Construction Spoil Management Plan

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Document Approval

Rev.	Date	Prepared by	Reviewed by	Recommended by	Approved by	Remarks
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Signature:						

Details of Revision Amendments

Document Control

The Project Director is responsible for ensuring that this Plan is reviewed and approved. The Support Services Director and the Construction Manager Project Wide are responsible for updating this Plan to reflect changes to the Project, legal and other requirements, as required.

Amendments

Any revisions or amendments must be approved by the Project Director before being distributed or implemented.

Revision Details

Revision	Details
00	Issue for internal review
01	Issue for consultation and review by key stakeholders
02	Figure B2 showing haul routes at Kingsgrove added
03	Update Figure B7; B9; B10; Section 4.1.1; Update Section 8
04	Updated to include comments from DPE – 2.2, table 3, section 8, section 2.7, section 1
05	Updated to include further DPE comments
06	Updated haul routes to align with EIS, included EIS construction traffic numbers, included section 8.1 Haul Route Changes
07	Updated haul routes to align with current approved routes (Kingsgrove and Arncliffe), included Bexley East in Table 2 as a Spoil Generating Site
08	Updated section 2.2 table 2 – added WestConnex Tunnel Spoil (WTS) Exemption Material & updated spoil reuse locations Updated section 3 – added quantities to date & included WTS Updated section 4.1.1 – added WTS description Updated section 6 – included 2nd decline at Arncliffe Updated section 7 table 8 – updated spoil disposal locations Updated section 8 – removed statement regarding Garema Circuit awaiting approval, updated nightshift requiremnets & included Heavy Vehicle Driver Code of Conduct Updated Appendix B - Updated haul routes Included new appendix D – WestConnex Tunnel Spoil Order & Exemption document Updated section 8 – included reference to waste tracking audits conbducted by spoil management team

Contents

1. Structure of this Plan

This Spoil Management Plan should be read in conjunction with the following Plans:

- Project Management Plan
- Construction Environmental Management Plan
- Traffic Management and Safety Plan
- Sustainability Plan

2. Overview

2.1. Purpose and Scope

CPB Dragados and Samsung Joint Venture (CDS-JV) has been contracted by Sydney Motorway Corporation (SMC) to design and construct the New M5 - Beverley Hills to St Peters and the Local Road Upgrade Works.

This Construction Spoil Management Plan (CSMP, the Plan) is required in accordance with conditions B56 and D51 of the Minister's Conditions of Approval (CoA) which state:

Table 1: Conditions of Approval Compliance

Condition		Relevant section
B56	*The handling of spoil generated during construction of the project is to be conducted in accordance with the Spoil Management Plan required under condition D51*	All sections of the Plan
D51	*Prior to commencement of any tunnelling works, the Proponent shall prepare and implement a Spoil Management Plan for the SSI. The Plan is to be developed in consultation the relevant Council(s), for the approval of the Secretary. The Spoil Management Plan shall incorporate detailed information on the handling and transport of spoil generated during construction of the SSI, and provide information regarding each of the broad parameters specified in the documents listed in conditions A2(b) and A2(c).* *The Spoil Management Plan is to be prepared separate to, but consistent with, the Construction Traffic and Access Management Plan required under condition D68(a)".*	All sections of the Plan

This Plan is established in accordance with the Project Management System based on CPB's 'The Way We Operate' framework and incorporates key elements from Dragados and Samsung Management Systems. It integrates CDS-JV Design Management requirements tailored to ensure compliance with Contract requirements.

The Support Services Director and the Construction Manager Project Wide, with advice and input from their senior Project staff are responsible for this Plan.

2.2. Information Required

As required by CoA D51 this document is structured to follow the broad parameters outlined in Table 24-6 of Volume 1C of the Environmental Impact Statement (EIS) identified in Table 2.

Table 2: Spoil Management Plan broad parameters from the EIS

Parameter	Plan response	Relevant section
Spoil generation	3.2 million cubic metres (surplus spoil)	Section 3 Spoil Production

Parameter	Plan response	Relevant section
Spoil generation locations	Indicative volumes of spoil that would be generated at the construction compounds would include: • Kingsgrove North (C1), Kingsgrove South (C2) and Commercial Road (C3) construction compounds - about 500,000 cubic metres • Bexley Road North (C4), South (C5) and East (C6) construction compounds - about 750,000 cubic metres • Arncliffe construction compound (C7) - about 1,025,000 cubic metres • Canal Road compound (C8) - about 880,000 cubic metres • Campbell Road compound (C9) - about 90,000 cubic metres • Burrows Road (C11) and Campbell Road bridge construction compounds (C12) - about 12,000 cubic metres	Section 3 Spoil Production
Spoil management hierarchy	Spoil would be managed following the hierarchy of avoidance, minimisation, reuse, recycling and finally disposal.	Section 5 Spoil Reduction, Reuse and Disposal
On-site management	Spoil would be transported from the tunnel face to the surface by truck or conveyor belt. Spoil would be stored and processed at construction site compounds. Environmental and workplace health and safety mitigation and management measures would be applied.	Section 6 Spoil on-site management
Spoil testing and classification	Spoil testing would be limited to initial testing to confirm the excavated material is VENM. VENM would be reused where possible.	Section 4 Material types

Parameter	Plan response	Relevant section
Spoil category	Spoil would generally fall into one of the following categories. According to which it would be classified, stored and transported separately: • WestConnex Tunnel Stage 2 Tunnel Spoil (WTS) Naturally occurring rock and soil such as sandstone, shale, clay soil that: a) Has been generated from Westconnex Stage 2 project b) Has been virgin excavated from the tunnel c) Contains no more than 0.5% w/w shotcrete d) Has not been contaminated with manufactured chemicals or process residues (except for shotcrete); and e) Does not meet the definition of virgin excavated natural material in the POEO Act • VENM. including material such as clay, gravel, sand, soil or rock fines excavated from non-contaminated areas, and which do not contain sulfidic ores or soils, or any other wastes • Excavated natural material (ENM) (naturally occurring rick and soil such as sandstone clay and soil containing at least 98 per cent by weight natural material, and which does not meet the definition of VENM, and which does not contain processed materials, asbestos, acid sulphate soils or sulfidic ores, and which is therefore kept separate from VENM) • General solid waste • Potentially some contaminated materials. In order to determine which category spoil falls into, it may be necessary to conduct a soil analysis.	Section 4 Material types
Potential spoil reuse locations	Potential spoil reuse locations would be consulted with during detailed design. Identified potential spoil reuse locations include: • Boral CSR Brick Pit, Townson Road, Schofields – capacity of around 550,000 cubic metres. Licensed to receive wastes onsite (types of waste not restricted in Environment Protection Licence 2014) • Defence Housing Australia Schofields Aerodrome, Quakers Road, Quakers Hill – capacity of around 500,000 cubic metres. Further consultation would be required with Defence Housing Australia to confirm whether this site can receive such wastes • Sakkara Riverstone West (North West Growth Centre development), Brandon Road, Riverstone - capacity of around 3,500,000 cubic metres. Further consultation would be required with this developer to confirm whether this site can receive such wastes	Section 7 Spoil Disposal Locations

Parameter	Plan response	Relevant section
	• Kurnell Landfill Company - capacity of around 7,000,000 cubic metres. This site can receive virgin excavated materials, building and demolition wastes, and asphalt wastes only. Cannot receive contaminated wastes or Exemption materials. • 1011 Oran Park Drive, Catherine Fields – capacity for around 800,000 cubic metres. Site can receive VENM, ENM & WTS • Moorebank Intermodal Terminal, Moorebank Avenue – capacity for up to 1,400,000 cubic metres. Site can receive VENM & WTS • SADA, Glenlee Coal Preparation Plant, Narellan – capacity for unlimited quantity as per EPA License. Site can accept waste material below the licensing thresholds in schedule 1 of POEO Act. • Penrith Lakes Development Company, Castlereagh Rd, Castlereagh – capacity for 4 million cubic meters. Site can receive VENM & WTS	
Spoil transport	Spoil would be transported from construction compounds by road using trucks.	Section 8 Spoil transport

2.3. Consistency with Traffic Management and Access Management Plan

The Spoil Management Plan has been developed in accordance with CoA D51. This document is considered consistent with the Traffic and Access Management Sub-Plan (TAMP) as the haul routes proposed for spoil haulage in this plan are also presented within the TAMP. The TAMP (CoA D68 (a)) is a sub-plan of the Construction Environment Management Plan (CoA D67). The following points illustrate this consistency:

- Spoil haulage routes to be followed by WestConnex trucks are presented in section 6.21 Development of Haul and Delivery Routes and Appendix H of the TAMP and also included in Appendix B of this Spoil Management Plan;
- Heavy vehicle haulage routes generally follow arterial roads and are documented in the TAMP
- Potential disposal and reuse locations are identified in the Environmental Impact Statement (EIS).

2.4. Objectives

The Objective of the Plan is to:

- Minimise spoil removal and associated impacts on stakeholders, community and the environment.
- Maximise the beneficial reuse of spoil material from the Project.
- Address the Project wide objective to provide certainty of delivery by managing spoil in a manner that avoids impacts on construction activities and timing.
- Be safe, timely and achieve 'value for money'.
- Respectful of traffic demands.
- Spoil is managed in an orderly and logical manner.

- Compliant with the Project Deed, authority requirements and relevant codes and standards.
- Meet the sustainability objectives, targets and requirements as detailed in the Sustainability Management Plan.

Spoil is defined as 'rock' or 'other than rock' (OTR) resulting from construction excavation and tunnelling activities. This Plan addresses and details the following issues:

- Excavation, handling, haulage, disposal and reuse methodology, including on-site storage and stockpiling arrangements;
- Processes and procedures that will be used for the management of spoil, including those for Virgin Excavated Natural Material (VENM), Excavated Natural Material (ENM), contaminated and unsuitable material;
- Measures that are proposed to both reduce spoil quantities and maximise the beneficial reuse of spoil that will be generated during the performance of the works;
- Nominated quantities for reuse of spoil within the construction site, for beneficial reuse of spoil off site and for spoil disposal; and
- Processes and procedures for the management of the environmental and social impacts of spoil transfer and reuse.

2.5. Further Development

The Plan will be further developed and revised during its use on the Project to address:

- Changes or improvements in Project processes.
- Changes in law.
- Comments and feedback by SMC, IC the O&M Operator.
- Change in technology.
- Continuous improvement evaluation of Environmental Management performance against Environmental Policies, Objectives and Targets.

2.6. Project Management Systems

CPB Dragados Samsung Joint Venture (CDS-JV) is committed to providing its services in a manner that meets or exceeds the expectation of the Sydney Motorway Corporation (SMC) and all applicable regulatory authorities. To achieve this outcome, the Project team apply the CDS-JV Management System illustrated in Figure 1 to plan, implement and control processes.

The CDS-JV Management System is based on the requirements of the CPB Contractors Management System and has incorporated key elements from the Dragados and Samsung Management Systems. It has been specifically tailored to ensure compliance with Contract requirements

Figure 1: CDS-JV Management System – 'The Way We Operate'

'The Way We Operate' guides the way the overall Project will be managed to meet client and other stakeholder requirements.

In addition:

- Policies define the minimum mandatory requirements that CDS-JV expects all levels of the Project to comply with.
- This Plan outlines how the Project will be managed and is supported by a suite of functional Management Plans, Sub-Plans, Policies, Protocols, Strategies and Procedures that specify how to undertake and control specific activities. Where appropriate and approved by the CDS-JV Steering Committee, Project specific Procedures may be produced to reflect specific Project circumstances
- Tools are types of documents such as forms and checklists that are required to be completed as part of a Procedure. Knowledge documents are reference material to provide context or more information relating to a Procedure.
- Business Applications are the software tools used to manage our business and operations
- Policies, procedures and supporting tools and knowledge are located in a central, on-line repository which is accessible by all Project personnel.

2.7. Review & Improvement

2.7.1. Auditing

Audits (both internal and external) will be undertaken to assess the effectiveness of environmental controls, compliance with this plan, CoA and other relevant approvals, licenses and guidelines.

Audit requirements are detailed in Element 12 of the CEMP.

2.7.2. Record management

All documents and records referred to within and required to implement the CEMP (including the plan and relevant sub-plan) will be controlled and maintained according to the project's Records Management Plan.

Environmental documents may include, but are not limited to:

- CEMP and sub-plans;
- Procedures and protocols; and
- Checklists, forms and templates.

Environmental records relevant to the Spoil Management Plan may include, but are not limited to:

- All monitoring, inspection and compliance reports / records.
- Monthly Spoil tracking register(s) for each load site
- Reports on environmental incidents, other environmental non-conformances, complaints and follow-up action;
- Minutes of the CEMP and construction environmental management system review meetings and any resulting actions;
- Results of internal and external audits.

The minimum document retention periods beyond practical completion for environmental documents and records are described in Records Management Plan.

2.7.3. Non-conformance management, corrective and preventative action

Environmental inspection, observation and monitoring results are interpreted to identify actual and potential non-conformances and events that may result in nuisance, environmental harm and unacceptable loss of amenity or community complaints. The Environmental Representative, WCX M5 AT Representative and/or a public authority may also raise a non-conformance or improvement notice.

Where non-conformances are identified during regular inspections, corrective actions are raised, tracked and closed out through the inspection records if the actions can be closed out without 72 hours. All other non-conformances are recorded and reported as incidents in Synergy.

Following the identification of a non-conformance, corrective and/or preventative actions will be identified and assigned to the appropriate person with set timeframes. Timeframes will be set to ensure any damage incurred is rectified and any chance of recurrence is eliminated as soon as practicable. Synergy will be used to assign, track and close out corrective actions (except for those actions identified, tracked and closed out within 72 hours through inspection records). All corrective actions will include reference to the relevant incident record for ease of tracking. Refer to Element 3 and Element 9 of the CEMP.

2.7.4. Complaints

Complaints will be recorded in accordance with the Construction Complaints Management System. Information to be recorded will include location of complaint, time(s) of occurrence of alleged impacts and perceived source. Resident complaints will be responded to in a timely manner and action taken recorded in accordance with the Construction Complaints Management System.

2.7.5. Revision of this plan

Continual improvement is achieved through constant measurement and evaluation, audit and review of the effectiveness of the plan, and adjustment and improvement of the Construction Environmental Management Plan, project environmental outcomes and CDS-JV Environmental Management System. Monthly reviews undertaken by the Environmental Representative and annual management reviews provide specific opportunities to identify improvements in the environmental management system and/or this Spoil Management Plan.

This plan will be updated as required:

- As a result of any investigations into any non-conformances that determine changes to this plan are required to prevent reoccurrences;
- To take into account changes to the environment or generally accepted environmental management practices, or changes in law;
- Where requested or required by the NSW Department of Planning and Environment or any other Authority; or
- In response to internal or external audits or annual management reviews.

The updated plan must be endorsed by the Environment and Sustainability Manager and approved internally by the Project Director. Minor changes may be approved by the Environmental Representative. Minor changes would typically include those that:

- Are editorial in nature (e.g. staff and agency/authority name changes);
- Do not increase the magnitude of impacts on the environment when considered individually or cumulatively;
- Are in response to audit findings or periodic reviews; or
- Do not compromise the ability of the project to meet approval or legislative requirements.

