



Our ref: PS214031-WSP-SYD-STR-LTR-250724 RevA

By email
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24 July 2025

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Callan Salter
Development Manager
Investa
Level 30
420 George St
Sydney NSW 2000

Dear Callan

**105 Miller St North Sydney
Structural Response to Metro RFI**

This letter has been prepared as an addendum to the WSP Report PS214031 – *105 Miller St – Proposed Development Impacts from Sydney Metro Infrastructure Structural Report* Rev A dated 2/07/25 to address comments from Sydney Metro following their review of the report.

This report addresses the following comments from Sydney Metro:

- *5.1.1 General: Building core hold-down anchors - they are shown on Section 1 & Section 3 models, but it is noted that these anchors are not shown on Appendix C "Provided Drawings"*
- *From Geotech impact assessment, it is understood that hold-down anchors are proposed. However, no discussions or descriptions are provided in the structural report.*

Building core hold-down anchors not shown on “Provided Drawings”

It is noted that all of the proposed permanent core vertical ground anchors are located outside of both the First and Second Sydney Metro Reserves.

The WSP 105 Miller St Site Protection Zone drawings have been updated to show all proposed core permanent vertical ground anchors, refer attached.

Core hold-down anchor Discussion

The lateral structure for the proposed development consists of a reinforced concrete core located between the refurbished Miller St wing and new Denison St wing. The reinforced core structure provides lateral capacity for both the existing building being retained and refurbished and the new building to ensure that a code compliant lateral structure is provided for both the existing and new elements of the proposed development.

As the reinforced concrete core is located between the refurbished Miller St wing and new Denison St wing, there is minimal floor plate pre-compression applied to the core. Due to this limited pre-compression applied to the core under lateral load events (earthquake and wind loading) a tension demand is experienced around the perimeter of the reinforced concrete core. It is noted that this tension demand varies around the perimeter of the core depending on the direction of the lateral loading and only a portion of the permanent vertical ground anchors are needed for any individual lateral load case, ie there is no load case which requires capacity from all permanent vertical ground anchors at once.

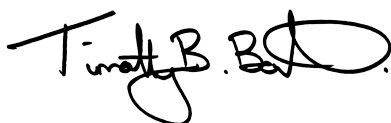
The permanent vertical ground anchors have been provided around the perimeter of the core as shown in the attached sketches. These anchors have been designed to be installed with the core raft construction and tensioned at time of installation to ensure that the nominated residual long-term load is provided in these anchors for the design life of the building (50 years). Under a lateral loading event the tension demands around the perimeter of the reinforced concrete core are resisted by the permanent vertical ground anchors.

As outlined in the Douglas Partners Memorandum 86964.03 Ref R.003.Rev0 dated 22/07/25 the installation lengths (bond plus free length) of the permanent vertical ground anchors will be designed to mobilise sufficient rock mass to provide the required tension capacity with both single anchor and group anchor effects considered in the determination of this installation length.

The permanent vertical ground anchors will be designed, detailed and installed to achieve a design life meeting or exceeding the building design life of 50 years.

We trust that this provides sufficient clarification to the Sydney Metro RFI to allow these items to be closed out. If further information is required please contact the undersigned.

Yours sincerely

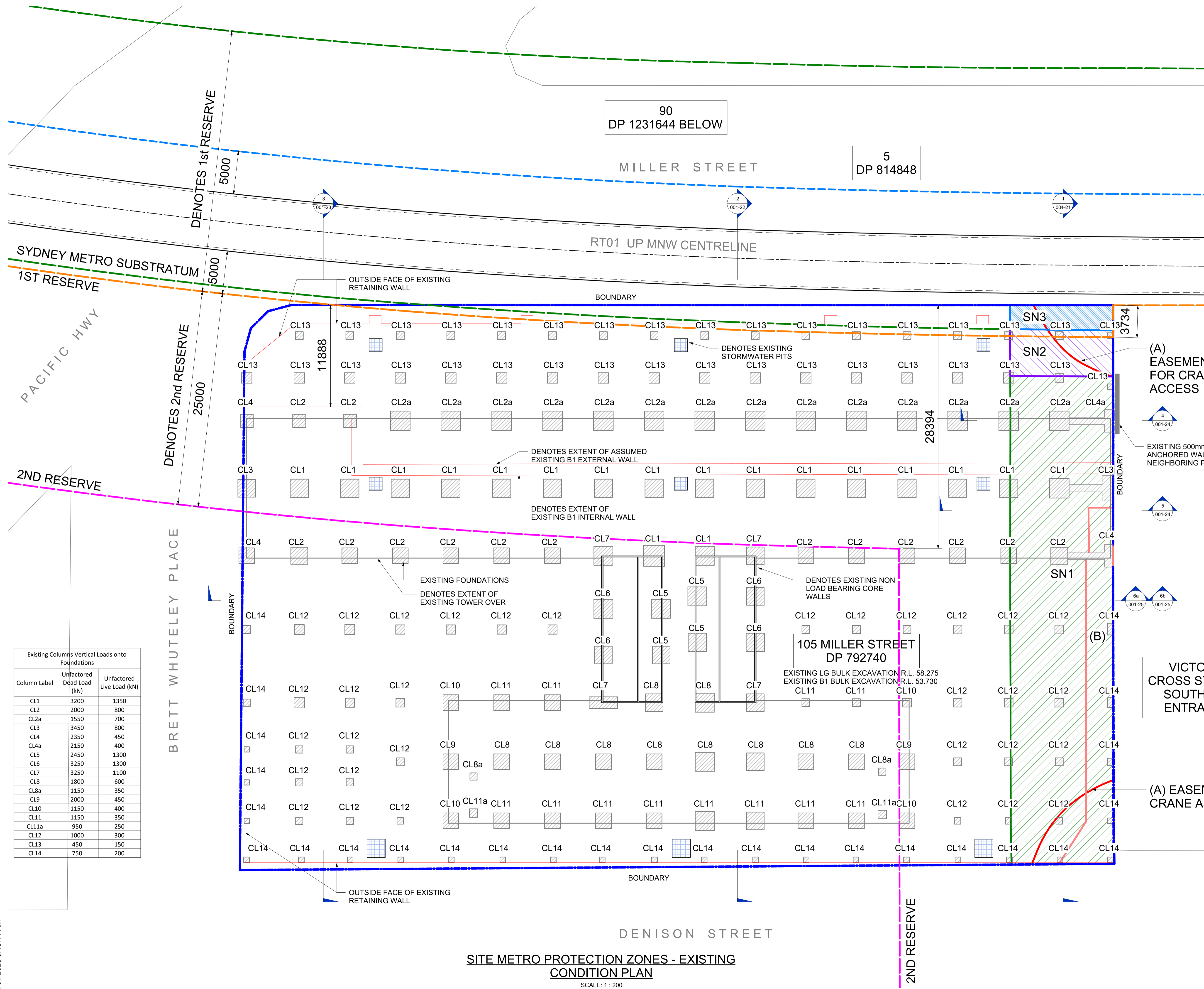


Tim Boulton
Principal Director

- NOTES:**
- THIS DRAWING IS A COMPILATION OF THE METRO PROTECTION ZONES AS PER RPS SURVEYORS DRAWING "PR145326-002-C-Metro Protection Zones-105" AND EXPLANATORY NOTES ON THE NOMINATED DRAWINGS SHOULD BE READ IN CONJUNCTION. WE NOTE THE BELOW SUPPLIED METRO DRAWINGS ARE "FOR CONSTRUCTION" ONLY
 - ADOPTED DIAMETER OF METRO TUNNEL 6.69M
 - UPLINE TUNNEL MODELED BETWEEN CHAINAGE 10KM+ 650 AND 10KM+849.349
 - SMCSWTSE-JAB-TPW-AL-DRG-505121 (FILE NAME SMCSWTSE-JCG-1NL-DM-DWG-000053.01.01.PDF)
 - SMCSWTSE-JAB-TPW-AL-DRG-505011 (FILE NAME SMCSWTSE-JCG-1NL-DM-DWG-000024.03.AFC.03.01.PDF)
 - SMCSWTSE-JAB-TPW-AL-DRG-505014 (FILE NAME SMCSWTSE-JCG-1NL-DM-DWG-000027.03.AFC.03.01.PDF)
 - SMCSWTSE-JHO-TPW-DN-DRG-9 (FILE NAME SMCSWTSE-JCG-TPW-DM-DWG-000514.00.AFC.00.01.PDF)
 - THIS DRAWING ALSO SHOWS THE "DRAFT" PLAN OF ACQUISITION OF EASEMENT FOR RAILWAY PURPOSES OVER PART OF LOT 2 IN DP792740 AS WELL AS THE EXISTING EASEMENTS. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE APPROPRIATE SURVEY INFORMATION
 - EXISTING BASEMENT B2 LEVEL EXTENTS IS TO BE CONFIRMED BY A REGISTERED SURVEYOR.
 - DO NOT SCALE THIS DRAWING. PLEASE REFER TO EXISTING DRAWINGS FOR MORE INFORMATION.
 - PAD FOOTING SIZES AND POSITIONS ARE INDICATIVE ONLY

- EASEMENT LEGEND**
- DENOTES SN1 EASEMENT
 - DENOTES SN2 EASEMENT
 - DENOTES SN3 EASEMENT
 - DENOTES (B) EASEMENT

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Existing Columns Vertical Loads onto Foundations

