

SEMMMS A6 - M60 RELIEF ROAD

FEASIBILITY STUDY

STAGE 1 – STUDY REPORT APPENDICES

SEMMMS: A60 - M60 RELIEF ROAD STUDY

STAGE 1 STUDY REPORT

APPENDICES

**Transport for Greater Manchester &
Stockport Metropolitan Borough Council**

Project no: 70019764

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TABLE OF CONTENTS

Appendix 1 Study Brief

Appendix 2 Supporting Transport Statistics

Appendix 3 'The Greater Manchester Transport Strategy 2040: Our Vision' – Assessment

Appendix 4 Local Major Funding Bid – Letters Of Support

Appendix 5 Data Collection Specification Report

Appendix 6 Existing Mainline Drawings

Appendix 7 Geometric Design Checks

Appendix 8 A6-Manchester Airport Relief Road Drawing

Appendix 9 Land Ownership Plan

Appendix 10 Environmental Constraints Plan

Appendix 1

STUDY BRIEF

179. Brief for a Study of SEMMMS A6-M60 Relief Road

1 Background and Context

1.1 In 2000 to 2001, the Government of the time undertook a thorough multi-modal study into the travel and traffic issues facing the South East quadrant of Greater Manchester, in partnership with Stockport MBC, Tameside MBC, Manchester CC, Cheshire County Council (as was) and GMPTE. The South East Manchester Multi Modal Strategy (SEMMMS) reported in September 2001. It recommended a multi modal programme for delivery to 2021 including, in particular, three highway schemes that were remitted to the study, as follows:

- a) A road between the M60 at Bredbury and the A6 at Hazel Grove, following the protected alignment for the A6(M). The construction of the Stepping Hill Link between the A6 north of Hazel Grove centre and the new road forms part of the recommendation. It is recommended that the north-south bypass be constructed to dual carriageway standard with a 40/50 mph design speed. Junctions should be at grade and most likely signal controlled;
- b) A bypass of Poynton is constructed. The bypass should comprise an east-west section linking the A555/A5102 junction north of Woodford to the A6 at Hazel Grove. Traffic modelling undertaken for the study indicates that a dual carriageway is more than likely required, but junctions can be accommodated at grade. For the north-south bypass of the A523 a single carriageway bypass is recommended from the existing A523 at Adlington, joining the east-west section of the bypass north of Woodford; and
- c) A reduced scale scheme is constructed in the MALRW corridor. Traffic modelling indicates that an at-grade dual carriageway linking the Airport roundabout at the end of the M56 spur to the western end of the A555 at Handforth is sufficient. An at-grade junction at Styal Road should be provided. Combined with other recommendations, there is the opportunity to introduce dedicated HGV/public transport lanes along the MALRW corridor.

- 1.2 Since then, a programme of work has been undertaken, supported by funding from a range of sources, including the Greater Manchester Transport Fund and Local Transport Plan. In particular, the MALRW proposal – now subsumed into the A6-Manchester Airport Relief Road (A6MARR) Scheme - has been supported through the GM Transport Fund and is now being delivered, and Cheshire East has prioritised the Poynton Bypass scheme.
- 1.3 In the March 2015 Budget Statement, Government granted £350,000 to the GM Combined Authority to undertake a contemporary review of the case for the A6-M60 Relief Road – i.e. the road scheme summarised in (a) above (the former A6M and Stepping Hill Link Road which became part of the SEMMMS Relief Road). TfGM will oversee this work, on behalf of GMCA, working in partnership with Stockport MBC. As the study was remitted by Government and not a specific intention of the local partners, the work undertaken will remain strictly within the budget set by this grant. The £350,000 covers all aspects of the project – i.e. including the HFAS work in paras 3.4 - 3.7, which would be specified, managed and coordinated with other work streams by the successful bidder, but commissioned directly by TfGM and Stockport Council within this overall budget.

2 Approach

- 2.1 TfGM and SMBC are therefore seeking a consultancy to lead this work, which will comprise a two-stage study. Stage 1 will comprise longer-duration work needed for input to an outline business case. Stage 2 will comprise preparation of a Webtag-compliant outline business case, utilising the output of Stage 1.
- 2.2 The content of Stage 1 is set out in the following paragraphs.
- 2.3 A review will be carried out of the assumptions within the SEMMMS analysis of the case for the bypass scheme in the context of:
- a) contemporary travel and traffic data;
 - b) the current economic profile of Greater Manchester, including current/known development plans in the relevant adjacent areas of Stockport, Tameside, Manchester, Cheshire East and High Peak, and including at Manchester Airport, and the implications of the

Government's shared aspirations with GM to deliver a Northern Powerhouse;

- c) contemporary local transport policy in Greater Manchester, as articulated in the 3rd GM Local Transport Plan (2011) and developed further through the GM Growth & Reform Plan (2014) and the GM Devolution Agreement (2014); the GM 2040 Vision for Transport (2015), with particular additional consideration to the development of the GM Key Route Network and GM Rail Policy; and relevant policy reviews or studies undertaken by Stockport MBC, Cheshire East Council, Tameside MBC and Manchester CC; and
- d) contemporary national transport policy with implications for the study area, including the schemes and studies set out in the national Road Investment Strategy (RIS) and subsequent Highways England development programmes; HS2; the Northern Transport Strategy and subsequent joint Transport for the North/DfT development programme; and the forthcoming renewal of the Northern and TransPennine rail franchises.

- 2.4 A review will be carried out of the previous outline business case (within the SEMMMS multi-modal study) to identify its strengths and weaknesses.
- 2.5 An assessment will be carried out of the effects of the A6 – M60 Relief Road on the policies and indicators within the Greater Manchester 2040 Transport Strategy. Draft versions of these are contained in the following documents supplied with these Terms of Reference. If these policies and indicators change substantively following issue of these Terms of Reference, any resulting necessary changes to the proposed work programme will be discussed with the study consultants following appointment.
- 2.6 The previous outline business case will be used as input to the assessment, although its findings will not be accepted uncritically. A formal network-modelling approach to assessing those effects of the scheme that depend on changes in travel behaviour (e.g. choices of trip origin, destination, and mode) is not considered appropriate, especially bearing in mind the limited timescale available for completion of Stage 1. Relevant approaches to this aspect of the work could include elasticity models; experience with relevant schemes elsewhere; professional judgement.

- 2.7 A review of requirements for collection/acquisition of data for the outline business case will be carried out. Identifying requirements for data on existing trips will present a particular challenge. The work will include specification of what data needs to be acquired or collected and recommendations on how that is best achieved, bearing in mind overall study budget limits. It will be relevant to consider the data available from the work undertaken to develop the case for the A6MARR.
- 2.8 A report of Stage 1 will be prepared before commission of Stage 2, the precise content of which will be informed by the findings of Stage 1.
- 2.9 Stage 2 of the study will comprise preparation of a Webtag-compliant outline business case for the A6-M60 Relief Road, including modelling appropriate to the scale of the scheme.
- 2.10 Anticipated tasks required in order to deliver an Outline Business Case include:
- Consideration of previous work on possible scheme alignments (vertical and horizontal), in the light of any changes in land use etc. since that work was last undertaken, and generation of possible alignment options;
 - Consideration of the number, location and form of junctions required to maximise accessibility;
 - Agreeing with Highways England the likely scope of works required for the interface at M60 and the extent/form of modelling required to inform consideration of impacts on the SRN;
 - Identifying the potential for a phased construction of the scheme, and any issues that would result from this approach;
 - Consultation with statutory agencies to determine the minimum requirements/scope for an initial Environmental Impact Assessment for the scheme;
 - Arranging collection and/or acquisition of data;
 - Production of an uncertainty log for the scheme;
 - Updating and applying appropriately robust traffic models to inform preparation of the new outline business case, including identification and collection of any new traffic data required;
 - Identification of land requirements and ownerships/tenure;

- Preparing and agreeing with the Local Planning Authority the scope of a potential planning application;
- Developing a preliminary cost estimate for the overall scheme proposal;
- Undertaking analysis to determine the value for money of the scheme;
- Production of an Outline Business Case and supporting documents, in accordance with Department for Transport guidance, and in accordance with GMCA guidance;
- Production of an Environmental Impact Assessment setting out the full range of environmental considerations e.g. noise, air quality and visual impacts;
- Undertaking a flood risk assessment; and
- Developing a draft consultation strategy.

2.11 Given timescales and available budget we anticipate that the above tasks will draw to a significant extent on work undertaken during previous consideration of this scheme, including consultation preferences, and on the extensive work undertaken to inform the planning application and business case for A6MARR (see <http://a6marr.stockport.gov.uk/>).

2.12 It is important to note that Stockport MBC are anticipating commissioning a refresh of the wider SEMMMS work, with overlapping timescales. This would be a parallel study, and will look at multi-modal options across the SEMMMS area. The brief for the refresh has yet to be finalised, but it is likely that there will be a need to consider highway interventions within that study and the models developed for the A6-M60 highway scheme should therefore be of an appropriate geographic scope and sufficiently robust to allow their use to inform the SEMMMS refresh.

2.13 It is expected that the successful bidders for both this road study and the wider SEMMMS refresh will need to work co-operatively with each other and share information in a timely fashion. Stockport MBC and TfGM will retain control of the intellectual property resulting from both studies.

3 Approach to Traffic Modelling in Stage 2

- 3.1 TfGM hold a suite of traffic models developed to inform the assessment and appraisal of transport schemes across Greater Manchester. These are tailored to meet specific project requirements. To support the development of the business case and the statutory processes for A6MARR, versions of the countywide variable demand and SATURN highway models were developed in cooperation with Stockport Council and their consultants. These models have also subsequently been used to support development of schemes in and around Stockport Town Centre.
- 3.2 The A6MARR models are locally validated and calibrated across Stockport and adjacent areas and as noted in 2.5 above these should be the starting point for any modelling required to inform this study.
- 3.3 For the purposes of this study it is considered that in addition to a base year, models will be required for two forecast years representing scheme opening year and a design year, and for three weekday time periods (AM and PM peak hours and an inter-peak hour). At time of writing it is anticipated that the forecast years will be 2025 and 2040 respectively, but this will be confirmed at inception.
- 3.4 The SATURN highway model is held and operated by TfGM Highways Forecasting and Analytical Services (HFAS) and in order to maintain consistency with previous work we would expect the successful bidder to utilise the services of HFAS.
- 3.5 The role of HFAS in the study would be to:
- Work with the project team to determine data collection requirements and to commission the agreed survey programme;
 - Develop a suitable highway model (calibration / validation) based on the A6MARR Saturn Model (or a derivative thereof);
 - Carry out scheme forecasting / scenario testing based on an Uncertainty Log and, if required, VDM forecasts developed / produced by others in the project team.
 - Undertake TUBA runs to provide forecast economic benefits for the proposed scheme.

- 3.6 Deliverables for which HFAS would be responsible are:
- Data Collection Report (if required);
 - Model Calibration and Validation Report;
 - Forecasting Report; and
 - Model outputs, including data for EIA purposes and economic appraisal.
- 3.7 HFAS work required would be specified, managed and coordinated with other work streams by the successful bidder, but commissioned directly by TfGM and Stockport Council.
- 3.8 Note that the A6MARR Variable Demand Model (a development of the Greater Manchester Strategy Planning Model) is operated by SYSTRA on behalf of TfGM. TfGM can facilitate access to this model should use of such a model be required. However, we would anticipate that specification and subsequent management of any VDM modelling will be undertaken directly by the successful bidder.
- 3.9 We would recommend that potential bidders hold an early conversation with HFAS to understand the models available and their history, and inform definition of wider modelling and appraisal requirements. HFAS contact for this work is David Affleck (telephone 0161 244 1698, david.affleck@tfgm.com).
- 4 Outputs
- 4.1 The outputs of Stage 1 will comprise a Stage 1 report covering the subject-matter specified in Section 2 above.
- 4.2 The outputs of Stage 2 will comprise:
- An Outline Business Case for the scheme and supporting documents (initial draft for review and final version);
 - A report on possible alignments and junctions;
 - An Environmental Impact Assessment for the scheme; and
 - Uncertainty Log;

5 Management

- 5.1 The study steering group will chaired by Dave Newton, TfGM Transport Strategy Director. Stockport MBC, Transport for Greater Manchester and Highways England will also have officer representatives on this group.
- 5.2 A steering group meeting, which the consultants will be expected to attend, will occur at key milestones as identified by the bidder. A working group will be established for the more detailed management of the study. It is anticipated that the working group will meet at intervals of two to three weeks.
- 5.3 All outputs will be supplied electronically using software that can be read by Stockport MBC and TfGM.

6 Timetable

- 6.1 Stage 1 is expected to be completed within four months of commission. The timescale of Stage 2 will depend on the extent of any data collection requirements, but is not expected to exceed eight months.

7 Background Documents

- 7.1 Significant SEMMMS information can be found through the website <http://www.semmms.info/>
- 7.2 Strategy documents can be found through the websites of TfGM and the Combined Authority.
- 7.3 Draft specifications of Greater Manchester 2040 Transport Strategy policies and KPIs are [INSERT TEXT]

8 Price

- 8.1 Of the £350,000 maximum budget for the study, £100,000 has been provisionally allocated for modelling by HFAS. The remainder will need to cover all other work related to this study including, for example, both the

fees of the consultants leading Stage 1 and for the outline business case, including any data collection / acquisition costs.

9 Proposals

9.1 Proposals should contain:

- A capped-fee bid for Stage 1 of the study, accompanied by a resource-plan, itemised according to proposed inputs by name and/or level of appointment, quoting fee- rates for each individual and disaggregated by task.
- A timetable of activities study, showing dates of delivery of outputs; these will be a contractual commitment for Stage 1, and indicative for Stage 2.
- A proposed invoicing schedule based on achievement of key milestones (or alternatively a statement that an invoice will be submitted for the whole work following its completion to the client's satisfaction).
- Fee rates for Stage 2 of the work by name and/or level of appointment, with anticipated proportions of input by each named individual and/or role. It should be assumed at this stage that the appointed consultants will not be responsible for collection of any data for which a requirement is identified in Stage 1.

9.2 Bidders should describe the skills and experience of key nominated individuals who collectively possess experience in assessment activity. It is expected that such individuals will provide a major part of the input to the study. CVs of key nominated individuals should be supplied. Bids will score poorly if they mention the skills and experience within the firm without demonstrating that that skill and experience resides among the individuals nominated for the work.

9.3 Bidders should describe their proposed method for the work. Key issues and challenges to be overcome should be set out.

9.4 The decision on which bidder to appoint will be made on the basis of the proposal submitted in response to these terms of reference. Proposals will be scored on quality and price. Scores (out of 100) that will be allocated to each element of the proposal are as follows:

- 40 for price.
- 25 for relevant skills and experience, taking into account the estimated breakdown of time by individuals.
- 35 for the proposed method.

