

ESR Australia Pty Ltd
Level 13
39 Martin Place
Sydney, NSW 2000

Project 219609.02
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R.003.Rev0
RCB

Attention: Gannon Cuneo
Email: gannon.cuneo@esr.com

Report on Groundwater Review Proposed Industrial Development 49 Stephen Road, Banksmeadow

1. Introduction

- 1.1. This report presents the results of a groundwater review undertaken by Douglas Partners Pty Ltd (DP) for the proposed industrial development located at 49 Stephen Road, Banksmeadow. The review is in response to items raised by the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) in their correspondence dated 11 May 2026 (Ref: OUT26/5428). The review was requested by ESR Australia Pty Ltd (ESR), and targets close out responses to the items raised by DCCEEW.

2. Items Raised by DCCEEW

- 2.1. The items raised by DCCEEW (Water) are outlined in Table 1 together with references for the specific paragraphs within this report where our responses can be found.

Table 1: Items Raised by DCCEEW

DCCEEW Comment	Response Paragraph
DCCEEW Water – 1.0 Water Take and Licensing	
<u>1.1 Recommendation – pre determination</u> The DPHI requests the proponent to: Quantify the maximum annual volume of water take due to aquifer interference activities and demonstrate the ability to acquire sufficient water entitlement unless an exemption applies.	6.2, 6.4, 6.6, 6.8, 6.9
<u>1.2 Recommendation – pre determination</u> If water take is to occur, DPHI should request the proponent to identify the water supply work and provide an impact assessment to demonstrate eligibility for any exemption from requiring a water supply work approval under section 4.41 of the Environmental Planning and Assessment Act 1979.	7.1 to 7.5

<u>1.3 Recommendation – pre determination</u> The DPHI requests the proponent to: Obtain a water access licence (WAL) to account for the maximum predicted water take for construction and operation activities unless an exemption applies under the Water Management (General) Regulation 2025.	Not applicable
DCCEEW Water – 2.0 Groundwater Impact Assessment	
<u>2.1 Recommendation – pre determination</u> If the take of groundwater is found to be greater than 3 ML per year, DPHI should request the proponent to assess impacts due to aquifer interference activities in accordance with the NSW Aquifer Interference Policy and framework (2012).	Not applicable

3. Background

- 3.1. The proposed industrial development is situated on the eastern side of Stephen Road in Banksmeadow and has a second road frontage to Coal Pier Road on its eastern side. The development will be undertaken in one stage and will include the construction of two warehouse buildings, each two storeys high and joined by on-grade and suspended car parking and hardstand areas in between the buildings. Together, the warehouses will form one large complex comprising ten individual warehouse units of between 3,228 m² and 6,295 m².
- 3.2. The development will require bulk earthworks in terms of proposed site cut depths. Deep cuts are not proposed. Bulk excavations are isolated to two small areas, including:
 - 3.2.1. At the north-western part of the site, where excavations are associated with the removal of the existing raised entry ramp connecting to Stephen Road and adjoining raised garden bed. Excavations are generally less than 0.5 m deep along the ramp, increasing to about 1.5 m deep in the raised garden bed area. Excavations are only sufficient to lower this area down to the surrounding existing ground surface level.
 - 3.2.2. At the south western part of the site, where excavations are associated with the removal of the existing retaining walls along the eastern boundary that previously raised the ground surface level above the Coal Pier Road frontage. Excavations are generally less than 0.5 m deep, increasing to about 2.4 m deep at the highest point along the retaining wall, noting that the ground surface behind the wall slopes up, diminishing the wedged-shaped depth of the retained fill. Excavations are only sufficient to lower this area down to the surrounding existing ground surface levels that are equal to or higher than the adjoining Coal Pier Road pavement surface levels.
- 3.3. The development will require bulk earthworks in terms of proposed fill thicknesses. Deep fills are not proposed. Bulk filling will generally occur across the whole of the site with thicknesses typically ranging between 0.5 m and 2 m, although slightly thicker fill will be required to backfill existing site depressions (inside tank bunds) and to form the base of ramps that will lead to the proposed Level 1.
- 3.4. A comparison of existing site levels to those proposed as part of the industrial development confirms:

3.4.1. Existing ground surface levels throughout almost the whole site lie at a typical reduced level of RL 10, relative to Australian height datum (AHD). This level falls gently to RL 9 near the south-eastern corner where the entry ramp from Coal Pier Road enters the site.

3.4.2. Proposed ground surface levels throughout almost the whole site will lie at a typical reduced level of RL 11.9. This level falls to RL 10.0 and RL 9.08 within the car parking areas adjacent to Coal Pier Road, and to RL 10.3 near the north-western corner to match current levels at the base of the light vehicle entry ramp to Stephen Road.

3.5. In summary, the proposed development will result in minor filling of the site and localised excavations to remove ground that is currently present as fill forming ramps and retaining walls that are currently formed above the general surrounding ground surface levels. The proposed ground level warehouses will have finished floor levels at RL 11.9, approximately 1.9 m higher than current site levels.

3.6. The proposed development layout (warehouse ground floor plan, SBA Architects) is shown in Figure 1 and Drawing No. DA10.01, Issue 8, attached.

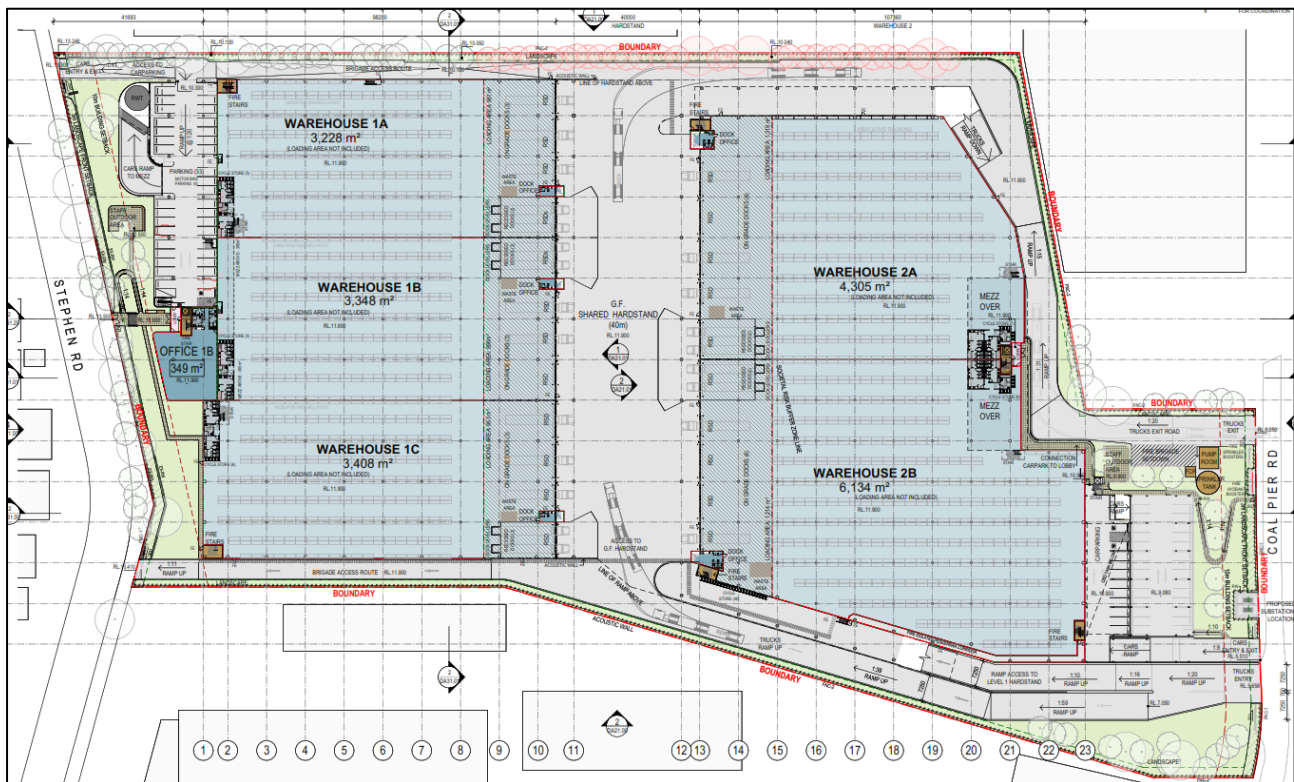


Figure 1: Proposed Development Layout

3.7. The proposed bulk earthworks plan (cut/fill plan, Costin Roe Consulting) is shown as Figure 2 (following page) and Drawing No. C014950.01-SSDA301, Issue G, attached.

3.8. The existing site condition is shown as Figure 3 (following page) as a current aerial image for the site with the NSW 2 m elevation contours overlain.

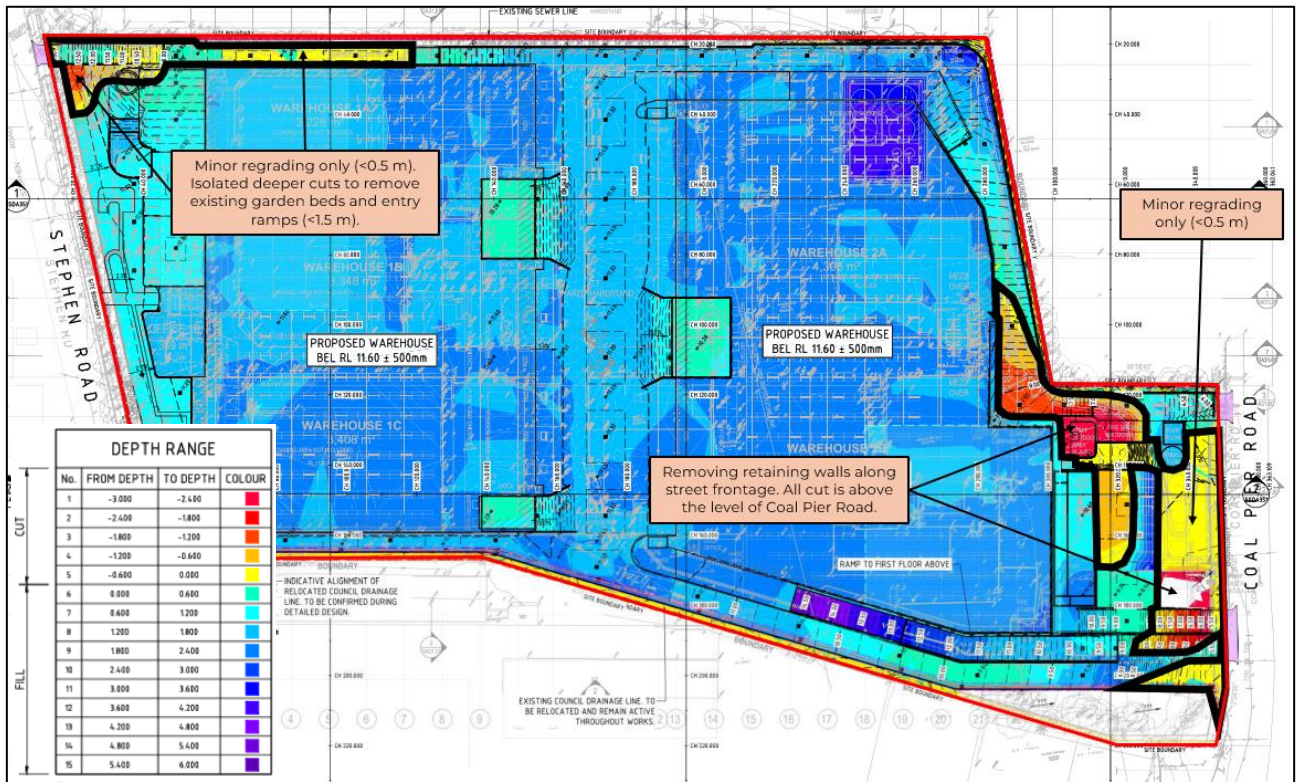


Figure 2: Proposed Bulk Earthworks Plan



Figure 3: Site Aerial Image overlain with NSW 2 m Elevation Contours

4. Site Description

- 4.1. The site is located at 49 Stephen Road, Banksmeadow and is bounded by:
- Industrial developments to the north and south.
 - Coal Pier Road to the east and industrial developments beyond.
 - Stephen Road to the west and residential developments beyond.
- 4.2. The site is also known as Lot A in deposited Plan 190526, Lot 1 in Deposited Plan 1095110, and Lot 1 in Deposited Plan 311767. The site is an irregular shaped area of approximately 4.8 hectares. Surface levels within the site are typically flat, falling gently from the Stephen Road site boundary at RL 12 to RL13 at the footpath reserve, to RL 10 inside the boundary and throughout the main site area, and down to RL 6 along the edge of Coal Pier Road. Existing ground surface levels are also presented on the survey drawings prepared by Beveridge Williams Surveyors, attached.
- 4.3. The site is currently occupied by a two-storey office building adjacent to Stephen Road, several single-storey warehouses and industrial and manufacturing plants distributed across the site with concrete pavements between them. Cut retaining walls of between 2 m and 3 m high are present along the Stephen Road boundary and fill retaining walls up to 3 m high are present along the Coal Pier Road boundary. Each are associated with previous cut and fill earthworks undertaken on the site as part of the current site developments. A grassed area with a lined basin lies adjacent to Coal Pier Road.
- 4.4. Geologically, the site is associated with broad and gently undulating land that is formed in coast deposits and dune facies. Reference to the Department of Regional New South Wales Seamless Geology mapping indicates that these deposits comprise fine to medium marine sand of Quaternary age. Reference to the Sydney 1:100,000 Soils Landscape Sheet indicates that the site is mapped as being underlain by aeolian Tuggerah soils (marine sands) for most of the site area with the eastern portion mapped as being underlain by disturbed terrain.

5. Previous Geotechnical Investigations

- 5.1. The whole of the site was subject to a detailed geotechnical investigation by DP in late 2023. Geotechnical investigations included the drilling of 10 boreholes (BH201 to BH210) using a truck-mounted drill rig and 24 cone penetration tests (CPT101 to CPT124) using a truck-mounted CPT rig. The boreholes were drilled to depths of between 19.7 m and 20.5 m and the CPTs were advanced to depths of between 12.8 m and 27.2 m, to identify the underlying soil profiles before terminating at their target investigation depths. The results were presented in our Report on Geotechnical Investigation (Ref: 219609.02.R.001.Rev1, dated 8 November 2024).
- 5.2. The results of the geotechnical investigation are attached in the form of a test location plan (Drawing No. 1) and borehole logs for boreholes BH201 to BH210. Groundwater levels encountered during drilling are noted on the borehole logs.
- 5.3. In addition to the geotechnical investigations, DP also completed a site investigation for contamination, the results of which were reported separately. The investigation also considered the results of several other reports by other consultants.

6. Known Groundwater Conditions

- 6.1. A review of the results of the geotechnical investigation undertaken in 2023 has shown that groundwater was encountered during drilling at nine of the ten boreholes (90%) and in 13 of the 24 CPT test holes (54%) on removal of the CPT rods. Collectively, this equates to 22 of the 34 test locations (65%).
- 6.2. Table 2 provides a summary of the test locations where groundwater was encountered during the geotechnical investigation.

Table 2: Summary of Groundwater Occurrences

Test Location	Surface RL (m AHD)	Groundwater Depth (m)	Groundwater RL (m AHD)	Date	Comments
BH201	10.0	4.9	5.1	6/9/2023	Seepage whilst drilling
BH202	10.0	5.7	4.3	1/9/2023	Seepage whilst drilling
BH203	9.9	5.0	4.9	5/9/2023	Seepage whilst drilling
BH204	9.9	5.0	4.9	4/9/2023	Seepage whilst drilling
BH206	9.8	5.0	4.8	8/9/2023	Seepage whilst drilling
BH207	9.7	5.5	4.2	31/8/2023	Seepage whilst drilling
BH208	10.0	5.3	4.7	30/8/2023	Seepage whilst drilling
BH209 (well)	10.1	5.8	4.3	14/9/2023	Measurement in well
BH210 (well)	8.7	4.4	4.3	14/9/2023	Measurement in well
CPT102	10.2	5.4	4.8	7/8/2023	On removal of CPT rods
CPT104	10.0	5.3	4.7	1/8/2023	On removal of CPT rods
CPT105	10.0	4.9	5.1	3/8/2023	On removal of CPT rods
CPT109	9.9	5	4.9	2/8/2023	On removal of CPT rods
CPT112	9.9	5	4.9	7/8/2023	On removal of CPT rods
CPT113	9.9	5.3	4.6	7/8/2023	On removal of CPT rods
CPT116	10.0	5.2	4.8	8/8/2023	On removal of CPT rods
CPT117	9.9	5.3	4.6	8/8/2023	On removal of CPT rods
CPT118	9.8	5.4	4.4	3/8/2023	On removal of CPT rods
CPT119	9.8	5	4.8	8/8/2023	On removal of CPT rods
CPT120	10.0	5.3	4.7	31/7/2023	On removal of CPT rods
CPT123	10.1	5.9	4.2	9/8/2023	On removal of CPT rods
CPT124	8.7	4.8	3.9	31/7/2023	On removal of CPT rods

- 6.3. The groundwater data presented in Table 2 shows that groundwater occurrences were spread across almost the whole site area. From this, it should be assumed that groundwater will be present below the whole of the site.

- 6.4. At all above locations, the groundwater surface was encountered at depths ranging between 4.4 m and 5.9 m below existing ground surface levels, averaging 5.2 m depth. These depths correspond to groundwater surface levels ranging between RL 3.9 and RL 5.1, averaging RL 4.6.
- 6.5. The results of the contamination assessment undertaken by DP included water level measurements read from existing and newly installed groundwater level monitoring wells on the site. Groundwater levels during the contamination investigation were typically recorded at depths of between 4 m and 6 m, consistent with the results of the geotechnical investigations. In addition, groundwater level data was extracted from contamination assessment reports prepared by others (JBS&G 2023 and AECOM 2024). Groundwater data was also obtained from Orica. The groundwater level data obtained from these reports is presented in Table 3.

Table 3: Summary of Groundwater Data (external data, 2023)

Groundwater Well	Recorded Date	Surface RL (AHD)	Groundwater Depth (m)	Groundwater RL (m AHD)
209	21/09/2023	10.07	5.82	4.25
	8/11/2023		7.34	2.73
210	21/09/2023	8.71	4.44	4.27
	8/11/2023		5.94	2.77
305	29/09/2023	10.04	5.08	4.96
305	21/09/2023	9.96	5.20	4.76
307	21/09/2023	10.12	5.15	4.97
	10/11/2023		5.26	4.86
311	20/09/2023	9.93	5.45	4.48
331	21/09/2023	10.04	5.90	4.14
	8/11/2023		5.99	4.05
334	21/09/2023	8.75	5.31	3.44
	8/11/2023		5.49	3.26
338	21/09/2023	9.89	5.10	4.79
	9/11/2023		5.23	4.66
JBMW01	20/09/2023	9.82	5.07	4.75
JBMW03	21/09/2023	10	5.27	4.73
JBMW04	21/09/2023	9.98	5.31	4.67
JBMW05	21/09/2023	9.87	5.46	4.41
	8/11/2023		5.56	4.31
JBMW06	20/09/2023	9.9	5.55	4.35

Groundwater Well	Recorded Date	Surface RL (AHD)	Groundwater Depth (m)	Groundwater RL (m AHD)
	9/11/2023		5.72	4.18
JBMW07	20/09/2023	9.92	5.55	4.37
	9/11/2023		5.68	4.24
JBMW10	20/09/2023	9.8	5.37	4.43
JBMW11	10/11/2023	9.94	5.66	4.28
JBMW12	21/09/2023	9.08	5.01	4.07
	8/11/2023		5.10	3.98
JBMW13	20/09/2023	9.73	5.65	4.08
	8/11/2023		5.75	3.98
MW09	9/11/2023	9.97	5.25	4.72
MW11	20/09/2023	9.89	5.53	4.36
MW18	10/11/2023	10.03	5.22	4.81
MW32-S	9/11/2023	9.99	5.27	4.72
MW40-S	22/09/2023	9.83	5.50	4.33
	9/11/2023		5.60	4.23
MW40-D	22/09/2023	9.83	5.51	4.32
MW41-S	22/09/2023	9.83	5.43	4.40
MW41-D	22/09/2023	9.83	5.49	4.34

6.6. At all above locations, the groundwater surface was encountered at depths ranging between 4.4 m and 7.3 m below existing ground surface levels, averaging 5.5 m depth. These depths correspond to groundwater surface levels ranging between RL 2.7 and RL 5.0, averaging RL 4.3. These results are highly consistent with the results of the geotechnical investigation outlined in paragraph 6.2 and presented in Table 2. The locations of the groundwater wells listed in Table 2 are shown on Drawing 6b, attached.