Column Label	Unfactored Dead Load (kN)	Unfactored Live Load (kN)
CL1	3200	1350
CL2	2000	800
CL2a	1550	700
CL3	3450	800
CL4	2350	450
CL4a	2150	400
CL5	2450	1300
CL6	3250	1300
CL7	3250	1100
CL8	1800	600
CL8a	1150	350
CL9	2000	450
CL10	1150	400
CL11	1150	350
CL11a	950	250
CL12	1000	300
CL13	450	150
CL14	750	200

(A) EASEMENT FOR CRANE ACCESS

EXISTING 500mm THICK ANCHORED WALL IN NEIGHBORING PROPERTY

5 001-24

6a 001-25
6b 001-25

VICTORIA CROSS STATION SOUTHERN ENTRANCE

(A) EASEMENT FOR CRANE ACCESS

1 03.07.25 FOR APPROVAL
Rev. Date Description
STRUCTURAL / CIVIL CONSULTANT



680 George st, Sydney NSW 2000 Australia
9272 5100
http://www.wsp.com

CLIENT

BUILDER

PROJECT NAME
105 MILLER STREET

PROJECT NUMBER: 214031
DRAWING TITLE
SITE METRO PROTECTION ZONES - EXISTING CONDITION PLAN

SCALE AT A1: 1:200
DRAWN BY: J.D.B.
CHECKED BY: T.B.B.

DRAWING STATUS
FOR INFORMATION

DRAWING NUMBER REV.
ST-001-05 1

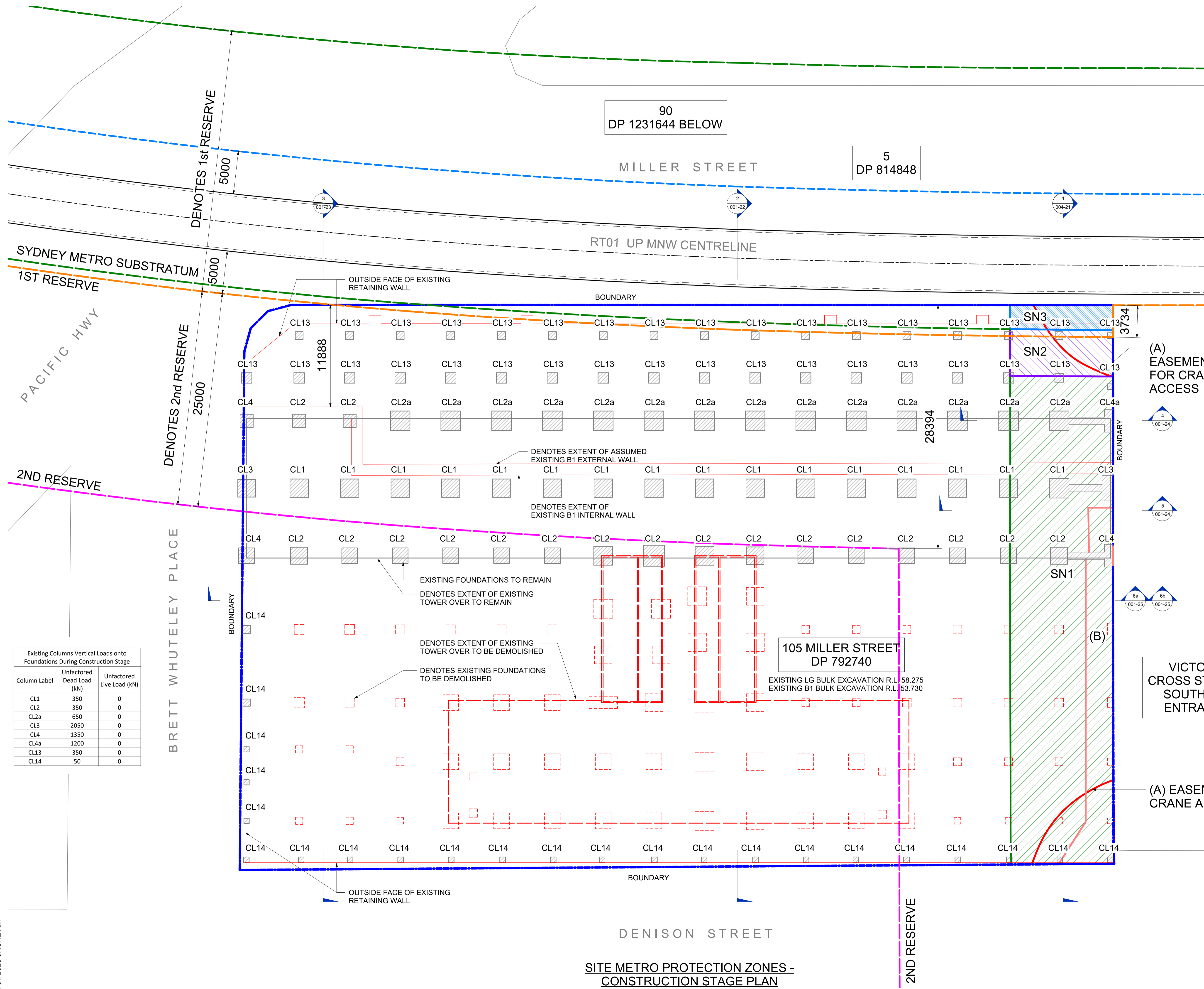
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SCALE: 1:200

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- EASEMENT LEGEND**
- SN1 EASEMENT
 - SN2 EASEMENT
 - SN3 EASEMENT
 - (B) EASEMENT

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Existing Columns Vertical Loads onto Foundations During Construction Stage

Column Label	Unfactored Dead Load (kN)	Unfactored Live Load (kN)
CL1	350	0
CL2	350	0
CL2a	650	0
CL3	2050	0
CL4	1350	0
CL4a	1200	0
CL13	350	0
CL14	50	0

VICTORIA CROSS STATION SOUTHERN ENTRANCE

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 PROJECT NAME
 105 MILLER STREET

PROJECT NUMBER: 214031
 DRAWING TITLE
 SITE METRO PROTECTION ZONES - CONSTRUCTION STAGE PLAN

SCALE AT A1: 1 : 200
 DRAWN BY: J.D.B.
 CHECKED BY: T.B.B.
 DRAWING STATUS
 FOR INFORMATION
 DRAWING NUMBER REV.
 ST-001-06 1

SITE METRO PROTECTION ZONES - CONSTRUCTION STAGE PLAN

SCALE: 1 : 200

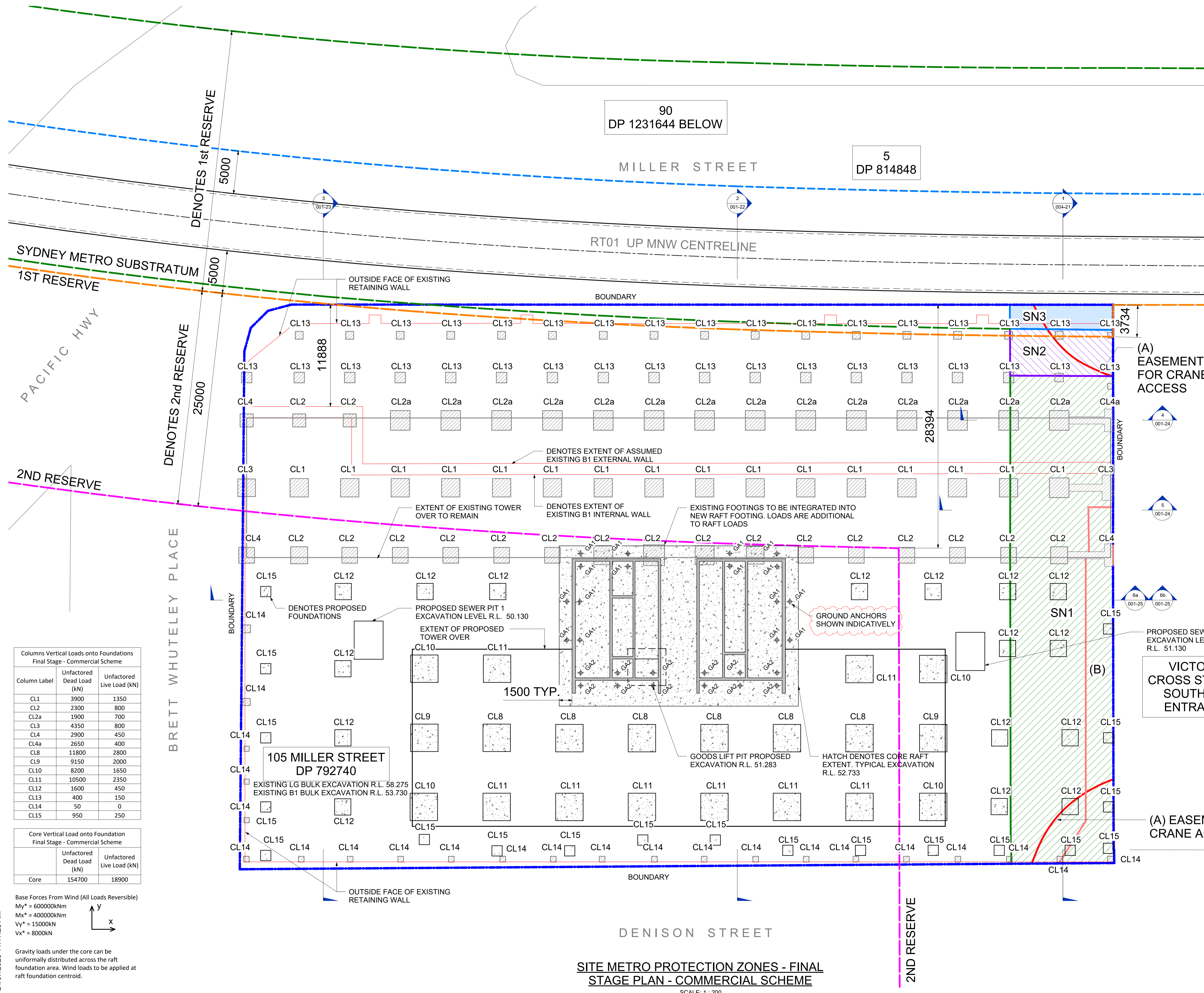
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GROUND ANCHOR NOTES:

- GA1 = 8 x 15.2 STRANDS PERMANENT ANCHOR WITH MINIMUM RESIDUAL STRESS OF 900kN
- GA2 = 16 x 15.2 STRANDS PERMANENT ANCHOR WITH MINIMUM RESIDUAL STRESS OF 1900kN

- EASEMENT LEGEND**
- DENOTES SN1 EASEMENT
 - DENOTES SN2 EASEMENT
 - DENOTES SN3 EASEMENT
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Columns Vertical Loads onto Foundations Final Stage - Commercial Scheme

Column Label	Unfactored Dead Load (kN)	Unfactored Live Load (kN)
CL1	3900	1350
CL2	2300	800
CL2a	1900	700
CL3	4350	800
CL4	2900	450
CL4a	2650	400
CL8	11800	2800
CL9	9150	2000
CL10	8200	1650
CL11	10500	2350
CL12	1600	450
CL13	400	150
CL14	50	0
CL15	950	250

Core Vertical Load onto Foundation Final Stage - Commercial Scheme

Core	Unfactored Dead Load (kN)	Unfactored Live Load (kN)
Core	154700	18900

Base Forces From Wind (All Loads Reversible)

$M_y^* = 600000\text{kNm}$
 $M_x^* = 400000\text{kNm}$
 $V_y^* = 15000\text{kN}$
 $V_x^* = 8000\text{kN}$

Gravity loads under the core can be uniformly distributed across the raft foundation area. Wind loads to be applied at raft foundation centroid.

2 24.07.25 FOR APPROVAL
 1 03.07.25 FOR APPROVAL
 Rev. Date Description
 STRUCTURAL / CIVIL CONSULTANT

WSP

680 George st, Sydney NSW 2000 Australia
 9272 5100
<http://www.wsp.com>

CLIENT

BUILDER

PROJECT NAME
 105 MILLER STREET

PROJECT NUMBER: 214031

DRAWING TITLE
 SITE METRO PROTECTION ZONES - FINAL STAGE PLAN - COMMERCIAL SCHEME

SCALE AT A1: 1 : 200
 DRAWN BY: J.D.B.
 CHECKED BY: T.B.B.

DRAWING STATUS
 FOR INFORMATION

DRAWING NUMBER REV.
 ST-001-07 2

SITE METRO PROTECTION ZONES - FINAL STAGE PLAN - COMMERCIAL SCHEME

SCALE: 1 : 200

NOTES:

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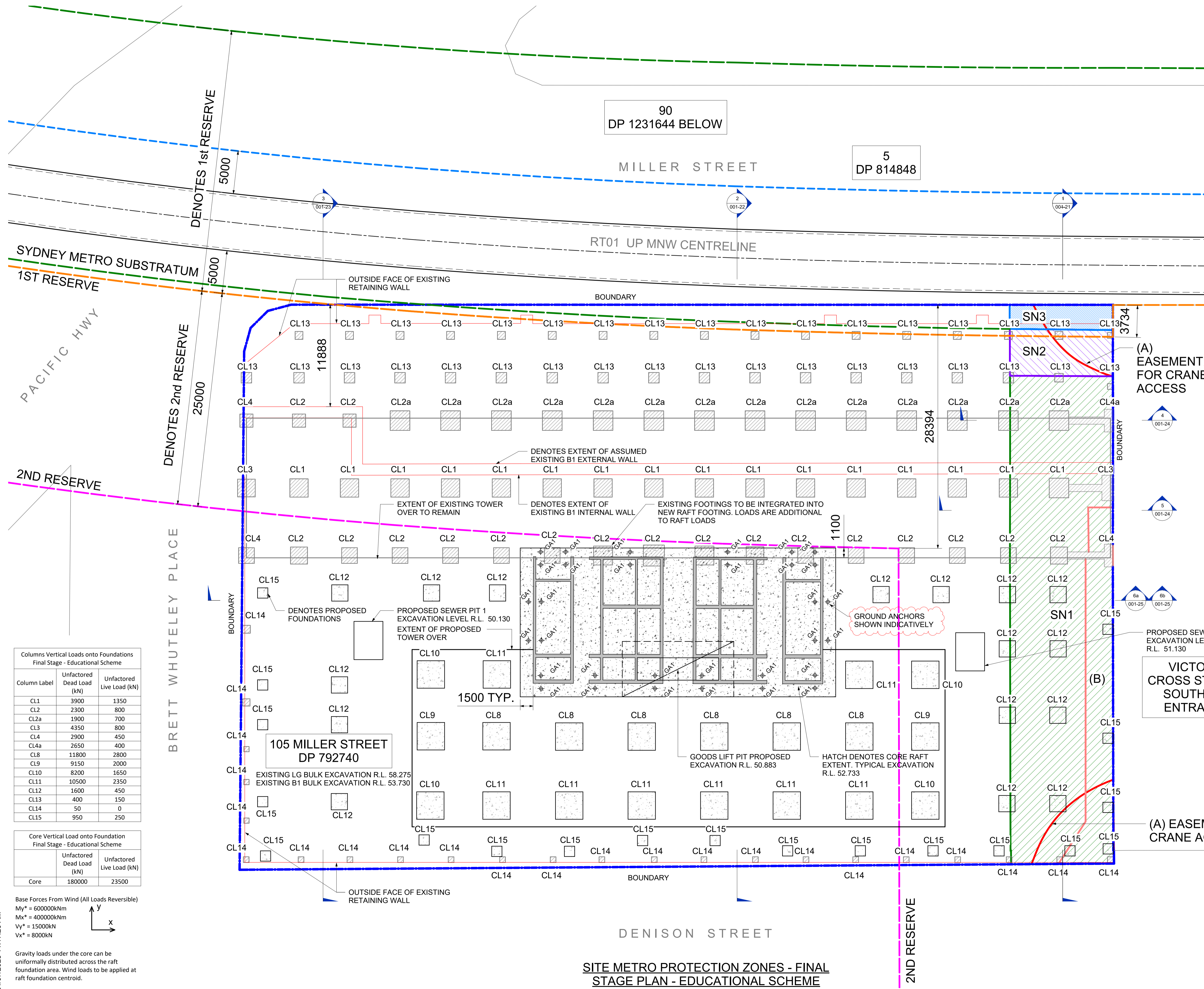
GROUND ANCHOR NOTES:

- GA1 = 8 x 15.2 STRANDS PERMANENT ANCHOR WITH MINIMUM RESIDUAL STRESS OF 900KN

EASEMENT LEGEND

- DENOTES SN1 EASEMENT
- DENOTES SN2 EASEMENT
- DENOTES SN3 EASEMENT
- DENOTES (B) EASEMENT

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Columns Vertical Loads onto Foundations
Final Stage - Educational Scheme

Column Label	Unfactored Dead Load (kN)	Unfactored Live Load (kN)
CL1	3900	1350
CL2	2300	800
CL2a	1900	700
CL3	4350	800
CL4	2900	450
CL4a	2650	400
CL8	11800	2800
CL9	9150	2000
CL10	8200	1650
CL11	10500	2350
CL12	1600	450
CL13	400	150
CL14	50	0
CL15	950	250

Core Vertical Load onto Foundation
Final Stage - Educational Scheme

	Unfactored Dead Load (kN)	Unfactored Live Load (kN)
Core	180000	23500

Base Forces From Wind (All Loads Reversible)

$M_y^* = 600000\text{kNm}$
 $M_x^* = 400000\text{kNm}$
 $V_y^* = 15000\text{kN}$
 $V_x^* = 8000\text{kN}$

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CLIENT

BUILDER

PROJECT NAME
105 MILLER STREET

PROJECT NUMBER: 214031

DRAWING TITLE
SITE METRO PROTECTION ZONES - FINAL STAGE PLAN - EDUCATIONAL SCHEME

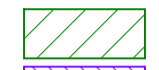
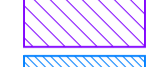
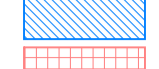
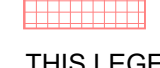
SCALE AT A1: 1:200
DRAWN BY: J.D.B.
CHECKED BY: T.B.B.

