ENVIRONMENTAL EFFECTS

Strathclyde
SCOTLAND

STRUCTURE PLAN ROADS PROPOSAL

M74 NORTHERN EXTENSION from Fullarton Road to the M8 at Kingston

Explanation of the Scheme and Non-Technical Summary of the Environmental Statement

January 1995

CONTENTS

1.0 BACKGROUND : WHY THE M74 NORTHERN EXTENSION?

In the 1988 Structure Plan update, official national projections for Scotland, adjusted to reflect local policy factors, anticipated continued growth in car ownership, and a general deterioration in future traffic conditions.

As the resulting congestion would have adverse economic and environmental impacts it was considered unacceptable to do nothing. A number of options such as traffic management and public transport were investigated as options to reduce the problems. A number of route options were considered and the most appropriate alignment put forward and identified in the Structure Plan Written Update. The proposed route crossed the River Clyde at Clydebridge and ran adjacent to the main railway line.

At the same time the Scottish Office's proposals for the extension of the M74 from its junction with the M73 to Fullarton Road were confirmed following a Public Local Inquiry in 1989.

In its policy document on 'Travelling in Strathclyde" published in 1992 the Regional Council proposed a package of transportation proposals including investment in heavy rail, light rail, roads and traffic management. The document also included the proposals for the present scheme.

There has been a continued process of review of this alignment and the final solution forms the planning application submitted to the District Council in January 1995. This is the alignment on which the Environmental Assessment Work has been undertaken.

2.0 SCHEME PROPOSALS

The proposed scheme which would be of motorway standard runs westwards from the existing M74 at Fullarton Road to the M8 at Kingston. The main features in the route corridor include the River Clyde, Clydebridge Steelworks, Cambuslang Road, Main Street Rutherglen, Farmeloan Road, Glasgow Road, Toryglen public open space, Polmadie BR depot and Polmadie Road, Aikenhead Road, Cathcart Road, St. Andrew's Cross, Kilbirnie Street and West Street. The detailed alignment and areas affected are illustrated in this document on the enclosed figures.

The route would relieve existing roads of extraneous traffic over a wide part of south and east Glasgow,as well as M8 between Ballieston and the City Centre. The traffic relief would allow traffic calming measures, bus priority schemes and Route Action Plans to be introduced. One such scheme is proposed for Main Street, Rutherglen.

The economic analysis for the scheme shows that it represents very good value for money.

INTRODUCTION

In 1989 The Secretary of State for Scotland approved the Strathclyde Structure Plan. This included the M74 Northern Extension from Fullarton Road to the M8 Kingston Interchange,the final alignment for which runs alongside the main London Glasgow railway line.

This booklet is a summary, in non-technical language, of the Environmental Statement of the scheme. The statement provides details of the proposals including a description of the scheme, its corridor and consultations with other parties. It also presents the main effects which the scheme is likely to have on the environment and the measures proposed to mitigate adverse effects.

The booklet is divided into the following sections:

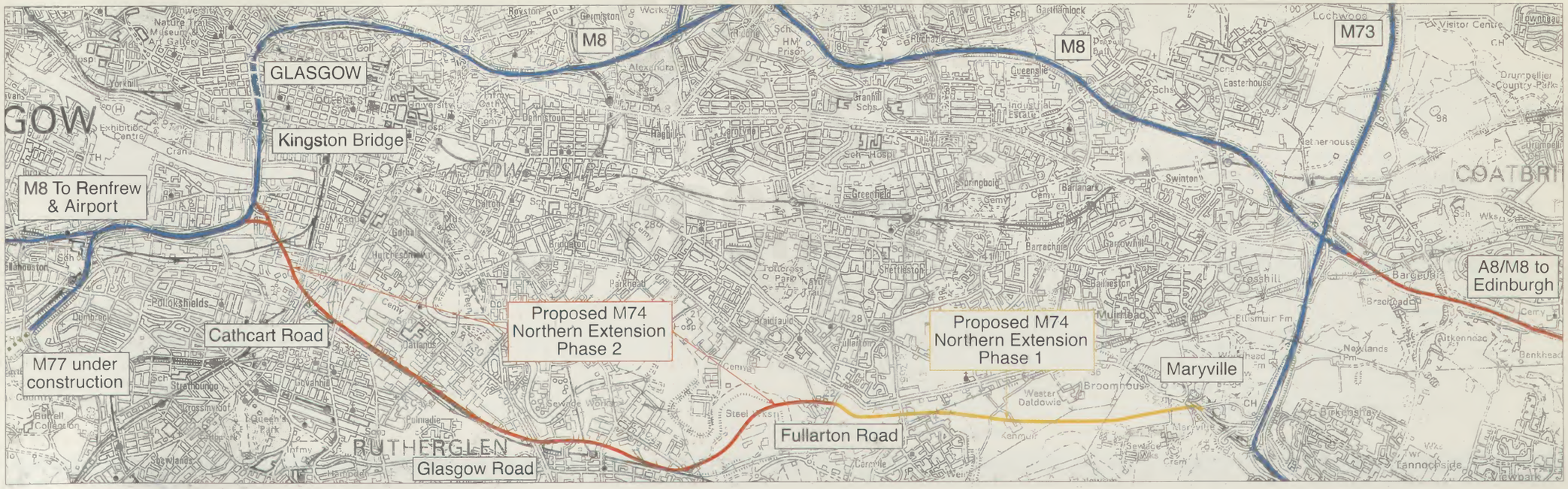
1. ***Background***
The reasons for the M74 Northern Extension.

