

## 1. RESPONSES TO COMMENTS FROM THE TRANSPORT DEPARTMENT

### 1.1 Response to Comments from the Lands Department (LandsD) (Contact Person: Mr. Ricky FONG // Tel: 3793 4652)

Item	Departmental Comments	The Applicant's Responses														
LandsD(1)	<p>1. The following discrepancies regarding the slope features nos. 6SE-D/FR154(s.D.2), 6SE-D/F178(s.D.2), 6SE-D/C423(s.D.1) and 6SE-D/C425(s.D.1), as stated in "Appendix V- Geotechnical Planning Review Report" (GPRR) should be rectified by the applicant/the applicant's agent:</p> <p>a) Table 3.1 - The MR information for feature nos. 6SE-D/C423 and 6SE-D/C425 is different from that given in the Slope Maintenance Responsibility Information System (SMRIS) managed by the LandsD.</p>	<p>Noted. Table 3.1 was revised to state the maintenance agent for SD1 and SD2 of feature nos. 6SE-D/C423 and 6SE-D/C425 respectively, as shown below.</p> <table><tr><td>6SE-D/C423</td><td>Cut Slope</td><td>20</td><td>14</td><td>50</td><td>1</td><td><ul style="list-style-type: none"><li>Lands Department (SD1)</li><li>DD399 Lot453 (SD2)</li></ul></td></tr><tr><td>6SE-D/C425</td><td>Cut Slope</td><td>12</td><td>9</td><td>45</td><td>2</td><td><ul style="list-style-type: none"><li>Lands Department (SD1)</li><li>DD399 Lot453 (SD2)</li></ul></td></tr></table>	6SE-D/C423	Cut Slope	20	14	50	1	<ul style="list-style-type: none"><li>Lands Department (SD1)</li><li>DD399 Lot453 (SD2)</li></ul>	6SE-D/C425	Cut Slope	12	9	45	2	<ul style="list-style-type: none"><li>Lands Department (SD1)</li><li>DD399 Lot453 (SD2)</li></ul>
6SE-D/C423	Cut Slope	20	14	50	1	<ul style="list-style-type: none"><li>Lands Department (SD1)</li><li>DD399 Lot453 (SD2)</li></ul>										
6SE-D/C425	Cut Slope	12	9	45	2	<ul style="list-style-type: none"><li>Lands Department (SD1)</li><li>DD399 Lot453 (SD2)</li></ul>										
LandsD(2)	<p>b) Table 3.2 - Studies/upgrading works had been carried out for the Government portion of feature nos. 6SE-D/FR154 (s.D.2) and 6SE-D/C423 (s.D.1). Relevant information should be retrieved and presented.</p>	<p>Noted. Table 3.2 was revised, as shown below:</p> <table><tr><td>6SE-D/FR154</td><td>The government portion of the feature (SD2) was upgraded under Agreement No. CE31/2006 (GE) by AECOM commissioned by Lands Department. The certificate of design and completion &amp; GEO Checking Certificate for Slopes and Retaining Walls was submitted in 2012.</td></tr><tr><td>6SE-D/C423</td><td><p>A Stage 2 Study was previously carried out by Maunsell Geotechnical Services Ltd. in 1999. The report presents that the minimum FOS of eastern slope portion of the feature using lower bound shear strength parameters is 0.947 which is lower than the standard value of 1.2 for existing feature. The report was accepted by GEO.</p><p>DH Order Nos. DH117/NT/01/C was issued by BD on in 2001. The feature was modified/upgraded to current standard and accepted by BD in 2005 and GEO in 2008. The related document is recorded in Private Project No. GCMW 3/5/DH50/01/NT, which shall be kept by the owner of DD399 Lot453 (La Casetta).</p><p>A Stage 3 Study was carried out by C M Wong &amp; Associates Ltd. under Agreement No. CE 46/2006 (GE) in 2010; and the recommended slope upgrading work was completed by Geotech Engineering Ltd. in 2010. The maintenance manual no. is MM199/2010.</p></td></tr></table>	6SE-D/FR154	The government portion of the feature (SD2) was upgraded under Agreement No. CE31/2006 (GE) by AECOM commissioned by Lands Department. The certificate of design and completion & GEO Checking Certificate for Slopes and Retaining Walls was submitted in 2012.	6SE-D/C423	<p>A Stage 2 Study was previously carried out by Maunsell Geotechnical Services Ltd. in 1999. The report presents that the minimum FOS of eastern slope portion of the feature using lower bound shear strength parameters is 0.947 which is lower than the standard value of 1.2 for existing feature. The report was accepted by GEO.</p> <p>DH Order Nos. DH117/NT/01/C was issued by BD on in 2001. The feature was modified/upgraded to current standard and accepted by BD in 2005 and GEO in 2008. The related document is recorded in Private Project No. GCMW 3/5/DH50/01/NT, which shall be kept by the owner of DD399 Lot453 (La Casetta).</p> <p>A Stage 3 Study was carried out by C M Wong &amp; Associates Ltd. under Agreement No. CE 46/2006 (GE) in 2010; and the recommended slope upgrading work was completed by Geotech Engineering Ltd. in 2010. The maintenance manual no. is MM199/2010.</p>										
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## 2 Site Description