6.7. Additional data from monitoring events undertaken by JBS&G and AECOM were also received and covered the period from November 2024 to September 2025. Data was recorded monthly. The groundwater level data obtained from these reports is presented in Table 4.

Table 4: Summary of Groundwater Data (external data, 2024-2025)

Groundwater Well	Recorded Date	Groundwater Depth (m)	Groundwater RL (AHD)
301	26/11/2024	4.656	5.229
	12/12/2024	4.625	5.260
	10/01/2025	4.741	5.144
	27/02/2025	4.785	5.100
	18/03/2025	4.820	5.065
	16/04/2025	4.730	5.155
	14/05/2025	4.613	5.272
	12/06/2025	4.502	5.383
	22/09/2025	4.128	5.757
306	26/11/2024	4.675	5.210
	12/12/2024	4.643	5.242
	10/01/2025	4.742	5.143
	27/02/2025	4.802	5.083
	18/03/2025	4.836	5.049
	16/04/2025	4.736	5.149
	14/05/2025	4.694	5.191
	12/06/2025	4.874	5.011
	16/07/2025	4.543	5.342
	22/09/2025	4.141	5.744
308	26/11/2024	4.606	5.279
	12/12/2024	4.582	5.303
	10/01/2025	4.672	5.213
	27/02/2025	5.833	4.052
	18/03/2025	4.758	5.127
	15/04/2025	4.688	5.197
	14/05/2025	4.542	5.343
	12/06/2025	4.432	5.453
	16/07/2025	4.465	5.420
	22/09/2025	4.091	5.794
309	12/12/2024	4.619	5.266
	12/06/2025	4.478	5.407

Groundwater Well	Recorded Date	Groundwater Depth (m)	Groundwater RL (AHD)
	22/09/2025	4.131	5.754
312	26/11/2024	4.754	5.131
	12/12/2024	4.906	4.979
	10/01/2025	4.970	4.915
	27/02/2025	5.020	4.865
	18/03/2025	4.968	4.917
	15/04/2025	4.800	5.085
	14/05/2025	4.873	5.012
	12/06/2025	4.753	5.132
	16/07/2025	4.707	5.178
	22/09/2025	4.388	5.497
314	26/11/2024	4.718	5.167
	12/12/2024	4.685	5.200
	10/01/2025	4.780	5.105
	27/02/2025	4.84	5.045
	18/03/2025	4.873	5.012
	15/04/2025	4.795	5.090
	14/05/2025	4.643	5.242
	12/06/2025	4.538	5.347
	16/07/2025	4.590	5.295
	23/09/2025	4.202	5.683
315	26/11/2024	4.902	4.983
	12/12/2024	4.925	4.960
	10/01/2025	5.02	4.865
	27/02/2025	5.045	4.840
	18/03/2025	5.106	4.779
	15/04/2025	5.012	4.873
	14/05/2025	4.902	4.983
	12/06/2025	4.782	5.103
	16/07/2025	4.030	5.855
	23/09/2025	4.399	5.486
IW01	26/11/2024	4.547	5.338

Groundwater Well	Recorded Date	Groundwater Depth (m)	Groundwater RL (AHD)
	12/12/2024	4.501	5.384
	10/01/2025	4.607	5.278
	27/02/2025	4.665	5.220
	18/03/2025	4.685	5.200
	15/04/2025	4.615	5.270
	14/05/2025	4.447	5.438
	12/06/2025	4.365	5.520
	16/07/2025	4.390	5.495
	23/09/2025	4.060	5.825
IW02	26/11/2024	4.589	5.286
	13/12/2024	4.550	5.325
	10/01/2025	Dry	NM
	16/04/2025	4.640	5.235
	12/06/2025	4.412	5.463
	23/09/2025	4.110	5.765
IW04D	12/12/2024	4.653	5.217
	22/09/2025	4.151	5.719
MW05	12/12/2024	4.400	5.410
	22/09/2025	3.965	5.845
MW09	12/12/2024	4.672	5.213
	27/02/2025	4.842	5.043
	18/03/2025	4.866	5.019
	16/07/2025	4.585	5.270
	23/09/2025	4.158	5.697
MW10	26/11/2024	4.815	5.070
	13/12/2024	4.895	4.990
	10/01/2025	4.954	4.931
	27/02/2025	5.040	4.845
	18/03/2025	5.055	4.830
	15/04/2025	4.563	5.322
	14/05/2025	4.853	5.002
	12/06/2025	4.720	5.135

Groundwater Well	Recorded Date	Groundwater Depth (m)	Groundwater RL (AHD)
	16/07/2025	4.772	5.083
	22/09/2025	4.344	5.511
MW12	26/11/2024	4.625	5.215
	12/12/2024	4.628	5.212
	10/01/2025	4.706	5.134
	27/02/2025	4.784	5.056
	18/03/2025	4.785	5.055
	16/04/2025	4.673	5.167
	14/05/2025	4.558	5.282
	12/06/2025	4.470	5.370
	16/07/2025	4.505	5.335
	22/09/2025	4.139	5.701
MW13	26/11/2024	4.972	5.068
	12/12/2024	4.918	5.122
	10/01/2025	5.034	5.006
	27/02/2025	5.069	4.971
	18/03/2025	5.088	4.952
	15/04/2025	5.069	4.971
	14/05/2025	4.918	5.122
	12/06/2025	4.806	5.234
	16/07/2025	4.803	5.237
	23/09/2025	4.407	5.633
MW15	13/12/2024	4.610	5.135
	22/09/2025	4.391	5.354
MW16	13/12/2024	Dry	NM
	22/09/2025	Dry	NM
MW18	26/11/2024	4.662	5.238
	12/12/2024	4.613	5.287
	10/01/2025	4.722	5.178
	27/02/2025	4.790	5.110
	18/03/2025	4.822	5.078
	16/04/2025	4.740	5.160

Groundwater Well	Recorded Date	Groundwater Depth (m)	Groundwater RL (AHD)
	14/05/2025	4.650	5.250
	12/06/2025	4.502	5.398
	16/07/2025	4.542	5.358
	22/09/2025	4.124	5.776
MW21	1/06/2025	5.080	4.820
MW23	13/12/2024	5.180	4.705
	10/01/2025	Dry	NM
	27/02/2025	5.801	4.084
	14/05/2025	5.221	4.664
	16/07/2025	5.120	4.765
	22/09/2025	4.639	5.246
MW32D	12/12/2024	4.798	5.132
	23/09/2025	4.281	5.649
MW34D	26/11/2024	5.034	4.931
	12/12/2024	4.884	5.081
	10/01/2025	5.024	4.941
	27/02/2025	4.750	5.215
	18/03/2025	5.054	4.911
	15/04/2025	5.051	4.914
	14/05/2025	4.920	5.045
	12/06/2025	4.805	5.160
	23/09/2025	4.341	5.624
MW40S	13/12/2024	5.030	4.870
	16/07/2025	4.943	4.957
	22/09/2025	4.478	5.422
MW40D	13/12/2024	5.050	4.850
	16/07/2025	4.928	4.972
	22/09/2025	4.475	5.425
MW41D	13/12/2024	5.005	4.880
	12/06/2025	4.892	4.993
	16/07/2025	4.920	4.965
	22/09/2025	4.466	5.419

Groundwater Well	Recorded Date	Groundwater Depth (m)	Groundwater RL (AHD)
MW41S	13/12/2024	5.085	4.800
	10/01/2025	5.096	4.789
	27/02/2025	5.126	4.759
	18/03/2025	5.198	4.687
	12/06/2025	4.874	5.011
	16/07/2025	4.909	4.976
	22/09/2025	4.448	5.437
JBMW05	30/01/2025	5.150	4.720
JBMW06	30/01/2025	5.245	4.655
JBMW07	30/01/2025	5.225	4.695
JBMW12	30/01/2025	4.692	4.388
JBMW13	30/01/2025	5.290	4.440
JBMW14	30/01/2025	4.640	NM
JBMW15	30/01/2025	2.255	NM
DPMW01	30/01/2025	5.147	NM
DPMW02	30/01/2025	5.590	NM

6.8. At all above locations, the groundwater surface was encountered at depths ranging between 2.3 m and 5.8 m below existing ground surface levels, averaging 4.7 m depth. These depths correspond to groundwater surface levels ranging between RL 4.1 and RL 5.9, averaging RL 5.2. These results are highly consistent with the results of the geotechnical investigation outlined in paragraph 6.2 and presented in Table 2, and the earlier JBS&G and AECOM results presented in paragraph 6.6 and presented in Table 3. The locations of the groundwater wells listed in Table 4 are shown on the attached AECOM Figures 2 and F1, and JBS&G Figure 3, attached.

6.9. A review of the WaterNSW database indicates several registered bores on the site. Most do not provide groundwater level data. However, groundwater bore (License 10BL604407) provided a standing water levels of 5.3 m below the ground surface, as noted during drilling on 8 December 2010, consistent with all above data. The water level is logged within sand.

6.10. It is considered that the groundwater encountered in all data sets is a permanent water table present at depths typically between 4 m and 6 m below the existing ground surface. Given the number of measurements recorded by multiple consultants over a period of July 2023 to September 2025, together with historical bore data from 2010, the groundwater level data can be considered representative of the long-term ground conditions affecting the site.

7. Review Findings

7.1. Based on the results of the geotechnical review of groundwater conditions on the 49 Stephen Road, Banksmeadow site, it is evident that all groundwater previously

encountered within the property over a considerable period (2010 to 2025) occurred at reduced levels of RL 5.9 or lower. Further the water level within the registered bore on site was at 5.3 m depth below a ground surface level of RL 10.0, correlating to RL 4.7. With reference to the limited bulk excavation depths proposed for the development, and considering that all excavations are localised, isolated and extend down only to the adjoining current ground surface levels, it is apparent that the base of all bulk excavations will lie at least 3 m to 4 m above the measured groundwater levels, increasing to 5 m to 6 m following the placement of fill.

- 7.2. Considering the development will be supported on piles (driven or CFA), detailed excavations finished floor levels for lightly loaded shallow spread footings below will be limited and will likely lie within the depth range of the additional 1.9 m of fill that will be placed during bulk earthworks. Accordingly, detailed excavations will not intersect the groundwater table.
- 7.3. It is understood that services installation depths are not expected to be deeper than 2 m to 3 m below proposed finished surface levels. As these are typically 1.9 m above existing surface levels, services are unlikely to be deeper than about 1 m below current site levels. Accordingly, service installations are unlikely to intersect the groundwater table.
- 7.4. Based on the review, it is considered that the underlying groundwater table is unlikely to be intersected during the proposed development. Accordingly, there should be no need for the assessment of groundwater take. Similarly, there is no need for a water access licence for this development.
- 7.5. Water levels will fluctuate with weather, climate and other factors. Whilst there is always some chance that groundwater levels may fluctuate, based on the results of the investigations undertaken on the site by DP and others, it is anticipated that even if the groundwater levels were to rise by a highly conservative 1 m to 2 m range, the resulting groundwater level would still remain well below the depth of influence of the proposed development.
- 7.6. Supporting documentation is attached, including a test location plan, log descriptions sheets, development drawings and drawings by external consultants referenced herein.
- 7.7. In addition, it is understood that the civil works (i.e. bulk earthworks) to be undertaken on the site will utilise existing or proposed lined basins to store water for use during earthworks.

8. Limitations

- 8.1. Douglas Partners Pty Ltd (DP) has prepared this report for this project at 49 Stephen Road, Banksmeadow in accordance with instructions received from Gannon Cuneo of ESR Australia Pty Ltd. The work was carried out under DP's Engagement Terms. This report is provided for the exclusive use of ESR Australia Pty Ltd for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of DP, does so entirely at its own risk and without recourse to DP for any loss or damage. In preparing this report DP has necessarily relied upon information provided by the client and/or their agents.
- 8.2. The results provided in the report are indicative of the sub-surface conditions on the site only at the specific sampling and/or testing locations, and then only to the depths investigated and at the time the work was carried out. Sub-surface conditions can change abruptly due

to variable geological processes and also as a result of human influences. Such changes may occur after DP's field testing has been completed.

- 8.3. DP's advice is based upon the conditions encountered during our previous investigation undertaken across the site. The accuracy of the advice provided by DP in this report may be affected by undetected variations in ground conditions across the site between and beyond the sampling and/or testing locations. The advice may also be limited by budget constraints imposed by others or by site accessibility.
- 8.4. This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. DP cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion stated in this report.
- 8.5. This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by DP. This is because this report has been written as advice and opinion rather than instructions for construction.
- 8.6. Please contact the undersigned if you have any questions on this matter.

Yours faithfully

Douglas Partners Pty Ltd



Ray Blinman
Principal

Reviewed by



Scott Easton
Principal

Attachments: About this Report
Drawing No. DA10.01, Issue 8 (SBA Architects)
Drawing No. C014950.01-SSDA301, Issue G (Costin Roe Consulting)
Drawing Nos. 2201113, DET-001, RevA, Sheets 1 to 6 (Beveridge Williams)
Drawing No. 1 – Test Location Plan
Drawing Nos 2 to 7 – Interpreted Cross-Sections A-A' to F-F'
Borehole Logs – BH201 to BH210
Drawing No. 6b – Current Investigation, Groundwater Sampling Locations
AECOM Figures 2 and F1
JBS&G Figure 3

Introduction

These notes have been provided to amplify Douglas' report in regard to classification methods, field procedures and the comments section. Not all are necessarily relevant to all reports.

Douglas' reports are based on information gained from limited subsurface excavations and sampling, supplemented by knowledge of local geology and experience. For this reason, they must be regarded as interpretive rather than factual documents, limited to some extent by the scope of information on which they rely.

Copyright

This report is the property of Douglas Partners Pty Ltd. The report may only be used for the purpose for which it was commissioned and in accordance with the Engagement Terms for the commission supplied at the time of proposal. Unauthorised use of this report in any form whatsoever is prohibited.

Borehole and Test Pit Logs

The borehole and test pit logs presented in this report are an engineering and/or geological interpretation of the subsurface conditions, and their reliability will depend to some extent on frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will provide the most reliable assessment, but this is not always practicable or possible to justify on economic grounds. In any case the boreholes and test pits represent only a very small sample of the total subsurface profile.

Interpretation of the information and its application to design and construction should therefore take into account the spacing of boreholes or pits, the frequency of sampling, and the possibility of other than 'straight line' variations between the test locations.

Groundwater

Where groundwater levels are measured in boreholes there are several potential problems, namely:

- In low permeability soils groundwater may enter the hole very slowly or perhaps not at all during the time the hole is left open;
- A localised, perched water table may lead to an erroneous indication of the true water table;
- Water table levels will vary from time to time with seasons or recent weather

changes. They may not be the same at the time of construction as are indicated in the report; and

- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water measurements are to be made.

More reliable measurements can be made by installing standpipes which are read at intervals over several days, or perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from a perched water table.

Reports

The report has been prepared by qualified personnel, is based on the information obtained from field and laboratory testing, and has been undertaken to current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal, the information and interpretation may not be relevant if the design proposal is changed. If this happens, Douglas will be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface conditions, discussion of geotechnical and environmental aspects, and recommendations or suggestions for design and construction. However, Douglas cannot always anticipate or assume responsibility for:

- Unexpected variations in ground conditions. The potential for this will depend partly on borehole or pit spacing and sampling frequency;
- Changes in policy or interpretations of policy by statutory authorities; or
- The actions of contractors responding to commercial pressures.

If these occur, Douglas will be pleased to assist with investigations or advice to resolve the matter.

About this Report

Site Anomalies

In the event that conditions encountered on site during construction appear to vary from those which were expected from the information contained in the report, Douglas requests that it be immediately notified. Most problems are much more readily resolved when conditions are exposed rather than at some later stage, well after the event.

Information for Contractual Purposes

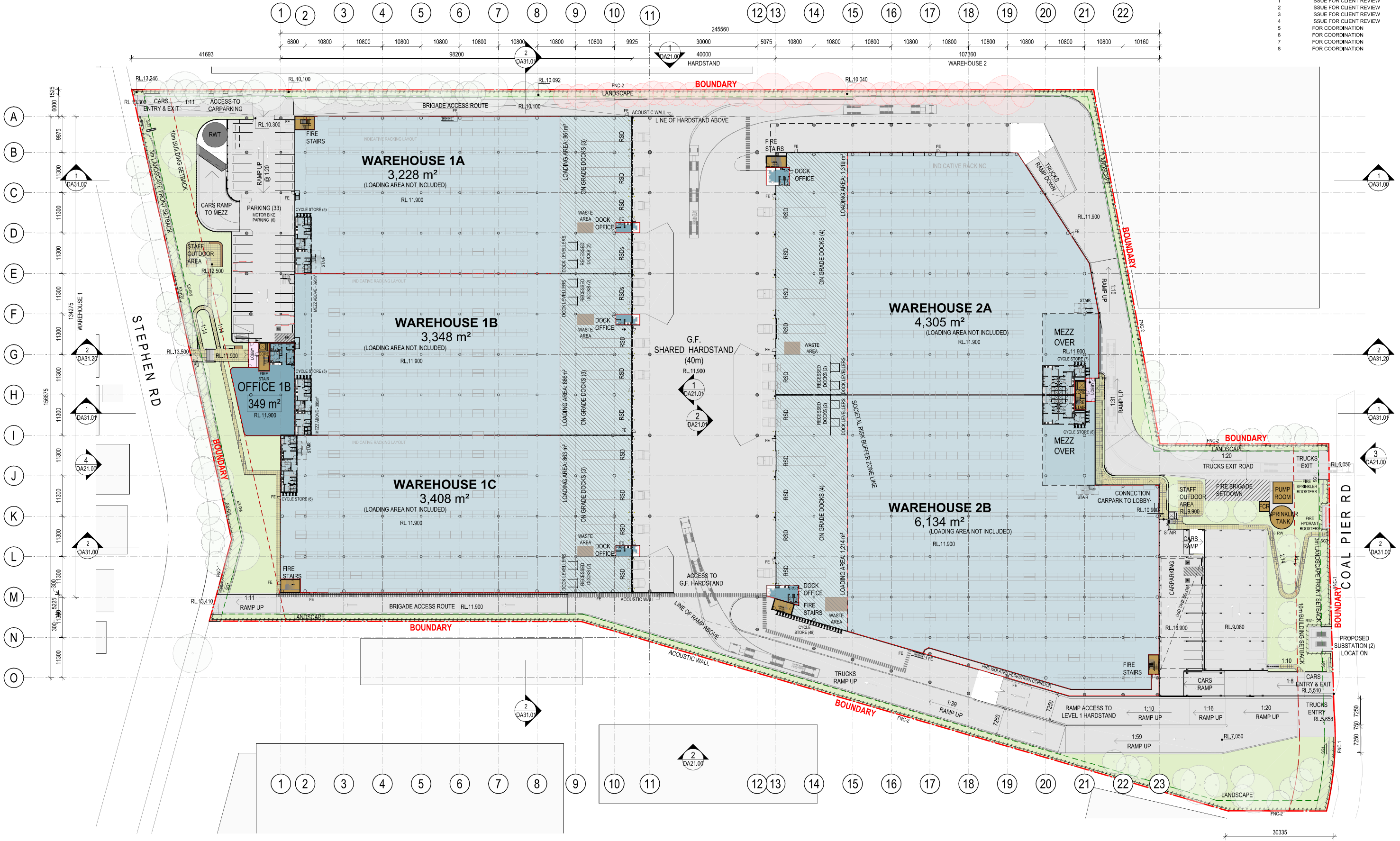
Where information obtained from this report is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. Douglas would be pleased to assist in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

Site Inspection

The company will always be pleased to provide engineering inspection services for geotechnical and environmental aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.