DRAWING STATUS
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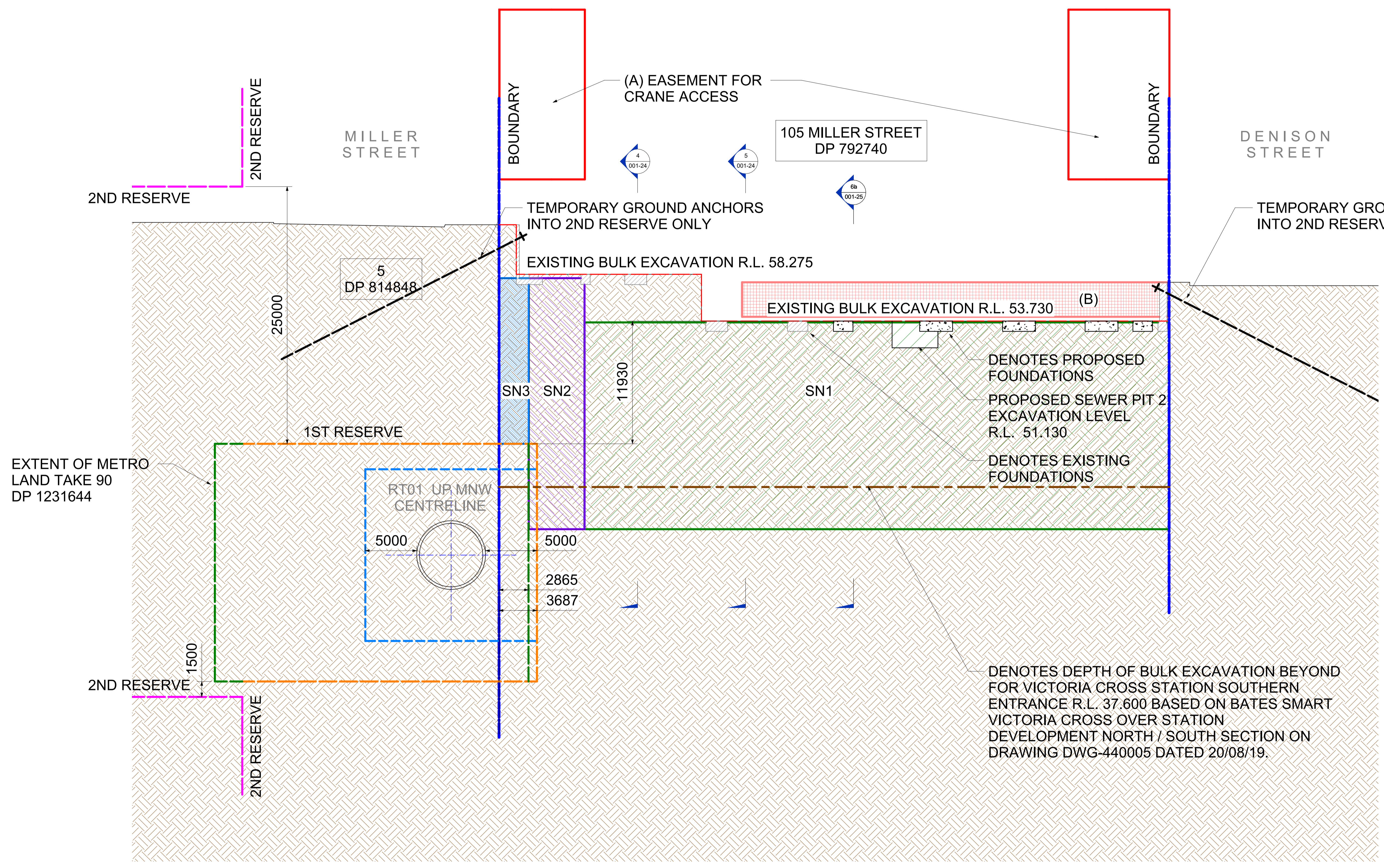
DRAWING NUMBER REV.
ST-001-08 2

SITE METRO PROTECTION ZONES - FINAL STAGE PLAN - EDUCATIONAL SCHEME

SCALE: 1 : 200

- EASEMENT LEGEND**
-  DENOTES SN1 EASEMENT
 -  DENOTES SN2 EASEMENT
 -  DENOTES SN3 EASEMENT
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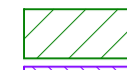
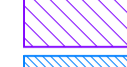
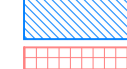
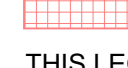
DENOTES DEPTH OF BULK EXCAVATION BEYOND FOR VICTORIA CROSS STATION SOUTHERN ENTRANCE R.L. 37.600 BASED ON BATES SMART VICTORIA CROSS OVER STATION DEVELOPMENT NORTH / SOUTH SECTION ON DRAWING DWG-440005 DATED 20/08/19.

NOTE:
EXISTING AND PROPOSED STRUCTURE ABOVE THE EXCAVATION LEVELS NOT SHOWN

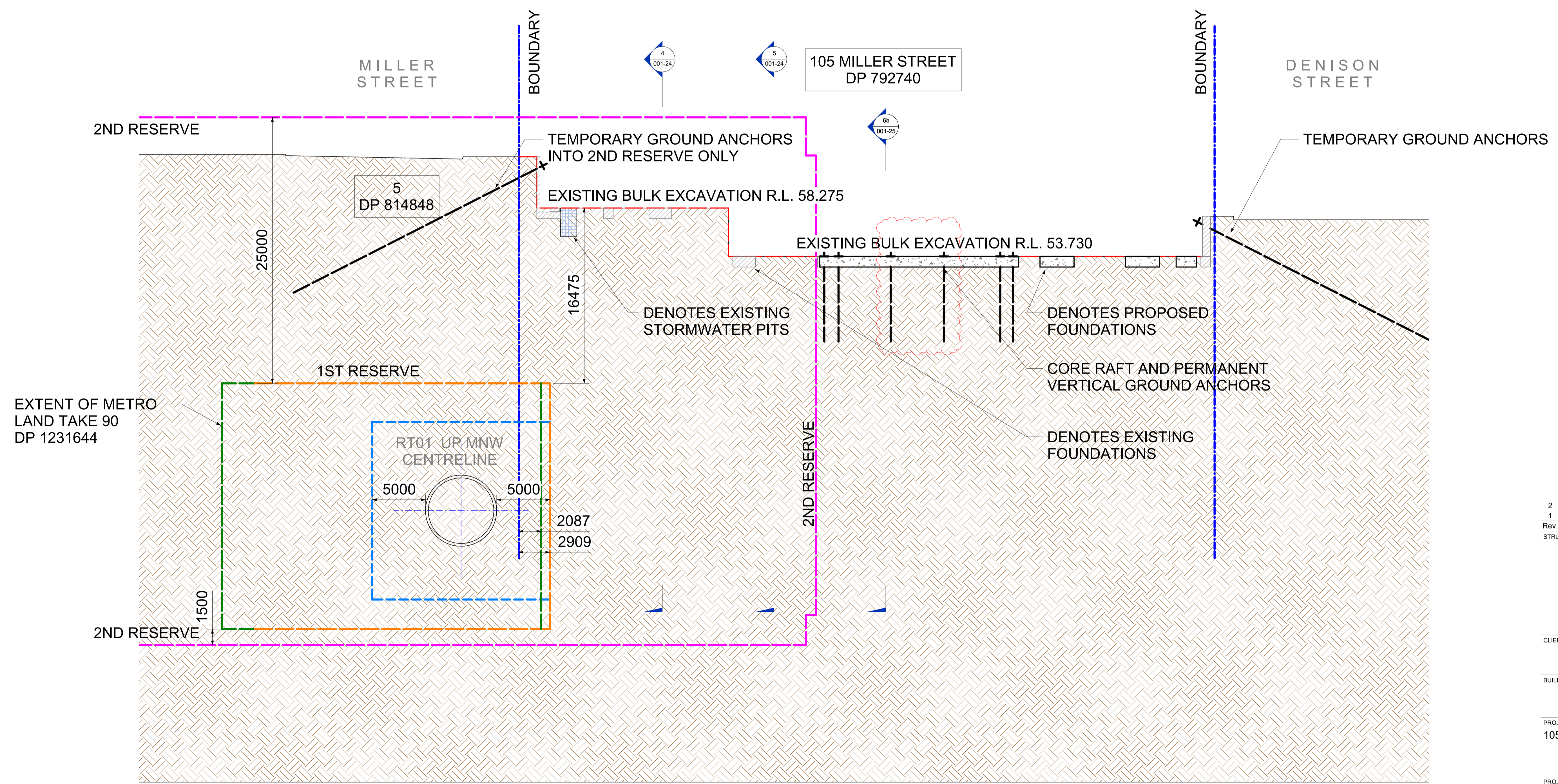
SECTION 1
1 : 200

1	03.07.25	FOR APPROVAL
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CLIENT		
BUILDER		
PROJECT NAME	105 MILLER STREET	
PROJECT NUMBER:	214031	
DRAWING TITLE	SITE METRO PROTECTION ZONES - SECTIONS SHEET 1	
SCALE AT A1:	1 : 200	
DRAWN BY:	J.D.B.	
CHECKED BY:	T.B.B.	
DRAWING STATUS	FOR INFORMATION	
DRAWING NUMBER	REV.	
ST-001-21	1	

