

# **CHAPTER 5**

## **Education Bureau**

### **Maintenance and improvement of school premises for aided schools**

**Audit Commission  
Hong Kong  
31 March 2023**

*This audit review was carried out under a set of guidelines tabled in the Provisional Legislative Council by the Chairman of the Public Accounts Committee on 11 February 1998. The guidelines were agreed between the Public Accounts Committee and the Director of Audit and accepted by the Government of the Hong Kong Special Administrative Region.*

Report No. 80 of the Director of Audit contains 8 Chapters which are available on our website at <https://www.aud.gov.hk>



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# MAINTENANCE AND IMPROVEMENT OF SCHOOL PREMISES FOR AIDED SCHOOLS

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# MAINTENANCE AND IMPROVEMENT OF SCHOOL PREMISES FOR AIDED SCHOOLS

## Executive Summary

1. As at 31 December 2022, there were 844 aided schools in Hong Kong. The Education Bureau (EDB), headed by the Secretary for Education, is responsible for implementing maintenance and improvement projects approved under non-recurrent Government subventions of school premises of aided schools. For repair items each costing \$3,000 or more for primary schools and special schools, or \$8,000 or more for secondary schools, schools may submit Major Repairs (MR) applications and Emergency Repairs (ER) applications to EDB to carry out the required repair works. EDB awards term consultancy agreements to Term Consultants (TCs) and maintenance term contracts to Maintenance Term Contractors (MTCs) to handle applications and to deliver maintenance and improvement works under MR projects, ER projects and other improvement projects. In the financial years from 2017-18 to 2021-22, 4,186 MR projects and 34,991 ER projects were approved, and expenditure of \$5,018.2 million and \$1,837.8 million respectively had been incurred.

2. In the period from 2017 to 2021, the Government launched various improvement programmes for the school premises of aided schools. Up to 31 March 2022, the three improvement programmes that had incurred the largest amount of expenditures were Additional Air-conditioning Installation for Schools (3,815 projects were approved and a total expenditure of \$695.1 million had been incurred), Time-limited Minor Works Programme (FUS) (748 projects were approved and a total expenditure of \$427.9 million had been incurred) and Improvement programme for “Matchbox-style schools” (26 projects were approved and a total expenditure of \$106.9 million had been incurred). The Audit Commission (Audit) has recently conducted a review of EDB’s work on maintenance and improvement of school premises for aided schools.

## Contract management

3. *Room for improvement in conducting Comprehensive Site Checks (CSCs).* Audit reviewed the 8,601 CSCs conducted in the period from January 2021 to

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September 2022 and noted that: (a) for some sub-regions, the numbers of works orders checked were less than the requirements; (b) of the 1,567 notifications issued by EDB to TCs on unsatisfactory cases, TCs submitted their replies for 1,128 (72%) cases with delays. The average delay was 90 days, ranging from 1 to 476 days. Up to 31 October 2022, TCs had not yet submitted their replies for 253 (16%) cases, which were already overdue for 12 to 634 days; and (c) 2,666 (31%) of the 8,601 CSCs were conducted after the completion of the works, contrary to EDB's guidelines. The delays between the date of completion and date of CSCs ranged from 1 to 963 days (averaging 82 days) (para. 2.3).

4. ***Room for improvement in conducting Technical Assurance Audits (TAAs).*** Audit reviewed 7,157 works orders with TAAs conducted in the period from 1 January 2021 to 15 December 2022 and noted that: (a) EDB had not promulgated guidelines on when TAAs should be completed after the completion of works. On average, EDB took 156 days to complete TAAs after completion of works; and (b) of the 1,002 works orders with responses from TCs on observations identified in TAAs due for submission, many were submitted after the due date or were not yet submitted. As at 15 December 2022, TCs submitted their responses for 354 (35%) works orders 1 to 462 days (averaging 58 days) later than the stipulated time of 14 calendar days, and TCs had not submitted their responses to EDB for 29 (3%) works orders. The responses for the 29 works orders were overdue for 3 to 275 days (para. 2.6).

5. ***Room for improvement in conducting Quality Assurance Audits (QAAs).*** Audit noted that projects were not selected for QAAs according to the requirement stipulated in the guidelines which was effective since August 2020 (i.e. one completed project should be selected every two months) or the target promulgated in January 2022 (i.e. three completed projects should be selected every two months): (a) in the 17-month period from August 2020 to December 2021, 1 project was selected for QAA; and (b) in the 5-month period from January 2022 to May 2022, 3 projects were selected for QAAs (all 3 were selected in January 2022) (paras. 2.8 to 2.10).

6. ***Delays in submission of dimension books by MTCs.*** MTCs are required to submit a dimension book for each works order to TCs within 90 days after the certified completion date of the works order. According to EDB, if MTCs fail to submit the dimension books on or before the due date, EDB will claw back all or part of the interim payments made. The payments clawed back will be released to MTCs



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upon submission of the outstanding dimension books. Audit noted that of the 28,426 works orders that were certified completed in the period from 1 January 2020 to 30 June 2022, the dimension books of 8,308 (29%) were submitted late. The average delay was 71 days, ranging from 1 to 661 days. In all the 10 delay cases reviewed by Audit, the clawbacks were made long after the due dates for dimension book submission, ranging from 498 to 695 days (averaging 568 days) after the due dates and after MTCs had submitted the outstanding dimension books. In 7 (70%) of the 10 cases, the clawbacks and the releases of payment clawed back were made on the same day, and in 1 (10%) of the 10 cases, the release of clawback was made before the interim payments had actually been clawed back (paras. 2.12 to 2.15).

7. ***Room for improvement in conducting customer satisfaction surveys.*** TCs are required to conduct quarterly customer satisfaction surveys for every school in their regions and submit quarterly customer satisfaction reports to EDB. Audit reviewed the four surveys conducted in the period from March 2021 to February 2022 and noted that the response rates were on the low side, ranging from 7% to 38% (averaging 18%). Furthermore, TCs are required to visit and contact schools who gave unsatisfactory ratings in the surveys and submit reports of the visits and the proposed improvement actions to be taken to EDB. There was no documentary evidence showing that TCs had complied with the requirements for 7 (28%) of the 25 schools that gave unsatisfactory ratings for the quarter from September to November 2021 (para. 2.19).

## Major Repairs projects

8. ***Need to review the thresholds of minimum repairs cost under MR projects and ER projects.*** According to the regulations of MR projects and ER projects, schools cannot apply for repair items costing less than \$3,000 for primary schools and special schools, and less than \$8,000 for secondary schools. Audit noted that these thresholds had not been reviewed or revised at least for more than 13 years since April 2009 and EDB had no information on how these thresholds were derived, the rationale behind the setting of two different thresholds, and when these thresholds were last reviewed or revised (para. 3.6).

9. ***Different recommendations given for similar applications.*** In May 2020, EDB issued guidelines stating that schools should consider adding a lid for squat-type toilets or replacing them with pedestal toilets. Audit noted that TCs gave different assessments on similar MR applications for 51 works items of replacement of the

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squat-type toilets in the 2021-22 MR cycle. Of the 51 works items, 6 (12%) were assessed by TCs as ER items instead of MR items, 26 (51%) were rated as repair items which were essential and were approved as MR items (i.e. carried out one year after the applications were submitted) and 19 (37%) were rated as desirable repair items or improvement items. Of these 19 items, 6 (32%) were rejected by EDB. However, there was no documentary evidence indicating the reasons for the difference in the assessments of these 51 works items (paras. 3.9 and 3.11).

10. ***Need to improve repairs for defective fire doors.*** Audit noted a case where fire doors with safety concerns were handled as MR instead of ER. Moreover, there was no documentary evidence showing that TC had provided justifications for replacing the two wooden fire doors by stainless steel doors, which were more expensive than wooden fire doors. In another case, although there were major differences between the seriousness of the defects described by the school and the assessment results of TC on the defective fire doors, TC did not document the details of the defects to repudiate the seriousness of the defects described by the school (para. 3.14).

11. ***Room for improvement in documentation regarding project completion dates.*** Audit examined 40 works orders issued by TCs to MTCs for MR cycles from 2020-21 to 2022-23 and found that for 37 (93%) works orders, the target completion dates set were later than the project completion dates agreed with the schools as recorded in EDB's computer system by 31 to 227 days (averaging 123 days). According to EDB, for these 37 works orders, the TCs concerned had verbally agreed the revised project completion dates with the schools. Audit noted that for 30 (81%) of the 37 works orders, there was no documentary evidence: (a) showing the factors accounting for the difference between the target completion dates set by TCs for the works orders and the original project completion dates agreed with the schools; and (b) showing that the revised target completion dates of the works orders were agreed with the schools (paras. 3.19 to 3.21).

12. ***Need to closely monitor asbestos-containing materials (ACMs) remaining in some school premises.*** In 2005, the Government completed an exercise to remove all ACMs with imminent risk to public health from school premises. In June 2006, EDB informed the Panel on Education of the Legislative Council that the remaining ACMs in school premises were in good conditions and of insignificant risk to public health, and it intended to complete the removal of all ACMs from all school premises by the end of the 2011/12 school year. In 2014, EDB found that ACMs still existed

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in 14 schools and requested them to engage registered asbestos consultants to investigate the conditions of ACMs in their school premises every two years. In some cases, the consultants identified damages in the building elements of school premises covering ACMs, which might cause possible leakages of ACMs. Up to January 2023, ACMs still existed in the school premises of 11 (79%) of the 14 schools (paras. 3.30, 3.31 and 3.33).

13. *Need to carry out flagpole repairs and enhancement works in a timely manner.* Starting from 1 January 2022, all primary and secondary schools must display national flag on each school day and conduct a national flag raising ceremony in each week. Audit noted that schools with only one flagpole which had become inoperable needed to rely on movable flagpoles to meet the requirements because requests for repairing defective flagpoles as MR would only be carried out in the following MR cycle. Furthermore, schools should display the regional flag alongside the national flag if there were adequate flagpoles. Based on the results of the review conducted in 2021, EDB launched a special improvement works programme in 2021-22 covering 42 selected schools to help them to install new flagpoles. Of the 82 approved applications for flagpoles installations in the 2022-23 MR cycle, the installation works for 22 (27%) had not yet been completed up to 18 November 2022 (paras. 3.36, 3.38 and 3.39).

### Emergency Repairs projects

14. *Need to consolidate ER requests as far as practicable.* Audit examined the ER requests recommended for repairs in the period from 2019-20 to 2021-22. Audit noted that there were more than 6,000 ER requests each year and some schools needed frequent ER works. Audit reviewed the ER requests and noted that there were cases where repairs were requested separately within a short period of time and were carried out under separate projects. Such requests could have been consolidated and covered by one single works project to minimise disturbance to the schools and to improve economy and efficiency of the repairs (paras. 4.3 and 4.4).

15. *Some schools need assistance to determine if works required is within ER ambit.* Audit analysed the ER requests submitted by schools in the period from 2019-20 to 2021-22, and noted that a considerable percentage (ranging from 17% to 25%) of ER requests submitted were not recommended for repairs. Audit examined 20 ER requests submitted by schools in 2021-22 which were not recommended for repairs, and found that 10 (50%) requests were clearly not within the ambit of ER

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projects. Of the 10 requests, the estimated costs of repair items in 5 (50%) requests were much below the thresholds of ER projects (see para. 1) and the repair items in 5 (50%) requests were not of ER nature (paras. 4.8 and 4.9).

16. *Need to expedite finalisation of ER reports.* In September 2020, EDB set a target of 15 days for TCs to finalise their ER reports after the date of first submission. Audit examined the ER reports finalised in the period from 2019-20 to 2021-22 and noted that long time was taken to finalise the ER reports. The time taken ranged from 0 to 442 days, averaging 32 days. Furthermore, in the six-month period from October 2021 to March 2022, EDB returned 4,073 ER reports submitted by TCs for their revisions. Audit found that 3,042 (75%) ER reports were returned to TCs for revisions because of missing or incorrect necessary information in the ER reports (paras. 4.14 and 4.15).

17. *ER requests not followed up within stipulated time.* The time for conducting site visits, completing temporary repairs and completing final repairs for the three categories of ER requests are stipulated in the maintenance term contracts. In the period from 2019-20 to 2021-22, many ER requests were not followed up by MTCs within the stipulated time: (a) site visits for 2,762 (10%) of 28,346 ER requests; (b) temporary repairs for 614 (3%) of 20,956 ER requests; and (c) final repairs for 9,887 (48%) of 20,437 ER requests (paras. 4.18 and 4.19).

## Improvement programmes

18. *Need to provide assistance to matchbox-style schools before reprovisioning.* As at 31 December 2022, there were 23 matchbox-style schools. In 2017, EDB commenced an improvement programme to address the common problems of matchbox-style schools premises, which was completed in 2019. Audit noted that some common problems of the schools (e.g. inadequate space for the schools' operations) were not covered by the improvement works completed in 2019. These schools needed to be reprovisioned or expanded in order to fully address the issues of insufficient space and facilities in the long run. In the six-year period from 2017 to 2022, 19 matchbox-style schools applied for reprovisioning and only 5 (26%) of their applications were successful (paras. 5.3, 5.5, 5.6, 5.8 and 5.9).