Where the Environmental Representative deems it necessary, the Spoil Management Plan will be provided to relevant stakeholders for review and comment if required and forwarded to the Secretary of DP&E for approval. Revisions to the plan will be provided to the Project Company for review upon

request by the Project Company prior to submission to stakeholders or the NSW Department of Planning and Environment.

Where approval of the Secretary of DP&E is not required, a copy of the updated plan will be provided to the Secretary for information.

3. Spoil Production

The Project has generated approximately 500,000 cubic metres to date with with approximately 2.7 million cubic metres of surplus spoil remaining. The majority will be generated from excavation of the tunnels, shafts and surface works.

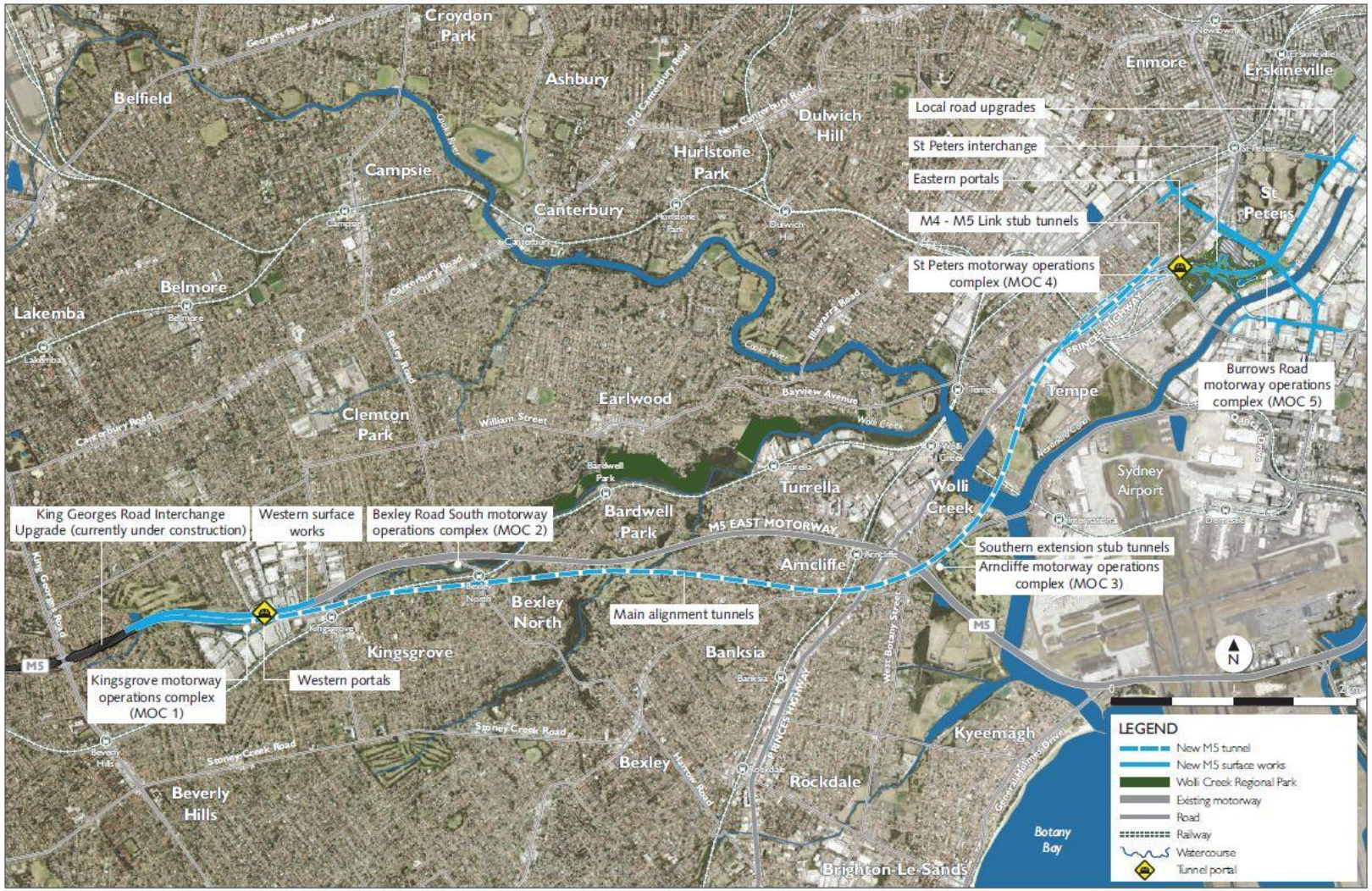
The majority of excavated material will be uncontaminated crushed sandstone and shale material, classified as Westconnex Stage 2 Tunnel Spoil (WTS). Some Virgin excavated natural material (VENM) & excavated natural material (ENM) is also expected.

The estimated quantities of spoil to be generated at the main locations (subject to detailed design) are detailed in Table 3.

Table 3: Anticipated Spoil Generation

Construction Compound	Spoil volume - surface works (cubic metres)	Spoil volume – tunnelling (cubic metres)	Spoil volume – total (cubic metres)
Kingsgrove North (C1)	237,130	100,540	337,670
Kingsgrove South (C2)	117,830	0	117,830
Commercial Road (C3)	0	43,088	43,088
Bexley Road North (C4)	0	450,937	450,937
Bexley Road South (C5)	0	300,624	300,624
Bexley Road East (C6)	0	0	0
Arncliffe (C7)	50,000	975,635	1,025,635
Canal Road (C8)	90,000	787,660	877,660
Campbell Road (C9)	90,000	0	90,000
Landfill Closure(C10)	0	0	0
Burrows Road (C11)	6,000	0	6,000
Campbell Road Bridge (C12)	6,000	0	6,000
Gardeners Road Bridge (C13)	0	0	0
Sydney Park (C14)	0	0	0
Total Spoil	**597,960**	**2,658,484**	**3,256,444**

Figure 2: Project Overview



4. Material Types

Topsoil occurs between approximately 50-300mm of natural ground surface. Topsoil reuse shall be maximised on site to minimise the import of external topsoil for revegetation and landscaping purposes where ever practicable.

The material below the topsoil is considered to be spoil and is defined as any earthen material that is surplus to requirements or unsuitable for reuse within the Project works.

4.1. Classification

Topsoil and spoil will be sampled, analysed and characterised in accordance with the *Waste Classification Guidelines: Part 1 Classifying Waste (EPA 2014)* as required by the Construction Waste and Resources Management Plan (CWRMP).

Further information regarding the classification of VENM and ENM and other resource recovery exemptions are provided below.

4.1.1. WTS

The majority of tunnel spoil excavated is expected to meet the WestConnex Stage 2 Tunnel Spoil Order 2017. Due to Construction methodology the Virgin Exacavted Natural Materials are mixed with small quantities of concrete materials & steel fibres from the application of shotcrete to support the roof the tunnel. Copy of EPA Order & Exemption is within appendix D.

Waste to which this order applies

In the order, WestConnex Stage 2 Tunnel Spoil means up to 6 million tonnes of naturally occurring rock and soil (including but not limites to materials such as sandstone, shale, clay, and soil) that:

a) Has been generated from the WestConnex Stage 2 Project

b) Has been virgin excavated

c) Contains no more than 0.5% w/w shotcrete

d) Has not been contaminated with manufactured chemicals or process residues (except for shotcrete); and

e) Does not meet the definition of virgin excavated natural material in the POEO Act.

WestConnex stage 2 tunnel spoil does not include material that has been processed; or that contains asbestos, Acid Sulphate Soils (ASS), Potential Acid Sulphate Soils (PASS) or sulphidic ores.

Generator requirements

Notification

On or before each transaction, the generaotor must provide the following to each person to whom the generator supplies the WestConnex Stage 2 tunnel spoil to:

- A written statement of compliance certifying that all the requirements set out in this order have been met;
- A copy of the 'WestConnex Stage 2 tunnel spoil exemption 2017'; and
- A copy of the 'WestConnex Stage 2 tunnel spoil order 2017'.

Record keeping and reporting

- The generator must keep written record of the name and address of each person to whom the generator supplied WestConnex Stage 2 tunnel spoil and quantity supplied for a perid of six years;

- The generator must provide, on request, the most recent characteristaion and sampling results for WestConnex Stage 2 tunnel spoil supplied to any consumer of WestConnex Stage 2 tunnel spoil;
- The generator of WestConnex Stage 2 tunnel spoil must make information available to the EPA upon request.

4.1.2. VENM

Some quantities are expected to be classified as VENM and will be classified in accordance with the Waste Classification Guidelines: Part 1 Classifying Waste (EPA 2014).

> *Virgin excavated natural material means natural material (such as clay, gravel, sand, soil or rock fines):*
>
> - *That has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues, as a result of industrial, commercial, mining or agricultural activities*
> - *That does not contain sulfidic ores or soils, or any other waste,*
>
> *and includes excavated natural material that meets such criteria for virgin excavated natural material as may be approved from time to time by a public notice published in the NSW Government Gazette.*

CDS-JV, the generator of the VENM, or its Environmental Consultant will consider the following four questions when classifying material as VENM:

1. Are manufactured chemicals or process residues present?
2. Are sulfidic ores or soil present?
3. Are naturally occurring asbestos soils present?
4. Is there any other waste present?

If material meets the definition of VENM it can be reused on or offsite without prior testing. However, if there is any doubt as to whether the material is VENM, CDS-JV will sample and test the material as per the excavated natural material resource recovery exemption to confirm that the material is free of contaminants.

4.1.3. ENM

If spoil is unable to be classified as VENM it will be sampled, and tested to determine whether it meets the ENM classification criteria in accordance with the *Protection of the Environment Operations (Waste) Regulation 2014* (the Regulation) current general resource recovery exemption, The excavated natural material exemption 2014.

> *Excavated natural material (ENM) means naturally occurring rock or soil (including but not limited to materials such as sandstone, shale, clay and soil) that has:*
>
> *a) Been excavated from the ground, and*
> *b) Contains at least 98% by weight natural material, and*
> *c) Does not meet the definition of Virgin Excavated Natural Material in the Act*
>
> *ENM does not include material that has been processed or contains acid sulphate soils or potentially acid sulphate soils.*

4.1.4. General solid waste or other classifications

Spoil not classified as either VENM or ENM due to contamination from either construction material or other sources shall be characterised in accordance with the Waste Classification Guidelines: Part 1 Classifying Waste (EPA 2014) as required by the WRMP. This may include classification as General Solid Waste (Non putrescible), Hazardous Waste or Special Waste.

Special Waste

Special Waste is a class of waste that has unique regulatory requirements. The potential environmental impacts of special waste need to be managed to minimise the risk or harm to the environment or human health.

Special waste means any of the following:

- Clinical and related waste
- Asbestos waste
- Waste tyres
- Anything classified as special waste under an EPA gazettal notice.

Hazardous Waste

The following waste types (other than special waste or liquid waste) have been pre-classified by the EPA as 'hazardous waste':

- containers, having previously contained a substance of Class 1, 3, 4, 5 or 8 within the meaning of the Transport of Dangerous Goods Code, or a substance to which Division 6.1 of the Transport of Dangerous Goods Code applies, from which residues have not been removed by washing2 or vacuuming
- coal tar or coal tar pitch waste (being the tarry residue from the heating, processing or burning of coal or coke) comprising of more than 1% (by weight) of coal tar or coal tar pitch waste
- lead-acid or nickel-cadmium batteries (being waste generated or separately collected by activities carried out for business, commercial or community services purposes)
- lead paint waste arising otherwise than from residential premises or educational or child care institutions
- Any mixture of the wastes referred to above.

General Solid Waste (Non putrescible)

General Solid Waste (Non putrescible) is any waste that is not classified as special waste, liquid waste, hazardous waste, restricted solid waste or general solid waste (putrescible).

Waste Classification Process Steps

The WRMP identifies six classes of waste: Special, Liquid, Hazardous, Restricted Solid, General Solid (putrescible) and General Solid (non-putrescible), and describes a six step process to classifying waste. That process is summarised below:

Step 1: Is it 'Special Waste'?

Establish if the waste should be classified as special waste. Special wastes are: clinical and related waste, asbestos waste, waste tyres. Definitions are provided in the guidelines.

Note: The transportation and management of asbestos waste must be managed in accordance with Part 7 of the 2014 Waste Regulation and special requirements pertaining to clinical and related waste are stipulated in section 113 of the 2014 Waste Regulation.

Step 2: If not special, is it 'Liquid Waste'?

If it is established that the waste is not special waste it must be decided whether it is 'liquid waste'. Liquid waste means any waste that: has an angle of repose of less than 5° above horizontal becomes free-flowing at or below 60° Celsius or when it is transported is generally not capable of being picked up by a spade or shovel.

Liquid wastes are sub-classified into:

- Sewer and stormwater effluent.
- Track able liquid waste according to 2014 Waste Regulation, Schedule 1, Waste to which waste tracking requirements apply.
- Non-tractable liquid waste.

Step 3: If not liquid, has the waste already been pre-classified by the NSW EPA?

The EPA has pre-classified several commonly generated wastes in the categories of hazardous, general solid waste (putrescibles) and general solid waste (non-putrescibles). If a waste is listed as 'pre-classified', no further assessment is required.

Step 4: If not pre-classified, is the waste hazardous?

If the waste is not special waste (other than asbestos waste), liquid waste or pre-classified, establish if it has certain hazardous characteristics and can therefore be classified as hazardous waste.

Hazardous waste includes items such as explosives, flammable solids, substances liable to spontaneous combustion, oxidizing agents, toxic substances and corrosive substances.

Step 5: If the waste does not have hazardous characteristics, undertake chemical assessment to determine classification.

If the waste does not possess hazardous characteristics, it needs to be chemically assessed to determine whether it is hazardous, restricted solid or general solid waste (putrescible and non-putrescible). If the waste is not chemically assessed, it must be treated as hazardous.

Waste is assessed by comparing Specific Contaminant Concentrations (SCC) of each chemical contaminant, and where required the leachable concentration using the Toxicity Characteristics Leaching Procedure (TCLP), against Contaminant Thresholds (CT).

Step 6: Is the general solid waste putrescible or non-putrescible?

If the waste is assessed as general solid waste, a further assessment is required to determine whether the waste is putrescible or non-putrescible. The assessment determines whether the waste is capable of significant biological transformation.

Contamination due diligence assessment has been undertaken as part of the EIS and possible contaminated material may be present in the upper soil layers at the Kingsgrove north and south sites, Bexley north and south sites, Arncliffe site, Canal Road site, Landfill Closure site, Campbell Road site and Gardeners Road site. Spoil generated from these sites will be sampled, analysed and characterised in accordance with Section 5.1 of the CWRMP. Disposal locations for these materials will be determined by the classification and the materials will be disposed of at an approved waste management facility.

Material characterised as contaminated that has not been previously identified, shall be managed in accordance with the Unexpected Discovery of Contaminated Land Procedure or Acid Sulphate Soil Procedure within the Construction Soil and Water Quality Sub Plan (CSWQSP), including the preparation of a remediation action plan (RAP), where appropriate. Waste materials will be managed and disposed in accordance with the CWRMP.

