Draft Outline Construction Method Statement

Ravenscraig Infrastructure Access - South

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Document Control Sheet

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1. Introduction

1.1.1 This Outline Construction Method Statement (OCMS) supports the Environmental Impact assessment (EIA) prepared by Sweco, for the Ravenscraig Infrastructure Access South (RIAS) Scheme ('the Scheme') and presents the anticipated construction methodology that could be delivered for the Scheme. The document has been drafted as a guide with an emphasis on construction activities and those within proximity to an urban area and working close to the West Coast Main Line (WCML).

1.1.2 The OCMS sets out an indicative approach that could be used by the appointed Contractor to undertake the construction work responsibly with respect to the urban setting and provides a general framework of how construction could be implemented and controlled.

1.1.3 It will be the role of the appointed Contractor, to review and amend the OCMS as required.

Main Elements of the Works

1.1.4 The key infrastructure elements of the proposed RIAS project are summarised in Table 1.

Key Infrastructure element	Description
Windmillhill Street Junction	Signalised gyratory to accommodate all approach/exit roads, including the approach/exit lanes for the new dual carriageway from the Ravenscraig site. The signalised gyratory will accommodate and provide: ▪ Two approaching lanes and two exit lanes on the Windmillhill Street north arm. ▪ Three approaching lanes and two exist lanes on the new dual carriageway arm, to the east. ▪ Three approaching lanes and two exit lanes on the Windmillhill Street south arm. ▪ Three approaching lanes and two exit lanes on the Airbles Road arm to the west. ▪ Three lane circulatory carriageway with spiral road marking configuration. ▪ Traffic signal control on all approaches and internal links on the circulatory carriageway; and ▪ Left in/left out at-grade priority junctions for Orbiston Street west and Orbiston Street east.
West Coast Main Line Structure	A new bridge crossing of the West Coast Main Line Railway (the "WCML", or "WCML Crossing"); This design work is being undertaken by Arup.
New Dual Carriageway	New dual carriageway from improved Windmillhill Street junction to Robberhall Road/New Craig Road/O'Donnell Way roundabout at Ravenscraig Regional Sports Facility, including new road crossing of the West Coast Main Line railway and 3-arm roundabout.

Table 1: Summary of key infrastructure elements

2. Site Preparation Works

2.1. Introduction

2.1.1 It is anticipated that the following site preparation works will be carried out in advance of the main construction activities, however this will be reviewed and amended as necessary by the appointed Contractor.

2.2. Vegetation Clearance

2.2.1 The site will need to be cleared of vegetation (e.g. groundcover, shrubs and trees) to accommodate the main construction works. This will be required within the construction footprint of the new road alignment, around the area for new structures; in areas used to provide access to construction works; and for the establishment of construction compounds.

2.2.2 Any vegetation clearance should be undertaken such that silt run-off from bare earth to the watercourses are avoided.

2.2.3 Any vegetation clearance will be undertaken considering identified environmental restrictions (e. g. ecological and/or seasonal constraints).

2.2.4 Any topsoil stripped as part of the clearance works will be stockpiled and if deemed acceptable for re-use, used within the construction works on site.

Tree Felling

2.2.5 Tree felling to accommodate the construction works and the advance utility

2.2.6 Any tree felling works will be undertaken considering identified environmental restrictions (e.g. Tree reservation Orders and ecological seasonal constraints i.e. breeding bird season).

Invasive Non-Native Species (INNS)

2.2.7 Two protected and notable species surveys of the Ravenscraig Masterplan site have been undertaken. The first in 2018 by Heritage Environment Ltd and the second by Sweco in 2019.

2.2.8 Several invasive species where noted in the 2018 survey including sea buckthorn, snowberry, rhododendron, giant hogweed and Japanese knotweed within areas of the construction footprint. These invasive plant species are required to be treated in advance of the construction works. The survey of 2019 identified several plants of butterfly bush.

2.2.9 Further survey work will be required to identify the current invasive species within the construction footprint.

2.2.10 Biosecurity measures will need to be implemented throughout the duration of the construction works, to prevent the inadvertent spread of invasive plant species.