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19. ***Incorrect information communicated to schools.*** According to the meeting minutes of two meetings held in May 2021 on two MR projects and three meetings held in May 2022 on three MR projects between EDB, schools and the TC, schools were advised of incorrect information relating to applications for repairs or replacement of air-conditioning systems. The incorrect information might have misled schools into giving up submitting MR applications or ER applications for repairing or replacing the air-conditioning systems installed in the eligible facilities under “Additional Air-conditioning Installation for Schools” (paras. 5.14 and 5.15).

20. ***Need to provide assistance to schools on applications for repairs or replacement of air-conditioning systems.*** Audit examined 10 MR applications submitted in the 2021-22 MR cycle. In 3 (30%) applications, the TCs considered that the schools’ requests for repairing or replacing air-conditioning systems were of ER nature and advised the schools to submit their applications as ER requests if necessary. Submission of requests as MR applications or as ER applications would bring about different results. For ER projects, applications can be made anytime during the year and the works are required to be completed at a maximum of 12 calendar days. For MR projects, applications can only be made at the beginning of every financial year. There was a need for EDB to provide assistance to schools on applications for repairs or replacement of air-conditioning systems (e.g. by providing examples of approved MR projects and approved ER projects of repairs or replacement of air-conditioning systems) (paras. 5.18, 5.20 and 5.21).

21. ***Need to draw experience from air-conditioning system repair or replacement projects.*** In the period from March 2017 to June 2022, EDB identified 28 cases of air-conditioning system repair or replacement projects with workmanship issues. In various quarterly meetings between EDB and TCs, EDB brought the cases to the attention of TCs and urged them to exercise prudence in conducting their site inspections for early identification of irregularities on site and early rectification of unsatisfactory works (para. 5.22).

22. ***Need to ensure feasibility study reports of improvement projects include all important project information.*** For items approved under FUS, TCs submit feasibility study reports, which include key project information (e.g. estimated costs of the works items) to EDB. Different TCs included different information in their feasibility study reports. Audit examined 30 feasibility study reports of FUS projects conducted in the period from 2020-21 to 2021-22, and noted that some important project information (e.g. project completion dates agreed with schools, details of

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materials to be used and related cost estimates) was not included in 19 (63 %) feasibility study reports (paras. 5.30 and 5.31).

### Audit recommendations

23. **Audit recommendations are made in the respective sections of this Audit Report. Only the key ones are highlighted in this Executive Summary. Audit has *recommended* that the Secretary for Education should:**

#### *Contract management*

- (a) **in conducting CSCs, ensure that:**
  - (i) **the number of works orders checked is not less than the requirement;**
  - (ii) **TCs submit in a timely manner their replies on the arrangement to rectify the unsatisfactory areas; and**
  - (iii) **CSCs are conducted before the works are completed (para. 2.17(a));**
- (b) **promulgate guidelines on the timeliness of completing TAAs after completion of works (para. 2.17(b));**
- (c) **for works orders with observations identified in TAAs, ensure that TCs submit responses to EDB on the follow-up actions in a timely manner (para 2.17(c));**
- (d) **select projects for QAAs according to the Guidelines on Spot Checks and endeavour to achieve the target promulgated in January 2022 (para. 2.17(d));**
- (e) **ensure that dimension books are submitted and interim payments are clawed back in a timely manner, and releases of clawbacks are made after interim payments have actually been clawed back (para. 2.17(e));**

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- (f) **consider using electronic means to facilitate schools in submitting customer satisfaction survey questionnaires (para. 2.26(a));**
- (g) **ensure that TCs visit the schools who have given unsatisfactory ratings in the surveys at the soonest time, and submit to EDB reports of the visits and the proposed improvement actions to be taken (para. 2.26(b));**

### ***Major Repairs projects***

- (h) **review whether it is justified to set two different thresholds for the applications for repairs submitted by primary and special schools and those by secondary schools, and consider setting a single threshold for applications submitted by all types of schools (para. 3.16(a) and (b));**
- (i) **ensure that justifications are provided by TCs for making different recommendations for similar applications (para. 3.16(d));**
- (j) **ensure that fire doors with safety concerns are repaired as soon as possible, and TCs provide detailed information of their assessments on fire door repairs applications (para. 3.16(e));**
- (k) **improve the documentation regarding project completion dates (para. 3.27(a));**
- (l) **ensure that prompt actions are taken to follow up possible leakages of ACMs identified in asbestos investigations (para. 3.34(a));**
- (m) **ensure that flagpoles repairs are carried out in a timely manner and consider stepping up efforts to assist schools in installing additional flagpoles (para. 3.41(a) and (b));**

### ***Emergency Repairs projects***

- (n) **consolidate ER requests into one single works project as far as practicable (para. 4.11(a) and (b));**

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- (o) **provide assistance to schools to help them have a clear understanding on the ambit of ER projects (para. 4.11(d));**
- (p) **help TCs submit all necessary and accurate information in ER reports (para. 4.21(a));**
- (q) **ensure that follow-up actions for ER requests are completed by MTCs within the stipulated time (para. 4.21(b));**

### ***Improvement programmes***

- (r) **explore the way forward to help matchbox-style schools deal with the issues of insufficient space and facilities (para. 5.10);**
- (s) **ensure that the information relating to applications for repairs or replacement of air-conditioning systems are communicated to schools accurately (para. 5.24(a));**
- (t) **provide assistance to schools on applications for repairs or replacement of air-conditioning systems (para. 5.24(b));**
- (u) **draw experience from the air-conditioning system repair or replacement projects (para. 5.24(c)); and**
- (v) **ensure that the feasibility study reports of improvement projects include all important project information (para. 5.33(b)).**

## **Response from the Government**

24. The Secretary for Education agrees with the audit recommendations.



## PART 1: INTRODUCTION

1.1 This PART describes the background to the audit and outlines the audit objectives and scope.

### *Background*

1.2 As at 31 December 2022, there were 844 aided schools (Note 1) in Hong Kong. The Education Bureau (EDB), headed by the Secretary for Education, is responsible for implementing maintenance and improvement projects approved under non-recurrent Government subventions of school premises of aided schools through the School Premises Maintenance Section and four Regional Education Offices (REOs — Note 2):

- (a) *School Premises Maintenance Section.* The Section is led by a Chief Maintenance Surveyor. As at 31 December 2022, the Section had a staff establishment and strength of 141 and 136 respectively (see Appendix A for an extract of the organisation chart of the School Premises Maintenance Section as at 31 December 2022). The Section is responsible for:
  - (i) coordinating the processing of applications for maintenance and improvement works, including bidding for funding through the annual Resource Allocation Exercises, preparing call circulars for applications, assessing and estimating the cost of the works items proposed by schools;
  - (ii) implementing maintenance and improvement projects, which include Major Repairs (MR) projects (see para. 1.5), Emergency Repairs (ER) projects (see para. 1.6) and ad-hoc school renovation/alteration/improvement projects; and

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**Note 1:** *Aided schools are fully subvented by the Government. They are mostly run by religious, charitable or clan organisations. The 844 aided schools comprised 422 primary schools, 358 secondary schools and 64 special schools.*

**Note 2:** *There are four REOs covering four regions, namely Hong Kong, Kowloon, New Territories East and New Territories West.*

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- (iii) overseeing and managing consultants and contractors (e.g. Term Consultants (TCs) and Maintenance Term Contractors (MTCs)) appointed for implementing maintenance and improvement projects; and
- (b) **REOs.** REOs are responsible for screening MR applications and providing comments on ER applications each costing \$200,000 or more (Note 3).

### *Maintenance of school premises*

1.3 It is the responsibility of the schools to regularly inspect the school premises and take prompt actions to keep the school premises in good conditions, for the well-being of their students. Repair items each costing less than \$3,000 for primary schools and special schools, or less than \$8,000 for secondary schools are carried out by the schools themselves (Note 4). In addition, EDB provides school premises maintenance and repairs support to aided schools through MR projects and ER projects. For repair items each costing \$3,000 or more for primary schools and special schools, or \$8,000 or more for secondary schools, schools may submit MR applications and ER applications to EDB to carry out the required repair works. The repair works are funded by two block votes, one under the General Revenue Account and the other under the Capital Works Reserve Fund (Note 5). The repair projects are mainly implemented by EDB, as follows:

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**Note 3:** *In addition to providing support for maintenance and improvement of school premises, REOs coordinate with other EDB Sections to provide a full range of professional support services to schools, such as school administration, curriculum development, learning and teaching, student guidance and psychological services. According to EDB, as REOs' staff are multi-tasked, it is not feasible to provide a breakdown of staff resources solely for the work on provision of support for maintenance and improvement of school premises.*

**Note 4:** *Repair items each costing less than \$3,000 for primary schools and special schools, or less than \$8,000 for secondary schools are absorbed in grants provided by EDB to aided schools to meet their daily operating expenses excluding salaries.*

**Note 5:** *The two block votes are Head 156 Subhead 900 – Codes of Aid for existing schools – maintenance, repairs and minor improvement (block vote), and Head 708 Subhead 8100QX – Alterations, additions, repairs and improvements to education subvented buildings.*

- (a) *Estate aided schools (Note 6).* Since 1 April 2014, the Housing Department had ceased to be works agent of EDB on the implementation of approved repair projects for estate aided schools; and
- (b) *Non-estate aided schools (Note 7).* Projects approved before 2019-20 with estimated cost exceeding \$2 million each are implemented by the Architectural Services Department while those not exceeding \$2 million are implemented by EDB. Since 1 April 2019, EDB has taken up the implementation of approved repair projects at non-estate aided schools with estimated cost exceeding \$2 million each from the Architectural Services Department.

1.4 EDB awards three term consultancy agreements and six maintenance term contracts to handle applications and to deliver maintenance and improvement works under MR projects, ER projects and other improvement projects. Details of the term consultancy agreements and maintenance term contracts for the service period from 1 January 2020 to 31 December 2022 are shown in Table 1.

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**Note 6:** *Estate aided schools are aided schools located inside the boundary of public housing estates. As at 31 December 2022, there were 213 estate aided schools.*

**Note 7:** *Non-estate aided schools are aided schools located outside the boundary of public housing estates. As at 31 December 2022, there were 631 non-estate aided schools.*

## Introduction

**Table 1**

**Term consultancy agreements and maintenance term contracts  
(2020 to 2022)**

Contract areas	Term consultancy agreement		Maintenance term contract	
	Agreement (Note 1)	Expenditure (Note 2) (\$ million)	Contract (Note 1)	Expenditure (Note 3) (\$ million)
Central & Western, Wan Chai, Hong Kong East and Southern	A	107.4	1	574.6
Islands, Yau Tsim & Mong Kok and Kowloon City			2	460.9
Sham Shui Po, Tsuen Wan and Kwai Chung & Tsing Yi	B	147.6	3	748.2
Tuen Mun and Yuen Long			4	705.9
Kwun Tong, Sai Kung and Wong Tai Sin	C	197.0	5	728.7
Sha Tin, Tai Po and North			6	873.6
Total		452.0		4,091.9

*Source: Audit analysis of EDB records*

**Table 1 (Cont'd)**

*Note 1: Term consultancy agreements A, B and C were awarded to three TCs. Maintenance term contracts 1 and 5, 2 and 4, and 3 and 6 were respectively awarded to three MTCs.*

*Note 2: The expenditure represented fees paid to TCs up to 31 January 2023.*

*Note 3: The expenditure represented value of works paid to MTCs up to 31 January 2023. In addition to these amounts, the value of works amounting to \$1,565.9 million had been assigned to MTCs.*

1.5 **MR projects.** The scope of works under MR projects, apart from providing repairs to impaired items, includes improvement of school premises through, for example, retrofitting of lighting systems, paving of non-slip floor tiles, improvement of ventilation systems, replacement of surfacing materials, etc. EDB, in considering the works items proposed by the schools, gives priority to essential items (e.g. items involving safety and health requirements). In the financial years from 2017-18 to 2021-22, 4,186 MR projects were approved and expenditure of \$5,018.2 million had been incurred (see Table 2).

**Table 2****Number of MR projects approved and expenditure incurred  
(2017-18 to 2021-22)**

<b>Year</b>	<b>Number of MR projects approved</b>	<b>Expenditure (Note) (\$ million)</b>
2017-18	840	784.7
2018-19	834	1,049.2
2019-20	835	1,040.2
2020-21	839	1,066.9
2021-22	838	1,077.2
<b>Total</b>	<b>4,186</b>	<b>5,018.2</b>

*Source: Audit analysis of EDB records*

*Note: The expenditures comprised expenditures incurred by projects approved in the financial year and by on-going projects approved in previous financial years.*

*Remarks: Each MR project approved covered repair works items approved for one school for the financial year. For schools with a boarding section, the school section and boarding section of the school require separate approvals.*

1.6 **ER projects.** The scope of emergency repair works covers builder's works (e.g. repairing defects in structural elements, pipe bursting, etc.) and building services (e.g. repairing defective fire service installation, defective electrical equipment or accessories, etc.) elements. In the financial years from 2017-18 to 2021-22, 34,991 ER projects were approved and expenditure of \$1,837.8 million had been incurred (see Table 3).