2. ***Scheme Proposals***
A brief description of the proposed alignment.

3. ***Subject Approach***
A description of the methodology applied within each subject area to assess the potential effects of the M74 Northern Extension upon the environment.

4. ***Environmental Effects by Area***
The likely key effects of the scheme by area and how the mitigation measures, which are a major part of the proposals, would reduce such effects.

5. ***Further information***
Details of when and where the full Environmental Statement can be viewed along with the planning application, together with a contact address should you require further information or wish to comment.



3.0 SUBJECT APPROACH

Policy

The assessment was carried out by means of a review of relevant national, regional and district policies and consultations with officers from Strathclyde Regional Council and the City of Glasgow District Council. The consultations considered both existing and emerging development policies, as well as a review of significant planning applications in the vicinity of the proposed motorway.

Traffic

Traffic data was required for the assessment of noise, accessibility, accidents, air quality, driver stress and severance. The principal source of data was the Strathclyde Integrated Traffic Model (SITM) which covered the study area. Peak hour and daily traffic flows were obtained from the SITM in order to allow appropriate environmental analysis for the relevant topics.

Noise and Vibration

The assessment has included residential buildings, schools, hospitals, homes for the blind and outdoor areas considered sensitive to noise and vibration which would result from the proposed route and its associated traffic flows. Noise levels calculated were for five scenarios - the existing conditions (1992), the "do minimum" situation (i.e. without the motorway extension) and the "do something" situation (i.e. with the motorway) for the anticipated traffic flows in the year of opening (assumed to be 2000) and the 'design year' taken as 2015.

Air Quality and Climate

Air quality with and without the scheme has been assessed following identification of the potential local and city wide impacts in the baseline, opening and design years.

The localised assessment, for selected locations within 200m of the scheme, was based on local traffic information and incorporated meteorological data where detailed assessment was required. Nitrogen dioxide and carbon monoxide concentrations have been predicted at these locations and compared with appropriate standards or guidelines.

A total emissions assessment was carried out in order to estimate the annual emissions of nitrogen oxide, carbon monoxide, hydrocarbons and carbon dioxide for the network as a whole.

Water Resources

The aim of assessment was to determine the potential effects of the scheme upon the water quality, flooding, fisheries, recreation and amenity issues of the surrounding area.

Consultations to obtain the relevant information on flood protection, water quality, water pollution, fisheries and recreation and amenity issues (as well as the abstraction of groundwater and groundwater quality), were held with the Clyde River Purification Board.

Ecological Resources

The ecological resources within the study area have been evaluated through a series of consultations with bodies such as Scottish Natural Heritage and the Scottish Wildlife Trust; a review of available published and unpublished material and by original surveys. The main original survey covering a 500m corridor centred on the proposed route was carried out by the Scottish Wildlife Trust in June 1993, and comprised a Phase One Habitat Survey. The effects of the scheme on sensitive sites have been identified.

Townscape and Visual

The assessment of potential effects upon Townscape and Visual amenity included analysis of the existing townscape character, quality and visual amenity. A detailed visual impact analysis was carried out to identify the potential effects of the scheme at opening year and design year for properties which would be expected to see the M74. Assessment of the effects of the route upon townscape included consideration of the existing land use and quality of the area which would either be lost as a result of the road or affected by it in terms of scale, height and design.

The two topics were then considered together to provide an overall assessment of potential effect.

Cultural Heritage

Detailed information was obtained on the location, setting and reasons for the designation of Conservation Areas and listed buildings and the extent and quality of archaeological features. The assessment analysed the potential effects upon these features resulting from scheme proposals.

Business and Commerce

A series of surveys was carried out to assess the potential response of existing businesses to the proposed scheme within the study corridor i.e. whether they would relocate or close. The amount of available land for relocation within the local area was studied. The benefits of enhanced accessibility for business and commerce remaining within the study area were considered.

Social and Community

Social and community facilities such as schools, hospitals, day centres and churches which would be affected by the proposals were identified by on-site survey work, desk based studies and consultations with key bodies such as the District Council. The significance of effects upon each of these facilities was then determined and identified.

Contaminated Land and Waste Disposal

A desk based survey of reports identifying sites of contamination was carried out followed by a chemical investigation of the sites within the study corridor. Recommendations have been made for the remediation of these sites to a standard acceptable for proposed future uses and appropriate methods for the disposal of contaminated material to licensed tips.

Construction

The assessment of construction effects considered the potential impacts of engineering activities such as earthworks; structures; borrow and disposal sites; services and utilities, accommodation and maintenance works. The effects of noise and effects on air quality and water resources within the study area have been studied and, methods to reduce these effects are proposed.