2.2.11 Further information can be read within the RIAS Ecology Appraisal Report prepared by Sweco ecologists.

2.3. Utility and Service Diversions

2.3.1 Buried and overhead services are located within the proposed construction footprint and diversions to buried services will be required. The existing services are shown on drawings RIAS-AMEY-HAC-SWI-DR-CU-000001 to 000006 Constraints – Utilities.

2.3.2 Utility service providers have been consulted during the outline design process to ensure that specific requirements for each potential diversion have been considered and addressed where possible. Utility and service diversions will be refined as part of the detail design and tender process.

2.4. Demolition of existing buildings

2.4.1 The demolition of existing buildings is required as part of the site preparation works. Coordination with utility services will be required as per the above section.

2.4.2 Drawing RIAS-AMEY-HAC-SWI-DR-CH-000010 General Site Clearance, outlines the proposed buildings which are likely to be affected by the scheme.

2.4.3 It is not envisaged that any unusual or "dramatic" demolition techniques will be required since the buildings involved are largely "conventional" commercial and industrial units comprising brick, cladding, steel and concrete frames and the like. Incremental dismantling is anticipated at this stage prior to detailed assessment of the buildings. Detailed demolition methodologies will be devised and controlled by the appointed Contractor.

2.5. Construction Compounds and Site Access

2.5.1 A potential main construction compound could be located with land on the New Dual Carriageway section. Smaller satellite compounds are anticipated. The main compound and access routes will be agreed and set up in advance of the construction works.

2.5.2 Sites necessarily prepared for the structure at the West Coast Main Line railway (WCML) (casting areas, laydown areas, compounds etc) would be appropriate for reuse as compound areas for the main road contract.

2.5.3 The potential compound locations have been ascertained as suitable in terms of proximity to key construction areas, access for deliveries and as locations which are considered to pose minimal intrusion on the environment and local community.

2.5.4 A main compound will house the Contractors site office, storage of plant and equipment and site welfare facilities. Any generators used will comply with standard regulatory requirements.

2.5.5 The details of the construction site will comply with the requirements of the corresponding contract and as anticipated by this OCMS. In general, the layout, appearance and operation of the construction site, site offices and compounds will be managed as follows:

- All working areas will be kept in a clean and tidy condition.
- All necessary measures will be taken to minimise the risk of fire.
- A 'Hot Works' Permit to Work Protocol will be maintained throughout the works.
- Workers will maintain a reasonable standard of dress at all times and will not use foul language or display lewd or derogatory behaviour.
- Appropriate measures, such as the use of enclosed containers, will be employed to store waste susceptible to spreading by wind or liable to cause litter.
- Fencing and other means of enclosure will be inspected daily, repaired and repainted as necessary.
- All works areas will be fenced off for the duration of the works.
- Adequate welfare facilities will be provided for all construction staff. All toilets will be serviced and kept clean.
- Site accesses, accesses to site compounds and roads in the vicinity of the site access points will be maintained and kept clean; and
- Appropriate security fencing and lighting will be deployed on site to meet best practice and current health and safety regulations.

2.5.6 Construction compounds will be sensitively located within the available land and in relation to the local community and urban environment. Locations which are set back from the local college, sports centre and local businesses are preferable.

It is anticipated that the main construction access for the New Dual Carriageway section would be from three locations just off the existing road network:

- The Northern end of Ravenscraig site: from the Regional Sports Facility roundabout at the northern end of the site
- The Central area of the Ravenscraig Site: from the Western end of Enterprise Way, adjacent to the college. The road terminates at a field gate, which leads to the site.
- The Southern end of the site: from the local roads around the commercial and industrial zone between Windmillhill Street and the WCML

2.5.7 Installation of the WCML structure will then allow access under the railway and end to end within the site.

2.5.8 The dual carriageway at Ravenscraig will connect the new Windmillhill Junction to new Craig/Robberhall Road Roundabout.

