

A.C.N. 003 270 693

A.B.N. 39 003 270 693

Suite 2.06, Level 2 29-31 Solent Circuit Baulkham Hills NSW, 2153 Australia

Tel: 61 (02) 9659-5433 E-mail: <u>hbi@hbi.com.au</u> Web: www.hbi.com.au

Stacy Warren Director Infrastructure Department of Planning and Environment GPO Box 39 SYDNEY NSW 2001

15 January 2018 Ref: 170108-ER-DPE-TSE-Dec17

Dear Stacy

RE: Sydney Metro City & South West Chatswood to Sydenham CSSI 15_7400 – ER Monthly Report for December 2017 – TSE Contract

Healthy Buildings International (HBI) submits this report to the Secretary in accordance with:

- Condition A24 (I) of the Sydney Metro City & South West Chatswood to Sydenham CSSI 15_7400 Approval (9 January 2017) and SSI 15_7400 MOD1 (18 October 2017); and
- As required by the subsequent appointment as the approved Environmental Representative (17 February 2017);

The attached summary details the key activities undertaken by Environmental Representatives for Sydney Metro – City and South West Chatswood to Sydenham during the month of **December 2017**.

Yours sincerely

Michael Woolley Environmental Representative

Cc: Sydney Metro: Fil Cerone, Matt Marrinan, Ben Armstrong, Stuart Hodgson, Nicole Williams, Adam Koutsamanis, Nicole Vanella, Rob Muir (JHCPBG) DPE: Swati Sharma, Rob Sherry

Summary of Contract Packages	Environmental Representative/s
Demolition and Tunnel and Station Excavation (TSE)	Michael Woolley
Alternate	Jo Robertson / Annabelle Reyes

Demolition and TSE	Works conducted in December 2017 at the following sites are summarised below:				
and TSE					
	Chatswood:				
	Chatswood dive site				
	 Utility, heritage and geotechnical investigations 				
	 Installation of hoarding and setting up offices and amenities 				
	 Relocation of underground utility services 				
	 Removal of existing concrete and asphalt slabs involving hammering and safely disposing of contaminated materials 				
	for sheds and other facilities involving excavating unsuitable material and				
	importing and compacting road base material				
	 Installation of sheds involving concreting, building retaining walls and setting- up silos and water tanks 				
	Nelson Street				
	 Relocating underground utility services and temporarily reinstating the works areas 				
	Frank Channon Walk between Nelson Street and Gordon Avenue				
	 Frank Channon Walk was temporarily closed between Gordon Avenue and 				
	Nelson Street from 27 November 2017 until mid-December 2017 to facilitate				
	work by Telstra to relocate a telecommunication cables.				
	Out-of-hours works				
	 Chatswood dive site 				
	 Delivery and unloading of oversized plant and equipment 				
	 Mowbray Road, Hampden Road and Pacific Highway 				
	 Identifying existing underground utility services on the footpath and 				
	within the road on Mowbray Road, Hampden Road and Pacific				
	Highway involving saw cutting and excavating with a vacuum truck				
	 Relocating underground utility services on Mowbray Road, Hampden Road and the Pacific Highway/Nelson Street intersection involving saw cutting, excavating and backfilling trenches, laying cables and 				
	temporarily reinstating works areas				
	 Installing safety markers on the overhead telecommunication lines along Pacific Highway 				
	 Installing temporary traffic and pedestrian management and establishing works areas 				
	 Equipment used during these works included but was not limited to hand tools, truck mounted cranes, excavators, concrete saws, drills, 				
	vacuum excavation trucks, elevated work platforms, rock hammers, trucks, light vehicles, lighting towers, generators and traffic control.				
	Works at and around Chatswood dive site were shut down over the Christmas period from Saturday 23 December 2017 until Monday 8 January 2018.				
	Artarmon:				
	Out of hours works continued in December 2017- Road condition inspections and testing carried out on Reserve Road, Whiting Street, Dickson Avenue and Clarendon Street before major construction works start at the Artarmon substation site				