Table 3

**Number of ER projects approved and expenditure incurred  
(2017-18 to 2021-22)**

<b>Year</b>	<b>Number of ER projects approved</b>	<b>Expenditure (Note) (\$ million)</b>
2017-18	7,023	341.5
2018-19	7,304	419.6
2019-20	6,006	398.1
2020-21	7,761	372.1
2021-22	6,897	306.5
<b>Total</b>	<b>34,991</b>	<b>1,837.8</b>

*Source: Audit analysis of EDB records*

*Note: The expenditures comprised expenditures incurred by projects approved in the financial year and by on-going projects approved in previous financial years.*

### ***Improvement programmes of school premises***

1.7 In the period from 2017 to 2021, the Government launched various improvement programmes for the school premises of aided schools (see Table 4).

**Table 4****Improvement programmes for school premises of aided schools  
(31 March 2022)**

<b>Programme</b>	<b>Number of projects approved</b>	<b>Expenditure up to 31 March 2022 (\$ million)</b>
1. Additional Air-conditioning Installation for Schools	3,815	695.1
2. Time-limited Minor Works Programme	748	427.9
3. Improvement programme for “Matchbox-style schools”	26	106.9
4. Installation of lifts for public sector schools	132	90.6
5. Replacement of manual operated water taps with motion sensor operated ones for aided schools	596	32.2
6. Inspection and Repair Services for Aided Schools in accordance with Mandatory Building Inspection Scheme and Mandatory Window Inspection Scheme	811	11.2
7. Installation of flagpoles	41	1.1
8. Installation of ventilation systems	864	0
Total	7,033	1,365.0

Source: *Audit analysis of EDB records*

1.8 Up to 31 March 2022, the three improvement programmes for school premises of aided schools that had incurred the largest amount of expenditures were:



- (a) ***Additional Air-conditioning Installation for Schools.*** Before 2017, Government would only install air-conditioning systems in rooms used for teaching purpose of aided schools suffering from noise caused by traffic or aircraft. In the 2017 Policy Address, the Chief Executive of the Hong Kong Special Administrative Region (Chief Executive) announced that, in order to create a better learning environment, the Government would provide air-conditioning systems for standard teaching facilities (including classrooms and special rooms), student activity centres and assembly halls in all public sector schools. In 2018, EDB launched a new programme namely “Additional Air-conditioning Installation for Schools”. For air-conditioning systems installed in rooms or facilities which are used directly for teaching and learning or scheduled with regular student activities, schools can submit MR applications or ER applications for repairs or replacement of the air-conditioning systems. Up to 31 March 2022, a total expenditure of \$695.1 million had been incurred; and
- (b) ***Improvement programmes for schools not built according to current provision standards.*** Of the 844 aided schools (see para. 1.2), 208 were built according to current provision standards. The remaining 636 schools were built in different periods according to the standards prevailing at the time of their construction. The following two improvement programmes aimed to improve the teaching and learning environment and facilities of the 636 schools:
- (i) ***Time-limited Minor Works Programme.*** In the 2019 Policy Address, in light of the experience gained through the Improvement programme for “Matchbox-style schools” (see (ii) below), the Chief Executive announced that the Government had reserved \$1 billion to take forward a time-limited minor works programme under which simple minor internal conversion works would be carried out at some 600 aided school premises constructed according to past building standards to facilitate more flexible use of existing space by schools, thereby enhancing the teaching and learning environment and efficacy. In 2019 and 2020, aided schools were invited to submit two rounds of applications. Up to 31 March 2022, 748 projects were approved for 475 schools, and a total expenditure of \$427.9 million had been incurred; and

- (ii) ***Improvement programme for “Matchbox-style schools”.*** Over the years, the teaching and learning environment of “Matchbox-style schools” (Note 8) had been a matter of concern among Legislative Council (LegCo) Members, the education sector and parents. In a tripartite meeting held in mid-2016, EDB, the Panel on Education of LegCo and the school sector (i.e. the Subsidized Primary Schools Council) agreed to first tackle the major problems resulting from the unique architectural design of these schools by implementing five improvement measures (Note 9). In the 2017 Policy Address, the Chief Executive announced that the Government would allocate additional resources to improve the facilities of these schools. Since the summer of 2017, EDB had progressively implemented improvement works for the aided primary schools operating in matchbox-style school premises. Relevant works were completed in 2019. Up to 31 March 2022, a total expenditure of \$106.9 million had been incurred.

## Audit review

1.9 In October 2022, the Audit Commission (Audit) commenced a review of EDB’s work on maintenance and improvement of school premises for aided schools. This audit has focused on the following areas:

- (a) contract management (PART 2);
- (b) Major Repairs projects (PART 3);
- (c) Emergency Repairs projects (PART 4); and

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**Note 8:** *EDB refers the “Matchbox-style schools” to those primary schools operating in cuboidal shaped school premises constructed between mid-1960s and 1980 at public housing estates.*

**Note 9:** *The improvement measures included: (a) replacement with sound-proof doors and double-glazed window system in classrooms; (b) installation of mechanical ventilation system at internal corridors; (c) installation of openable windows at staircase landings with grille walls; (d) installation of acoustic wall lining at classrooms for mounting modern teaching aids; and (e) installation of moveable partitions on both sides of covered playgrounds and provision of mechanical ventilation system.*

- (d) improvement programmes (PART 5).

Audit has found room for improvement in the above areas and has made a number of recommendations to address the issues.

## General response from the Government

1.10 The Secretary for Education on the whole agrees with the audit recommendations. She has said that EDB appreciates Audit's efforts in examining the maintenance and improvement of school premises for aided schools, making balanced observations and positive recommendations. EDB will continue to assist schools to repair and maintain their premises with a view to enhancing the learning and teaching environment. In light of the audit recommendations, EDB will make refinements as necessary.

## Acknowledgement

1.11 Audit would like to acknowledge with gratitude the full cooperation of the staff of EDB during the course of the audit review.

## **PART 2: CONTRACT MANAGEMENT**

2.1 This PART examines management of contracts related to maintenance and improvement projects, focusing on the following areas:

- (a) monitoring of quality of contractor services (paras. 2.2 to 2.18); and
- (b) assessment of TCs' performance (paras. 2.19 to 2.27).

### **Monitoring of quality of contractor services**

#### ***Room for improvement in conducting Comprehensive Site Checks***

2.2 According to its Guidelines on Spot Checks, EDB conducts Comprehensive Site Checks (CSCs) for ER and MR works orders before their completion, aiming to:

- (a) check the quality and workmanship of MTCs' works;
- (b) check the quality of TCs' supervision on MTCs' works; and
- (c) maintain communication and working relationship with schools' representatives, and understand their concerns and point of views on the performance of TCs and MTCs.

2.3 ER and MR works are classified into building services and builder's works (see para. 1.6). Audit reviewed the 8,601 CSCs (4,025 for works orders of building services and 4,576 for works orders of builder's works) conducted in the 21-month period from January 2021 to September 2022 and noted that:

- (a) ***Numbers of works orders checked less than required.*** EDB has divided the schools into 6 sub-regions for CSCs on building services and 7 sub-regions for CSCs on builder's works. According to the Guidelines on Spot Checks, for each sub-region, EDB shall conduct CSCs for a specified number of works orders of building services and builder's works (ranging from 20 to 30) every month. Different sub-regions have different specified

numbers of works orders. Audit found that for some sub-regions, the numbers of works orders checked were less than required:

- (i) ***Building services.*** For 3 (50%) of the 6 sub-regions, the numbers of works orders checked were less than required in 1 month. The numbers of works orders checked in that month were 60% to 97% (averaging 84%) of the requirement; and
  - (ii) ***Builder's works.*** For 5 (71%) of the 7 sub-regions, the numbers of works orders checked were less than required in some months. In the 5 sub-regions:
    - for 1 (20%) sub-region, the number of works orders checked was less than required in 1 month. The number of works orders checked in that month was 97% of the requirement;
    - for 1 (20%) sub-region, the numbers of works orders checked were less than required in 2 months. The numbers of works orders checked in these 2 months were 70% and 93% (averaging 82%) of the requirement respectively; and
    - for the remaining 3 (60%) sub-regions, the numbers of works orders checked were less than required in 3 months. The numbers of works orders checked in these 3 months were 63% to 97% (averaging 86%) of the requirement;
- (b) ***Delays in responding to EDB's notifications.*** According to the Guidelines on Spot Checks, EDB needs to notify TCs of unsatisfactory cases (i.e. cases with “poor” or “very poor” aspects) identified in CSCs so that TCs will take follow-up actions. Upon receipt of notifications from EDB, TCs are required to follow up the unsatisfactory cases and reply to EDB on the actions to be taken to rectify the unsatisfactory areas within 14 calendar days. During the period, EDB issued 1,567 notifications to TCs for the unsatisfactory cases identified. Of the 1,567 notifications:
- (i) TCs submitted their replies for 1,128 (72%) cases with delays. The average delay was 90 days, ranging from 1 to 476 days (see Table 5); and

Table 5

**Delays in submission of TCs' replies to EDB  
after receiving notifications  
(January 2021 to September 2022)**

<b>Delay (Day)</b>	<b>Number of cases</b>
≤ 30	363 (32%)
> 30 to ≤ 90	324 (29%)
> 90 to ≤ 150	218 (19%)
> 150 to ≤ 365	209 (19%)
> 365 (Note)	14 (1%)
Total	1,128 (100%)

*Source:* Audit analysis of EDB records

*Note:* The longest delay was 476 days.

- (ii) up to 31 October 2022, TCs had not yet submitted their replies for 253 (16%) cases. The replies were already overdue for 12 to 634 days (averaging 182 days); and
- (c) ***CSCs conducted long after the completion of works.*** According to the Guidelines on Spot Checks, CSCs should be conducted before the works are completed. Of the 8,601 CSCs, 2,666 (31%) were conducted after the completion of the works. The delays between the date of completion and date of CSCs ranged from 1 to 963 days (averaging 82 days). In 7 cases, CSCs were conducted more than 730 days (i.e. two years) after the works were completed (see Table 6).

Table 6

**Delays in conducting CSCs  
(January 2021 to September 2022)**

<b>Delay (Day)</b>	<b>Number of CSCs</b>
≤ 30	925 (35%)
> 30 to ≤ 90	926 (35%)
> 90 to ≤ 150	422 (15%)
> 150 to ≤ 365	328 (12%)
> 365 to ≤ 730	58 (2%)
> 730 (Note)	7 (1%)
Total	2,666 (100%)

*Source: Audit analysis of EDB records*

*Note: The longest delay was 963 days.*

2.4 Audit considers that EDB needs to, in conducting CSCs, take measures to ensure that:

- (a) the number of works orders checked is not less than the requirement;
- (b) TCs submit in a timely manner their replies on the arrangement to rectify the unsatisfactory areas; and
- (c) CSCs are conducted before the works are completed.

### ***Room for improvement in conducting Technical Assurance Audits***

2.5 EDB conducts Technical Assurance Audits (TAAs) to monitor the quality of MTCs' works. According to the Guidelines on Spot Checks:

- (a) at least 30% of completed works orders are required to be selected every two weeks for checking;
- (b) for cases with observations, notifications are required to be sent to TCs for taking follow-up actions; and
- (c) TCs are required to follow up the cases with observations within 14 calendar days after receiving the notifications, and submit responses to EDB on the details of the proposed corrective actions and the expected completion dates. If TCs' follow-up actions are unsatisfactory, EDB will bring up the cases for discussion in district meetings and/or monthly progress meetings.

2.6 Audit reviewed 7,157 works orders with TAAs conducted in the period from 1 January 2021 to 15 December 2022. Audit noted that:

- (a) ***TAAs completed long after completion of works.*** EDB had not promulgated guidelines on when TAAs should be completed after the completion of works:
  - (i) ***Works orders not selected promptly for TAAs.*** The time period between the date of completion of works and the date of selecting the works orders for TAAs ranged from 1 to 1,112 days (averaging 83 days). Of the 7,157 works orders, 4,692 (66%) were selected more than 30 days after completion of works (see Table 7);



Table 7

**Time period between the date of completion of works and  
the date of selecting the works orders for TAAs  
(1 January 2021 to 15 December 2022)**

Time period (Day)	Number of works orders
≤ 30	2,465 (34%)
> 30 to ≤ 90	2,689 (38%)
> 90 to ≤ 150	1,082 (15%)
> 150 (Note)	921 (13%)
Total	7,157 (100%)

*Source:* Audit analysis of EDB records

*Note:* The longest time period was 1,112 days.

- (ii) **TAAs not commenced promptly.** The time period between the date of selecting the works orders and the date of starting TAAs ranged from 0 to 597 days (averaging 59 days) (Note 10). Of the 7,157 works orders, TAAs for 3,776 (53%) were commenced more than 30 days after the works orders were selected (see Table 8); and

**Note 10:** For TAAs commenced on the date of selecting the works orders, the time period was referred to as 0 day.

**Table 8**

**Time period between the date of selecting the works orders and  
the date of starting TAAs  
(1 January 2021 to 15 December 2022)**

<b>Time period (Day)</b>	<b>Number of works orders</b>
$\leq 30$	3,381 (47%)
$> 30$ to $\leq 90$	2,161 (30%)
$> 90$ to $\leq 150$	916 (13%)
$> 150$ (Note)	699 (10%)
Total	7,157 (100%)

*Source:* Audit analysis of EDB records

*Note:* The longest time period was 597 days.

- (iii) **Long time taken to complete TAAs.** The time taken to complete TAAs ranged from 0 to 441 days (averaging 14 days) (Note 11). For 804 (11%) of the 7,157 works orders, EDB took more than 30 days to complete TAAs (see Table 9);

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**Note 11:** For TAAs commenced and completed on the same day, the time taken was referred to as 0 day.