EASEMENT LEGEND

	DENOTES SN1 EASEMENT
	DENOTES SN2 EASEMENT
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	DENOTES (B) EASEMENT

THIS LEGEND IS BASED ON THE "DRAFT" PLAN OF ACQUISITION OF EASEMENT FOR RAILWAY PURPOSES OVER PART OF LOT 2 IN DP792740 AS WELL AS THE EXISTING EASEMENTS. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE APPROPRIATE SURVEY INFORMATION



2	24.07.25	FOR APPROVAL
1	03.07.25	FOR APPROVAL
Rev.	Date	Description

STRUCTURAL / CIVIL CONSULTANT

 680 George st, Sydney NSW 2000 Australia
 9272 5100
<http://www.wsp.com>

CLIENT _____
 BUILDER _____
 PROJECT NAME
105 MILLER STREET

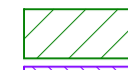
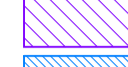
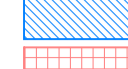
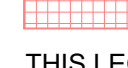
PROJECT NUMBER: 214031
 DRAWING TITLE
SITE METRO PROTECTION ZONES - SECTIONS SHEET 2

SCALE AT A1: 1 : 200
 DRAWN BY: J.D.B.
 CHECKED BY: T.B.B.
 DRAWING STATUS
FOR INFORMATION

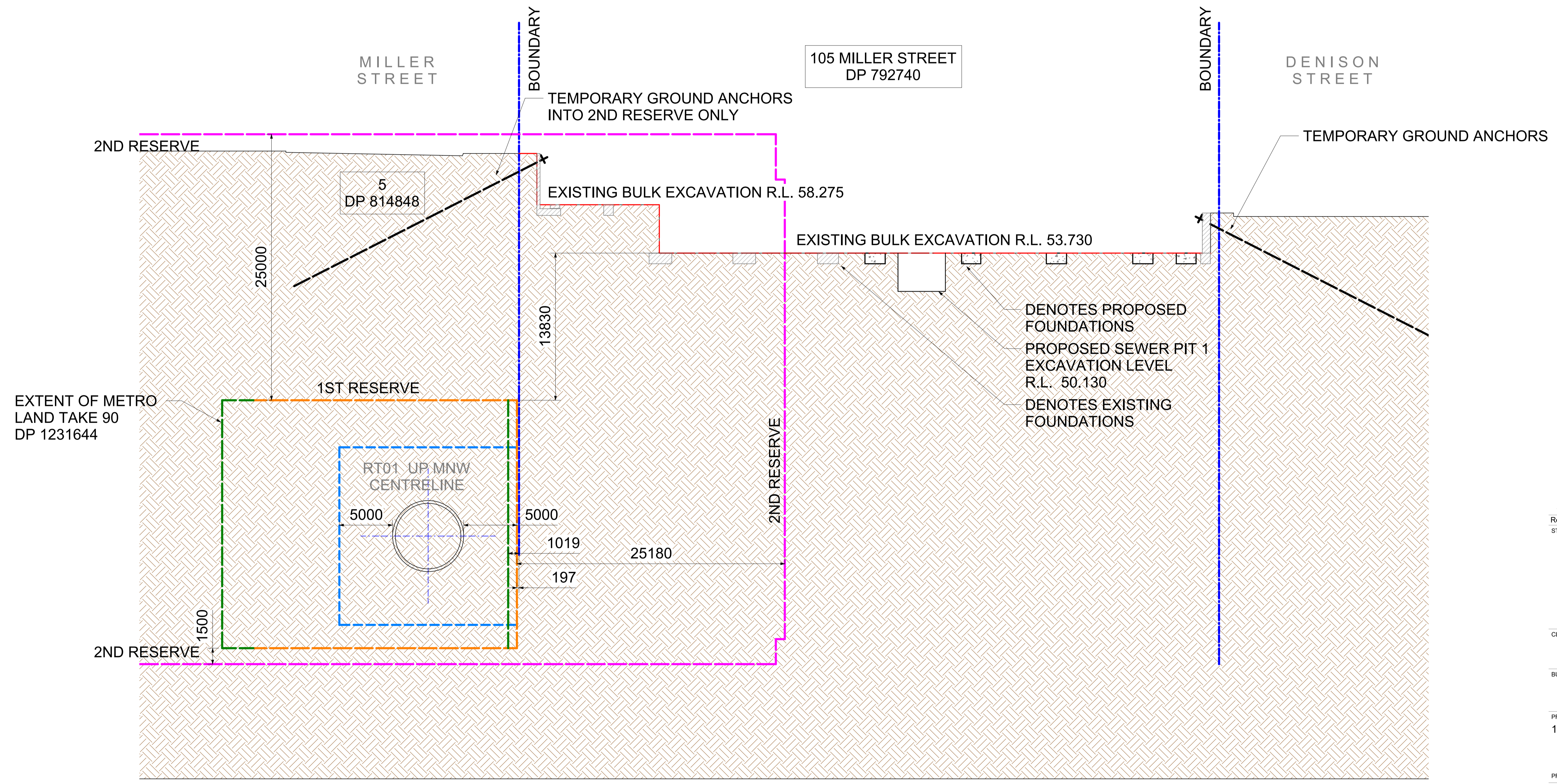
DRAWING NUMBER	REV.
ST-001-22	2

SECTION 2
 1 : 200

NOTE:
 EXISTING AND PROPOSED STRUCTURE ABOVE THE EXCAVATION LEVELS NOT SHOWN

- EASEMENT LEGEND**
-  DENOTES SN1 EASEMENT
 -  DENOTES SN2 EASEMENT
 -  DENOTES SN3 EASEMENT
 -  DENOTES (B) EASEMENT

THIS LEGEND IS BASED ON THE "DRAFT" PLAN OF ACQUISITION OF EASEMENT FOR RAILWAY PURPOSES OVER PART OF LOT 2 IN DP792740 AS WELL AS THE EXISTING EASEMENTS. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE APPROPRIATE SURVEY INFORMATION



SECTION 3
1 : 200

NOTE:
EXISTING AND PROPOSED STRUCTURE ABOVE THE EXCAVATION LEVELS NOT SHOWN

1 03.07.25 FOR APPROVAL
Rev. Date Description
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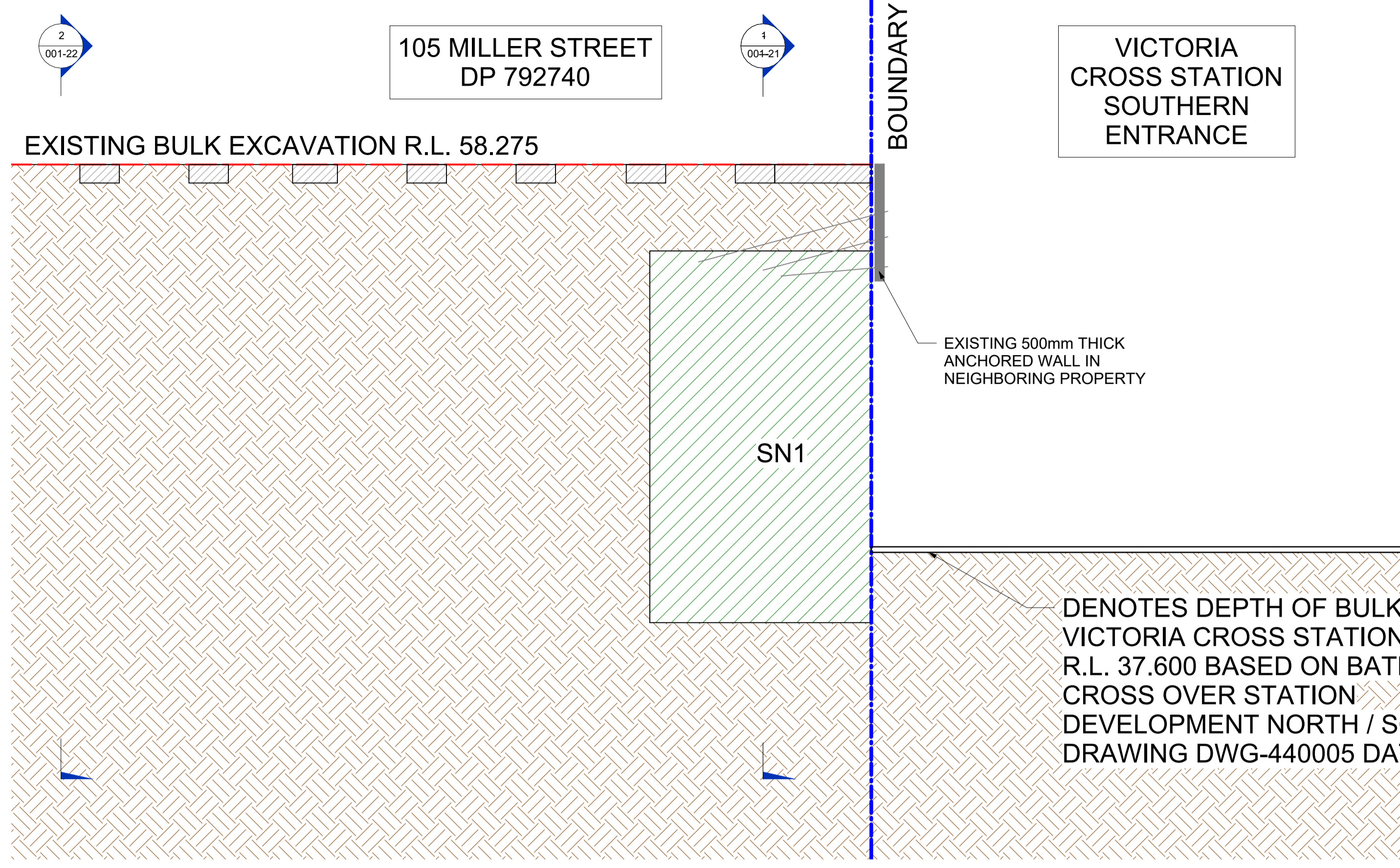
BUILDER