10 Study Administration

10.1 The work will be managed for Stockport MBC on a day-to-day basis by Sue Stevenson.

Sue Stevenson

Investing in Growth Manager

Stockport Council

4th Floor, Fred Perry House

Stockport

SK1 3XE

Tel: 0161 474 4351

Sue.Stevenson@Stockport.gov.uk

10.2 The senior officer responsible for the project will be Simon Warburton.

Simon Warburton

Head of Policy & Strategy

TfGM

2 Piccadilly Place

Manchester

M1 3BG

simon.warburton@tfgm.com

Appendix 2

SUPPORTING TRANSPORT STATISTICS

Figure 1.1 Observed Vehicle Speeds 2008 Morning Peak Hour

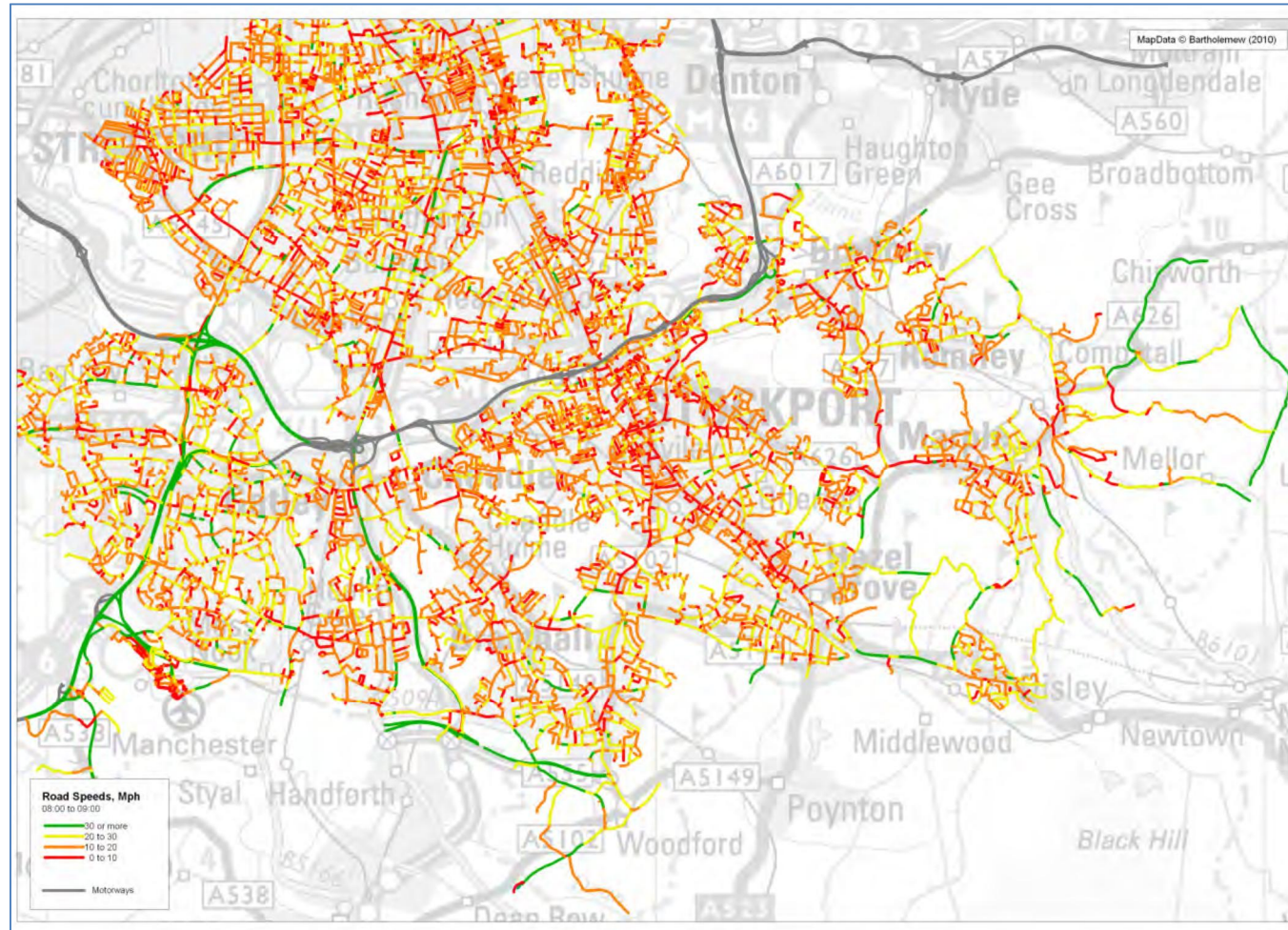


Figure 1.2 – Average Journey Time Comparison

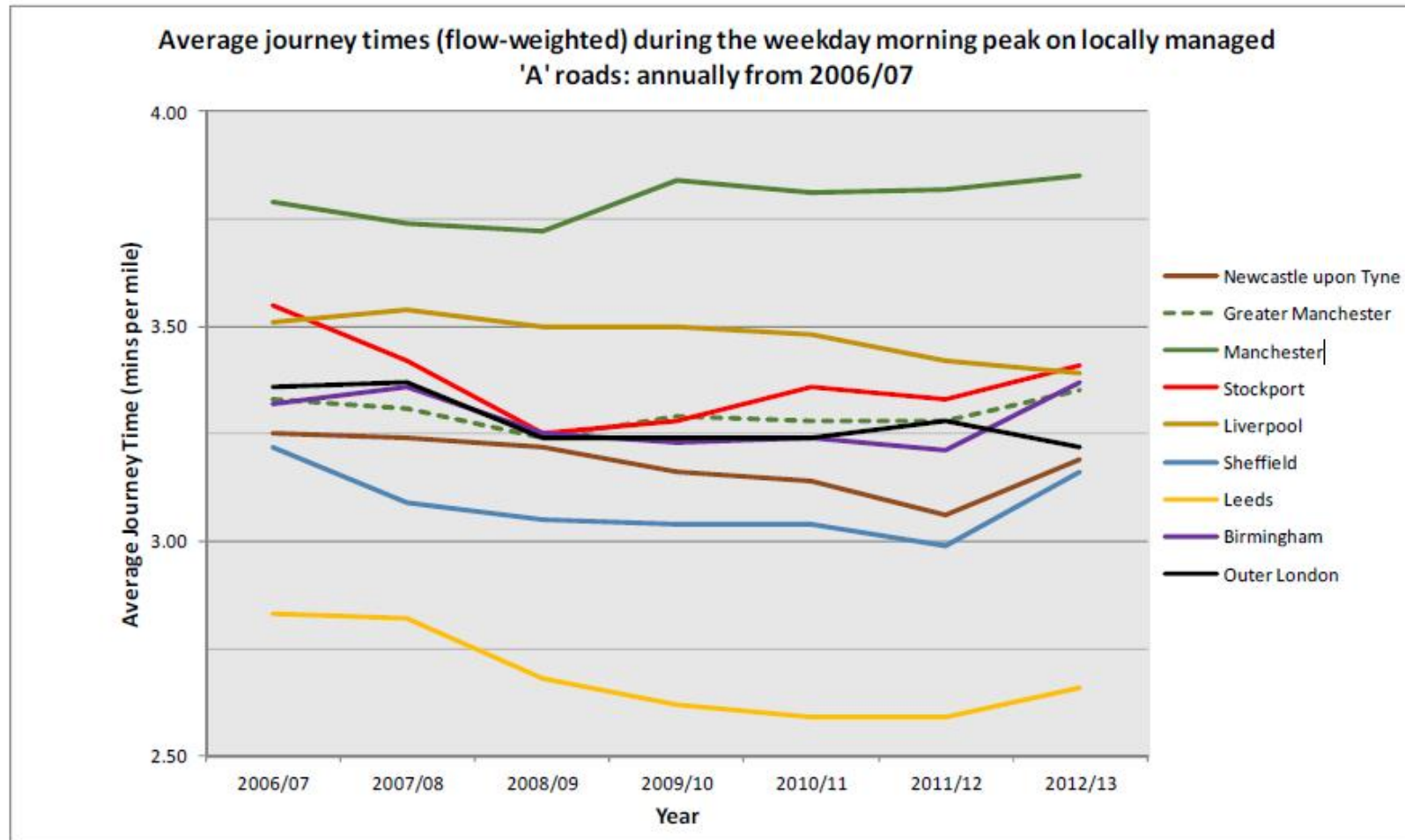


Figure 1.3 - Road Injury Accidents in Stockport 2012-2014

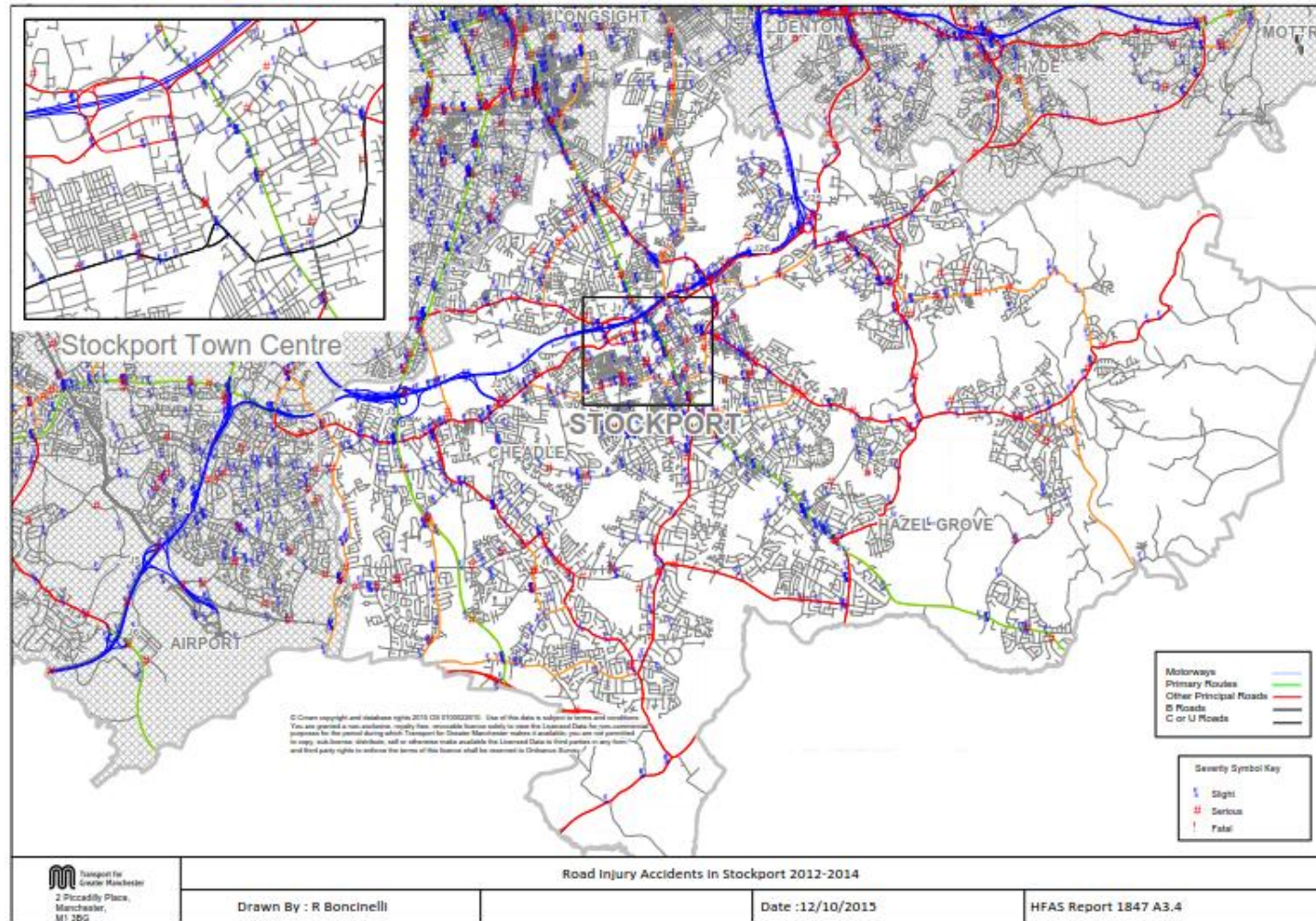
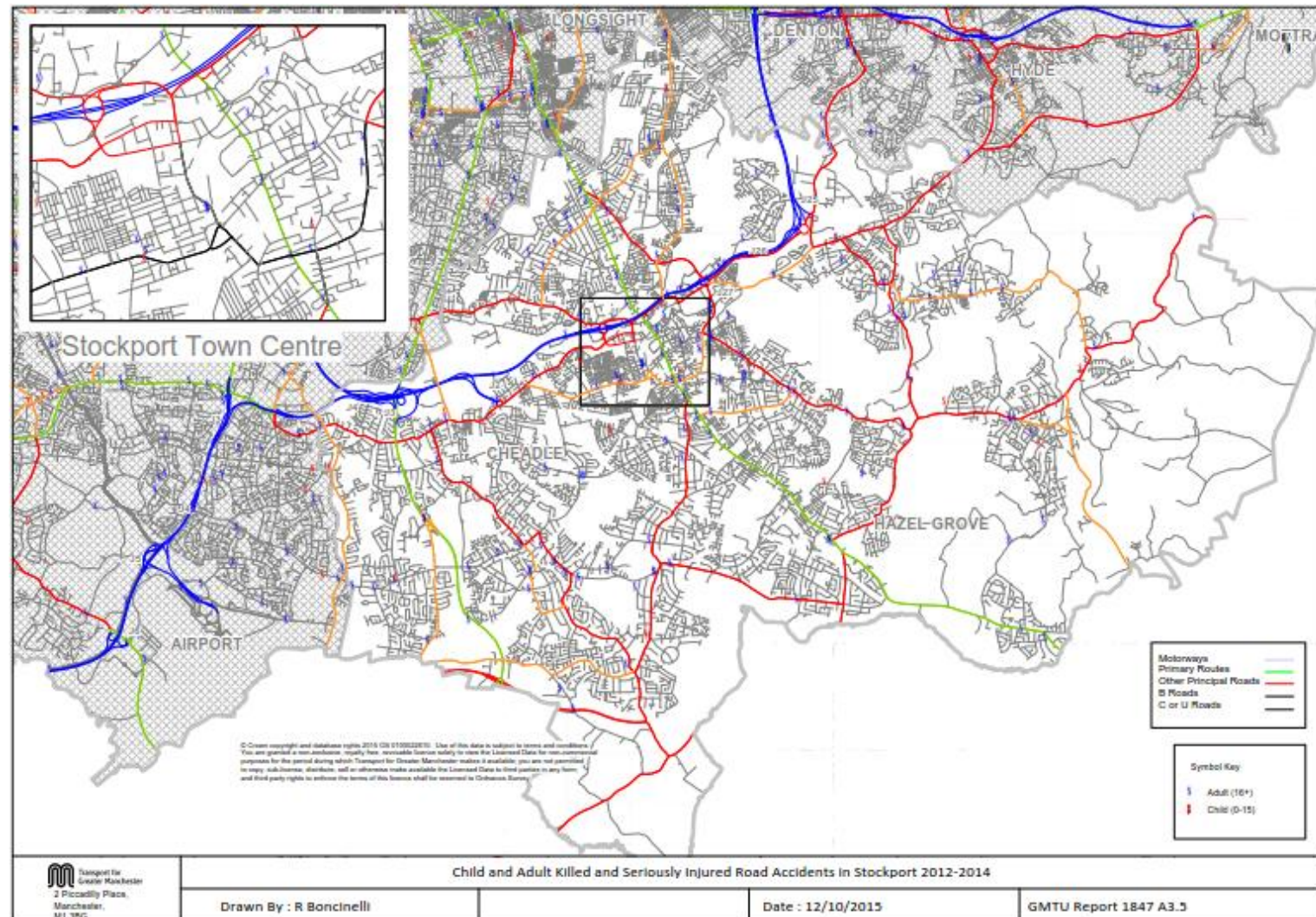


Figure 1.4 - Child and Adult Killed and Seriously Injured Road Accidents in Stockport 2012-2014



Appendix 3

The Greater Manchester Transport Strategy 2040: Our Vision' – Assessment

APPENDIX 3

'The Greater Manchester Transport Strategy 2040: Our Vision' – Assessment

Document Part	Ambition	Page Number	Alignment with Scheme	Comments
Part 2	To enable customers to move seamlessly between services and modes of transport on a single, high quality, easy-to-use network.	13	Partial	The scheme provides a faster road connection for those wishing to travel North-South to the east of Stockport centre. It also includes walking and cycling provision. The scheme is likely to decrease traffic levels in Stockport centre, therefore providing a higher quality, easy-to-use network in this district centre.
	To support the delivery of transformational levels of housing and employment growth without significant increases in traffic levels and congestion.	17	Partial	The scheme supports the delivery of housing and employment however it could encourage unless package of complimentary measures are implemented.
	To develop a fully inclusive and affordable sustainable transport system for all.	18	moderate	The scheme provides 8.5km of a new segregated walking and cycling route. This will link into the existing local network and also join up with the A6MARR Cycle/Ped route providing a substantial SE orbital cycle/ped way from Manchester Airport to Bredbury.
	For Greater Manchester to be known for the quality of its urban areas, with transport emissions reduced to near zero, and a high level of protection for the natural environment	19	Partial	The scheme displaces transport emissions from the district centre of Stockport and the A6 immediately south east of Stockport centre. The scheme is also likely to reduce traffic congestion within Stockport Town centre
	To develop a transport network that is reliable, and able to withstand unexpected events and severe weather conditions.	23	Substantial	The scheme provides an alternative route and therefore increases the road options in the case of unexpected events and severe weather conditions.

Document Part	Ambition	Page Number	Alignment with Scheme	Comments
Part 2	To reduce deaths on our roads as close as possible to zero	24	Substantial	The scheme bypasses the district centre of Stockport and the A6 immediately to the south east of Stockport centre, therefore reducing conflicts with cyclists and pedestrians. The scheme is also likely to reduce traffic using the M60. The scheme will be designed based on current guidance and RSA's undertaken.
	To ensure that poor perceptions of personal security are no longer a significant barrier to people using public transport or walking and cycling	24	Partial	Reduced congestion on A6 means improved bus journey times reducing waiting at bus stops and chances of missed connections. The new cycle / ped way provides a safe segregated route from Bredbury to Manchester Airport reducing cycling walking journey times.
	To deliver a consistently reliable and resilient network which focuses on the efficient and effective movement of people and goods to, from and across Greater Manchester.	26	Substantial	The scheme provides an alternative route and therefore increases the road options available. It also creates more efficient and effective movements in the district centre of Stockport, with the diversion of traffic away from this area.
	To create a comprehensive network of on and off-road walking and cycling routes that make it easier and safer for people to walk and cycle to key local destinations, such as local centres, jobs, healthcare and education, for leisure purposes and for local public transport access.	33	Substantial	The scheme will include a new walking and cycling route along its length
	To develop a fully integrated, customer-focused, low-emission public transport network, with simple, integrated ticketing, that provides an attractive and accessible alternative to travelling by car to key Greater Manchester destinations.	35	Not applicable	No cause for comment at current time
	To develop a modern zero-emission accessible bus system, fully integrated with the wider Greater Manchester transport network on which everyone will be happy to travel regardless of their background or mobility level.	37	Not applicable	No cause for comment at current time

Document Part	Ambition	Page Number	Alignment with Scheme	Comments
	To extend the benefits of rapid transit to more areas of Greater Manchester and provide the capacity and reliability needed to support growth in the economy	39	Not applicable	No cause for comment at current time
	To develop a rail network with the capacity, reliability, speed and quality to support growth in the Northern economy and extend the benefits of HS2 and Northern Powerhouse Rail throughout Greater Manchester.	42	Not applicable	No cause for comment at current time
Part 2	To move all goods within our urban areas by zero emission vehicles so that the negative impact of freight vehicles on our local communities will be minimised.	43	Substantial	The scheme will help remove substantial numbers of freight vehicles from local communities along the A6 which is a key route for quarry vehicles travelling from the peak district to Greater Manchester.
Part 3	Is to support growth at the Airport and the adjacent Enterprise Zone by: bringing many more passengers within a 1hr and 2hr rail journey time; improving the reliability of the highway network; and ensuring that public transport services better meet the needs of airport passengers and employees. Fewer people will drive to work at the Airport, with transformed sustainable transport connectivity to the Airport from across Greater Manchester and beyond.	47	Substantial	The scheme provides an alternative highway route, to the south east of Stockport centre, improving the reliability of the highway network by distributing traffic evenly across routes and providing a more direct route to the airport from the east and links to the A6 MARR.
	The Atlantic Gateway corridor will be developed to maximise the sustainable movement of goods by water and rail. The Port Salford area will be developed as a tri-modal (rail, water and road) logistics park and development zone to improve access to global markets via the Port of Liverpool.	50	Not applicable	No cause for comment at current time

Document Part	Ambition	Page Number	Alignment with Scheme	Comments
Part 3	Is to see an increasingly successful Northern Powerhouse Economy, with Greater Manchester at its heart, supported by transformed connectivity between the major cities of the North of England, and to the Midlands, London and Scotland. There will be a step-change in quality, speed and reliability of our city-to-city rail links, allowing travel to Liverpool, Leeds and Sheffield in 30 minutes or less and to London in just over an hour. The strategic highway network will reliably allow a 'mile a minute' journey times. More freight will be moved by rail and water. Transformed infrastructure and smart ticketing and customer information will encourage more trans-northern journeys to be made by public transport.	53	Moderate	The scheme provides more even distribution across the strategic highway network and eases pressure on the M60 and A6.
	Is for fully integrated Regional Centre transport networks that support rapid economic growth: with HS2 and Northern Powerhouse Rail services serving the heart of the city centre; and traffic levels held at or below 2016 volumes. There will be much better public transport, pedestrian and cycle connections between Manchester City Centre and the outer parts of the Regional Centre, and key destinations will be accessible by public transport 24/7. We will create a more liveable Regional Centre by providing high quality and attractive pedestrian and cycle environments and by minimising the negative impacts of traffic (including freight vehicles) on residents.	62	Not applicable	No cause for comment at current time

Document Part	Ambition	Page Number	Alignment with Scheme	Comments
Part 3	Is that our regenerated town centres easy to get to, particularly by sustainable modes, and pleasant to walk around and spend time in. Journeys across the area, between centres or to other major destinations will be made easier through better and faster orbital links, reduced congestion, a more reliable bus network, more effective interchange and better- connected cycle routes. Road accidents will fall, year on year, moving towards our goal of reducing deaths and serious injuries as close as possible to zero. The significant new development expected in Greater Manchester will be accessible by sustainable modes of transport, so that the impact of the extra trips on the road network is mitigated.	70	Partial	The scheme is likely to result in a decrease in accidents in Stockport centre, the A6 and the M60, due to traffic alleviation on these routes. Improved orbital connectivity between Stockport Town Centre and Cheshire East and will provide new orbital cycle link.
	Is for local neighbourhoods to be safer and more pleasant to walk and cycle around, with the impact of traffic on local roads reduced and a year-on-year reduction in accidents. Active travel will be the natural choice for many short journeys, 10% of which will be made by bike. Easier access to interchanges and to local centres will increase the proportion of journeys made by public transport and encourage people to use local shops and other facilities.	78	Moderate	The displacement of traffic away from Stockport centre and the A6 will result in a more pleasant environment for walking and cycling and a reduction in accidents. Also, the new pedestrian and cycle route is likely to increase journeys made by these modes.

Appendix 4

LOCAL MAJOR FUNDING BID – LETTERS OF SUPPORT

Department for Transport
Great Minster House
33 Horseferry Road
London
SW1P 4DR

Our ref
Your ref

27 July 2016

Dear Sir/Madam

A6 – M60 Relief Road (SEMMMS Phase 2) highway scheme

Application for Funding for Scheme Development Costs (Large Local Major Transport Schemes) 2017/18

As Chief Executive, I support the above application for funding, which is to be considered by the Department for Transport for funding for scheme development costs as a Large Local Major Transport Scheme.

TfGM has worked alongside local authority leaders and other stakeholders to develop ambitious plans to drive growth within the city region, as set out in the Greater Manchester Strategy and Growth Reform Plan. Supporting investment in strategic transport schemes is an essential accompaniment to the planned growth of the local economy, specifically the SEMMMS relief road and this is recognised in GM2040, Greater Manchester's transport strategy, whose consultation draft was launched this month (July 2016).

The SEMMMS strategy has been developed to address both the regeneration needs of Stockport, the Manchester Airport area and neighbouring parts of Cheshire. It is a major initiative and has been the subject of detailed development for a number of years. Phase 1 of the SEMMMS highway element, the A6-MARR (Manchester Airport

Relief Road) is currently under construction, with completion in late 2016 and a planned opening date in 2017.

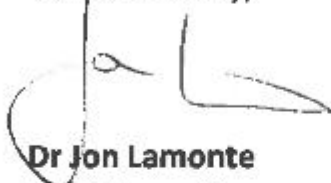
We consider delivery of this scheme will play an essential part in fulfilling the overall strategy, by completing the planned highway infrastructure and opening the door to provision of a comprehensive package of complementary sustainable transport improvements in the SE Stockport sector.

The project is closely aligned with the objectives of the Greater Manchester Transport Strategy 2040 through;

- Supporting the growth of a globally connected city region;
- Improving sustainable transport links in to the Regional Centre;
- Improving sustainable transport options across the wider city region;
- Providing infrastructure to serve new development areas.

We have no doubt that the delivery of the transport infrastructure will contribute significant economic, social and environmental benefits to Greater Manchester. Such investments are recognised as the key to making the Northern Powerhouse concept a reality and we trust that support from the Department for Transport will allow this key strategic scheme to be progressed to delivery, further stimulating the economic growth potential of Greater Manchester.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'Jon Lamonte', written over a circular stamp or seal.

Dr Jon Lamonte
Chief Executive



**Greater Manchester
Local Enterprise Partnership**

Department for Transport
Great Minster House
33 Horseferry Road
London
SW1P 4DR

27th July 2016

Dear Sir/Madam

A6 to M60 Relief Road (SEMMMS Phase 3) highway scheme

Application for Funding for Scheme Development Costs (Large Major) 2017 - 2019

As Chair of the Greater Manchester LEP, I strongly support the above application for development funding, which is to be considered by the Department for Transport for funding the scheme development costs of this Large Local Major Transport Scheme. The LEP has worked alongside the Greater Manchester Combined Authority to develop ambitious plans to drive growth within the city region, as set out in the Greater Manchester Strategy and Growth Reform Plan.

Supporting investment in strategic transport schemes is an essential accompaniment to the planned delivery of growth of the local economy, specifically the SEMMMS: A6 to M60 Relief Road. This is recognised in Greater Manchester's 2040 Transport Strategy, whose consultation draft was launched this month (July 2016).

The SEMMMS strategy was developed to specifically address both the regeneration and connectivity needs of Stockport, the Manchester Airport area and neighbouring parts of Cheshire East and Derbyshire. It is a major initiative and has been the subject of detailed development for a number of years. Phase 1 of the SEMMMS highway element, the A6-MARR (Manchester Airport Relief Road) is currently under construction, with completion in late 2016 and a planned opening date in 2017 while Phase 2 the Poynton Relief Road is currently within the planning process and supported by the Warrington and Cheshire LEP.

We support the further development of this scheme as it is important to better understand the role that it can have, in light of current and emerging transport policy, in fulfilling the overall SEMMMS strategy by removing congestion from local roads, enabling a comprehensive package of complementary sustainable transport improvements, improving access to the M60 motorway, enhancing surface access to the Manchester Airport and improving accessibility to the economic growth area at Airport City.

We have no doubt that there is need for further improvement in transport infrastructure in the area and that it will contribute significant economic, social and environmental benefits to Greater Manchester. Such investments are recognised as the key to making the Northern Powerhouse concept a reality and we trust that support from the Department for Transport will facilitate the further development of this key project.

Yours faithfully,

Mike Blackburn
Chair of the Greater Manchester Local Enterprise Partnership

c/o Greater Manchester Integrated Support Team, Room 308, Level 3, Town Hall, Manchester, M60 2LA

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Appendix 5

DATA COLLECTION SPECIFICATION REPORT

A6 to M60 Link Data Collection

This note summarises the definition of appropriate cordons and screenlines to be used for the validation of the SEMMMS A6-M60 highway model.

The approach to defining the validation cordons and screenlines was as follows:

- Retain all cordons and screenlines used in the A6 to Manchester Airport Relief Road (A6MARR) Study
- Modify any of the above if necessary to provide better coverage of the SEMMMS A6-M60 Area of Influence
- Add new cordons and screenlines where necessary in the vicinity of the A6-M60 scheme
- Review the age of all counts used in the previous A6MARR validation that will be reused in the SEMMMS A6-M60 validation exercise and replace any counts older than 3 years old (pre-2013 counts).

In terms of the existing cordons and screenlines, the Wilmslow / Macclesfield Screenline has been modified to extend it to New Mills to intercept traffic likely to use the SEMMMS A6-M60 scheme. The remaining existing cordons and screenlines have been retained in their current layout.

Three new cordons and one new screenline have been defined to cover the area immediately adjacent to the proposed scheme.

The new cordons cover the following areas:

- Stockport Town Centre;
- Hazel Grove;
- Romiley / Brinnington / Bredbury.

The additional screenline extends to just north of the M60 starting south of Hyde and ending in the Didsbury area.