Table 9

**Time taken to complete TAAs  
(1 January 2021 to 15 December 2022)**

Time taken (Day)	Number of works orders
≤ 30	6,353 (89%)
> 30 to ≤ 90	679 (9%)
> 90 to ≤ 150	84 (1%)
> 150 (Note)	41 (1%)
Total	7,157 (100%)

*Source:* Audit analysis of EDB records

*Note:* The longest time taken was 441 days.

On average, EDB took 156 (83 (see para. 2.6(a)(i)) plus 59 (see para. 2.6(a)(ii)) plus 14 (see para. 2.6(a)(iii))) days to complete TAAs after completion of works. In Audit's view, if TAAs are not completed shortly after completion of works, the conditions of the completed works may have deteriorated or new defects may have arisen and hence the conditions at the time of conducting TAAs may not reflect the quality of MTCs' works; and

- (b) ***Responses from TCs on observations identified in TAAs not timely submitted.*** According to the Guidelines on Spot Checks, TCs are required to follow up the cases with observations within 14 calendar days after receiving EDB's notifications and submit responses to EDB. The responses should include the details of the proposed corrective actions and the expected completion dates. Of the 7,157 works orders, EDB notified TCs on 1,012 works orders with observations. Of the 1,012 works orders, 10 were not yet due for submission as at 15 December 2022. According to EDB, it had reminded TCs to follow up the cases with observations in various occasions. However, of the 1,002 works orders with responses due

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for submission, many were submitted after the due date or were not yet submitted. As at 15 December 2022:

- (i) for 354 (35%) works orders, TCs submitted their responses later than the stipulated time of 14 calendar days. The average delay was 58 days, ranging from 1 to 462 days (see Table 10); and

**Table 10**

**Delays in submission of TCs' responses to EDB  
(1 January 2021 to 15 December 2022)**

<b>Delay (Day)</b>	<b>Number of works orders</b>
≤ 15	95 (27%)
> 15 to ≤ 45	119 (34%)
> 45 to ≤ 75	55 (16%)
> 75 to ≤ 105	30 (8%)
> 105 (Note)	55 (15%)
Total	354 (100%)

*Source:* Audit analysis of EDB records

*Note:* The longest delay was 462 days.

- (ii) TCs had not submitted their responses to EDB for 29 (3%) works orders. Up to 15 December 2022, the responses for the 29 works orders were overdue for 3 to 275 days.

2.7 Audit considers that EDB needs to:

- (a) promulgate guidelines on the timeliness of completing TAAs after completion of works; and

- (b) for works orders with observations identified in TAAs, take measures to ensure that TCs submit responses to EDB on the follow-up actions in a timely manner.

### *Room for improvement in conducting Quality Assurance Audits*

2.8 EDB conducts Quality Assurance Audits (QAAs) on various aspects (e.g. reports, materials and works quality) of completed projects. In August 2020, the following requirements were added to the Guidelines on Spot Checks:

- (a) one completed project is required to be selected every two months from the project list for QAAs;
- (b) observations are required to be reported in management meetings as agenda items; and
- (c) based on the results of QAAs, EDB staff are required to take follow-up actions with TCs or MTCs.

2.9 In January 2022, in addition to the requirement stipulated in the Guidelines on Spot Checks, EDB promulgated a target on the number of projects selected for QAAs, which was that three completed projects should be selected every two months. According to EDB, this was an internal target and was promulgated on a trial basis.

2.10 Audit noted that projects were not selected for QAAs according to the requirement or the target:

- (a) in the 17-month period from August 2020 to December 2021, 1 project was selected for QAA; and
- (b) in the 5-month period from January 2022 to May 2022, 3 projects were selected for QAAs (all 3 were selected in January 2022).

2.11 Audit considers that EDB needs to select projects for QAAs according to the Guidelines on Spot Checks and endeavour to achieve the target promulgated in January 2022.

### *Delays in submission of dimension books by MTCs*

2.12 According to the maintenance term contracts, MTCs are required to submit a dimension book (Note 12) for each works order to TCs within 90 days after the certified completion date of the works order. TCs are required to check the information in the dimension book before making the final payment.

2.13 Audit analysed the 28,426 works orders that were certified completed in the period from 1 January 2020 to 30 June 2022 and found that:

- (a) the dimension books of 8,308 (29%) of the 28,426 works orders were submitted late. The average delay was 71 days, ranging from 1 to 661 days; and
- (b) the dimension books of 124 works orders were submitted more than 365 days after the due dates (see Table 11).

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**Note 12:** *A dimension book contains information (e.g. quantities of material used and measurements) of the works done for a works order.*

Table 11

**Delays in submission of dimension books  
(1 January 2020 to 30 June 2022)**

<b>Delay (Day)</b>	<b>Number of works orders</b>
≤ 30	3,687 (44%)
> 30 to ≤ 180	3,763 (45%)
> 180 to ≤ 365	734 (9%)
> 365 (Note)	124 (2%)
Total	8,308 (100%)

*Source: Audit analysis of EDB records*

*Note: The longest delay was 661 days.*

2.14 For works orders with a cost estimate exceeding \$10,000, MTCs are entitled to apply for interim payments for works completed, up to a ceiling of 85% of the approved cost estimate of the works order. According to EDB, if MTCs fail to submit the dimension books on or before the due date (see para. 2.12), EDB will claw back all or part of the interim payments made. The payments clawed back will be released to MTCs upon submission of the outstanding dimension books.

2.15 Audit reviewed 10 cases with delays in submission of dimension books for more than 365 days and noted that:

- (a) in all the 10 cases, the clawbacks were made long after the due dates for dimension book submission, ranging from 498 to 695 days (averaging 568 days) after the due dates. Furthermore, the clawbacks were made after MTCs had submitted the outstanding dimension books;
- (b) in 2 (20%) cases, the releases of payment clawed back were made 23 and 26 days respectively after the dates of clawbacks;

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- (c) in 7 (70%) cases, the clawbacks and the releases of payment clawed back were made on the same day, rendering the clawbacks meaningless; and
  - (d) in 1 (10%) case, the release of “clawback” was made before the interim payments had actually been clawed back. As a result, an extra payment was made to MTC in addition to the amount due to MTC. Six days afterwards, EDB clawed back the extra payment from MTC.
- 2.16 Audit considers that EDB needs to take measures to ensure that:
- (a) dimension books are submitted by MTCs in a timely manner;
  - (b) interim payments are clawed back in a timely manner from MTCs who fail to submit the dimension books on time; and
  - (c) releases of clawbacks are made after interim payments have actually been clawed back.

## Audit recommendations

- 2.17 Audit has *recommended* that the Secretary for Education should:
- (a) **in conducting CSCs, take measures to ensure that:**
    - (i) **the number of works orders checked is not less than the requirement;**
    - (ii) **TCs submit in a timely manner their replies on the arrangement to rectify the unsatisfactory areas; and**
    - (iii) **CSCs are conducted before the works are completed;**
  - (b) **promulgate guidelines on the timeliness of completing TAAs after completion of works;**



- (c) **for works orders with observations identified in TAAs, take measures to ensure that TCs submit responses to EDB on the follow-up actions in a timely manner;**
- (d) **select projects for QAAs according to the Guidelines on Spot Checks and endeavour to achieve the target promulgated in January 2022; and**
- (e) **take measures to ensure that:**
  - (i) **dimension books are submitted by MTCs in a timely manner;**
  - (ii) **interim payments are clawed back in a timely manner from MTCs who fail to submit the dimension books on time; and**
  - (iii) **releases of clawbacks are made after interim payments have actually been clawed back.**

## **Response from the Government**

2.18 The Secretary for Education agrees with the audit recommendations. She has said that:

- (a) the focus of this audit review was on works conducted during the period from 1 January 2020 to 31 December 2022, when Hong Kong was hard hit by the coronavirus disease (COVID-19) epidemic. Despite the unprecedented challenges, EDB had been working closely with TCs and relevant parties to proceed with necessary works as far as practicable. It is noteworthy that the total number of CSCs conducted in the period for works orders of building services works were 4,025, far exceeding the requirement of 3,780 and the total CSCs conducted in the period for works orders of builder's works were 4,576, also exceeding the requirement of 4,200. Understandably, the delivery of the work was indeed not evenly distributed across the months. However, the waves of COVID-19 pandemic had rendered it necessary to implement social distancing rules including intermittent suspension of face-to-face schooling, introduction of "special school holidays" around March 2022, work-from-home arrangements and stringent restrictions on entry to schools. As a result, EDB staff, and consultants and contractors hired by EDB alike, could not

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have access to the school premises during prolonged period. The substantial shortage of manual labour for maintenance works at that time owing to the epidemic situation and quarantine requirement further aggravated the situation. All in all, the work progress and monitoring work had inevitably been affected. In fact, once the epidemic situation improved, EDB expedited the work to exceed the relevant requirements;

- (b) EDB has reminded TCs to submit the outstanding replies on CSCs and TAAs cases through various channels, for example, monthly progress meetings, bi-weekly district meetings and frequent emails. EDB will continue to explore other measures to remind TCs to submit in a timely manner their replies on the arrangement to rectify the unsatisfactory areas;
- (c) EDB would explore measures to ensure that CSCs are conducted before the works are completed;
- (d) EDB would prepare guidelines on the timeliness of completing TAAs;
- (e) as at 28 February 2023, 16 QAAs had been conducted and 3 QAAs were in progress, which was more than the required 15 QAAs as set since the implementation of the Guidelines on Spot Checks in August 2020. EDB would continuously endeavour to achieve the target;
- (f) EDB would explore measures to ensure that dimension books are submitted by MTCs in a timely manner and ensure that interim payments are clawed back in a timely manner from MTCs who fail to submit the dimension books on time; and
- (g) measures have already been taken to ensure that releases of clawbacks are made after interim payments have actually been clawed back.

## **Assessment of Term Consultants' performance**

### ***Room for improvement in conducting customer satisfaction surveys***

2.19 TCs are required under the term consultancy agreements to conduct quarterly customer satisfaction surveys for every school in their regions and submit

quarterly customer satisfaction reports to EDB. TCs send the survey questionnaires to schools by fax or by email. As the questionnaires are not e-fillable (i.e. cannot be filled in by electronic means directly), schools have to print the questionnaires on paper if the questionnaires are sent to schools by email. Completed questionnaires have to be submitted by fax or by email with the scanned questionnaires attached. Audit reviewed the four surveys conducted by the three TCs in the period from March 2021 to February 2022 and noted that:

- (a) **Low response rate.** The response rates were on the low side, ranging from 7% to 38% (averaging 18%) (see Table 12); and

**Table 12**

**Response rates of customer satisfaction surveys  
(March 2021 to February 2022)**

Survey period	TC A	TC B	TC C	Overall
March to May 2021	21 %	15 %	11 %	15 %
June to August 2021	23 %	38 %	7 %	22 %
September to November 2021	24 %	28 %	13 %	21 %
December 2021 to February 2022	16 %	23 %	7 %	15 %
Average	21 %	26 %	10 %	18 %

*Source: Audit analysis of EDB records*

*Remarks: TCs issued a total of 3,476 customer satisfaction survey questionnaires to schools and received 637 questionnaires from schools.*

- (b) **No documentary evidence showing that unsatisfactory cases had been followed up.** According to the term consultancy agreements, TCs are required to visit and contact schools who gave unsatisfactory ratings (i.e. rating lower than 5 on a 10 points scale from 1 (least satisfied) to 10 (most satisfied)) in the surveys at the soonest time, and submit reports of the visits and the proposed improvement actions to be taken to EDB. Audit analysed the customer satisfaction surveys for the quarter from

September to November 2021 and noted that 25 (14%) of the 183 schools gave unsatisfactory ratings to some items. For 7 (28%) of the 25 schools, there was no documentary evidence showing that TCs had visited them and proposed improvement actions to be taken.

2.20 Audit considers that EDB needs to:

- (a) consider using electronic means (e.g. conducting the survey online) to facilitate schools in submitting customer satisfaction survey questionnaires with a view to boosting the response rate; and
- (b) take measures to ensure that TCs visit the schools who have given unsatisfactory ratings in the surveys at the soonest time, and submit to EDB reports of the visits and the proposed improvement actions to be taken.

### ***Room for improvement in assessing TCs' performance***

2.21 EDB follows the requirements set by the Architectural and Associated Consultants Selection Board (Note 13) in assessing TCs' performance on various aspects, including:

- (a) quality of recommendations under feasibility/investigation stage;
- (b) quality of design, technical considerations, cost estimates, tender documents/drawings and tender assessment under design and contract stage;
- (c) supervision of contractors under construction stage; and
- (d) general assessment on TCs' performance on areas such as programming, progress reports, and adherence to programme, achievement of objectives

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**Note 13:** *The Architectural and Associated Consultants Selection Board was established to formalise procedures for the engagement and remuneration of architectural and associated consultants for government projects. It is chaired by the Director of Architectural Services. One of its terms of reference is to review the performance of the architectural and associated consultants.*

and targets, and planning, preparation and management of site investigation/field works.

The results of the assessments are reported in the quarterly performance reports issued by EDB. The reports will be provided to the Development Bureau for building up the past performance ratings of TCs, which will be taken into account in consultant selection exercises.