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REVISIONS		
REV	DESCRIPTION	DATE
1	ISSUE FOR CLIENT REVIEW	19/06/2025
2	ISSUE FOR CLIENT REVIEW	29/08/2025
3	ISSUE FOR CLIENT REVIEW	14/10/2025
4	ISSUE FOR CLIENT REVIEW	13/01/2026
5	FOR COORDINATION	18/01/2026
6	FOR COORDINATION	11/02/2026
7	FOR COORDINATION	18/02/2026
8	FOR COORDINATION	18/03/2026



GENERAL LEGEND:

COL-C - CONCRETE COLUMN
COL-S - STEEL COLUMN
RSD - ROLLER SHUTTER DOOR
DP - DOWNPIPES
FE - FIRE EXIT
RW - RETAINING WALL
TB - TURNING BAY

GEF - GROUND EXHAUST FAN
RWT - RAINWATER TANK
SEF - SMOKE EXHAUST FAN
SG1 - SLIDING GATE
SG2 - SWING GATE
SG3 - PEDESTRIAN SWING GATE
EX-RW - EXISTING RETAINING WALL

--- SITE BOUNDARY
--- BUILDING SETBACK
--- LANDSCAPE SETBACK
--- SOCIETAL RISK BUFFER ZONE

FNC-1 - PALISADE FENCE 2.4M (H)
FNC-2 - CHAINWIRE FENCE (2.1m H) + BARB
EXISTING TREES TO BE RETAINED

OFFICE AREA
WAREHOUSE AREA
FIRE SERVICES

LANDSCAPE AREA
LOBBY AREA
WASTE STORAGE AREA

NOTE:
REFER TO SITE PLAN DA01.20 FOR AREA SCHEDULE

FOR COORDINATION



ESR - 49 Stephen Rd Banksmeadow
49 stephen Road, Banksmeadow

0m 6.25 13 25m

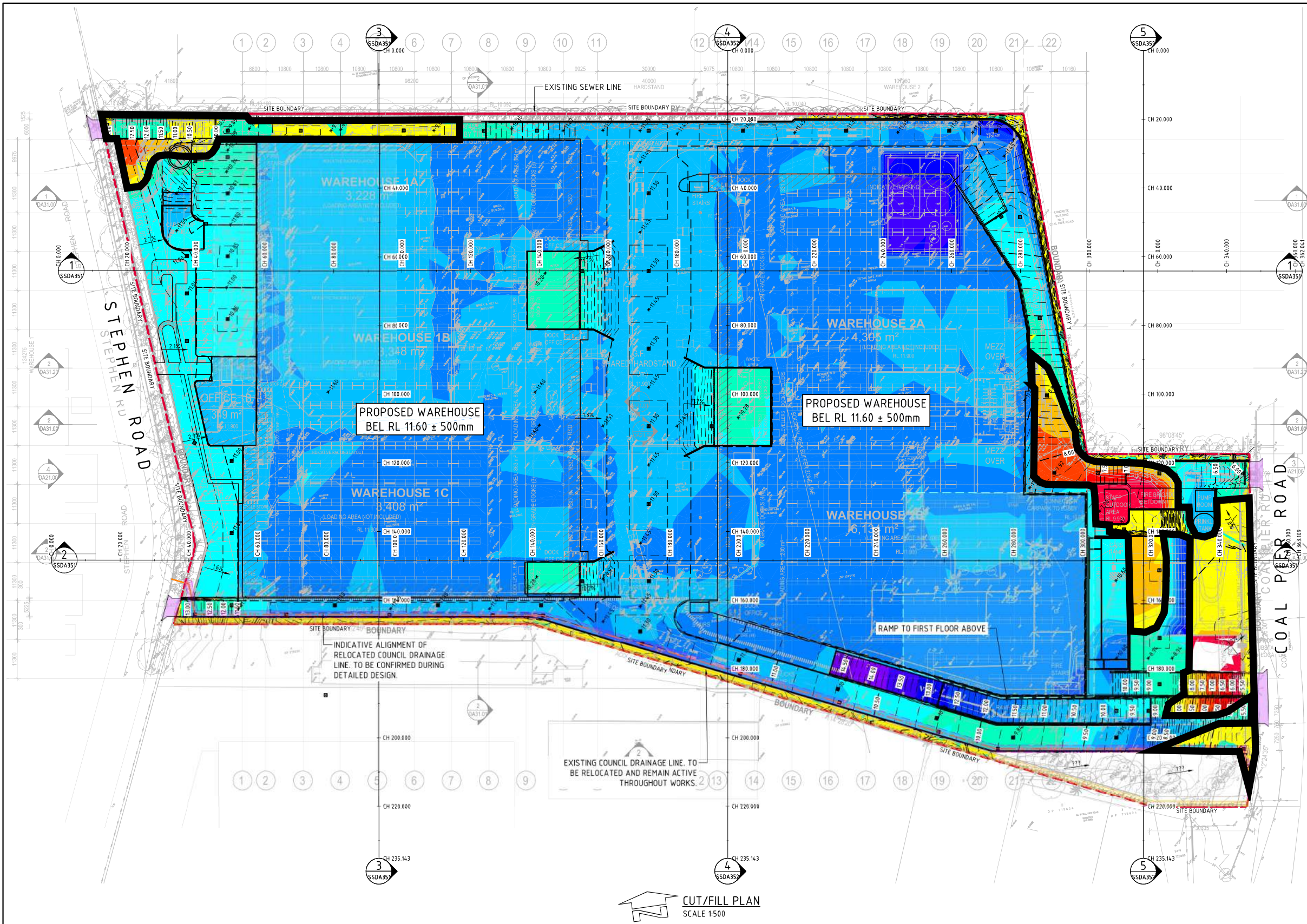
WAREHOUSE GF FLOOR PLAN

Date 18/03/2026

Scale As indicated@A1

Project No 25189

DA10.01 8



DEPTH RANGE			
No.	FROM DEPTH	TO DEPTH	COLOUR
1	-3.000	-2.400	Red
2	-2.400	-1.800	Orange
3	-1.800	-1.200	Yellow
4	-1.200	-0.600	Light Green
5	-0.600	0.000	Green
6	0.000	0.600	Light Blue
7	0.600	1.200	Blue
8	1.200	1.800	Dark Blue
9	1.800	2.400	Very Dark Blue
10	2.400	3.000	Black
11	3.000	3.600	Dark Purple
12	3.600	4.200	Medium Purple
13	4.200	4.800	Light Purple
14	4.800	5.400	Very Light Purple
15	5.400	6.000	White

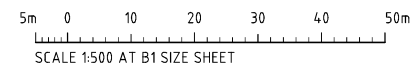
CUT/FILL PLAN
SCALE 1:500

LEVELS NOTE:

LEVELS SHOWN TO BE +/-500mm FROM THOSE SHOWN. FINAL LEVELS SUBJECT TO FINAL GEOTECHNICAL INVESTIGATIONS, ARCHITECTURAL LAYOUT AND ACHIEVING A CUT TO FILL EARTHWORKS BALANCE OVER THE PROPERTY.

CONTAMINATION NOTE:

CONTAMINATED MATERIAL ENCOUNTERED DURING THE WORKS SHALL BE MANAGED IN ACCORDANCE WITH THE CONTAMINATION MANAGEMENT PLAN, WHICH FORMS PART OF THE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN. A CAPPING LAYER CONSISTING OF CLEAN COMPACTED CLAY FILL (VENM ONLY) TO A MINIMUM DEPTH OF 1000mm IS TO BE PROVIDED OVER THE SITE SUBJECT TO ADVICE FROM ENVIRONMENTAL/CONTAMINATION SPECIALIST. CONTAMINATED MATERIAL CAN NOT BE REMOVED FOR OFF-SITE DISPOSAL.



FOR SSDA

ISSUED FOR INFORMATION	04.03.26	F		
ISSUED FOR SDA	03.02.26	E		
ISSUED FOR SDA	31.01.25	D		
ISSUED FOR SDA	09.12.24	C		
ISSUED FOR INFORMATION	18.10.24	B		
PRELIMINARY ONLY	08.10.24	A		
AMENDMENTS	DATE	ISSUE	AMENDMENTS	DATE



PROJECT
PROPOSED INDUSTRIAL DEVELOPMENT
49 STEPHEN ROAD, BANKSMEADOW,
NSW, 2019

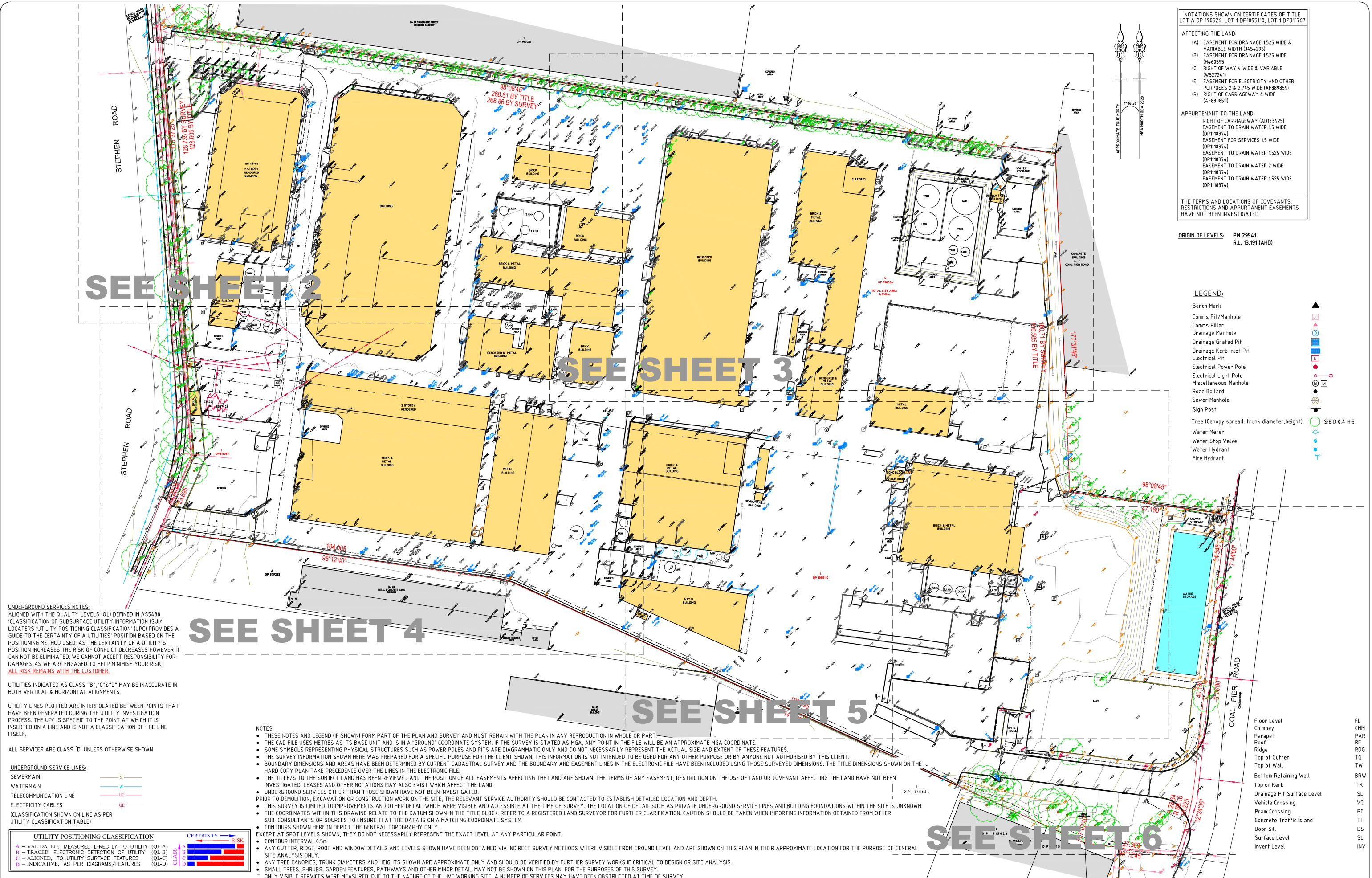
DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
CC	JB	SEP '24	DS	B1	AS SHOWN	C014950.01-SSDA301



Costin Roe Consulting Pty Ltd.
ABN 50 003 696 446
PO Box N419 Sydney NSW 1220
Level 4, 8 Windmill Street, Millers Point NSW 2000
p: +61 2 9251 7699 f: +61 2 9241 3731
e: mail@costinroe.com.au w: costinroe.com.au



DRAWING TITLE	CUT/FILL PLAN	ISSUE	G
DRAWING No	C014950.01-SSDA301		



NOTATIONS SHOWN ON CERTIFICATES OF TITLE
LOT A DP 190526, LOT 1 DP109510, LOT 1 DP311767

AFFECTING THE LAND:

(A) EASEMENT FOR DRAINAGE 1525 WIDE & VARIABLE WIDTH (J454295)
(B) EASEMENT FOR DRAINAGE 1525 WIDE (H460595)
(C) RIGHT OF WAY 4 WIDE & VARIABLE (W527241)
(E) EASEMENT FOR ELECTRICITY AND OTHER PURPOSES 2 & 2.745 WIDE (AF889859)
(R) RIGHT OF CARRIAGEWAY 4 WIDE (AF889859)

APPURTENANT TO THE LAND:

RIGHT OF CARRIAGEWAY (AD133425)
EASEMENT TO DRAIN WATER 1.5 WIDE (DP118374)
EASEMENT FOR SERVICES 1.5 WIDE (DP118374)
EASEMENT TO DRAIN WATER 1.525 WIDE (DP118374)
EASEMENT TO DRAIN WATER 2 WIDE (DP118374)
EASEMENT TO DRAIN WATER 1.525 WIDE (DP118374)

THE TERMS AND LOCATIONS OF COVENANTS, RESTRICTIONS AND APPURTENANT EASEMENTS HAVE NOT BEEN INVESTIGATED.

ORIGIN OF LEVELS: PM 29541
R.L. 13.191 (AHD)

LEGEND:

- Bench Mark
- Comms Pit/Manhole
- Comms Pillar
- Drainage Manhole
- Drainage Grated Pit
- Drainage Kerb Inlet Pit
- Electrical Pit
- Electrical Power Pole
- Electrical Light Pole
- Miscellaneous Manhole
- Road Bollard
- Sewer Manhole
- Sign Post
- Tree (Canopy spread, trunk diameter, height)
- Water Meter
- Water Stop Valve
- Water Hydrant
- Fire Hydrant

UNDERGROUND SERVICES NOTES:
ALIGNED WITH THE QUALITY LEVELS (QL) DEFINED IN AS5488
'CLASSIFICATION OF SUBSURFACE UTILITY INFORMATION (SUUI)',
LOCATORS 'UTILITY POSITIONING CLASSIFICATION' (UPC) PROVIDES A
GUIDE TO THE CERTAINTY OF A UTILITIES' POSITION BASED ON THE
POSITIONING METHOD USED. AS THE CERTAINTY OF A UTILITY'S
POSITION INCREASES THE RISK OF CONFLICT DECREASES HOWEVER IT
CAN NOT BE ELIMINATED. WE CANNOT ACCEPT RESPONSIBILITY FOR
DAMAGES AS WE ARE ENGAGED TO HELP MINIMISE YOUR RISK,
ALL RISK REMAINS WITH THE CUSTOMER.

UTILITIES INDICATED AS CLASS "B", "C" & "D" MAY BE INACCURATE IN
BOTH VERTICAL & HORIZONTAL ALIGNMENTS.

UTILITY LINES PLOTTED ARE INTERPOLATED BETWEEN POINTS THAT
HAVE BEEN GENERATED DURING THE UTILITY INVESTIGATION
PROCESS. THE UPC IS SPECIFIC TO THE POINT AT WHICH IT IS
INSERTED ON A LINE AND IS NOT A CLASSIFICATION OF THE LINE
ITSELF.

ALL SERVICES ARE CLASS 'D' UNLESS OTHERWISE SHOWN

UNDERGROUND SERVICE LINES:

SEWERMAIN S
WATERMAIN W
TELECOMMUNICATION LINE UC
ELECTRICITY CABLES UE

(CLASSIFICATION SHOWN ON LINE AS PER
UTILITY CLASSIFICATION TABLE)

UTILITY POSITIONING CLASSIFICATION

CERTAINTY RISK

CLASS

UTILITY POSITIONING CLASSIFICATION

UTILITY POSITIONING CLASSIFICATION

NOTES:

- THESE NOTES AND LEGEND (IF SHOWN) FORM PART OF THE PLAN AND SURVEY AND MUST REMAIN WITH THE PLAN IN ANY REPRODUCTION IN WHOLE OR PART.
- THE CAD FILE USES METRES AS ITS BASE UNIT AND IS IN A 'GROUND' COORDINATE SYSTEM. IF THE SURVEY IS STATED AS MGA, ANY POINT IN THE FILE WILL BE AN APPROXIMATE MGA COORDINATE.
- SOME SYMBOLS REPRESENTING PHYSICAL STRUCTURES SUCH AS POWER POLES AND PITS ARE DIAGRAMMATIC ONLY AND DO NOT NECESSARILY REPRESENT THE ACTUAL SIZE AND EXTENT OF THESE FEATURES.
- THE SURVEY INFORMATION SHOWN HERE WAS PREPARED FOR A SPECIFIC PURPOSE FOR THE CLIENT SHOWN. THIS INFORMATION IS NOT INTENDED TO BE USED FOR ANY OTHER PURPOSE OR BY ANYONE NOT AUTHORISED BY THIS CLIENT.
- BOUNDARY DIMENSIONS AND AREAS HAVE BEEN DETERMINED BY CURRENT CADASTRAL SURVEY AND THE BOUNDARY AND EASEMENT LINES IN THE ELECTRONIC FILE HAVE BEEN INCLUDED USING THOSE SURVEYED DIMENSIONS. THE TITLE DIMENSIONS SHOWN ON THE HARD COPY PLAN TAKE PRECEDENCE OVER THE LINES IN THE ELECTRONIC FILE.
- THE TITLE/S TO THE SUBJECT LAND HAS BEEN REVIEWED AND THE POSITION OF ALL EASEMENTS AFFECTING THE LAND ARE SHOWN. THE TERMS OF ANY EASEMENT, RESTRICTION ON THE USE OF LAND OR COVENANT AFFECTING THE LAND HAVE NOT BEEN INVESTIGATED. LEASES AND OTHER NOTATIONS MAY ALSO EXIST WHICH AFFECT THE LAND.
- UNDERGROUND SERVICES OTHER THAN THOSE SHOWN HAVE NOT BEEN INVESTIGATED.
- PRIOR TO DEMOLITION, EXCAVATION OR CONSTRUCTION WORK ON THE SITE, THE RELEVANT SERVICE AUTHORITY SHOULD BE CONTACTED TO ESTABLISH DETAILED LOCATION AND DEPTH.
- THIS SURVEY IS LIMITED TO IMPROVEMENTS AND OTHER DETAIL WHICH WERE VISIBLE AND ACCESSIBLE AT THE TIME OF SURVEY. THE LOCATION OF DETAIL SUCH AS PRIVATE UNDERGROUND SERVICE LINES AND BUILDING FOUNDATIONS WITHIN THE SITE IS UNKNOWN.
- THE COORDINATES WITHIN THIS DRAWING RELATE TO THE DATUM SHOWN IN THE TITLE BLOCK REFER TO A REGISTERED LAND SURVEYOR FOR FURTHER CLARIFICATION. CAUTION SHOULD BE TAKEN WHEN IMPORTING INFORMATION OBTAINED FROM OTHER SUB-CONSULTANTS OR SOURCES TO ENSURE THAT THE DATA IS ON A MATCHING COORDINATE SYSTEM.
- CONTOURS SHOWN HEREON DEPICT THE GENERAL TOPOGRAPHY ONLY.
- EXCEPT AT SPOT LEVELS SHOWN, THEY DO NOT NECESSARILY REPRESENT THE EXACT LEVEL AT ANY PARTICULAR POINT.
- CONTOUR INTERVAL 0.5m
- ANY GUTTER, RIDGE, ROOF AND WINDOW DETAILS AND LEVELS SHOWN HAVE BEEN OBTAINED VIA INDIRECT SURVEY METHODS WHERE VISIBLE FROM GROUND LEVEL AND ARE SHOWN ON THIS PLAN IN THEIR APPROXIMATE LOCATION FOR THE PURPOSE OF GENERAL SITE ANALYSIS ONLY.
- ANY TREE CANOPIES, TRUNK DIAMETERS AND HEIGHTS SHOWN ARE APPROXIMATE ONLY AND SHOULD BE VERIFIED BY FURTHER SURVEY WORKS IF CRITICAL TO DESIGN OR SITE ANALYSIS.
- SMALL TREES, SHRUBS, GARDEN FEATURES, PATHWAYS AND OTHER MINOR DETAIL MAY NOT BE SHOWN ON THIS PLAN, FOR THE PURPOSES OF THIS SURVEY.
- ONLY VISIBLE SERVICES WERE MEASURED. DUE TO THE NATURE OF THE LIVE WORKING SITE, A NUMBER OF SERVICES MAY HAVE BEEN OBSTRUCTED AT TIME OF SURVEY.

VER	BY	AMENDMENTS	DATE
A	V.K.M.	INITIAL ISSUE	23.12.22
B			
C			
D			
E			
F			
G			

THE POSITION OF SERVICES SHOWN ON THIS DRAWING ARE INDICATIVE ONLY AND HAVE BEEN PLOTTED FROM PLANS AND DRAWINGS SUPPLIED BY RELEVANT AUTHORITIES.

SERVICE AUTHORITY PITS, MANHOLES, POLES, MARKER POSTS, ETC., WHERE SIGHTED AT TIME OF SURVEY, HAVE BEEN LOCATED. THE SURVEY DOES NOT INCLUDE INVESTIGATION OR LOCATION OF UNDERGROUND INFRASTRUCTURE.

SERVICES INFORMATION SHOWN ON THIS DRAWING HAS BEEN OBTAINED THROUGH A DIAL BEFORE YOU DIG SEARCH AND IS VALID FOR THE PERIOD OF TIME FROM THE DATE OF ISSUE NOMINATED BY THE AUTHORITY.

PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON OR ADJACENT TO THE SITE IT IS THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTORS TO APPLY FOR AND OBTAIN UP TO DATE PLANS THROUGH A NEW DIAL BEFORE YOU DIG SEARCH AND TO CONTACT ALL THE RELEVANT AUTHORITIES TO ESTABLISH AND CONFIRM THE DETAILED LOCATION AND DEPTH OF ALL UNDERGROUND SERVICES.

CLIENT:

ESR DEVELOPMENTS (AUSTRALIA)
PTY LTD

BW

Beveridge Williams
Land Development Consultants
Registered Surveyors

Sydney (02) 9283 6677
www.beveridgewilliams.com.au

DETAILS:

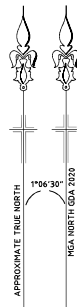
DETAIL SURVEY PLAN
AT 49-61 STEPHEN ROAD,
BANKSMEADOW
LOTS A/DP190526, 1/DP1095110, 1/DP311767

ORIGINAL
SHEET SIZE
SCALE 1:500
A1
CAD REFERENCE: 2201113_DET_REV A
0 10 20 30
SCALE ON ORIGINAL DRAWING AT 1:500

SURVEYOR:
DRAWN:
CHECKED:
SURVEY DATE:
VERTICAL DATUM:
HORIZONTAL DATUM:

V.K.M.
J.G.
J.G.
14.12.2022
AHD
MGA

PROJECT No.
2201113
DRAWING REF.
DET-001
VERSION A
SHEET 1 OF 6



STEPHEN ROAD



VER	BY	AMENDMENTS	DATE
A	V.K.M.	INITIAL ISSUE	23.12.22
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CLIENT:
ESR DEVELOPMENTS (AUSTRALIA) PTY LTD



Beveridge Williams
Land Development Consultants
Registered Surveyors

Sydney (02) 9283 6677

www.beveridgewilliams.com.au

DETAILS:
DETAIL SURVEY PLAN
AT 49-61 STEPHEN ROAD,
BANKSMEADOW
LOTS A/DP190526, 1/DP1095110, 1/DP311767

ORIGINAL
SCALE 1:200
SHEET SIZE A1
CAD REFERENCE: 2201113_DET_REV A
SCALE: ON ORIGINAL DRAWING AT 1:200

SURVEYOR: V.K.M.
DRAWN: J.G.
CHECKED: J.G.
SURVEY DATE: 14.12.2022
VERTICAL DATUM: AHD
HORIZONTAL DATUM: MGA

PROJECT No.
2201113
DRAWING REF.
DET-001
VERSION A
SHEET 2 OF 6

SEE SHEET 3 FOR CONTINUATION

SEE SHEET 4 FOR CONTINUATION



VER	BY	AMENDMENTS	DATE
A	V.K.M.	INITIAL ISSUE	23.12.22
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CLIENT:
ESR DEVELOPMENTS (AUSTRALIA) PTY LTD



Beveridge Williams
Land Development Consultants
Registered Surveyors

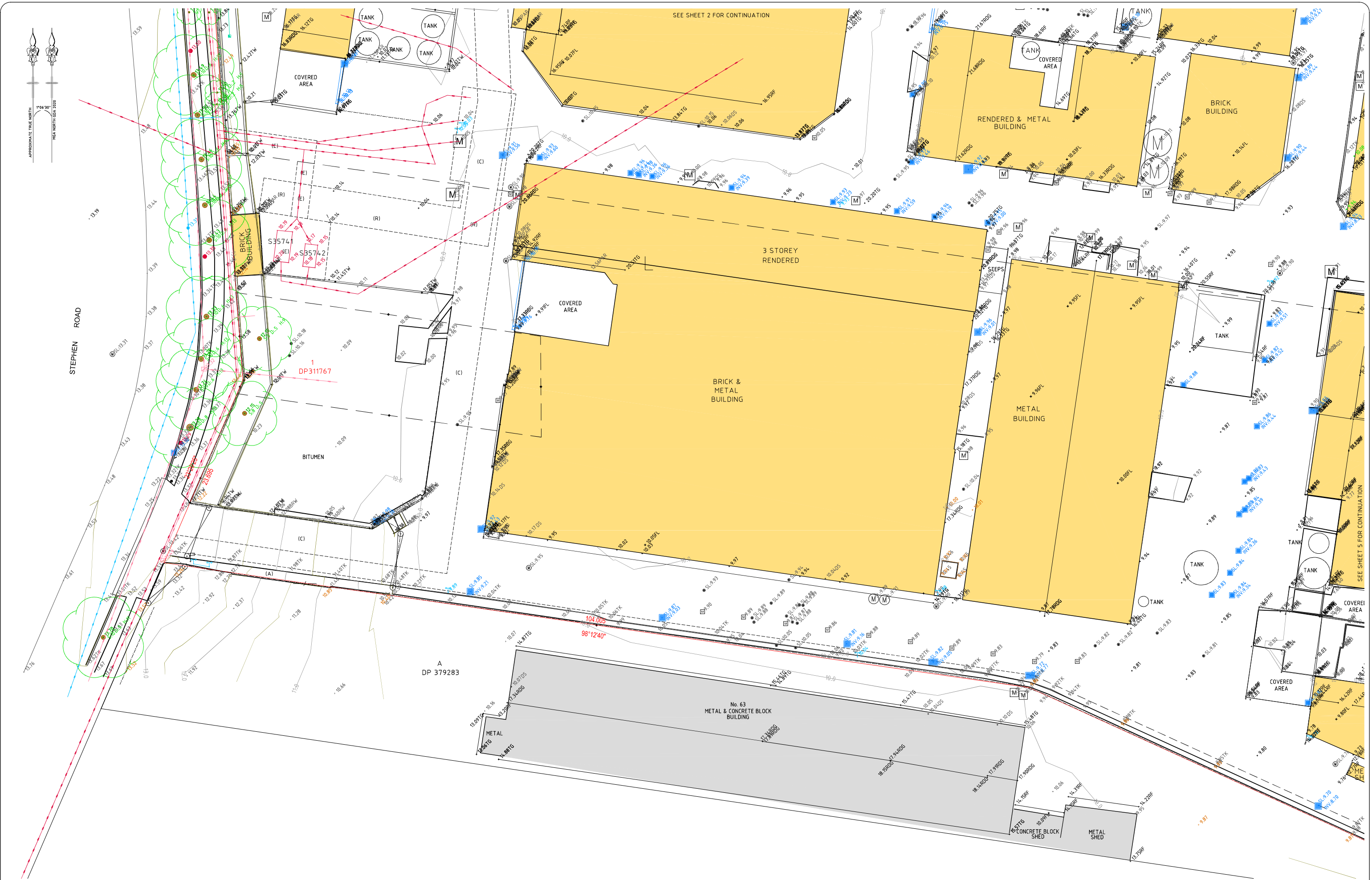
Sydney (02) 9283 6677
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DETAILS:
DETAIL SURVEY PLAN
AT 49-61 STEPHEN ROAD,
BANKSMEADOW
LOTS A/DP190526, 1/DP1095110, 1/DP311767

ORIGINAL SHEET SIZE
SCALE 1:200
A1
CAD REFERENCE: 2201113_DET_REV A
SCALE: ON ORIGINAL DRAWING AT 1:200

SURVEYOR: V.K.M.
DRAWN: J.G.
CHECKED: J.G.
SURVEY DATE: 14.12.2022
VERTICAL DATUM: AHD
HORIZONTAL DATUM: MGA

PROJECT No.
2201113
DRAWING REF.
DET-001
VERSION A
SHEET 3 OF 6



VER	BY	AMENDMENTS	DATE
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G			

• THE POSITION OF SERVICES SHOWN ON THIS DRAWING ARE INDICATIVE ONLY AND HAVE BEEN PLOTTED FROM PLANS AND DRAWINGS SUPPLIED BY RELEVANT AUTHORITIES.
• SERVICE AUTHORITY PITS, MANHOLES, POLES, MARKER POSTS, ETC., WHERE SIGHTED AT TIME OF SURVEY, HAVE BEEN LOCATED. THE SURVEY DOES NOT INCLUDE INVESTIGATION OR LOCATION OF UNDERGROUND INFRASTRUCTURE.
• SERVICES INFORMATION SHOWN ON THIS DRAWING HAS BEEN OBTAINED THROUGH A DIAL BEFORE YOU DIG SEARCH AND IS VALID FOR THE PERIOD OF TIME FROM THE DATE OF ISSUE NOMINATED BY THE AUTHORITY.
• PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION OR ADJACENT TO THE SITE IT IS THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTORS TO APPLY FOR AND OBTAIN UP TO DATE PLANS THROUGH A NEW DIAL BEFORE YOU DIG SEARCH AND TO CONTACT ALL THE RELEVANT AUTHORITIES TO ESTABLISH AND CONFIRM THE DETAILED LOCATION AND DEPTH OF ALL UNDERGROUND SERVICES.



CLIENT:
ESR DEVELOPMENTS (AUSTRALIA) PTY LTD



Beveridge Williams
Land Development Consultants
Registered Surveyors
Sydney (02) 9283 6677
www.beveridgewilliams.com.au

DETAILS:
DETAIL SURVEY PLAN
AT 49-61 STEPHEN ROAD,
BANKSMEADOW
LOTS /ADP190526, 1/DP1095110, 1/DP311767

ORIGINAL
SCALE 1:200
SHEET SIZE A1
CAD REFERENCE: 2201113_DET_REV A
SCALE ON ORIGINAL DRAWING AT 1:200

SURVEYOR: V.K.M.
DRAWN: J.G.
CHECKED: J.G.
SURVEY DATE: 14.12.2022
VERTICAL DATUM: AHD
HORIZONTAL DATUM: MGA

PROJECT No. 2201113
DRAWING REF. DET-001
VERSION A
SHEET 4 OF 6



VER	BY	AMENDMENTS	DATE
A	V.K.M.	INITIAL ISSUE	23.12.22
B			
C			
D			
E			
F			
G			

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DETAILS:
DETAIL SURVEY PLAN
AT 49-61 STEPHEN ROAD,
BANKSMEADOW
LOTS A/DP190526, 1/DP1095110, 1/DP311767

ORIGINAL
SCALE 1:200
SHEET SIZE A1
CAD REFERENCE: 2201113_DET_REV A
SCALE: ON ORIGINAL DRAWING AT 1:200

SURVEYOR: V.K.M.
DRAWN: J.G.
CHECKED: J.G.
SURVEY DATE: 14.12.2022
VERTICAL DATUM: AHD
HORIZONTAL DATUM: MGA

PROJECT No.
2201113
DRAWING REF.
DET-001
VERSION A
SHEET 5 OF 6



VER	BY	AMENDMENTS	DATE
A	V.K.M.	INITIAL ISSUE	23.12.22
B			
C			
D			
E			
F			
G			

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DETAILS:
DETAIL SURVEY PLAN
AT 49-61 STEPHEN ROAD,
BANKSMEADOW
LOTS A/DP190526, 1/DP1095110, 1/DP311767

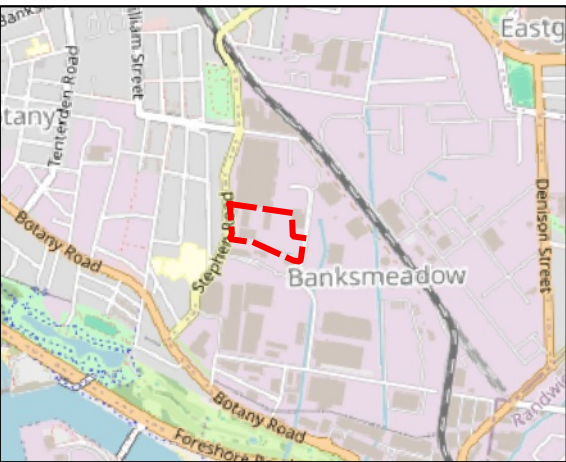
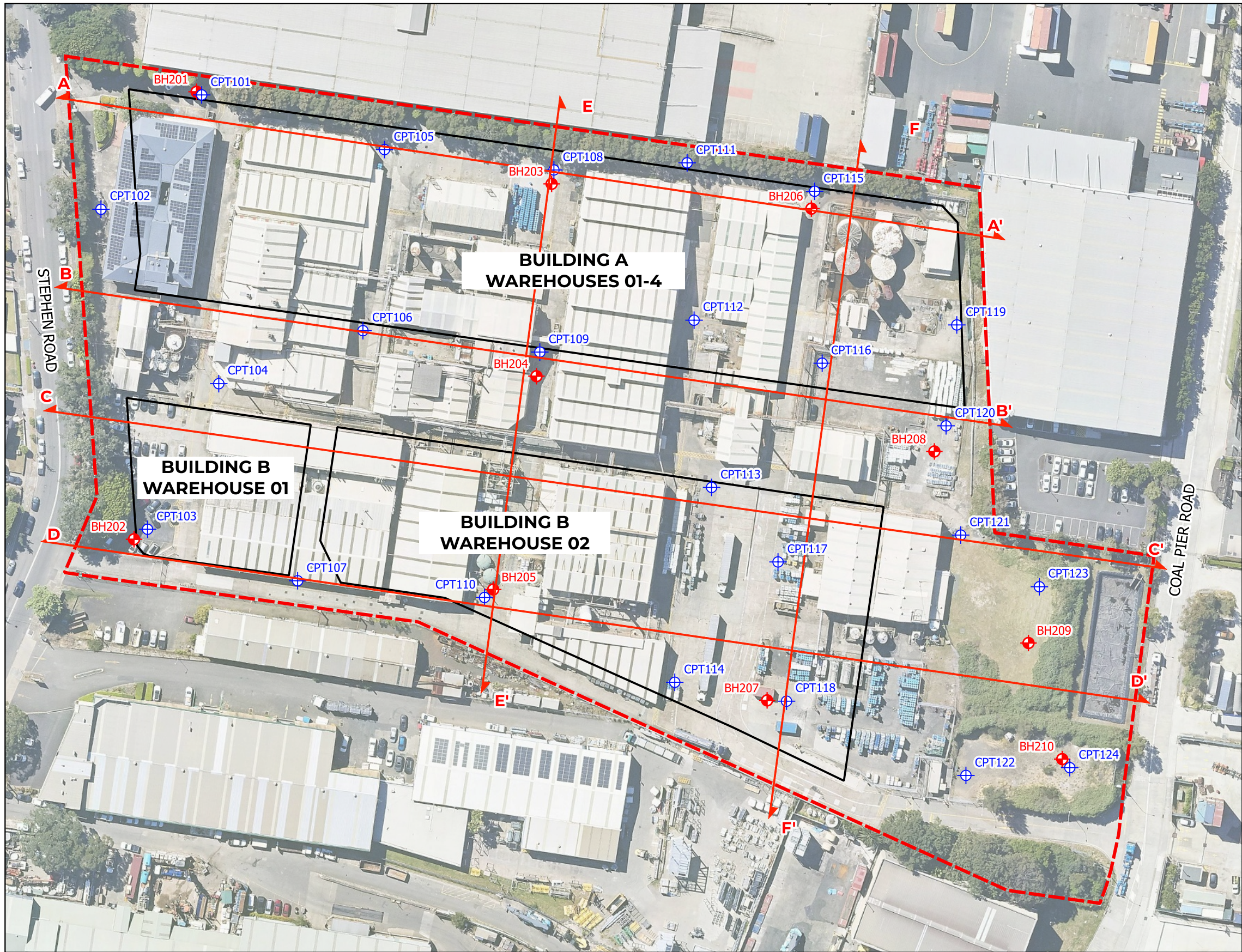
ORIGINAL
SCALE 1:200
SHEET SIZE A1
CAD REFERENCE: 2201113_DET_REVA



SCALE: ON ORIGINAL DRAWING AT 1:200

SURVEYOR:	V.K.M.
DRAWN:	J.G.
CHECKED:	J.G.
SURVEY DATE:	14.12.2022
VERTICAL DATUM:	AHD
HORIZONTAL DATUM:	MGA

PROJECT No.	2201113
DRAWING REF.	DET-001
VERSION	A
SHEET	6 OF 6



Locality Plan

LEGEND

- Borehole Location
- CPT Location
- Approximate Site Boundary
- Proposed Building Outline

Cross Sections

NOTE:
1: Basemap from Metromap (Dated 20.09.2024)
2: Proposed building outlines from ESR Australia Pty Ltd, Project No. 23176, Drawing No. DA100, Revision P17 (Dated 29.10.2024)

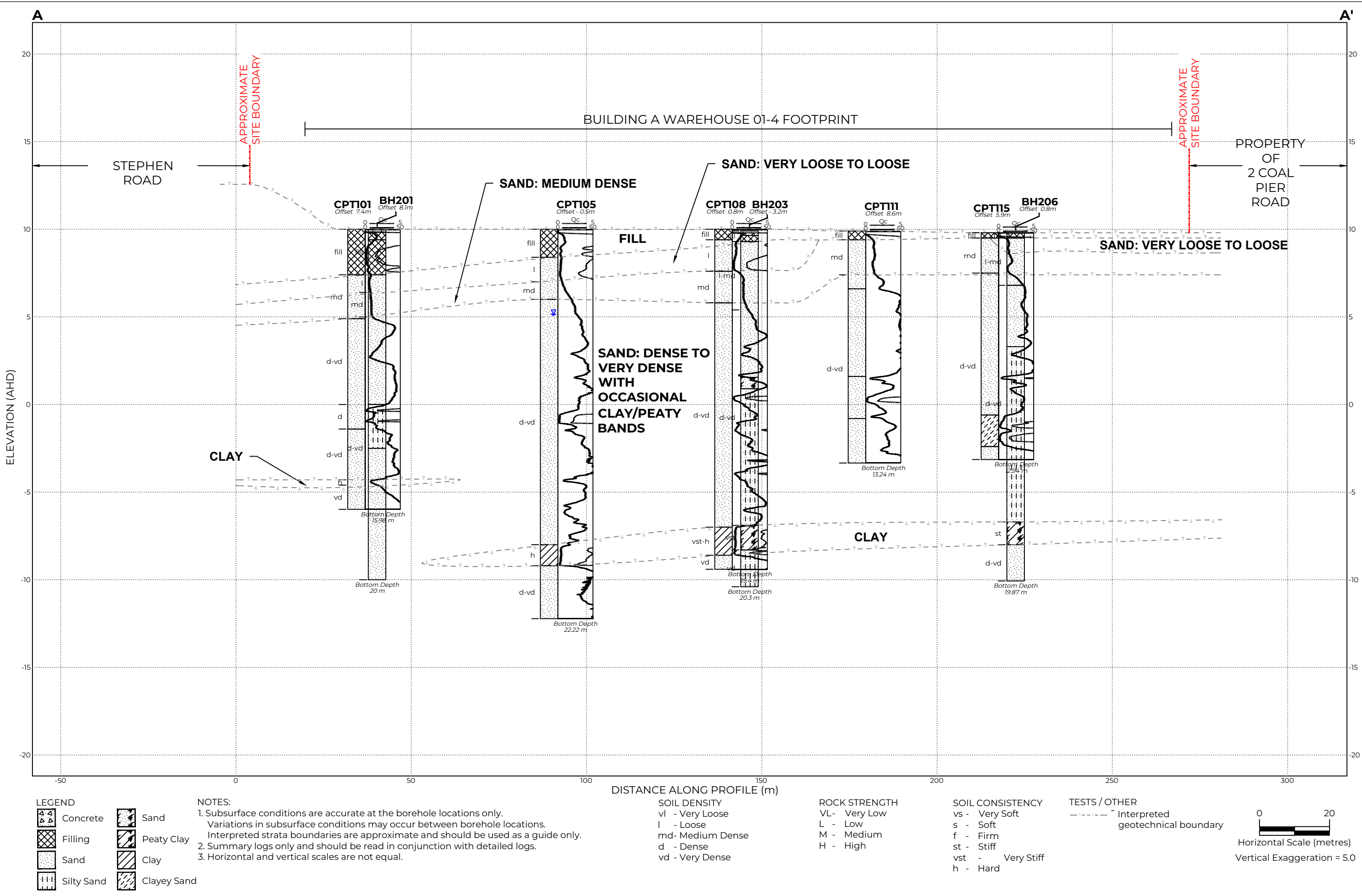


CLIENT: ESR Australia	
OFFICE: Sydney	DRAWN BY: MN/EC
SCALE: 1:1200 @ A3	DATE: 08.11.2024

TITLE: **Test Location Plan**
Proposed Industrial Development
49 Stephen Road, Banksmeadow

