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(Attn: Ms. Wendy JAN)

Dear Sirs,

**Public Accounts Committee**

**Consideration of Chapter 6 of the Director of Audit's Report No. 76**

**Site formation and associated infrastructure works for development  
Near Choi Wan Road and Jordan Valley**

With reference to your letter dated 13 May 2021 attaching the enquiries of the Public Accounts Committee on Chapter 6 of the subject Audit Report, we provide our written responses to and/or information on the issues set out in the **Appendix**. The soft copy (in Microsoft Word format) of the responses will be emailed to you separately.

Yours Faithfully,

( Victor CHAN )

for Director of Civil Engineering and Development

Encl.

卓越工程 建設香港  
We Engineer Hong Kong's Development

c.c.  
STH  
SFST  
D of Audit

Internal

DCED, DDCED, AD/A, CE/HQ, H(GEO)

PAC's Enquiries	CEDD's Responses
<p><b>Part 2: Contractual disputes under Contract A</b></p> <p>1) According to paragraph 2.11 of the Director of Audit's Report No. 76 ("Audit Report"), Contractor A contended that the Civil Engineering and Development Department ("CEDD") was not able to arrange acceptance of disposal materials from disposal sites in a timely manner and claimed for additional payment for stockpiling and handling of disposal materials. According to paragraph 2.13(a) of the Audit Report, CEDD considered that Contractor A's claim could have been mitigated if the forecast on the generation and demand of fill materials had been reviewed and updated to enhance accuracy and facilitate formulation of the subsequent disposal arrangement. What improvement measures have been/will be taken to improve the accuracy of such forecast work?</p>	<p>Public fill materials by nature are excavated materials from ground or demolition materials of disused structures/facilities. They are collectively referred to as construction and demolition (C&amp;D) materials. The estimated quantity and quality of the excavated materials from ground are interpreted based on available site data and site investigation that can be carried out at the design stage, and is subject to the variance of actual ground conditions encountered on-site. Sometimes site investigation at certain areas may not be able to proceed due to site accessibility constraints. While a comprehensive site investigation plan at the design stage may help improve the accuracy of forecast estimate on the quantity and quality of excavated materials, it is also important to verify, review and update the assumed ground conditions based on the actual excavated materials, and/or supplementary site investigation conducted during the construction stage.</p> <p>In the case of Contract A, it was due to an unforeseeable judicial review initiated in February 2003 against the proposed reclamation under the Wan Chai Development II, which interrupted the reclamation programme, resulting in a decrease in the demand for disposal materials produced under Contract A during that period. Such decrease in the demand could not have been contemplated. To address the problem, the project office had closely reviewed with other offices to identify additional areas in Kai Tak site to temporarily stockpile the excavated materials from Jordan Valley till the substantial completion of Contract A in 2006.</p> <p>In August 2011, the Development Bureau (DEVB) promulgated Technical Circular (Works) No. 9/2011 "Enhanced Control Measures for Management of Public Fill" to enhance the estimation and management of generation and demand of C&amp;D materials of public works projects. Since then, projects dealing with significant</p>

# Appendix

PAC's Enquiries	CEDD's Responses
	<p>amount of C&amp;D materials (with surplus in excess of 300,000m<sup>3</sup> or requiring imported fill exceeding 300,000m<sup>3</sup> are required to review and report changes in the forecast estimate on generation or demand of C&amp;D materials to the respective Departmental C&amp;D Materials Vetting Committee (Vetting Committee) on quarterly basis. The Vetting Committee is chaired by a project officer at D2 rank with members at D1 rank and a senior engineer to scrutinize and endorse the estimated generation and demand of C&amp;D materials of individual projects. The project offices shall provide detailed explanations for any changes in the forecast estimates, and measures to minimize the impacts arising from the changes. The Vetting Committee will check the accuracy of the forecast estimate submitted by respective projects. Upon the high level departmental scrutiny of the projects, the updated forecast estimate will be submitted to the Public Fill Committee (PFC) of the Civil Engineering Development Department (CEDD), which oversees the management of public filling operations and facilities, for further vetting.</p> <p>The Circular lays down a continuous review, update and monitoring of the estimated quantity of C&amp;D materials generated / demanded at multiple management levels to enable better forward planning on designation of reception sites in a timely manner.</p>
<p>2) According to paragraph 2.17(b) of the Audit Report, regarding Contractor A's claim relating to the valuation of concrete buttress works, CEDD considered that the root cause was due to inconsistency between contract drawings and Bills of Quantities ("BQ"). Can you explain why CEDD could not identify such inconsistency when vetting the contract documents? What improvement measures have been/will be taken to enhance the vetting of contract documents?</p>	<p>Civil engineering construction contract is a complex legal document composing of various inter-related component parts that provide numerous information and specifications on the works to be constructed. It is important for this complex contract document be carefully prepared and thoroughly vetted to ensure the compatibility and consistency of its component parts, as inconsistencies among them might give rise to potential contractual implication. In some twenty years ago when the contract documents of Contract A were prepared and vetted, they were all carried out by the project team, which was indeed the prevailing practice at that time. While there was no record indicating how the documents of Contract A were</p>

