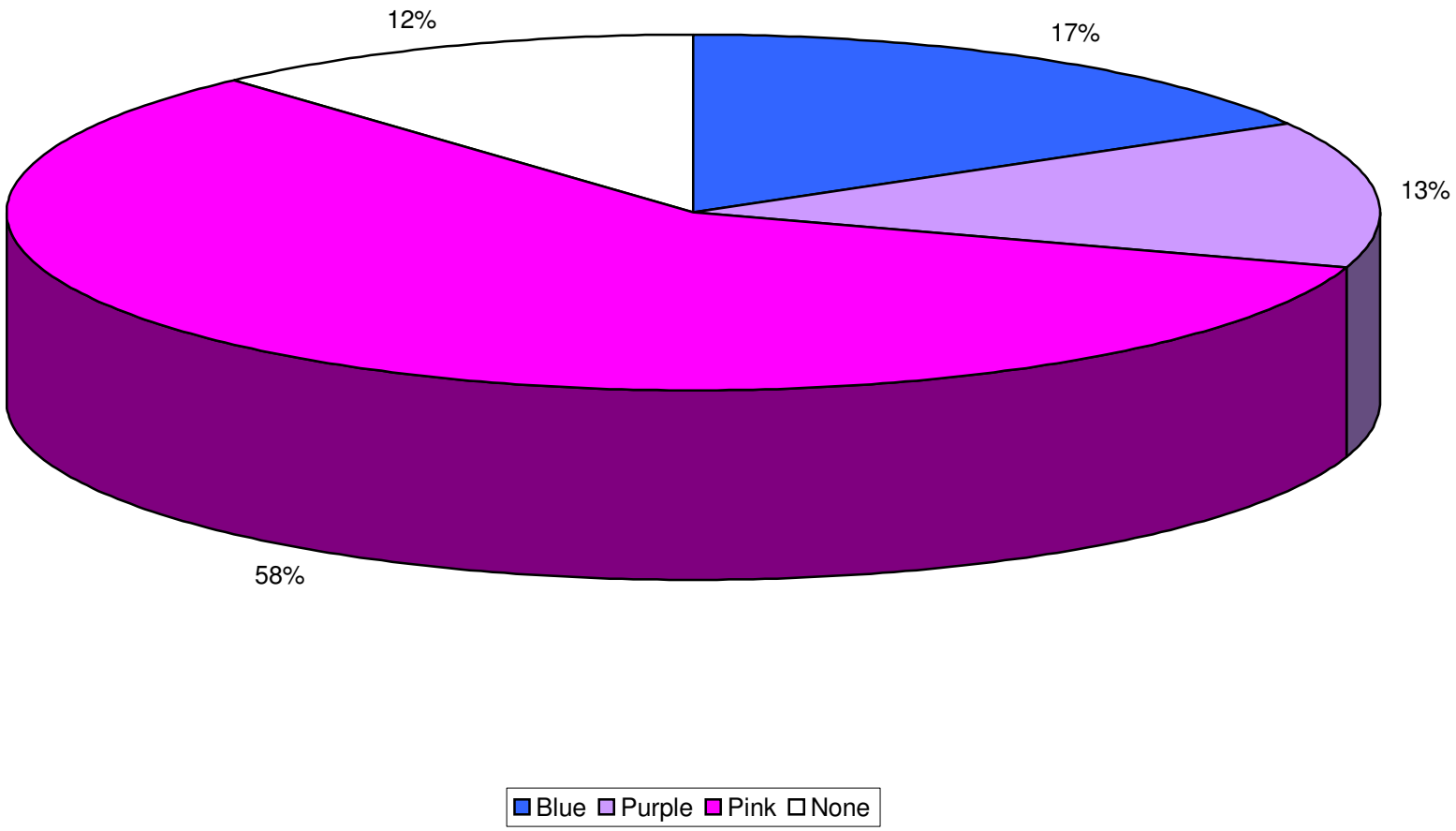
Those Affected by the Purple Route Corridors' ~ Preferred Route Corridor



Those Affected by the Pink Route Corridors' ~ Preferred Route Corridor



Preferred Route Corridor - Overview



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Mrs Jessica Mackey
C/o MouchelParkman
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HOLYWOOD
Co Down
BT18 9JQ

25th April 2007

Dear Jessica

MAGHERAFELT BY PASS

Further to our discussion this morning, please find enclosed copy of a letter to Mr T Robinson, Faber Maunsell, dated 10th June 2003 with Appendix A attached indicating costs to be applied for an estimate of Magherafelt By Pass.