PROJECT NAME
105 MILLER STREET

PROJECT NUMBER: 214031
DRAWING TITLE
SITE METRO PROTECTION ZONES - SECTIONS SHEET 3

SCALE AT A1: 1 : 200
DRAWN BY: J.D.B.
CHECKED BY: T.B.B.
DRAWING STATUS
FOR INFORMATION

DRAWING NUMBER REV.
ST-001-23 1



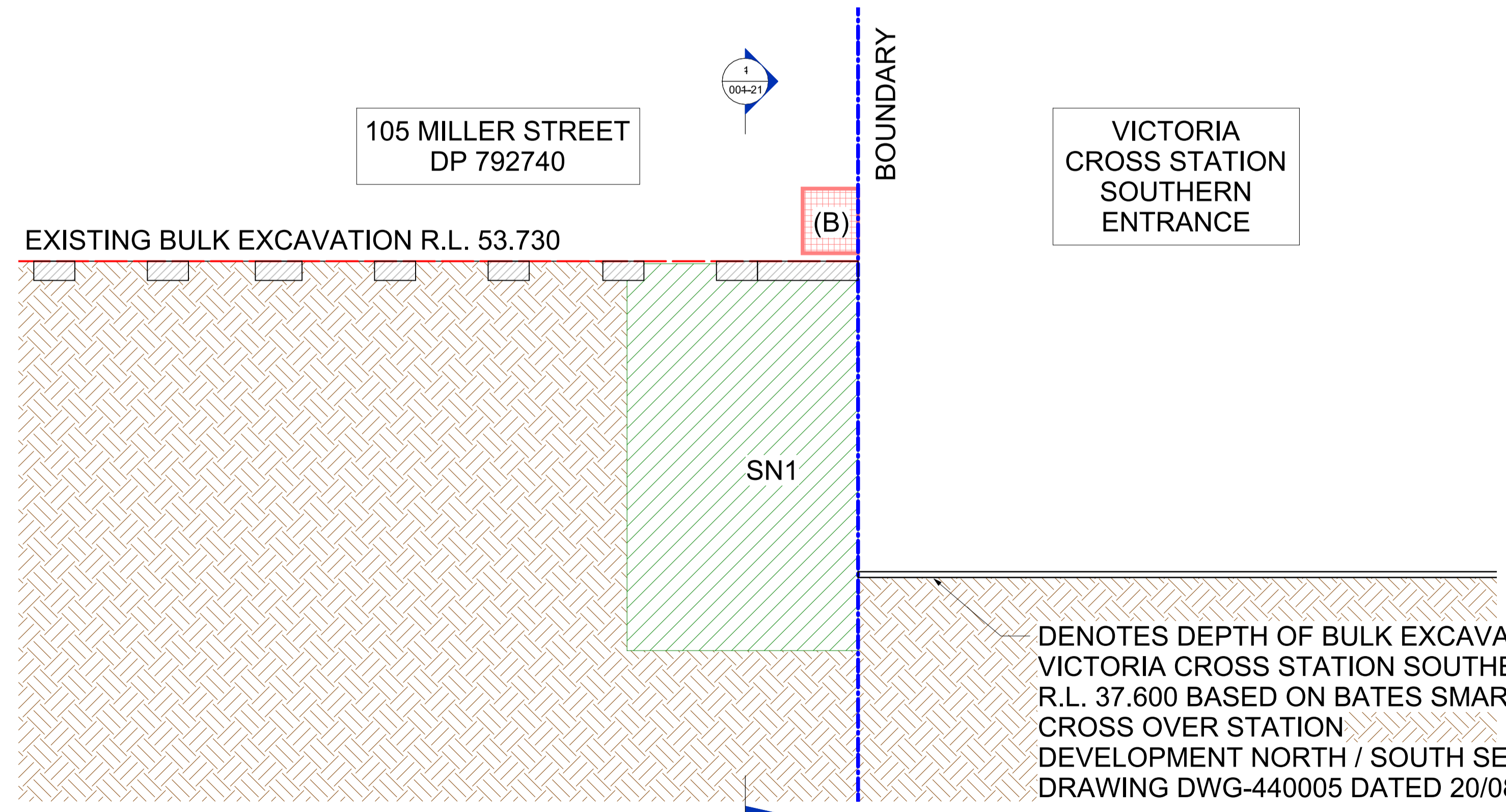
EASEMENT LEGEND

- DENOTES SN1 EASEMENT
- DENOTES SN2 EASEMENT
- DENOTES SN3 EASEMENT
- DENOTES (B) EASEMENT

THIS LEGEND IS BASED ON THE "DRAFT" PLAN OF ACQUISITION OF EASEMENT FOR RAILWAY PURPOSES OVER PART OF LOT 2 IN DP792740 AS WELL AS THE EXISTING EASEMENTS. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE APPROPRIATE SURVEY INFORMATION

SECTION 4
1 : 200

NOTE:
EXISTING AND PROPOSED STRUCTURE ABOVE THE EXCAVATION LEVELS NOT SHOWN



SECTION 5
1 : 200

NOTE:
EXISTING AND PROPOSED STRUCTURE ABOVE THE EXCAVATION LEVELS NOT SHOWN

1 03.07.25 FOR APPROVAL
Rev. Date Description
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CLIENT

BUILDER

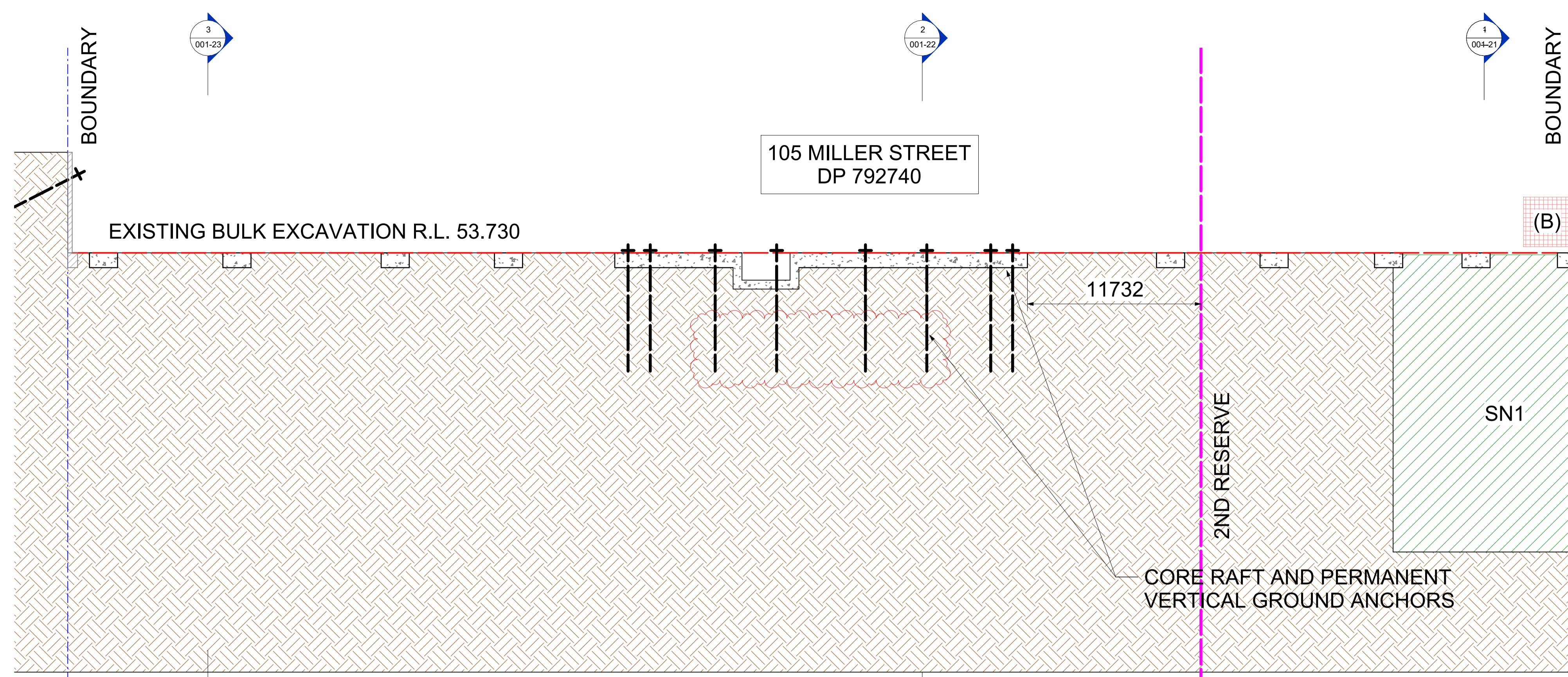
PROJECT NAME
105 MILLER STREET

PROJECT NUMBER: 214031
DRAWING TITLE
SITE METRO PROTECTION ZONES - SECTIONS SHEET 4

SCALE AT A1: 1 : 200
DRAWN BY: LDT
CHECKED BY: T.B.B.