A number of counts used for the previous A6 MARR validation exercise were relatively old. Although these counts were appropriate at the time that the A6MARR work was carried out,

some are now too old to be used for the current work. For instance, there were a number of traffic counts carried out between 2007 and 2009 which were used in the A6 MARR validation exercise to complete cordons and screenlines located in Cheshire. These will be replaced with more recent counts from our traffic count database or by new traffic counts so that model validation checks are based on traffic counts that are currently no older than three years old.

We have specified a data collection programme that will fill gaps in the validation cordons and screenlines to replace any older (pre-2013) counts, or in the case of new cordons and screenlines, where no count is currently available. The locations of these counts is shown on Figure 1 and summarised in the Table below. Each location will be counted as a split shift two-way classified link count, counted in 15-minute intervals.

The surveys have been scheduled to be carried out during Spring 2016, avoiding local school and statutory holidays. In agreeing the survey schedule, we also liaised with Stockport MBC to avoid surveying routes likely to be affected by nearby roadworks.

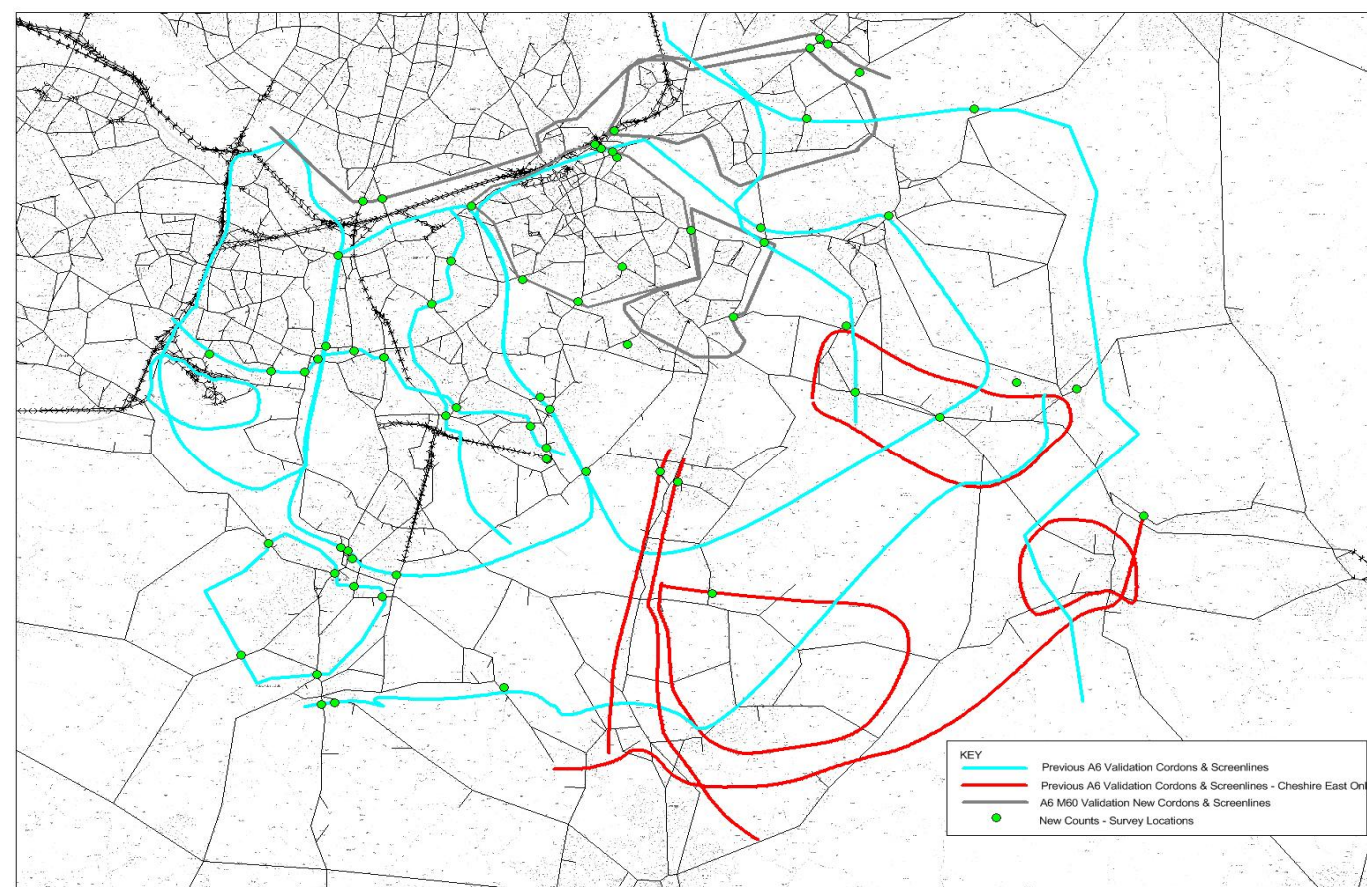


Figure 1 – Cordons and Screenlines and Proposed Count Locations

Table 1 Count Locations and Proposed Data Collection Schedule

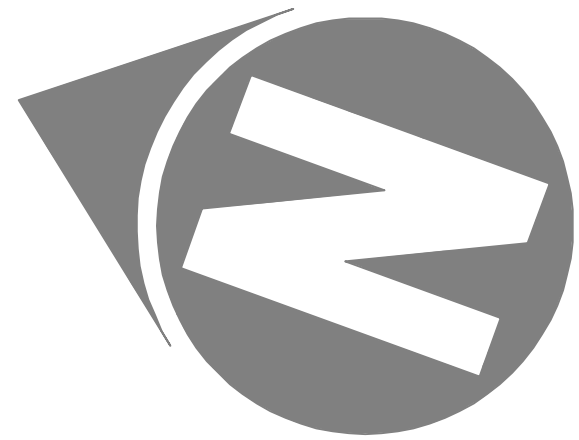
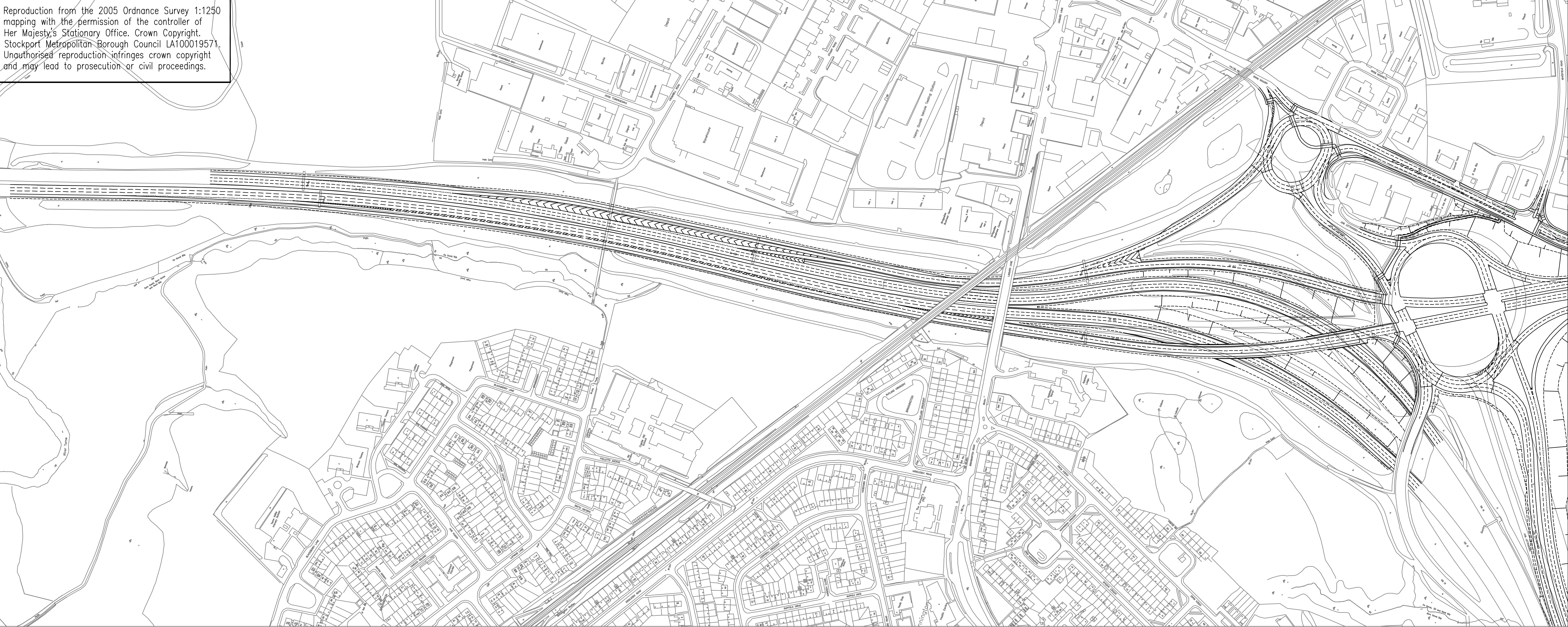
TDC	Task	Site	ANode	BNode	Road	Location (Old)	Location (Updated)	District	Easting	Northing	Area	Direction	Nodes from Scamps - Direction 1		Nodes from Scamps - Direction 2		Day/Date	Staff	Notes
9028	1	1000001	8845	15515	U Torkington Road, Hazel Grove	Outside Nursery	55m SE of Offerton Road	Stockport	393083	386972	4	NW / SE	NW 8845 (15304)	7094	SE 7094	8845 (15304)	Tue 28-Jun-16	2	Provisional survey date
9028	2	1000002	15273	15274	A626 Marple Road, Marple	90m South of jct with Dooley Lane	90m SW of Dooley Lane	Stockport	393736	388691	4	NE / SW	NE 1917	1918	SW 1918	1917	Tue 28-Jun-16	2	Provisional survey date
9028	3	1000003	15508	15507	A627 Dooley Lane, Marple	30m South of jct with Bongs Road	30m S of Bongs Road	Stockport	393682	389028	2	N / S	N 1918	14275	S 14275	1918	Thu 26-May-16	2	
9028	4	1000004	7058	7073	U Werneth Low Road, Werneth	Outside Hare and Hounds	Outside Hare and Hounds	Tameside	395774	392625	5	NE / SW	NE 7073	7058	SW 7058	7073	Thu 26-May-16	2	
9028	5	1000005	2451	15256	A560 Stockport Road, Hyde	50m South of jct with Hilda Rd	50m SW of Hilda Road	Tameside	394713	393194	5	NE / SW	NE 1928	2451	SW 2451	1928	Thu 26-May-16	2	
9028	6	1000006	2663	8910	U Brinnington Road, Portwood	50m North of jct with Dawson St	45m NE of Dawson Street	Stockport	390561	391275	5	NE / SW	NE 2663	14573	SW 14573	2663	Thu 26-May-16	2	
9028	7	1000007	2451	15255	A560 Stockport Road, Gee Cross	Just 50m West of jct with Brabyns Rd	45m W of Brabyns Road	Tameside	395095	393287	5	E / W	E 2451	14519	W 14519	2451	Thu 26-May-16	2	
9028	8	1000008	2451	15254	A627 Dowson Road, Hyde	Just 50m North of jct with Windsor Rd	45m N of Windsor Road	Tameside	394926	393423	5	NE / SW	NE 2451	3642	SW 3642	2451	Thu 26-May-16	2	
9028	9	1000009	3441	4342	A34 Kingsway, East Didsbury	90m South of jct with Fairmile Drive	90m SW of Fairmile Drive	Manchester	385214	389646	5	NE / SW	NE 3441	4342	SW 4342	3441	Thu 26-May-16	3	
9028	10	1000010	15311	13208	U Dickens Lane, Poynton	60ms South of jct with Pickwick Rd	55m SE of Pickwick Road	Outside GM	391915	383131	6	NW / SE	NW 99999	99999	SE 99999	99999	Tue 14-Jun-16	2	Provisional survey date
9028	11	1000011	13248	13286	U Cliff Road, Wilmslow	Just 10m North of jct with Old Rd	10m NW of Old Road	Outside GM	384744	381625	2	NW / SE	NW 99999	99999	SE 99999	99999	Wed 25-May-16	2	
9028	12	1000012	13236	13235	U Adlington Road, Wilmslow Park	300m North of jct with Macclesfield Rd	260m NE of Macclesfield Road	Outside GM	385931	380980	2	NE / SW	NE 12598	12977	SW 12977	12598	Wed 25-May-16	2	Postponed to Wed 22-Jun-16 - road closure
9028	13	1000013	13827	4657	A5102 Bramhall Lane South, Bramhall	Just 20m North of jct with Bramley Close	15m N of Bramley Close	Stockport	389182	384828	2	NE / SW	NE 4184	4657	SW 4657	4184	Wed 25-May-16	2	
9028	14	1000014	3624	5022	A626 St Marys Way, Portwood	70m North of jct with Mersey St	70m NW of Mersey Street	Stockport	390290	390876	4	NW / SE	NW 5022	3624	SE 3624	5022	Tue 28-Jun-16	2	Provisional survey date
9028	15	1000015	4163	2427	B5358 Wilmslow Road, Heald Green	120m North of jct with MErwood Avenue	120m N of Merwood Avenue	Stockport	385670	386044	7	N / S	N 4163	2427	S 2427	4163	Wed 15-Jun-16	2	Provisional survey date
9028	16	1000016	1827	3340	U Shadow Moss Road, Ringway	130m South of jct with Cornishway	130m S of Cornishway	Manchester	383275	385716	7	N / S	N 14619 (1827)	3340	S 3340	14619 (1827)	Wed 15-Jun-16	2	Provisional survey date
9028	17	1000017	7076	1219	A626 Glossop Road, Marple	300m North of jct with Emcroft Lane	275m N of Emcroft Lane	Stockport	398206	391799	4	NE / SW	NE 7076	1219	SW 1219	7076	Tue 28-Jun-16	2	Provisional survey date
9028	18	1000018	12966	9078	A6015 Church Road, New Mills	50m South of jct with New Street	60m SW of New Street	Outside GM	400379	385299	4	NE / SW	NE 12966	99999	SW 99999	12966	Tue 28-Jun-16	2	Provisional survey date
9028	19	1000019	13304	13850	A538 Wilmslow Road, Mottram St Andrew	450m North of jct with Hunters Pool Lane	425m NW of Hunters Pool Lane	Outside GM	388219	378377	6	NW / SE	NW 99999	99999	SE 99999	99999	Tue 14-Jun-16	2	Provisional survey date
9028	20	1000020	15540	15539	U Robin's Lane, Bramhall	40m West of jct with Hillbrook Road	30m W of Hillbrook Road	Stockport	388989	385111	2	NW / SE	NW 7098	99999 (7099)	SE 99999 (7099)	7098	Wed 25-May-16	2	
9028	21	1000021	8854	1915	A626 Marple Road, Offerton	60m East of jct with Chadwell Rd	60m E of Chadwell Road	Stockport	392191	388975	4	E / W	E 1915	8854	W 8854	1915	Tue 28-Jun-16	2	Provisional survey date
9028	22	1000022	7075	8872	U Greave, Romiley	60m North of jct with Pinfold Lane	35m N of Pinfold Lane	Stockport	394639	391560	4	N / S	N 8872	7075	S 7075	8872	Tue 28-Jun-16	2	Provisional survey date
9028	23	1000023	13288	15336	B5166 Manchester Road, Wilmslow	50m North of jct with River Street	5m N of River Street	Outside GM	384900	381549	2	N / S	N 12596	12587	S 12587	12596	Wed 25-May-16	2	
9028	24	1000024	7092	6305	U Windlehurst Road, Windlehurst	130m North of jct with Torkington Ln	140m NW of Torkington Lane	Stockport	395490	386767	4	E / W	E 7092	6305	W 6305	7092	Tue 28-Jun-16	2	Provisional survey date
9028	25	1000025	4802	8883	A6 Buxton Road, High Lane	80m East of jct with Andrew Lane	85m E of Andrew Lane	Stockport	395668	385223	4	E / W	E 1947	8883	W 8883	1947	Tue 28-Jun-16	2	Provisional survey date
9028	26	1000026	2889	8757	B5166 Styal Road, Heald Green	60m South of jct with Longstone Road	40m S of Longstone Road	Manchester	383980	385702	7	N / S	N 8757	2889	S 2889	8757	Wed 15-Jun-16	2	Provisional survey date
9028	27	1000027	7148	7147	U Bailey Lane, Ringway	50ms South of jct with Hilary Rd	25m SW of Hilary Road	Manchester	381955	386120	7	NE / SW	NE 7148	7147	SW 7147	7148	Wed 15-Jun-16	2	Provisional survey date
9028	28	1000028	13904	15337	A538 Link Road (btwn A34 & B5166), Wilmslow	170m West of A34	170m NW of A34	Outside GM	385002	381351	2	NW / SE	NW 12588	12596	SE 12596	12588	Wed 25-May-16	2	
9028	29	1000029	13486	13470	B5087 Macclesfield Road, Alderley Edge	40m South of jct with Trafford Rd	40m SE of Trafford Road	Outside GM	384604	378029	6	NW / SE	NW 10461	12594	SE 12594	10461	Tue 14-Jun-16	2	Provisional survey date
9028	30	1000030	13486	13487	U Congleton Road, Alderley Edge	Just 20m North of jct with Hilarys Park	20m N of St Hilarys Park	Outside GM	384342	377997	6	N / S	N 14464	12594	S 12594	14464	Tue 14-Jun-16	2	Provisional survey date
9028	31	1000031	1929	1911	U New Zealand Road, Stockport TC	400m South of jct with New Bridge Ln	365m SW of New Bridge Lane	Stockport	390611	390669	4	NE / SW	NE 1911	1929	SW 1929	1911	Tue 28-Jun-16	2	Provisional survey date
9028	32	1000032	1895	4724	A5102 Bramhall Lane South, Davenport	150m South of jct with Woodsmoor Lane	50m SW of Trinity Gardens	Stockport	389794	387332	4	NE / SW	NE 4724	1895	SW 1895	4724	Tue 28-Jun-16	2	Provisional survey date
9028	33	1000033	1891	13866	U Adswood Road, Adswood	200m South of jct with Clover Avenue	200m SW of Clover Avenue	Stockport	388620	387840	4	NE / SW	NE 4207	1891	SW 1891	4207	Tue 28-Jun-16	2	Provisional survey date
9028	34	1000034	4169	14008	A560 Stockport Road, Cheadle	30m South of jct with Redwood Close	25m SE of Redwood Close	Stockport	387523	389541	2	NE / SW	NE 14008	4169	SW 4169	14008	Wed 25-May-16	2	
9028	35	1000035	8909	4656	A560 Great Portwood Street, Stockport TC	Just 50m North of jct with Lancaster St	50m NE of Lancaster Street	Stockport	390166	390969	4	NE / SW	NE 4656	5019	SW 5019	4656	Tue 28-Jun-16	2	Provisional survey date
9028	36	1000036	3620	1929	U New Bridge Lane, Stockport TC	70m North of jct with Cromer St	65m NE of Cromer Street	Stockport	390521	390805	4	NE / SW	NE 3620	1929	SW 1929	3620	Tue 28-Jun-16	2	Provisional survey date
9028	37	1000037	13333	2164	B5094 Moss Lane, Bramhall	10m South of jct with Lees Rd	10m SW of Lees Road	Stockport	388772	384433	7	NE / SW	NE 8939	2164	SW 2164	8939	Wed 15-Jun-16	2	Provisional survey date
9028	38	1000038	13828	15538	A5102 Woodford Road, Bramhall	160m South of jct with Patch Lane	160m S of Patch Lane	Stockport	389120	383931	7	NW / SE	NW 2464	4645	SE 4645	2464	Wed 15-Jun-16	2	Provisional survey date