# Appendix

PAC's Enquiries	CEDD's Responses
	<p>vetted by the project team, due to the complexity and voluminous size of the contract documents, some inconsistencies therein had not been identified.</p> <p>In 2014, CEDD incorporated further guidelines on checking the completeness and accuracy of Bill of Quantities (BQ) and related documents into the Project Administration Handbook for Civil Engineering Works (PAH), with an aim to enhancing the vetting of contract documents. They include :</p> <ul style="list-style-type: none"> <li>(a) introduce a pre-tender cross team checking procedures in the preparation of BQ;</li> <li>(b) conduct spot-checking on the quantities of selected cost significant items by project office; and</li> <li>(c) convene a meeting chaired by a project officer at a rank not lower than D1 to vet BQ and Particular Preamble prepared and to ensure that all the checking and cross team checking procedures have been duly completed and documented.</li> </ul>
<p>3) According to paragraphs 2.20(a) and 2.21 of the Audit Report, you have agreed to closely monitor the effectiveness of the enhanced control measures for the management of disposal materials. Have you conducted a review to evaluate the effectiveness of the enhanced control measures? If yes, what were the review results? If not, will you conduct such review?</p>	<p>Please refer to the third and fourth paragraphs of our responses on improvement measures to 1) above.</p> <p>We have continuously monitored and reviewed the effectiveness of the enhanced control measures. Thus far, we are not aware of any contractual dispute about disposal of C&amp;D materials.</p>

<p><b>PAC's Enquiries</b></p>	<p><b>CEDD's Responses</b></p>
<p>4) According to paragraph 2.24(a)(v) of the Audit Report, as of October 2004, based on Consultant X's estimation of the remaining quantity of rock materials available from Contract A, CEDD was still expecting full delivery of the agreed quantity of rock materials to Shek O Quarry. However, in January 2005, Consultant X revised its estimate and predicted that only 95% of the agreed quantity of rock materials could be delivered to Shek O Quarry. Can you explain why the situation changed in such a short period of time? What lessons have you drawn from this case?</p>	<p>As revealed from records, Consultant X erroneously over-estimate in October 2004 the remaining quantity of rock materials available from the Contract A, because he had not duly taken into account the surveyed volume of stockpiled materials and excavated materials, thus not verifying the former assumption on the percentage of rock quantity. Upon a subsequent review in January 2005, Consultant X fixed the error and revised the estimated quantity. In this case, CEDD was not satisfied with the performance of the Consultant X and had reflected the poor performance in this respect in Consultant X's performance report for the first quarter of 2005.</p> <p>The lesson learnt from the case is that due to the inherent complexity and variance of underground geology, the actual ground condition encountered in construction stage might vary much from the ground conditions assumed in the design stage. There is therefore a need to review, update and carry out supplementary site investigation at the construction stage to reveal the actual ground conditions in a timely manner and update the estimated rock quantity accordingly. To this end, the Geotechnical Engineering Office (GEO) of CEDD published "GEO Publication No. 1/2007 - Engineering Geological Practice in Hong Kong" in 2007 and also updated the "Geoguide 2: Guide to Site Investigation" in 2017 to provide further guidance on good site investigation practice for works departments. These guidelines have put emphasizes on the need of reviewing the ground condition during the construction stage and conducting additional site investigation, if found necessary, to verify the design assumption. In March 2018, DEVB promulgated further guidelines on geotechnical works of public works projects via Technical Circular (Works) No. 3/2018 regarding "Enhancing Cost Effectiveness of Geotechnical Works of Capital Works Projects". All these documents serve as comprehensive guidelines on site investigation works at the detailed design stage.</p>