4.1.5. Resource recovery exemptions

The 2014 Waste Regulation enables the EPA to issue 'resource recovery exemptions' which allow for the beneficial reuse of wastes via land application or for use as a fuel. These Regulations enable a project to comply with the principle of 'wastes to resources for beneficial reuse' (where the wastes are fit for beneficial reuse). During the project, materials may be encountered that do not meet the

VENM or ENM classification but is also not contaminated material. In these circumstances the Project will check for existing resource recovery exemptions such as:

- The excavated public road material exemption 2014 (EPA);
- The reclaimed asphalt pavement exemption 2014 EPA);
- The recovered aggregate exemption 2014 (EPA); and
- Raw mulch material exemption 2014 (EPA).

Should the existing resource recovery exemptions not be appropriate, the Project will consider application for a site specific exemption established through consultation with the EPA.

5. Spoil Reduction, Reuse and Disposal

The Spoil Management Hierarchy has been developed to meet the objectives and principles of the *NSW Waste Avoidance and Resource Recovery Act 2001* and the *NSW Waste Avoidance and Resource Recovery Strategy 2007.*

5.1. NSW Waste Avoidance and Resource Recovery Act 2001

The NSW Waste Avoidance and Resource Recovery Act 2001 (the Act) includes the majority of NSW's overarching objectives and guiding principles to encourage beneficial reuse and resource recovery. Implementation of a waste hierarchy in accordance with the principle of Environmentally Sustainable Development (ESD) is identified as a main objective of the Act, along with objectives to minimise the consumption of natural resources and waste generation. The NSW Environment Protection Authority (EPA) defines ESD as including the following:

- The precautionary principle;
- Inter-generational equity;
- Conservation of biological diversity and ecological integrity; and
- Improved valuation, pricing and incentive mechanisms.

The *NSW Waste Avoidance and Resource Recovery Strategy 2007* include an extensive list of principles broadly focused on ESD, economic analysis, and community and industry involvement.

5.2. Spoil Reduction

To reduce spoil quantities, the design has optimised the tunnel cross section area by using road headers rather than tunnel boring machines (TBM). A 16 metre diameter TBM has a cross sectional area of 201 square metres, compared with a 107 square metre profile for a road header. This measure reduces the volume of material requiring disposal by 94 cubic metres per lineal metre of tunnel. Over two 8.7 kilometre tunnels the total reduction is estimated to be 1,635,000 cubic metres.

Innovative design will place all the tunnel conduits behind the tunnel reflective linings or within the concrete barriers eliminating trenching below the pavement. This will reduce spoil by a further estimated 52,000 cubic metres.

Use of an electronic guidance system on the road headers will reduce over break by around 100mm. This equates to a further reduction in spoil of 42,000 cubic metres.

The total estimated reduction in spoil is estimated to be 1,729,000 cubic metres, which equates to a reduction of 270,000 truck movements.

It is unlikely that the spoil volume will be further reduced during the delivery phase of the project; however, if future design or construction methodology development provides any opportunities to reduce spoil generation such opportunities will be implemented.

5.3. Spoil Management Hierarchy

The Plan for management of spoil material from the WestConnex Project shall be guided by the hierarchy in Table 4.

It should be noted that beneficial reuse of spoil described in this document is considered to be any approved or appropriate offsite and onsite reuse.

Table 4: Spoil Management Hierarchy

Rank	Options	Example of Options	Potential for option to be used on WestConnex
1	Avoid and reduce spoil generation	• Reduce the amount of spoil being generated through design and construction methodology.	Limited
2	Reuse within the Project	• Reuse in the Project to fill embankments and mounds within short haulage distance of source. • Restoration of any pre-existing contaminated sites within the Project boundaries. • Reuse as a feed product in construction materials (e.g. concrete).	Preferred
3	Reuse for environmental works	• Reuse in native vegetation rehabilitation Projects. • Coastal systems conservation Projects. • Rising water table/salinity remediation Projects. • Reuse in flood mitigation works.	Limited
4	Reuse on other development Projects	• Reuse for fill embankments and mounds on Projects within an economic transport distance from site. • Reuse sand for manufacturing concrete and reuse shale for manufacturing bricks/tiles.	Potential
5	Reuse for land restoration	• Reuse for land reclamation or remediation works • Reuse to fill disused facilities, e.g. mines and quarries, to enable ecological rehabilitation or other ecologically beneficial end use.	Potential
6	Reuse for landfill management	• Reuse to cap completed landfill cells. • Reuse in daily covering of landfill waste.	Limited
7	Dispose offsite as waste	• Disposal of excess spoil as waste at an approved facility licenced to receive the material.	Potential but not preferred

5.4. Reuse of Spoil

The recycling or reuse of waste and spoil is an aspect of the Infrastructure Sustainability reporting that the Project is required to comply with. The target is to re-use or recycle 80% of usable spoil generated on the project with the remaining spoil to be disposed of as waste at an approved facility, licensed to receive the material. Further information on targets, reporting and compliance is detailed further in the CWRSP and Sustainability Plan.

During construction where space constraints permit, topsoil will be stripped and if required for later reuse at that site or during landscaping work, stockpiled in a suitable area.

5.4.1. Reuse within the Project

All VENM will be beneficially reused at the nominated reuse sites. Given the nature of the construction activities, opportunities to reuse this material on-site as fill for works associated with the tunnel are limited to back filling for services, surface works at the Western, Northern and Eastern portals, and remediation works at the temporary shaft and decline locations throughout the project footprint.

The Project has estimated the quantities of beneficially reusable material from each extraction point as shown in Table 5 below.

Table 5: Reusable Material

	Surface Works Spoil			Tunnel Spoil			
Extraction point	Surface works spoil produced	Reuse on site	Offsite reuse / disposal	Tunnel excavation spoil produced	Reused on site	Offsite reuse / disposal	Total offsite reuse / disposal
Kingsgrove North (C1)	237,130	0	237,130	100,540	0	100,540	337,670
Kingsgrove South (C2)	117,830	0	117,830	0	0	0	117,830
Commercial Road (C3)	0	0	0	43,088	0	43,088	43,088
Bexley Road North (C4)	0	0	0	450,937	0	450,937	450,937
Bexley Road South (C5)	0	0	0	300,624	0	300,624	301,624
Bexley Road East (C6)	1000	0	1000	0	0	0	1000
Arncliffe (C7)	50,000	0	50,000	975,635	120,000	855,635	905,635
Canal Road (C8)	90,000	0	90,000	787,660	60,000	717,660	907,660
Campbell Road (C9)	90,000	0	90,000	0	0	0	90,000
Landfill Closure(C10)	0	0	0	0	0	0	0
Burrows Road (C11)	6,000	0	6,000	0	0	0	6,000
Campbell Road Bridge (C12)	6,000	0	6,000	0	0	0	6,000
Gardeners Road Bridge (C13)	0	0	0	0	0	0	0
Sydney Park (C14)	0	0	0	0	0	0	0

Total Spoil	**597,960**	**0**	**597,960**	**2,658,484**	**180,000**	**2,468,484**	**3,167,444**

5.4.2. Reuse in development works/land restoration

Table 8 is shown in Section 7 detailing possible reuse locations for development works and land restoration.

5.4.3. Monitoring

Inspections, observations, and monitoring requirements relevant to waste and resource management are identified in Table 6.

Table 6: Monitoring requirements relevant to management of Spoil and Waste disposal

Item	Frequency	Standards	Records	Responsibility
Inspection				
Site inspections	Weekly	Waste and Resource Management Procedure; EPA Waste Classification Guidelines; RMS Waste Fact Sheets: Virgin Excavated Natural Material (VENM) Excavated Natural Material" (ENM) Excavated Public Road Materials Recovered Aggregates Asbestos Waste	Environmental Inspection Checklist	Environment and Sustainability Manager
Visual surveillance	Daily	Ensure non mixing/contamination of pre classified material onsite Correct truck contractor ordered for type of spoil material Checks on truck onsite to ensure approved to carry spoil material	Site Supervisor's Daily Diary Following of spoil trucks to disposal sites & video/photograph	Site Supervisor Spoil Supervisor
Monitoring				
Sustainability Plan	Monitoring requirements as specified in Element 1 of the Sustainability Plan (M5N-ES-PLN-PWD-0020)			Environment and Sustainability Manager

5.4.4. Reporting

Reporting requirements relevant to spoil management are identified in Table 7.

Table 7: Reporting requirements relevant to management of Spoil & Waste Disposal

Item	Frequency	Standards	External Reporting	Responsibility
Waste/Spoil	Monthly	Waste Tracking Register	Reporting of waste and purchasing data as required under the NSW Government "Waste Reduction and Purchasing Policy" in accordance with D&C G36 Annexure G36/F on or before: (i) 31 July for the reporting of information relating to materials purchased and wastes generated or recycled between 1 January and 30 June of that year; (ii) 31 January for the reporting of information relating to materials purchased and wastes generated or recycled between 1 July and 31 December of the previous year; and at Construction Completion Date.	Environment and Sustainability Manager Spoil Management Team

6. Spoil On-site Management

Spoil from tunnel construction will predominantly be temporarily stockpiled at six locations, being the Kingsgrove North tunnel site, Kingsgrove South tunnel site, Bexley North tunnel site, Bexley South tunnel site, Arncliffe tunnel site and the Canal Road tunnel site. Smaller temporary stockpiles shall be established for related surface works. These sites represent a combination of shaft and/or decline tunnels:

- Kingsgrove North (one shaft)
- Kingsgrove South (one shaft)
- Bexley Road North (one shaft)
- Bexley Road South (one shaft)
- Arncliffe (two decline tunnel + 1 shaft)
- Canal Road (one decline tunnel)

6.1. Tunnel Spoil Stockpiles

Stockpiling of spoil at the tunnel shaft and decline locations will occur within acoustic sheds. Stockpiling from the dive structures will occur within close proximity of the dive structure. The sheds will have the capacity to store at least one day's spoil production.

Stockpile sites shall have ready access to the road network or direct access to the construction corridor. Ongoing spoil stockpile management within the acoustic sheds shall take into account the following principles:

- Manage stockpiles to minimise wind and/or water erosion; and
- Manage spoil unloading and loading to minimise noise, vibration, and dust.

6.2. Spoil stockpiles at temporary decline excavations

Suitable measures will be implemented to manage dust and runoff in accordance with the requirements of the Construction Environmental Management Plan (CEMP).

The location of the stockpile at each decline has been chosen with the following objectives:

- Provide separation between the haul, dump and return cycle of the off highway dumpers and the highway tippers;
- Minimise the haul distance from the excavation to the stockpile; and
- Remain clear of areas required for the establishment of site infrastructure associated with the tunnelling operation.

6.3. Other Spoil Stockpile Locations

Temporary stockpile sites for spoil other than tunnel construction and spoil within ancillary facilities will be established and managed in accordance with the following criteria:

- Located 5 metres away from areas of concentrated water flow;
- Located at least 10m away from 1st Order Watercourse;
- Have ready access to Project or road network;
- Located on relatively level land;
- Located to minimise the need for heavy vehicles on local streets and/or through residential areas;
- Not unreasonably affect the land use of adjacent properties;

- Located so that the erosion and sediment control measures can be installed and will operate effectively ;
- Located above the 20 ARI flood level unless a contingency plan to manage flooding is implemented;
- On land not requiring removal of threatened species beyond those already impacted by the Project;
- On land not requiring removal of EECs beyond those already impacted by the Project or within the tree protection zone (in accordance with AS 4970) of EEC;
- On land not requiring removal of roosting habitat for listed threatened fauna species beyond those already impacted by the Project;
- Provide sufficient area for the storage of raw materials keeping the extent required to a minimum & minimising the number of deliveries required outside construction hours;
- Positioned in areas where minimal visual and light spill impacts to nearest residence.
- Positioned in areas where minimal noise and vibration impacts to the nearest residence.
- Located in areas that will not impact on heritage sites (beyond those already impacted by the Project); and
- Located within the approved Project boundary.

6.4. Stockpile Management

Stockpile Management practices for temporary stockpile sites related to works other than tunnel construction will be in accordance with the SWQMP and take into account the following general principles:

- Materials will not be stockpiled within the tree protection zone (in accordance with AS 4970) of trees or native vegetation to be retained, and never pushed up around the base of trees. Trees are not to be flooded or soils caused to be waterlogged as a result of stockpile development.
- Contaminated materials will be stockpiled separately to other materials and identified with signage.
- Erosion and Sediment Control Plans (ESCP) will be prepared and implemented in advance of stockpiling.
- The ESCP will detail soil and water management measures consistent with Managing Urban Stormwater - Soils and Construction Vols 1 and 2, 4th Edition (Landcom, 2004) to minimise soil erosion and the discharge of sediment and other pollutants to land and/or waters.
- Erosion and sedimentation controls will be erected between the site and any drainage lines or down-slope areas.
- A diversion bund will be installed on the uphill side of the stockpile to divert water around the site, unless run on water is 'dirty' construction water. Where this occurs 'dirty' run on water shall be diverted to erosion and sediment controls.
- Erosion and sediment control structures shall remain installed and maintained until sufficient stabilisation is achieved as per the Blue Book.
- Separating 'clean' run-on water from 'dirty' (e.g. turbid) construction area run-off.
- Temporary sediment basins. It is noted that some small and/or flat sites might not warrant construction of a sediment basin. This includes sites with <2,500 square metres of disturbed area, or those with an average annual soil loss from the total area of land disturbance that is less than 150 cubic metres per year.
- Maximising the diversion of turbid construction runoff into detention/sediment basins.

- Controlling run-off during the construction of stockpiles (e.g. fill shaping and the construction of temporary dykes and batter drains).
- Diverting stockpile run-off through sediment traps and into pits and the stormwater drainage system as soon as practical to reduce surface flow lengths and velocities.
- Controls will be installed around all stockpiles that are in place for more than 10 days in order to prevent wind and water erosion. These controls will be in accordance with the Erosion and Sediment control plan and may include stabilisation with cover crop or similar appropriate controls as per the site ESCP.
- Dust management measures (including for vehicle movements associated with stockpiling activities) will be implemented in accordance with the requirements of the Construction Air Quality Management Plan (AQMP).

7. Spoil Disposal and Reuse Locations

As considerable quantities of spoil will be generated in a relatively short period of time, it is necessary to identify a number of potential spoil disposal and reuse locations. Some of these locations have been described in the EIS.

As detailed in CoA A9, spoil disposal and reuse sites are required to have Planning Approval to lawfully receive spoil from the Project. These Planning Approvals issued under the *Environmental Planning and Assessment Act 1979* will be obtained by the operators of the sites and be in place prior to spoil being received. The current statuses of approvals for the proposed locations are provided in Table 8.

Due to the number of concurrent major infrastructure Projects under construction at the present time, not all disposal sites have been secured and disposal sites may change over the life of the project. The Project is engaged with industry to secure acceptable sites identified within and outside the EIS. The proposed known locations for spoil disposal and reuse are shown in Figures 3 and 4 and further details provided in Table 8.

- If additional spoil disposal and reuse locations are identified which are not in Table 8, CDS-JV will: Check that appropriate approvals are in place for the receiving site,
- Agree to commercial terms with the site operator and/ or owner; and
- Ensure that relevant CoA, environmental, community and traffic impacts are managed under the approved CEMP, sub plans and Traffic Management and Safety Plan (TMSP), including haulage routes.