9028	39	1000039	15534	8811	U Gill Bent Road, Cheadle Hulme	10m North of jct with Pingate Drive	10m N of Pingate Drive	Stockport	387213	384866	7	NE / SW	NE	1833	8811	SW	8811	1833	Wed 15-Jun-16	2	Provisional survey date
9028	40	1000040	4787	4166	A560 Gatley Road, Gatley	220m East of jct with Old Hall Rd	5m NE of Cambridge Road	Stockport	384688	388388	1	NW / SE	NW	4166	4787	SE	4787	4166	Tue 21-Jun-16	2	Provisional survey date
9028	41	1000041	13700	13867	U Brown Lane, Heald Green	60m East of jct with The Avenue	50m E of The Avenue	Stockport	384437	386296	1	E / W	E	99999	99999	W	99999	99999	Tue 21-Jun-16	2	Provisional survey date
9028	42	1000042	15532	13839	A5149 Chester Road, Woodford	350 North of jct with Bridle Rd	350m NE of Bridle Road	Stockport	389960	383380	2	NE / SW	NE	2165	2167	SW	2167	2165	Wed 25-May-16	2	
9028	43	1000043	13226	13219	U Roundy Lane, Cheshire	320m North of jct with Brookledge Lane	305m NE of Brookledge Lane	Outside GM	392644	380538	2	NE / SW	NE	99999	99999	SW	99999	99999	Wed 25-May-16	2	
9028	44	1000044	1611	9101	U Jacksons Edge Road, Disley	100m North of jct with A6 Buxton Rd	70m NW of Buxton Road West	Outside GM	397404	384703	2	NW / SE	NW	1611	3628	SE	3628	1611	Thu 26-May-16	2	
9028	45	1000045	2591	3608	B6101 Lower Hague, Hague Bar	50m West of jct with Waterside Rd	30m W of Waterside Road	Outside GM	398567	385725	2	E / W	E	3608	2591	W	2591	3608	Thu 26-May-16	2	
9028	46	1000046	15514	2219	A626 Brabyns Brow, Marple	180m North of jct with Arkwright rd	175m NE of Arkwright Rd	Stockport	396376	389322	2	NE / SW	NE	2219	2526	SW	2526	2219	Thu 26-May-16	2	
9028	47	1000047	1611	15512	A6 Buxton Rd West, Disley	150m West of jct with Buxton Old rd	120M W of Buxton Old Road	Outside GM	397342	384637	2	E / W	E	2168 (15303)	1611	W	1611	2168 (15303)	Thu 26-May-16	2	
9028	48	1000048	4152	1929	B6104 Carrington Road, Portwood	60m North of jct with New Bridge Lane	60m NW of New Bridge Lane	Stockport	390781	390979	2	NW / SE	NW	1929	4152	SE	4152	1929	Wed 25-May-16	2	
9028	49	1000049	1828	2978	U Outwood Road, Heald Green	50m North of jct with Wythens Road	45m NW of Wythens Road	Stockport	384720	385729	7	NW / SE	NW	2978	1828	SE	1828	2978	Wed 15-Jun-16	2	Provisional survey date
9028	50	1000050	5130	3339	U Simonsway, Woodhouse Park	100m West of jct with Portway	110m W of Portway	Manchester	381742	387190	1	E / W	E	5130	3339	W	3339	5130	Tue 21-Jun-16	2	Provisional survey date
9028	51	1000051	2423	1846	U Hollyhedge Road, Newall Green	160m North of Jct with Greenwood Rd	160m NW of Greenwood Road	Manchester	381862	388168	1	NW / SE	NW	1846	14615 (2423)	SE	14615 (2423)	1846	Tue 21-Jun-16	2	Provisional survey date
9028	52	1000052	5121	4373	A560 Altrincham Road, Northenden	50m South of Jct. with Netherwood Rd	45m S of Netherwood Road	Manchester	382346	389163	1	NW / SE	NW	4373	5121	SE	5121	4373	Tue 21-Jun-16	2	Provisional survey date
9028	53	1000053	13276	13275	B5166 Styal Road, Styal	Half Way btw jucts with Station Rd and Altrincham Rd	Btwn Station Road & Altrincham Road	Outside GM	383993	383469	1	N / S	N	12587	12991	S	12991	12587	Tue 21-Jun-16	2	Provisional survey date
9028	54	1000054	1904	8956	U Manor Road, Bramhall Park	30m East of Jct with Ladybrook Rd	30m E of Ladybrook Road	Stockport	388261	386083	2	E / W	E	1904	8956	W	8956	1904	Thu 26-May-16	2	
9028	55	1000055	7153	13881	U Thorley Lane, Ringway	200m West of Jct with Sydney Av	210m NW of Sydney Avenue	Manchester	381004	386142	1	NE / SW	NE	7153	8751	SW	8751	7153	Tue 21-Jun-16	2	Provisional survey date
9028	56	1000056	4191	7087	A5149 Cheadle Road, Cheadle Hulme	30m South of jct with Orrishmere Rd	30m SE of Orrishmere Road	Stockport	386690	387268	3	NW / SE	NW	4191	7087	SE	7087	4191	Tue 24-May-16	2	
9028	57	1000057	8801	4212	U Councillor Lane, Cheadle	70m North of Jct with Hereford Rd	100m NW of Hereford Road	Stockport	387377	388062	3	NW / SE	NW	6238	8801	SE	8801	6238	Tue 24-May-16	2	
9028	58	1000058	4210	8941	U Bird Hall Lane, Cheadle	20m North of jct with Buildbase Way	15m N of Buildbase Way	Stockport	387777	388669	3	N / S	N	8941 (15281)	4210	S	4210	8941 (15281)	Tue 24-May-16	2	
9028	59	1000059	8836	1298	U Dale Street, Edgeley	20m South of jct. with Moscow rd	10m S of Moscow Road	Stockport	388736	389006	3	N / S	N	1298	8836	S	8836	1298	Tue 24-May-16	2	
9028	60	1000060	1901	1900	U Dialstone Road, Great Moor	60m South of jct with Nangreave Rd	60m S of Nangreave Road	Stockport	391168	388891	3	N / S	N	1900	1901	S	1901	1900	Tue 24-May-16	2	
9028	61	1000061	6818	6816	U Kingsway, Bredbury	135m West of jct with The Broadway	110m W The Broadway	Stockport	392262	391211	3	E / W	E	6816	6818	W	6818	6816	Tue 24-May-16	2	

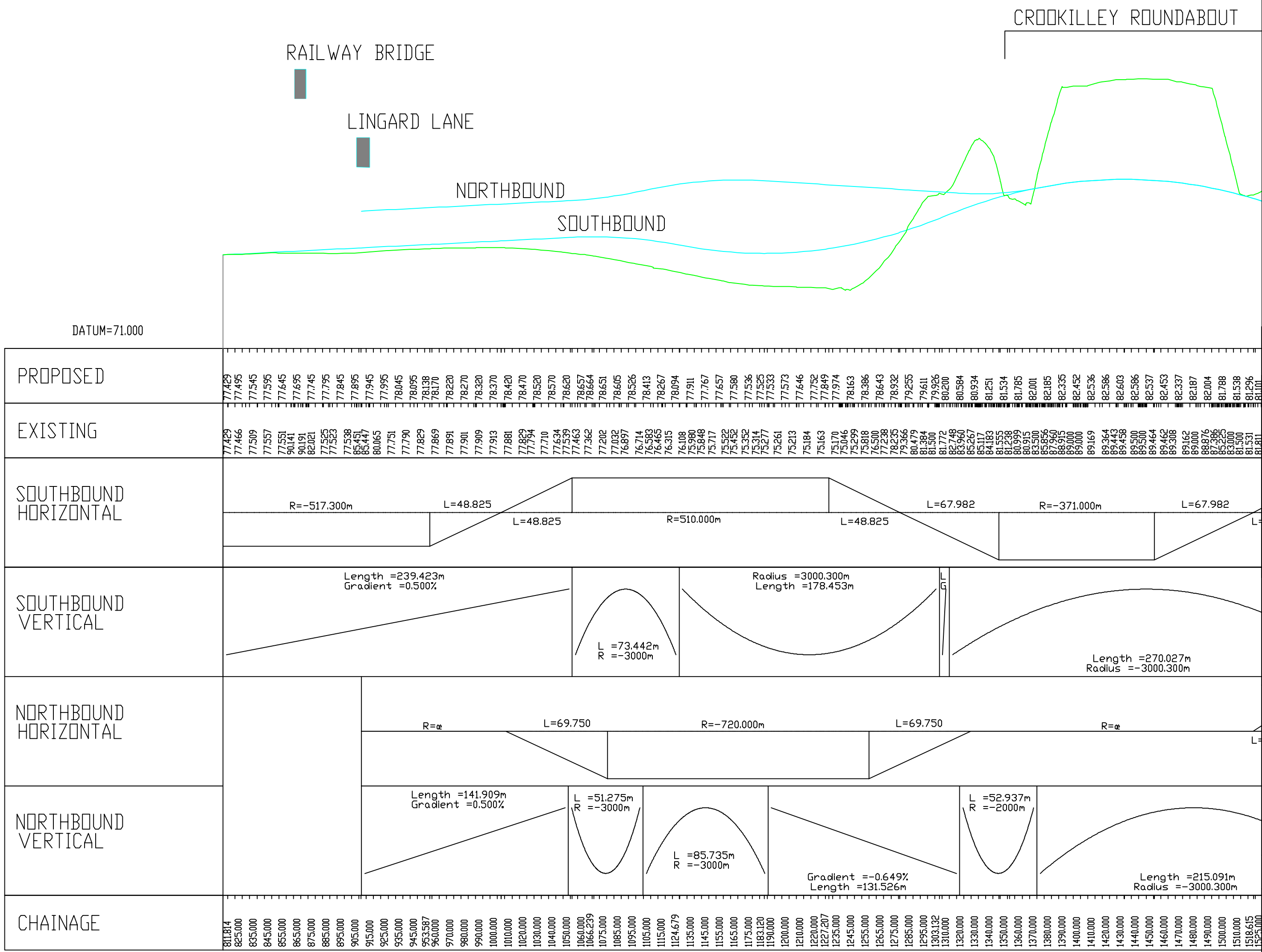
Appendix 6

EXISTING MAINLINE DRAWINGS

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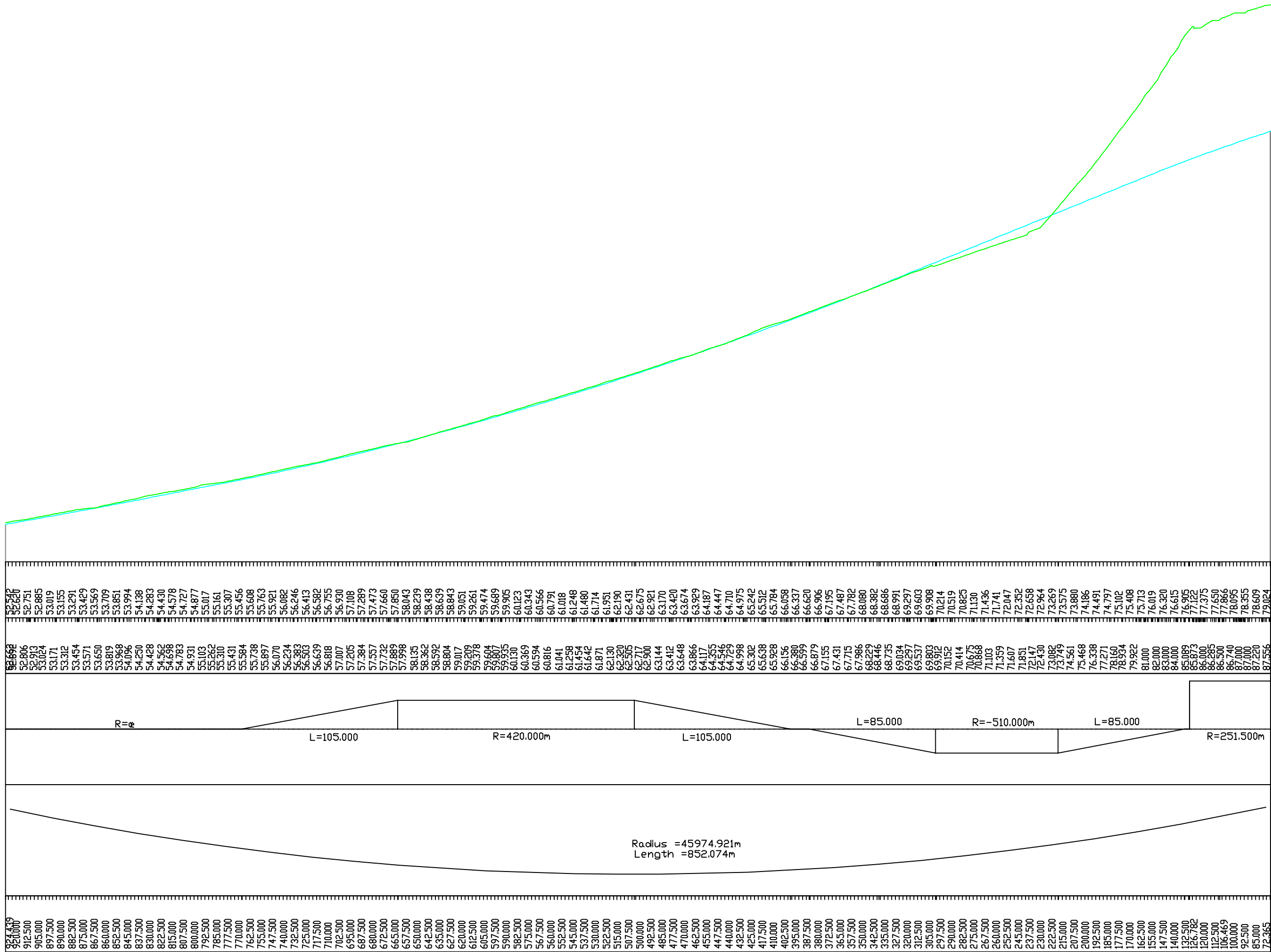


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DATUM=50.000

PROPOSED

EXISTING

HORIZONTAL

VERTICAL

CHAINAGE

Rev.	Drawn	Checked	Date	Revision Details
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semms SOUTH EAST MANCHESTER MULTI-MODAL STRATEGY

STOCKPORT CHESHIRE MANCHESTER CITY COUNCIL

ENGINEERING CONSULTANCY SERVICES HYDRAULIC HOUSE
103 WELLINGTON ROAD SOUTH STOCKPORT S81 3JT
DIRECTOR OF ENVIRONMENT & ECONOMIC DEVELOPMENT SERVICES TEL 0161 474 4531 FAX 0161 476 0721

Job Title
SEMMS MAJOR ROAD SCHEMES

A555
M60 (jct 25) to WOODFORD RD (Bramhall)

Drawing Title
DESIGN FREEZE 4A
MAINLINE DESIGN
Sheet 2 of 23

Drawn S Payne	Checked	Engineer	Approved
Date 16.03.06	Date	Date	Date
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Status	Filename G:\WORKING\DESIGN\FREEZE 4A\MAINLINE\2-DRAWING_2006.DWG		

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OIL INTERCEPTOR SURFACE WATER STATIONING TANK AND PUMPING STATION

TUNNEL EMERGENCY SERVICES RENDEZVOUS POINT

CONTROL AND SERVICE BUILDING

TEMPORARY ROAD DIVERSION AND PROPOSED PERMANENT STRAIGHTENED HIGHWAY CROSS SECTION

Siphon Sump

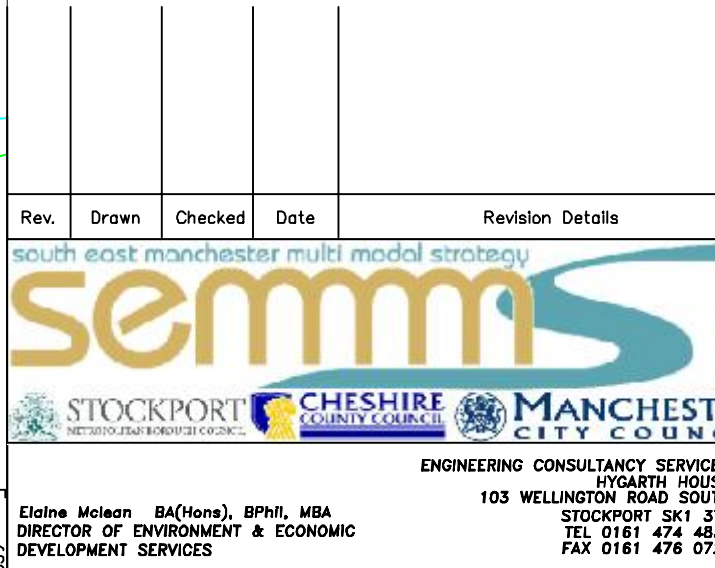
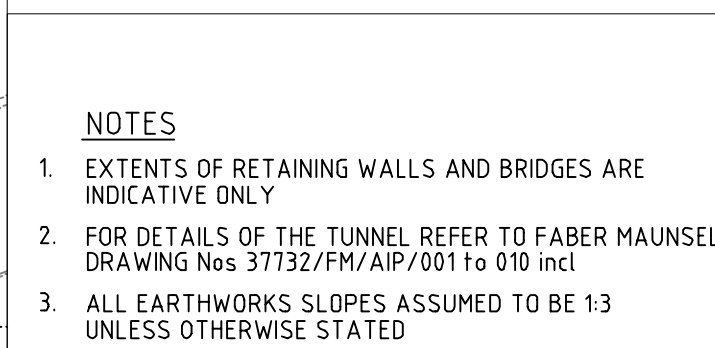
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Water Level +67.2m

Terraces Road Bridge Area 105 sq. m

Water Level +64.0m
Water Level +63.0m
Water Level +63.0m

Scale: 1 in 2.5, 1 in 6

North Arrow

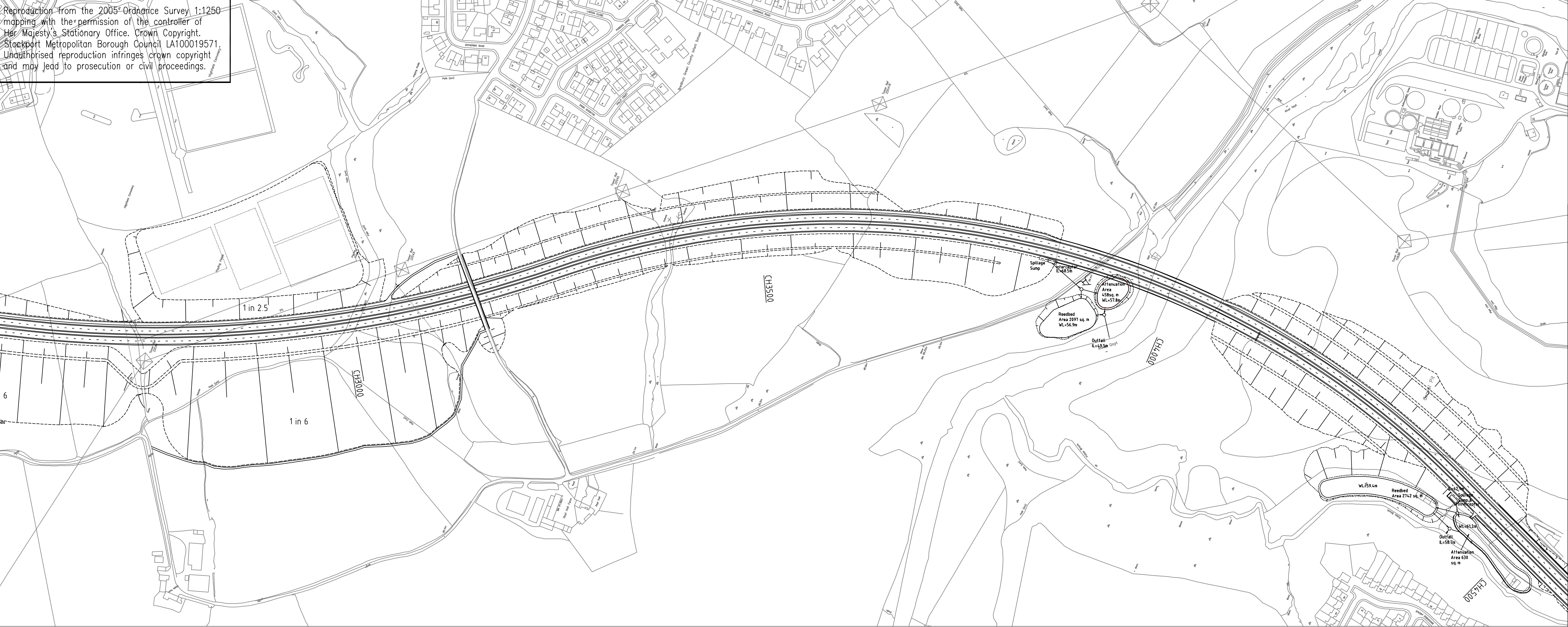


A555
M60 (jct 25) to WOODFORD RD (Bramhall)

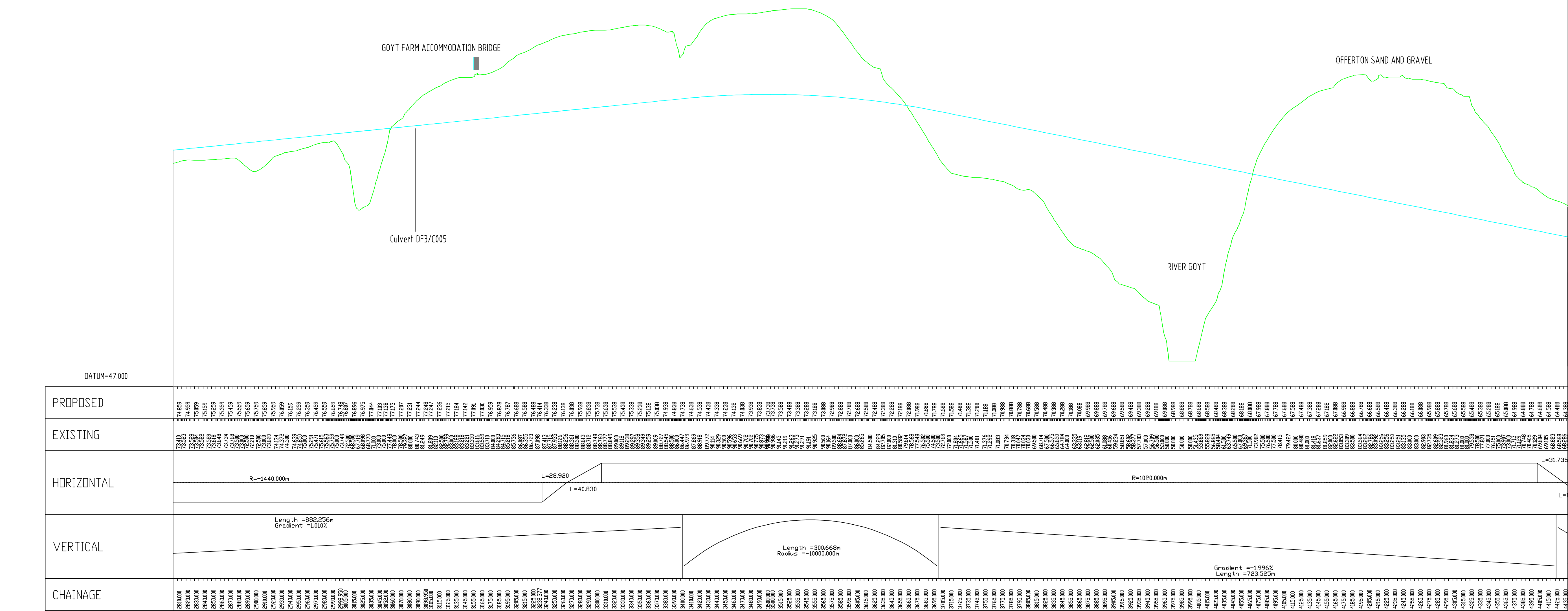
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Drawing No.	1007/D/DF4A/003	Revision
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semms
SOUTH EAST MANCHESTER MULTI-MODAL STRATEGY
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DIRECTOR OF ENVIRONMENT & ECONOMIC DEVELOPMENT SERVICES

Job Title
SEMMS MAJOR ROAD SCHEMES

A555
M60 (jct 25) to WOODFORD RD (Bramhall)