PAC's Enquiries	CEDD's Responses
	<p>Pursuant to the above-mentioned guidelines, works departments are required to submit ground investigation plan and the schematic design proposal with relevant information (e.g. required ground investigation data) to GEO for review and comment to enable a comprehensive site investigation be conducted, as far as practicable, at the detailed design stage. The expertise advice of GEO helps project offices to derive adequate and reasonable site investigation plans in detailed design stage for interpreting ground conditions, so as to enhancing the accuracy of estimating the quantity of excavated materials to be generated.</p>
<p>5) According to paragraph 2.24(b)(iii) of the Audit Report, Contractor A installed a magnet in its plant for processing the excavated materials to improve the quality of disposal materials in May 2003 (i.e. four months after Contractor D had raised the quality issue). Do you consider this not satisfactory? What improvement measures have been/will be taken in this regard?</p>	<p>According to records, upon Contractor D raising the quality issue in January 2003, the respective project teams discussed the matter promptly with the two contractors A and D. Contractor A then tailor-made a magnetic device and installed it at the conveyor belt system in May 2003 for processing the excavated materials to improve the quality of disposal materials. After the installation of the magnetic device, Contractor D also stationed a full time site supervisor at the Kai Tak site to inspect rock materials before delivering the materials to Shek O Quarry. Contractor D indicated that there was great improvement of the quality of rock delivered to Shek O Quarry afterwards.</p> <p>CEDD considered it not unreasonable for Contractor A taking the 4 months for the design, ordering, manufacturing and installation of the tailor-made magnetic device.</p>
<p>6) According to paragraphs 2.28(a) and 2.29 of the Audit Report, you have agreed to remind CEDD staff and consultants to conduct thorough ground investigation at the detailed design stage in accordance with the related guidelines with a view to enhancing the accuracy of the estimation of the quantity of</p>	<p>GEO published "GEO Publication No. 1/2007 – Engineering Geological Practice in Hong Kong" and updated the "Geoguide 2: Guide to Site Investigation" in 2007 and 2017 respectively, providing guidance on good site investigation practice for works departments to plan and carry out ground investigation of works sites. In March 2018, DEVB promulgated further guidelines on geotechnical works of public works projects via Technical Circular (Works) No. 3/2018 regarding "Enhancing Cost Effectiveness</p>

<p><b>PAC's Enquiries</b></p>	<p><b>CEDD's Responses</b></p>
<p>excavated materials generated from a works contract. Have you done so? What further measures will you take to enhance the accuracy of the estimation and ensure that CEDD staff and consultants follow such guidelines?</p>	<p>of Geotechnical Works of Capital Works Projects". These documents serve as comprehensive guidelines on site investigation works at the detailed design stage.</p> <p>Pursuant to the above-mentioned guidelines, works departments are required to submit ground investigation plan and the schematic design proposal with relevant information (e.g. required ground investigation data) to GEO for review and comment to enable a comprehensive site investigation be conducted, as far as practicable, at the detailed design stage. The expertise advice of GEO helps project offices to derive adequate and reasonable site investigation plans in detailed design stage for interpreting ground conditions, so as to enhancing the accuracy of estimating the quantity of excavated materials to be generated.</p> <p>CEDD staff and its consultants are obliged to follow the promulgated guidelines in implementing the projects. In addition to providing access to these above-mentioned documents from public domain, CEDD posted them in CEDD's Bulletin Board for the convenient access and reference of its staff. Furthermore, CEDD reminded its staff and consultants on 14 May 2021 to conduct thorough ground investigation at the detailed design stage in accordance with the guidelines. CEDD will continue to remind its staff and consultants to observe the latest guidelines.</p>
<p>7) According to paragraphs 2.28(b) and 2.29 of the Audit Report, you have agreed to closely monitor the quantity and quality of excavated materials delivered to specified disposal sites to ensure compliance with the related contract requirements. What monitoring actions have been/will be taken in this regard?</p>	<p>Please refer to the third and fourth paragraphs of our responses on improvement measures to 1) above.</p> <p>The above-mentioned mechanism enables continuous monitoring actions throughout the construction stage to review and update the quantity and quality of excavated materials based on latest ground investigation data and excavated materials revealed on site. Nevertheless, CEDD would continue to remind its staff, consultants and resident site staff to comply with these requirements.</p>