2.22 From time to time, EDB issues notification letters to TCs for issues that are considered unsatisfactory by EDB, such as poor results obtained from CSCs (see para. 2.3(b)). EDB stated in the notification letters that the issues would be continuously monitored and would be duly reflected in the performance reports for TCs.

2.23 Audit reviewed the 3 quarterly performance reports for the 3 TCs for the period from April to June 2022 and noted that although 181 notification letters (mainly for poor results obtained from CSCs) were issued to the 3 TCs during the period (see Table 13), such information was not reflected in the quarterly performance reports. There was no documentary evidence showing that EDB had taken into account the notification letters issued when assessing the performance of TCs.

**Table 13**

**Number of notification letters issued to TCs  
(April to June 2022)**

<b>TC</b>	<b>Number of notification letters issued</b>
A	101
B	64
C	16
Total	181

*Source: Audit analysis of EDB records*

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2.24 In response to Audit's enquiry, EDB informed Audit in February 2023 that:

- (a) the notifications letters were only one of the considerations in preparation of the quarterly performance reports; and
- (b) EDB had taken into account the notification letters together with all other aspects of the performance of TCs in a holistic approach in assessing TCs' performance.

2.25 Audit considers that EDB needs to maintain documentary evidence showing that the nature and number of notification letters issued to TCs have been taken into account when assessing the performance of TCs.

## Audit recommendations

2.26 **Audit has *recommended* that the Secretary for Education should:**

- (a) **consider using electronic means (e.g. conducting the survey online) to facilitate schools in submitting customer satisfaction survey questionnaires with a view to boosting the response rate;**
- (b) **take measures to ensure that TCs visit the schools who have given unsatisfactory ratings in the surveys at the soonest time, and submit to EDB reports of the visits and the proposed improvement actions to be taken; and**
- (c) **maintain documentary evidence showing that the nature and number of notification letters issued to TCs have been taken into account when assessing the performance of TCs.**

## Response from the Government

2.27 The Secretary for Education agrees with the audit recommendations. She has said that:

- (a) EDB has already been enhancing the computer system for schools to submit the customer satisfaction survey questionnaires online. Reminders would also be sent via the computer system to schools for their completion of the customer satisfaction survey questionnaires;
- (b) all unsatisfactory cases had been followed up by TCs. EDB would remind TCs to timely submit the reports of visits; and
- (c) EDB would maintain documentary evidence showing that the nature and number of notification letters issued to TCs have been taken into account when assessing the performance of TCs.

## **PART 3: MAJOR REPAIRS PROJECTS**

3.1 This PART examines the delivery of MR projects for aided schools by EDB, focusing on the following areas:

- (a) assessment of MR applications (paras. 3.2 to 3.17);
- (b) monitoring of MR works (paras. 3.18 to 3.28);
- (c) asbestos-containing materials in school premises (paras. 3.29 to 3.35); and
- (d) flagpoles on school premises (paras. 3.36 to 3.42).

### **Assessment of Major Repairs applications**

3.2 EDB provides school premises maintenance and repairs support to aided schools through MR projects and ER projects. These projects cover repair works items each costing \$3,000 or more for primary schools and special schools, and \$8,000 or more for secondary schools. For works items costing less than these threshold amounts, schools have to carry out the works by themselves and charge the expenditure incurred to their own operating expenses covered by grants provided by EDB (see Note 4 to para. 1.3).

3.3 At the beginning of every financial year (i.e. in April or May), EDB issues a call circular for applications from schools for non-recurrent grants to carry out MR for the following financial year. Repair works for each application are carried out under one project, even though it may cover more than one works item. For each works item in the applications, the schools have to specify the location and details of repairs to be done and state the reasons for the repairs, preferably with supporting photos.

3.4 Upon receipt, EDB refers the applications to TCs, who conduct technical assessments on the applications to determine whether the works items are essential, desirable or not necessary, estimate the costs for the works items and provide comments as necessary on the technical aspects of the repairs. According to the



Guidelines on Major Repairs Assessment Mechanism for Aided Schools (hereinafter referred to as MR Assessment Guidelines) issued by EDB, items in MR applications submitted by schools will be assessed by TCs and rated as:

- (a) **RA.** Repair items which are essential;
- (b) **RB.** Repair items which are desirable but not essential;
- (c) **RC.** Repair items which are not necessary;
- (d) **MA.** Improvement items which are essential; and
- (e) **MB.** Improvement items which are desirable but not essential.

According to MR Assessment Guidelines, a high priority should be accorded to works items related to safety, health and hygiene, statutory compliance and security.

3.5 Taking into account the results of the technical assessment and the availability of funds, EDB considers each item in the applications and gives approval on an item-by-item basis. The schools concerned will be informed of the application results in April/May of the following financial year and a new MR cycle will commence in May/June of the same year. The related repair works will usually be carried out during the school's summer vacation (i.e. July to August).

### ***Need to review the thresholds of minimum repairs cost under MR projects and ER projects***

3.6 According to the regulations of MR projects and ER projects, schools cannot apply for repair items costing less than \$3,000 for primary schools and special schools, and less than \$8,000 for secondary schools. Audit noted that these thresholds had not been reviewed or revised at least for more than 13 years since April 2009 and EDB had no information on:

- (a) how these thresholds were derived and the rationale behind the setting of two different thresholds, namely one for primary schools and special schools, and another one for secondary schools; and

## Major Repairs projects

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- (b) when these thresholds were last reviewed or revised.

3.7 Audit considers that EDB needs to:

- (a) review whether it is justified to set two different thresholds for the applications for repairs submitted by primary and special schools and those by secondary schools;
- (b) in light of the review results, consider setting a single threshold for applications submitted by all types of schools; and
- (c) consider the merits of revising the thresholds to reflect the change in price level since the thresholds were last revised.

### *Different recommendations given for similar applications*

3.8 EDB makes reference to TCs' technical assessments in considering whether to approve the applications submitted by schools. However, it is inevitable that TCs have to exercise their judgement in deriving the results of assessments. Audit reviewed similar applications for the replacement of squat-type toilets and noted that there is a need to take measures to address the inconsistent judgements exercised by TCs in their assessments of applications.

3.9 In May 2020, EDB issued guidelines to schools on prevention of spread of the COVID-19 in schools. The guidelines stated that:

- (a) after using the toilet, the toilet lid should be put down before flushing; and
- (b) in case that the toilets in the schools have no lid (e.g. squat-type toilets — see Photograph 1 for an example):
  - (i) the schools should consider adding a lid for the toilets or replacing them with pedestal toilets; and
  - (ii) students should avoid using the toilets in the schools for defecation.

### Photograph 1

#### A squat-type toilet in a school



*Source: EDB records*

3.10 According to MR Assessment Guidelines (see para. 3.4), in some circumstances, a high priority may be given to some MR items that warrant special consideration with suitable justifications. Replacement of squat-type toilets due to hygiene issues was given in MR Assessment Guidelines as an example of such circumstances.

3.11 In the 2021-22 MR cycle, 47 schools submitted MR applications for 51 works items of replacement of the squat-type toilets in their schools as a preventive measure for the spread of COVID-19. Audit noted that TCs gave different assessments on these 51 similar works items:

- (a) 6 (12%) were assessed by TCs as ER items instead of MR items and the replacement works were carried out as ER;
- (b) 26 (51%) were rated as RA and were approved as MR items (i.e. carried out one year after the applications were submitted); and

## Major Repairs projects

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- (c) 19 (37%) were rated as RB, MA or MB. Of these 19 items, 6 (32%) were rejected by EDB. Of these 6 rejected items, the replacement works for 3 (50%) items were subsequently carried out as ER items.

Audit reviewed the 51 works items and noted that there was no documentary evidence indicating the reasons for the difference in the assessments.

3.12 Audit noted that different assessments on the applications brought about very different results to the schools concerned:

- (a) ***Replacement assessed as ER works was completed quickly.*** Replacement of squat-type toilets as ER was completed quickly. For instance, in June 2020, a school submitted its application as an MR item. TC advised the school to submit an ER request instead of MR. The replacement works were completed in January 2021 (i.e. 7 months after MR application was submitted);
- (b) ***Replacement not assessed as ER works took longer time to complete.*** Replacement of squat-type toilets rated as RA took long time to complete. For instance, in June 2020, a school submitted its application as an MR item. TC rated the replacement as RA. The replacement works commenced in July 2022 and were completed in August 2022 (i.e. 26 months after MR application was submitted); and
- (c) ***Some replacement repair works were rejected.*** Some replacements of squat-type toilets not assessed as ER or RA items were rejected by EDB.

3.13 Audit considers that EDB needs to take measures to ensure that justifications are provided by TCs for making different recommendations for similar applications.

### ***Need to improve repairs for defective fire doors***

3.14 According to the Buildings Department, fire doors protect the staircase from fire and smoke, and should have fire resisting property and self-closing device to keep them in a closed position. A common fire resisting deficiency is damaged fire

doors. Audit found that there was room for improvement in repairs for defective fire doors in schools:

- (a) ***Fire doors with safety concerns.*** In June 2020, a school submitted an MR application regarding defective wooden fire doors. Upon site inspection, TC concluded that the two fire doors were defective and dilapidated, and loose veneer sheets of the doors would cause danger to students and give rise to safety concerns. EDB approved the repairs as an MR item. Although the defective fire doors were repaired in August 2021 immediately following the announcement of MR application results, it was 14 months after MR application was submitted. The repairs could have been carried out in a more timely manner if handled under ER;
- (b) ***Justifications for replacing wooden fire doors by stainless steel doors not provided.*** One of the two wooden fire doors mentioned in (a) was exposed to rain while the other was not (see Photograph 2). TC recommended replacing both doors by stainless steel doors. TC stated that the wooden door located at external area was prone to be damaged by rainwater. Eventually, both doors were replaced by stainless steel doors at a cost of \$51,000. The cost of a stainless steel door was a few times as expensive as a wooden door. In response to Audit's enquiry, EDB informed Audit in February 2023 that the door not exposed to rain was replaced by a stainless steel door because it was exposed to the wet environment of the kitchen of the school canteen and was subject to heavy usage. However, Audit noted that there was no documentary evidence showing that TC had provided such justifications; and

Photograph 2

Two defective fire doors in a school



Source: EDB records

- (c) *Need to improve documentation for rejected fire door repairs.* In May 2020, a school submitted an MR application to repair defective fire doors (see Photograph 3). The school stated in the application that some of the fire doors were damaged seriously and their functionality was impaired. TC assessed that some fire doors were partially defective and rated the works item as RB (i.e. repairs item which was desirable but not essential). EDB rejected the application based on TC's assessment and no repair works were performed. Although there were major differences between the seriousness of the defects described by the school and the assessment results of TC, TC did not document the details of the defects to repudiate the seriousness of the defects described by the school.

**Photograph 3**

**A defective fire door in a school**



*Source: EDB records*

- 3.15 Audit considers that EDB needs to take measures to ensure that:
- (a) fire doors with safety concerns are repaired as soon as possible; and
  - (b) TCs provide detailed information of their assessments on fire door repairs applications.

### Audit recommendations

- 3.16      **Audit has *recommended* that the Secretary for Education should:**
- (a)      **review whether it is justified to set two different thresholds for the applications for repairs submitted by primary and special schools and those by secondary schools;**
  - (b)      **in light of the review results, consider setting a single threshold for applications submitted by all types of schools;**
  - (c)      **consider the merits of revising the thresholds to reflect the change in price level since the thresholds were last revised;**
  - (d)      **take measures to ensure that justifications are provided by TCs for making different recommendations for similar applications; and**
  - (e)      **take measures to ensure that:**
    - (i)      **fire doors with safety concerns are repaired as soon as possible; and**
    - (ii)     **TCs provide detailed information of their assessments on fire door repairs applications.**

### Response from the Government

3.17      The Secretary for Education agrees with the audit recommendations. She has said that:

- (a)      EDB would enhance the computer system to facilitate TCs to record the reasons of their recommendations; and
- (b)      EDB would update the guidelines to remind TCs to provide a more detailed assessment as to whether fire doors have safety concerns, in which case they should be handled as ER.



## Monitoring of Major Repairs works

### *Room for improvement in documentation regarding project completion dates*

3.18 After an MR application is approved by EDB, TC will arrange a joint site visit with the representatives of EDB, the school and MTC to:

- (a) assess the conditions of the items to be repaired;
- (b) confirm and finalise the scope of works; and
- (c) agree the timetable of MR project, including the commencement date and completion date of the project.

The agreed completion dates of the projects are recorded in EDB's computer system.

3.19 For each approved MR project, TC will issue one or more works orders to MTC for works items of the project. TC will set a target completion date for each works order issued, which should not be later than the completion date agreed with the school for the whole project. To monitor the progress of MR works, EDB compares the progress of the works orders against the target completion dates set by TCs. Audit examined 40 works orders issued by TCs to MTCs for MR cycles from 2020-21 to 2022-23 and found that for 37 (93%) of the 40 works orders, the target completion dates set were later than the project completion dates agreed with the schools as recorded in EDB's computer system by 31 to 227 days (averaging 123 days) (see Table 14).