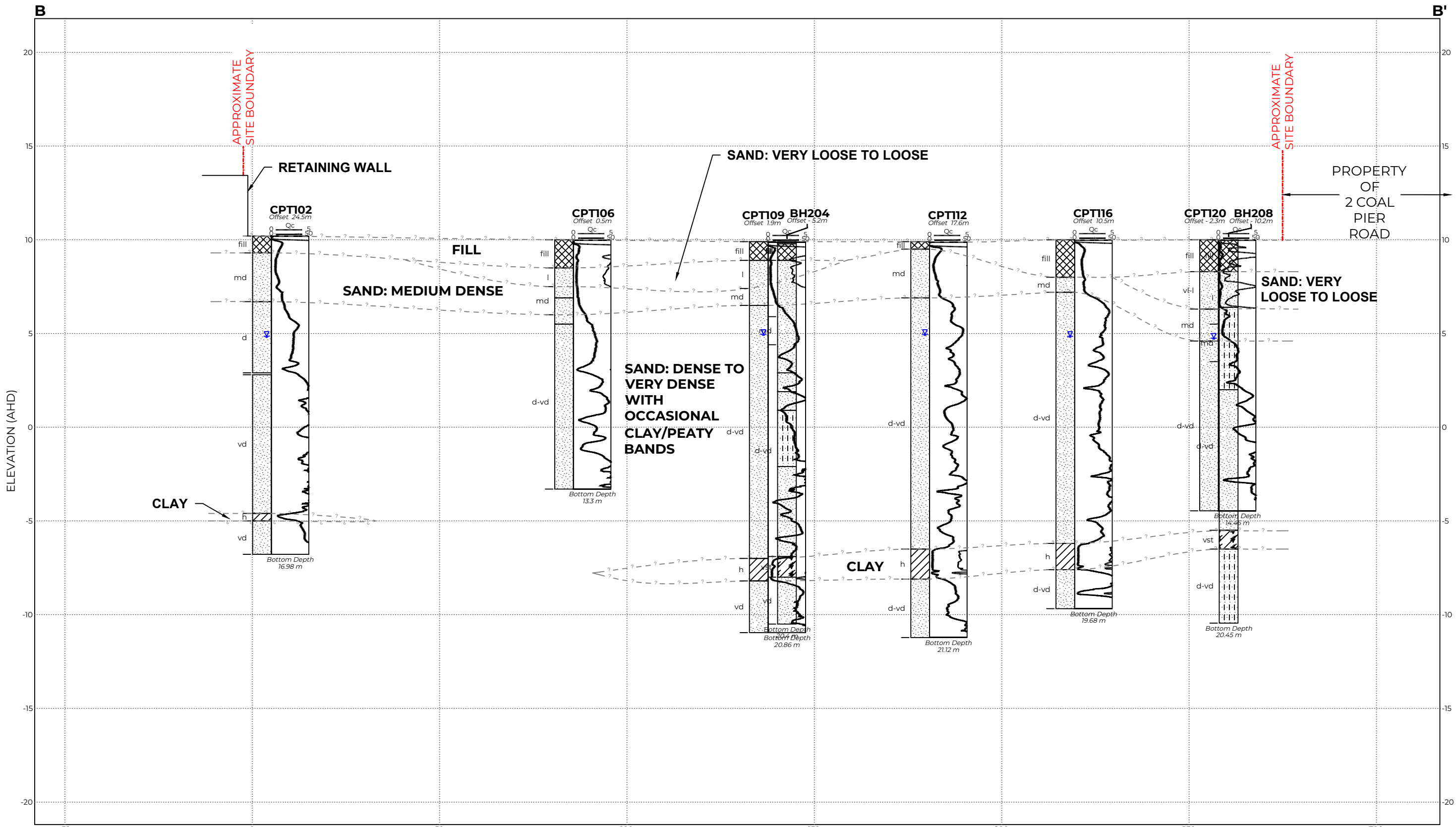


PROJECT No:	219609.02
DRAWING No:	1
REVISION:	1



CLIENT: ESR Australia	
OFFICE: Sydney	DRAWN BY: EC/MN
SCALE: 1:1000 (H) 1:200 (V) @ A3	DATE: 08.11.2024

TITLE: Interpreted Geotechnical Cross-Section A-A' Proposed Industrial Development 49 Stephen Road, Banksmeadow	PROJECT No: 219609.02
	DRAWING No: 2
	REVISION: 2



LEGEND

	Concrete		Peaty Clay
	Filling		Clay
	Sand		
	Silty Sand		

NOTES:

1. Subsurface conditions are accurate at the borehole locations only. Variations in subsurface conditions may occur between borehole locations. Interpreted strata boundaries are approximate and should be used as a guide only.

2. Summary logs only and should be read in conjunction with detailed logs.

3. Horizontal and vertical scales are not equal.

SOIL DENSITY

vl - Very Loose
l - Loose
md - Medium Dense
d - Dense
vd - Very Dense

ROCK STRENGTH

VL - Very Low
L - Low
M - Medium
H - High

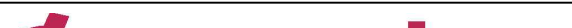
SOIL CONSISTENCY

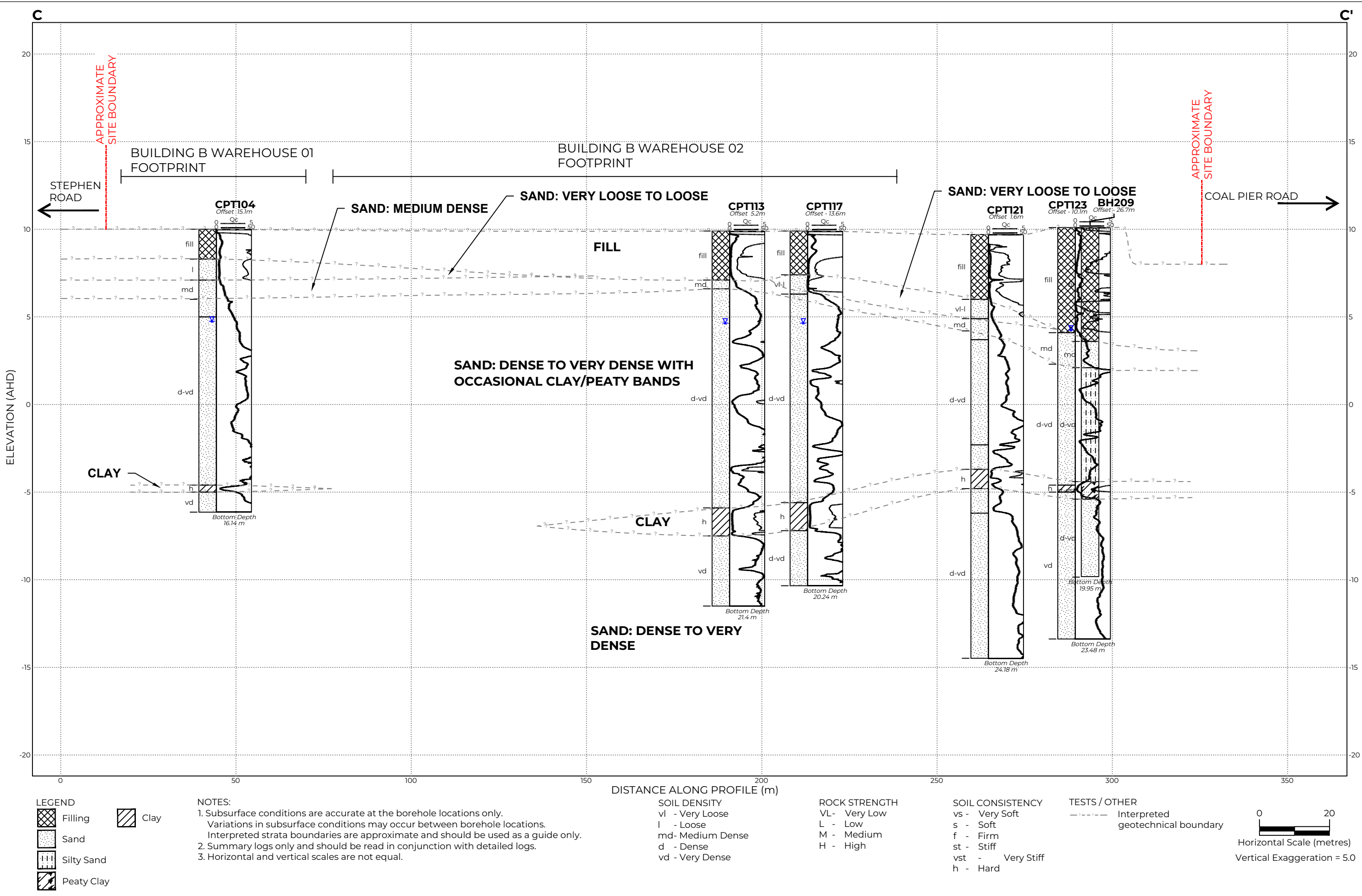
vs - Very Soft
s - Soft
f - Firm
st - Stiff
vst - Very Stiff
h - Hard

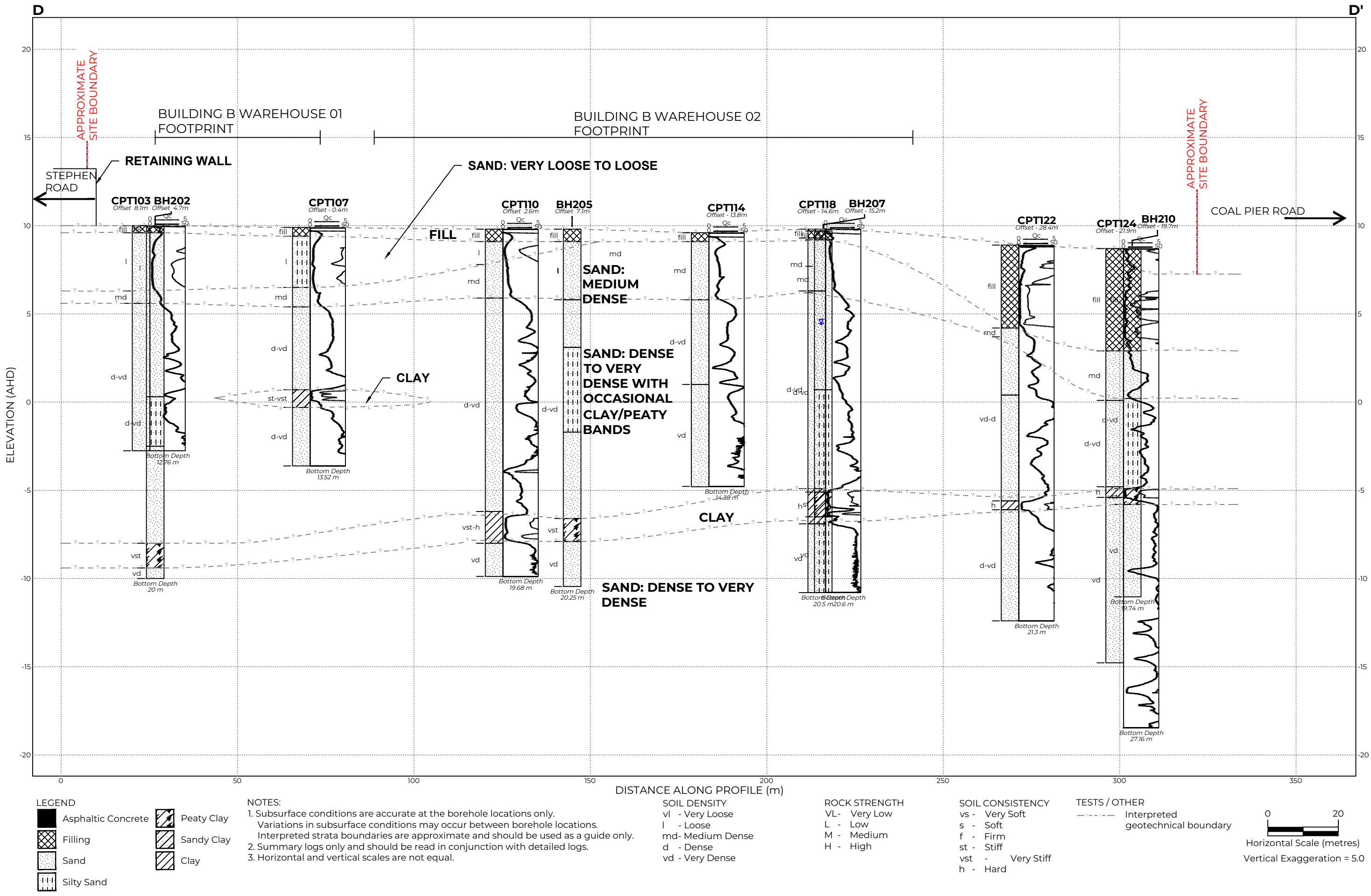
TESTS / OTHER

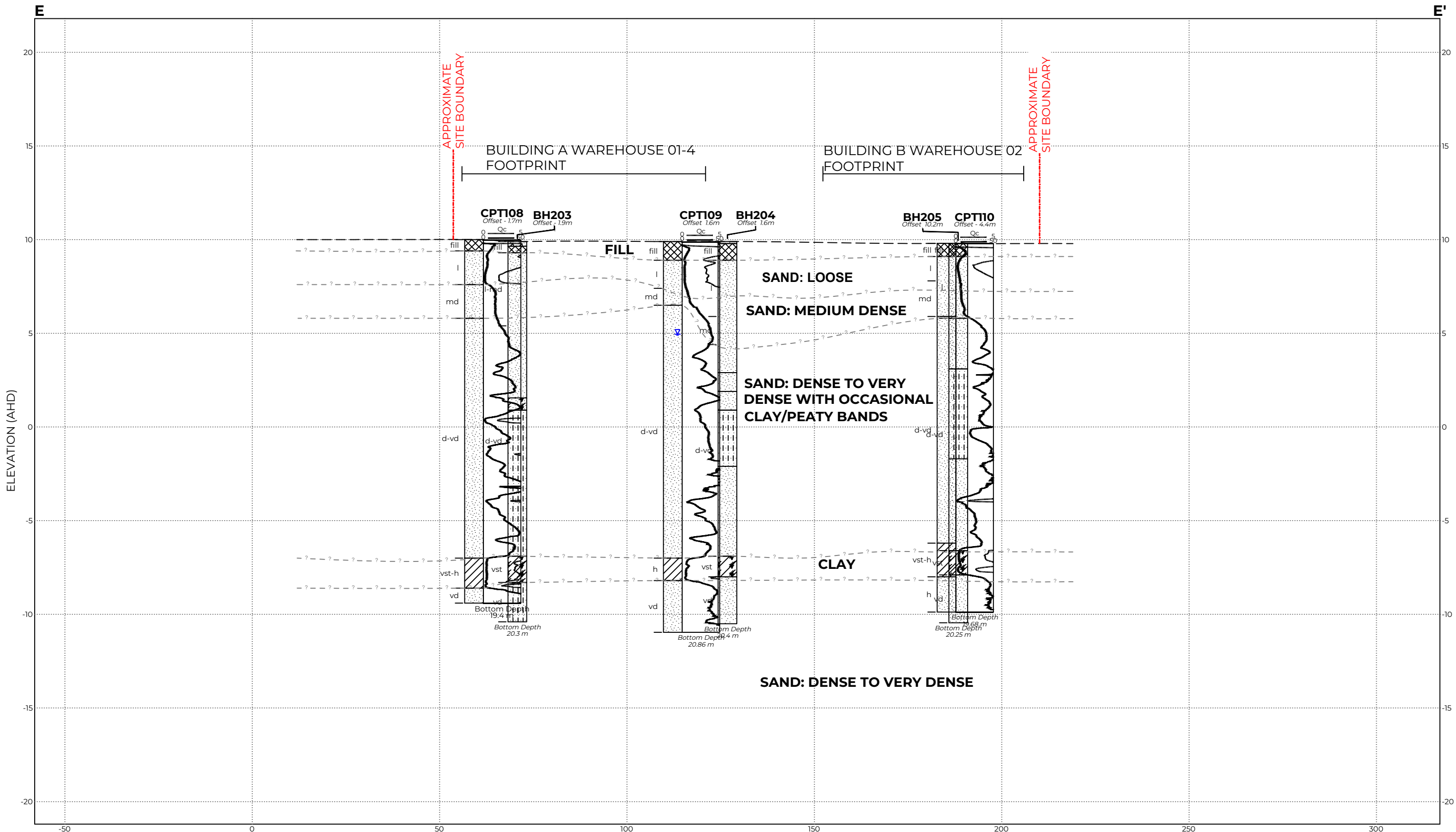
--- Interpreted geotechnical boundary

0 20
Horizontal Scale (metres)
Vertical Exaggeration = 5.0

	CLIENT: ESR Australia		TITLE: Interpreted Geotechnical Cross-Section B-B' Proposed Industrial Development 49 Stephen Road, Banksmeadow	PROJECT No: 219609.02	
	OFFICE: Sydney	DRAWN BY: EC/MN		DRAWING No: 3	
	SCALE: 1:1000 (H) 1:200 (V) @ A3	DATE: 08.11.2024		REVISION: 2	







LEGEND

	Concrete		Silty Sand
	Filling		Peaty Clay
	Sand		Clay
	Sand		

NOTES:

- Subsurface conditions are accurate at the borehole locations only. Variations in subsurface conditions may occur between borehole locations. Interpreted strata boundaries are approximate and should be used as a guide only.
- Summary logs only and should be read in conjunction with detailed logs.
- Horizontal and vertical scales are not equal.

SOIL DENSITY

vl - Very Loose
l - Loose
md - Medium Dense
d - Dense
vd - Very Dense

ROCK STRENGTH

VL - Very Low
L - Low
M - Medium
H - High

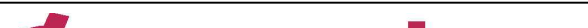
SOIL CONSISTENCY

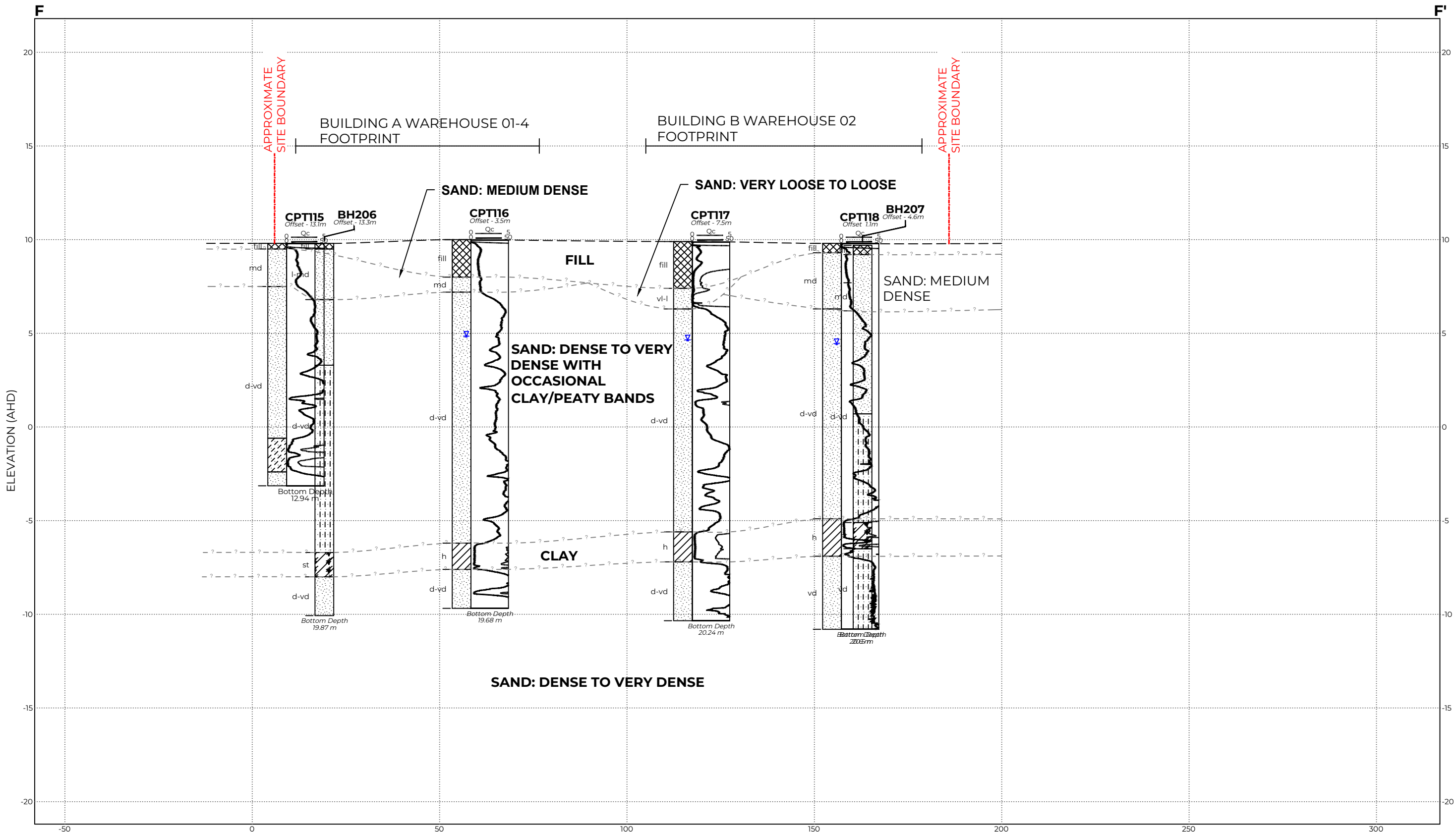
vs - Very Soft
s - Soft
f - Firm
st - Stiff
vst - Very Stiff
h - Hard

TESTS / OTHER

--- Interpreted geotechnical boundary

0 20
Horizontal Scale (metres)
Vertical Exaggeration = 5.0

	CLIENT: ESR Australia		TITLE: Interpreted Geotechnical Cross-Section E-E' Proposed Industrial Development 49 Stephen Road, Banksmeadow	PROJECT No: 219609.02	
	OFFICE: Sydney	DRAWN BY: EC/MN		DRAWING No: 6	
	SCALE: 1:1000 (H) 1:200 (V) @ A3	DATE: 08.11.2024		REVISION: 2	



LEGEND

Filling

Sand

Silty Sand

Peaty Clay

Clayey Sand

Clay

NOTES:

1. Subsurface conditions are accurate at the borehole locations only. Variations in subsurface conditions may occur between borehole locations. Interpreted strata boundaries are approximate and should be used as a guide only.