2.6. Construction Plant

2.6.1 Typical construction plant is expected to be used on site. For the purpose of this outline OCMS it has been assumed that construction plant and equipment would include:

- Heavy goods vehicles (HGVs).
- Bulldozers.
- Hydraulic breakers.
- Cranes.
- Concrete wagons.
- Mechanical saws.
- Motor graders.
- Dump trucks.
- Rock crushers.
- Excavators.
- Smooth and vibrating rollers.
- Sprayers.
- Hand operated compacting plant.
- Tracked vehicles.
- Pneumatic tools and other portable electric and hand tools.
- Rubber-tyred motorised scrapers and crawler tractors with scrapers.
- Road wagons.
- Pavement laying plant.
- Piling platform

2.6.2 The appointed Contractor will adhere to regulatory requirements in terms of storage of plant and machinery and maintenance and service requirements.

2.7. Working Hours

2.7.1 Typical construction working hours are anticipated to be Monday to Friday 0700 to 1900hrs, Saturday 0800 to 1300hrs, with no Sunday working. The working hours will be agreed with the Council's Environmental Health Team and the appointed Contractor.

2.7.2 It is anticipated that there will be occasions when the appointed Contractor may need to carry out certain operations outside of these hours. Such extensions will be subject to agreement with the Council's Environmental Health Team and any stakeholders affected by the relevant activity.

2.7.3 In order to reduce the risk of impacting sensitive ecological receptors, normal working hours may need to be reduced or restricted in certain areas, for certain activities. For example, working after dusk or before dawn may not be permitted unless agreed in advance with the relevant authorities to avoid disturbance to protected species. Furthermore, works undertaken adjacent to the Windmillhill Street Junction or West Coast Main Line Railway may also be subject to further restrictions and will be agreed in advance with the relevant authority.

2.7.4 The appointed Contractor will also be expected to ensure that the local community, particularly residents adjacent to the works, are kept informed of any changes to normal working practices in advance of any works being carried out. The Contractor will adapt the construction schedule around large events such as significant games at Motherwell Football Club and events at Motherwell Concert Hall and Theatre.

3. Main Construction Works

3.1. General

3.1.1 The anticipated construction methodology is based on the project programme contained in the design brief issued by NLC in June 2019 and the design development since.

3.1.2 It is acknowledged that this will be subject to review during detailed design and by the appointed Contractor.

3.2. Traffic Management

3.2.1 Traffic management will be required during the construction phase and this may comprise temporary road diversions, traffic routing, road restrictions and traffic signalling. An outline traffic management plan has been incorporated into the Outline Construction Environmental Management Plan (OCEMP) which will be required to be developed further by the appointed Contractor and with the agreement of the Council.

3.2.2 Temporary diversions and closures to public roads and footpaths will be required throughout the duration of the construction works. Disruption to the local community will be minimised wherever possible and be a key consideration during traffic management planning.

Advance notification of any closure or diversion would be implemented in consultation and agreement with the Councils Access Officers.

3.3. Construction Sequencing

3.3.1 Construction of the roads scheme is expected to be undertaken over a period of 2 years between Spring 2023, following completion of the WCML structure, and Spring 2025.

3.3.2 The current high-level programme is shown in Table 2.

Task	Indicative Start	Indicative Finish
Construction of the WCML structure	July 2022	March 2023
Blockade of WCML	December 2022	December 2022
Mobilisation Period for the road infrastructure works	May 2023	October 2023
Preparation/Approval of OCMS	May 2023	October 2023
Preparation/Approval of Temporary Traffic Management Plan	May 2023	October 2023
Construction Period	October 2023	April 2025

Table 2: Indicative Construction Programme

3.3.3 Construction works will be phased accordingly based on the proposed sequence of construction, environmental and ecological seasonal restrictions, and impacts/ disruption to the local community.

3.4. Windmillhill Street Junction Phasing

3.4.1 Windmillhill Street junction is to be significantly revised with a new eastern arm and new road leading towards Ravenscraig, including new left in left out junctions with Orbiston Street.