The Appraisal Summary Table in Faber Maunsell's Magherafelt By Pass Options Study June 2005 version, indicates an investment cost of £5.9m. You should have a copy of this. I do not have a breakdown of the estimate but assume that it was made up in accordance with the June 2003 letter to Mr Robinson.

The estimate was subsequently updated to £8.9m to provide input to the Regional Strategic Transport Network Transport Plan which was published in July 2005.

The estimate would have been further revised to £13m when the Expanded Strategic Road Improvement Programme 2015 consultation document was issued in July 2006. This figure was based on £3.5m per kilometre plus an optimism bias of 25%.

I hope that this helps to clarify the previous estimates for this scheme.

Yours sincerely

Richard Hamilton

RICHARD HAMILTON

Encs

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Mr Tim Robinson
Faber Maunsell
Scottish Provident Building
7 Donegall Square West
BELFAST
BT1 6JB

10 June 2002

Dear Mr Robinson

SCHEME APPRAISALS – MAGHERAFELT BY PASS

Please find enclosed a revised Appendix A "Typical Scheme Costs" to be used for estimating scheme costs.

The rate for on-line duelling has been removed. Instead, where on-line duelling is being considered and where the existing road is to a good standard, the cost of duelling should be that of an additional single carriageway. A judgement needs to be made as to the risk of a certain amount of reconstruction being required. Where the existing road is of a poor standard, the rate for new dual carriageway should be used.

The Contingencies percentage should be established from a risk assessment of the scheme. As the 'black top' element of the estimate should be fairly accurate (apart, perhaps, for the on-line duelling discussed above) this risk assessment is most likely to be applicable to the other elements, i.e. earthworks, structures, land.

Individual percentages should be shown for these elements in the making up of the overall estimate. This will mean that contingencies will be added on throughout the cost estimate, and that 0% will also need to be entered for contingencies in COBA. Additional risks may be identified e.g. the risk of extensive archaeology being uncovered or the likelihood of properties being demolished and the cost implications of these should also be included.

Current procurement arrangements mean that a considerable element of scheme preparation and supervision are included within the construction costs. Those elements which are not included should be treated differently for large and small schemes. As a general rule the smaller schemes (ie less than £5m) are likely to be prepared and supervised in-house and no additional costs are therefore to be added. Larger schemes are

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likely to attract fees for these additional costs, and for these schemes 3% should be added for preparation and 2% for supervision.

I would draw to your attention the issue of a new edition of The Green Book which came into effect on 1st April 2003. This publication sets out the rules and guidelines for evaluating any activity which entails spending or saving public money. Although the Northern Ireland edition is still to be issued, the changes contained in this new edition are to be applied from the beginning of this financial year. One significant change to note is the reduction in the Cost of Capital rate from 6% to 3.5%. This will also apply to the discount rate.

To view the new edition and supplementary guidance, please go to;
http://www.hm-treasury.gov.uk/Economic_Data_and_Tools/Greenbook/data_greenbook_index.cfm

COBA11 has been updated to include these changes and this update (release 3), together with the new cost estimate should be used to rerun the COBAs. The present value of cost at 2002 prices should appear in the top right hand corner of the AST.

For this exercise the optimism bias may be taken to be 10%.

Please let us know how much it will cost to rerun your scheme COBAs on the above basis, and how long it is likely to take. We would be grateful if this work could be carried out as quickly as possible.

If you require any clarification of the above issues please do not hesitate to contact us.

Yours sincerely

Richard Hamilton

RICHARD HAMILTON
Network Planning Manager

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APPENDIX A (revised May 2003)

TYPICAL SCHEME COSTS

- to be used by the consultant for estimating scheme costs

Carriageways

New dual carriageway		£2.5m/km
New single carriageway		£1.65m/km
Feeder roads (excludes minor side road realignment)		£1.0m/km
Climbing lanes		£0.4m/km
Roundabout	30m ICD	£0.300m each
	40m ICD	£0.450m each
	50m ICD	£0.600m each
	60m ICD	£0.750m each
	90mICD	£1.000m each

Additional items to be considered

Exceptional Earthworks: (eg due to topography or poor ground) - over 20% of construction cost

Excavation	£3.20/m^3
Excavation rock	£8.00/m^3
Deposition & Compaction	£7.00/m^3
Top soiling	£1.50/m^3

Major Structures (10m or over)

Dual carriageway	£35,000/lin m
Single carriageway	£25,000/lin m

Cost of agricultural land	£30k/Ha
Cost of development land	£450k/Ha (or enquire)
Contingencies/Preparation/Supervision/ Optimism Bias	see Roads Service letter dated June 2003

Photographic Record of Archaeological Site Visits

Plate 1: Pink Route: view *c*. south from Castledawson Roundabout.