2. Summary logs only and should be read in conjunction with detailed logs.

3. Horizontal and vertical scales are not equal.

SOIL DENSITY

vl - Very Loose
l - Loose
md - Medium Dense
d - Dense
vd - Very Dense

ROCK STRENGTH

VL - Very Low
L - Low
M - Medium
H - High

SOIL CONSISTENCY

vs - Very Soft
s - Soft
f - Firm
st - Stiff
vst - Very Stiff
h - Hard

TESTS / OTHER

--- Interpreted geotechnical boundary

0 20

Horizontal Scale (metres)

Vertical Exaggeration = 5.0

BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 10.0 AHD
COORDINATE: E:334535.9, N:6241776.6
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 201
PROJECT No: 219609.02
DATE: 06/09/23
SHEET: 1 of 2

CONDITIONS ENCOUNTERED					SAMPLE			TESTING AND REMARKS	
GROUNDWATER	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN (#)	CONSIS. (%)	DENSITY (g/cm³)	MOISTURE	REMARKS	RESULTS AND REMARKS
	0.16	CONCRETE: 8mm steel reinforcement at 0.11m depth							PID <1ppm
	0.60	FILL / SAND: pale brown and grey; fine to medium; trace fine sandstone gravel.		FILL			M		PID <1ppm
	1.00	FILL / SAND: brown and grey; fine to medium; trace fine igneous gravel.							PID <1ppm
	1.45								PID <1ppm
	1.90								PID <1ppm
	2.50								PID <1ppm
	2.95								SPT 2,3,2 N=5
	4.00								PID <1ppm
	4.45								SPT 4,6,10 N=16
	5.50								PID <1ppm
	5.95								SPT 7,18,28 N=46
	6.50								PID <1ppm
	6.95								SPT 14,20,20 N=40
	8.00								SPT 17,28,25/100 (HB)
	8.40								PID <1ppm
	9.50								PID <1ppm
	9.75								SPT 16,25/100 (HB)
	9.00	From 9.00m: pale grey							

NOTES: #Soil origin is "probable" unless otherwise stated. %Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA
METHOD: DT to 0.20m, AD to 5.5m, WB to 20.0m
REMARKS:

OPERATOR: Ground Test (DB)

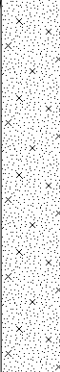
LOGGED: JS
CASING: Nil

BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 10.0 AHD
COORDINATE: E:334535.9, N:6241776.6
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 201
PROJECT No: 219609.02
DATE: 06/09/23
SHEET: 2 of 2

GROUNDWATER		CONDITIONS ENCOUNTERED					SAMPLE			TESTING AND REMARKS		
DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(%)	CONSIS. ⁽¹⁾	DENSITY. ⁽¹⁾	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
10.00	[CONT] SAND (SP): pale brown; fine to medium.		EST		D			ES	11.00-11.45	11.00	PID	2.5ppm
11	Silty SAND (SP): dark brown and dark grey; fine to medium; with peaty sands bands, typically 20-50mm in thickness.										SPT	12,13,25 N=38
11.45												
12					VD			ES	12.00-12.30	12.00	PID	<1ppm
12.50	SAND (SP): brown; fine to medium; trace peaty sand bands, typically 20-50mm thick.										SPT	18,28 (R)
12.30												
13					MD			ES	13.00-13.30	13.00	SPT	6,30 (R)
13.30											PID	<1ppm
14	14.30m-14.60m: clay band											
14					VD	W		ES	14.00-14.45	14.00	PID	<1ppm
14.45											SPT	15,15,11 N=26
15												
15					VD			ES	15.00-15.25	15.00	PID	<1ppm
15.25											SPT	15,25/100 (R)
16												
16			EST							16	SPT	35 (R) No recovery
17												
17												
17										17	SPT	25,25 (R) No recovery
18	17.50m-17.80m: possible clay band											
18												
18										18	SPT	35 (HB) No recovery
19												
19												
19										19	SPT	32,35 (HB) No recovery
20	Borehole discontinued at 20.00m depth. Target depth reached.											
20												

NOTES: ⁽¹⁾ Soil origin is "probable" unless otherwise stated. ⁽²⁾ Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

NOTES: #Soil origin is "probable" unless otherwise stated. °Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA
METHOD: DT to 0.20m, AD to 5.5m, WB to 20.0m
REMARKS:

OPERATOR: Ground Test (DB)

LOGGED: JS
CASING: Nil

Refer to explanatory notes for symbol and abbreviation definitions



BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 10.1 AHD
COORDINATE: E:334517.6, N:6241646.3
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 202
PROJECT No: 219609.02
DATE: 01/09/23
SHEET: 1 of 2

CONDITIONS ENCOUNTERED						SAMPLE			TESTING AND REMARKS				
GROUNDWATER	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(#)	CONSIS. (°)	DENSITY. (°)	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
01/09/23	0.04	ASPHALTIC CONCRETE: 40 mm		FILL					ES	0.15	PID	6.6ppm	
	0.40	FILL / SAND: brown and grey; fine to medium; trace fine to coarse, angular to sub-angular igneous gravel; trace asphalt fragments.							ES^	0.25	PID	<1ppm	
		SAND (SP): pale grey; fine.							ES^^	0.50	PID	<1ppm	
									ES^^	0.70	PID	<1ppm	
	1								ES	0.80	PID	<1ppm	
									ES	1.00	PID	<1ppm	
									ES	1.50	SPT	2,3,3 N=6	
		From 1.50m: yellow-brown							ES^	1.70	PID	<1ppm	
									ES	2.00	PID	<1ppm	
	2					L			ES	2.20	PID	<1ppm	
									ES	2.50	PID	<1ppm	
									ES	2.70	SPT	1,2,2 N=4	
	3						M		ES	3.00	PID	<1ppm	
									ES	3.20	PID	<1ppm	
									ES	3.50	PID	<1ppm	
									ES	3.70	PID	<1ppm	
	4					MD			ES	4.00	PID	<1ppm	
			From 4.50m: fine to medium						ES	4.20	SPT	3,6,8 N=14	
									ES	4.50	PID	<1ppm	
									ES	4.70	PID	<1ppm	
5					AEO			ES	5.00	PID	<1ppm		
								ES	5.20	PID	<1ppm		
	5.70m-6.50m: slight sulphuric odour							ES	5.50	PID	<1ppm		
								ES	5.70	SPT	2,12,18 N=28		
								ES	5.95	PID	<1ppm		
6								ES	6.50	PID	<1ppm		
		6.50m-7.50m: slight to moderate sulphuric odour						ES	6.70	SPT	16,36,37 N=73		
								ES	6.95	PID	<1ppm		
7								ES	7.50	PID	1.2ppm		
		7.50m: peaty silt lense approximately 10mm thick; slight chemical odour, slight sulphuric odour						ES	7.70	SPT	14,27,40 N=67		
								ES	7.95	PID	<1ppm		
8					VD		W	ES	8.50	SPT	27,39,40/100 (HB)		
		From 8.50m: moderate sulphuric odour						ES	8.70	PID	2ppm		
								ES	8.90	PID	<1ppm		
9								ES	9.00	PID	<1ppm		
								ES	9.20	SPT	22,30,33 N=63		
								ES	9.40	PID	3ppm		
	9.70	Silty SAND (SM): dark brown and brown; fine		EST	D			ES	9.70	SPT	22,30,33 N=63		

NOTES: #Soil origin is "probable" unless otherwise stated. %Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA

OPERATOR: Ground Test (DB)

LOGGED: ZW

METHOD: DT to 0.04m, AD to 5.7m, WB to 20.0m

CASING: HW to 5.5m

REMARKS: ^Field Replicate BD1/230901; ^^Field Replicate BD2/230901;
 ^^^Field Replicate BD3/230901

Refer to explanatory notes for symbol and abbreviation definitions



BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 10.1 AHD
COORDINATE: E:334517.6, N:6241646.3
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 202
PROJECT No: 219609.02
DATE: 01/09/23
SHEET: 2 of 2

CONDITIONS ENCOUNTERED						SAMPLE			TESTING AND REMARKS					
GROUNDWATER	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(#)	CONSIS. ⁽¹⁾ DENSITY. ⁽¹⁾	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS		
0 1 2 3 4 5 6 7 8 9	6	to medium; with peaty sand lense approximately 70 mm thick; strong sulphuric odour.		EST	D	W		ES	10.50	PID	2ppm	16,17,25 N=42		
	SPT													
	10.95													
	11.50	PID <1ppm												
	11.80	SPT 29,75 (HB)												
	12													
	12.50	SAND (SP): grey-brown; fine to medium; slight to moderate sulphuric odour.		EST	VD	W		ES	12.50	PID <1ppm	17,27,27 N=54			
	SPT													
	12.95													
	13.50	SPT 28,48,61 N=100												
	13.95	PID <1ppm												
	14													
	14.65m: interbedded with sandy peat lenses, typically 50-200mm thick; slight sulphuric odour							EST	D	W	ES	14.50	PID <1ppm	10,15,15 N=30
	14.65												SPT	
	14.95												PID <1ppm	
	15.50												PID <1ppm	
	15.95												SPT 5,15,15 N=30	
	16													
	From 16.50m: odour not detected		EST	D	W	ES		16.50	PID <1ppm	16,22,24 N=46				
16.95	SPT													
18.00	PID 11ppm						6,7,12 N=19							
18.45	SPT													
19														
19.40	SAND (SP): pale grey; fine; trace interbedded silty clay lenses 40mm thick. Borehole discontinued at 20.00m depth. Target depth reached.								EST		VD	W	ES	19.50
	SPT													

NOTES: ⁽¹⁾ Soil origin is "probable" unless otherwise stated. ⁽²⁾ Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

NOTES: #Soil origin is "probable" unless otherwise stated. °Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA

OPERATOR: Ground Test (DB)

LOGGED: ZW

METHOD: DT to 0.04m, AD to 5.7m, WB to 20.0m

CASING: HW to 5.5m

REMARKS: ^Field Replicate BD1/230901; ^^Field Replicate BD2/230901;
 ^^^Field Replicate BD3/230901

Refer to explanatory notes for symbol and abbreviation definitions



BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 9.9 AHD
COORDINATE: E:334639.3, N:6241749.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 203
PROJECT No: 219609.02
DATE: 05/09/23
SHEET: 1 of 3

CONDITIONS ENCOUNTERED						SAMPLE		TESTING AND REMARKS					
GROUNDWATER	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(#)	CONSIS. ⁽¹⁾ DENSITY. ⁽¹⁾	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	
	0.25	CONCRETE: 250 mm						ES	0.25	PID	8ppm		
	0.60	FILL / SAND: grey-brown; fine to medium; trace fine to medium igneous gravel, rootlets and decomposed organics, trace clinker.		FILL				ESA	0.60	PID	<1ppm		
	1	SAND (SP): pale brown; fine to medium; trace iron-cemented nodules.								1.00	PID	<1ppm	
								ES		SPT	3,5,4 N=9		
	2							ES^	1.50	PID	<1ppm		
								ES	1.70				
								ES^	2.00	PID	<1ppm		
								ES	2.20				
	3	From 3.00m: pale grey						ES	2.50	PID	<1ppm		
								ES	3.00	SPT	3,5,5 N=10		
								ES	3.20	PID	<1ppm		
	4							ES	3.50	PID	<1ppm		
								ES	3.70				
								ES	4.00	SPT	2,4,7 N=11		
								ES	4.50	PID	<1ppm		
								ES	4.70	PID	<1ppm		
	5							ES^	5.00	PID	<1ppm		
								ES	5.20				
								ES	5.50	PID	<1ppm		
								ES	5.95	SPT	5,18,31 N=49		
	7	7.00m: trace peaty sand lense up to 20mm thick						ES	7.00	PID	<1ppm		
								ES	7.45	SPT	5,15,23 N=38		
	8							ES	8.00	PID	<1ppm		
								ES	8.35	SPT	16,18,30 N=48		
	8.35	Peaty SAND (SP): dark grey and brown; fine to medium.						ES	8.45	PID	<1ppm		
	9.00	Silty SAND (SM): brown; fine to medium; with peaty sand bands, up to 300mm thick; slight to moderate sulphuric odour.						ES	9.00	SPT	17,17,16 N=33		
								ES	9.45	PID	<1ppm		

NOTES: ⁽¹⁾ Soil origin is "probable" unless otherwise stated. ⁽²⁾ Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

NOTES: #Soil origin is "probable" unless otherwise stated. °Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA

OPERATOR: Ground Test (DB)

LOGGED: ZW

METHOD: DT to 0.3m, AD to 5.5m, WB to 20.0 m

CASING: HW to 5.5m

REMARKS: ^Field Replicate BD1/230905; ^^Field Replicate BD2/230905;
 ^^^Field Replicate BD3/230905; ^^^^Field Replicate BD4/230905

Refer to explanatory notes for symbol and abbreviation definitions



BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 9.9 AHD
COORDINATE: E:334639.3, N:6241749.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 203
PROJECT No: 219609.02
DATE: 05/09/23
SHEET: 2 of 3

CONDITIONS ENCOUNTERED										SAMPLE		TESTING AND REMARKS	
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(##)	CONSIS. ^(†) DENSITY: ^(*)	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
			[CONT] Silty SAND (SM): brown; fine to medium; with peaty sand bands, up to 300mm thick; slight to moderate sulphuric odour.										
	i ₁	11				D				ES	PID SPT	2.2ppm 8,20,30 N=50	
											10.45		
	Z ₂	12	From 11.00m: moderate sulphuric odour; decreasing peaty sand lenses							ES	PID SPT	2ppm 9,15,16 N=31	
											11.00 11.45		
	Z ₃	13	From 13.00m: grey-brown			VD				ES	PID SPT	2ppm 15,25,26 N=51	
											12.00 12.45		
	Z ₄	14	From 14.00m: brown and dark brown; with peaty sand band, approximately 200mm thick			D				ES	PID SPT	<1ppm 5,19,23 N=42 <1ppm	
											13.00 13.34		
	Z ₅	15								ES	PID SPT	<1ppm 25,44,15/40 (HB)	
											14.00 14.45		
	Z ₆	16				VD				ES	PID SPT	<1ppm 10,35 (HB)	
											15.00 15.30		
	Z ₇	16.80	Peaty CLAY (OL): dark grey and brown; low to medium plasticity; trace iron stained laminations; strong sulphuric odour.			VSt	w=PL			ES	PID SPT	<1ppm 16,38 (HB)	
		17									16.00 16.30		
	Z ₈	18									17.00 17.45		
		18.20	Silty SAND (SM): grey-brown; fine to medium.							ES	PID SPT	1ppm 5,7,12 N=19	
											18		
	Z ₉	19				VD	W				18.50 18.80		
											19		
	Z ₁₀												

NOTES: ^(#)Soil origin is "probable" unless otherwise stated. ^(†)Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA	OPERATOR: J. J. J.
METHOD: DT to 0.3m, AD to 5.5m, WB to 20.0 m	
REMARKS: ^Field Replicate BD1/230905; ^^Field Replicate BD2/230905; ^^^Field Replicate BD3/230905; ^^^^Field Replicate BD4/230905	

OPERATOR: Ground Test (DB)

LOGGED: ZW
CASING: HW to 5.5m

Refer to explanatory notes for symbol and abbreviation definitions



BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 9.9 AHD
COORDINATE: E:334639.3, N:6241749.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 203
PROJECT No: 219609.02
DATE: 05/09/23
SHEET: 3 of 3

CONDITIONS ENCOUNTERED													SAMPLE			TESTING AND REMARKS		
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(#)	CONSIS. ^(*) DENSITY. ^(*)	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS					
		20.00	Silty SAND (SM): grey; medium.		EST	VD	W		ES		20.22	PID	<1ppm					
			Borehole discontinued at 20.30m depth. Target depth reached.										35,25/70 (HB)					
		21									21							
		22									22							
		23									23							
		24									24							
		25									25							
		26									26							
		27									27							
		28									28							
		29									29							
		30																

NOTES: ^(#)Soil origin is "probable" unless otherwise stated. ^(*)Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

NOTES: ^(#)Soil origin is "probable" unless otherwise stated. ^(*)Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA **OPERATOR:** Ground Test (DB) **LOGGED:** ZW
METHOD: DT to 0.3m, AD to 5.5m, WB to 20.0 m **CASING:** HW to 5.5m
REMARKS: ^Field Replicate BD1/230905; ^^Field Replicate BD2/230905;
 ^^^Field Replicate BD3/230905; ^^^^Field Replicate BD4/230905

Refer to explanatory notes for symbol and abbreviation definitions

BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 9.9 AHD
COORDINATE: E:334634.9, N:6241693.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 204
PROJECT No: 219609.02
DATE: 04/09/23
SHEET: 1 of 3

CONDITIONS ENCOUNTERED						SAMPLE			TESTING AND REMARKS					
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(#)	CONSIS. ^(*)	DENSITY. ^(*)	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
		0.11	CONCRETE: 110 mm							ES	0.15	PID	2ppm	
			FILL / SAND: brown; fine to medium; trace metal fragments, iron cemented nodules . From 0.50m: pale grey-brown		FILL					ES	0.50	PID	2ppm	
		1.00	SAND (SP): pale yellow-brown; fine to medium; with weakly cemented dark brown bands. From 1.20m: dark brown							ES	1.00	PID	1ppm	
										ES	1.50	SPT	2,3,3 N=6	
										ES	1.70	PID	<1ppm	
		2								ES	2.00	PID	<1ppm	
										ES	2.20	PID	<1ppm	
										ES	2.50	PID	<1ppm	
										ES	2.70	SPT	2,3,4 N=7	
										ES	3.00	PID	<1ppm	
										ES	3.20	PID	<1ppm	
										ES	3.50	PID	<1ppm	
										ES	3.70	PID	<1ppm	
		4			AEO					ES	4.00	PID	<1ppm	
										ES	4.20	SPT	3,9,12 N=21	
										ES	4.50	PID	<1ppm	
					MD					ES	4.70	PID	<1ppm	
		5								ES	5.00	PID	<1ppm	
										ES	5.20	PID	<1ppm	
										ES	5.50	PID	<1ppm	
										ES	5.70	SPT	5,15,19 N=34	
										ES	5.95	PID	<1ppm	
		7.00	SAND (SP): pale grey; fine; trace peaty clay lenses, typically 5mm thick; slight sulphuric odour.		EST					ES	7.00	PID	<1ppm	
										ES	7.45	SPT	13,23,36 N=59	
		8.00	Peaty SAND (SP): grey and brown; fine to medium; with clay; moderate sulphuric odour, slight hydrocarbon odour.		EST					ES	8.00	PID	2ppm	
										ES	8.38	SPT	16,41,25/80 (HB)	
		9.00	Silty SAND (SM): brown; fine to medium; with peaty clay; moderate to strong sulphuric odour, slight hydrocarbon odour; possible hydrocarbon staining.		EST					ES	9.00	PID	1,19,21 N=40	
										ES	9.45	PID	5ppm	
										ES				

NOTES: ^(*)Soil origin is "probable" unless otherwise stated. ^(*)Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

NOTES: #Soil origin is "probable" unless otherwise stated. °Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA
METHOD: DT to 0.2m, AD to 5.5m, WB to 20.0m
REMARKS: ^Field Replicate BD1/230904; ^^Field Replicate BD2/230904;
 ^^^Field Replicate BD3/230904; ^^^^Field Replicate BD4/230904;
 ^^^^^Field Replicate BD5/230904

OPERATOR: Ground Test (SS)