Crows	Nest:
►	Within and around the site
	 Installing hoarding around the site perimeter
	 Completing demolition of remaining sections of buildings at 473 and 521 Pacific Highway and 14 Clarke Street
	• Completing retention works (structural works i.e. anchoring works around the
	nearby properties) around the site
	 Continuing to identify and relocate utility services such as power, gas, sewer and telecommunication lines around the perimeter of the Crows Nest Station site, along Pacific Highway, Hume Street, Oxley Street and Willoughby Road
	 Continuing earthworks to level the site and constructing platforms to hold piling rigs
	 Completing vegetation and tree removal around the site perimeter on Oxley Street, Pacific Highway and Hume Street
	 Continuing surveys, soil, heritage and geotechnical investigations around the site and removing hazardous material
	 Constructing two new power kiosk substations on the corner of Clarke Street and Hume Street
	 Upgrading driveways and constructing new site driveways
	 Commencing the widening of Clarke Lane from the back of 22 Clarke Lane to Oxley Street
	 Continuing preparations for the Hume Street bridge closure, which is scheduled for six months from February 2018
▶	-
	the following works were conducted during out of hours:
	 Albany, Oxley, Hume and Clarke Streets, Hume Lane and Clarke Lane - Conducting road condition surveys
	 Hume Street -Hume Street (between Clarke Lane and Pacific Highway) closed between 27-30 December 2017 to complete utility (sewer) relocation works, in preparation for the 6-month closure of the Hume Street bridge from February 2018
	 Pacific Highway at Willoughby Road - continuing utility relocation, involving
	saw cutting, trenching, installing cables and reinstating the work areas
	 Pacific Highway, Hume, Oxley and Clarke Streets and Willoughby Road continuing utility relocation including potholing and trenching and removing
	 vegetation and trees Clarke Street - completing bundling and commissioning of aerial cables
	between Pole Lane and Hume Street
	Works at and around the Crows Nest Station site were shut down between Friday 22 December and Tuesday 26 December and on Sunday 31 December and Monday 1 January, other than works in Hume Street as described.
Victori	a Cross:
	Victoria Cross South site
	 Completing demolition of 181, 187, 189 and 155 Miller Street and loading out demolition materials
	 Removing scaffolding from demolished buildings
	 Continuing investigating and relocating services such as power, gas and sewer lines, involving potholing, saw cutting, trenching, installing cables and reinstating the works areas
	 Decommissioning a substation on Denison Street and Miller Street
	 Continuing surveys and geotechnical drilling in the roads around the site

	 Removing vegetation/trees on Miller Street
	 Replacing sections of hoarding in preparation for station excavation works
	 Continuing retention works and installing ground anchors to prepare the site
	for tunnel excavation
~	• Installing new stormwater drainage on Miller St (outside 155 Miller St)
	Victoria Cross North site
	 Continuing surveys and soil, heritage and geotechnical investigations Removing hazardous material from the site
	 Removing hazardous material from the site Installing fencing and hoarding around the site perimeter
	 Establishing site offices and amenities
	 Installing erosion and sediment controls
	 Demolishing existing concrete driveways and slabs
	 Commencing excavation of the site and piling for retention walls
	 Investigating and relocating utilities including temporary lane and footpath closures
\succ	Out-of-hours works –Other than for the delivery and removal of oversized equipment,
	the details of the following works were conducted during out of hours:
	 Miller, McLaren, Walker, Denison, Spring and Little Spring Streets, Blues Point
	Road and Henry Lawson Avenue - Conducting road condition surveys
	• Miller Street
	 Investigating and relocating utility services Demoving vagetation, trace and hearding
	Removing vegetation, trees and hoardingCommissioning a substation
	 Continuing installation of a block wall in the 65 Berry Street car park
	 Installing stormwater drainage (outside 155 Miller Street)
	 Denison Street - demolishing 155 Miller Street (Tower Square) during standard
	construction hours and on Saturdays between 8am and 5pm and
	decommissioning a substation
	 Berry Street/Denison Street - continuing to investigate and relocate services
	and utilities
	Works at and around the Victoria Cross Station sites were shut down from Saturday 23 December 2017 and restarted on Tuesday 2 January.
Blues P	
	Road condition inspections and testing were carried out on Miller Street, Blues Point
	Road and Henry Lawson Avenue before major construction works start at the Blues
	Point site. The testing involves a vehicle towing a specialised testing trailer travelling along the road at slow speed and placing a weight onto the road pavement. This test
	measures the existing condition of the road approximately every 100 metres. The
	testing needs to occur outside of standard construction hours due to the requirement
	for uninterrupted traffic flow while it is completed.
۶	Out-of-hours road condition testing started on Friday 1 December 2017.
Baranga	aroo:
\triangleright	Hickson Road (between Munn Street overpass and High Steps)
	• Utility and geotechnical investigations carried out in the footpath and the road
	 Installation of utilities outside of the Heritage Area
	• Installation bolts to protect and secure the High Street heritage wall before the
~	start of station excavation works
	Nawi Cove foreshore and lawn area
	 Installation of hoarding and temporary fencing Closing public access to the lawn area and the southern side of Nawi Cove to
	start site establishment from 8 January 2018. Pedestrian access to Dukes Pier