**Table 14**

**Length of time the target completion dates were later than the agreed completion dates recorded in EDB's computer system  
(MR cycles in 2020-21 to 2022-23)**

<b>Length of time (Day)</b>	<b>Number of works orders</b>
Not later than the agreed completion dates	3 (7%)
1 to 60	2 (5%)
61 to 120	4 (10%)
121 to 180	29 (73%)
≥ 181 (Note)	2 (5%)
Total	40 (100%)

*Source: Audit analysis of EDB records*

*Note: The longest time period was 227 days.*

3.20 In response to Audit's enquiry, EDB informed Audit in February 2023 that:

- (a) the project completion dates agreed with schools as recorded in EDB's computer system were the preliminary schedules after coordination with schools at the early stage of the projects; and
- (b) the project completion dates would need to be further revised taking into account a host of factors including inclement weather, the pandemic situation (specific to 2020 to 2022 only), unexpected engineering findings and occurrence of hiccups in the course of works. For the 37 works orders mentioned in paragraph 3.19, the TCs concerned had verbally agreed the revised project completion dates with the schools.

3.21 Audit noted that:

- (a) the project completion dates recorded in EDB's computer system were the original dates agreed by the schools instead of the latest revised dates; and
- (b) for 30 (81%) of the 37 works orders with revised project completion dates verbally agreed (see para. 3.20(b)), there was no documentary evidence:
  - (i) showing the factors accounting for the difference between the target completion dates set by TCs for the works orders and the original project completion dates agreed with the schools; and
  - (ii) showing that the revised target completion dates of the works orders were agreed with the schools.

3.22 Audit considers that EDB needs to improve the documentation regarding project completion dates with a view to facilitating the monitoring of the progress of works projects.

### *Need to expedite finalisation of MR reports*

3.23 According to the term consultancy agreements, for each approved MR project, TC is required to submit an MR report to EDB within 24 working days after TC's receipt of MR approval letters from EDB. MR report includes the following information:

- (a) TC's assessment on the scope of works for each works item;
- (b) estimated cost for each works item;
- (c) types, unit cost and quantities of the materials to be used for each works item; and
- (d) works commencement and completion dates agreed with the school.

## Major Repairs projects

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MR report is an important document which facilitates EDB to monitor the details and progress of MR project. Upon receipt of MR report from TC, EDB reviews the report and if necessary, requests TC to provide supplementary information or make necessary amendments.

3.24      Audit examined MR reports of 40 MR projects for MR cycles from 2020-21 to 2022-23 and noted that:

- (a)      ***Late submission of MR reports.*** Of the 40 MR reports, 33 (83%) were submitted late (i.e. not within 24 working days after receipt of EDB's MR approval letter — see para. 3.23). The average delay was 40 working days (ranging from 26 to 61 working days); and
- (b)      ***Long time taken to finalise MR reports.*** After the first submission of MR report, EDB staff will review the report and if necessary, request TC to provide supplementary information or make amendments (see para. 3.23) before finalisation. TCs took a long time (ranging from 86 to 315 days, averaging 206 days) to finalise MR reports after the first submission (see Table 15).

Table 15

**Time taken by TCs to finalise the 40 MR reports  
(2020-21 to 2022-23)**

<b>Time taken (Day)</b>	<b>Number of MR reports</b>
≤ 100	3 (7%)
101 to 200	14 (35%)
201 to 300	16 (40%)
301 to 315	2 (5%)
Not yet finalised (Note)	5 (13%)
Total	40 (100%)

*Source: Audit analysis of EDB records*

*Note: Up to 31 October 2022, the time taken since the first submission of the five MR reports ranged from 134 to 151 days (averaging 140 days).*

3.25 Audit further examined MR reports of 20 of the 40 projects (see para. 3.24) and noted that on average, each of the 20 MR reports was returned to TC for revisions 3 times (ranging from 1 to 6 times). Audit analysed the reasons for returning the 20 MR reports and found that 18 (90%) of them were due to missing or incorrect necessary information in MR reports (see Table 16).

**Table 16**

**Analysis on reasons for returning MR reports to TCs for revisions  
(2020-21 to 2022-23)**

<b>Reason for returning MR reports</b>	<b>Number of MR reports</b>
Missing or incorrect necessary information	18 (90%)
Insufficient justifications for repair items	8 (40%)
Sub-standard quality of MR reports	4 (20%)
Overall	20 (Note)

*Source: Audit analysis of EDB records*

*Note: The total number of MR reports did not add up to 20 and the total percentage was larger than 100% because some were returned by EDB due to more than one reason.*

3.26 Audit considers that EDB needs to take measures to help TCs submit all necessary and accurate information in MR reports so that the reports are finalised in a timely manner.

## **Audit recommendations**

3.27 **Audit has recommended that the Secretary for Education should:**

- (a) **improve the documentation regarding project completion dates with a view to facilitating the monitoring of the progress of works projects; and**
- (b) **take measures to help TCs submit all necessary and accurate information in MR reports so that the reports are finalised in a timely manner.**

## **Response from the Government**

3.28 The Secretary for Education agrees with the audit recommendations. She has said that:

- (a) EDB would remind TCs to improve the documentation regarding revised project completion dates agreed with schools; and
- (b) EDB would prepare guidance notes to assist TCs to improve the quality of their MR reports.

## **Asbestos-containing materials in school premises**

3.29 Asbestos is a group of fibrous minerals that was widely used in construction of buildings. According to the Centre for Health Protection, exposure to asbestos can cause lung cancer and other diseases such as asbestosis (fibrosis of the lungs). In Hong Kong, a total ban on the import, transshipment, supply and use of all forms of asbestos was introduced in 2014. However, buildings built before the mid-1980s may have asbestos-containing materials (ACMs).

3.30 In 2005, the Government completed an exercise to remove all ACMs with imminent risk to public health from school premises. In June 2006, EDB informed the Panel on Education of LegCo that:

- (a) the remaining ACMs in school premises were in good conditions and of insignificant risk to public health. Provided they were properly managed and maintained, these low-risk ACMs needed not be removed immediately;
- (b) instead, they could be left in place undisturbed and removed at the time when major repairs for schools were carried out; and
- (c) to eliminate any possible risk, EDB intended to remove all ACMs completely from all school premises and planned to complete the removal by the end of the 2011/12 school year (a school year starts in September and ends in August of the following year).

### *Need to closely monitor ACMs remaining in some school premises*

3.31 In 2014, EDB found that ACMs still existed in 14 schools. According to EDB, although ACMs existed in concealed building elements, they were not posing imminent health risks. EDB requested the 14 schools to engage registered asbestos consultants to investigate the conditions of ACMs in their school premises every two years. In some cases, the consultants identified damages in the building elements of school premises covering ACMs, which might cause possible leakages of ACMs. For instance:

- (a) in one school, in April 2021, the consultant identified damages in the ceramic floor tiles of the school premises concealing ACMs (see Photograph 4). The school submitted an ER request to repair the damages in the same month and the damages were repaired in May 2021; and

**Photograph 4**

**Damage found in the ceramic floor tiles concealing ACMs**



*Source: EDB records*



- (b) in another two schools, in February and April 2019 respectively, the consultants identified damages in the ceramic floor tiles of the school premises concealing ACMs. The schools informed EDB that they would arrange follow-up actions on their own. In the event, the asbestos investigation reports issued in 2021 indicated that the damages were repaired. There was no documentary evidence showing that the schools had taken prompt actions to repair the damages.

3.32 In response to Audit's enquiry, EDB informed Audit in February 2023 that:

- (a) it was the schools' responsibility to maintain the school premises in a safe and hygienic condition. EDB provided support to the schools for the carrying out of repair works under the prevailing ER and MR mechanism; and
- (b) the schools always had the liberty to carry out the repair works by themselves. In this event, the schools chose to carry out the works by themselves and they should be responsible for monitoring timely completion of the works.

3.33 Up to January 2023, only 3 (21%) of the 14 schools (see para. 3.31) had removed all ACMs in their school premises. ACMs still existed in the remaining 11 (79%) schools. Audit considers that EDB needs to:

- (a) closely monitor the results of the asbestos investigations conducted by consultants engaged by the schools. In collaboration with the schools concerned, take measures to ensure that prompt actions are taken to follow up possible leakages of ACMs identified in asbestos investigations; and
- (b) keep in view the conditions of ACMs as reflected by the results of the asbestos investigations and when necessary, consider whether there are merits of removing all ACMs completely from all school premises as planned in 2006 with a view to eliminating possible health risks.

### Audit recommendations

- 3.34      **Audit has *recommended* that the Secretary for Education should:**
- (a)      **closely monitor the results of the asbestos investigations conducted by consultants engaged by the schools. In collaboration with the schools concerned, take measures to ensure that prompt actions are taken to follow up possible leakages of ACMs identified in asbestos investigations; and**
  - (b)      **keep in view the conditions of ACMs as reflected by the results of the asbestos investigations and when necessary, consider whether there are merits of removing all ACMs completely from all school premises as planned in 2006 with a view to eliminating possible health risks.**

### Response from the Government

3.35      The Secretary for Education agrees with the audit recommendations. She has said that:

- (a)      EDB has been coordinating with schools to take follow-up measures for the findings of asbestos investigations. These instances involve ACMs in concealed building elements without posing imminent health risks, and the removal of asbestos from concealed building elements might involve major works (e.g. removing the flooring of a certain room or even school hall) that would disrupt the operation of schools. EDB would urge schools to take prompt actions as far as practicable; and
- (b)      when taking forward ER or MR works, EDB would continue to proactively remove ACMs if they are found at the same location requiring ER or MR.

### Flagpoles on school premises

3.36      On 8 October 2021, the National Flag and National Emblem (Amendment) Ordinance (Amendment Ordinance) came into effect. According to the Amendment Ordinance, the Secretary for Education must give directions to specified schools for matters relating to the daily display of the national flag and the weekly conduct of a

national flag raising ceremony. In the same month, EDB issued EDB Circular No. 11/2021 to all schools. According to the Circular, fostering students' sense of national identity is a key learning goal of primary and secondary education. The Circular stipulates that:

- (a) all primary schools and secondary schools must educate students on the history and spirit of the national flag and national emblem, the regulation of displaying and using the national flag, and the etiquette to be followed in a national flag raising ceremony; and
- (b) starting from 1 January 2022, all primary and secondary schools must:
  - (i) display the national flag on:
    - each school day (except for inclement weather conditions such as tropical cyclones and/or heavy persistent rain); and
    - the New Year's Day (1 January), the Hong Kong Special Administrative Region (HKSAR) Establishment Day (1 July) and the National Day (1 October); and
  - (ii) conduct a national flag raising ceremony:
    - in each week (except for school holidays during which no such ceremony can be held); and
    - on the New Year's Day, the HKSAR Establishment Day and the National Day, or on the preceding or following school day of these days.

The Amendment Ordinance does not impose a similar arrangement for displaying the regional flag of the HKSAR.

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3.37 EDB's guidelines relating to flagpole repairs include the following:

- (a) ***MR Assessment Guidelines.*** The guidelines stated that flagpole repairs could be classified as essential MR. Schools having the needs to repair defective flagpoles could submit applications in the annual MR cycle and, once approved, the repairs would be carried out in the following financial year; and
- (b) ***Guidelines on Handling ER Requests requiring Special Attention.*** The guidelines stated that TCs, when processing ER applications, needed to consider whether delay in carrying out the repairs would cause any political sensitivity or press concerns (e.g. defective flagpole affecting special ceremony on the National Day). In such case, the repairs should be classified as an Emergent ER.

### ***Need to carry out flagpole repairs and enhancement works in a timely manner***

3.38 Under the MR Assessment Guidelines, requests for repairing defective flagpoles as MR would only be carried out in the following MR cycle (see para. 3.37(a)). Therefore, schools with only one flagpole which has become inoperable need to rely on movable flagpoles to meet the requirements stipulated in EDB Circular No. 11/2021 (see para. 3.36).

3.39 Furthermore, although there is no legal requirement on display of regional flags at schools, EDB Circular No. 11/2021 promulgates that schools should display the regional flag alongside the national flag if there are adequate flagpoles. In 2021, EDB conducted a review on the installation of flagpoles at schools, including the number of flagpoles installed and whether any flagpoles were installed at undesirable locations. Based on the results of the review, in 2021-22, EDB launched a special improvement works programme to help schools to install new flagpoles and the programme covered 42 selected schools. Total expenditure incurred in the financial year amounted to \$1.1 million. In the 2022-23 MR cycle, EDB approved 123 applications for flagpoles installations. Audit noted that up to 18 November 2022, 41 (33%) of the 123 applications were withdrawn by the schools. The flagpoles installation works for 22 (27%) of the remaining 82 applications had not yet been completed.

3.40 Audit considers that EDB needs to:

- (a) take measures to ensure that flagpoles repairs are carried out in a timely manner to facilitate schools in complying with the requirements relating to the daily display of the national flag and the weekly conduct of a flag raising ceremony; and
- (b) consider stepping up efforts to assist schools in installing additional flagpoles, with a view to facilitating schools which would like to display the regional flag alongside the national flag to do so as far as practicable, taking into account the physical constraints and technical feasibility of each case.