PAC's Enquiries	CEDD's Responses
<p><b>Part 3: Other issues under Contract A</b></p> <p>8) According to paragraph 3.2(b)(ii) of the Audit Report, CEDD said that in conducting future site investigations for large-scale sites, the Government would employ geological experts and geological engineers to study the aerial photographs and the geological model of the site to determine the number and location of the boreholes for site investigation. Has CEDD incorporated this procedure in the relevant guidelines? If not, why not and when will you do so?</p>	<p>CEDD have incorporated the requirements in the "Geoguide 2: Guide to Site Investigation", which provides guidance and good practices on site investigation, such as desirable borehole arrangements and the need of suitably qualified geological professionals in the process. Besides, the "GEO Publication No. 1/2007 – Engineering Geological Practice in Hong Kong", published in 2007, gives a detailed account on the use of geological assessment methods such as aerial photographs and geological models, and how these can achieve better site investigation results.</p>
<p>9) According to paragraph 3.3(a) of the Audit Report, after the award of Contract A, "Geoguide 2: Guide to Site Investigation" published by the Geotechnical Engineering Office ("GEO") of CEDD was updated in 2017 to provide further guidelines in the application of new technologies and digital tools to enhance site investigation works. Can you elaborate more on the new technologies and digital tools? What is the extent of application of these new technologies and digital tools in conducting site investigation works? What support will CEDD provide to other works departments in the application of these new technologies and digital tools?</p>	<p>The new technologies include geophysical survey and directional coring techniques in ground investigation. Comparatively more geological information may be obtained by these techniques as compared with that from conventional boreholes. In regards to digital tools, a database of ground investigation and laboratory testing results is accessible through the Digital Geotechnical Information Unit (DGIU) system in the Geotechnical Information Unit (GIU) in the Civil Engineering Library of CEDD, which is a computerized geographical information platform to facilitate project offices or their consultants to collect desk study information for planning project-specific site investigation works. Project offices from various departments can approach GEO of CEDD for advice or assistance in planning of ground investigation works or accessing to the DGIU system.</p>

<p><b>PAC's Enquiries</b></p>	<p><b>CEDD's Responses</b></p>
<p>10) According to paragraph 3.7(a)(iii) of the Audit Report, after the flyrock incident in February 2003, Contractor A proposed extensive protective measures in order to avoid the recurrence of similar incidents and the proposed measures were acceptable to CEDD. However, according to paragraph 3.7(b) of the Audit Report, there was another flyrock incident in June 2003. Were the two flyrock incidents similar in nature? Had Contractor A adopted the proposed extensive protective measures for the blasting activities in June 2003? If yes, can you explain why the flyrock incident in June 2003 still happened? Please also advise whether the protective measures proposed by Contractor A had incurred extra expenditure borne by CEDD; if yes, the amount involved.</p>	<p>The two incidents were not similar in nature and their causes of flyrock were different, according to the expert review of the incidents. The first incident taken place in February 2003 was attributed to adversely-oriented rock joint. The effective protective measures against flyrock developed afterwards were scenario-specific and might not be able to avoid the second incident from taking place in June 2003, which was caused by excessive explosion effect in an unexpectedly hard rock and some protective and precautionary measures specified in the method statement not taken or not effectively taken by the contractor.</p> <p>Pursuant to the contract requirements, the protective measures proposed by Contractor A after the incidents were implemented at its own cost without incurring extra expenditure to CEDD.</p>
<p>11) According to paragraph 3.7(b)(ii) and (iii) of the Audit Report, some protective and precautionary measures specified in the method statement were not taken or not effectively taken by Contractor A for the rock blast on 6 June 2003. Had Contractor A followed the measures specified in the method statement, the injuries and damage resulting from the flyrock incident would likely have been significantly reduced or even avoided. What monitoring actions had been taken against Contractor A for the blasting activities? What measures have been/will be taken to ensure that CEDD contractors properly follow the measures specified in</p>	<p>CEDD was not satisfied that some protective and precautionary measures specified in the method statement were not taken or effectively taken by Contractor A, and reflected the poor performance in this respect in Contractor A's performance report.</p> <p>After the incident in June 2003, Contractor A was subject to more stringent control requirements for carrying out blasting works. Those included deployment of full-time suitably qualified blasting engineer on site, who had to confirm to CEDD before each blast the full implementation of the necessary protective measures.</p> <p>After the two incidents, site supervision for subsequent projects involving blasting activities were enhanced to ensure contractor's compliance with blasting-related requirements, including strict adherence to the protective measures specified in the</p>