LOGGED: ZW
CASING: Nil

Refer to explanatory notes for symbol and abbreviation definitions



BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 9.9 AHD
COORDINATE: E:334634.9, N:6241693.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 204
PROJECT No: 219609.02
DATE: 04/09/23
SHEET: 2 of 3

CONDITIONS ENCOUNTERED						SAMPLE		TESTING AND REMARKS	
GROUNDWATER	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN (#)	CONSIS. (%)	MOISTURE	REMARKS	TYPE	INTERVAL
	10.45	[CONT] Silty SAND (SM): brown; fine to medium; with peaty clay; moderate to strong sulphuric odour, slight hydrocarbon odour; possible hydrocarbon staining.		EST	VD			ES	PID <1ppm SPT 12,25,38 N=63
	11.00	11.00m: slight hydrocarbon and slight sulphuric odour						ES	PID 5ppm SPT 16,28,44 N=72
	12.00	SAND (SP): brown; fine to medium; with peat, dark brown peaty clay bands, typically 50mm thick.			D			ES	PID <1ppm SPT 17,24,18 N=42
	13.00	From 13.30m: dark grey and brown; with peaty clay bands, up to 200mm thick; moderate sulphuric odour			VD	W		ES	PID 2ppm SPT 11,15,25/110 (HB) PID <1ppm
	14.00			EST	D			ES	SPT 10,20,27 N=47 PID <1ppm
	15.00	From 15.00m: brown; slight sulphuric odour			VD			ES	PID <1ppm SPT 20,37,25/60 (HB)
	16.00				VD			ES	PID <1ppm SPT 15,27,30 N=57
	16.80	Peaty CLAY (OL): dark grey and brown; low to medium plasticity; trace iron stained laminations and iron-stained gravel; strong sulphuric odour.		EST	VSt	w=PL	ESAAAA	ES	PID 5ppm SPT 4,8,17 N=25
	17.90	SAND (SP): grey; fine to medium; trace carbonaceous clasts and peaty sand lenses (10-20 mm); slight sulphuric odour.		EST	VD	W		ES	PID <1ppm SPT 27,42,25/70 (HB)

NOTES: #Soil origin is "probable" unless otherwise stated. %Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA
METHOD: DT to 0.2m, AD to 5.5m, WB to 20.0m
REMARKS: ^Field Replicate BD1/230904; ^^Field Replicate BD2/230904;
 ^^^Field Replicate BD3/230904; ^^^^Field Replicate BD4/230904;
 ^^^^^Field Replicate BD5/230904

OPERATOR: Ground Test (SS)

LOGGED: ZW
CASING: Nil

Refer to explanatory notes for symbol and abbreviation definitions



BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 9.9 AHD
COORDINATE: E:334634.9, N:6241693.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 204
PROJECT No: 219609.02
DATE: 04/09/23
SHEET: 3 of 3

CONDITIONS ENCOUNTERED											SAMPLE			TESTING AND REMARKS	
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(%)	CONSIS. ^(%)	DENSITY. ^(%)	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	
			[CONT] SAND (SP): grey; fine to medium; trace carbonaceous clasts and peaty sand lenses (10 -20 mm); slight sulphuric odour. Borehole discontinued at 20.40m depth. Target depth reached.		EST			W		ES		20.40	PID SPT	<1ppm 24,36,25/100 (HB)	
	-11	21													
	-12	22													
	-13	23													
	-14	24													
	-15	25													
	-16	26													
	-17	27													
	-18	28													
	-19	29													
	0														

NOTES: [#]Soil origin is "probable" unless otherwise stated. ^lConsistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

NOTES: #Soil origin is "probable" unless otherwise stated. %Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA

OPERATOR: Ground Test (SS)

LOGGED: ZW

METHOD: DT to 0.2m, AD to 5.5m, WB to 20.0m

CASING: Nil

REMARKS: ^Field Replicate BD1/230904; ^^Field Replicate BD2/230904;
 ^^^Field Replicate BD3/230904; ^^^^Field Replicate BD4/230904;
 ^^^^^Field Replicate BD5/230904

Refer to explanatory notes for symbol and abbreviation definitions



BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 9.8 AHD
COORDINATE: E:334622.3, N:6241631.6
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 205
PROJECT No: 219609.02
DATE: 07/09/23
SHEET: 1 of 3

GROUNDWATER		CONDITIONS ENCOUNTERED					SAMPLE			TESTING AND REMARKS								
RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN (#)	CONSIS. ⁽¹⁾ DENSITY. ⁽¹⁾	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS						
07/09/23 No free groundwater observed whilst augering	0.23	CONCRETE: no reinforcement observed																
	0.70	FILL / SAND: brown, pale grey and grey; fine to medium; with fine to medium igneous and sandstone gravel; trace clay.		FILL					ES	0.25	PID	<1ppm						
	1	SAND (SP): pale grey; fine to medium; with brown and dark brown weakly cemented bands typically 20 to 50 mm thick.		AEO	VL to L	D				ES	0.50	PID	<1ppm					
	2																	
	2.60	SAND (SP): pale brown and pale grey; fine to medium.		AEO	L					ES	2.50	PID	<1ppm					
	3																	
	4																	
	5																	
	6																	
	6.70	Silty SAND (SM): grey and dark grey; fine to medium; with peaty sand bands typically 20 to 50 mm thick; moderate sulphuric odour.		AEO	MD	M				ES	4.00	SPT	2,6,8 N=14					
	7																<1ppm	
	8																	
	9																	

NOTES: #Soil origin is "probable" unless otherwise stated. %Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA
METHOD: DT to 0.2m, AD to 5.5m, WB to 20.0m
REMARKS:

OPERATOR: Ground Test (DB)

LOGGED: JS
CASING: Nil

Refer to explanatory notes for symbol and abbreviation definitions

BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 9.8 AHD
COORDINATE: E:334622.3, N:6241631.6
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 205
PROJECT No: 219609.02
DATE: 07/09/23
SHEET: 2 of 3

CONDITIONS ENCOUNTERED						SAMPLE		TESTING AND REMARKS	
GROUNDWATER	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN (#)	CONSIS. (°)	DENSITY (°)	MOISTURE	REMARKS	TEST TYPE
RL (m)									
	10.00	[CONT] Silty SAND (SM): grey and dark grey; fine to medium; with peaty sand bands typically 20 to 50 mm thick; moderate sulphuric odour.							
	10.45								
	11.00	Silty SAND (SM): brown and dark brown; trace peaty sand bands, typically 20-50mm thick; moderate sulphuric odour.		EST	D				
	11.30								
	11.50								
	12.00	SAND (SP): brown, grey and pale brown; fine to medium; trace peaty sand bands, typically 20 to 50 mm thick; moderate sulphuric odour.							
	12.30								
	13.00								
	13.45								
	14.00	From 14.00m: odour not detected		EST	VD				
	14.30								
	15.00								
	15.45								
	16.00								
	16.40	Peaty Silty CLAY (OL): dark grey; low to medium plasticity; with peat layers up to 100 mm thick; moderate sulphuric odour.		EST	VSt	w<PL			
	16.45								
	17.00								
	17.45								
	17.70	SAND (SP): grey; fine to medium; trace clay and peaty sand.		EST	VD				
	18.00								
	18.50								
	18.80								
	19.00								

NOTES: #Soil origin is "probable" unless otherwise stated. °Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA
METHOD: DT to 0.2m, AD to 5.5m, WB to 20.0m
REMARKS:

OPERATOR: Ground Test (DB)

LOGGED: JS
CASING: Nil

Refer to explanatory notes for symbol and abbreviation definitions



BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 9.8 AHD
COORDINATE: E:334622.3, N:6241631.6
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 205
PROJECT No: 219609.02
DATE: 07/09/23
SHEET: 3 of 3

CONDITIONS ENCOUNTERED											SAMPLE			TESTING AND REMARKS	
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(%)	CONSIS. ^(%)	DENSITY. ^(%)	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	
			[CONT] SAND (SP): grey; fine to medium; trace clay and peaty sand.		EST	VD		W		ES		20.25	SPT	28,25/100 (HB) No Recovery	
			Borehole discontinued at 20.25m depth.												
			Target depth reached.												

NOTES: #Soil origin is "probable" unless otherwise stated. %Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA
METHOD: DT to 0.2m, AD to 5.5m, WB to 20.0m
REMARKS:

OPERATOR: Ground Test (DB)

LOGGED: JS
CASING: Nil

BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 9.8 AHD
COORDINATE: E:334715.0, N:6241742.6
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 206
PROJECT No: 219609.02
DATE: 08/09/23
SHEET: 1 of 2

CONDITIONS ENCOUNTERED					SAMPLE			TESTING AND REMARKS	
GROUNDWATER	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN (#)	CONSIS. (°)	DENSITY (°)	MOISTURE	REMARKS	RESULTS AND REMARKS
	0.15	CONCRETE: 150 mm							
	0.30	FILL / SAND: pale grey; fine to medium; trace igneous and ironstone gravel, trace clinker; decomposed organics.		FILL					
	1	SAND (SP): pale grey; fine to medium.			L				
	2				MD		M		
	3								
	4								
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NOTES: #Soil origin is "probable" unless otherwise stated. °Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA
METHOD: DT to 0.2m, AD to 5.5m, WB to 19.5m
REMARKS: ^Field Replicate BD1/230908; ^^Field Replicate BD2/230908;
 ^^^Field Replicate BD3/230908; ^^^^Field Replicate BD4/230908

OPERATOR: Ground Test (DB)
LOGGED: ZW
CASING: Nil

Refer to explanatory notes for symbol and abbreviation definitions



BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 9.8 AHD
COORDINATE: E:334715.0, N:6241742.6
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 206
PROJECT No: 219609.02
DATE: 08/09/23
SHEET: 2 of 2

CONDITIONS ENCOUNTERED						SAMPLE			TESTING AND REMARKS				
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(#)	CONSIS. ⁽¹⁾ DENSITY. ⁽¹⁾	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
			[CONT] Silty SAND (SM): grey; fine to medium; slight sulphuric odour.		EST	VD							
		11.00	Silty SAND (SM): brown; fine to medium; with peaty sand bands, typically 50-200m thick.			D			ES		11.00	PID	<1ppm
											11.45	SPT	11,16,12 N=28
		12				VD							
									ES		12.50	PID	<1ppm
											12.73	SPT	25,27/80 (HB)
		13											
			From 14.00m: moderate sulphuric odour		EST								
		14							ES		14.00	PID	1ppm
											14.45	SPT	10,14,25 N=39
		15	15.20m: peaty sand lense			D							
									ES		15.00	PID	2ppm
											15.45	SPT	4,13,24 N=37
		16											
		16.50	Peaty CLAY (OL): dark grey; low to medium plasticity; moderate sulphuric odour.										
					EST	H	w=PL		ES		16.50	PID	4ppm
		17									16.95	SPT	5,18,18 N=36
		17.80	SAND (SP): brown and grey; fine to medium; trace peaty sand bands, typically 50mm thick; slight sulphuric odour.										
		18			EST	D to VD			ES		18.00	PID	<1ppm
											18.30	SPT	22,25,13 N=38
		19											
			Borehole discontinued at 19.87m depth. Target depth reached.						ES		19.50	PID	<1ppm
											19.87	SPT	16,24,20/70 (HB)

NOTES: #Soil origin is "probable" unless otherwise stated. °Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA
METHOD: DT to 0.2m, AD to 5.5m, WB to 19.5m
REMARKS: ^Field Replicate BD1/230908; ^^Field Replicate BD2/230908;
 ^^^Field Replicate BD3/230908; ^^^^Field Replicate BD4/230908

OPERATOR: Ground Test (DB)
LOGGED: ZW
CASING: Nil

Refer to explanatory notes for symbol and abbreviation definitions



BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 9.7 AHD
COORDINATE: E:334702.1, N:6241599.3
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 207
PROJECT No: 219609.02
DATE: 31/08/23
SHEET: 1 of 3

CONDITIONS ENCOUNTERED										SAMPLE		TESTING AND REMARKS		
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(#)	CONSIS. ^(*)	DENSITY. ^(*)	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
		0.50	FILL / Silty SAND: grey and brown; fine to medium; trace clinker, ironstone and sandstone gravel.		FILL							0.50	PID	<1ppm
		1	SAND (SP): pale brown; fine to medium; with some weakly cemented bands, up to 30mm thick.							ES		0.70		
						L						1.00	PID	<1ppm
										ES		SPT	3,3,5 N=8	
			From 1.50m: pale grey and brown							ES		1.50	PID	<1ppm
												1.70		
		2								ES		2.00	PID	<1ppm
												2.20		
			From 2.50m: pale yellow brown			MD		M		ES		2.50	PID	<1ppm
												SPT	3,4,6 N=10	
		3								ES		3.00	PID	<1ppm
												3.20		
										ES		3.50	PID	<1ppm
												3.70		
		4										4.00		
			From 4.15m: pale grey							ES		SPT	3,13,17 N=30	
												4.50	PID	<1ppm
										ES		4.70	PID	<1ppm
		5			AEO	D				ES		5.00	PID	<1ppm
												5.20		
		6								ES		5.50	PID	<1ppm
												SPT	3,12,20 N=32	
												5.95		
			6.50m: trace silty clay laminations							ES		6.50	PID	<1ppm
												SPT	13,24,32 N=56	
												6.95		
		7												
			7.50m: peaty clay lense			VD		W						
		8								ES		8.00	PID	<1ppm
			From 8.00m: dark grey and grey; moderate sulphuric odour									SPT	20,32,42 N=74	
												8.45		
		9.00	Silty SAND (SM): brown; fine; moderate sulphuric odour.		EST	D				ES		9.00	SPT	9,13,17 N=30
												9.45	PID	<1ppm
						VD								

NOTES: ^(*) Soil origin is "probable" unless otherwise stated. ^(*) Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

NOTES: #Soil origin is "probable" unless otherwise stated. %Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA
METHOD: AD to 5.5m, WB to 20.5m
REMARKS:

OPERATOR: Ground Test (DB)

LOGGED: ZW
CASING: Nil

Refer to explanatory notes for symbol and abbreviation definitions



BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 9.7 AHD
COORDINATE: E:334702.1, N:6241599.3
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 207
PROJECT No: 219609.02
DATE: 31/08/23
SHEET: 2 of 3

CONDITIONS ENCOUNTERED						SAMPLE		TESTING AND REMARKS					
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN (#)	CONSIS. ⁽¹⁾ DENSITY. ⁽¹⁾	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
			[CONT] Silty SAND (SM): brown; fine; moderate sulphuric odour.										

NOTES: #Soil origin is "probable" unless otherwise stated. %Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA
METHOD: AD to 5.5m, WB to 20.5m
REMARKS:

OPERATOR: Ground Test (DB)

LOGGED: ZW
CASING: Nil

Refer to explanatory notes for symbol and abbreviation definitions



BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 9.7 AHD
COORDINATE: E:334702.1, N:6241599.3
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 207
PROJECT No: 219609.02
DATE: 31/08/23
SHEET: 3 of 3

GROUNDWATER		CONDITIONS ENCOUNTERED						SAMPLE			TESTING AND REMARKS		
RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN (#)	CONSIS. ^(*)	DENSITY. ^(*)	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
		[CONT] Silty SAND (SM): grey; fine to medium.		EST		VD	W		ES			PID	<1ppm
		Borehole discontinued at 20.50m depth. Target depth reached.									20.38	SPT	30,49,25/80 (HB)
	-11										21		
	-12										22		
	-13										23		
	-14										24		
	-15										25		
	-16										26		
	-17										27		
	-18										28		
	-19										29		
	-20												

NOTES: ^(*)Soil origin is "probable" unless otherwise stated. ^(*)Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

NOTES: #Soil origin is "probable" unless otherwise stated. %Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA
METHOD: AD to 5.5m, WB to 20.5m
REMARKS:

OPERATOR: Ground Test (DB)

LOGGED: ZW
CASING: Nil

Refer to explanatory notes for symbol and abbreviation definitions



BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 10.0 AHD
COORDINATE: E:334750.8, N:6241671.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 208
PROJECT No: 219609.02
DATE: 30/08/23
SHEET: 1 of 3

CONDITIONS ENCOUNTERED						SAMPLE			TESTING AND REMARKS				
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN (#)	CONSIS. ⁽¹⁾ DENSITY. ⁽¹⁾	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
		0.14	CONCRETE: 6mm reinforcement at 0.09m								0.20	PID	12ppm
			FILL / SAND: brown; fine to medium; trace fine to medium igneous gravel, glass fragments and ironstone gravel.						ES		0.40		
									ES		0.50	PID	12ppm
			From 0.40m: dark brown with yellow specks, slight hydrocarbon odour						ES		0.70	PID	12ppm
									ES		0.80	PID	12ppm
		1			FILL	(VL) to (L)			ES		1.00	PID	<1ppm
			1.45m: asbestos containing material						ES			SPT	2,2,2 N=4
									ES		1.50	PID	<1ppm
		1.70	SAND (SP): pale grey; fine to medium.				M		ES		1.70	PID	<1ppm
		2							ES		1.80	PID	<1ppm
									ES		2.00	PID	<1ppm
					AEO				ESA		2.30	PID	<1ppm
									ES		2.50	PID	<1ppm
									ES		2.80	SPT	2,2,2 N=4
		3	From 3.00m: grey			L			ES		3.00	PID	<1ppm
												PID	<1ppm
									ES		3.30	PID	<1ppm
		3.60	Silty SAND (SM): dark brown; fine.								3.50		
									ES		3.80	PID	<1ppm
		4									4.00		
									ES		4.30	SPT	3,4,5 N=9
											4.50	PID	<1ppm
		5							ES		4.80	PID	<1ppm
											5.00		
									ES		5.30	PID	<1ppm
						MD					5.50		
		6			EST							SPT	2,8,15 N=23
											6		
			From 6.50m: brown, trace interbedded peat and clay lenses, slight sulphuric odour						ES		6.50	PID	<1ppm
												SPT	3,13,21 N=34
											6.95		
		7				D							
			From 7.70m: dark brown, with organic silts, moderate sulphuric odour, possible hydrocarbon staining and hydrocarbon odour						ES		7.50	SPT	8,16,23 N=39
											7.95	PID	<1ppm
		8.00	SAND (SP): pale grey; fine to medium; trace dark grey silty sand lenses; slight to moderate sulphuric odour.								8.50	PID	<1ppm
									ES			SPT	21,35,41 N=76
											8.95		
		9			EST	VD							
												SPT	25,30 (HB) no sample recovered

NOTES: ⁽¹⁾ Soil origin is "probable" unless otherwise stated. ⁽²⁾ Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

NOTES: #Soil origin is "probable" unless otherwise stated. °Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA
METHOD: DT to 0.2m, AD to 5.5m, WB to 20.0m
REMARKS: ^Field Replicate BD/230830

OPERATOR: Ground Test (DB)

LOGGED: ZW
CASING: Nil

BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 10.0 AHD
COORDINATE: E:334750.8, N:6241671.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 208
PROJECT No: 219609.02
DATE: 30/08/23
SHEET: 2 of 3

CONDITIONS ENCOUNTERED						SAMPLE		TESTING AND REMARKS						
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(%)	CONSIS. ⁽¹⁾	DENSITY. ⁽¹⁾	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS
			[CONT] SAND (SP): pale grey; fine to medium; trace dark grey silty sand lenses; slight to moderate sulphuric odour.											
		11								ES		10.50	PID	<1ppm
												10.75	SPT	35,45/100 (HB)
		12										11		
						VD				ES		11.50	PID	<1ppm
												11.80	SPT	29,38 (HB)
		13										12		
					EST			W		ES		12.50	PID	<1ppm
												12.85	SPT	8,35,22/50 (HB)
		14				D						13		
			From 13.00m: grey, with peaty clay lenses, moderate sulphuric odour							ES		13.50		
												13.60	SPT	5,17,20 N=37
										ES			PID	<1ppm
												13.95	PID	<1ppm
													PID	
						VD				ES		14.50	PID	<1ppm
												14.85	SPT	21,32,14/50 (HB)
		15										15		
		15.50	Peaty CLAY (OL): dark grey; low to medium plasticity; trace sand; strong sulphuric odour.							ES		15.50	PID	<1ppm
					EST	VSt		w=PL				15.95	SPT	5,7,11 N=18
		16.50	Silty SAND (SM): grey-brown; fine; with interbedded peaty clay lenses; trace iron cemented bands; moderate to strong sulphuric odour.											
		17				D to VD				ES		17.00	PID	<1ppm
												17.45	SPT	13,12,18 N=30
		18										18		
					EST			W				18.50	PID	<1ppm
										ES		18.95	SPT	14,28,36 N=64
		19				VD								

NOTES: ⁽¹⁾Soil origin is "probable" unless otherwise stated. ⁽²⁾Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

NOTES: #Soil origin is "probable" unless otherwise stated. %Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA
METHOD: DT to 0.2m, AD to 5.5m, WB to 20.0m
REMARKS: ^Field Replicate BD/230830

OPERATOR: Ground Test (DB)