Final disposal and reuse locations, potentially including those not identified in this Strategy, will be utilised subject to appropriate approvals being in place, commercial terms being agreed to and relevant Conditions of Approval, environmental, community and traffic impacts being managed under the approved CEMP, sub plans and Traffic Management and Safety Plan (TMSP) as required. The Spoil Manager (or delegate) will manage this process in consultation with relevant personnel including the Environment and Sustainability Manager (or delegate)

Figure 3: Proposed Locations for Spoil Disposal

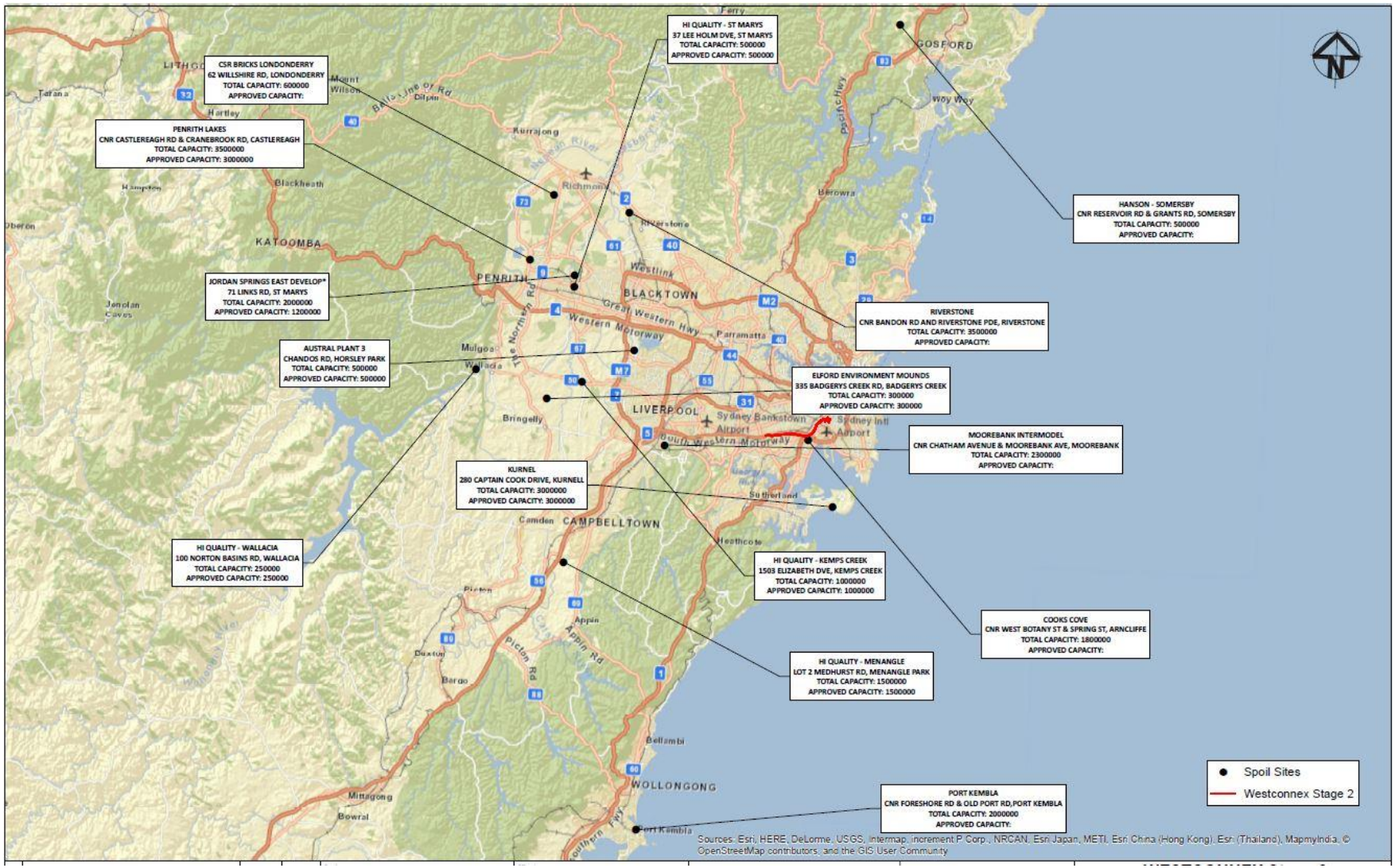


Figure 4: Proposed Locations for Spoil Disposal

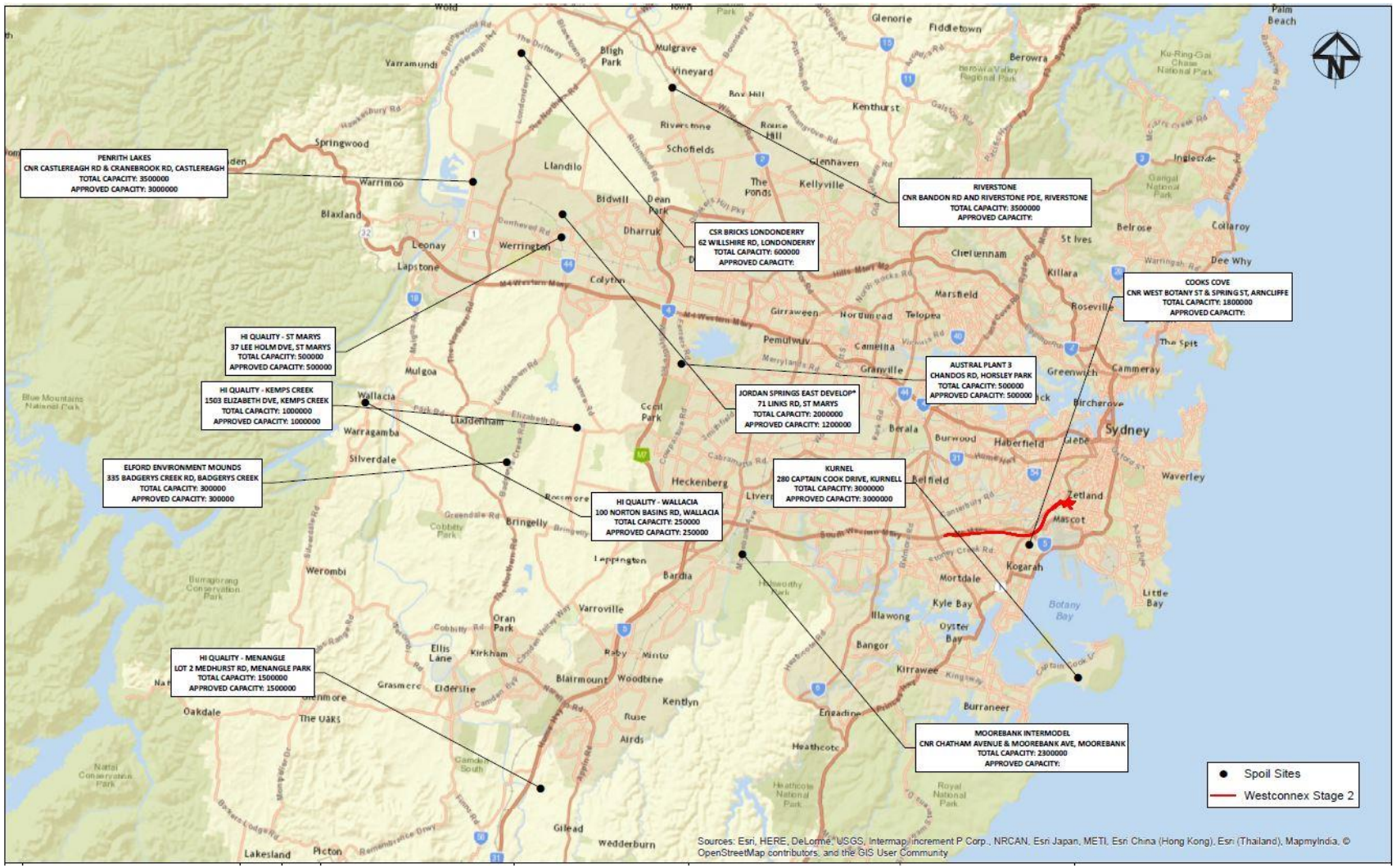


Table 8: Proposed Locations for Spoil Disposal

WTS & VENM Disposal Sites								
Site	Location	Primary Access Via	Owner	Status of Development Approval	Purpose	Material Type	Hours of Operation	Quantity of Material Required (m3)
Kurnell Land Reclamation	280 Captain Cook Drive, Kurnell NSW	A36	Besmaw Pty Ltd	Development Application Approved	Filling for residential property development	VENM/PASS	24 hours, 7 days per week	3000000
Penrith Lakes Scheme	Castlereagh Road, Cranebrook	M7/M4	Penrith Lakes Development Corporation	Development Consent granted	Filling for rehabilitation of quarry	VENM	06:00-21:00 Mon-Sat	3,000,000 +
Badgerys Creek	Badgerys Creek Road, Badgerys Creek	M7/M4	Elford Group	Development Application approved	Rehabilitation activities, Bundwall construction	VENM/ENM	07:00-18:00 Mon-Fri. 07:00-12:00 Sat	600000
Wallacia	205 Bents Basin Rd, Wallacia	M5/M7/M4	Wallacia Soils	Development Application approved	Filling for rehabilitation of quarry	VENM	07:00-17:00 Mon to Sat	100000
Glenfield Waste Disposal	Cambridge Avenue, Glenfield	M5	Glenfield Waste Services	EPA License	Storage & Processing of materials	VENM	07:00-17:00 Mon to Sat	75000
Northern Rd Upgrade Stage 1	Old Northern Road to Peter Brock Drive	M5/A9	RMS	Development Application Approved	Road Construction	VENM/ENM	07:00-18:00 Mon-Fri. 08:00-13:00 Sat	150000
Northern Rd Upgrade Stage 2	The Old Northern Rd, Glenmore Parkway, Glenmore Park to Jamison Rd, South Penrith	M5/A9	LendLease	Development Application Approved	Road Construction	VENM/ENM	10:00-14:30 Mon-Fri	40000
Oran Park Library	Lot 5, Peter Brock Drive, Oran Park	A9	JEFFSANN EXCAVATIONS PTY LTD	Development Application approved	Construction of library, car park	VENM	07:00-17:00 Mon to Sat	2000
SADA	1 Glenlee Rd, Cnr Springs & Richardson Rds, Narellan	M5/M31/A9	Sada Services Pty Ltd	EPA License	Rehabilitation of existing disposal facility	VENM	06:00-18:00 Mon-Sat	115000
Marsden Park	372 South Street, Marsden Park	M5/M7	Benjamin Sultana	Development Application approved	Filling for residential property development	VENM	07:00-18:00 Mon-Fri. 07:00-14:00 Sat	50000
Moorebank	109 Stewart Ave, Hammondville	M5	Alliance Contractors NSW Pty Ltd	Development Consent granted	Filling for future golf course	VENM	07:00-17:00 Mon-Sat	50000
Catherine Park	40 Oran Park Drive, Oran Park	M5/M31	Trevor Jensen	Development Consent granted	Filling for residential property development	VENM/ENM	07:00-17:00 Mon-Sat	1,000,000+
Gregory Hills	Badgally Road, Campbelltown, Gregory Hills	M5/M31	Troy Lilliendal C/O TRN Group	Development Application approved	Filling for road extension	VENM/ENM	07:00-17:00 Mon-Sat	25000
Orchard Hills	585-649 Mamre Rd, Orchard Hills NSW 2748	M4/M7	Lantrak	Development Consent granted	Fill for commercial development	VENM/ENM	07:00-17:00 Mon-Sat	70000
Prestons	290 Kurrajong Rd, Prestons NSW 2170	M5/M7	Liverpool Council	Development Application approved	Fill for commercial development	VENM/ENM	07:00-17:00 Mon-Sat	150000
HBB Minto	5-9 Culverston Rd, Minto 2566	M5/M31	Minto Properties Pty Ltd	Development Application approved	Fill for commercial development	VENM/ENM	07:00-17:00 Mon-Sat	30000
Brefni Milperra	479 Henry Lawson Drive, Milperra, 2214	M5	Syesun PTY LTD	Development Application approved	Fill for commercial development	VENM/ENM	07:00-18:00 Mon-Fri. 07:00-13:00 Sat	30000
Greendale	73 Greendale Rd, Greendale 2745	M5	Macarthur Architectectural Drafting Services	Development Application approved	Fill for commercial development	VENM/ENM	07:00-17:00 Mon-Sat	4500
Smeaton Grange	21-33 Dunn Rd, Smeaton Grange 2567	M5/M31	Marsdens Law Group	Development Consent granted	Fill for commercial development	VENM/ENM	07:00-17:00 Mon-Sat	20000
Chester Hill	49 Woodville Rd, Chester Hill 2162	M5/A6	Patterson Building Group Pty	Development Application approved	Fill for commercial development	ENM	07:00-18:00 Mon-Fri. 07:00-13:00 Sat	500
Cecil Park	Lot 7, Cecil Rd, Cecil Park 2178	M5/M7	Boral	Development Application approved	Brick Manufacture	VENM	07:00-17:00 Mon-Sat	500000
Schofields	75 Townson Rd, Schofields	M5/M7	CSR Building Products Pty Ltd	Development Application approved	Storage & Processing of materials	VENM	07:00-18:00 Mon-Fri. 07:00-13:00 Sat	600000
Warwick Farm	200 Governor Macquarie Drive, Warwick Farm	M5/A34	Stockland Developments	Development Application approved	Bulk Earth Works	VENM	07:00-18:00 Mon-Fri. 07:00-16:30 Sat	10000
Catherine Park	977 Oran Park Drive, Oran Park NSW 2570	M5/M31	Hixson Pty Ltd	Development Application approved	Bulk Earth Works	VENM/ENM	07:00-16:00 Mon-Fri, 07:00-12:30 Sat	1000000
Kemps Creek	90 - 145 Clifton Ave, Kemps Creek NSW 2178	M5/M7	DNH Super PTY LTD	Development Consent granted	Storage & Processing of materials	VENM	07:00-17:00 Mon-Fri, 07:00-13:00 Sat & Sun	10000
Qube Moorebank	400 Moorebank Ave, Moorebank NSW 2170	M5	Qube Property Management Services	Development Consent granted	Storage & Processing of materials	VENM/ENM	07:00-17:00 Mon-Fri, 08:00-12:30 Sat	180000

8. Spoil Transport

Spoil will be transported by registered road trucks. Spoil transport routes are identified in the TAMP and have been selected to minimise impacts to sensitive receivers, the travelling public, and the local community whilst meeting compliance with road traffic rules in relation to vehicle length and weight limits. The transport routes shall predominantly utilise the M5 and M7 Motorways where practicable and in accordance with road and traffic safety requirements. Routes identified represent access for sites where spoil disposal and reuse is known and utilises the arterial road network to the greatest extent practicable and align with Annexure H of the TAMP.

Where practicable tunnel spoil will be weighed by calibrated loader scales, weigh bridge or axle weigh in motion devices depending on available space and site logistics.