Plate 2: Pink Route: view *c*. north towards Castledawson Roundabout; gentle undulating pasture on drumlin landscape.

Plate 3: Pink Route: view *c*. south from Castledawson Roundabout over gentle undulating pasture and field boundaries.

Plate 4: Pink Route: view *c*. north from Killyneese Road; gentle undulating pasture sloping upwards.

Plate 5: Pink Route: view *c*. south from Killyneese Road; flat pasture west of waste water treatment works.

Plate 6: Flax Mill site, Carraloan (IHR 02242:000:00): view from southwest.

Plate 7: Pink Route: view northeast over low pasture, stream and gentle undulating pasture in the hinterland, to the west of Bradley's house and business (north of Aughrim Road).

Plate 8: Blue Route: view north of Aughrim Road across low-lying marshy ground, rough terrain and tree stands.

Plate 9: Blue Route: view south from the Castledawson Road at the northern terminus of the Blue Route over Sperrin Integrated College.

Plate 10: Blue Route: view south-southwest from the Castledawson Road at the northern terminus of the Blue Route, to the west of Sperrin Integrated College.

Plate 11: Pink Route: view southwest over barley crop towards upwards sloping undulating pasture, south of Aughrim Road.

Plate 12: Pink Route: view northeast from Love's Road over gentle undulating pasture.

Plate 13: Pink Route: view southwest from Love's Road over gentle undulating pasture.

Plate 14: Pink Route: view northeast from Ballyronan Road over flat pasture and a stream towards gently undulating, upward sloping land used for rough grazing.

Plate 15: Pink Route: view southwest from Ballyronan Road south of farm site.

Plate 16: Pink/Purple Routes: view north-northeast from Ballyronan Road through gentle undulating pasture and drumlin landscape.

Plate 17: Double-arched bridge on Killyfaddy Road between Pink and Purple Routes.

Plate 18: Flax Mill site, Leckagh (02298:000:00), viewed from west; north of Pink Route.

Plate 19: Pink Route: southeast of Flax Mill site at Leckagh and east of Killyfaddy Road; flat pasture.

Plate 20: Pink/Purple Routes: two-bay single storey vernacular structure (Tommy Martin's cottage) north of Pink Route east of Killyfaddy Road and Flax Mill site at Leckagh.

Plate 21: Pink Route: Gently undulating pasture east of (behind) two-bay single storey structure.

Plate 22: Blue Route: Online section northwest along Meadowbank Road.

Plate 23: Blue Route: view southwest towards Ballyronan Road across stripped area. Blue Route follows the boundary to the left of view.

Plate 24: Blue Route: view north-northeast towards Aughrim Road across overgrown scrubland.

Plate 25: Blue Route: view southwest from Aughrim Road across gently undulating pasture – rising to rear.

Plate 26: Blue Route: Two-bay one-story derelict dwelling house on south side of Aughrim Road.

Plate 27: Blue Route: Coursed masonry gate pier at entrance to derelict dwelling (Plate 26) – to the west.

Plate 28: Purple Route: view south from field immediately south of concrete works across pasture and drumlin landscape.

Plate 29: Purple Route: possible enclosure (viewed from south) in field immediately south of concrete works.

Plate 30: Purple Route: View from south of route across field immediately south of concrete works.

Plate 31: Purple Route: view east towards rear of farm building on west of Killyfaddy Road

Plate 32: Pink Route: view east, curving to southeast in the hinterland (right of view) over gently undulating tillage and pasture.

Plate 33: Blue Route: view east-northeast over gently undulating tillage and pasture. Route cuts through curve in the field boundary at the centre of view and continues to the right of housing development.