	and the pontoon will be maintained.
	 Removing trees, vegetation, pavement, sandstone edging and street furniture within the new worksite
	 Delivering materials and equipment, including out-of-hour large vehicle deliveries
	 Earthworks, excavation and concreting activities, including building temporary hardstand areas
	 Site investigation works, involving trenching and drilling activities.
\triangleright	Out-of-hours works
,	 Hickson Road (between Munn Street overpass and High Steps)
	 Utility and geotechnical investigations and relocation of underground services
	 Installing high voltage power for tunnelling machines
The site	e was shutdown from Friday 22 December and reopened on Monday 8 January 2018.
Martin	Place:
\succ	Bligh Street site
	 Excavating acoustic shed foundations using rock hammers and excavators
	 Removing excavated material from site
	 Constructing site driveways on O'Connell Street
	 Delivering site huts, equipment, tunnelling machinery and materials to site
	 Concrete works for foundations of the acoustic shed
\triangleright	Martin Place North site
	 Internal strip out of buildings on Hunter, Castlereagh and Elizabeth Streets
	 Installing (and removing) scaffolding and hoarding
	 Ongoing structural demolition works and removing materials from site
\succ	Martin Place South site
	 Preparing building for demolition
	 Substation decommissioning
	Hunter, Castlereagh, Elizabeth, Bligh and O'Connell Streets and Martin Place
	 Identifying existing utility services using a hand-held scanner and vacuum truck and accessing service pits on footpaths and within the road
	 Trenching and potholing
\triangleright	Out-of-hours works
	 Ausgrid works to remove, modify and relocate existing services were
	undertaken around the Martin Place Station and Bligh Street sites from
	Wednesday 20 December 2017.
	 Works occurred on Castlereagh and Elizabeth Streets (between
	Hunter and King Streets), Martin Place (between Elizabeth and
	Castlereagh Streets) and at the intersection of Hunter and Bligh
	Streets.
	 Works between Wednesday 27 December and Monday 15 January
	were potentially to be undertaken 24 hours a day, in order to
	complete as much of the works as possible when traffic and
	pedestrian volumes are lowest.
	There were no works on Christmas Day (25 December), Boxing Day (26 December), New
	Year's Eve (31 December) and New Year's Day (1 January).
Pitt Stro	
	Pitt Street North site
	 Ongoing structural demolition work and removal of material from site

• Removing scaffolding and waterproofing of adjoining exposed walls

0	Contamination investigations
0	Site establishment works
Pitt Street	eet South site
0	Site establishment and enabling works for demolition
0	Scaffolding within the site boundaries
➢ Out-of-	hours works
0	Pitt, Park and Castlereagh Streets
	 Removing and replacing existing hoarding around the site
	 Delivering and removing plant and equipment including oversized
	loads to and from site
	 Ausgrid works including trenching and installing new ductwork and
	cabling in footpaths and roads
	 Installing a kiosk substation behind hoarding Ditt and Dathwart Streads
0	Pitt and Bathurst Streets Preparation for demolition
	 Preparation for demolition
	The Pitt Street Station sites were shut down for the Christmas and New Year
	period from close of business Friday 22 December 2017, resuming Wednesday
	3 January 2018.
Waterloo:	
> Within :	and around the Waterloo Station site
0	Continuing to remove internal walls and demolish external walls and roofing
0	Installing hoarding and scaffolding around the site, involving tree trimming
0	Moving plant and materials to and from the site
0	Overhead cable tagging activities
0	Preparing the site for excavation of the station box, including hammering,
	piling and concrete works.
> Out-of-	hours works
0	Within and around the Waterloo Station site
	 Moving plant and equipment to and from site using large vehicles
	which will access the site via Botany Road
	 Installing hoarding and scaffolding around the site for approximately 15 pights during the two, month period
	15 nights during the two- month period. Botany Road, Raglan Street and Cope Street
0	 Installing new power poles, bundling overhead cables and testing new
	cables at Raglan Street and Botany Road for approximately 10 nights
	over a four-week period in December 2017 and early January 2018.
	 Sewer relocation investigations on Botany Road
	 Testing new power cables in Raglan, Cope and Wellington streets in
	December, and Botany Road, Buckland and Wellington streets in
	January .
	 Power supply may have been affected while new cables were being
	tested. Residents and business were to be notified by Ausgrid in
	advance if power to their property will be affected.
Marrickville:	
	ville dive site (including external property boundary activities)
0	Delivering materials and construction equipment
0	Setting up the precast acoustic shed structure
0	Constructing the precast facility, including the concrete plant and silo
	structures Preparing for piling and steel works, including building footings for future
0	gantry cranes
0	Creating the internal road network, involving saw cutting, concrete works,
	excavation and earthworks