Constraints

- Residential properties on Airbles Road and Windmillhill Street.
- Business access on Airbles Road and Windmillhill Street.
- Level difference between Airbles Road and Windmillhill Street.
- Existing utilities.
- Tying into existing carriageway levels at Airbles Road, Windmillhill Street north and south; and
- Demolition of properties for construction of gyratory arm connecting to new dual carriageway.

3.4.2 The following phasing sets out an indicative approach that could be used by the appointed Contractor It will be the role of the appointed Contractor to review and amend the phasing as required.

Phase 1

3.4.3 Maintain two-way running using the existing network with traffic management restricting traffic flow to single lanes on all approaches to the Windmillhill Street junction. Access to and from Dellburn Street to Windmillhill Street will be closed during this phase. Section of Orbiston Street between Rose Street and Dellburn Street to be closed.

Phase 2

3.4.4 Maintain two-way running using new sections of road constructed during Phase 1. Dellburn Street to operate as left in left out junction for the duration of the construction phase. Section of Orbiston Street between Rose Street and Dellburn Street to be closed.

Phase 3

3.4.5 Maintain access from Windmillhill Street south to Airbles Road west with the remaining approaches to the Windmillhill Street junction to be closed during this phase. Dellburn Street to operate as left out junction under phase 3. Section of Orbiston Street between Rose Street and Dellburn Street to be closed.

Access Provisions

3.4.6 Access to residential properties and local businesses on Airbles Road and Windmillhill Street to be maintained throughout all phasing. Emergency services access to be maintained throughout all phases of works.

3.5. New Dual Carriageway Phasing

3.5.1 The following phasing sets out an indicative approach that could be used by the appointed Contractor. It will be the role of the appointed Contractor, to review and amend the phasing as required.

3.5.2 The dual carriageway will connect the new Windmillhill Street Junction to New Craig Road/Robberhall Road Roundabout. The dual carriageway will cross under the West Coast Main Line railway via railway overbridge to be constructed for Network Rail under a 9-day blockade provisionally scheduled for December 2022. Construction of this structure constitutes Phase 1 and will be undertaken over three stages, Pre-Blockade; Blockade; and Post-Blockade.

3.5.3 Works undertaken during the 'Pre-Blockade' stage will comprise, compound set-up; preparation of access routes to bridge site; bridge structure construction; wingwall structures construction; access route preparation; OLE portal construction; OLE diversions; and Lineside Operational Infrastructure diversions.

3.5.4 Works undertaken during the 'Blockage' stage will comprise, removal of OLE equipment, track, and ballast over the excavated length; excavation at existing retention areas; installation of main bridge structure;

backfilling and props; wingwall placement; installation of ballast and track; OLE and Lineside Operational Infrastructure reinstatement; and reopen railway.

3.5.5 The 'Post-Blockade' stage will comprise installation of drainage pipes within stitch; cast stitch; and add brickwork facing to wingwalls.

3.5.6 The section of dual carriageway passing under the WCML railway will be constructed following the completion of the WCML Railway structure.

3.5.7 Most of the construction works for the New Dual Carriageway undertaken within the Ravenscraig site will be a single phase since the site has no constraints that affect phasing.

Access Provisions

3.5.8 Due to the location of the dual carriageway site there are no anticipated requirements for any special or localised access arrangements across the site to be maintained.

3.6. Re-instatement and Landscaping

3.6.1 The landscaping design has been developed following consultation with NLC when an emphasis was placed on design for lower maintenance, particularly that required with softer planning areas. The landscaping design has reflected this desire for a lower maintenance surfaces. The landscaping design is therefore predominately hard landscaping however there is potential to introduce softer aspects to this during design development.

3.6.2 The landscape design has been proposed around the Windmillhill Street junction. The initial design includes a mixture of hard and soft landscape with the inclusion of traditional grass verging and shrub planting mixed with ornamental planting. There is proposed use of sculpture within the centre of the roundabout. Replacement native tree planting including specimens ranging in height throughout the Scheme extents.