Ecology and Nature Target Notes

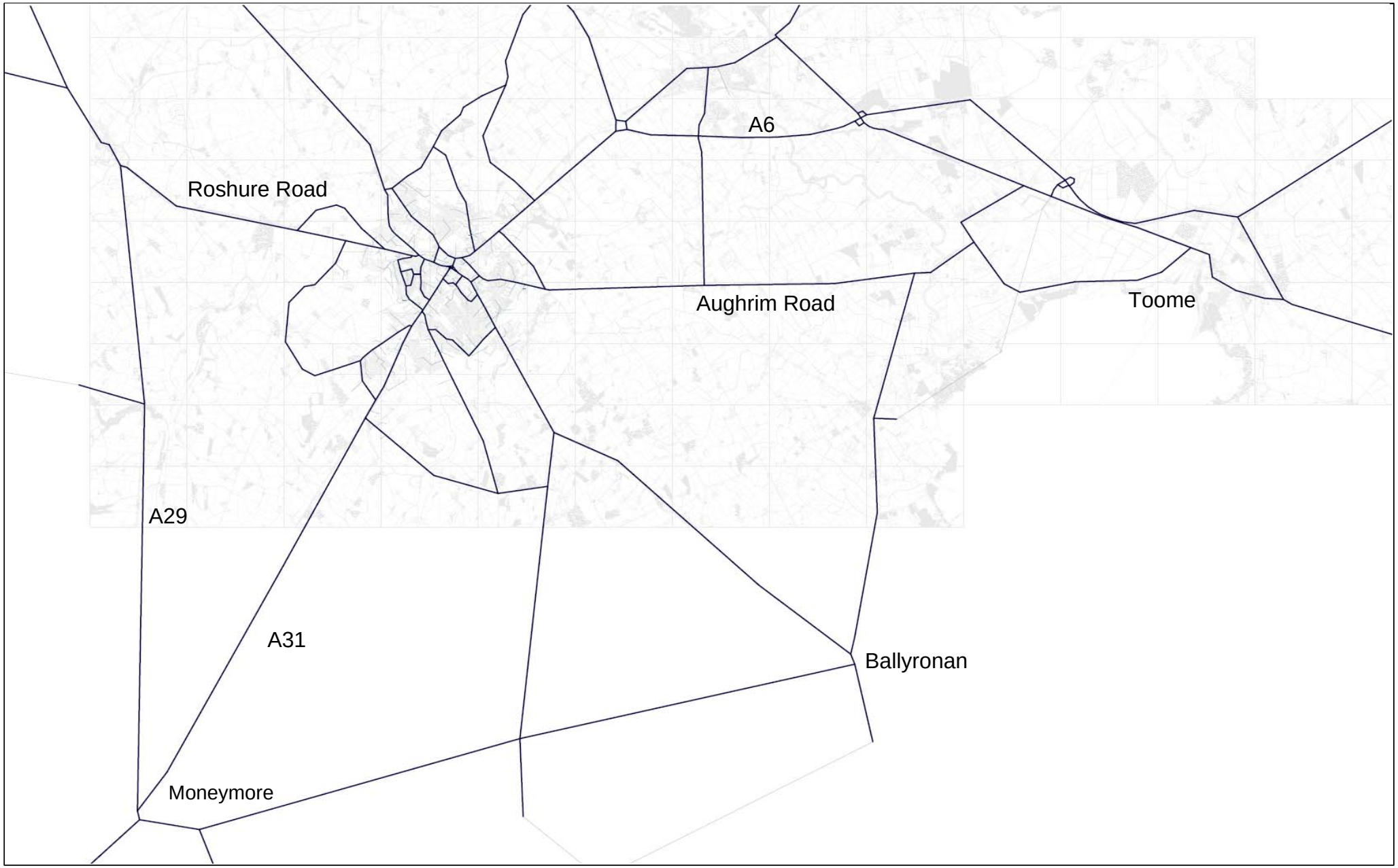
Target Note	Description of target note noting any distinguishing features, flora and fauna
1	Stream (flows north to south) 4m across, strong flow, (after rainfall) bordered by broadleaved woodland on both verges. *Crataegus monogyna, Fraxinus exelsior*, guelder rose, *Salix cinerea, Prunus spinosa*, holly, *Corylus avellana, Phalaris arundinacea, Urtica dioica, Rubus fruticosus, Galium aparine, Acer pseudoplatanus, Geranium robertianum, Hedera helix, Rosa arvensis*
2	Fenced off corner of field *Cirsium arvense*, *Urtica dioica, Lolium perenne, Juncus inflexus.*
3	Half of field nearest stream dominated by *Juncus inflexus, Cirsium palustre, Cirsium vulgaris, Ranunculus repens, Senecio jacobaea, Cardamine pratensis, Cynosurus cristatus, Lolium perenne*, *Holcus lanatus.*
4	Farmhouse bordered by fence to south
5	Small Improved field. *Dactylis glomerata*, *Rumex obtusifolius, Cirsium arvense* with one mature ash tree. Bordered to south and east by fence and *Ulex europaeus* and to north and west by trimmed hedges.
6	Stream as Target Note 1, broad-line of mature broadleaves, ash, hawthorn *Ilex aquifolium*, some mature ash, false acacia, *Sambucus nigra, Corylus avellana, Alnus glutinosa, Acer pseudoplatanus, Salix cinerea*.