4.0 ENVIRONMENTAL EFFECTS BY AREA - Fullarton Road to The River Clyde

The following identifies as bullet points the key environmental effects of such subject by geographical area.

Noise and Vibration

- Slight negative changes are forecast for properties on London Road and Archerfield Place.
- Users of the River Clyde walkway would experience noise increases close to the motorway.

Air Quality and Climate

- No air quality criteria would be exceeded and therefore no significant effects are predicted.

Water Resources

- Water quality of the River Clyde would be protected.

Ecological Resources

- There would be landtake of about 10% of the Auchenshuggle Community Woodland local site.

Townscape and Visual

- The scheme would be visible from London Road, the River Clyde walkway and Clyde workshops.
- There would be a 10% loss of woodland at Auchenshuggle, but with replacement tree planting

Cultural Heritage

- There would be no likely significant effects.

Business and Commerce

- There would be generally beneficial improvements to access for new and proposed developments in the longer term.

Social and Community

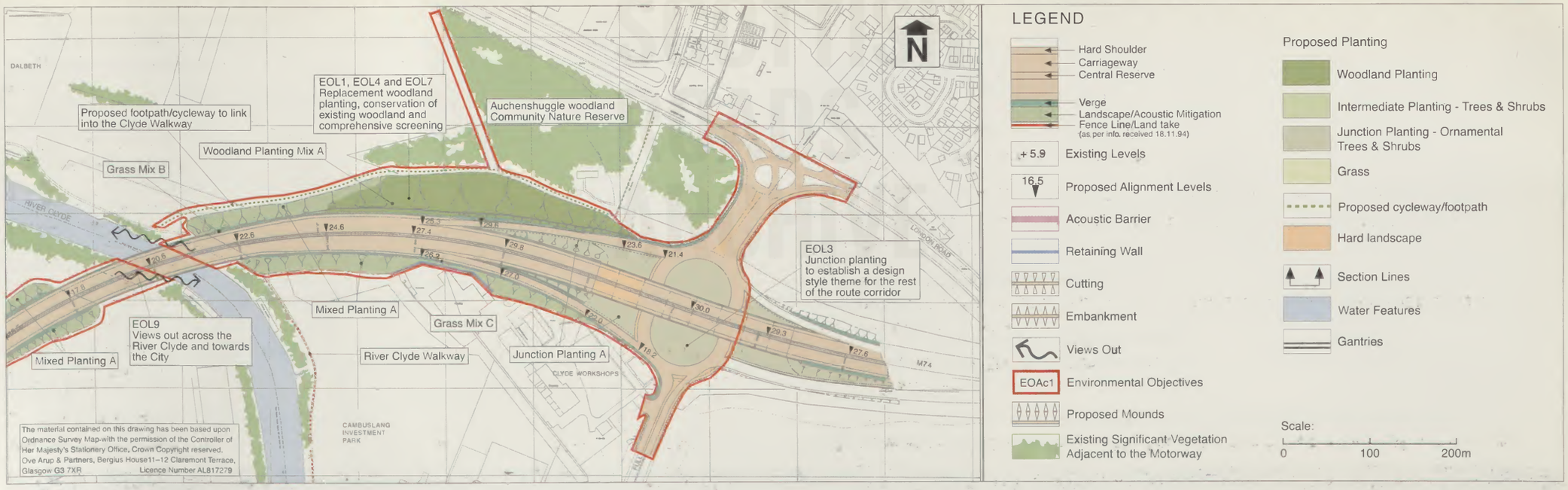
- There would be landtake at Auchenshuggle Community Nature Reserve
- New cycleways and access to the River Clyde Walkway would be provided

Contaminated Land and Waste Disposal

- There would be no likely significant effects.

Construction

- There would be some adverse effects for users of Auchenshuggle.



River Clyde to Cambuslang Road

Noise and Vibration

- There would be no likely significant changes

Air Quality and Climate

- No air quality criteria would be exceeded and therefore no significant effects are predicted.

Water Resources

- Water quality of the River Clyde would be protected.

Ecological Resources

- There would be no likely significant changes

Townscape and Visual

- The loss of woodland at Ballochmill would be of moderate impact but there would be replacement planting.

Cultural Heritage

- There would be no likely significant effects in this area

Business and Commerce

- There would be generally beneficial improvements to access for new and proposed developments in the longer term.