<p><b>PAC's Enquiries</b></p>	<p><b>CEDD's Responses</b></p>
<p>the method statement for future works projects involving blasting activities?</p>	<p>approved method statement. CEDD also amended the Project Administration Handbook in 2007 and relevant Mines Division Guidance Notes, mandated the deployment of suitably qualified Blasting Competent Supervisor(s) and Resident Explosives Supervisor(s) under the consultants' site supervision team for works projects involving blasting activities to ensure proper implementation of the specified protective measures. Separately, Mines Division of CEDD also carries out regular inspections to construction sites involving blasting activities to audit the performance of blasting works.</p> <p>With the enhanced control requirements on blasting-related activities in place, there has been no recurrence of similar flyrock incidents since July 2003.</p>
<p>12) According to paragraphs 3.10(a)(i) and 3.11 of the Audit Report, you have agreed to take measures to ensure that CEDD staff and consultants conduct thorough pre-tender site investigations in accordance with the related guidelines. What measures have been/will be taken in this regard?</p>	<p>Please refer to the first and third paragraphs of our response on improvement measures to 6) above.</p>
<p>13) According to paragraph 3.16(a) of the Audit Report, you have said that CEDD completed the post-completion review for Contract A in March 2021. What were the review results and the follow-up actions taken/to be taken by CEDD in response to the review results? What lessons have you drawn from the implementation of Contract A?</p>	<p>The post-completion review for Contract A completed in March 2021 covered various aspects, including pre-contract arrangements, blasting safety, construction management, etc. The lessons learnt from the review and follow-up actions taken / to be taken are given below:-</p> <p>Lesson Learnt</p> <ul style="list-style-type: none"> <li>• Committing in a quarry site contract, for a long period of time, a fixed quantity of rock materials to be delivered to a CEDD quarry site on quarter basis, might increase contractual risks, for instance, when there was unexpected ground</li> </ul>

PAC's Enquiries	CEDD's Responses
	<p>condition and/or programme mismatch between contracts.</p> <ul style="list-style-type: none"> <li>● The estimated quantities of excavated materials might be quite different from what had been assumed in the design stage, in particular when some areas of the site were not accessible for site investigation works to be carried out in the design stage.</li> <li>● Inconsistency between contract documents, no matter how minor, would attract disputes.</li> </ul> <p>Follow-up actions</p> <ul style="list-style-type: none"> <li>● After the incident, no contractual commitment would be made under quarry contracts with regard to the delivery schedule and quantity of rock materials from other contracts. Instead contractors of site formation works and the quarry operator were required to agree between themselves on the quantity and quality of excavated rock materials to be delivered to the quarry site through mutual agreement so that they could not dispute with the Government on the issues relating to the supply of excavated rock materials.</li> <li>● To follow the latest guidelines in conducting comprehensive site investigation works, as far as practicable, in the design stage, and review, update as well as conducting supplementary site investigation works during the construction stage to verify the actual ground conditions against the one assumed in the design stage with a view to enhancing the accuracy of forecast estimate in quantities of excavated materials.</li> <li>● To follow the latest guidelines in conducting thorough cross-checking of tender documents to avoid inconsistencies among different parts of the documents.</li> </ul>