7	Small patch of scrub, hawthorn, bramble, wild cherry, sycamore, common nettle, hedge bindweed.
8	Sneezewort *Achillea ptarmica* locally frequent
9	Scrub around stream, hawthorn, ash, holly, cherry, sycamore, osier, honeysuckle
10	Row of mature trees in fence line. Ash sycamore, osier.
11	*Fraxinus excelsior, Sambucus nigra, Geranium robertianum, Crataegus monogyna, Ulex europaeus, Rubus fruticosus, Urtica dioica, Heder helix, Prunus avium, Phalaris arundinacea, Ilex aquifolium.*
12	Row of semi-mature beech trees.
13	Farmyard, farmhouse, outbuildings, and semi-mature sycamore
14	Completed farm building post 1950's
15	Farmyard with row of mature beech and horse chestnut to north
16	Scrub, ash, hawthorn, bramble, *Cirsium vulgaris, Urtica dioica, Dactylis glomerata.*
17	Farm building (old stone), in use with native broadleaf outgrown hedges
18	Farmyard with one mature beech tree.
19	Fence and bramble by road
20	Species poor semi-improved grassland *Juncus effusus, Lolium perenne, Cirsium vulgare, Ranunculus acris, Ranunculus repens, Holcus lanatus, Agrostis stolonifera, Stellaria graminea*, *Lathyrus pratensis*.
21	Garden bordered by one semi-mature ash tree to the south
22	Garden (mature with trees and lawn)