The Spoil Manager (in consultation with the Environment and Sustainability Manager) will ensure that a spoil tracking system will be developed as a component of the waste register required as part of the CWRMP. This will document all spoil leaving site in terms of when, truck registration, characterisation and location of disposal. Fields that will be included in the system are as follows:

1. Date:
2. Docket Number
3. Haulage Company
4. Material Classification
5. Quantity in Tonnes
6. Truck Identification Number
7. Location of Spoil Generation Site
8. Location of Spoil Receival Site

The tracking system will be implemented when spoil disposal commences.

The Project aims to maximise haulage movements during standard construction hours, thereby minimising potential noise impacts from night time spoil activities. It should be noted however that night time spoil movements, as described in the EIS and as permitted by CoA D13, are highly likely to still be required throughout construction. The Project will program its night time spoil haulage on public roads with the aim to minimise any increase in road traffic noise levels by maximising haulage during day and evening periods. Mitigation measures described in Section 6 of the CNVMP will also be implemented.

Where night haulage is proposed, noise impacts from these activities (at the load-out sites) must be assessed and documented in a CNVIS or noise assessment prior to use.

In accordance with condition CoA D26, the Contractor will place within its spoil haulage contracts provisions to deal with unsatisfactory noise performance for the vehicles and/or the operators, and specify non-tonal movement alarms in place of reversing beepers or alternatives such as reversing cameras and proximity alarms, or a combination of these, where tonal alarms are not mandated by legislation.

Initial induction will be carried out with construction vehicle contractors in order to make them aware of the requirements of the CEMP, contract requirements and in accordance with condition CoA D27 the non-use of compression brakes for construction vehicles associated with the SSI during construction. These contraols are also stated in the Heavy Vehicle Driver Code of Conduct that the drivers are inducted into.

The project aims to minimise impacts around compounds and site entry points by avoiding trucks parking up or stacking in undesignated areas. Truck schedulers will be given clear instruction on the time the trucks should arrive on site and also the time intervals between trucks. Trucks will also have GPS capabilities so that the schedulers can monitor if truck spacing are adequate. Failing GPS and scheduler programming there will be an open line of communication between traffic controllers and the trucks so that they can be advised to park in a designated area nearby and will be called when it is clear to enter site. Truck stacking is a major concern to the project and appropriate action will be taken against repeat offenders.

The haulage routes shown in Appendix B mirror the approved routes in the EIS & the TAMP. The plans do show multiple routes which allow flexibility to continue to work if we have unforeseen circumstances and certain routes are blocked.

The Project will also establish a waste tracking audit system where checks are made either by following trucks from loading pooibnt to disposal sites or request GPS movement reports for trucks to review loading

& disposal site addresses. Audits will be recorded on waste tracking audit forms available on the CDS Project Management System and supporting documentation attached.

Appendices

Appendix A: Glossary of Terms

Abbreviation	Definition
CEMP	Construction Environmental Management Plan
CoA	Minister's Conditions of Approval
CSWQSP	Construction Soil and Water Quality Sub Plan
CWRSP	Construction Waste and Resource Sub Plan
DA	Development Application
EIS	Environmental Impact Statement
ENM	Excavated Natural Material
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence
ESD	Ecologically Sustainable Development
CDS-JV	CPB Dragados Samsung Joint Venture
OTR	Other than rock
POEO Act	*Protection of the Environment Operations Act 1997*
SCC	Specific Contaminant Concentration
CSMP	Construction Spoil Management Plan
SPIR	Submissions and Preferred Infrastructure Report
SSI	Means the State Significant Infrastructure as generally described in Schedule 1 (SSI 6788)
SWTC	Scope of Works and Technical Criteria
TAMP	Construction Access and Management Sub-Plan
TCLP	Toxicity Characteristics Leaching Procedure
TMSP	Traffic Management and Safety Plan
VENM	Virgin Excavated Natural Material
WARR Act	*Waste Avoidance and Resource Recovery Act 2001*

Appendix B: Approved Heavy Vehicle Routes

Figure B1: Overview of All routes

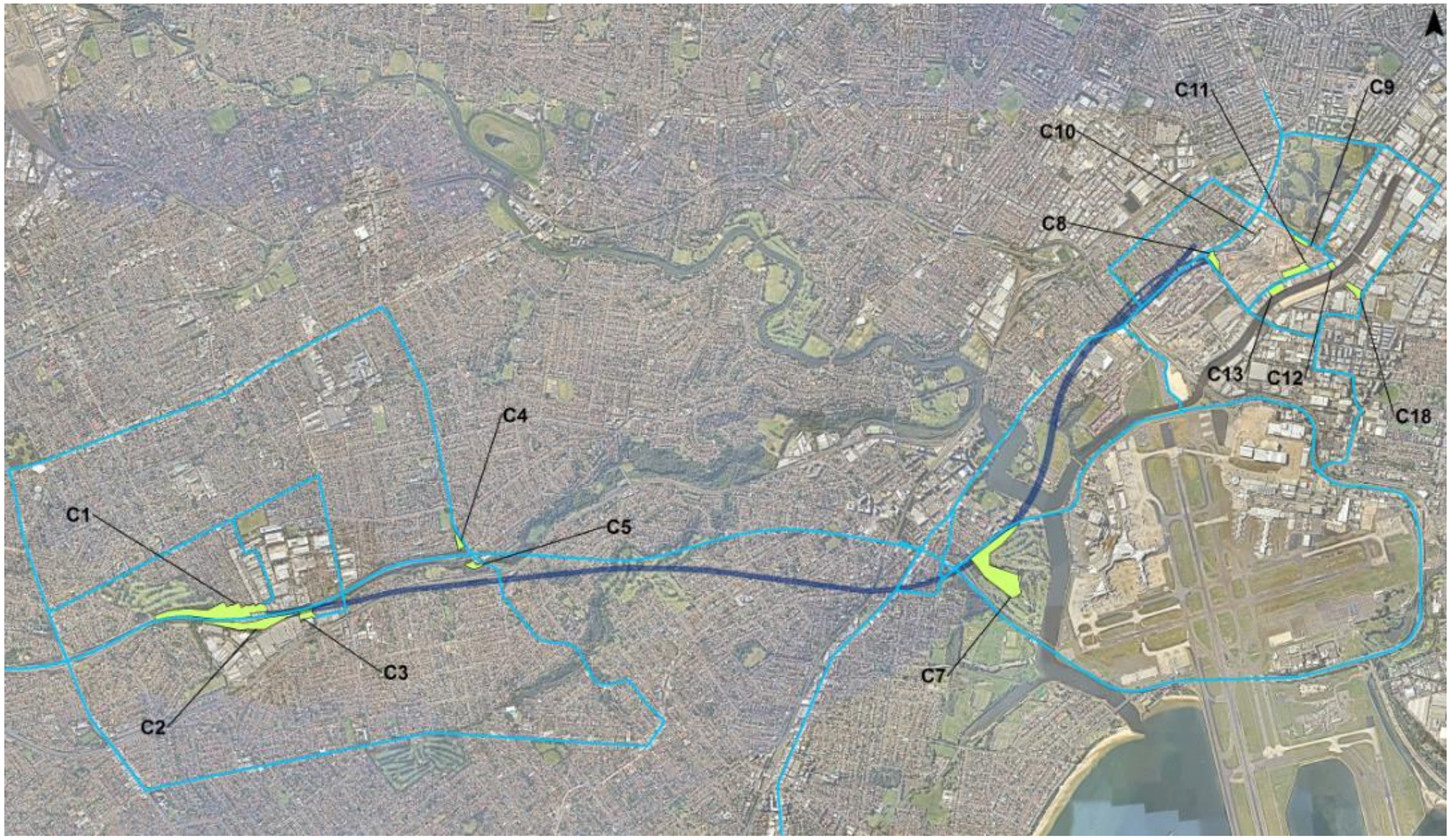


Figure B2: Kingsgrove North (C1)

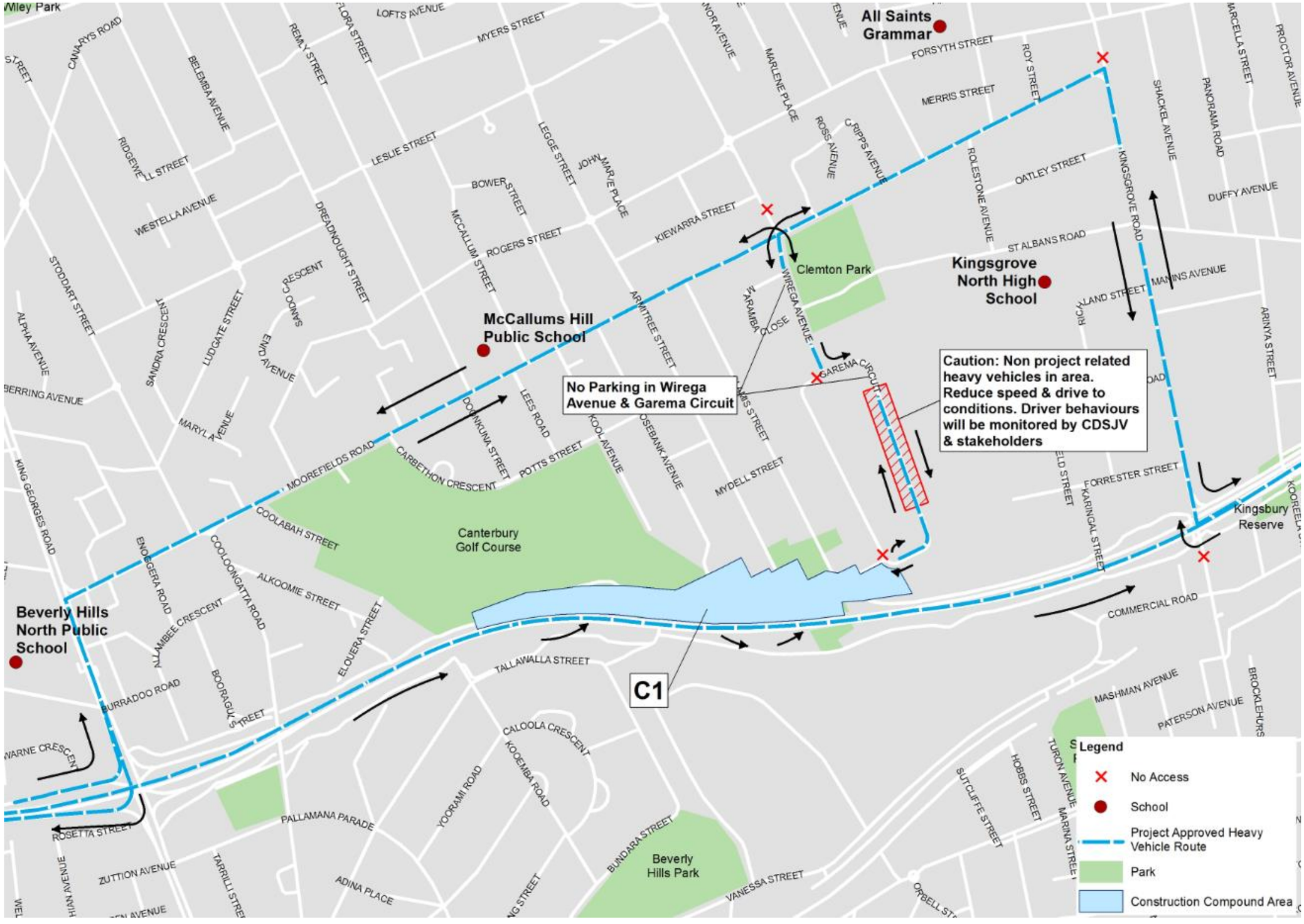


Figure B3: Kingsgrove South (C2 & C3)

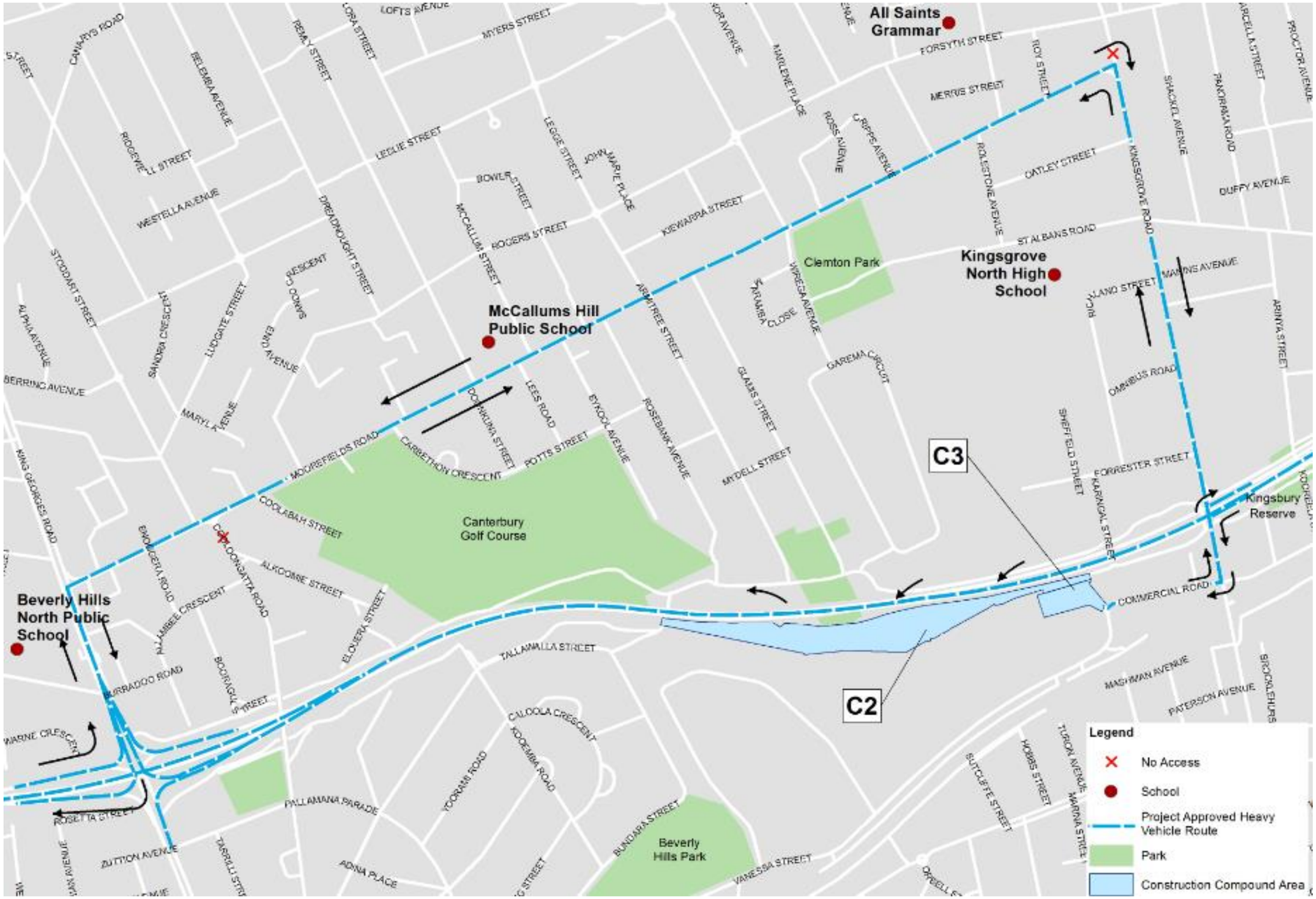


Figure B4: Bexley Tunnel North (C4)