 Minor tree removal works within the site and along the footpath
 Concrete breaking activities across the dive site
 Installing site hoarding and perimeter fencing
Edinburgh Road and Railway Parade
 Underground utility investigations, involving slit trenching
 Installing noise barriers, site hoarding and perimeter fencing
Edgeware Road, Lord, Council and May streets
 Underground utility investigations
Out-of-hours works
 Edinburgh and Bedwin roads - underground utility investigations, involving slit trenching
The site was shut down for the holiday period on Friday 22 December and was to reopen on Monday 8 January 2018.

ER Inspectio	ns			
Demolition	Weekly inspections continued under the management of the TSE contractor for the demolition			
and TSE	sites. It is anticipated that generally each site will be inspected every second week at this stage of			
	the project.			
	Sites inspected in December 2017 comprised:			
	Victoria Cross South – 5/12/17, 19/12/17			
	Chatswood – 5/12/17, 19/12/17			
	Martin Place – 5/12/17, 12/12/17, 19/12/17			
	Barangaroo – 5/12/17, 19/12/17			
	Pitt Street – 5/12/17, 12/12/17			
	Crows Nest – 19/12/17			
	Waterloo – 12/12/17			
	Marrickville –12/12/17			
	Additional Inspections:			
	Non-Scheduled Site Inspection at Crows Nest and Victoria Cross was conducted on 7/12/17			
	Impromptu site inspection from outside site boundary at Crows Nest, Victoria Cross and Pitt St North on 11/12/17			
	ER Inspection reports have been prepared and issued to Sydney Metro and TSE Contractor. Three			
	(3) actions were identified during the inspection on 19-12-17.			

Endorsed	Document/	's			
TSE	The foll	owing TSE documents were reviewed, comments provided to the TSE Contractor and Sydney			
	Metro where relevant, and endorsed by the ER with the assistance of alternate ERs during				
	Decemb	per 2017:			
	\checkmark	Management Plans			
		 Waste and Recycling Management Plan Rev 6 			
		 Stormwater and Flooding Plan 			
		 DELTA CEMP Rev 8 to address DPE Approval 			
		 CSWMP Revised ER Endorsement 			
		 Business Management Plan Rev 02 			
	\succ	Construction Traffic Management Plans			
		 Crows Nest Site Establishment CTMP 			
		Bligh Street Site Est CTMP			
		VC North Site Est CTMP			
		Crows Nest Utilities CTMP			
		Waterloo Site Establishment CTMP Chatavas d CTMP for Site Establishment			
		 Chatswood CTMP for Site Establishment 			
		Crows Nest Sewer Works CTMP			
		 Bligh St Stage 2 CTMP 			
		 CBD Utilities CTMP 			
	\succ	CNVISs			
		 CNVIS Martin Place North Local Area & Utility Works (LAUWs) 			
		 CNVIS MP South LAUWs 			
		 CNVIS Pitt St North and South LAUWs 			
		 CNVIS LAUWs Bligh Street 			
		 Crows Nest CNVIS for LAUWs (works in Christmas period) Rev 8 			
	\checkmark	Archaeological Method Statements (Final)			
		 Waterloo AMS 			
		 Barangaroo AMS 			
		 Pitt Street North AMS 			
	\checkmark	Site Establishment Plans (SEPs)			
		 Barangaroo Rev 6 covering Hickson Road Wall protection works 			
		 Marrickville Rev 04 covering silo installation and minor clearing 			
		 Pitt Street South Rev 03 Hoarding and Preparation for Demolition 			
		 Martin Place Tilt meter installation (070021 Rev 01) 			
		 Barangaroo SEP Utilities Rev 06 			
		 Waterloo SEP - slab removal (070023 Rev03) 			
		 Boreholes BH1122 and BH1112 (043024 Rev 00) 			
		 VC North SEP (070018 Rev 02) Crown Next SEP Dev 02 and Dev 04 (070017) 			
		 Crows Nest SEP Rev 03 and Rev 04 (070017) 			
		• Marrickville SEP (070024 Rev 05)			
		 Sydney Park Boreholes SEP 			
		 Chatswood SEP (070015 Rev 05) 			
		 Crows Nest Utilities during Christmas break (070017 Rev 05) 			
		 Martin Place Utilities during Christmas break (070021 Rev 02) 			
		 Pitt Street SEP (070022 Rev 04) 			
	\succ	Out of hours works (OOHW) approvals			
		 OOHWs Application 329 Pitt Street Investigations 			
		 VC 010 Victoria Cross Hoarding removal 			
		 Martin Place Train Tunnels - Design Investigation works 			
		 Pitt Street 007 Boom Lift 			
		 Tilt Meters Macquarie Bank 			