- 2.1.1 The Site, La Casetta, is located on the hillslopes between Castle Peak Road – New Ting Kau on the downhill and Tuen Mun Road on the uphill, in Ting Kau. The Site is also situated to the southeast of another residential block, The Wonderland. The Site is accessed by Ting Yat Road, which aligns alongside Castle Peak Road – Ting Kau. The general location of the Site is shown in **Figure 1**.
- 2.1.2 The Site, with an area of approximately 773m<sup>2</sup>, is surrounded by eight (8) geotechnical features. These features will potentially affect or be affected by the proposed development. The maintenance responsibility of these features as indicated in the Systematic Identification of Maintenance Responsibility (SIMAR) of Slopes are summarized in Table 2.1 below. In accordance with Tables 5.1 – 5.4 of the Geotechnical Manual for Slopes and Table 1 of Geotechnical Engineering Office (GEO) Technical Guidance Note 15 (TGN 15), the facility groups at crest and toe of these features, which are based on the current site situations, and the associated Consequence-to-life (CTL) categories are determined and summarized in Table 2.1 below. A plan showing the location of the eight registered features is presented in **Figure 2**.

Table 2.1: Existing Geotechnical Features

Feature no.	Current Facility Group at Crest	Current Facility Group at Toe	Consequence-to-Life Category (CTL)	Maintenance agent
6SE-D/CR47	Undeveloped green belt	Residential building	1	• DD399 Lot439
6SE-D/R137	Residential building	Road / Footpath with very low traffic density	1	• DD399 Lot453
6SE-D/FR154	Cottage, licensed and squatter area	Road/footpath with moderate traffic density	1	• DD399 Lot453 (SD1) • Lands Department (SD2)
6SE-D/F178	Cottage, licensed and squatter area	Road / Footpath with low traffic density	1	• DD399 Lot453 (SD1) • Lands Department (SD2)
6SE-D/C423	Residential building	Road/footpath with moderate traffic density	1	• Lands Department (SD1) • DD399 Lot453 (SD2)
6SE-D/CR424	Undeveloped green belt	Residential building	1	• DD399 Lot453
6SE-D/C425	Undeveloped green belt	Road/footpath with moderate traffic density	2	• Lands Department (SD1) • DD399 Lot453 (SD2)
6SE-D/C600	Residential building	Road/footpath with moderate traffic density	1	• Highways Department

- 2.1.3 There is a southwest facing natural hillside situated on the upslope of the Site. The natural hillside rises from approximately 50mPD from behind the Site to 72mPD below Tuen Mun Road, inclining at about 22°.
- 2.1.4 Topographical survey and lot boundary survey works were carried out by Henry Chan Surveyors Ltd. and were completed in March 2024. The topographical survey plan is included in **Appendix C**.

## 3 Desk Study

### 3.1 General

- 3.1.1 A review of the available geological and geotechnical data for the Site area and its general vicinity has been carried out. Most of the relevant information was collated from GEO's web-based Geotechnical Information Infrastructure (GInfo). The available information includes published geological data, archived ground investigation (GI) data, Landslide Incident Record, and previous studies / assessments relating to the existing features. Some of the key findings are summarized below.

### 3.2 Published Geology

- 3.2.1 According to the Hong Kong Geological Survey (HKGS) Map Sheet 6 (scale 1:20,000) – Solid and Superficial Geology of Yuen Long (2nd Edition, 2019), the Site and its general vicinity are generally underlain by superficial deposits consisting of Fill overlying colluvium and completely decomposed Tuff; whereas the solid geology is predominated by coarse ash crystal Tuff of the Yim Tin Tsai Formation. An extract of the published geological map showing the Site and its vicinity is produced in **Figure 2**.