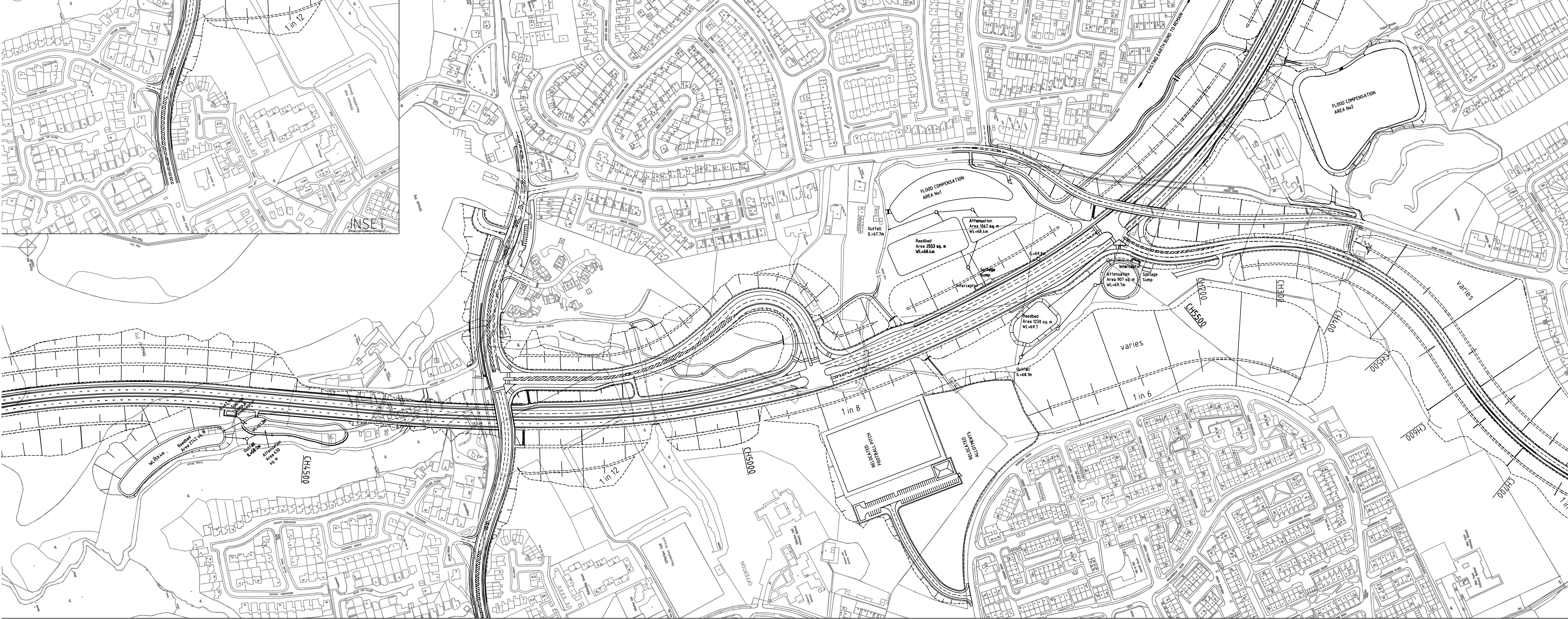
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DESIGN FREEZE 4A
MAINLINE DESIGN
Sheet 4 of 23

Drawn	Checked	Engineer	Approved
S Payne			

Date 16.03.06 Date Date Date

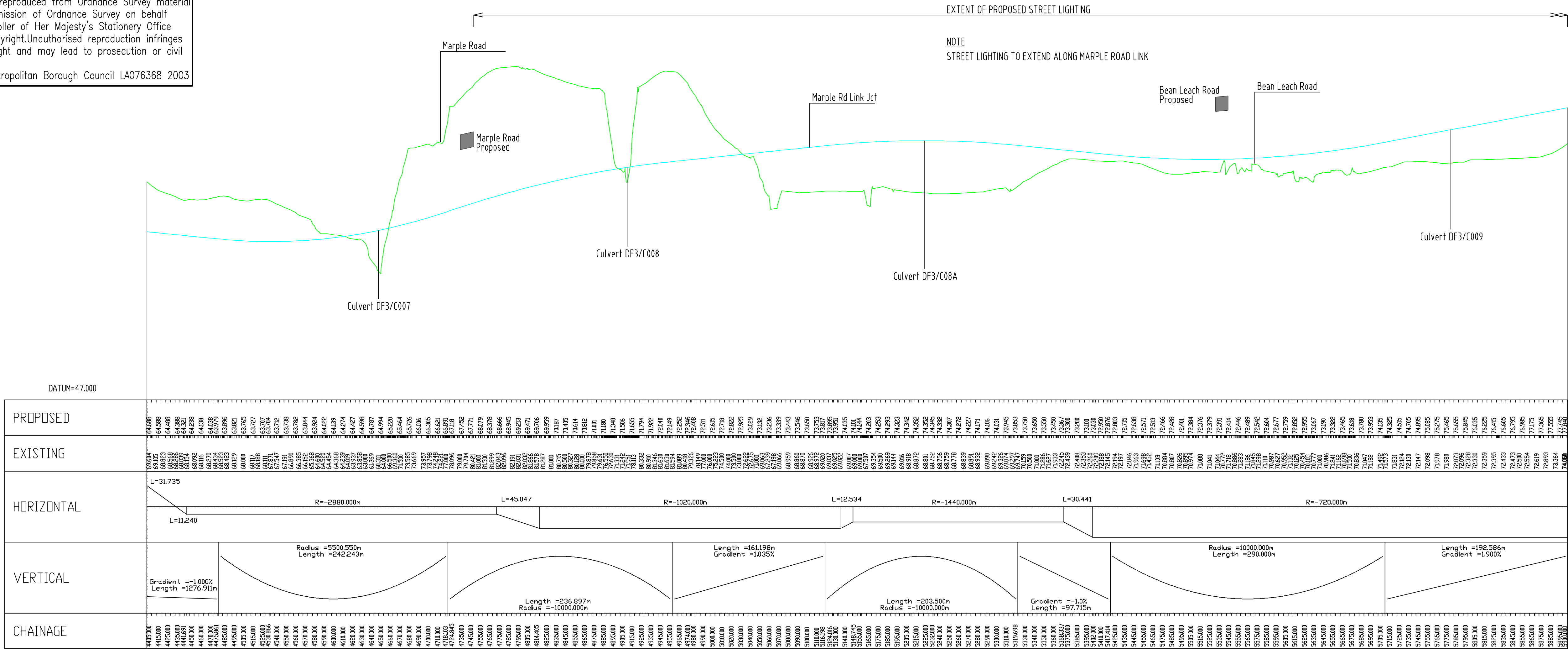
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Status Drawing No. 1007/D/DF4A/004 Revision



- NOTES
- EXTENTS OF RETAINING WALLS AND BRIDGES ARE INDICATIVE ONLY
 - ALL EARTHWORKS SLOPES ASSUMED TO BE 1:3 UNLESS OTHERWISE STATED

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Rev.	Drawn	Checked	Date	Revision Details

semms

STOCKPORT CHESHIRE MANCHESTER

ENGINEERING CONSULTANCY SERVICES

103 WELLINGTON ROAD SOUTH STOCKPORT S81 3TT

ELAINE MUIR BA(Hons), BPHI, MBA

DIRECTOR OF ENVIRONMENT & ECONOMIC DEVELOPMENT SERVICES

Job Title
SEMMS MAJOR ROAD SCHEMES

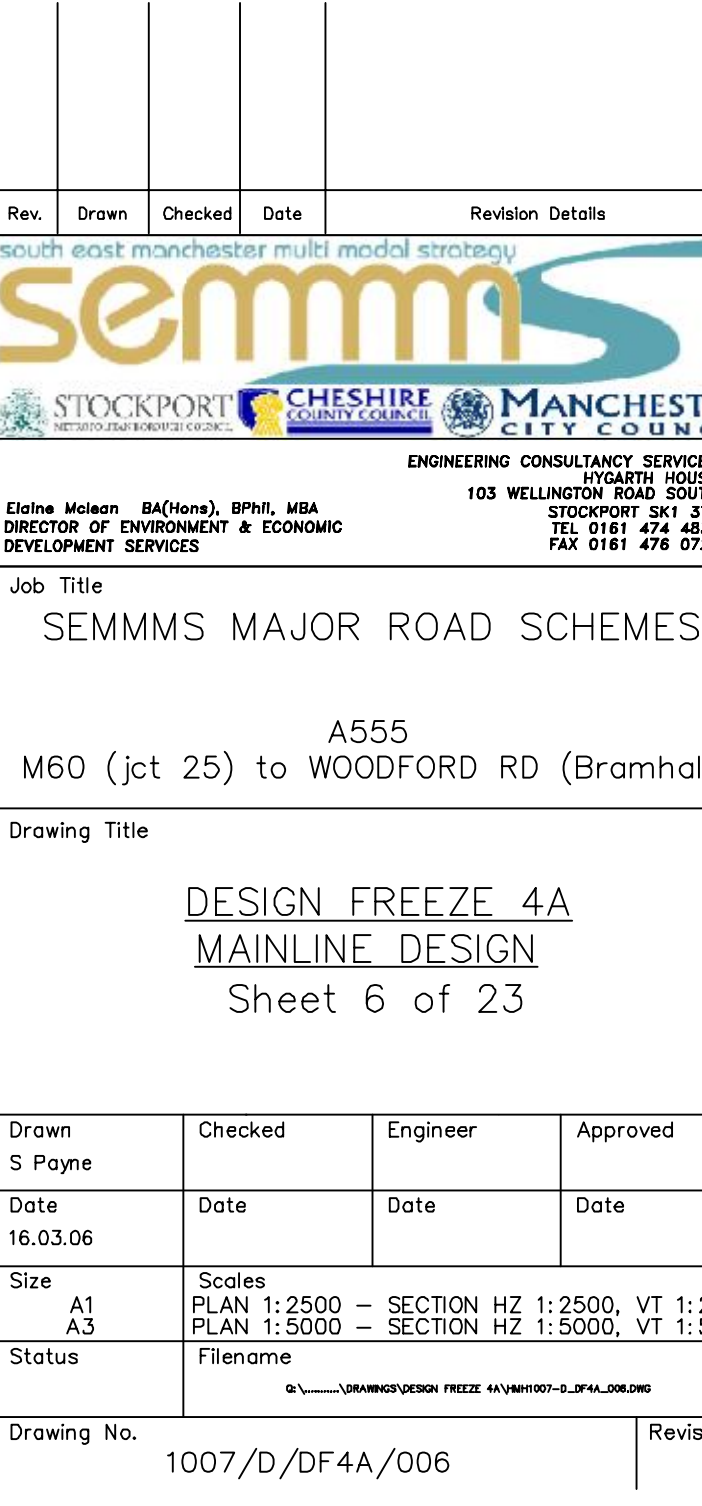
A555
M60 (jct 25) to WOODFORD RD (Bramhall)

Drawing Title
DESIGN FREEZE 4A
MAINLINE DESIGN
Sheet 5 of 23

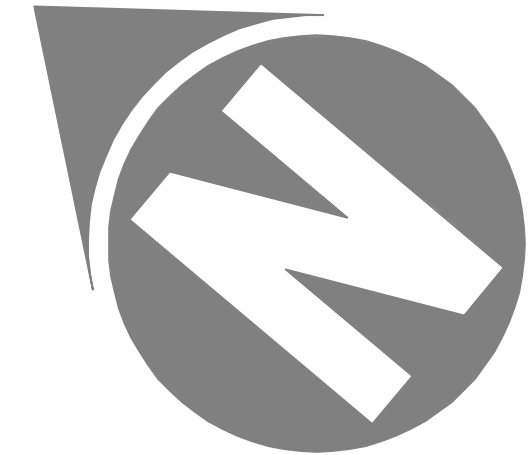
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Date 16.03.06	Date	Date	Date
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Drawing No. 1007/D/DF4A/005

Revision

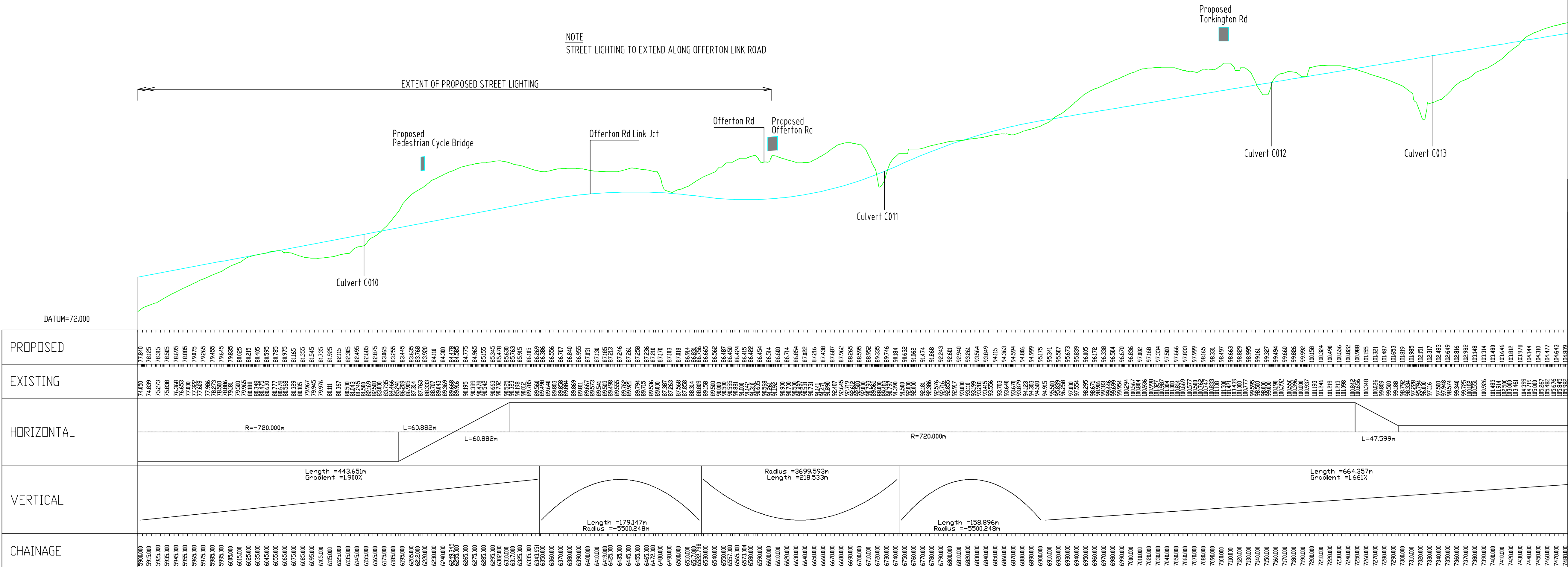
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Rev.	Drawn	Checked	Date	Revision Details

Job Title
SEMMMS MAJOR ROAD SCHEMES

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DESIGN FREEZE 4A
MAINLINE DESIGN
Sheet 7 of 23

Drawn	Checked	Engineer	Approved
S Payne			

Date	Date	Date	Date
16.03.06			

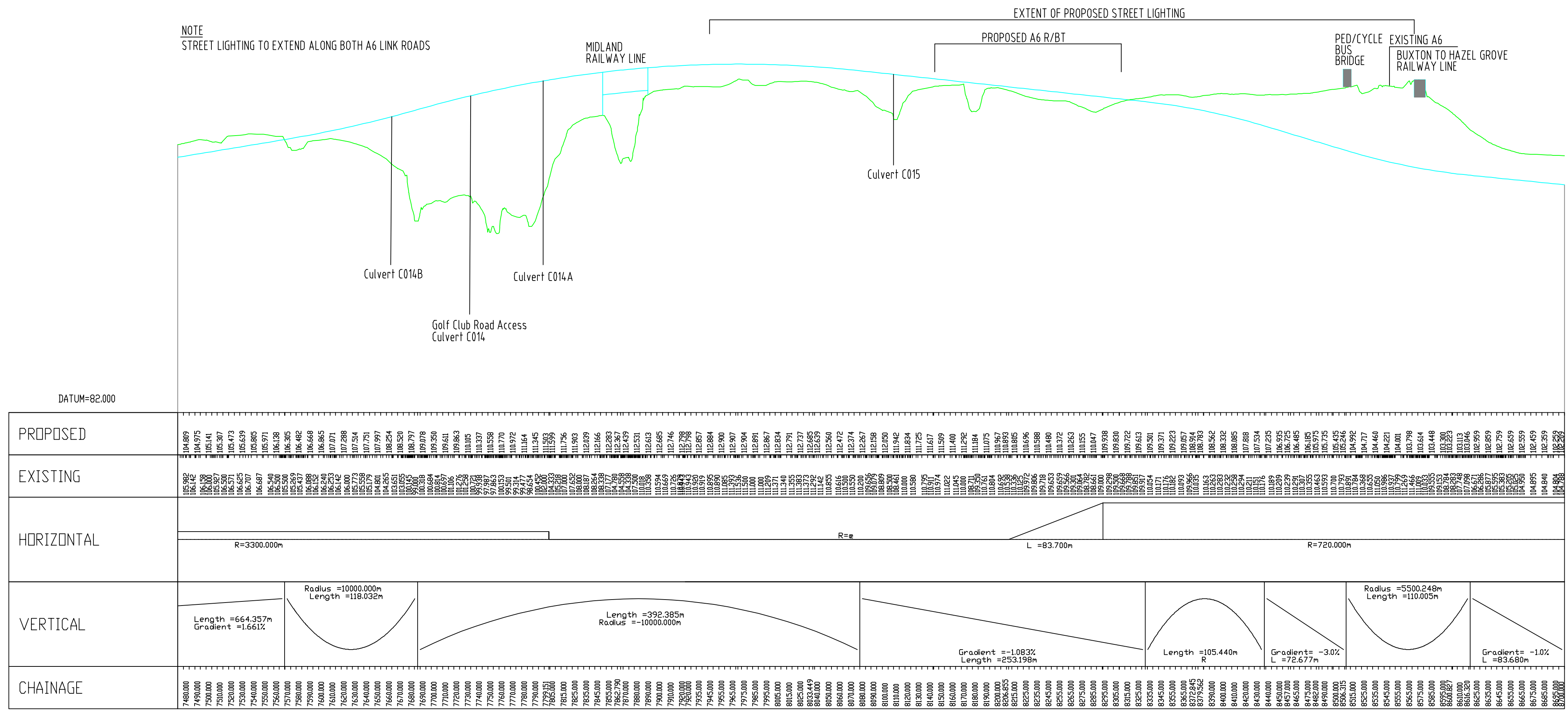
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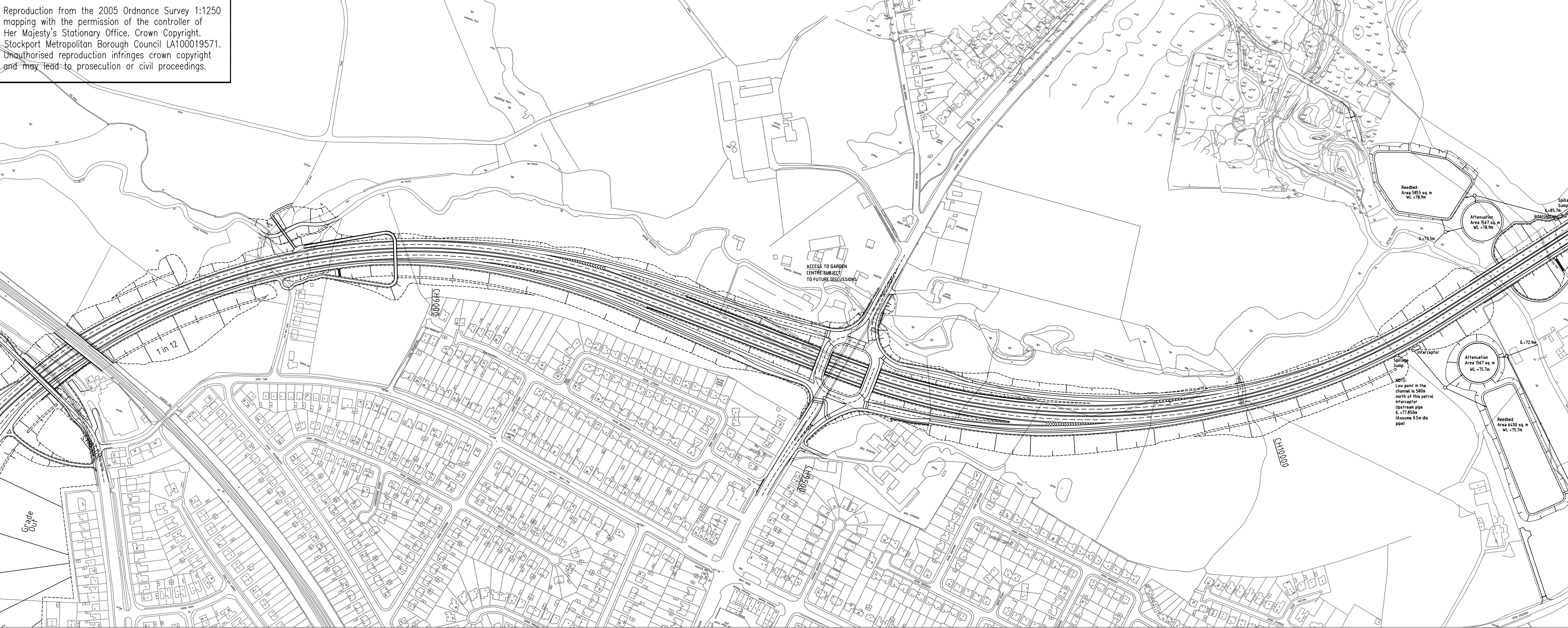