 Extension of OOHWs 003 and 006 and MP001
Tree Report
 Tree Report Rev P
Sydney Metro
 Consistency Assessment - Barangaroo Utilities
 Consistency Assessment for the Martin Place, Pitt Street and Bligh Street Utility works
 Consistency Assessment Chatswood dive services facility (post TSE works)
 Pre Construction Compliance Report (PCCR) - TSE Works
• Construction Complaints Management System final review and endorsement Rev
6.3

Non-comp	liance/ Incidents / Comp	olaints		
TSE	The following complaints were received:			
	Site	No of Complaints	Complaint Category	Date/s of Complaint/s raised
	Barangaroo	1	Noise	4/12/17
		1	Noise but Not TSE work	11/12/17
	Chatswood	5	Noise	3/12/17, 6/12/17, 12/12/17, 15/12/17
		1	Property condition survey not done	6/12/17
		1	Visual amenity	12/12/17
		1	Other (OOHW permit)	20/12/17
	Crows Nest	1 7	Traffic Noise	5/12/17 5/12/17, 6/12/17 (2 complaints) , 7/12/17 (3 complaints), 12/12/17
		3	Vibration	11/12/17 (2 complaints), 12/12/17
		2	Trucks park idling on road and set down area*	15/12/17 (2 complaints)
		2	Not related to TSE	27/12/17, 31/12/17
		1	Property impact	27/12/17
	Martin Place	7	Noise	14/12/17, 19/12/17 (5 complaints), 21/12/17
		1	Traffic	28/12/17
	Pitt Street	1	Vibration	6/12/17
		1	noise	7/12/17
	Waterloo	1	noise	19/12/17
	Total Complaints'	37	Majority of the noise of	complaints came from the tree

Leaders in Environmental Consulting

	this was with			
	this month	removal and utilities relocation works.		
	* Two complaints at Crows Nest on 15 December related to parking of trucks on Clarke Street parking and truck movement in this location was identified as not compliant with the Constru Traffic Management Plan (CTMP) for the Crows Nest site. The CTMP is required under Condit E82 of the Infrastructure Approval.			
	It is understood that Sydney Metro has been providing summaries of non-EPL complaints to DPE on a fortnightly basis. Responses to each complaint have been noted in each complaint report, with follow up actions often defined in revised reports.			
	There were no incidents related to TSE works, as defined by the project approval definition for incidents, reported or observed by the ER during the period or reported to DPE under condition A41.			
Demolition	The following complaints	were received at the following sites:		
		dust 8/12/17, noise and vibration 13/12/17, 14/12/17 – 6/12/17 property damage, 7/12/17 noise		
	-	ey Metro has been providing summaries of complaints to DPE on a sees to each complaint have been noted in each complaint report, with efined in revised reports.		
		elated to demolition works as defined by the project approval definition observed by the ER during the period or reported to DPE under condition		
Sydney Metro	There were no complaints	s received in relation to works undertaken directly by Sydney Metro.		
	There were no incidents related to Sydney Metro conducted works as defined by the proje approval definition for incidents reported or observed by the ER during the period or repor DPE under condition A41.			

Audits	
TSE	Nil
Demolition	Nil
Sydney Metro	Nil
Metro	

Looking Forward		
Demolition and TSE	 Core Focus Areas for the month of January 2018 are: Noise and vibration management for works at Crows Nest, Pitt Street, Martin Place and Victoria Cross demolition sites; Noise management for out of hours utility works at Chatswood, Crows Nest, and Victoria Cross TSE sites; Dust management during demolition works at Pitt Street, Martin Place and Victoria Cross demolition sites; and Contamination and Heritage Investigations at Waterloo, Pitt Street, Barangaroo, Chatswood, Crows Nest and Marrickville as well as other sites as they are handed over to the TSE Contractors. 	