### Audit recommendations

3.41 Audit has *recommended* that the Secretary for Education should:

- (a) **take measures to ensure that flagpoles repairs are carried out in a timely manner to facilitate schools in complying with the requirements relating to the daily display of the national flag and the weekly conduct of a flag raising ceremony; and**
- (b) **consider stepping up efforts to assist schools in installing additional flagpoles, with a view to facilitating schools which would like to display the regional flag alongside the national flag to do so as far as practicable, taking into account the physical constraints and technical feasibility of each case.**

### Response from the Government

3.42 The Secretary for Education agrees with the audit recommendations. She has said that currently, all schools are able to meet the requirements under the Amendment Ordinance and EDB Circular No. 11/2021. That notwithstanding, EDB would continue to take measures to ensure that repairs of inoperable flagpoles would be carried out as ER instead of MR to expedite the works. In rare cases, movable flagpoles would also be deployed to ensure legal compliance. As to the display of regional flag, although there is no legal requirement on its daily display at schools,

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EDB has already been facilitating schools to install additional flagpoles as far as practicable. EDB would continue to adopt a pragmatic approach on the installation of additional flagpoles, upon application and subject to physical constraints and technical feasibility at respective school sites.

## **PART 4: EMERGENCY REPAIRS PROJECTS**

4.1 This PART examines the delivery of ER projects for aided schools by EDB, focusing on the following areas:

- (a) submission of ER requests by schools (paras. 4.3 to 4.12); and
- (b) processing of ER requests and monitoring of repair works (paras. 4.13 to 4.22).

### ***Background***

4.2 The provision of maintenance and repairs support to aided schools through ER projects involves the following steps (see Figure 1):

- (a) ***Submission of ER requests.*** Aided schools in need of ER submit ER requests via EDB's online system;
- (b) ***Classification of ER request categories and arrangement of temporary repairs.*** TCs classify ER requests into three categories (Emergent requests, Urgent requests and General requests) based on the urgencies of the repairs and conduct site visits together with MTCs. During site visits, temporary repairs will be arranged if imminent health and safety risks are identified. TCs also advise the schools on the details of the repairs to be carried out, and the anticipated commencement and completion dates for the repairs;
- (c) ***Submission and approval of ER reports.*** TCs submit ER reports for EDB's approval. For each item in ER requests, TCs recommend in the reports whether repairs should be carried out. For items not recommended for repairs, after EDB accepts TCs' recommendations, the results are released via its online system for the schools' information. For items recommended for repairs, after ER reports are approved, EDB will approve funds for the repairs and give permission to TCs to issue works orders for instructing MTCs to carry out final repairs (i.e. the repairs in addition to the temporary repairs); and

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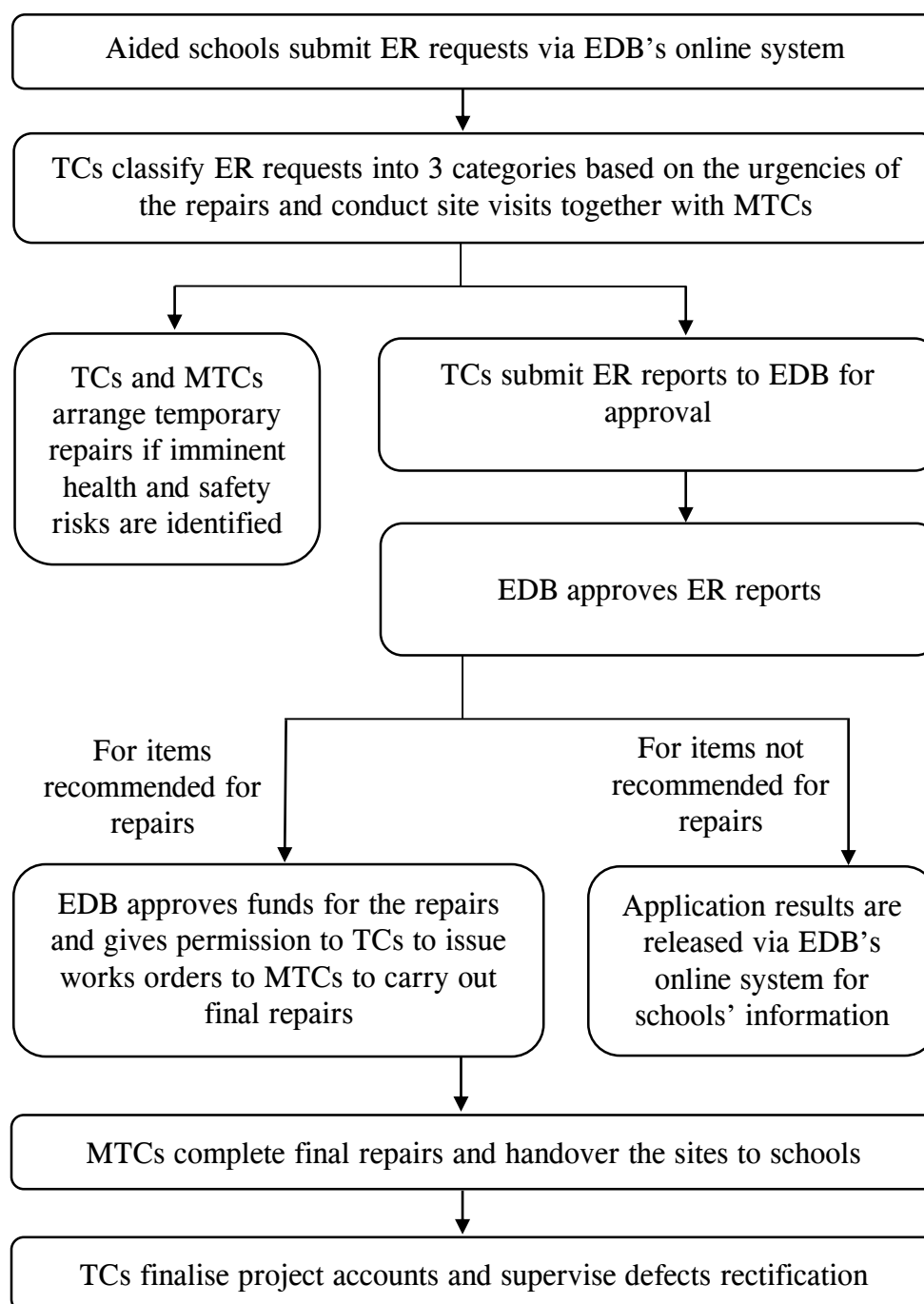
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- (d) *Completion of final repairs and finalisation of project accounts.* MTCs complete final repairs and handover the sites to schools. TCs finalise the project accounts and supervise defects rectification during the maintenance period.



Figure 1

**Procedures for delivery of ER projects**



Source: Audit analysis of EDB records

## **Submission of Emergency Repairs requests by schools**

### *Need to consolidate ER requests as far as practicable*

4.3 Audit examined the ER requests recommended for repairs in the three-year period from 2019-20 to 2021-22. Audit noted that there were more than 6,000 ER requests each year and some schools needed frequent ER works. For 2019-20, 2020-21 and 2021-22, the number of schools with more than 20 requests for the year was 16, 40 and 20 respectively (see Table 17).

**Table 17**

**Analysis on ER requests recommended for repairs  
(2019-20 to 2021-22)**

Number of ER requests recommended for repairs	Number of schools		
	2019-20	2020-21	2021-22
≤ 10	644	532	582
11 to 20	155	254	225
21 to 30	14 } 16	34 } 40	20 } 20
> 30	2 }	6 }	0 }
Total	815	826	827

*Source: Audit analysis of EDB records*

*Remarks: In the three-year period from 2019-20 to 2021-22, the largest number of ER requests by a school recommended for repairs was 38, 37 and 29 respectively.*

4.4 Audit reviewed the ER requests and noted that there were cases where repairs were requested separately within a short period of time and were carried out under separate projects. Such requests could have been consolidated and covered by one single works project to minimise disturbance to the schools and to improve economy and efficiency of the repairs:

- (a) **School A.** In early June 2021, School A submitted an ER request for repairing the concrete spalling defects at the ceiling of a toilet. Although it can be seen from the photographs submitted that there was concrete spalling at the wall of the toilet, the request only covered the spalling at the ceiling. In early August 2021 (i.e. 2 months after the first ER request), School A submitted another ER request for repairing the concrete spalling defects at the wall of the same toilet. The repairs could have been more cost effective and caused less disturbance to the school if they were consolidated and covered by one single works project; and
  - (b) **School B.** In mid-September 2020, School B submitted an ER request for repairing the concrete spalling defects at the ceiling of a classroom. Four days after submitting the first ER request, School B submitted another ER request for repairing the water seepage defects at the ceiling and walls of the same classroom. The repairs for the two ER requests were covered by two separate works orders. The repairs could have been more cost effective and caused less disturbance to the school if they were consolidated and covered by one single works project.
- 4.5 To enhance cost effectiveness and minimise disturbance to the schools, Audit considers that EDB needs to:
- (a) remind the schools in need of ER works to stay vigilant in their inspections with a view to undertaking ER works in one single works project for rectifying the defects as far as practicable; and
  - (b) consolidate into one single works project as far as practicable ER requests received from the same school within a short period of time.

### ***Need to improve the list of examples of ER in aided schools***

4.6 Unlike MR projects, EDB did not issue guidelines on the ambit of ER projects. EDB promulgated on its website a list of examples of emergency repairs in aided schools for schools' reference. The list contains about 30 examples of repair items under the ER projects. Examples set out in the list include ER for damages of builder's works items (e.g. structural elements and doors) and ER for damages of building services installation (e.g. fire services installation and water supply system). The list was last updated more than 13 years ago in February 2010. Audit noted that

## Emergency Repairs projects

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the term consultancy agreements also include examples for ER works. Audit compared the items in the term consultancy agreements against the items in the list and found that many common items were not included in the list, such as repairs of paving blocks and washing basins (Note 14). Over the years, schools have submitted ER requests that were not commonly seen in the past, for example, replacement of malfunctioned pillar water taps with motion sensor water taps in toilets of schools due to the concern of COVID-19 epidemic and replacement of air-conditioning systems in eligible facilities of school premises under the programme “Additional Air-conditioning Installation for Schools” (see para. 5.13).

4.7 Audit considers that EDB needs to update the list of examples of emergency repairs regularly with a view to providing more useful examples to schools on repair items within the scope of ER projects.

### *Some schools need assistance to determine if works required is within ER ambit*

4.8 Audit analysed the ER requests submitted by schools in the period from 2019-20 to 2021-22, and noted that a considerable percentage (ranging from 17% to 25%) of ER requests submitted were not recommended for repairs (see Table 18).

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**Note 14:** *Other items not included in the list as identified by Audit include ER for damages of defective blinds at special schools, exhaust fans, metal bollards, anti-slip quarry tiles, acoustic plasters and security systems.*

Table 18

**ER requests not recommended for repairs  
(2019-20 to 2021-22)**

ER request	2019-20	2020-21	2021-22
Submitted (a)	8,929	10,242	9,175
Not recommended for repairs (b)	2,188	1,983	1,546
Percentage not recommended for repairs (c)=(b)÷(a)×100 %	25 %	19 %	17 %

Source: Audit analysis of EDB records

4.9 Audit examined 20 ER requests submitted by schools in 2021-22 which were not recommended for repairs, and found that 10 (50%) requests were clearly not within the ambit of ER projects. The salient features of the 10 requests were as follows:

- (a) **Estimated costs much below the thresholds.** For 5 (50%) requests, the estimated costs of repair items were much below the thresholds of ER projects (i.e. \$3,000 or above for primary schools and special schools, and \$8,000 or above for secondary schools), such that the schools were required to arrange for repairs by themselves. The 5 requests were not recommended for repairs because the estimated costs of repairs were on average 86% (ranging from 72% to 97%) below the thresholds of ER projects. In one example, the school submitted an ER request for repairing the missing mosaic tiles at an external wall (see Photograph 5(a)). The request was not recommended for repairs because the estimated cost of repairs was 95% below the threshold of ER projects. In another example, the school submitted an ER request for repairing the loosened artificial granite tiles at a corridor (see Photograph 5(b)). The request was not recommended for repairs because the estimated cost of repairs was 97% below the threshold of ER projects; and

## **Emergency Repairs projects**

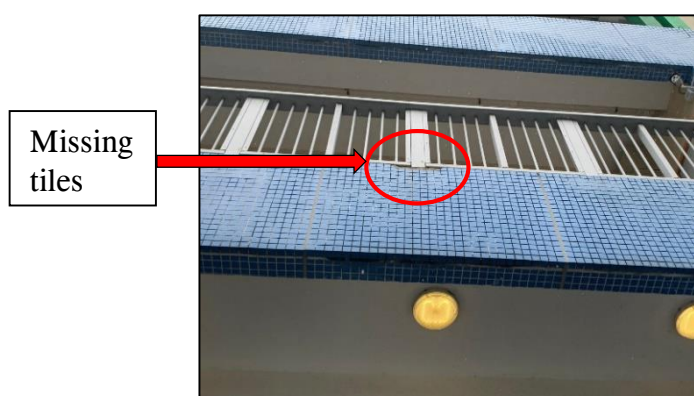
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- (b) ***Repair items not of ER nature.*** For the remaining 5 (50%) requests, the repair items were not of ER nature and were not recommended for repairs. In one example, the school submitted an ER request for repairing the ceiling as there was peeling off of paint. However, after conducting a site visit, the TC considered that it was just peeling off of paint and there was no imminent danger (see Photograph 5(c)). As a result, the request was not recommended for repairs.