3.6.3 Tree protection measures (i.e. careful construction methods and hand digging to verify tree root zones) will be required during the construction works to protect the trees identified on site as to be retained where possible.

3.6.4 Erection of hoarding around operational areas of the site to screen the construction works and compound areas will be undertaken where possible.

3.6.5 Re-instatement of the site area will be undertaken upon completion of the main construction works. Any land (with the exception of the land being used for the road works) will be re-instated to its condition immediately before the construction works began and in agreement with the affected landowner.

3.6.6 Some landscaping works will be undertaken as construction work progresses (i.e. seeding of embankments) however, most of the landscaping work is expected to be undertaken and completed following the main construction works.

3.6.7 The proposed landscape design along the New Dual Carriageway section aims to provide a proposed avenue of trees using a mixture of sizes however, larger extra heavy and semi-mature trees are proposed where space is available and instant impact is required.

3.6.8 Further planting is proposed around the new Windmillhill Street Junction with additional sculpture and a mix of wildflower and ornamental planting in the central island of the gyratory.

3.7. Earthworks

3.7.1 Whilst the majority of the design requires imported material and embankments raising the road above existing ground, construction of the new dual section should be expected to excavate some contaminated soils that will require testing and treatment; however, this will be for the appointed Contractor to confirm.

3.7.2 Imported material will be tested for suitability.

3.7.3 Importing material will reduce on site excavation, haulage and deposition of material as well as quantities of material for disposal but will increase haulage of material to site from the sources of import

3.7.4 SEPA will also be consulted on construction processes to ensure that the local watercourses are sufficiently protected during construction works and waste materials are appropriately reduced and controlled.

4. Environmental Consideration

4.1. Flood Warning

4.1.1 A flood warning system will be agreed in consultation with the appointed Contractor, the Council and SEPA ahead of the construction works. The Contractor should as a minimum, monitor the local weather forecast. SEPA flood warnings in the local area will be reviewed on a daily basis by the Environmental Manager (or equivalent).

4.1.2 The main watercourse is the South Calder Water which currently provides an outfall location for the existing basins located on the Ravenscraig site.

4.1.3 Appropriate action will be taken in the event of predicted heavy rainfall to protect unsecured materials/plant and items located in site compounds to prevent their movement or release. Plant and materials will be stored in safe areas out with the floodplain where practicable

4.2. Surface Water Protection

4.2.1 Pollution Prevention Guidelines (PPGs) and the replacement guidance series Guidance for Pollution Prevention (GPPs) have been developed to provide advice on legal responsibilities and best practice during construction. The guidance series will be adhered to as part of the construction works particularly those relating to pollution control and sediment release.

4.2.2 Continual consultation with SEPA and NatureScot to agree measures required to prevent pollution to watercourses will be undertaken.

4.3. Ecological Measures

4.3.1 An Environmental/ Ecological Clerk of Works (ECoW) should be employed on site for all ecological aspects of the construction activities. The ECoW will provide advice in the event of any unforeseen protected species issues that arise during construction and oversee the implementation of mitigation measures to be adopted.

4.3.2 Pre-construction surveys will be required to ensure that construction activity avoids unlawful disturbance of protected species. Pre-construction surveys are aimed towards informing any additional mitigation measures that may be required and provide evidence for licence applications that may be required.

4.4. CAR Licensing

4.4.1 A Controlled Activities Regulation (CAR) Licence will be required from SEPA under the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) and the Water Environment (Miscellaneous) (Scotland) Regulations 2017.

4.4.2 The construction works will also require a CAR (construction site) licence for the discharge of water runoff from a construction site to the water environment.

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4.5.2 The construction works will also require a CAR (construction site) licence for the discharge of water runoff from a construction site to the water environment.

4.6. Noise and air quality

4.6.1 Initial assessments of the impacts of construction on air quality and noise levels has been carried out and required measures are identified in the assessments accompanying the planning application. These will be reviewed with the appointed contractor and confirmed.