Social and Community

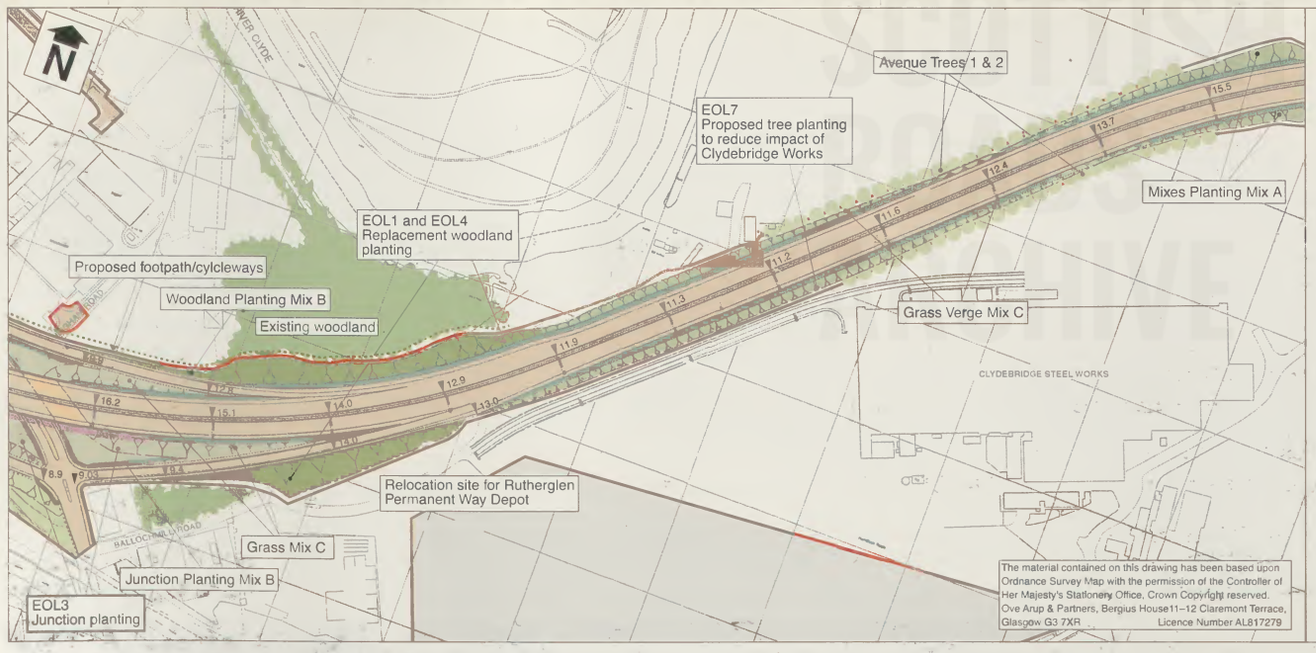
- There would be a new cycleway/walkway from Cambuslang Road to the Clyde Calder Walkway

Contaminated Land and Waste Disposal

- There would be no likely significant changes

Construction

- There would be no adverse effects.



LEGEND

- Hard Shoulder
- Carriageway
- Central Reserve
- Verge
- Landscape/Acoustic Mitigation
- Fence Line/Land take (as per info. received 18.11.94)
- + 5.9 Existing Levels
- 16.5 Proposed Alignment Levels
- Acoustic Barrier
- Retaining Wall
- Cutting
- Embankment
- Views Out
- EOAc1 Environmental Objectives
- Proposed Mounds
- Existing Significant Vegetation Adjacent to the Motorway

Proposed Planting

- Woodland Planting
- Intermediate Planting - Trees & Shrubs
- Junction Planting - Ornamental Trees & Shrubs
- Grass
- Proposed cycleway/footpath
- Hard landscape
- Section Lines
- Water Features
- Gantries

Scale:
0 100 200m

Cambuslang Road to Rutherglen Station

Noise and Vibration

- There would be minor to major adverse changes dependent upon distance from the scheme mitigated by noise barriers and screen bunds from Cambuslang Road to Farmeloan Road.
- There would be moderate benefits to properties fronting Main Street

Air Quality and Climate

- No air quality criteria would be exceeded and therefore no significant effects are predicted.

Water Resources

- There would be no likely significant changes

Ecological Resources

- There would be no likely significant changes

Townscape and Visual

- There would be major visual changes for properties in the Victoria Street area.
- There would be negative visual and Townscape changes upon Public Open Space south of the railway, around Hardie Avenue.

Cultural Heritage

- The site of the Caledonia Pottery could be affected
- Rutherglen East Church would receive some benefits from reduced traffic.

Business and Commerce

- Some properties in Farmeloan Industrial Estate would be demolished but long term benefits would arise for access to industry.