### 3.3 Adjacent Features and Associated Studies

- 3.3.1 The Site is situated on a sloping terrain and it is encircled by eight (8) man-made registered features. The basic information of these features is summarized below:

Table 3.1: Summary of the Basic Information of Features

Feature	Type	Geometry			Current CTL	Maintenance agent
		Length (m)	Height (m)	Angle (degree)		
6SE-D/CR47	Cut Slope with Retaining Wall	47 (S) 43 (W)	9 (S) 5.9 (W)	55 (S) 85 (W)	1	• DD399 Lot439
6SE-D/R137	Retaining Wall	38	3.3	90	1	• DD399 Lot453
6SE-D/FR154	Fill Slope with Retaining Wall	15 (S) 17 (W)	6 (S) 3.4 (W)	40 (S) 90 (W)	1	• DD399 Lot453 (SD1) • Lands Department (SD2)
6SE-D/F178	Fill Slope	26 (SD1) 26 (SD2)	3 (SD1) 1.5 (SD2)	35 (SD1) 70 (SD2)	1	• DD399 Lot453 (SD1) • Lands Department (SD2)
6SE-D/C423	Cut Slope	20	14	50	1	• Lands Department (SD1) • DD399 Lot453 (SD2)
6SE-D/CR424	Cut Slope with Retaining Wall	27 (S) 25 (W)	8.4 (S) 2.8 (W)	60 (S) 90 (W)	1	• DD399 Lot453

6SE-D/C425	Cut Slope	12	9	45	2	<ul style="list-style-type: none"> <li>• Lands Department (SD1)</li> <li>• DD399 Lot453 (SD2)</li> </ul>
6SE-D/C600	Cut Slope	6	14	40	1	<ul style="list-style-type: none"> <li>• Highways Department</li> </ul>

3.3.2 Background information search was carried out to identify any previous studies and / or records of upgrading / maintenance works on these features and the results are summarised in the table below.

Table 3.2: Summary of Previous Studies / Upgrading Works

Feature	Slope Assessment / Upgrading Works / Maintenance Records
6SE-D/CR47	<p>A Stage 2 Study was previously carried out by Maunsell Geotechnical Services Ltd. in 1999. The report presents that the minimum FOS of slope portion of the feature using lower bound shear strength parameters is around 1.1 which is lower than the standard value of 1.2 for existing feature.</p> <p>Nevertheless, since the stability analysis was carried out using the worst soil parameters, and no sign of distress was observed on the slope feature during the engineer inspection in 1999, the feature was considered safe and no upgrading works were required. The report was accepted by GEO in 2001.</p>
6SE-D/R137	Records on previous slope assessment / upgrading works / maintenance records are not available.
6SE-D/FR154	The government portion of the feature (SD2) was upgraded under Agreement No. CE31/2006 (GE) by AECOM commissioned by Lands Department. The certificate of design and completion & GEO Checking Certificate for Slopes and Retaining Walls was submitted in 2012.
6SE-D/F178	Records on previous slope assessment / upgrading works / maintenance records are not available.
6SE-D/C423	<p>A Stage 2 Study was previously carried out by Maunsell Geotechnical Services Ltd. in 1999. The report presents that the minimum FOS of eastern slope portion of the feature using lower bound shear strength parameters is 0.947 which is lower than the standard value of 1.2 for existing feature. The report was accepted by GEO.</p> <p>DH Order Nos. DH117/NT/01/C was issued by BD on in 2001. The feature was modified/upgraded to current standard and accepted by BD in 2005 and GEO in 2008. The related document is recorded in Private Project No. GCMW 3/5/DH50/01/NT, which shall be kept by the owner of DD399 Lot453 (La Casetta).</p> <p>A Stage 3 Study was carried out by C M Wong &amp; Associates Ltd. under Agreement No. CE 46/2006 (GE) in 2010; and the recommended slope upgrading work was completed by Geotech Engineering Ltd. in 2010. The maintenance manual no. is MM199/2010.</p>
6SE-D/CR424	<p>A Stage 2 Study was previously carried out by Maunsell Geotechnical Services Ltd. in 1999 and the report was accepted by GEO. GEO checking certificate was issued in 2001. The report presents that the minimum FOS of slope portion of the feature using lower bound shear strength parameters is 0.883 which is lower than the standard value of 1.2 for existing feature. The report was accepted by GEO.</p> <p>DH Order Nos. DH116/NT/01/C was issued by BD in 2001. The feature was modified/upgraded to current standard and accepted by BD in 2005 and GEO in 2008. The related document is recorded in Private Project No. GCMW 3/5/DH50/01/NT, which shall be kept by the owner of DD399 Lot453 (La Casetta).</p>