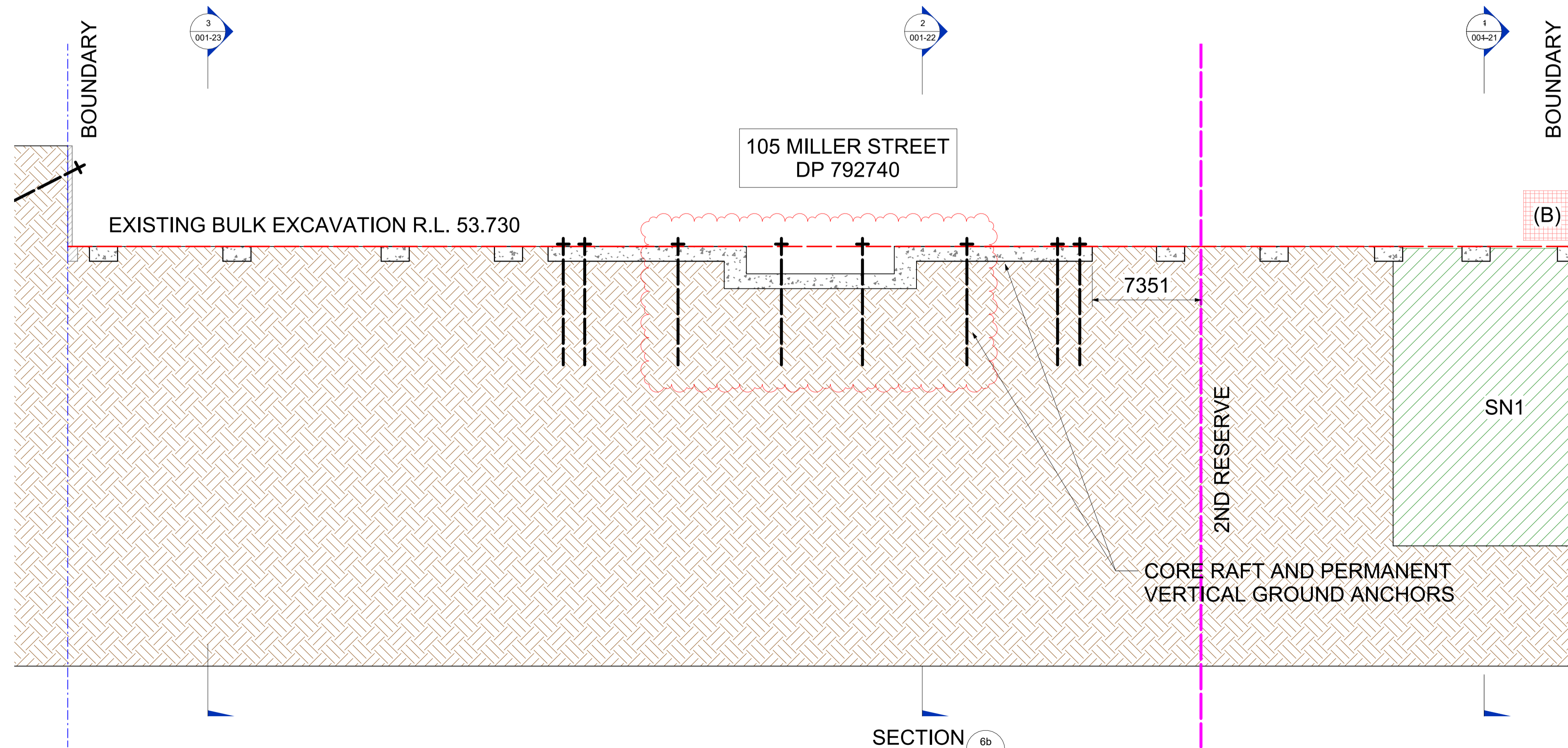
DRAWING STATUS
FOR INFORMATION

DRAWING NUMBER REV.
ST-001-24 1



SECTION 6a
1:200

FINAL STAGE - COMMERCIAL SCHEME



SECTION 6b
1:200

FINAL STAGE - EDUCATIONAL SCHEME

NOTE:
EXISTING AND PROPOSED STRUCTURE ABOVE THE
EXCAVATION LEVELS NOT SHOWN

EASEMENT LEGEND

- DENOTES SN1 EASEMENT
- DENOTES SN2 EASEMENT
- DENOTES SN3 EASEMENT
- DENOTES (B) EASEMENT

THIS LEGEND IS BASED ON THE "DRAFT" PLAN OF ACQUISITION OF EASEMENT FOR RAILWAY PURPOSES OVER PART OF LOT 2 IN DP792740 AS WELL AS THE EXISTING EASEMENTS. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE APPROPRIATE SURVEY INFORMATION

DENOTES DEPTH OF BULK EXCAVATION FOR VICTORIA CROSS STATION SOUTHERN ENTRANCE R.L. 37.600 BASED ON BATES SMART VICTORIA CROSS OVER STATION DEVELOPMENT NORTH / SOUTH SECTION ON DRAWING DWG-440005 DATED 20/08/19.

DENOTES DEPTH OF BULK EXCAVATION FOR VICTORIA CROSS STATION SOUTHERN ENTRANCE R.L. 37.600 BASED ON BATES SMART VICTORIA CROSS OVER STATION DEVELOPMENT NORTH / SOUTH SECTION ON DRAWING DWG-440005 DATED 20/08/19.

2	24.07.25	FOR APPROVAL
1	03.07.25	FOR APPROVAL
Rev.	Date	Description



680 George st, Sydney NSW 2000 Australia
9272 5100
<http://www.wsp.com>

CLIENT

BUILDER

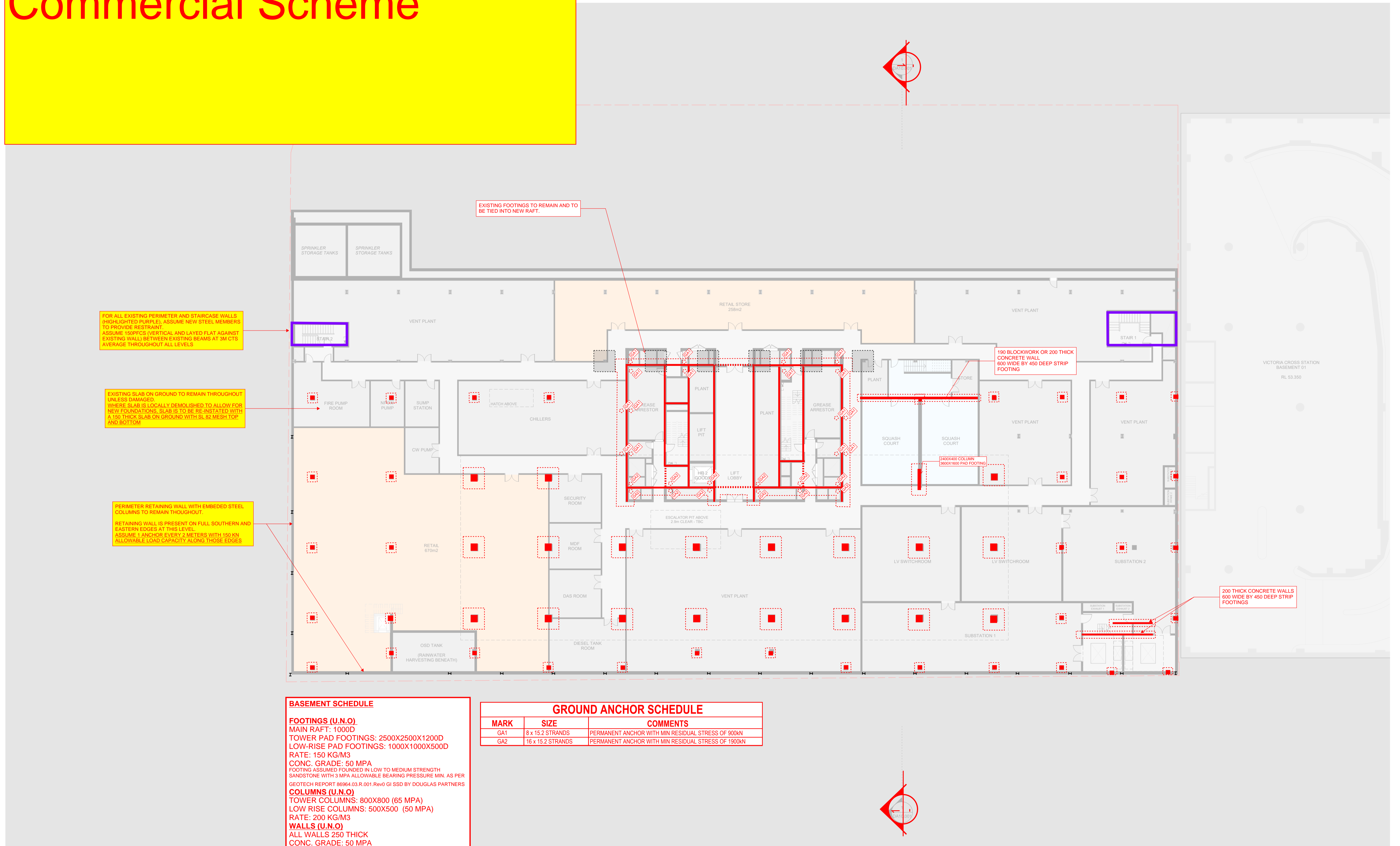
PROJECT NAME
105 MILLER STREET

PROJECT NUMBER: 214031
DRAWING TITLE
SITE METRO PROTECTION ZONES - SECTIONS SHEET 5

SCALE AT A1: 1:200
DRAWN BY: LDT
CHECKED BY: T.B.B.
DRAWING STATUS

FOR INFORMATION	
DRAWING NUMBER	REV.
ST-001-25	2

Commercial Scheme



FOR ALL EXISTING PERIMETER AND STAIRCASE WALLS (HIGHLIGHTED PURPLE), ASSUME NEW STEEL MEMBERS TO PROVIDE RESTRAINT. ASSUME 150PPCS (VERTICAL AND LAYED FLAT AGAINST EXISTING WALL) BETWEEN EXISTING BEAMS AT 3M CTS AVERAGE THROUGHOUT ALL LEVELS