Social and Community

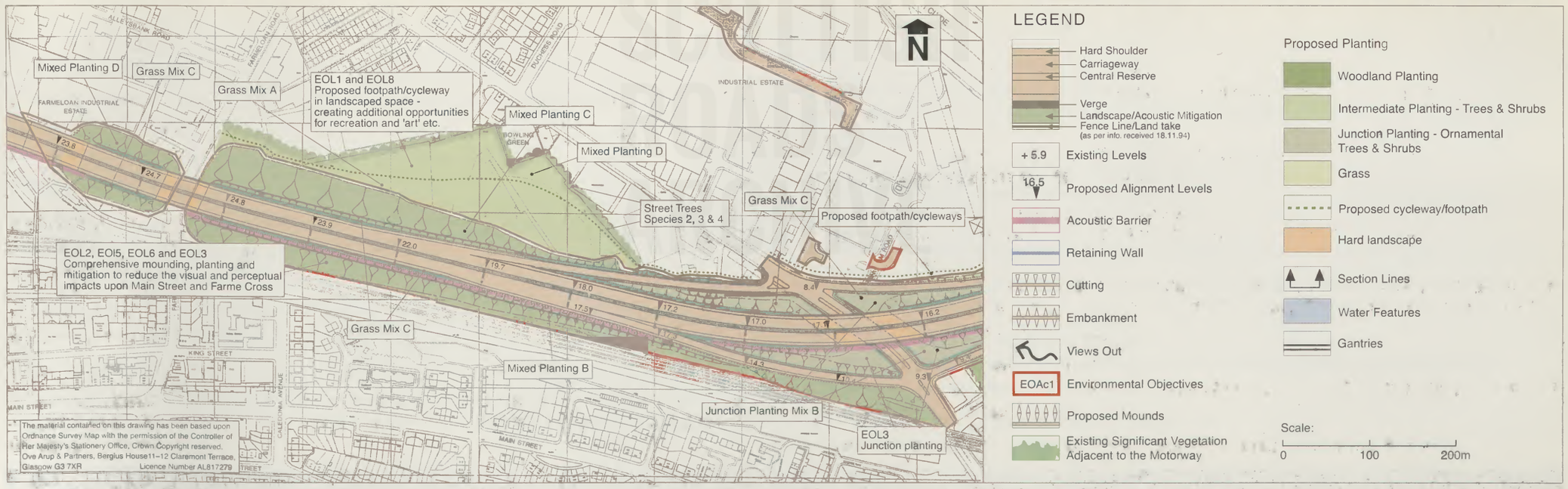
- There would be some losses to George Gray Street Housing, a reduction of amenity for the Allotment Gardens, Open Space and footpath, Sheltered Housing, Schools and Play Areas south of the motorway.
- New cycleways and walkways would be provided between Cambuslang Road and Farmeloan Road, and new amenity open space.

Contaminated Land and Waste Disposal

- There would be no adverse effects on contaminated land.

Construction

- There would be short term adverse effects upon industrial and community facilities in Rutherglen, particularly at Farmeloan Road.



Rutherglen Station to Southcroft Road

Noise and Vibration

- There would be minor to major adverse changes dependent upon distance from the scheme mitigated by noise barriers and screen bunds from Farmloan Road to Glasgow Road.
- There would be noise benefits to properties on Prospecthill Road

Air Quality and Climate

- No air quality criteria would be exceeded and therefore no significant effects are predicted.

Water Resources

- Water quality of the River Clyde would be protected.
- West Burn water quality would be improved

Ecological Resources

- There would be some beneficial effects at Rutherglen Station.

Townscape and Visual

- There would be negative visual effects for properties on Western Avenue.
- There would be minor adverse effects at Toryglen Road.

Cultural Heritage

- There would be no likely significant changes

Business and Commerce

- Some properties in Rutherglen Industrial Estates would be demolished but long term benefits would arise for access to industry.

Social and Community

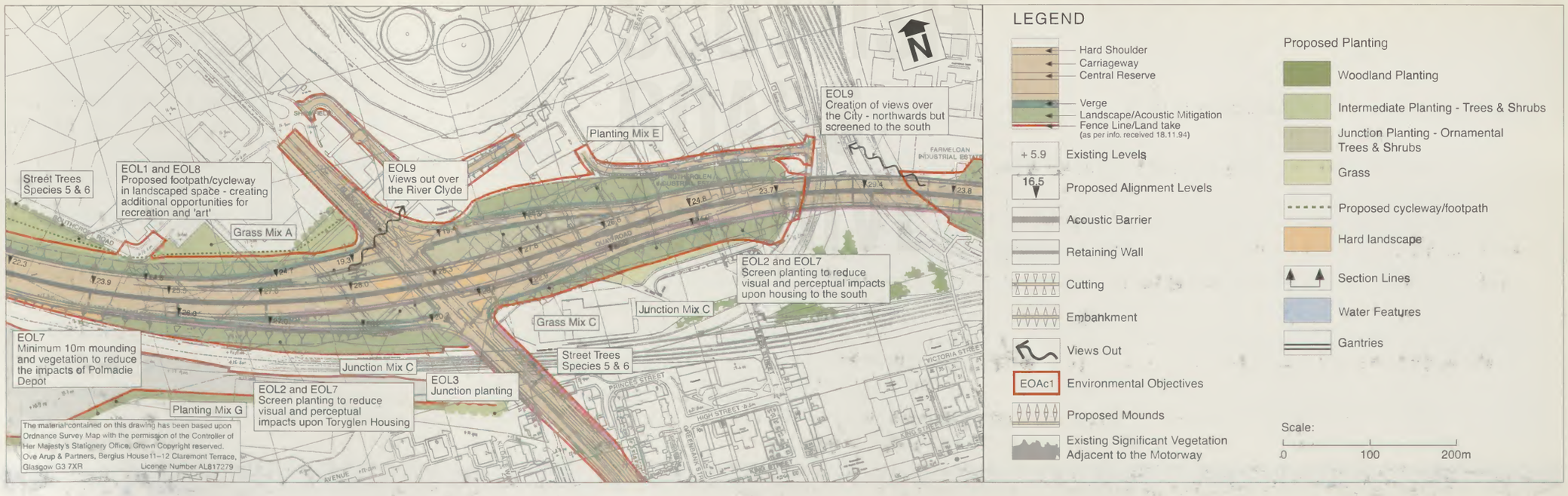
- There would be a reduction of amenity for the Open Space and Play Area at Toryglen
- New cycleways from Glasgow Road and Polmadie Road would be provided, and amenity open space.