- NOTES
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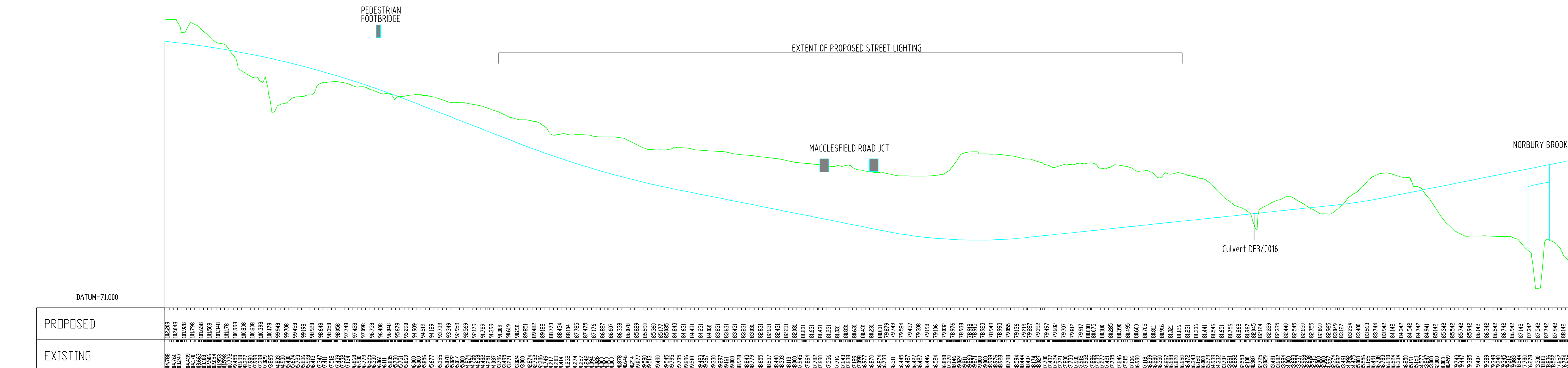


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125.394 125.560 125.726 125.892 126.058 126.224 126.390 126.556 126.722 126.888 127.054 127.220 127.386 127.552 127.718 127.884 128.050 128.216 128.382 128.548 128.714 128.880 129.046 129.212 129.378 129.544 129.710 129.876 130.042 130.208 130.374 130.540 130.706 130.872 131.038 131.204 131.370 131.536 131.702 131.868 132.034 132.200 132.366 132.532 132.698 132.864 133.030 133.196 133.362 133.528 133.694 133.860 134.026 134.192 134.358 134.524 134.690 134.856 135.022 135.188 135.354 135.520 135.686 135.852 136.018 136.184 136.350 136.516 136.682 136.848 137.014 137.180 137.346 137.512 137.678 137.844 138.010 138.176 138.342 138.508 138.674 138.840 139.006 139.172 139.338 139.504 139.670 139.836 140.002 140.168 140.334 140.500 140.666 140.832 140.998 141.164 141.330 141.496 141.662 141.828 141.994 142.160 142.326 142.492 142.658 142.824 142.990 143.156 143.322 143.488 143.654 143.820 143.986 144.152 144.318 144.484 144.650 144.816 144.982 145.148 145.314 145.480 145.646 145.812 145.978 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166.894 167.060 167.226 167.392 167.558 167.724 167.890 168.056 168.222 168.388 168.554 168.720 168.886 169.052 169.218 169.384 169.550 169.716 169.882 170.048 170.214 170.380 170.546 170.712 170.878 171.044 171.210 171.376 171.542 171.708 171.874 172.040 172.206 172.372 172.538 172.704 172.870 173.036 173.202 173.368 173.534 173.700 173.866 174.032 174.198 174.364 174.530 174.696 174.862 175.028 175.194 175.360 175.526 175.692 175.858 176.024 176.190 176.356 176.522 176.688 176.854 177.020 177.186 177.352 177.518 177.684 177.850 178.016 178.182 178.348 178.514 178.680 178.846 179.012 179.178 179.344 179.510 179.676 179.842 179.999 180.165 180.331 180.497 180.663 180.829 180.995 181.161 181.327 181.493 181.659 181.825 181.991 182.157 182.323 182.489 182.655 182.821 182.987 183.153 183.319 183.485 183.651 183.817 183.983 184.149 184.315 184.481 184.647 184.813 184.979 185.145 185.311 185.477 185.643 185.809 185.975 186.141 186.307 186.473 186.639 186.805 186.971 187.137 187.303 187.469 187.635 187.801 187.967 188.133 188.299 188.465 188.631 188.797 188.963 189.129 189.295 189.461 189.627 189.793 189.959 190.125 190.291 190.457 190.623 190.789 190.955 191.121 191.287 191.453 191.619 191.785 191.951 192.117 192.283 192.449 192.615 192.781 192.947 193.113 193.279 193.445 193.611 193.777 193.943 194.109 194.275 194.441 194.607 194.773 194.939 195.105 195.271 195.437 195.603 195.769 195.935 196.101 196.267 196.433 196.599 196.765 196.931 197.097 197.263 197.429 197.595 197.761 197.927 198.093 198.259 198.425 198.591 198.757 198.923 199.089 199.255 199.421 199.587 199.753 199.919 200.085 200.251 200.417 200.583 200.749 200.915 201.081 201.247 201.413 201.579 201.745 201.911 202.077 202.243 202.409 202.575 202.741 202.907 203.073 203.239 203.405 203.571 203.737 203.903 204.069 204.235 204.401 204.567 204.733 204.899 205.065 205.231 205.397 205.563 205.729 205.895 206.061 206.227 206.393 206.559 206.725 206.891 207.057 207.223 207.389 207.555 207.721 207.887 208.053 208.219 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312.117 312.283 312.449 312.615 312.781 312.947 313.113 313.279 313.445 313.611 313.777 313.943 314.109 314.275 314.441 314.607 314.773 314.939 315.105 315.271 315.437 315.603 315.769 315.935 316.101 316.267 316.433 316.599 316.765 316.931 317.097 317.263 317.429 317.595 317.761 317.927 318.093 318.259 318.425 318.591 318.757 318.923 319.089 319.255 319.421 319.587 319.753 319.919 320.085 320.251 320.417 320.583 320.749 320.915 321.081 321.247 321.413 321.579 321.745 321.911 322.077 322.243 322.409 322.575 322.741 322.907 323.073 323.239 323.405 323.571 323.737 323.903 324.069 324.235 324.401 324.567 324.733 324.899 325.065 325.231.2
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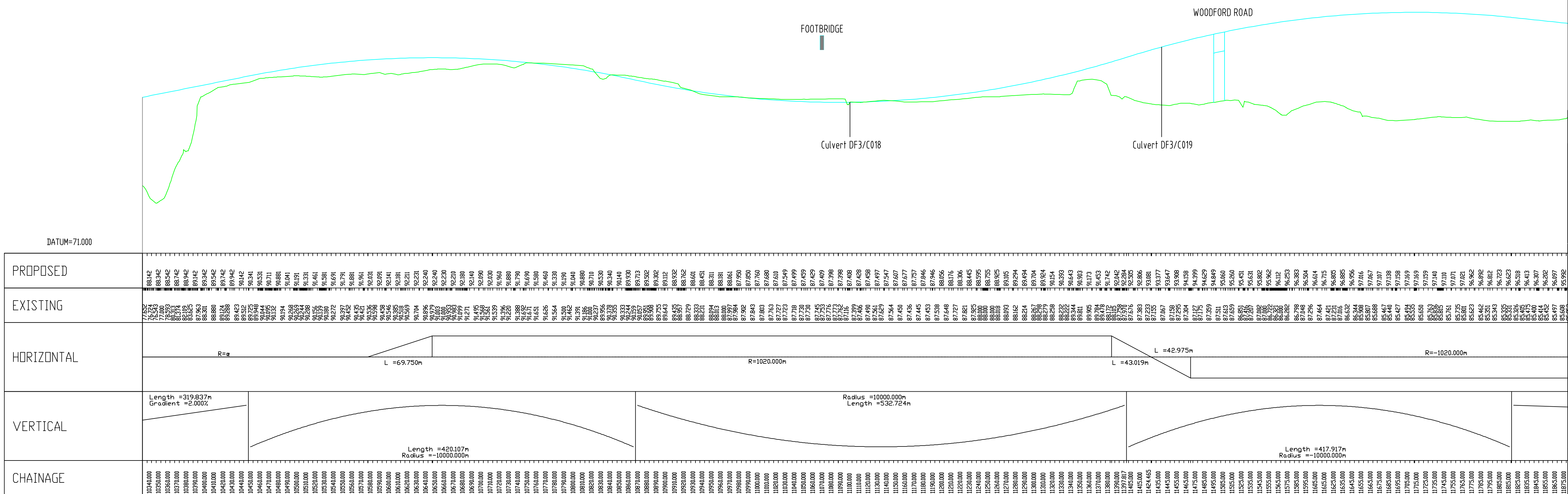
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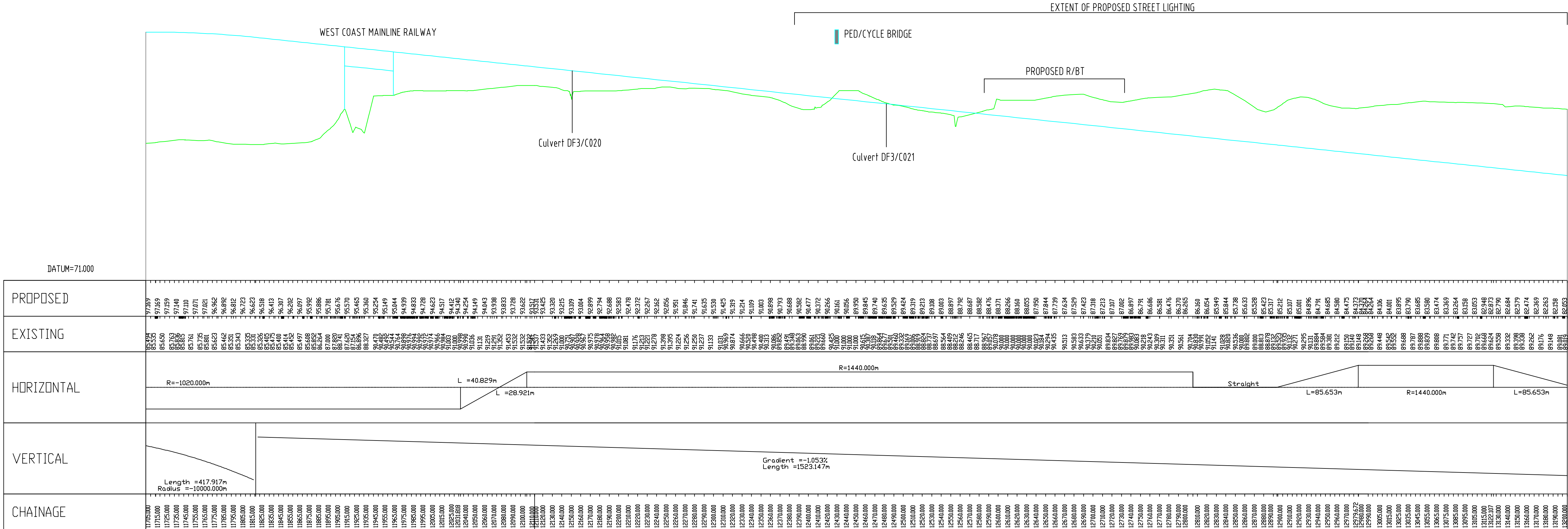
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<p>south east manchester multi modal strategy</p>  <p>STOCKPORT CHESHIRE COUNTY COUNCIL MANCHESTER CITY COUNCIL</p> <p>ENGINEERING CONSULTANCY SERVICES POUGHAM HOUSE 103 WELLINGTON ROAD SOUTH STOCKPORT SK1 3 TEL 0161 474 4800 FAX 0161 476 077</p> <p>Elaine Molan BA(NONE), BPHV, MBA DIRECTOR OF ENVIRONMENT & ECONOMIC DEVELOPMENT SERVICES</p> <p>Job Title</p> <p>SEMMS MAJOR ROAD SCHEMES</p> <p>A555 M60 (jct 25) to WOODFORD RD (Bramhall)</p> <p>Drawing Title</p> <p><u>DESIGN FREEZE 4A</u> <u>MAINLINE DESIGN</u> Sheet 10 of 23</p>					
Drawn S Payne		Checked	Engineer	Approved	
Date 16.03.06		Date	Date	Date	
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- NOTES
1. STREET LIGHTING TO EXTEND ALONG CHESTER RD LINK WITHIN STOCKPORT MBC BOUNDARY.
 2. REFER TO CHESHIRE CC FOR DETAILS ON THE POYNTON BYPASS
 3. STREET LIGHTING TO EXTEND ALONG THE OIL TERMINAL ACCESS ROAD TO A POINT 80m FROM THE PROPOSED ROUNDABOUT.



Rev.	Drawn	Checked	Date	Revision Details

semms

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A555
M60 (jct 25) to WOODFORD RD (Bramhall)

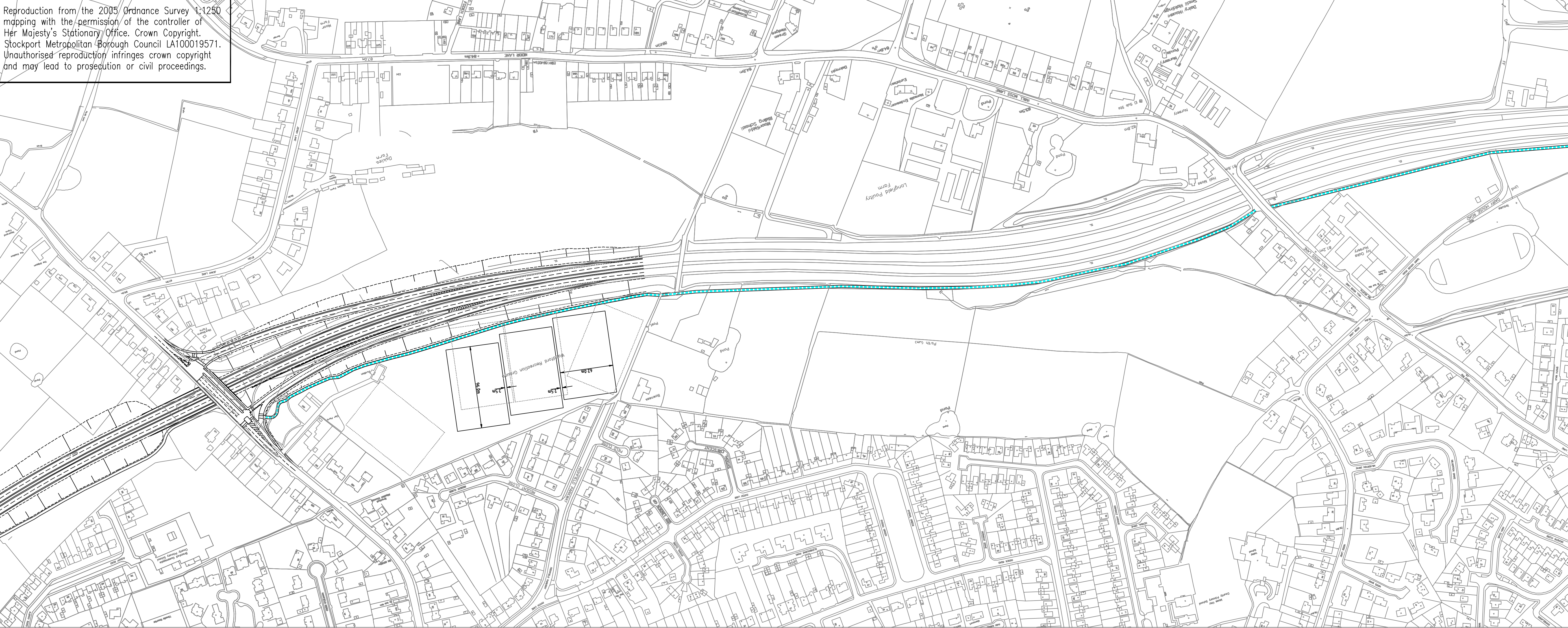
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DESIGN FREEZE 4A
MAINLINE DESIGN
Sheet 11 of 23

Drawn S Payne	Checked	Engineer	Approved
Date 16.03.06	Date	Date	Date
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Drawing No. 1007/D/DF 4A/011 Revision

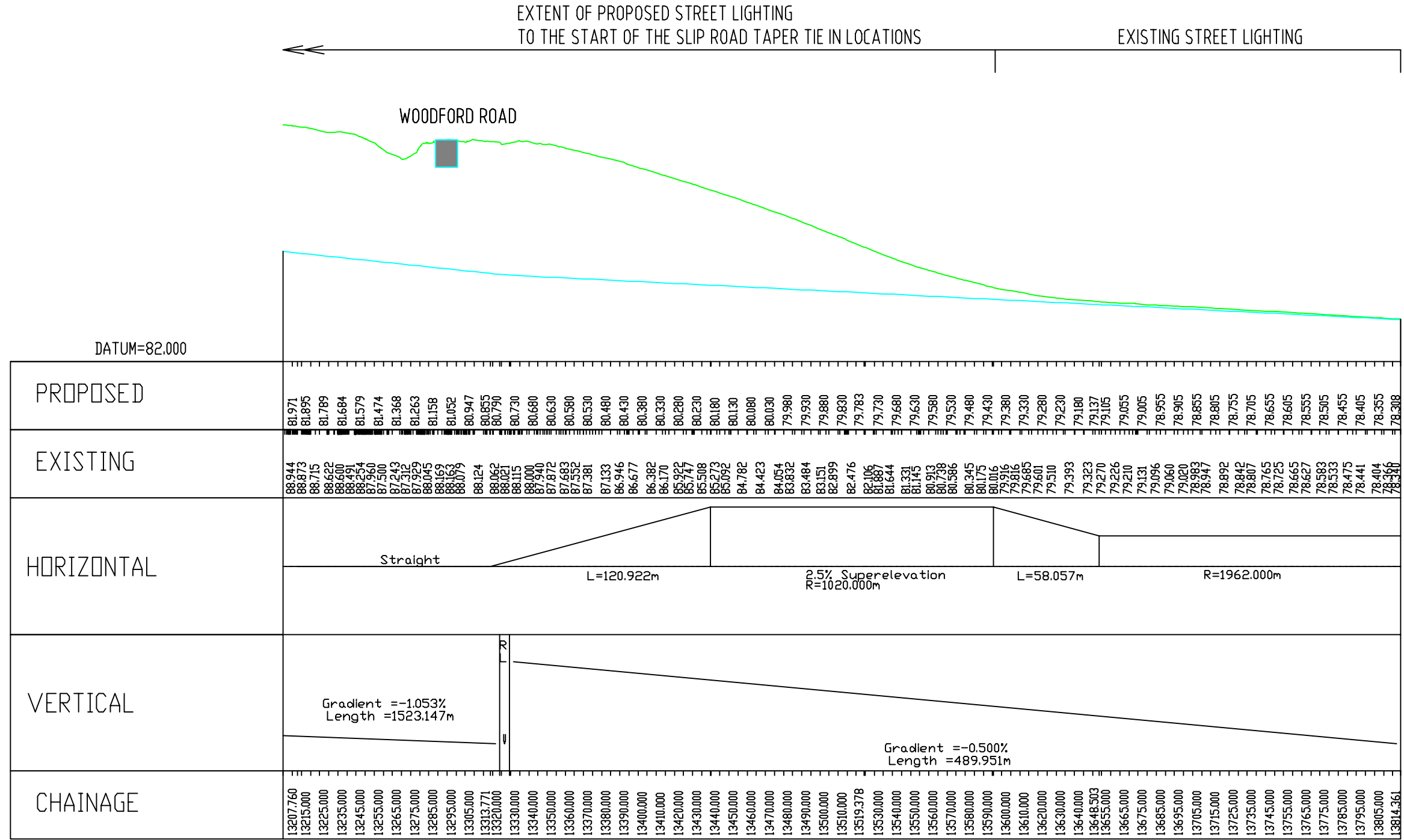
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..... EXISTING A555
..... PROPOSED PED/CYCLE ROUTE



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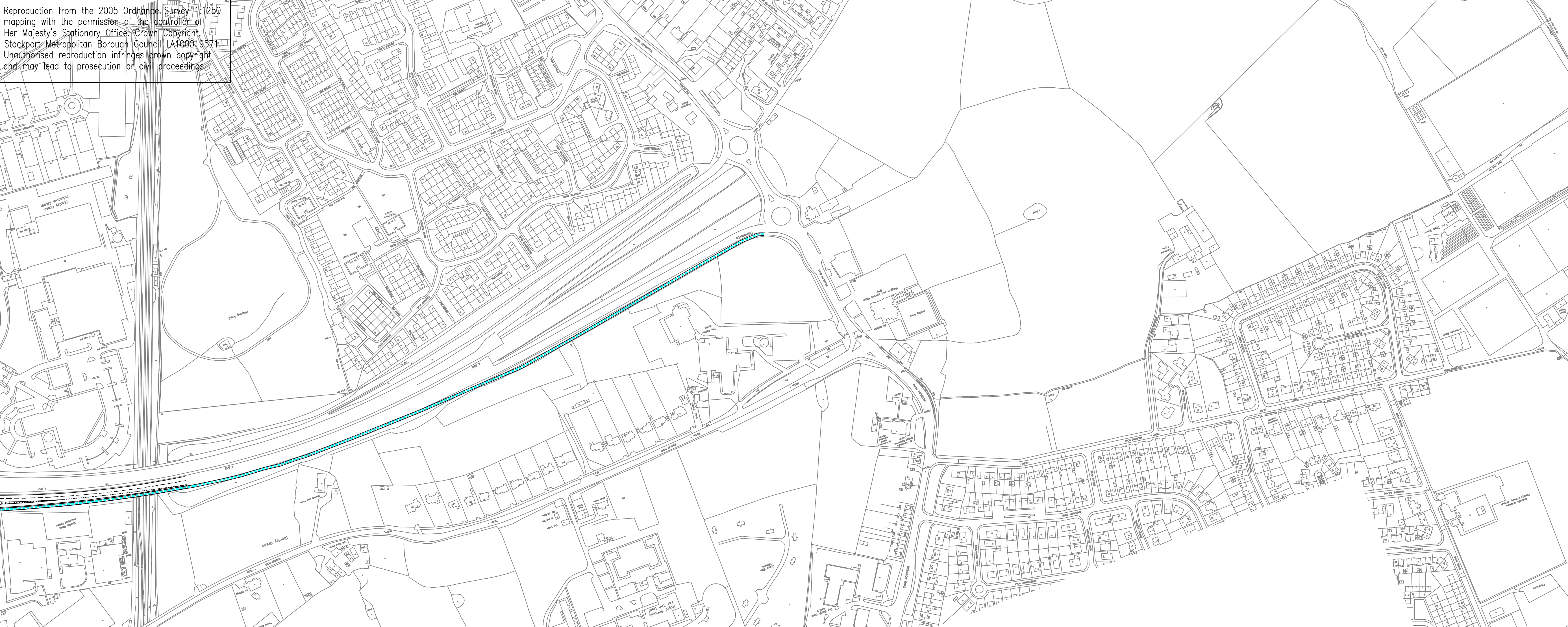
1. EXTENTS OF RETAINING WALLS AND BRIDGES ARE INDICATIVE ONLY
2. ALL EARTHWORKS SLOPES ASSUMED TO BE 1:3 UNLESS OTHERWISE STATED