Target Note	Description of target note noting any distinguishing features, flora and fauna
23	Horse grazed Improved field with stream (2m wide) ash and hawthorn
24	Garage hard standing and buildings not accessed
25	Row of nine mature hybrid black poplars to south-east of driveway, house with immature gardens.
26	School buildings and fields
27	Mature plantation, *Quercus petrea*, sycamore, cherry, horse chestnut, *Rhododendron ponticum*.
28	Marshy grassland*, Juncus effusus, Ranunculus repens, Potentialla anserina, Ranunculus flammula, Cirsium palustre, Filipendula ulmaria, Achillea millefolium, Holcus lanatus, Cynosurus cristatus, Senecio jacobaea, Juncus acutiflorus, Rumex acetosella, Phalaris arundinacea*
29	Stream 3m wide, slow flowing, deep, recent diversion to north, freshly excavated banks, possible otter passage
30	House and immature gardens
31	House and immature gardens
32	Marshy track, *Veronica beccabunga, Rorippa nasturtium-aquaticum, Alopecurus geniculatus.*
33	*Agrostis capillaris, Holcus lanatus, Ulex europaeus, Digitalis purpurea, Rumex crispus, Hyacinthoides non scripta*
34	Broad-leaved woodland. *Umbilicus rupestris*, *Geranium robertianum, Acer pseudoplatanus, Digitalis purpurea, Rumex crispus, Fraxinus excelsior, Urtica dioica*. 3 rabbit holes at edge of wood. *Lapsana communis, Plantago major, Hypnum cuppressiforme* on rocks*, Erynchium sp. Hedera helix, Primula vulgaris, Viola* sp*, Berberis* sp.*, Galeopsis tetrahit, Rumex acetosa.*
34 a	**Japanese knotweed stand.**
36	Stream approx 2-4m wide very shallow 0.20cm deep, partially shaded by outgrown hedge, rocks in channel, *Oenanthe crocata, Phalaris arundinacea, Chrysosplenium oppositifolium, Filipendula ulmaria, Alnus glutinosa, Fissidens* species. Otter spraint on rock in stream.
37	Suspected rat prints on muddy bank. No otter holt sites.
38	Fresh otter jelly and medium-fresh spraint on same stone.
39	Otter anal jelly on rock, 1 old otter spraint,
42	8 otter spraints on 2 rocks by bridge. 1 old spraint a little further east. Possible holt coverage under dense bramble by stream.
44	3 otter spraints on rock.
45	1 old otter spraint and 1 anal jelly, 2 spraints on rock, more potential for otter holts.
46	3 spraints on rock and 1 further spraint.
47	Re-engineered channel. Dipper spotted, 2 grey wagtails, crevices in stone work by stream not suitable for otter holts.
48	Farmhouse and garden. Ornamental planting, no trees
49	Dwellings, ornamental planting, no trees.