Contaminated Land and Waste Disposal

- Long term benefits are forecast from treatment of contaminated land.

Construction

- There would be short term adverse effects upon industrial and community facilities in Rutherglen, particularly at Glasgow Road.



Southcroft Road to Polmadie Road

Noise and Vibration

- There would be major adverse effects upon the Toryglen Housing area south of the relocated Polmadie depot.

Air Quality and Climate

- No air quality criteria would be exceeded and therefore no significant effects are predicted.

Water Resources

- Malls Mire Burn water quality would be improved.

Ecological Resources

- There would be adverse effects on Malls Mire Site of Conservation Interest.

Townscape and Visual

- There would be major negative visual changes for the properties and public open space of Toryglen

Cultural Heritage

- Features of archaeological interest likely to be affected are the railway shed at Polmadie and the demolition of Jessie Street Works.

Business and Commerce

- There would be demolition to premises in Polmadie Industrial Estate but long term benefits for access.

Social and Community

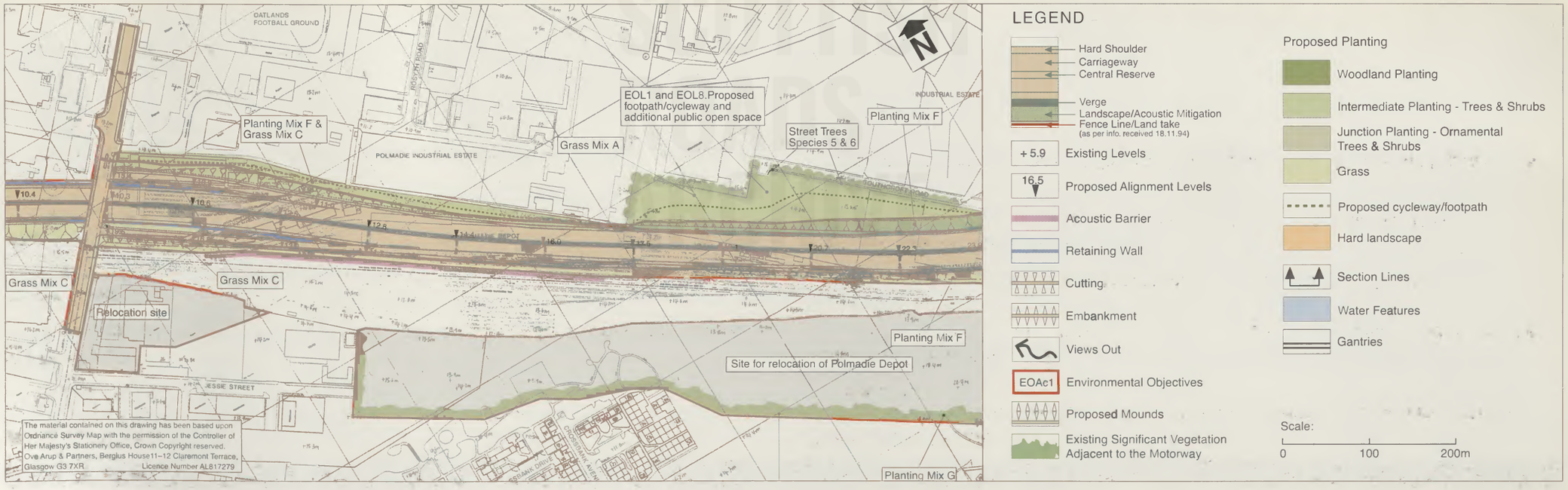
- There would be a reduction in amenity for Toryglen open space, housing and community facilities.
- New cycleways would be provided from Glasgow Road to Polmadie Road.

Contaminated Land and Waste Disposal

- Long term benefits are forecast resulting from treatment of contaminated land.

Construction

- Short term adverse effects upon Toryglen Housing, community facilities and open space.



Polmadie Road to Cathcart Road

Noise and Vibration

- There would be moderate to major adverse effects in the Aikenhead Road area. Some properties are likely to qualify for noise insulation.

Air Quality Climate

- No air quality criteria would be exceeded and therefore no significant impacts are predicted.

Water Quality

- There would be no likely significant changes.

Ecological Resources

- There would be a minor effect at Dixon's Blazes.

Townscape and Visual

- Lighting and gantries would be visible from properties in Aikenhead Road and Butterbiggins Road.

Cultural Heritage

- There would be no likely significant changes.

Business and Commerce

- There would be demolition to premises in Dixon Blazes Industrial Estate but long term benefits for access.

Social and Community

- There would be some negative changes to the amenity of Jamieson Street housing.

Contaminated Land and Waste Disposal

- No significant effects are predicted.

Construction

- Short term local effects are forecast around the Cathcart Toad/Aikenhead Road junction.