KEY

EXISTING A555
PROPOSED PED/CYCLE ROUTE

Rev.	Drawn	Checked	Date	Revision Details	
<p>such east manchemm multi modal strategy</p>  <p>STOCKPORT CHESHIRE MANCHESTER CITY COUNCIL</p> <p>ENGINEERING CONSULTANCY SERVICES HYGARTH HOUSE 103 WELLINGTON ROAD SOUTH STOCKPORT SK1 3TT TEL 0161 474 4831 FAX 0161 476 0721</p> <p>Elaine Meehan BA(Hons), BEng, MBA DIRECTOR OF ENVIRONMENT & ECONOMIC DEVELOPMENT SERVICES</p> <p>Job Title</p> <p>SEMMS MAJOR ROAD SCHEMES</p> <p>A555 M60 (jct 25) to WOODFORD RD (Bramhall)</p> <p>Drawing Title</p> <p><u>DESIGN FREEZE 4A</u> <u>MAINLINE DESIGN</u> Sheet 13 of 23</p>					
Drawn S Payne	Checked	Engineer	Approved		
Date 16.03.06	Date	Date	Date		
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..... PROPOSED PED/CYCLE ROUTE

Rev.	Drawn	Checked	Date	Revision Details

South east manchester multi modal strategy

semms

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SEMMS MAJOR ROAD SCHEMES

A555
M60 (jct 25) to WOODFORD RD (Bramhall)

Drawing Title

DESIGN FREEZE 4A
MAINLINE DESIGN
Sheet 14 of 23

Drawn S Payne	Checked	Engineer	Approved
Date 16.03.06	Date	Date	Date
Size A1 A3	Scales PLAN 1:2500 - SECTION HZ 1:2500, VT 1:250 PLAN 1:5000 - SECTION HZ 1:5000, VT 1:500		
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Drawing No. 1007/D/DF4A/014	Revision
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Appendix 7

GEOMETRIC DESIGN CHECKS

Horizontal Check

Design Speed: 85A

SEMMMs A6- M60 - Mainline horizontal geometry check

MX report Reference	Element	Chainage		Transition Length (m)	Radius (m)	Gradient %	Standard Requirement	Meets / Does not Meet	Notes (drawing No. used for check/ MX geometry Report i.e. String names & extents)
M101	Arc	0+811.814	0+953.587	-	-517.3	-	5% SE	DNM	Design freeze 4A Mainline Design sheet 1 of 23
	Transition	0+953.587	1+002.412	48.825	-	-	OK (q = 0.6)	Meets	
	Transition	1+002.412	1+051.237	48.825	-	-	OK (q = 0.6)	Meets	
	Arc	1+051.237	1+227.207	-	510	-	5% SE	DNM	
	Transition	1+227.207	1+276.032	48.825	-	-	OK (q = 0.6)	Meets	Design freeze 4A Mainline Design sheet 1 of 23 & 3 of 23
	Transition	1+276.032	1+344.039	68.007	-	-	OK (q = 0.6)	Meets	
	Arc	1+344.039	1+450.608	-	-371	-	7% SE	DNM	Design freeze 4A Mainline Design sheet 3 of 23
	Transition	1+450.608	1+518.615	68.007	-	-	OK (q = 0.6)	Meets	
M103	Transition	1+518.615	1+542.617	24.002	-	-	OK (q = 0.6)	Meets	Design freeze 4A Mainline Design sheet 3 of 23
	Arc	1+542.617	1+740.791	-	1020	-	2.5% SE	DNM	
	Straight	0+906.731	1+005.824	99.093	-	-	2.5% CAM	Meets	Design freeze 4A Mainline Design sheet 1 of 23
	Transition	1+005.824	1+075.574	69.75	-	-	OK (q = 0.3)	Meets	
	Arc	1+075.574	1+254.875	-	-720	-	3.5% SE	DNM	
	Transition	1+254.875	1+324.625	69.75	-	-	OK (q = 0.3)	Meets	
M103	Straight	1+324.625	1+518.483	193.858	-	-	2.5% CAM	Meets	Alignment detail on drawing missing for these NB sections
	Transition	1+518.483	1+553.358	34.875	-	-	OK (q = 0.4)	Meets	
	Arc	1+553.358	1+740.791	-	1017.2	-	3.5% SE	DNM	
M1T1	Arc	1+740.791	1+928.750	-	1440	-	2.5% CAM	Meets	Design freeze 4A Mainline Design sheet 3 of 23
	Arc	1+928.750	2+221.535	-	-1440	-	2.5% CAM	Meets	
	Arc	2+221.535	2+363.598	-	2040	-	2.5% SE	Meets	
M100	Arc	2+363.598	2+601.664	-	2040	-	2.5% CAM	Meets	Design freeze 4A Mainline Design sheet 3 of 23
	Arc	2+601.664	3+232.377	-	-1440	-	2.5% CAM	Meets	Design freeze 4A Mainline Design sheet 4 of 23
	Transition	3+232.377	3+302.127	69.75	-	-	OK (q = 0.4)	Meets	
	Arc	3+302.127	4+425.738	-	1020	-	2.5% SE	Meets	
M201	Arc	3+500.000	4+398.716	-	1020	-	2.5% SE	Meets	Design freeze 4A Mainline Design sheet 4 of 23
	Transition	4+398.716	4+441.691	42.975	-	-	OK (q = 0.5)	Meets	Design freeze 4A Mainline Design sheet 4 of 23 & 5 of 23
	Arc	4+441.691	4+769.359	-	-2880	-	2.5% CAM	DNM	
	Transition	4+769.359	4+814.405	45.047	-	-	OK (q = 0.3)	Meets	Design freeze 4A Mainline Design sheet 5 of 23
	Arc	4+814.405	5+133.052	-	-1020	-	2.5% SE	Meets	
	Transition	5+133.052	5+145.586	12.534	-	-	-	DNM	Design freeze 4A Mainline Design sheet 5 of 23
	Arc	5+145.586	5+368.337	-	-1440	-	2.5% CAM	DNM	
	Transition	5+368.337	5+398.778	30.441	-	-	OK (q = 0.6)	Meets	
M301	Arc	5+398.778	6+188.463	-	-720	-	3.5% SE	Meets	Design freeze 4A Mainline Design sheet 7 of 23
	Arc	5+900.000	6+188.463	-	-720	-	3.5% SE	Meets	
	Transition	6+188.463	6+249.345	60.882	-	-	OK (q = 0.3)	Meets	
	Transition	6+249.345	6+310.227	60.882	-	-	OK (q = 0.3)	Meets	
	Arc	6+310.227	7+244.923	-	720	-	3.5% SE	Meets	Design freeze 4A Mainline Design sheet 7 of 23 & 8 of 23
	Transition	7+244.923	7+292.522	47.599	-	-	OK (q = 0.4)	Meets	
	Arc	7+292.522	7+799.151	-	3300	-	2.5% CAM	DNM	
M401	Straight	7+799.151	8+218.223	419.072	-	-	OK (q = 0.3)	Meets	Design freeze 4A Mainline Design sheet 8 of 23
	Straight	7+920.000	8+206.855	286.855	-	-	OK (q = 0.3)	Meets	Design freeze 4A Mainline Design sheet 8 of 23
M401	Transition	8+206.855	8+290.555	83.7	-	-	OK (q = 0.3)	Meets	

Design Speed: 85A

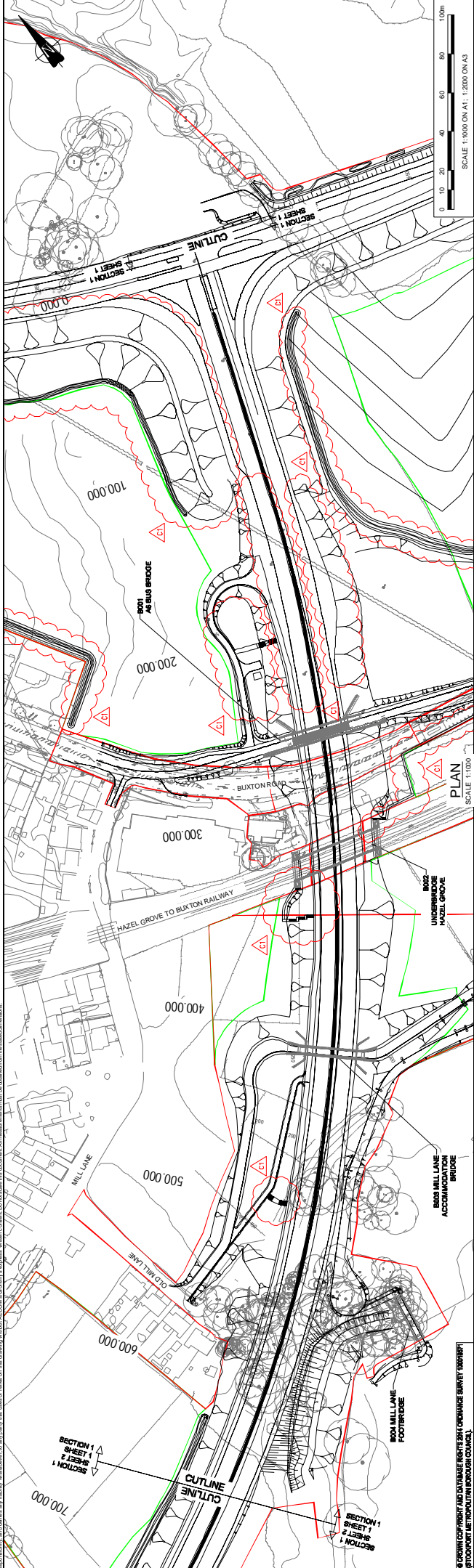
SEMMs A6- M60 - Mainline vertical geometry check

MX report Reference	Element	Chainage		Length (m)	K Value	Gradient % (Min = 0.5%, Max = 4%)	Meets / Does not Meet	Notes (drawing No. used for check/ MX geometry Report i.e. String names & extents)
		Start	End					
M101	Grade	0+811.814	1+051.237	239.423	-	0.5	Meets	Design freeze 4A Mainline Design sheet 1 of 23
	Curve - Hog	1+051.237	1+124.679	73.442	30.003	0.5	1 SBDM	
	Curve - Sag	1+124.679	1+303.132	178.453	30.003	4	Meets	
	Grade	1+303.132	1+310.057	6.925	-	4	Meets	Design freeze 4A Mainline Design sheet 1 of 23
	Curve - Hog	1+310.057	1+580.084	270.027	30.003	-0.5	1 SBDM	Design freeze 4A Mainline Design sheet 1 of 23 & 3 of 23
	Grade	1+580.084	1+590.508	10.424	-	-0.5	Meets	Design freeze 4A Mainline Design sheet 3 of 23
	Curve - Sag	1+590.508	1+725.521	135.014	30.003	-0.5	Meets	
	Grade	1+725.521	1+740.791	15.27	-	-0.5	Meets	
M103	Grade	0+906.731	1+048.640	141.909	-	0.5	Meets	Design freeze 4A Mainline Design sheet 1 of 23
	Curve - Sag	1+048.640	1+099.915	51.275	30.003	0.5	Meets	
	Curve - Hog	1+099.915	1+185.651	85.736	30.003	-0.649	1 SBDM	
	Grade	1+185.651	1+317.177	131.526	-	-0.649	Meets	Design freeze 4A Mainline Design sheet 1 of 23 & 3 of 23
	Curve - Sag	1+317.177	1+370.115	52.938	20.000	-0.649	Meets	
	Curve - Hog	1+370.115	1+585.206	215.091	30.003	-5.171	Meets	
	Curve - Sag	1+585.206	1+725.340	140.134	30.003	-5.171	Meets	Design freeze 4A Mainline Design sheet 3 of 23
	Grade	1+725.340	1+740.791	15.451	-	-0.5	Meets	
M11T1	Grade	1+740.791	2+357.464	616.673	-	-0.5	Meets	Design freeze 4A Mainline Design sheet 3 of 23
	Curve - Sag	2+357.464	2+363.598	6.134	100.000	-0.439	Meets	
M100	Curve - Sag	2+363.598	2+514.618	10000	100.000	-0.5	Meets	Design freeze 4A Mainline Design sheet 3 of 23
	Grade	2+514.618	3+396.873	882.256	-	1	Meets	Design freeze 4A Mainline Design sheet 3 of 23 & 4 of 23
	Curve - Hog	3+396.873	3+500.000	103.127	100.000	-0.021	Meets	Design freeze 4A Mainline Design sheet 4 of 23
M201	Curve - Hog	3+500.000	3+697.541	10000	100.000	-0.021	Meets	Design freeze 4A Mainline Design sheet 4 of 23
	Grade	3+697.541	4+421.066	723.525	-	-1.996	Meets	
	Curve - Sag	4+421.066	4+718.115	297.048	55	3.404	Meets	Design freeze 4A Mainline Design sheet 4 of 23
	Curve - Hog	4+718.115	4+955.007	236.892	100.000	3.404	Meets	Design freeze 4A Mainline Design sheet 5 of 23
	Grade	4+955.007	5+116.198	161.192	-	1.035	Meets	
	Curve - Hog	5+116.198	5+319.698	203.5	100.000	-1	Meets	
	Grade	5+319.698	5+417.414	97.715	-	-1	Meets	
	Curve - Sag	5+417.414	5+707.414	290	100.000	-1	Meets	
	Grade	5+707.414	5+900.000	192.586	-	1.9	Meets	
M301	Grade	5+900.000	6+343.651	443.651	-	1.9	Meets	Design freeze 4A Mainline Design sheet 7 of 23
	Curve - Hog	6+343.651	6+522.798	179.147	55	-1.357	Meets	
	Curve - Sag	6+522.798	6+741.331	218.533	36.996	-1.357	Meets	
	Curve - Hog	6+741.331	6+900.227	158.896	55	1.661	Meets	Design freeze 4A Mainline Design sheet 7 of 23 & 8 of 23
	Grade	6+900.227	7+564.583	664.357	-	1.661	Meets	
	Curve - Sag	7+564.583	7+682.615	118.032	100.000	1.661	Meets	
M401	Curve - Hog	7+682.615	7+920.000	237.385	100.000	0.467	Meets	Design freeze 4A Mainline Design sheet 8 of 23
	Curve - Hog	7+920.000	8+075.000	10000	100	0.467	Meets	
	Grade	8+075.000	8+328.198	253.198	-	-1.083	Meets	
	Curve - Hog	8+328.198	8+433.638	105.44	55	-1.083	Meets	
	Grade	8+433.638	8+506.315	72.677	-	-3	Meets	
	Curve - Sag	8+506.315	8+616.320	110.005	55	-1	Meets	
	Grade	8+616.320	8+700.000	83.68	-	-1	Meets	

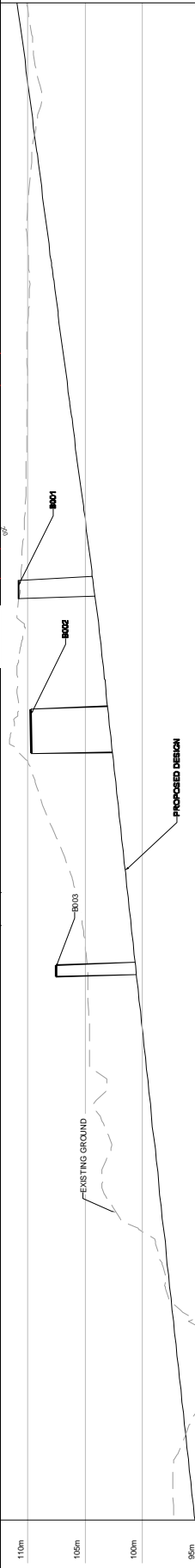
Appendix 8

A6-MANCHESTER AIRPORT RELIEF ROAD DRAWING

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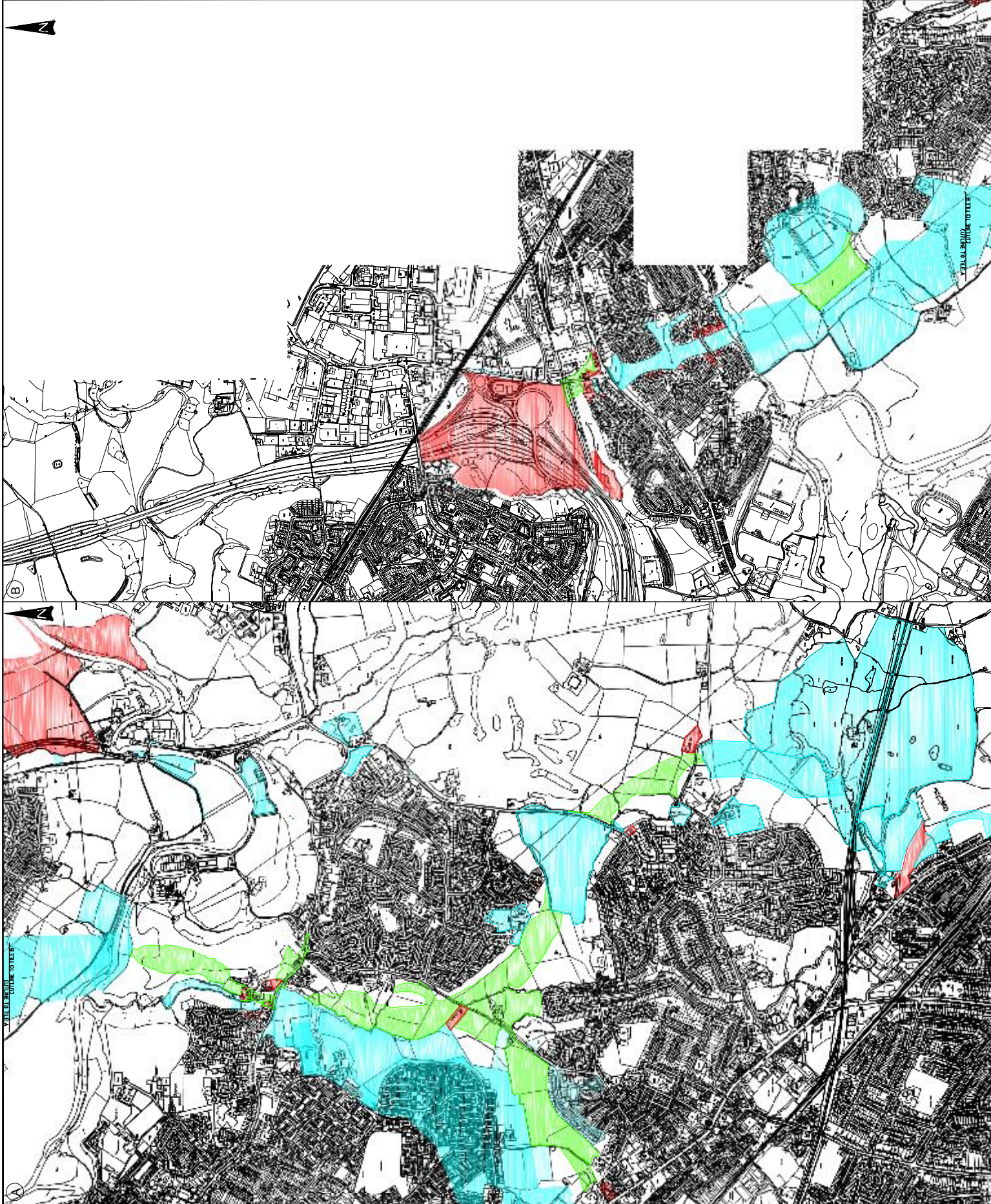
DESIGN LEVELS		110m	105m	100m	95m	90m
GRADIENT		110.68	109.75	109.45	109.28	109.13
EXISTING LEVELS		109.88	109.75	109.45	109.28	109.13
EXISTING LEVEL DIFF		0.88	0.25	0.28	0.28	0.28
HORIZONTAL		110.68	109.75	109.45	109.28	109.13
VERTICAL		110.68	109.75	109.45	109.28	109.13
CHANNAGE		110.68	109.75	109.45	109.28	109.13

LONG SECTION
SCALE H = 1:1000 V = 1:200
DESIGN SPEED = 60mph

NOTES		1. THIS DRAWING SHALL ONLY BE USED FOR THE DESIGN ELEMENT STATED IN THE DRAWING TITLE. 2. ONLY WRITTEN DIMENSIONS SHALL BE USED. 3. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
LEGEND		LMA BOUNDARY TEMPORARY CPO BOUNDARY
CLIENT		MANCHESTER CITY COUNCIL
PROJECT		A6 TO MANCHESTER AIRPORT RELIEF ROAD
SHEET		WORK SECTION 1 SHEET 1 OF 6
DESIGNER		AS SHOWN
CHECKED		AS SHOWN
DATE		08/10/14
DRAWN		08/10/14
REVISION		08/10/14
AMENDMENT DETAILS		CRG CHKD ENG CATI APPD
DATE		08/10/14
ISSUE FOR CONSTRUCTION		08/10/14
C1		08/10/14

Appendix 9

LAND OWNERSHIP PLAN



NOTES

KEY

DIT OWNED LAND

LAND REQUIRED

ADDITIONAL 1 AND REQUIRED

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

[illegible]

THIS DRAWING NOTE THE FOLLOWING SIGNIFICANT RESIDUAL IN 196

NAME

NAME	AGE

REGIONE

SAFETY, HEALTH AND ENVIRONMENTAL SYMBOL LEGEND

 INDICATES A RESIDUAL RISK AS A WARNING[illegible]

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

S/N	Flux	Date	Description	Obs	App
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2	1.0	2000-01-01	1.0	1.0	1.0
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4	1.0	2000-01-01	1.0	1.0	1.0
5	1.0	2000-01-01	1.0	1.0	1.0
6	1.0	2000-01-01	1.0	1.0	1.0
7	1.0	2000-01-01	1.0	1.0	1.0
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9	1.0	2000-01-01	1.0	1.0	1.0
10	1.0	2000-01-01	1.0	1.0	1.0
11	1.0	2000-01-01	1.0	1.0	1.0
12	1.0	2000-01-01	1.0	1.0	1.0
13	1.0	2000-01-01	1.0	1.0	1.0
14	1.0	2000-01-01	1.0	1.0	1.0
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44	1.0	2000-01-01	1.0	1.0	1.0
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50	1.0	2000-01-01	1.0	1.0	1.0
51	1.0	2000-01-01	1.0	1.0	1.0
52	1.0	2000-01-01	1.0	1.0	1.0
53	1.0	2000-01-01	1.0	1.0	1.0
54	1.0	2000-01-01	1.0	1.0	1.0
55	1.0	2000-01-01	1.0	1.0	1.0
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61	1.0				

Designer	Year	Material	Dimensions (mm)	Weight (g)	Price (€)
...