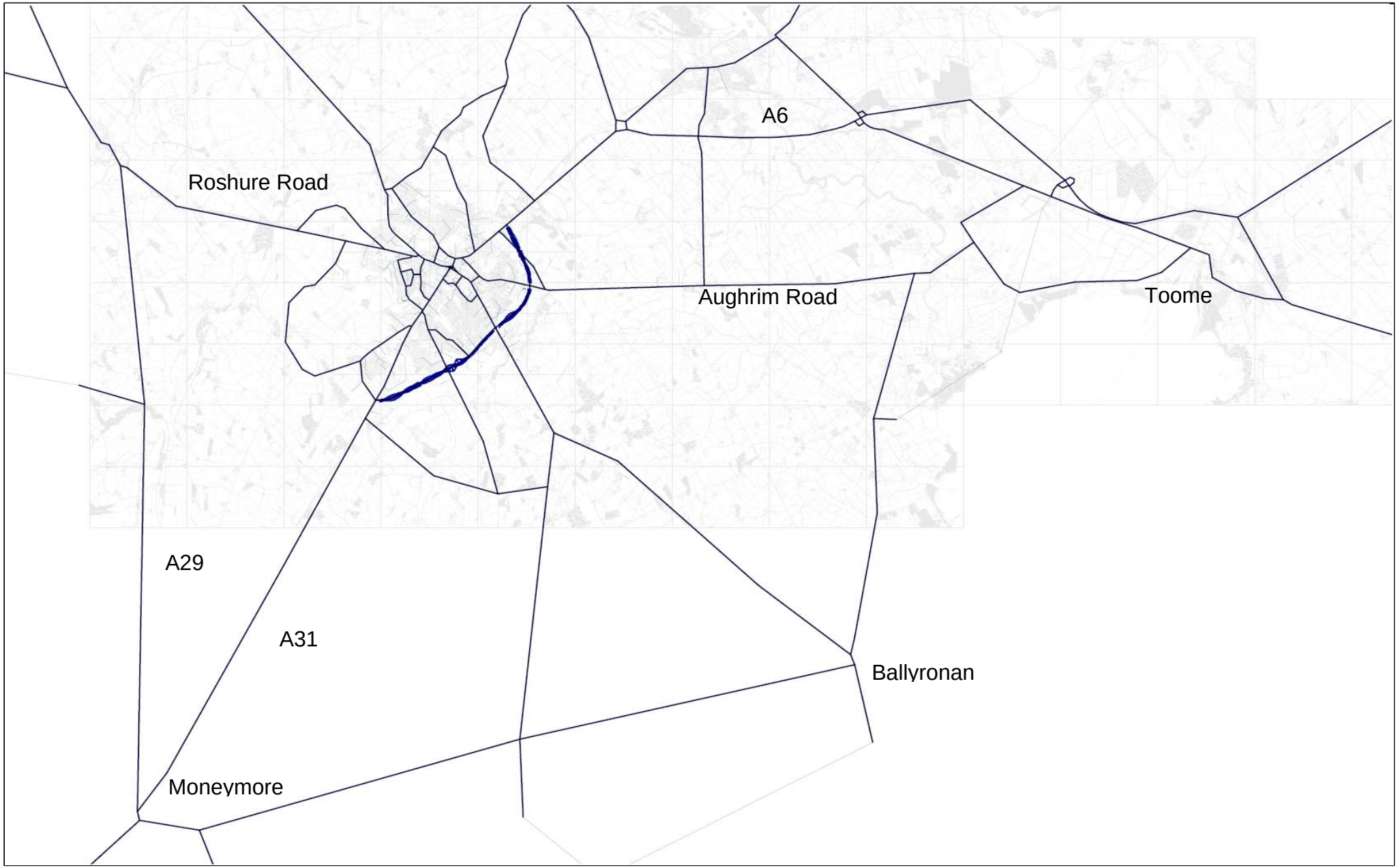
Target Note	Description of target note noting any distinguishing features, flora and fauna
50	One otter spraint, and one anal jelly on one rock. Stream 3m wide and 15cm deep. Continuous scrub to west, hazel, holly, hawthorn, *Oenanthe crocata*, *Filipendula ulmaria, Phalaris arundinacea, Stachys sylvatica,* potential for otter holts in the area. Three spraints a little further downstream, on one rock. One mature beech tree, and one mature sycamore.
51	Two mature ash, stream could be used by otters for passage-way but no signs of otters.
52	On-line pooled area of damp ditch – potentially suitable for smooth newts. >30cm deep. *Glyceria fliutans, Rananculus repens, Juncus effusus, Rorippa nasturtium-aquaticum*.
54	Wet ditch (H50-low potential for otter movement as very overgrown and only ~30cm wide channel (after dry period).
55	**Japanese knot weed** choking stream.
56	Two beech (mature) in field.
57	One mature beech in field.
58	House with mature oaks in garden.
59	Council buildings and recycling centre- all hard standing and buildings.
60	**Japanese knot weed (~5m by 3m)**
61	Improved field with one mature ash. Stream not accessed because bordered by gardens and trees/scrub.
62	Green track bordered by industrial buildings to north and residential buildings to south.
63	Maize fields.
64	Five sycamore and 1 horse chestnut (all semi-mature).
65	Avenue of mature horse chestnut, beech, sessile oak, ash, holly, elder, sycamore,
66	Wood with buzzard nest (anecdotal evidence), including mature trees, ash, sycamore, alder, downy birch, pedunculate oak, wood speedwell, holly, dog-rose, cherry, hawthorn, honeysuckle, guelder rose, common nettle, ivy, broad-buckler fern, bluebell, primrose.
67	Broad belt of outgrown hedge, with species including cherry, ash, and hazel.
68	Derelict house, with common nettles, and horse chestnut (mature), and sycamore, hawthorn.
69	Stream 3m wide, ~25 cm deep. Indian balsam, hawthorn, grey willow, ash. Duck pond (not visible) with potential to support **smooth newts,** stream not accessible, potential for otter holts in duck pond undergrowth.
70	Stream- 3m wide, 40cm deep, slow flow. Indian balsam, broad-leaved plantation, crack willow, silver birch, alder, grey poplar. One otter spraint found. Small patch of **giant hogweed *Heracleum mantegazzianum*** with one flower spike**.**
71	Away from sewage works, stream (3m wide) with Indian balsam and occasional, alder, crack willow. Flat low-lying land here.
72	Neglected Improved field with common nettles and rabbits, and old disused shed. Outgrown hedge to east.