LOGGED: ZW
CASING: Nil

BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 10.0 AHD
COORDINATE: E:334750.8, N:6241671.8
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 208
PROJECT No: 219609.02
DATE: 30/08/23
SHEET: 3 of 3

CONDITIONS ENCOUNTERED												SAMPLE			TESTING AND REMARKS		
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(%)	CONSIS. ^(*)		DENSITY. ^(*)	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS		
			[CONT] Silty SAND (SM): grey-brown; fine; with interbedded peaty clay lenses; trace iron cemented bands; moderate to strong sulphuric odour. Borehole discontinued at 20.45m depth. Target depth reached.		EST		VD		W		ES		20.45	PID SPT	<1ppm 17,31,40 N=71 no sample recovered		
		21											21				
		22											22				
		23											23				
		24											24				
		25											25				
		26											26				
		27											27				
		28											28				
		29											29				

NOTES: ^(*)Soil origin is "probable" unless otherwise stated. ^(*)Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

NOTES: #Soil origin is "probable" unless otherwise stated. %Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA
METHOD: DT to 0.2m, AD to 5.5m, WB to 20.0m
REMARKS: ^Field Replicate BD/230830

OPERATOR: Ground Test (DB)

LOGGED: ZW
CASING: Nil

Refer to explanatory notes for symbol and abbreviation definitions

BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 10.1 AHD
COORDINATE: E:334778.3, N:6241616.1
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 209
PROJECT No: 219609.02
DATE: 11/09/23
SHEET: 1 of 2

CONDITIONS ENCOUNTERED															SAMPLE		TESTING AND REMARKS			
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(#)	CONSIS. ^(*)	DENSITY. ^(*)	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	BACKFILL	WELL PIPE				
11/09/23 No free groundwater observed whilst augering	10	1	FILL / Silty SAND: dark grey-brown; fine to medium; low plasticity silt; with fine to coarse igneous and sandstone gravels; trace concrete fragments, clinker, ash and resin (white and yellow acrylic in appearance) and rootlets; possibly hydrocarbon stained; slight hydrocarbon odour; grass cover. 2.20m: asbestos containing material From 2.50m: with clay and concrete rubble; moderate chemical odour From 4.00m: decreasing anthropogenic inclusions From 5.00m: no observable anthropogenic inclusions; trace rootlets		FILL	VC		M		A/ES	0.20	PID	4ppm							
	ES									0.50						PID	13ppm			
																		ES	0.70	
	ES									1.00										
	ES									1.20	SPT	5,6,5 N=11								
	ES									1.45	PID	20ppm								
	ES									2.00	PID	14ppm								
													ES			2.20				
	ES									2.50	PID	137ppm								
	ES									SPT	9,15,17/100 (HB)									
	ES									2.90										
	ES									3.50	PID	160ppm								
	ES									3.70										
	ES									4.00	SPT	3,8,4 N=12								
	ES									4.45	PID	150ppm								
	ES									5.00	PID	267ppm								
	ES									5.20										
	ES									5.50	PID	107ppm								
	ES	SPT	3,2,2 N=5																	
	ES	5.95																		
	6.50	7	SAND (SP): pale grey-brown; fine to medium; slight chemical and hydrocarbon odour.		EST possibly AEO	MD	W		ES	6.50	PID	12ppm								
	ES								6.95	SPT	7,11,11 N=22									
	8.00	9	Silty SAND (SM): brown and dark brown; with interbedded peaty sand bands, up to 200mm thick; slight hydrocarbon odour.		EST	VD			ES	8.00	PID	<1ppm								
	ES								8.30	SPT	12,25 (HB)									
ES	9.00								SPT	10,15,16 N=31										
ES	9.45								PID	<1ppm										

NOTES: ^(*)Soil origin is "probable" unless otherwise stated. ^(*)Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

NOTES: #Soil origin is "probable" unless otherwise stated. °Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA
METHOD: AD to 5.5m, WB to 19.5m
REMARKS:

OPERATOR: Ground Test (DB)

LOGGED: ZW
CASING: Nil

BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 10.1 AHD
COORDINATE: E:334778.3, N:6241616.1
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 209
PROJECT No: 219609.02
DATE: 11/09/23
SHEET: 2 of 2

CONDITIONS ENCOUNTERED						SAMPLE			TESTING AND REMARKS						
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(#)	CONSIS. ⁽¹⁾ DENSITY. ⁽¹⁾	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	BACKFILL	WELL PIPE
	6		[CONT] Silty SAND (SM): brown and dark brown; with interbedded peaty sand bands, up to 200mm thick; slight hydrocarbon odour.						ES			PID	<1ppm		
											10.45	SPT	12,22,24 (HB)		
	11								ES			PID	<1ppm		
											11.00	SPT	14,26 (HB)		
			From 11.00m: grey-brown; slight sulphuric odour			VD					11.30				
	12								ES			PID	<1ppm		
			From 12.00m: brown; decreasing peaty sand bands		EST		W				12.00	SPT	9,13,20 (HB)		
											12.45				
	13								ES			PID	<1ppm		
						D					13.00	SPT	10,16,19 N=35		
											13.45	PID	<1ppm		
	14								ES			PID	<1ppm		
			From 14.00m: pale grey-brown			VD					14.00	SPT	17,31 (HB)		
											14.30	PID	<1ppm		
	14.50		Peaty CLAY (OL): dark grey; low to medium plasticity; moderate sulphuric odour.												
	15				EST	St to VSt	w=PL		ES			PID	4ppm		
			From 15.20m: grading into peaty sand; strong sulphuric odour								15.20	SPT	7,5,10 (HB)		
									ES			PID	<1ppm		
	15.50		SAND (SP): grey-brown; fine to medium; slight sulphuric odour.												
	16														
									ES			PID	<1ppm		
											16.50	SPT	28,25/80		
											16.73				
	17														
					EST	VD	W								
	18								ES			PID	<1ppm		
											18.00	SPT	23,25/100		
											18.25				
	19														
			From 19.50m: grey			D			ES			PID	<1ppm		
			Borehole discontinued at 19.95m depth. Target depth reached.								19.50	SPT	11,19,28 N=47		

NOTES: #Soil origin is "probable" unless otherwise stated. °Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA
METHOD: AD to 5.5m, WB to 19.5m
REMARKS:

OPERATOR: Ground Test (DB)
LOGGED: ZW
CASING: Nil

BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 8.7 AHD
COORDINATE: E:334788.1, N:6241582.2
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 210
PROJECT No: 219609.02
DATE: 12/09/23
SHEET: 1 of 2

CONDITIONS ENCOUNTERED																SAMPLE				TESTING AND REMARKS			
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(#)	CONSIS. ^(*)	DENSITY. ^(*)	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	BACKFILL	WELL PIPE							
12/09/23 No free groundwater observed whilst augering	8 7 6 5 4 3 2 1 0 -1		FILL / Silty SAND: dark grey-brown; fine to medium; low plasticity silt; with fine to coarse igneous and sandstone gravel and concrete rubble; trace clinker, rootlets; possibly hydrocarbon stained; slight hydrocarbon odour; grass cover.	<																			

NOTES: #Soil origin is "probable" unless otherwise stated. °Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA
METHOD: AD to 5.5m, WB to 19.5m
REMARKS:

OPERATOR: Ground Test (DB)

LOGGED: ZW
CASING: Nil

BOREHOLE LOG

CLIENT: ESR Australia
PROJECT: Proposed Industrial Development
LOCATION: 49-51 Stephen Road, Banksmeadow

SURFACE LEVEL: 8.7 AHD
COORDINATE: E:334788.1, N:6241582.2
DATUM/GRID: MGA2020 Zone 56
DIP/AZIMUTH: 90°/---°

LOCATION ID: 210
PROJECT No: 219609.02
DATE: 12/09/23
SHEET: 2 of 2

CONDITIONS ENCOUNTERED																SAMPLE			TESTING AND REMARKS			
GROUNDWATER	RL (m)	DEPTH (m)	DESCRIPTION OF STRATA	GRAPHIC	ORIGIN(#)	CONSIS. ⁽¹⁾	DENSITY. ⁽¹⁾	MOISTURE	REMARKS	TYPE	INTERVAL	DEPTH (m)	TEST TYPE	RESULTS AND REMARKS	BACKFILL	WELL PIPE						
			[CONT] Silty SAND (SM): brown and dark brown; with interbedded peaty sand bands, up to 200mm thick; moderate sulphuric and slight hydrocarbon odour.		EST																	
		11								ES	10.50	10.50	SPT	16,30 (HB)								
												10.80	PID	<1ppm								
		11.50	From 11.50m: pale brown to pale grey									11										
												11.50	PID	<1ppm								
		12	Silty SAND (SM); fine to medium; trace interbedded dark brown peaty sand bands, up to 50mm thick; slight to moderate sulphuric odour.		VD	NDF				ES	11.50	11.50	SPT	13,18,26 (HB)								
												11.95										
			From 12.50m: pale grey-brown		EST					ES	12.50	12.50	PID	1ppm								
		13										12.80	SPT	16,27 (HB)								
												13										
		13.60	Peaty CLAY (OL): dark grey; low to medium plasticity; moderate sulphuric odour.		EST	VSt	w=PL			ES	13.50	13.60	PID	<1ppm								
		14								ES	13.60	13.60	SPT	12,10,8 N=18								
												13.95	PID	7ppm								
		14.50	SAND (SM): grey-brown; fine to medium; slight sulphuric odour.							ES	14.50	14.50	SPT	26,25/80 (HB)								
		15										14.73	PID	1ppm								
												15										
										ES	15.50	15.50	PID	<1ppm								
		16										15.72	SPT	28,25/70 (HB)								
												16										
										ES	16.50	16.50	PID	<1ppm								
		17			EST	VD	NDF					16.77	SPT	20,25/120 (HB)								
												17										
		18								ES	18.00	18.00	PID	9ppm								
										ES	18.20	18.20	SPT	6,20,25/110 (HB)								
												18.41	PID	4ppm								
		19										19										
			Borehole discontinued at 19.74m depth. Target depth reached.							ES	19.50	19.50	PID	<1ppm								
												19.74	SPT	25,25/90 (HB)								

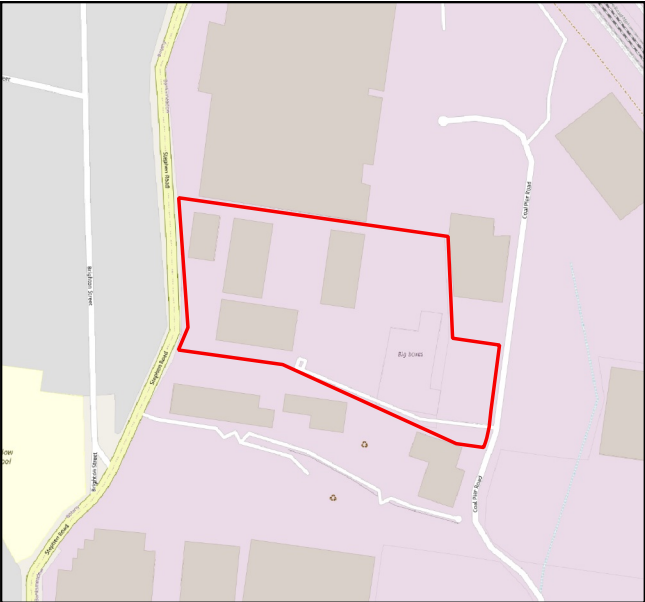
NOTES: ⁽¹⁾Soil origin is "probable" unless otherwise stated. ⁽²⁾Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

NOTES: #Soil origin is "probable" unless otherwise stated. %Consistency/Relative density shading is for visual reference only - no correlation between cohesive and granular materials is implied.

PLANT: EXPLORA
METHOD: AD to 5.5m, WB to 19.5m
REMARKS:

OPERATOR: Ground Test (DB)

LOGGED: ZW
CASING: Nil



LOCALITY MAP

- Notes:
- 1. Drawing projection GDA2020 / MGA zone 56.
 - 2. Aerial imagery sourced from Metromaps.
 - 3. Boundaries are approximate only.
 - 4. Locations within buildings are approximate only.

Legend

-  Site Boundary
- Groundwater Wells Sampled for Current Investigation
-  AECOM Groundwater Well
 -  ORICA Groundwater Well
 -  JBS&G Groundwater Well
 -  DP Groundwater Well

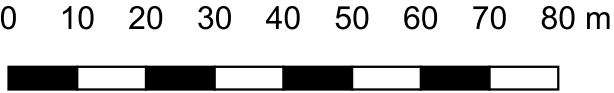


FIGURE 2:
GROUNDWATER ELEVATION

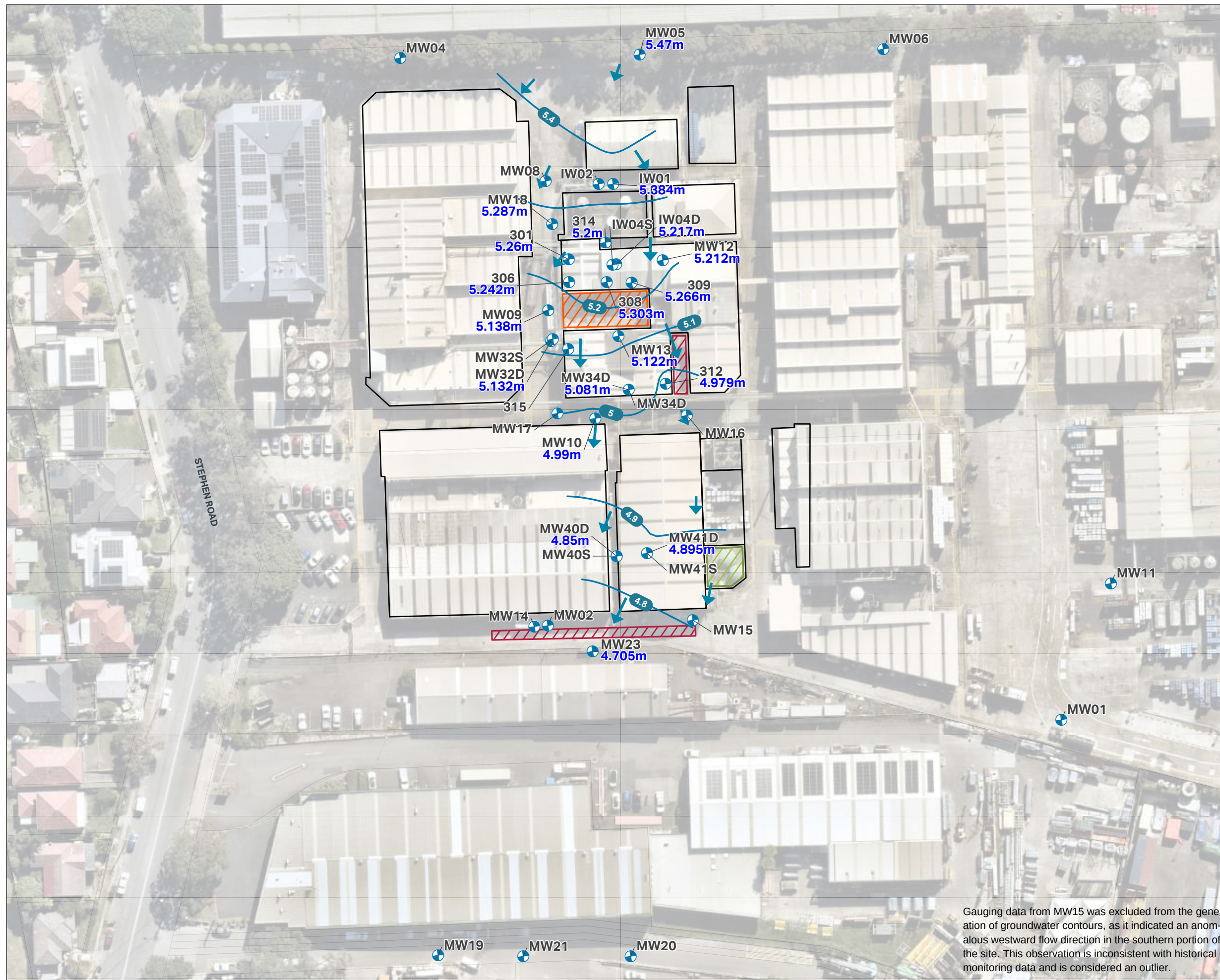
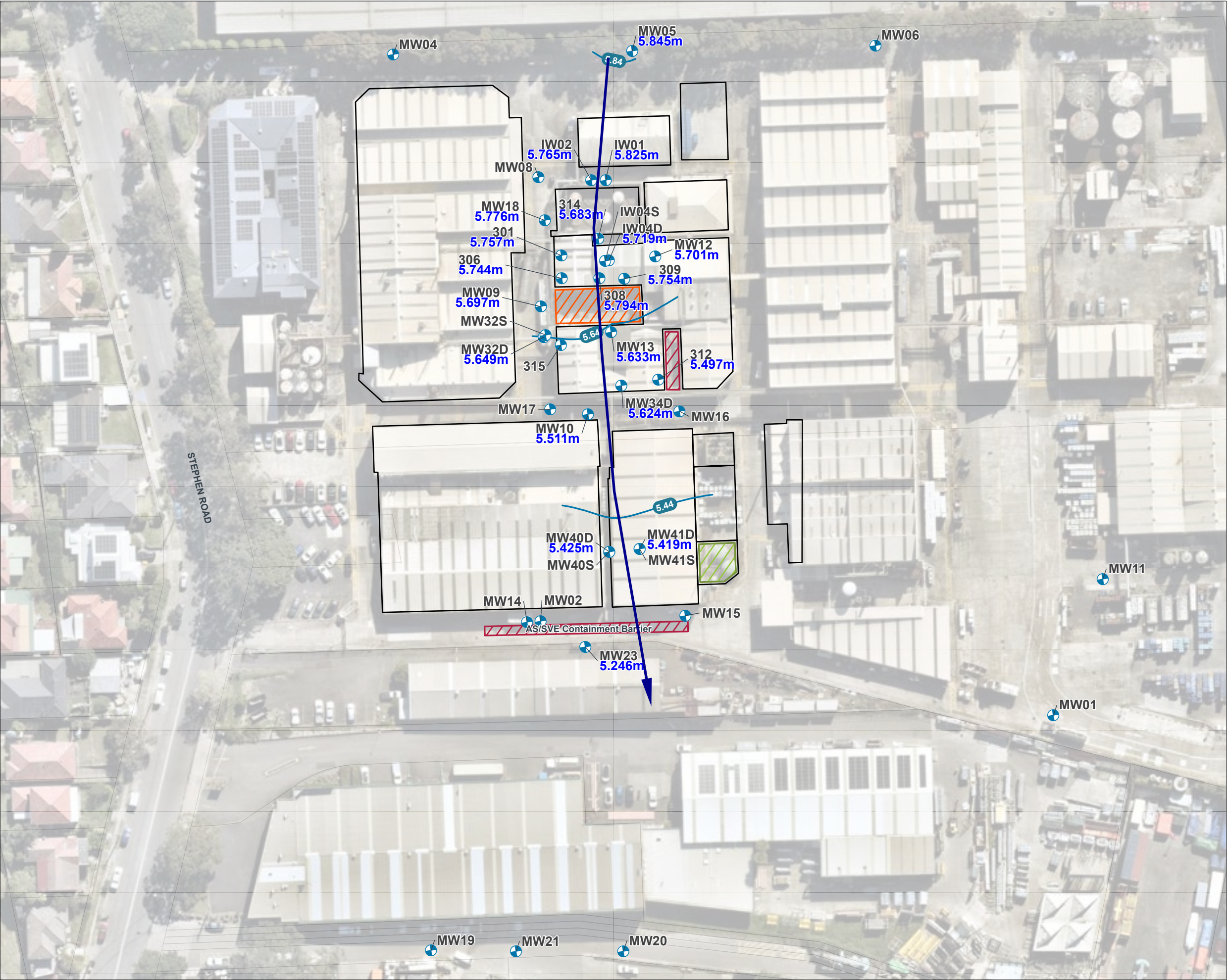




FIGURE F1:
GROUNDWATER ELEVATION
IN SEPTEMBER 2025 GME



Legend

- Lot boundary
- Groundwater elevation contour (mAHD)
- Sampling Location

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- Legend
- Approximate Site Boundary
 - NSW Cadastre
- Sample Locations
- Sample Well Locations
 - DP Monitoring Well (Not used for GW Contour Plot)
- Groundwater Elevation Contours (mAHd)
- Groundwater Contour Elevations mAHd
 - Inferred Groundwater Flow Direction



Job No: 65748

Client: Allnex

Version: L06 Rev A	Date 27/02/2025
Drawn By: HW	Checked By: JDM

Scale 1:600

0 5.5 11 metres

Coord. Sys. GDA 1994 MGA Zone 56

49-51 Stephen Road,
Botany, NSW

**GROUNDWATER SWL CONTOURS
JANUARY 2025**

FIGURE 3