<p><b>PAC's Enquiries</b></p>	<p><b>CEDD's Responses</b></p>
<p>14) According to paragraph 3.2 of the Audit Report, the approved project estimate of the Project was increased by \$230 million in June 2005 to cover additional costs arising mainly from variations under Contract A due to unforeseeable geological conditions found during the construction stage of Contract A. Do you consider that there is a need to expand the scope of site investigations to minimize contract variations arising from unforeseeable site conditions?</p>	<p>CEDD considers the more the site investigation results, the higher the confidence in the ground condition to be unveiled. This notwithstanding, we are aware that the need of an expanded scope of site investigation depends on a range of factors including practical feasibility, project programme and cost-effectiveness. Its effect on minimizing contract variation arising from unforeseeable ground condition is often judged on a scenario-by-scenario basis, and cannot be concluded on its entirety for the whole project. For instance, during the planning and design stages, a wider scope of site investigation in some private areas may not be practical due to inaccessibility. Alternatively, in a predictable manner with a provisional additional budget, a contract variation to suit the actual ground condition unveiled at the time of construction may solve the problem equally, which could be more desirable for the overall benefits of the project.</p>
<p><b>Part 4: Administration of Contracts B and C</b></p> <p>15) According to paragraphs 4.5(a) to (c) of the Audit Report, a weak subsoil stratum was found during the excavation works at a footing location of Footbridge A, and Consultant X considered that additional ground investigation works was necessary to obtain more information to facilitate a design review of the foundation works. Can you explain why the weak subsoil stratum could not be found in the pre-tender site investigations?</p>	<p>During the design stage, Consultants X assumed the ground conditions based on the pre-tender site investigation results and other available geotechnical information in the vicinity of the site. However, due to the inherent complexity and variance of underground geology, actual ground conditions might be different from that assumed in the design. For the weak subsoil stratum underneath the concerned footing, it could not be identified during the pre-tender site investigation due to unexpected abrupt changes in ground conditions. Accordingly, Consultant X had to carry out supplementary site investigation at specific locations during the construction stage to collect actual ground data for reviewing the foundation design of footbridge.</p>
<p>16) According to paragraph 4.6 of the Audit Report, after the award of Contract B in 2005, further guidelines on good site investigation practice and geotechnical works of public works projects were</p>	<p>Please refer to our responses on improvement measures to 6) above.</p>

PAC's Enquiries	CEDD's Responses
<p>promulgated in 2017 and 2018 respectively. What measures have you taken to ensure that CEDD staff and consultants conduct pre-tender site investigations in accordance with the related guidelines?</p>	
<p>17) According to paragraphs 4.8(a) to (d) of the Audit Report, in January and July 2008 (i.e. more than one year after the substantial completion of Contract A), Consultant X made submissions to GEO for final checking of the completed Slopes A and B. GEO raised concerns over the likelihood of minor rock fall from various bare rock portions of Slopes A and B. In the event, slope enhancement works for Slopes A and B were found required and implemented by Contractor B via two variation orders (later valued at a total cost of \$1.3 million) issued in June and October 2008 respectively. Can you explain why it took more than one year after the substantial completion of Contract A in making submissions to GEO for final checking of Slopes A and B? Will you set a timeframe for making submissions to GEO for checking of completed slope works? Please advise why CEDD allowed Contractor A to hand over Slopes A and B to Contractor B for maintenance before obtaining the GEO Checking Certificates for the two slopes, contrary to the requirement of Environment, Transport and Works Bureau Technical Circular (Works) No. 20/2004 on "GEO Checking Certificate for Slopes and Retaining</p>	<p>Environment, Transport and Works Bureau (ETWB) Technical Circular (Works) No. 20/2004 on "GEO Checking Certificate for Slopes and Retaining Walls" states that <i>the Project Office shall obtain a GEO Checking Certificate for all geotechnical features constructed or upgraded under the projects, before handing over the completed works to the party responsible for the future operation or maintenance.</i> CEDD was the works department for implementing the Jordan Valley Project and had to construct, among other works, Slopes A and B, and hand over the two completed slopes to the Highways Department (HyD) and the Leisure and Cultural Services Department (LCSD) respectively for future maintenance.</p> <p>During the project construction stage, CEDD, assisted by its Consultant X, had obtained GEO checking certificates (hereinafter referred to as checking certificates) for Slopes A and B, before handing over the completed slopes to HyD and LCSD for future maintenance. This was in compliance with the requirements of ETWB TCW No. 20/2004.</p> <p>As Slopes A and B were both extensive in scale (Slope A was about 110m high and 460m long with 11 berms whereas Slope B was about 90m high and 250m long with 10 berms), it took time for Consultants X to carry out the as-built survey, and review the as-built slope conditions against design assumptions for preparation and submission of the as-constructed geotechnical reports to GEO for final checking. Based on the GEO's comments, further enhancement works on these slopes were required to be carried out to alleviate the risk of minor rock fall as a pre-requisite for</p>