Target Note	Description of target note noting any distinguishing features, flora and fauna
73	Marshy grassland. Species included *Juncus effusus*, Marsh thistle, *Holcus lanatus*, *Urtica dioica*, broad-leaved dock, *Ranunculus acris.*
75	Mature tree lined stream. Near small bridge. Sycamore, *Hedera helix, Alnus glutinosa*, *Fraxinus excelsior*. Old otter spraint downstream of bridge on stone.
76	Mature broad-leaved woodland strip. Species included *Corylus avellana, Crataegus monogyna, Alnus glutinosa, Quercus petrea Sorbus acuparia,* Sycamore*, Fraxinus excelsior, Malus sylvestris, Epilobium, Urtica dioica, Dog violet,* Primrose*, Hedera helix, Arum maculatum, Geranium robertianum.* Otter spraints located along the stretch of the watercourse to the eastern end of the woodland.
78	Very fresh otter spraint and anal jelly located on stones to the western edge of the woodland where the river heads northwards.
79	Tree lined hedgerow. Small ditch runs adjacent to hedgerow. Broadleaved woodland on southern side.
80	**Stand of Japanese knotweed.**
82	Under construction
83	Playground (hard standing)

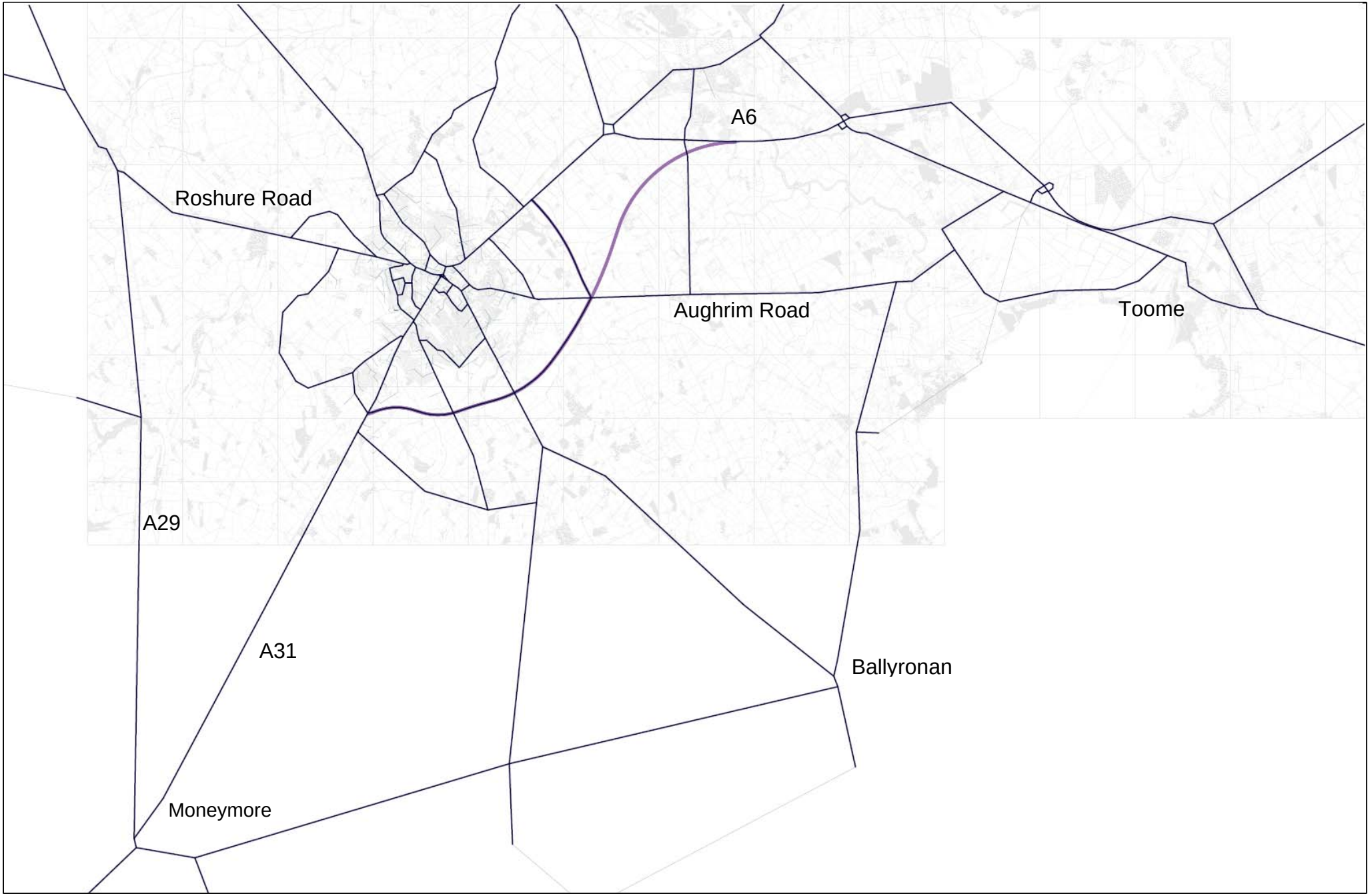
Do Minimum- Modelled Road Network -Affecting Magherafelt



Do Something- Blue Route- Modelled Road Network- Affecting Magherafelt



Do Something- Purple Route- Modelled Road Network- Affecting Magherafelt



Do Something- Pink Route- Modelled Network- Affecting Magherafelt