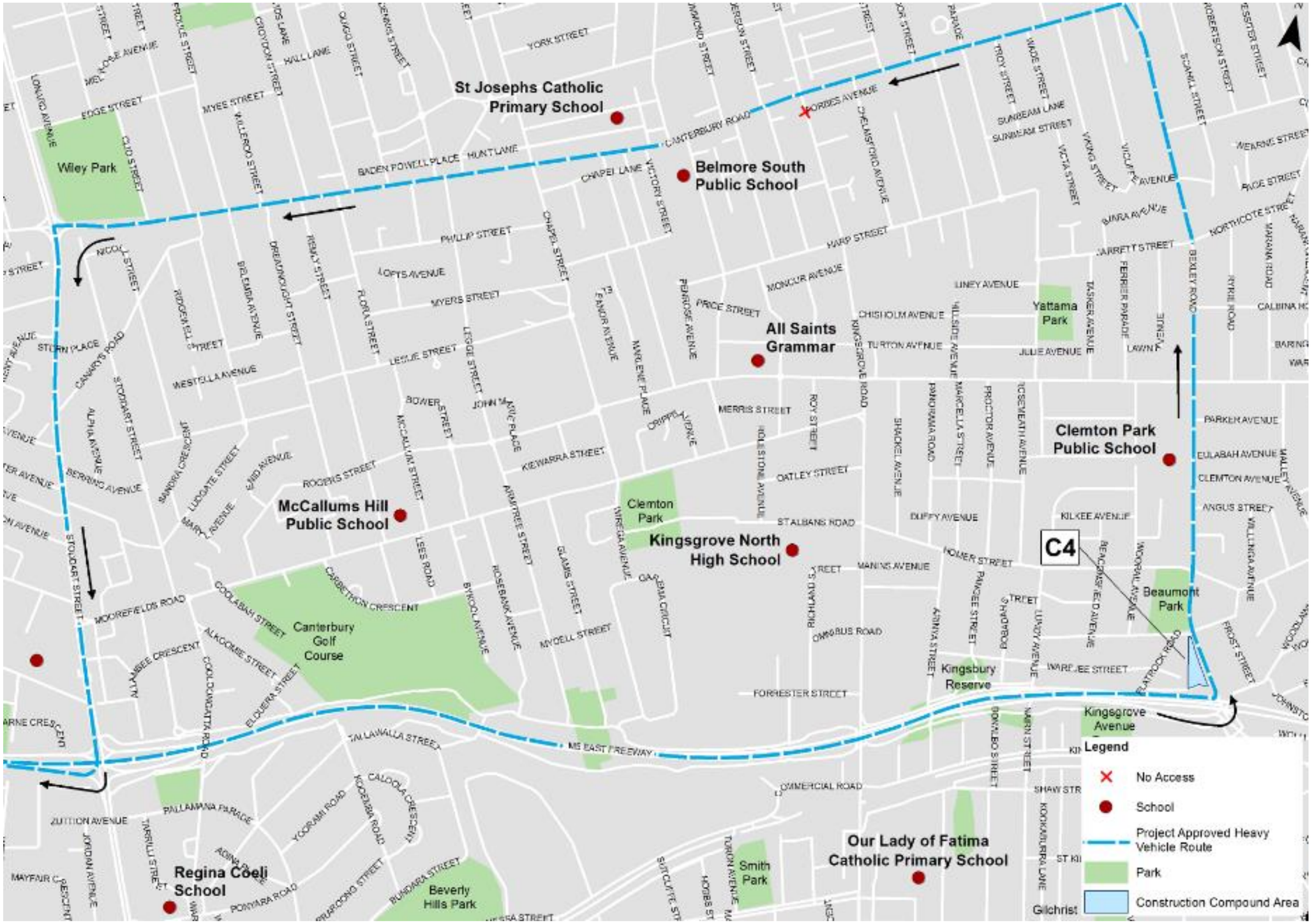


Figure B5: Bexley Tunnel South (C5)

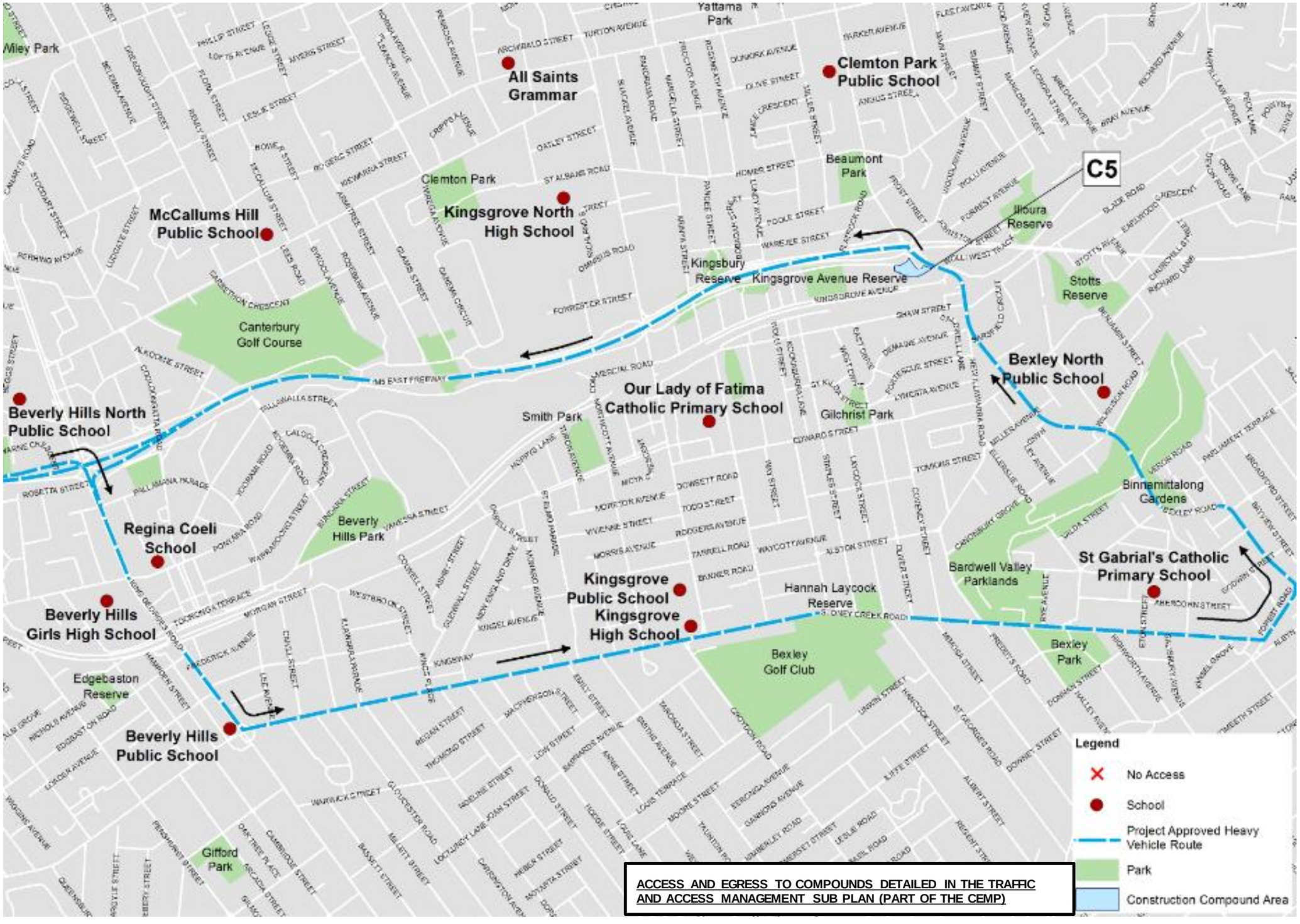


Figure B6: Arncliffe C7

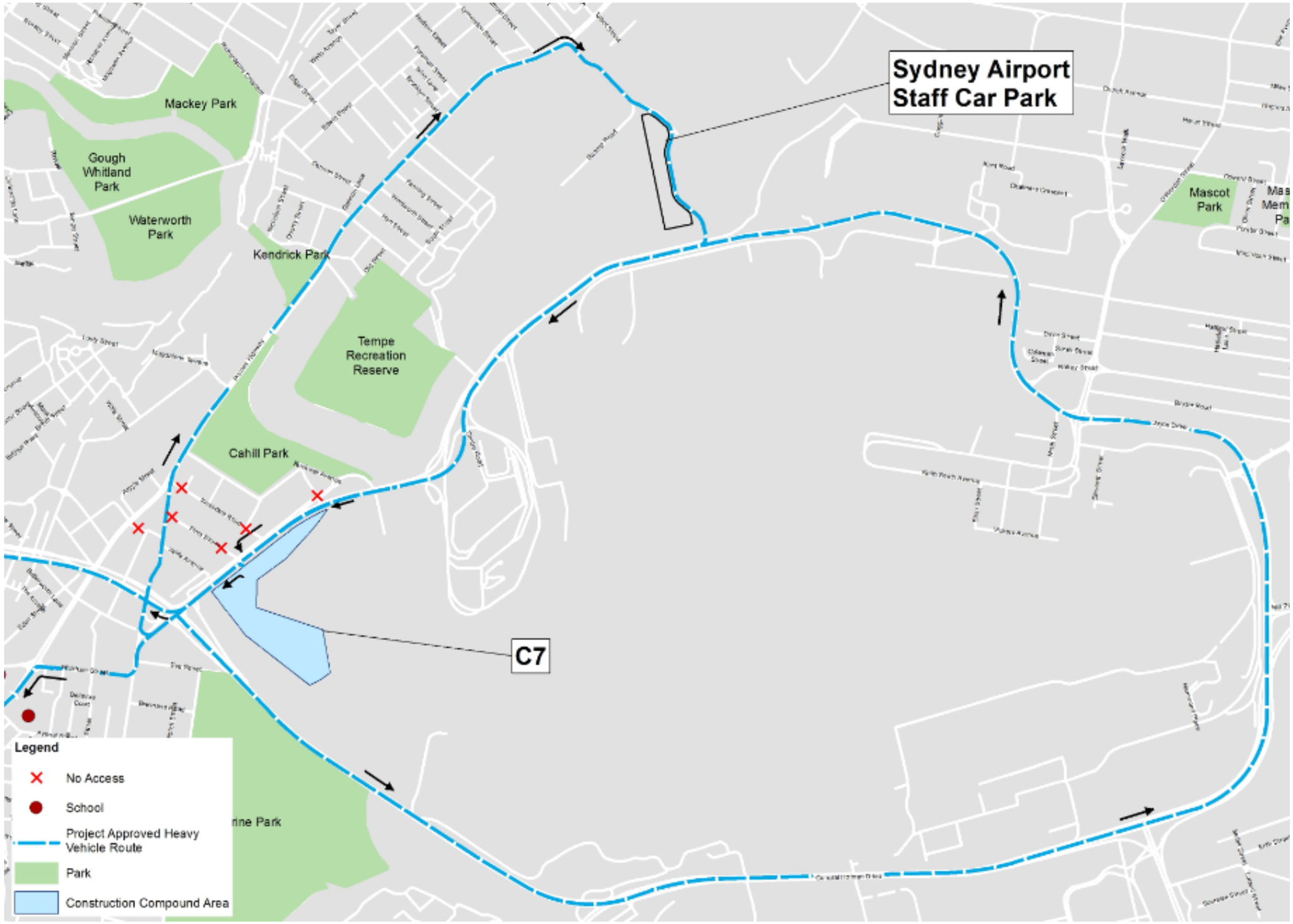


Figure B7: Canal Road (C8)

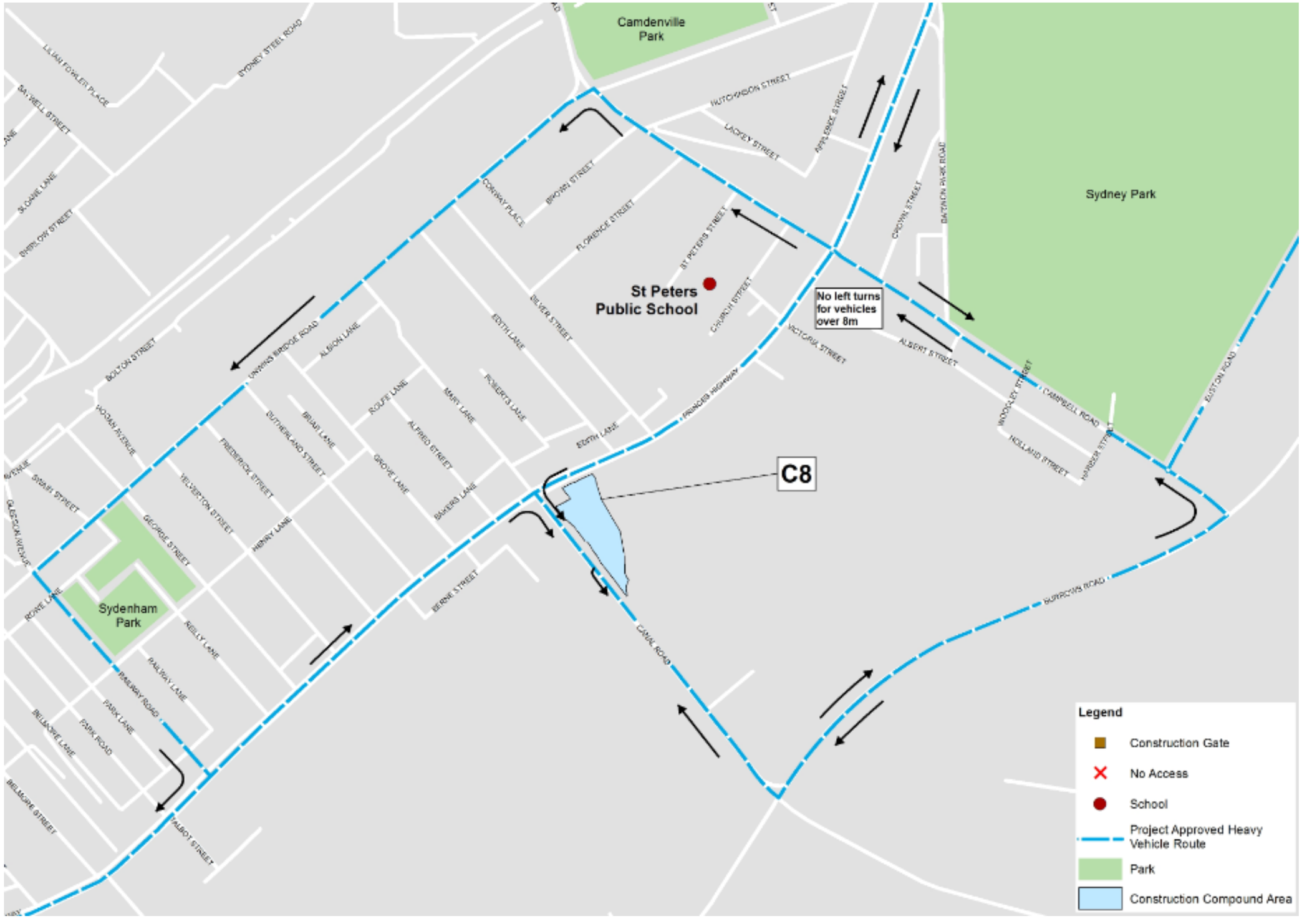


Figure B8: Campbell Road (C9)