EXISTING SLAB ON GROUND TO REMAIN THROUGHOUT UNLESS DAMAGED. WHERE SLAB IS LOCALLY DEMOLISHED TO ALLOW FOR NEW FOUNDATIONS, SLAB IS TO BE RE-INSTATED WITH A 150 THICK SLAB ON GROUND WITH SL 92 MESH TOP AND BOTTOM

PERIMETER RETAINING WALL WITH EMBEDDED STEEL COLUMNS TO REMAIN THROUGHOUT. RETAINING WALL IS PRESENT ON FULL SOUTHERN AND EASTERN EDGES AT THIS LEVEL. ASSUME 1 ANCHOR EVERY 2 METERS WITH 150 KN ALLOWABLE LOAD CAPACITY ALONG THOSE EDGES

EXISTING FOOTINGS TO REMAIN AND TO BE TIED INTO NEW RAFT.

190 BLOCKWORK OR 200 THICK CONCRETE WALL 600 WIDE BY 450 DEEP STRIP FOOTING

200X450 COLUMN 600X1600 PAD FOOTING

200 THICK CONCRETE WALLS 600 WIDE BY 450 DEEP STRIP FOOTINGS

BASEMENT SCHEDULE

FOOTINGS (U.N.O.)
 MAIN RAFT: 1000D
 TOWER PAD FOOTINGS: 2500X2500X1200D
 LOW-RISE PAD FOOTINGS: 1000X1000X500D
 RATE: 150 KG/M3
 CONC. GRADE: 50 MPA
 FOOTING ASSUMED FOUNDED IN LOW TO MEDIUM STRENGTH SANDSTONE WITH 3 MPA ALLOWABLE BEARING PRESSURE MIN. AS PER GEOTECH REPORT 86964.03.R.001.Rev0 GI SSD BY DOUGLAS PARTNERS

COLUMNS (U.N.O.)
 TOWER COLUMNS: 800X800 (65 MPA)
 LOW RISE COLUMNS: 500X500 (50 MPA)
 RATE: 200 KG/M3

WALLS (U.N.O.)
 ALL WALLS 250 THICK
 CONC. GRADE: 50 MPA
 RATE: 160 KG/M3

GROUND ANCHOR SCHEDULE

MARK	SIZE	COMMENTS
GA1	8 x 15.2 STRANDS	PERMANENT ANCHOR WITH MIN RESIDUAL STRESS OF 900kN
GA2	16 x 15.2 STRANDS	PERMANENT ANCHOR WITH MIN RESIDUAL STRESS OF 1900kN

DRAFT FOR COORDINATION

- Legend:**
- Commercial Additional Area
 - Commercial Existing Area
 - Circulation
 - Core and Plant
 - Retail Existing Area
 - Retail Additional Area
 - Event Space
 - Landscape / Roof

105 Miller Street

Proposed General Arrangement Plan
Basement



Check all dimensions and site conditions prior to commencement of any work, the purchase or ordering of any materials, fittings, plant, services or equipment and the preparation of shop drawings and/or the fabrication of any components.
Do not scale drawings - refer to figured dimensions only. Any discrepancies shall immediately be referred to the architect for clarification.
All drawings may not be reproduced or distributed without prior permission from the architect.

Scale	1 : 200	@ A1
Drawn	Author	Checked Checker
Project no.	S12060.D	
Status	Project Status	
Plot Date	8/1/2024 5:24:56 PM	
Drawing no.	Revision	

DA03.0B1 B

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Bates Smart Architects Pty Ltd ABN 68 094 740 986
NSW Nominated Responsible Architects: Kellie Payne Reg. 6454 / Philip Vivian Reg. 6696 / Guy Lake Reg. 7119 / Matthew Allen Reg. 8498

BATESSMART

Education Scheme

All areas shaded to be assumed the same as Commercial Scheme



General notes

- All dimensions and existing conditions shall be checked and verified by the contractor before proceeding with the work.
- All levels relative to Australian Height Datum.
- Do not scale drawings.
- Use figured dimensions only.

Legend

- Existing walls to be retained
- New Construction

Notes

Job No. PS214031	Draw No.	Rev.
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NO RETENTION ON WESTERN EDGE (VERTICAL ROCK CUT)

FOR ALL EXISTING PERIMETER AND STAIRCASE WALLS (HIGHLIGHTED PURPLE), ASSUME NEW STEEL MEMBERS TO PROVIDE RESTRAINT. ASSUME 150PP'S VERTICAL AND LAYED FLAT AGAINST EXISTING WALL BETWEEN EXISTING BEAMS AT 3M CTS AVERAGE THROUGHOUT ALL LEVELS

EXISTING SLAB ON GROUND TO REMAIN THROUGHOUT UNLESS DAMAGED WHERE SLAB IS LOCALLY DEMOLISHED TO ALLOW FOR NEW FOUNDATIONS. SLAB IS TO BE RE-INSTATED WITH R 150 THICK SLAB ON GROUND WITH SL 52 MESH TOP AND BOTTOM

PERIMETER RETAINING WALL WITH EMBEDDED STEEL COLUMNS TO REMAIN THROUGHOUT
RETAINING WALL IS PRESENT ON FULL SOUTHERN AND EASTERN EDGES AT THIS LEVEL. ASSUME 1 ANCHOR EVERY 2 METERS WITH 150 KN ALLOWABLE LOAD CAPACITY ALONG THOSE EDGES

EXISTING FOOTINGS TO REMAIN AND TO BE TIED INTO NEW RAFT

POTENTIAL BREAKTHROUGH LOCATION
REL 50.200

ASSUME LOAD-BEARING 100 BLOCKWORK WALLS TO SUPPORT ALL STAIRS AND RAMPS (AS SHOWN IN GREEN). ASSUMED DRILLED AND EPOXIED INTO EXISTING SLAB ON GROUND WITH NO SLAB DEMOLITION OR FOOTING REQUIRED. RATES BY KG/M3. NON LOAD-BEARING BLOCKWORK NOT SHOWN

800X200 BLADE COLUMN 800 WIDE X 450 DEEP STRIP FOOTING

BASEMENT SCHEDULE

FOOTINGS (U.N.O)
 MAIN RAFT: 1000D
 TOWER PAD FOOTINGS: 2500X2500X1200D
 LOW-RISE PAD FOOTINGS: 1000X1000X500D
 RATE: 150 KG/M3
 CONC. GRADE: 50 MPA
 FOOTING ASSUMED FOUND IN LOW TO MEDIUM STRENGTH SANDSTONE WITH 3 MPA ALLOWABLE BEARING PRESSURE MIN. AS PER GEOTECH REPORT 86964.03.R.001.Rev0 GI SSD BY DOUGLAS PARTNERS

COLUMNS (U.N.O)
 TOWER COLUMNS: 800X800 (65 MPA)
 LOW RISE COLUMNS: 500X500 (50 MPA)
 RATE: 200 KG/M3

WALLS (U.N.O)
 ALL WALLS 250 THICK
 CONC. GRADE: 50 MPA
 RATE: 160 KG/M3
 650D MIN HEADER BEAMS AT ALL DOORS AND CORRIDORS WHERE RED DASHED LINE IS SHOWN

GROUND ANCHOR SCHEDULE

MARK	SIZE	COMMENTS
GAT	8 x 15.2 STRANDS	PERMANENT ANCHOR WITH MIN RESIDUAL STRESS OF 900KN

Rev	Date	Description	By	CHK
01	10/10/2024	Final Construction		
02	10/10/2024	Rev Services Coordination		
03	10/10/2024	Rev Traffic & Signage Coordination Only		
04	10/10/2024	Revised		
05	10/10/2024	Final Construction		
06	10/10/2024	Final Construction		

Rev	Date	Description	By	CHK
01	10/10/2024	Final Construction		

105 MILLER ST
Cammeraygal Country
105 Miller St
North Sydney NSW 2060

GA Floor Plans - Proposed
Basement
Scale
1:250 @ A1

Project Code
NMS
First Issued
24/9/2024

Sheet No.
2181
Rev
07