Cathcart Road to West Street Station

Noise and Vibration

- There are minor benefits at Butterbiggins Road, Eglinton Street and Devon Street as a result of reductions in traffic, and the proposed noise barrier on the viaduct.

Air Quality and Climate

- No air quality criteria would be exceeded and therefore no significant impacts are predicted.

Water Quality

- There would be no likely significant changes.

Ecological Resources

- There would be no likely significant changes.

Townscape and Visual

- A loss of tenemental buildings on Eglinton Street would lead to a loss in street continuity.
- The visual effects at St. Andrew's Cross resulting from the viaduct would be visible along Eglinton Street, Pollokshaws Road and Devon Street.

Cultural Heritage

- The listed building (St. Andrew's works) would be demolished.
- The setting of the listed buildings at Inglefield Street and Butterbiggins Road would be affected.
- The features of potential archaeological interest likely to be affected are in the Kilbirnie Street/Port Eglinton Area

Business and Commerce

- There would be demolition around Kilbirnie Street, but long term beneficial changes for access.

Social and Community

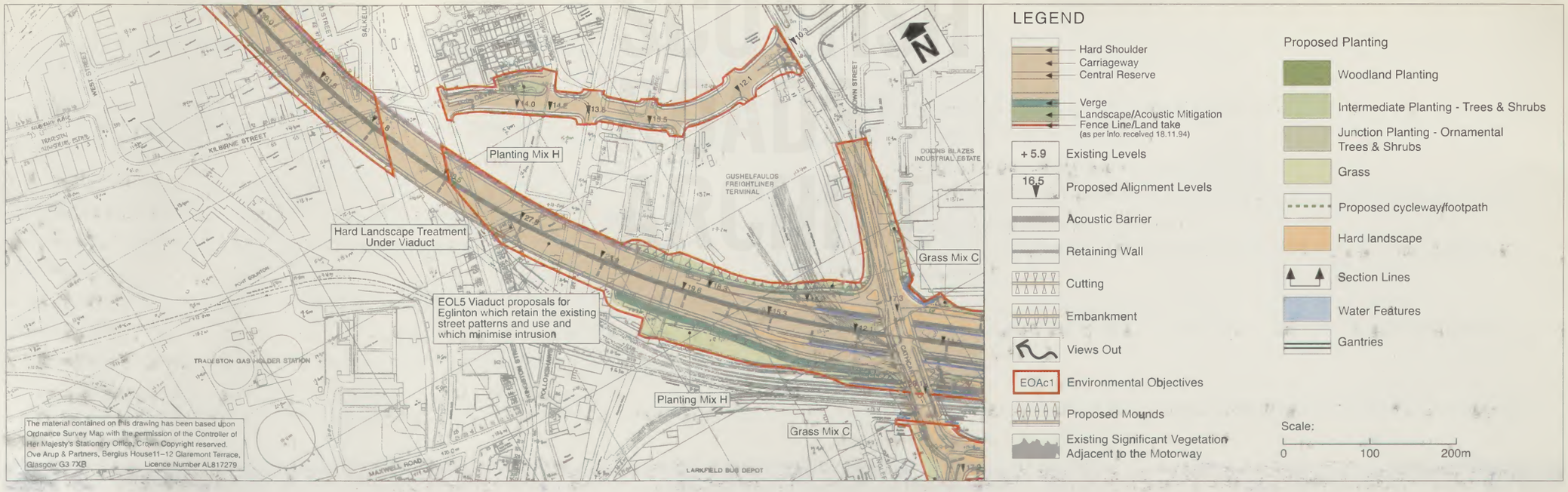
- Churches at Turriff Street and Cathcart Road are demolished. Residential property in Eglinton Street would suffer a loss of amenity.

Contaminated Land and Waste Disposal

- There would be no likely significant affects.

Construction

- There would be short term adverse effects upon housing at Eglinton Street and Pollokshaws Road.



West Street to the Kingston Interchange

Noise and Vibration

- Minor to moderate adverse effects are forecast upon some industrial/commercial properties in West Street.
- Minor benefits are expected in Scotland Street and Shields Road due to reductions in traffic.

Air Quality and Climate

- No air quality criteria would be exceeded and therefore no significant effects are predicted.

Water Quality

- The water quality of the River Clyde would be protected.

Ecological Resources

- There are likely to be beneficial effects associated with the landscape proposals.

Townscape and Visual

- Any major adverse effects upon visual amenity as a result of the proposed interchange would be offset by landscape proposals and earthworks.

Cultural Heritage

- The features of potential archaeological interest likely to be affected are in the Tradeston area.
- 5 listed buildings are to be demolished or altered. 4 are Category B listed buildings and 1 (the Eglinton Engine Works) is Category A.
- The amenity of the Co-op building and Scotland Street Museum are likely to be adversely affected.

Business and Commerce

- There would be demolition of industrial property, and short term adverse effects upon access but with overall long term benefits to access.