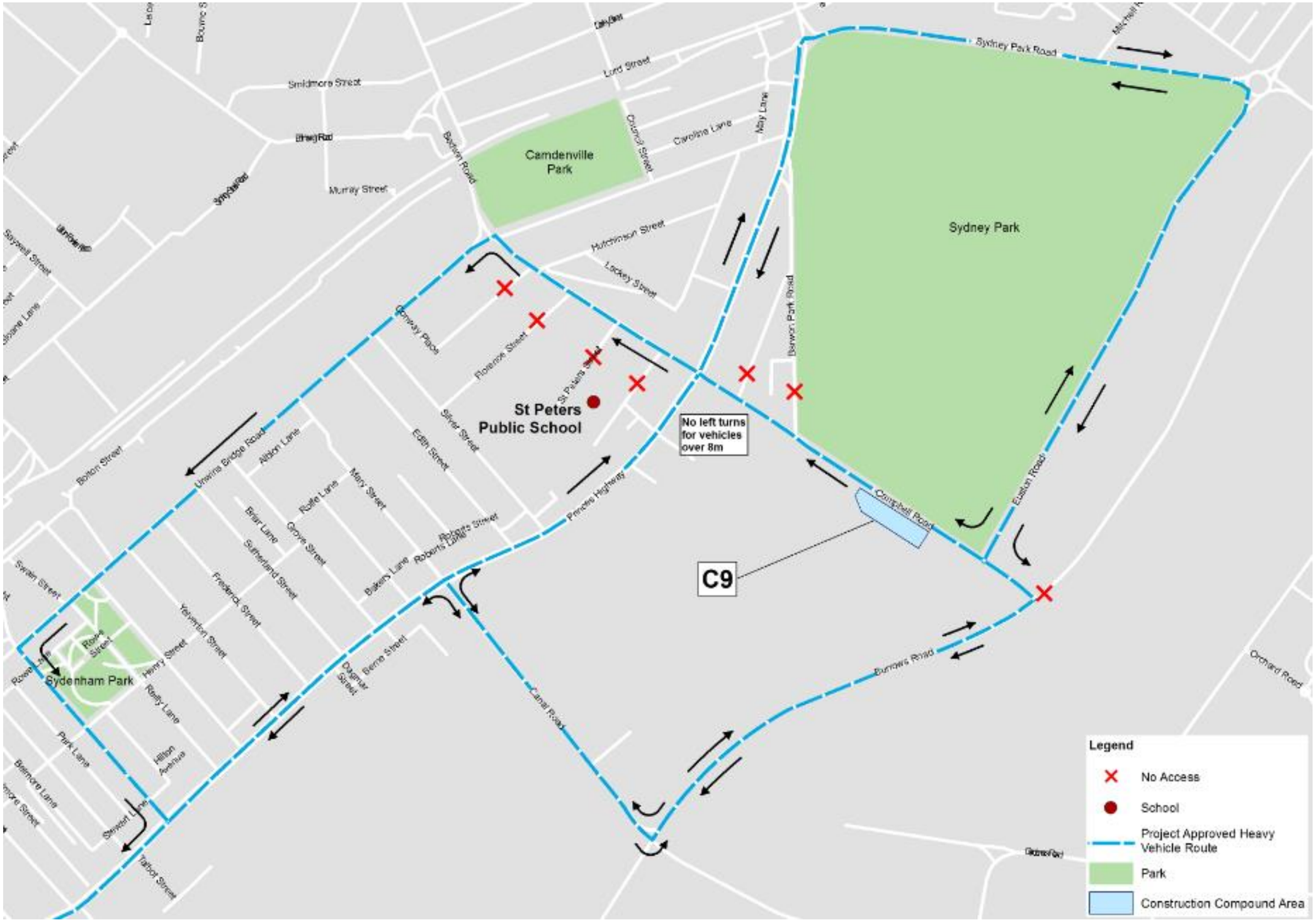
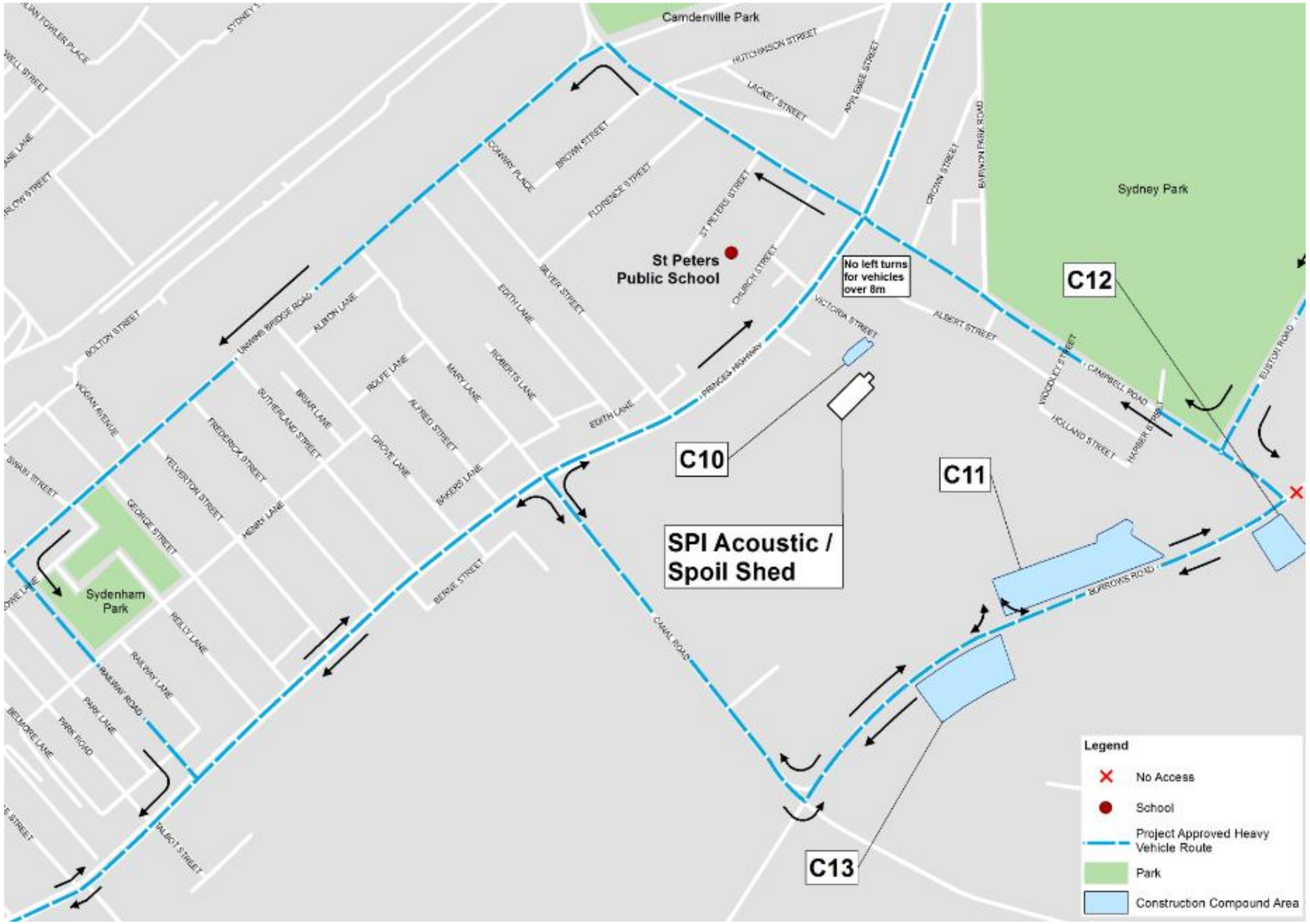


Figure B9: Burrows Road (C10, C11, C12, C13)



Appendix C: Construction Vehicle Volumes as Assessed in the Environmental Impact Statement (EIS) (Nov 2015)

Table C1: Western and Bexley Road surface works construction compounds – 2016 Mid-block traffic volumes and performance

This Table refers to the traffic volumes along the routes shown in Figures B1, B2, B3, B4 & B5

Location	Direction	Mid-block capacity	2016 'without construction traffic'				2016 'with construction traffic'					
			Light vehicles	Heavy vehicles	v/c	LoS	Light vehicles		Heavy vehicles		v/c	LoS
							Total	% increase	Total	% increase		
AM Peak Hour												
M5 East Motorway, east of King Georges Road	Eastbound	4300	2979	333	0.86	D	2995	1%	372	12%	0.88	E
	Westbound	4300	2972	335	0.86	D	2982	0.3%	356	6%	0.87	E
M5 East Motorway, east of Bexley Road (tunnel)	Eastbound	4300	3380	406	0.99	E	3404	1%	450	11%	1.02	F
	Westbound	4300	2506	363	0.77	D	2527	1%	390	7%	0.78	D
Bexley Road, (M5 East Motorway-Kingsgrove Avenue)	Northbound	2400	1674	58	0.75	D	1679	0.3%	67	15%	0.76	D
	Southbound	2400	1196	46	0.54	C	1199	0.3%	46	0%	0.54	C
Kingsgrove Road, south of Homer Street	Northbound	2400	1027	79	0.50	C	1037	1%	90	14%	0.51	C
	Southbound	2400	1213	78	0.58	C	1223	1%	89	14%	0.59	D
Commercial Road, west of Kingsgrove Road	Eastbound	900	554	22	0.67	D	558	1%	26	18%	0.68	D
	Westbound	900	423	21	0.52	C	427	1%	25	19%	0.53	C
King Georges Rd, (M5 East Motorway-Moorefields Road)	Northbound	3600	2506	306	0.88	E	2513	0.3%	317	4%	0.89	E
	Southbound	3600	1678	234	0.61	D	1687	1%	239	2%	0.61	D
Moorefields Road, east of Chapel Street	Eastbound	900	675	50	0.87	E	682	1%	61	22%	0.90	E
	Westbound	900	553	45	0.72	D	560	1%	56	25%	0.76	D
Wirega Avenue, south of Moorefields Road	Northbound	900	101	17	0.15	A	115	14%	39	129%	0.22	A
	Southbound	900	252	18	0.32	B	266	6%	40	122%	0.39	B
PM Peak Hour												
M5 East Motorway, east of King Georges Road	Eastbound	4300	3288	194	0.86	D	3302	0.4%	231	19%	0.88	E
	Westbound	4300	3377	350	0.96	E	3386	0.3%	370	6%	0.97	E
M5 East Motorway, east of Bexley Road (tunnel)	Eastbound	4300	3316	192	0.87	D	3338	1%	233	21%	0.89	E
	Westbound	4300	2824	241	0.78	D	2843	1%	266	10%	0.79	D
Bexley Road, (M5 East Motorway-Kingsgrove Avenue)	Northbound	2400	1492	33	0.65	D	1497	0.3%	42	27%	0.66	D
	Southbound	2400	1499	47	0.67	D	1502	0.2%	47	0%	0.67	D
Kingsgrove Road, south of Homer Street	Northbound	2400	1089	43	0.49	C	1098	1%	53	23%	0.50	C
	Southbound	2400	1341	59	0.61	D	1350	1%	69	17%	0.62	D
Commercial Road, west of Kingsgrove Road	Eastbound	900	498	14	0.59	C	502	1%	18	29%	0.60	D
	Westbound	900	540	10	0.62	D	544	1%	14	39%	0.64	D
King Georges Rd, (M5 East Motorway-Moorefields Rd)	Northbound	3600	2078	241	0.72	D	2084	0.3%	251	4%	0.73	D
	Southbound	3600	2218	251	0.76	D	2226	0.4%	255	2%	0.77	D
Moorefields Road, east of Chapel Street	Eastbound	900	690	22	0.82	E	696	1%	32	45%	0.85	E
	Westbound	900	815	23	0.96	E	821	1%	33	44%	0.99	E
Wirega Avenue, south of Moorefields Road	Northbound	900	233	5	0.27	B	245	5%	25	400%	0.33	B
	Southbound	900	106	4	0.13	A	118	11%	24	500%	0.19	A

Table C2: Arncliffe compound – 2016 Mid-block traffic volumes and performance

This Table refers to the traffic volumes along the routes shown in Figures B6.

Location	Direction	2016 'without construction traffic'					2016 'with construction traffic'					
		Mid-block capacity	Light vehicles	Heavy vehicles	v/c	LoS	Light vehicles		Heavy vehicles		v/c	LoS
							Total	% increase	Total	% increase		
AM Peak Hour												
Wickham Street (Princes Highway - West Botany St)	Eastbound	2400	1696	70	0.78	D	1703	0.4%	95	36%	0.81	E
	Westbound	2400	488	50	0.26	A	489	0.2%	54	8%	0.26	B
West Botany Street (Marsh St -Wickham St)	Northbound	2400	2310	92	1.06	F	2317	0.3%	117	27%	1.09	F
	Southbound	3600	734	72	0.26	A	735	0.1%	76	6%	0.26	A
Marsh Street (M5 East Motorway-Flora Street)	Eastbound	3600	3047	96	0.92	E	3059	0.4%	138	43%	0.95	E
	Westbound	3600	1115	79	0.37	B	1120	0.4%	96	21%	0.38	B
Princes Highway, south of Wickham St	Northbound	3600	2645	56	0.77	D	2652	0.3%	81	45%	0.79	D
	Southbound	3600	903	55	0.29	B	904	0.1%	59	7%	0.29	B
PM Peak Hour												
Wickham Street (Princes Highway - West Botany St)	Eastbound	2400	618	32	0.29	B	625	1%	57	78%	0.32	B
	Westbound	2400	948	30	0.43	C	949	0.1%	34	13%	0.43	C
West Botany Street (Marsh St -Wickham St)	Northbound	2400	988	44	0.46	C	995	1%	69	56%	0.49	C
	Southbound	3600	2729	49	0.79	D	2730	0.0%	53	8%	0.79	D
Marsh Street (M5 East Motorway-Flora Street)	Eastbound	3600	1265	63	0.39	B	1277	1%	105	66%	0.43	C
	Westbound	3600	2214	64	0.66	D	2219	0.2%	80	26%	0.67	D
Princes Highway, south of Wickham St	Northbound	3600	1223	30	0.36	B	1230	1%	55	84%	0.38	B
	Southbound	3600	2318	33	0.67	D	2319	0%	37	12%	0.67	D

Table C3: St Peters compound – 2016 Mid-block traffic volumes and performance

This Table refers to the traffic volumes along the routes shown in Figures B8, B10 & B11.