23

Three White Rose Office Park, Millshaw Park Lane,
1-800-1-0-1-0-0-0 7-1-1-1 (0) 440-000 0000 F-1-

+44 (0)113 395 6201

.....

Client

Transport for Greater Manchester

Downloaded from <http://ajphaphysiol.physiology.org/> at University of California, San Diego on June 11, 2015

SEMMINS REIFF ROAD 46 TO M60 SCHEME

100

Drawing Title

LAND OWNERSHIP

100

Student	Teacher	Class	Section	Section
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£7500	ZA	ZA	AH	NGR
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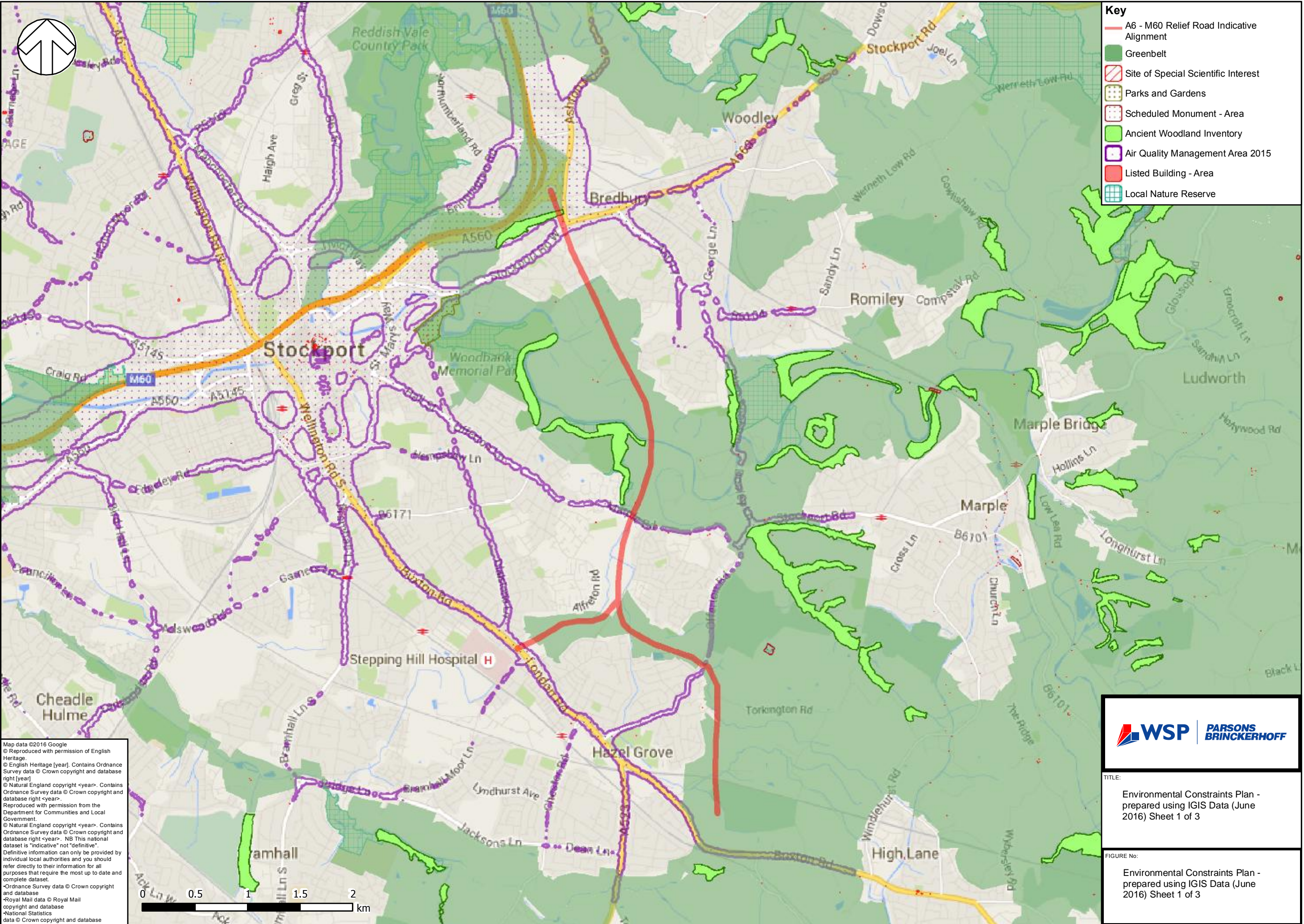
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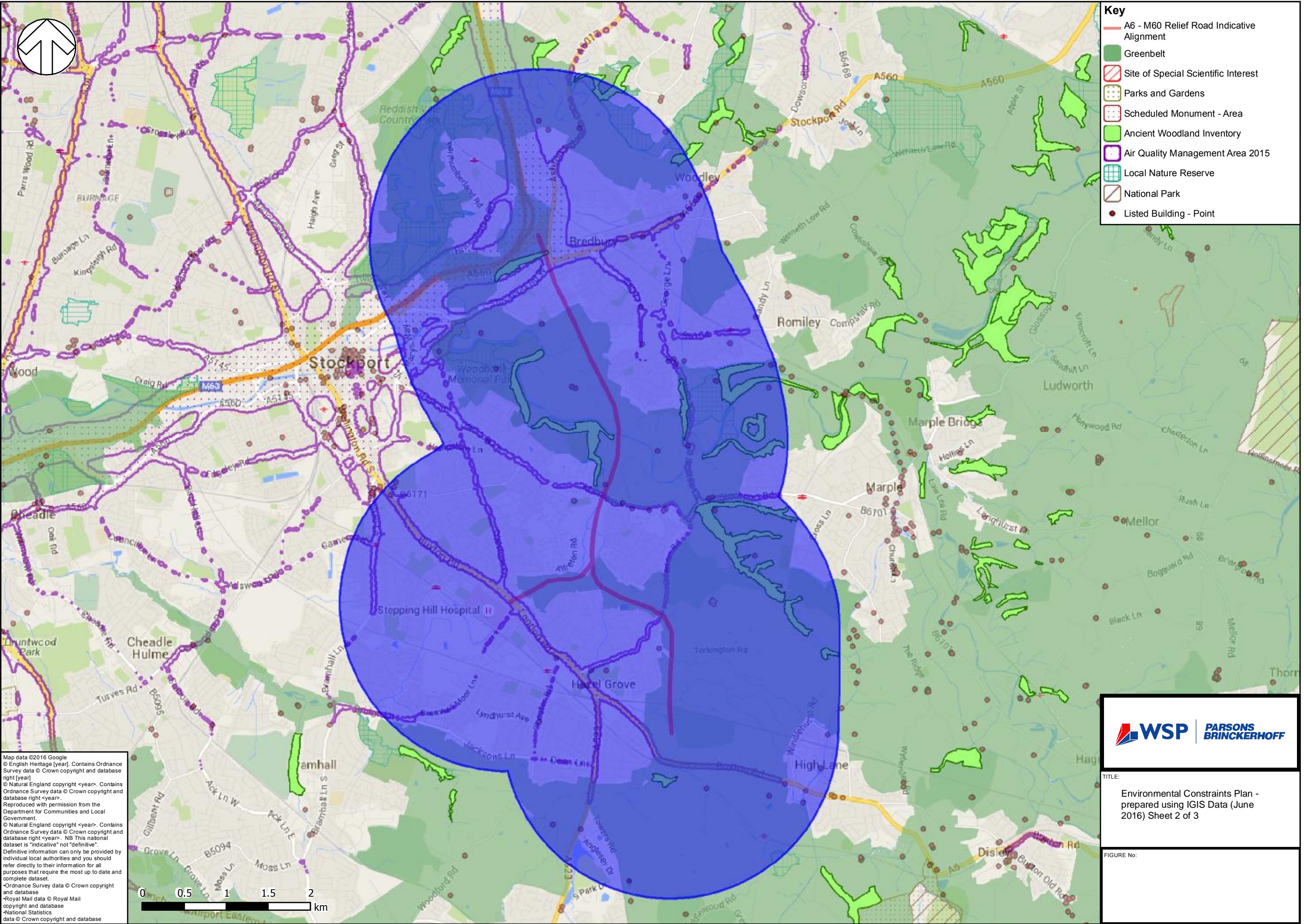
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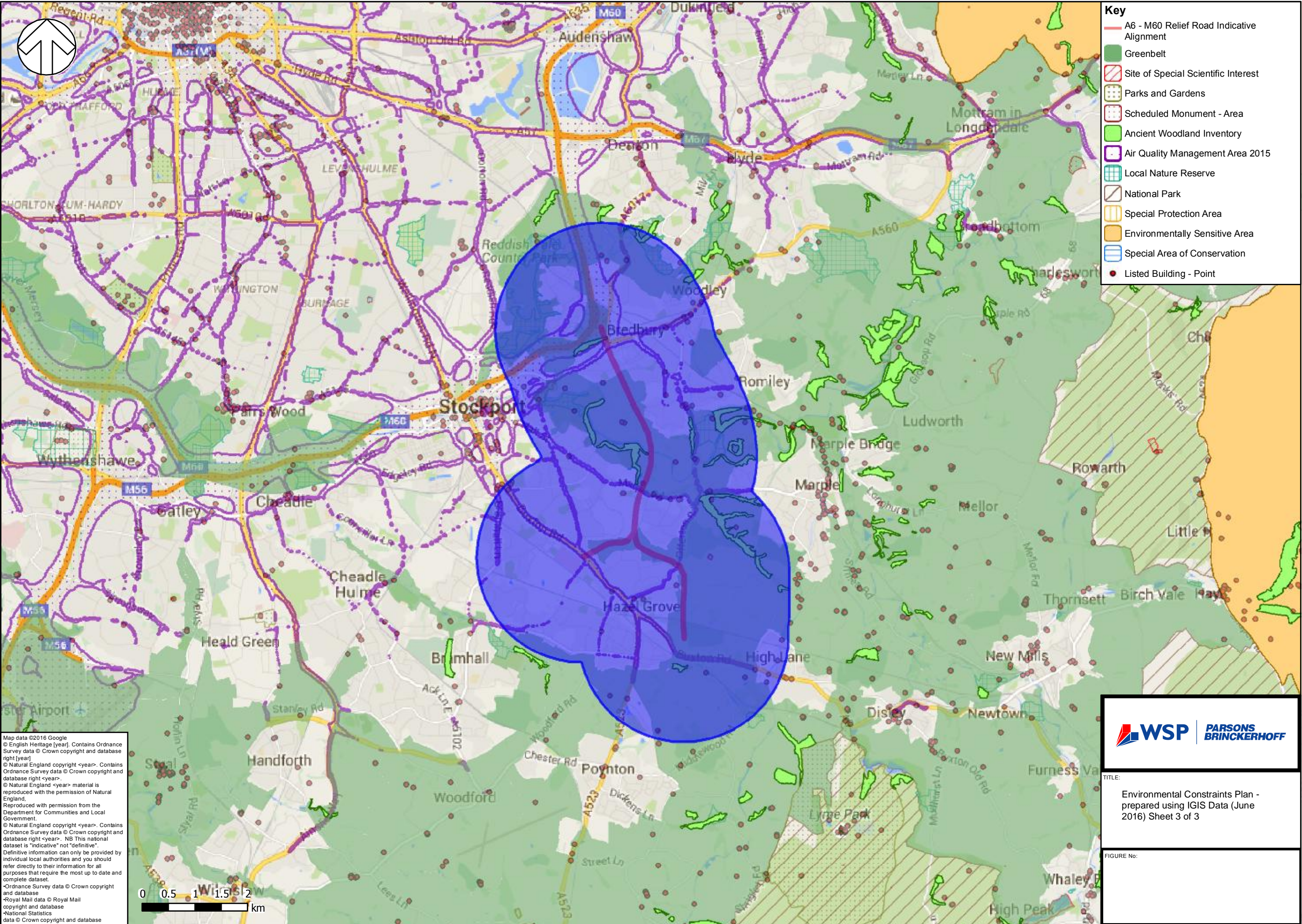
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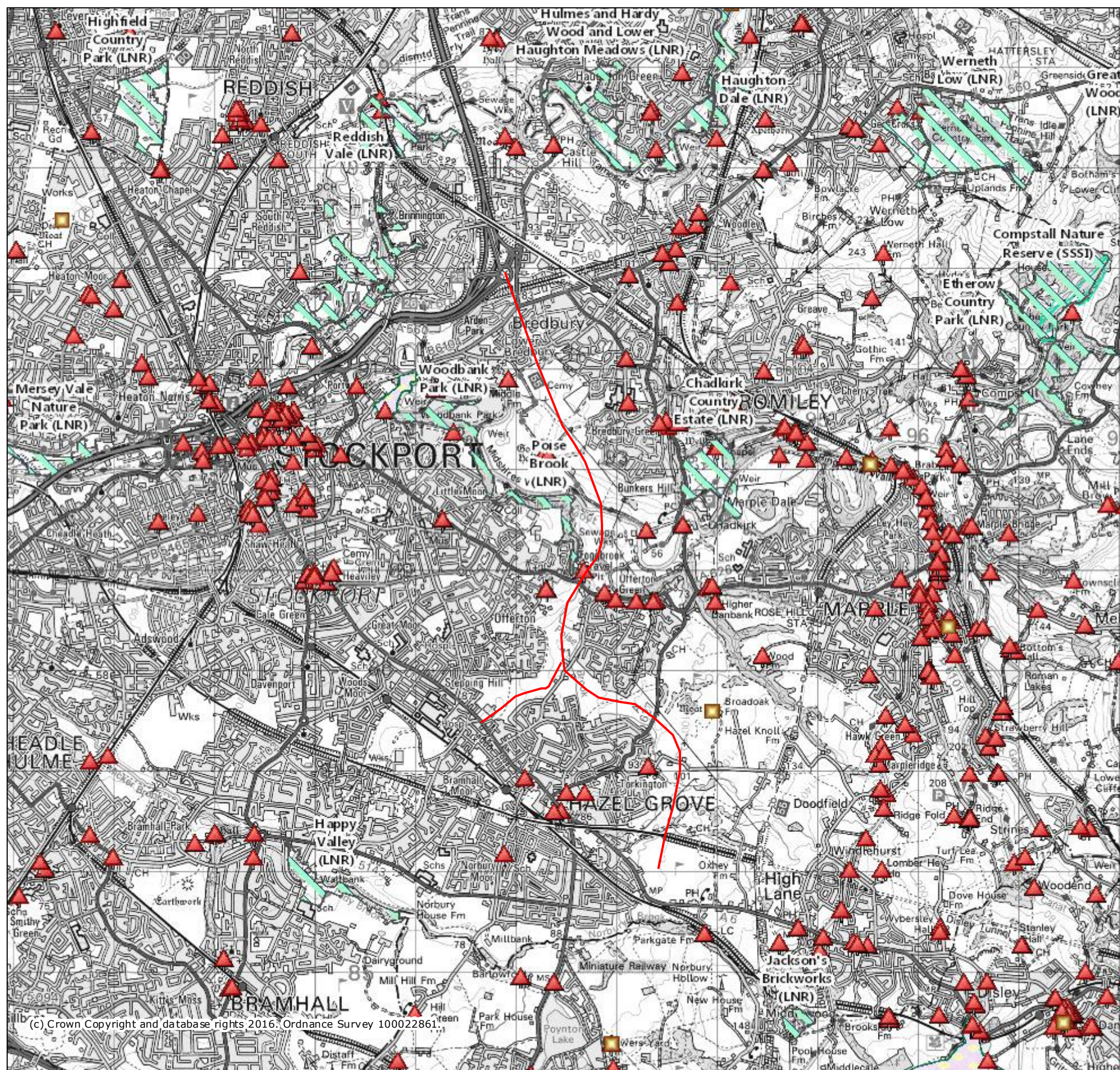
Appendix 10

ENVIRONMENTAL CONSTRAINTS PLANS









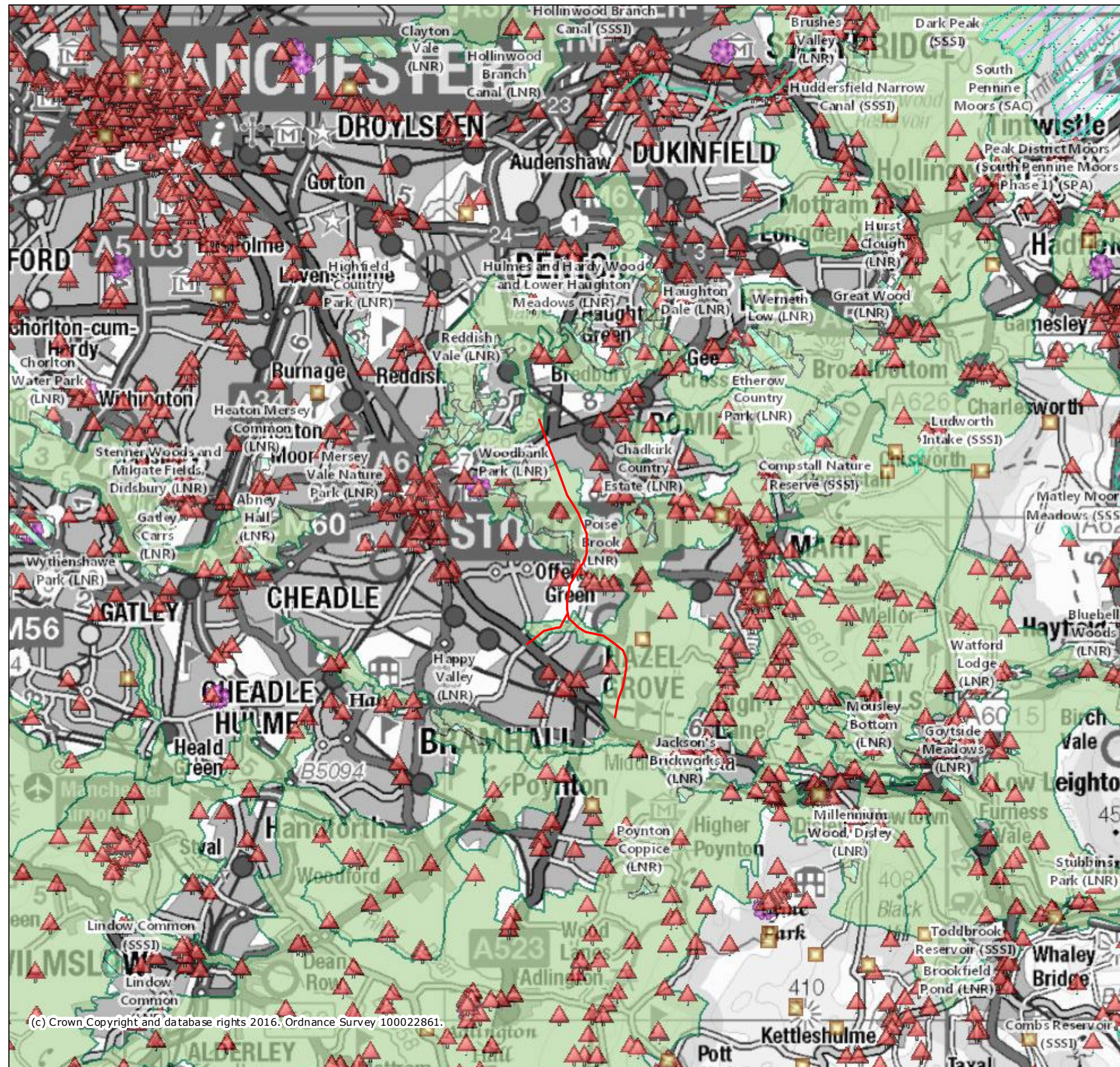
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- Local Nature Reserves (England)
- National Nature Reserves (England)
- Ramsar Sites (England)
- Sites of Special Scientific Interest (England)
- Special Areas of Conservation (England)
- Special Protection Areas (England)
- Scheduled Monuments (England) - points
- World Heritage Sites (England)**
- Buffer Zone
- World Heritage Site
- Listed Buildings (England)
- Registered Parks and Gardens (England)
- National Forest (England)

Environmental Constraints Plan - prepared
using Magic Maps Data
(June 2016) Sheet 1 of 2

Projection = OSGB36
xmin = 381700
ymin = 383800
xmax = 403300
ymax = 394800

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illustrative or representative rather than definitive at this stage.



Legend

- Local Nature Reserves (England)
- National Nature Reserves (England)
- Ramsar Sites (England)
- Sites of Special Scientific Interest (England)
- Special Areas of Conservation (England)
- Special Protection Areas (England)
- Scheduled Monuments (England) - points
- World Heritage Sites (England)**
 - Buffer Zone
 - World Heritage Site
- Listed Buildings (England)
- Registered Parks and Gardens (England) - points
- Green Belt (England)
- National Forest (England)

Environmental Constraints Plan - prepared using Magic Maps Data (June 2016) Sheet 2 of 2

Projection = OSGB36
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