Social and Community

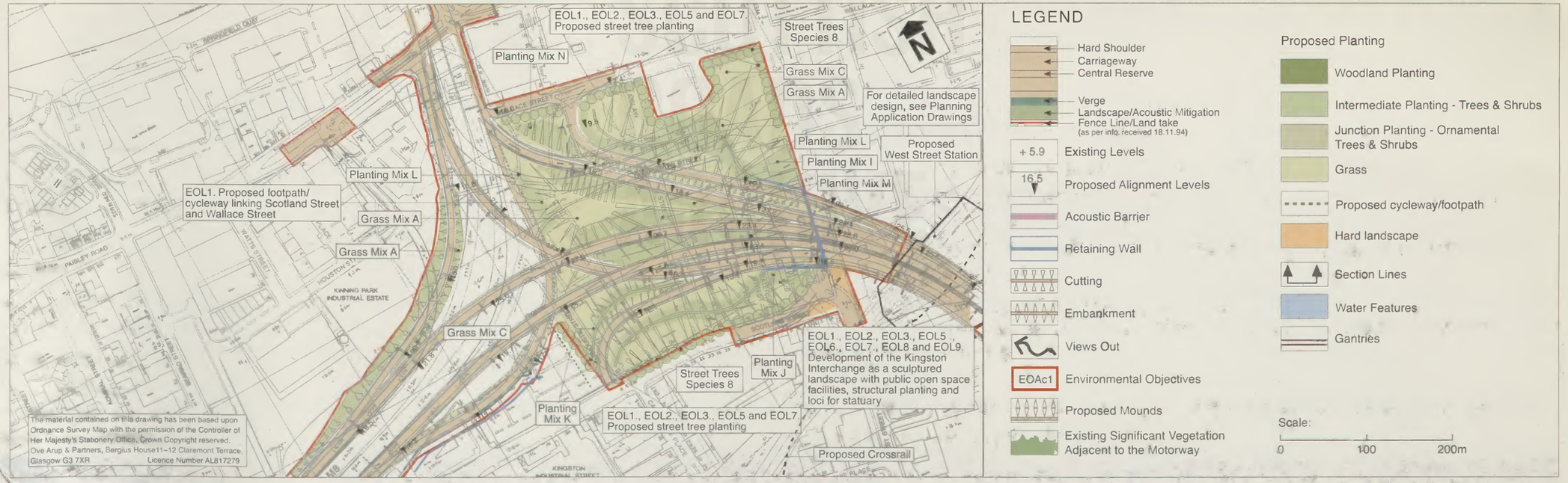
- Car parking at West Street Station may be adversely affected, but there are access improvements for pedestrians
- New cycleways/walkway links are proposed between Scotland Street and Paisley Road
- The landscape proposals would offer amenity benefits

Contaminated Land and Waste Disposal

- There are no likely significant changes expected.

Construction

- Short term adverse effects are predicted for the Co-op building and the Museum of Education.



5.0 FURTHER INFORMATION

Public exhibitions presenting the proposed scheme will be held at the following venues at the dates given below.

Main exhibition of Planning Application, Environmental Statement (ES), Non-Technical Summary (NTS), Technical Reports and Model (TR's):

- Planning Department
  Glasgow District Council
  231 George Street
  Glasgow G1 1RX

From 23 January
Open weekdays 9:00am-4:30pm.

Local exhibitions of the Planning Application, ES, NTS, TR's but without a model:

- Rutherglen Library
  163 Main Street
  Rutherglen G73 2HB

From 6 February - 10 February 1995
10:00am- 8:00pm

- John Main Community Centre
  401 Cumberland Street
  Glasgow G5

From 13 February-17 February 1995
Open 10:00am-8:00pm (approx)

- Govanhill Neighbourhood Centre
  Daisy Street
  Glasgow G42

From 13 February-17 February 1995
10:00am-8:00pm

Information on the proposals is also available at:

- East End Community Information Project
  1442 Gallowgate
  Glasgow G31

From 23 January to 17 February 1995
Open weekdays 9:30am-4:30pm

- Gorbals Initiative
  192 McNeil Street
  Glasgow G5 6NH

From 23 January- 17 February 1995
Open weekdays 9.30am-4.30pm

Copies of this Non-Technical Summary can be obtained, free of charge, by writing to the Regional Council at the address given below:

- The Chief Executive
  Strathclyde Regional Council
  20 India Street
  Glasgow G2

Copies of the Environmental Statement and other documents can also be obtained by writing to the Regional Council at the above address. These are available at the following prices, which include postage and packaging:

Environmental Statement	£200
Traffic and Economic Appraisals Report	£60
Economic Development Report	£ 30

Any objections to, or observations on, the proposed scheme should be made in writing to:

- The Director of Planning
  City of Glasgow
  231 George Street
  Glasgow G1 1RX

6.0 REFERENCES

1. European Commission (1985). Council Directive of 27 June 1985 on the Assessment of Certain Public and Private Projects on the Environment, (85/337/EEC) OJ No. L175/40.
2. Strathclyde Regional Council, Strathclyde Structure Plan Update, 1988.
3. Department of Transport/Scottish Office Industry Department/Welsh Office/Department of the Environment for Northern Ireland (1993) Design Manual for Roads and Bridges, Volume 11: Environmental Assessment, HMSO, London.