Location	Direction	2016 'without construction traffic'					2016 'with construction traffic'					
		Mid-block capacity	Light vehicles	Heavy vehicles	v/c	LoS	Light vehicles		Heavy vehicles		v/c	LoS
							Total	% increase	Total	% increase		
AM Peak Hour												
Princes Highway, south of Canal Road	Northbound	3,600	3,329	137	1.01	F	3,396	2%	194	41%	1.06	F
	Southbound	3,600	1,018	49	0.31	B	1,085	7%	106	116%	0.36	B
Canal Road (Princes Highway- Burrows Road)	Eastbound	2,400	1,590	65	0.73	D	1,621	2%	91	39%	0.76	D
	Westbound	2,400	1,034	60	0.49	C	1,065	3%	85	43%	0.53	C
Burrows Road, north of Canal Road	Northbound	900	202	8	0.24	A	223	10%	21	163%	0.30	B
	Southbound	900	520	19	0.62	D	541	4%	32	68%	0.68	D
Campbell Road, east of Princes Highway	Eastbound	900	822	34	1.00	F	848	3%	53	56%	1.07	F
	Westbound	900	105	9	0.14	A	131	25%	28	220%	0.21	A
PM Peak Hour												
Princes Highway, south of Canal Road	Northbound	3,600	1,634	69	0.49	C	1,710	5%	130	89%	0.55	C
	Southbound	3,600	2,815	114	0.85	E	2,891	3%	175	54%	0.90	E
Canal Road (Princes Highway-Burrows Road)	Eastbound	2,400	862	39	0.40	B	897	4%	66	71%	0.44	C
	Westbound	2,400	1,680	79	0.78	D	1,716	2%	107	35%	0.83	E
Burrows Road, north of Canal Road	Northbound	900	210	6	0.25	A	232	10%	21	253%	0.31	B
	Southbound	900	537	21	0.64	D	559	4%	36	71%	0.70	D
Campbell Road, east of Princes Highway	Eastbound	900	373	17	0.45	C	400	7%	38	123%	0.53	C
	Westbound	900	441	16	0.53	C	468	6%	37	129%	0.61	D

Table C4: Spoil and non-spoil related heavy vehicles for each construction compounds

Construction compound	Spoil related heavy vehicles			Non-spoil related heavy vehicles		
	Daily vehicles	AM peak (veh/hr)	PM peak (veh/hr)	Daily vehicles	AM peak (veh/hr)	PM peak (veh/hr)
Kingsgrove North (C1)	1,582	50	44	393	12	6
Kingsgrove South (C2)	48	2	2	24	1	1
Commercial Road (C3)	144	6	6	48	2	2
Bexley Road North (C4)	336	14	14	96	4	4
Bexley Road South (C5)	336	14	14	96	4	4
Bexley Road East (C6)	0	0	0	0	0	0
Arncliffe (C7)	726	47	27	469	13	13
Canal Road (C8)	575	40	40	135	10	10
Campbell Road (C9)	564	20	24	151	6	12
Landfill Closure (C10)	170	10	10	48	2	2
Burrows Road (C11)	151	6	8	48	2	4
Campbell Road bridge (C12)	93	4	3	24	1	0
Gardeners Road Bridge (C13)	124	5	6	72	3	4
Sydney Park (C14)	24	1	1	37	3	3

Appendix D: WestConnex Stage 2 Tunnel Spoil Order & Exemption 2017

Resource Recovery Exemption under Part 9, Clauses 91 and 92 of the Protection of the Environment Operations (Waste) Regulation 2014

The WestConnex Stage 2 tunnel spoil exemption 2017

Introduction

This exemption, issued by the Environment Protection Authority (EPA) under clauses 91 and 92 of the Protection of the Environment Operations (Waste) Regulation 2014 (Waste Regulation), exempts a consumer of WestConnex Stage 2 tunnel spoil from certain requirements in relation to the application of that waste to land or use as a raw material, provided the consumer complies with the conditions of this exemption.

This exemption should be read in conjunction with 'the WestConnex Stage 2 tunnel spoil order 2017'. This exemption applies to WestConnex Stage 2 tunnel spoil that is, or is intended to be, applied to land as engineering fill, or for use in earthworks, or for use as an alternative raw material in the manufacture of bricks.

1. Waste to which this exemption applies

1.1. This exemption applies to WestConnex Stage 2 tunnel spoil. In this exemption, WestConnex Stage 2 tunnel spoil means up to 6 million tonnes of naturally occurring rock and soil (including but not limited to materials such as sandstone, shale, clay and soil) that:

(a) has been generated from the WestConnex Stage 2 Project extending from the Kind Georges Road interchange on the existing M5 East Motorway at Beverly Hills, to St Peters;
(b) has been virgin excavated by the use of roadheaders;
(c) contains no more than 0.5% w/w shotcrete;
(d) has not been contaminated with manufactured chemicals or process residues (except for shotcrete); and
(e) does not meet the definition of virgin excavated natural material in the POEO Act.

WestConnex Stage 2 tunnel spoil does not include material that has been processed; or that contains asbestos, Acid Sulfate Soils (ASS), Potential Acid Sulfate soils (PASS) or sulfidic ores.

1. Persons to whom this exemption applies

1.1. This exemption applies to any person who applies or intends to apply WestConnex Stage 2 tunnel spoil as set out in 1.1.

2. Duration

2.1. This order commences on 13 March 2017 and is valid until 13 March 2020 or until revoked by the EPA by notice in writing at an earlier date.

3. Premises to which this exemption applies

4.1 This exemption applies to the premises at which the consumer's actual or intended application of WestConnex Stage 2 tunnel spoil is carried out.

4. Exemption

4.1. Subject to the conditions of this exemption, the EPA exempts each consumer from the following provisions of the POEO Act and the Waste Regulation in relation to the consumer's actual or intended application of WestConnex Stage 2 tunnel spoil to land as engineering fill, or use in earthworks, or for use as an alternative input into thermal processes for non-energy recovery purposes in the manufacture of bricks at the premises

- section 48 of the POEO Act in respect of the scheduled activities described in clauses 39, 40 and 42 of Schedule 1 of the POEO Act;
- Part 4 of the Waste Regulation;
- section 88 of the POEO Act; and
- clause 109 and 110 of the Waste Regulation.

4.2. The exemption does not apply in circumstances where WestConnex Stage 2 tunnel spoil is received at the premises for which the consumer holds a licence under the POEO Act that authorises the carrying out of the scheduled activities on the premises under clause 39 'waste disposal (application to land)' or clause 40 'waste disposal (thermal treatment)' of Schedule 1 of the POEO Act.

5. Conditions of exemption

The exemption is subject to the following conditions:

5.1. At the time WestConnex Stage 2 tunnel spoil is received at the premises, it must meet all material requirements for WestConnex Stage 2 tunnel spoil which are required under 'the WestConnex Stage 2 tunnel spoil order 2017'.

5.2. WestConnex Stage 2 tunnel spoil can only be:

5.2.1. applied to land as engineering fill, or use in earthworks, or

5.2.2. used as an alternative input into thermal processes for non-energy recovery purposes in the manufacture of bricks.

5.3. The consumer must keep a written record of the following for a period of six years:

5.3.1. the quantity of WestConnex Stage 2 tunnel spoil received; and

5.3.2. the name and address of the supplier of WestConnex Stage 2 tunnel spoil received.

5.4. The consumer must make any records required to be kept under this exemption available to authorised officers of the EPA on request.

5.5. The consumer must ensure that any application of WestConnex Stage 2 tunnel spoil to land must occur within a reasonable period of time after receipt.

6. Definitions

In this exemption:

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application or apply to land means applying to land by:

- spraying, spreading or depositing on the land;
- ploughing, injecting or mixing into the land; or
- filling, raising, reclaiming or contouring the land.

consumer means:

- a person who applies, or intends to apply, WestConnex Stage 2 tunnel spoil to land; and
- a person who uses, or intends to use, WestConnex Stage 2 tunnel spoil in connection with a process involving thermal treatment.

generator means a person who generates WestConnex Stage 2 tunnel spoil for supply to a consumer. The generator in this order is C CPB Contractors, Dragados, Samsung Joint Venture.

metal staples means small pieces of metal that resemble the shape of staples, with each staple having an approximate dimension of 35 mm x 0.5 mm.

shotcrete means cement grout reinforced with metal staples used to line the tunnel of WestConnex Stage 2 Project.

13.03.17

Manager Waste Strategy and Innovation
Environment Protection Authority
(by delegation)

Notes

The EPA may amend or revoke this exemption at any time. It is the responsibility of the consumer to ensure they comply with all relevant requirements of the most current exemption.

In gazetting or otherwise issuing this exemption, the EPA is not in any way endorsing the use of this substance or guaranteeing that the substance will confer benefit.

The conditions set out in this exemption are designed to minimise the risk of potential harm to the environment, human health or agriculture, although neither this exemption nor the accompanying order guarantee that the environment, human health or agriculture will not be harmed.

The consumer should assess whether or not WestConnex Stage 2 tunnel spoil is fit for the purpose the material is proposed to be used for, and whether this use will cause harm. The consumer may need to seek expert engineering or technical advice.

Regardless of any exemption provided by the EPA, the person who causes or permits the application of the substance to land must ensure that the action is lawful and consistent with any other legislative requirements including, if applicable, any development consent(s) for managing operations on the site(s).

The receipt of WestConnex Stage 2 tunnel spoil remains subject to other relevant environmental regulations in the POEO Act and the Waste Regulation. For example, a person who pollutes land (s. 142A) or water (s. 120), or causes air pollution through the emission of odours (s. 126), or does not meet the special requirements for asbestos waste (Part 7 of the Waste Regulation), regardless of having an exemption, is guilty of an offence and subject to prosecution.

This exemption does not alter the requirements of any other relevant legislation that must be met in utilising this material, including for example, the need to prepare a Safety Data Sheet (SDS).

Failure to comply with the conditions of this exemption constitutes an offence under clause 91 of the Waste Regulation.

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Resource Recovery Order under Part 9, Clause 93 of the Protection of the Environment Operations (Waste) Regulation 2014

The WestConnex Stage 2 tunnel spoil order 2017

Introduction

This order, issued by the Environment Protection Authority (EPA) under clause 93 of the Protection of the Environment Operations (Waste) Regulation 2014 (Waste Regulation), imposes the requirements that must be met by suppliers of WestConnex Stage 2 tunnel spoil to which 'the WestConnex Stage 2 tunnel spoil exemption 2017' applies. The requirements in this order apply in relation to the supply of WestConnex Stage 2 tunnel spoil for application to land as engineering fill, or for use in earthworks, or for use as an alternative raw material in the manufacture of bricks.

1. Waste to which this order applies

1.1. This order applies to WestConnex Stage 2 tunnel spoil. In this order, WestConnex Stage 2 tunnel spoil means up to 6 million tonnes of naturally occurring rock and soil (including but not limited to materials such as sandstone, shale, clay and soil) that:

(a) has been generated from the WestConnex Stage 2 Project extending from the Kind Georges Road interchange on the existing M5 East Motorway at Beverly Hills, to St Peters;
(b) has been virgin excavated by the use of roadheaders;
(c) contains no more than 0.5% w/w shotcrete;
(d) has not been contaminated with manufactured chemicals or process residues (except for shotcrete); and
(e) does not meet the definition of virgin excavated natural material in the POEO Act.

WestConnex Stage 2 tunnel spoil does not include material that has been processed; or that contains asbestos, Acid Sulfate Soils (ASS), Potential Acid Sulfate soils (PASS) or sulfidic ores.

2. Persons to whom this order applies

2.1. The requirements in this order apply to any person who supplies WestConnex Stage 2 tunnel spoil that has been generated, or recovered by CPB Contractors, Dragados, Samsung Joint Venture.

2.2. This order does not apply to the supply of WestConnex Stage 2 tunnel spoil to a consumer for land application or at a premises for which the consumer holds a licence under the POEO Act that authorises the carrying out of the scheduled activities on the premises under clause 39 'waste disposal (application to land)' or clause 40 'waste disposal (thermal treatment)' of Schedule 1 of the POEO Act.

3. Duration

3.1. This order commences on 13 March 2017 and is valid until 13 March 2020 or until revoked by the EPA by notice in writing at an earlier date.

4. Generator requirements

The EPA imposes the following requirements on any generator who supplies WestConnex Stage 2 tunnel spoil.

Notification

4.1. On or before each transaction, the generator must provide the following to each person to whom the generator supplies the WestConnex Stage 2 tunnel spoil to:

- a written statement of compliance certifying that all the requirements set out in this order have been met;
- a copy of the 'WestConnex Stage 2 tunnel spoil exemption 2017'; and
- a copy of the 'WestConnex Stage 2 tunnel spoil order 2017'.

Record keeping and reporting

4.2. The generator must keep a written record of the name and address of each person to whom the generator supplied WestConnex Stage 2 tunnel spoil and quantity supplied for a period of six years:

4.3. The generator must provide, on request, the most recent characterisation and sampling results for WestConnex Stage 2 tunnel spoil supplied to any consumer of WestConnex Stage 2 tunnel spoil.

4.4. The generator of WestConnex Stage 2 tunnel spoil must make information available to the EPA upon request.

5. Definitions

In this order:

application or apply to land means applying to land by:

- spraying, spreading or depositing on the land;
- ploughing, injecting or mixing into the land; or
- filling, raising, reclaiming or contouring the land.

consumer means:

- a person who applies, or intends to apply, WestConnex Stage 2 tunnel spoil to land; and
- a person who uses, or intends to use, WestConnex Stage 2 tunnel spoil in connection with a process involving thermal treatment.

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generator means a person who generates WestConnex Stage 2 tunnel spoil for supply to a consumer. The generator in this order is CPB Contractors, Dragados, Samsung Joint Venture.

metal staples means small pieces of metal that resemble the shape of staples, with each staple having an approximate dimension of 35 mm x 0.5 mm.

shotcrete means cement grout reinforced with metal staples used to line the tunnel of WestConnex Stage 2 Project.

13.03.17

Manager Waste Strategy and Innovation
Environment Protection Authority
(by delegation)

Notes

The EPA may amend or revoke this order at any time. It is the responsibility of the generator to ensure it complies with all relevant requirements of the most current order.

In gazetting or otherwise issuing this order, the EPA is not in any way endorsing the supply or use of this substance or guaranteeing that the substance will confer benefit.

The conditions set out in this order are designed to minimise the risk of potential harm to the environment, human health or agriculture, although neither this order nor the accompanying exemption guarantee that the environment, human health or agriculture will not be harmed.

Any person or entity which supplies WestConnex Stage 2 tunnel spoil should assess whether the material is fit for the purpose the material is proposed to be used for, and whether this use may cause harm. The supplier may need to seek expert engineering or technical advice.

Regardless of any exemption or order provided by the EPA, the person who causes or permits the application of the substance to land must ensure that the action is lawful and consistent with any other legislative requirements including, if applicable, any development consent(s) for managing operations on the site(s).

The supply of WestConnex Stage 2 tunnel spoil remains subject to other relevant environmental regulations in the POEO Act and Waste Regulation. For example, a person who pollutes land (s. 142A) or water (s. 120), or causes air pollution through the emission of odours (s. 126), or does not meet the special requirements for asbestos waste (Part 7 of the Waste Regulation), regardless of this order, is guilty of an offence and subject to prosecution.

This order does not alter the requirements of any other relevant legislation that must be met in supplying this material, including for example, the need to prepare a Safety Data Sheet. Failure to comply with the conditions of this order constitutes an offence under clause 93 of the Waste Regulation.

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