PAC's Enquiries	CEDD's Responses
<p>Walls". Whether the issuance of the above two variation orders could have been avoided if CEDD had complied with the aforesaid requirement of the Circular?</p>	<p>the issuance of checking certificates.</p> <p>Contractors A and B were both the works agents of CEDD assisting in carrying out works under Contract A and Contract B of the project. As the slope enhancement works required by GEO were not expected in design stage and so not covered in either Contract A or Contract B, their implementation by either contract were unavoidably variation works. The variation orders for the slope enhancement works were eventually implemented through Contract B having due regard to the factors that : (i) Contract A had been substantially completed in 2006 with most of his plants and resources demobilized whilst Contract B was still active in 2008, (ii) there could be considerable contractual risks to order variations at the post-substantial completion stage of Contract A, (iii) it would be undesirable to delay the finalization of Contract A and (iv) there could be considerable cost implications under Contract A (e.g. due to re-mobilisation of necessary plants and resources).</p>
<p>18) According to paragraphs 4.10(b) and 4.11 of the Audit Report, you have agreed to remind CEDD staff and consultants to fully assess the conditions of slope works as early as practicable and take prompt follow-up actions as needed. Have you done so and by what means?</p>	<p>CEDD reminded via email its staff and consultants on 14 May 2021 to fully assess the conditions of slope works as early as practicable and take prompt follow-up actions as needed in the works projects.</p>
<p>19) According to paragraph 4.16 of the Audit Report, the actual costs of three variation orders (i.e. Variation Orders C to E) under Contract C increased by 280% to 327% as compared with the estimated costs. Do you consider this not satisfactory? According to paragraphs 4.21(a)(i) and 4.22 of the</p>	<p>CEDD considered the increase of actual costs of the variation orders of 280% and 327% and that Consultants X did not report and seek approval from the client timely on exceedance of the estimated cost not satisfactory. An enhanced cost management mechanism was introduced in 2017, under which any variations with individual value exceeding \$1.4 million should be submitted to Project Strategy and Governance Office (PSGO) of DEVB for independent views, in particular on cost-</p>

<p><b>PAC's Enquiries</b></p>	<p><b>CEDD's Responses</b></p>
<p>Audit Report, you have agreed to take measures to enhance the accuracy of cost estimate for works variations as far as practicable. What measures have been/will be taken in this regard?</p>	<p>effectiveness, for Controlling Officers' reference before issuance. Also, in May 2019, CEDD promulgated new guidelines for dealing with a variation with value exceeding its estimate made at the time of approval.</p> <p>CEDD also reminded its staff and consultants on 14 May 2021 to follow the latest guidelines in preparing and issuance of works variations to enhance the accuracy of cost estimate for works variations as far as practicable in the works contracts.</p>
<p>20) According to paragraph 4.19 of the Audit Report, the Project Administration Handbook for Civil Engineering Works (Project Administration Handbook) states that the documents forming a contract must be scrutinized for comprehensive coverage, accuracy and consistency with one another before tenders are invited. However, there were discrepancies between BQ items and contract drawings of Contract C relating to the steelwork of Footbridges B and C, leading to omission of related works items in BQ. Can you explain why CEDD could not identify the discrepancies when vetting the contract documents?</p>	<p>Contract C were prepared and vetted in some fifteen years ago by the project team, following the prevailing practice at that time. While there was no record suggesting how the documents of Contract C were vetted by the project team, due to the complexity and voluminous size of the contract documents, some inconsistencies therein had not been identified. Please refer to our responses on improvement measures on 2) above.</p>
<p>21) According to paragraph 4.20 of the Audit Report, in 2014, CEDD amended the Project Administration Handbook to provide further guidelines on checking the completeness and accuracy of BQ and related documents. What measures have you taken to ensure that CEDD staff and consultants</p>	<p>The Project Administration Handbook were updated in 2014 to incorporating further guidelines requiring CEDD staff and its consultants to conduct checking on the completeness and accuracy of BQ and related documents. In addition, the project office is obliged to complete a compliance check to ensure all the procedures required under the latest guidelines have been duly completed prior to seeking approval for inviting tenders. CEDD also reminded its staff and consultants on 14</p>



# Appendix

PAC's Enquiries	CEDD's Responses
<p>follow the related guidelines?</p>	<p>May 2021 to follow the latest guidelines on checking of BQ and related documents in the works contracts.</p> <p>CEDD would remind its staff and consultants to observe the latest guidelines from time to time.</p>
<p>22) According to paragraphs 4.21(b) and 4.22 of the Audit Report, you have agreed to consider incorporating into the Project Administration Handbook CEDD guidelines for dealing with a variation with value exceeding its estimate made at the time of approval. Have you incorporated such guidelines into the Project Administration Handbook? If not, when will it be done?</p>	<p>CEDD is reviewing with relevant bureaux/departments to incorporate into the PAH CEDD guidelines for dealing with a variation with value exceeding its estimate made at the time of approval. We target to complete the task in the second half of 2021.</p>