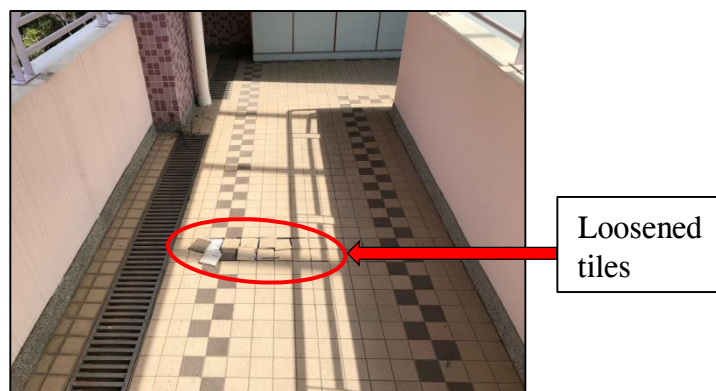
Photographs 5(a) to (c)

Examples of ER requests clearly not within the ambit of ER projects

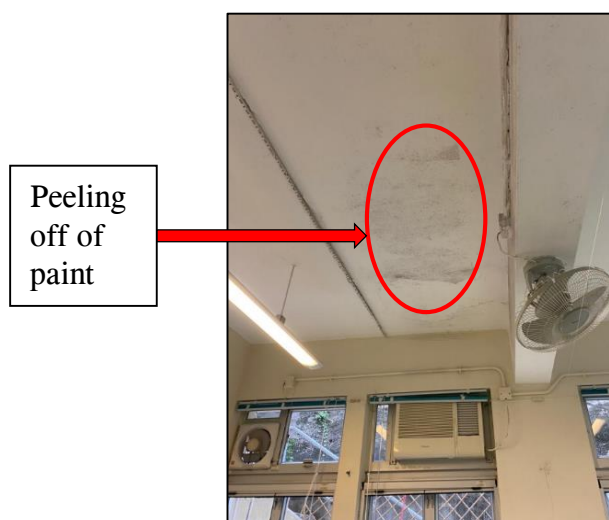
(a) Repairs of missing mosaic tiles



(b) Repairs of loosened artificial granite tiles



(c) Repairs of ceiling with peeling off of paint



Source: EDB records

4.10 In Audit's view, the processing of ER requests that are clearly not within the ambit of ER projects, not only affects the efficiency of EDB and TCs in assisting schools in real need of ER, but also causes delays to schools in making alternative arrangements for the repairs. Audit considers that EDB needs to take measures to provide assistance to schools (e.g. by disseminating examples of ER requests clearly

## **Emergency Repairs projects**

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not within the ambit of ER projects for schools' reference) to help them have a clear understanding on the ambit of ER projects.

### **Audit recommendations**

- 4.11      **Audit has *recommended* that the Secretary for Education should:**
- (a)      **remind the schools in need of ER works to stay vigilant in their inspections with a view to undertaking ER works in one single works project for rectifying the defects as far as practicable;**
  - (b)      **consolidate into one single works project as far as practicable ER requests received from the same school within a short period of time;**
  - (c)      **update the list of examples of emergency repairs regularly with a view to providing more useful examples to schools on repair items within the scope of ER projects; and**
  - (d)      **take measures to provide assistance to schools (e.g. by disseminating examples of ER requests clearly not within the ambit of ER projects for schools' reference) to help them have a clear understanding on the ambit of ER projects.**

### **Response from the Government**

4.12      The Secretary for Education agrees with the audit recommendations. She has said that guidance notes including updated examples of ER items and the ambit of ER would be prepared to assist schools in submitting ER requests.



## Processing of Emergency Repairs requests and monitoring of repair works

### *Need to expedite finalisation of ER reports*

4.13 According to the term consultancy agreements, TCs are required to submit ER reports to EDB within 1 working day for Emergent requests, 3 working days for Urgent requests and 6 working days for General requests. In the three-year period from 2019-20 to 2021-22, 93.9%, 96.8% and 97.5% of ER reports were submitted within the stipulated time respectively. For items not recommended for repairs, after EDB accepts TCs' recommendations, the results are released via its online system for the schools' information (see para. 4.2(c)). For items recommended for repairs, EDB approves the ER reports before giving permission to TCs to issue works orders for instructing MTCs to carry out final repairs (see para. 4.2(c)).

4.14 Upon receipt of ER reports from TCs, EDB reviews the reports and may request TCs to provide supplementary information or make necessary amendments. In September 2020, EDB set a target of 15 days for TCs to finalise their ER reports after the date of first submission. Audit examined the ER reports finalised in the period from 2019-20 to 2021-22 and noted that long time was taken to finalise the ER reports. The time taken ranged from 0 to 442 days, averaging 32 days (Note 15) (see Table 19).

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**Note 15:** *For the cases which EDB took 0 days to finalise the ER reports, the ER reports were finalised on the same day as the date of receiving the ER reports by EDB.*

**Table 19****Time taken to finalise ER reports  
(2019-20 to 2021-22)**

<b>Time taken (Day)</b>	<b>2019-20</b>		<b>2020-21</b>		<b>2021-22</b>	
	<b>Number of ER reports</b>	<b>%</b>	<b>Number of ER reports</b>	<b>%</b>	<b>Number of ER reports</b>	<b>%</b>
≤15	3,902	43	5,828	55	5,918	64
16 to 30	1,307	14	1,715	16	1,293	14
31 to 45	827	9	855	8	620	7
46 to 60	602	7	580	5	453	5
> 60 (Note)	2,449	27	1,668	16	899	10
Total	9,087	100	10,646	100	9,183	100

*Source:* Audit analysis of EDB records

*Note:* The longest time taken was 442 days.

4.15 In the six-month period from October 2021 to March 2022, EDB returned 4,073 ER reports submitted by TCs for their revisions. Audit found that 3,042 (75%) ER reports were returned to TCs for revisions because of missing or incorrect necessary information in the ER reports (see Table 20).

Table 20

**Analysis on reasons for returning ER reports  
to TCs for revisions  
(October 2021 to March 2022)**

Reason for returning ER reports	Number of ER reports
Missing or incorrect necessary information	3,042 (75%)
Failure to address EDB's comments in preceding submission	215 (5%)
Insufficient justifications for repair items	734 (18%)
Other reasons	655 (16%)
Overall	4,073 (Note)

*Source: Audit analysis of EDB records*

*Note: The total number of ER reports did not add up to 4,073 and the total percentage was larger than 100% because some were returned by EDB due to more than one reason.*

4.16 In Audit's view, the long time taken to finalise ER reports was less than satisfactory because:

- (a) for items recommended for repairs, it would delay the carrying out of final repairs for restoring the school premises concerned in good conditions; and
- (b) for items not recommended for repairs, it would delay the schools concerned to arrange their own repairs, and leave the damages or defects unrectified for a long period of time.

4.17 Audit considers that EDB needs to take measures to help TCs submit all necessary and accurate information in ER reports so that the reports are finalised in a timely manner.

## Emergency Repairs projects

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### *ER requests not followed up within stipulated time*

4.18 The time for conducting site visits, completing temporary repairs and completing final repairs for the three categories of ER requests are stipulated in the maintenance term contracts (see Table 21).

**Table 21**

#### **Stipulated time for completing follow-up actions for ER requests**

<b>Follow-up action</b>	<b>ER request category</b>	<b>Stipulated time for completion after ER request submission</b>
Conducting site visit	Emergent	24 hours
	Urgent	1 working day
	General	5 working days
Completing temporary repairs	Emergent	24 hours
	Urgent	1 calendar day
	General	5 calendar days
Completing final repairs	Emergent	24 hours
	Urgent	3 calendar days
	General	12 calendar days

*Source: Audit analysis of EDB records*

4.19 Audit analysed the time for completing follow-up actions for ER requests by MTCs against the stipulated time in the period from 2019-20 to 2021-22, and noted that:

- (a) **Site visits.** Of site visits conducted for 28,346 ER requests, 2,762 (10%) were not conducted within the stipulated time. For Emergent requests, of site visits of 6 requests, 4 (67%) were not conducted within the stipulated time (see Table 22);

**Table 22**

**Analysis on timeliness in conducting site visits by MTCs  
(2019-20 to 2021-22)**

<b>Year</b>	<b>Category</b>	<b>Number of ER requests submitted (a)</b>	<b>Number of ER requests not completed within stipulated time (b)</b>	<b>Percentage of ER requests not completed within stipulated time (c) = (b) ÷ (a) × 100%</b>
2019-20	Emergent	3	2	67%
	Urgent	831	175	21%
	General	8,095	933	12%
	Subtotal	8,929	1,110	12%
2020-21	Emergent	2	1	50%
	Urgent	976	125	13%
	General	9,264	714	8%
	Subtotal	10,242	840	8%
2021-22	Emergent	1	1	100%
	Urgent	617	152	25%
	General	8,557	659	8%
	Subtotal	9,175	812	9%
Total		28,346	2,762	10%

*Source: Audit analysis of EDB records*

- (b) **Temporary repairs.** Of temporary repairs of 20,956 ER requests, 614 (3%) were not completed within the stipulated time. For Urgent requests, of temporary repairs of 2,192 ER requests, 225 (10%) were not completed within the stipulated time (see Table 23); and

## Emergency Repairs projects

Table 23

### Analysis on timeliness of completion of temporary repairs by MTCs (2019-20 to 2021-22)

Year	Category	Number of ER requests requiring temporary repairs (a)	Number of ER requests not completed within stipulated time (b)	Percentage of ER requests not completed within stipulated time (c) = (b) ÷ (a) × 100%
2019-20	Emergent	2	0	0%
	Urgent	715	55	8%
	General	5,363	144	3%
	Subtotal	6,080	199	3%
2020-21	Emergent	2	0	0%
	Urgent	898	87	10%
	General	6,776	167	2%
	Subtotal	7,676	254	3%
2021-22	Emergent	1	1	100%
	Urgent	579	83	14%
	General	6,620	77	1%
	Subtotal	7,200	161	2%
Total		20,956	614	3%

Source: Audit analysis of EDB records

Remarks: There were cases that no repairs were required (e.g. there was no imminent danger for the items requested for repairs).

- (c) **Final repairs.** Of final repairs of 20,437 ER requests, 9,887 (48%) were not completed within the stipulated time (see Table 24).

**Table 24**

**Analysis on timeliness of completion of final repairs by MTCs  
(2019-20 to 2021-22)**

<b>Year</b>	<b>Category</b>	<b>Number of ER requests requiring final repairs (a)</b>	<b>Number of ER requests not completed within stipulated time (b)</b>	<b>Percentage of ER requests not completed within stipulated time (c) = (b) ÷ (a) × 100%</b>
2019-20	Emergent	1	1	100%
	Urgent	713	409	57%
	General	5,345	2,674	50%
	Subtotal	6,059	3,084	51%
2020-21	Emergent	2	1	50%
	Urgent	881	532	60%
	General	6,609	3,425	52%
	Subtotal	7,492	3,958	53%
2021-22	Emergent	1	1	100%
	Urgent	567	271	48%
	General	6,318	2,573	41%
	Subtotal	6,886	2,845	41%
Total		20,437	9,887	48%

*Source: Audit analysis of EDB records*

*Remarks: There were cases that only temporary repairs were conducted and no final repairs were required.*

## **Emergency Repairs projects**

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4.20 In Audit's view, it is important that follow-up actions for ER requests are completed in a timely manner to ensure that schools are free from health or safety hazards which affect the operations of the schools. Audit considers that EDB needs to take measures to ensure that follow-up actions for ER requests are completed by MTCs within the time stipulated in the maintenance term contracts.

### **Audit recommendations**

4.21 **Audit has *recommended* that the Secretary for Education should:**

- (a) **take measures to help TCs submit all necessary and accurate information in ER reports so that the reports are finalised in a timely manner; and**
- (b) **take measures to ensure that follow-up actions for ER requests are completed by MTCs within the time stipulated in the maintenance term contracts.**

### **Response from the Government**

4.22 The Secretary for Education agrees with the audit recommendations. She has said that:

- (a) guidance notes would be prepared to assist TCs to improve the quality of their ER reports; and
- (b) some of the repairs could not be completed within the stipulated time for completion due to various reasons such as changes to suit the schools' operational needs, time required for material delivery, time required for fabrication and relatively large scopes of works, etc. EDB will continue to closely monitor TCs and MTCs' performance to ensure that the repairs are completed within the agreed timeframe with schools.



## **PART 5: IMPROVEMENT PROGRAMMES**

5.1 This PART examines the delivery of improvement programmes for aided schools by EDB, focusing on the following areas:

- (a) Improvement programme for “Matchbox-style schools” (paras. 5.2 to 5.11);
- (b) Additional Air-conditioning Installation for Schools (paras. 5.12 to 5.25);  
and
- (c) Time-limited Minor Works Programme (paras. 5.26 to 5.34).

### **Improvement programme for “Matchbox-style schools”**

5.2 “Matchbox-style schools” is the term commonly used to refer to primary schools operating in cuboidal shaped school premises constructed between mid-1960s and 1980 at public housing estates (see Photograph 6 for an example). As these school premises do not meet present-day standards, they are considered as sub-standard school premises. Over the years, the teaching and learning environment of these schools has been a matter of concern to society. Notwithstanding this, according to EDB, there are many factors contributing to the quality of education provided by a school and there is no direct relationship between the conditions of the school premises and the teaching quality of the school.

**Photograph 6**

**An example of matchbox-style school premises**

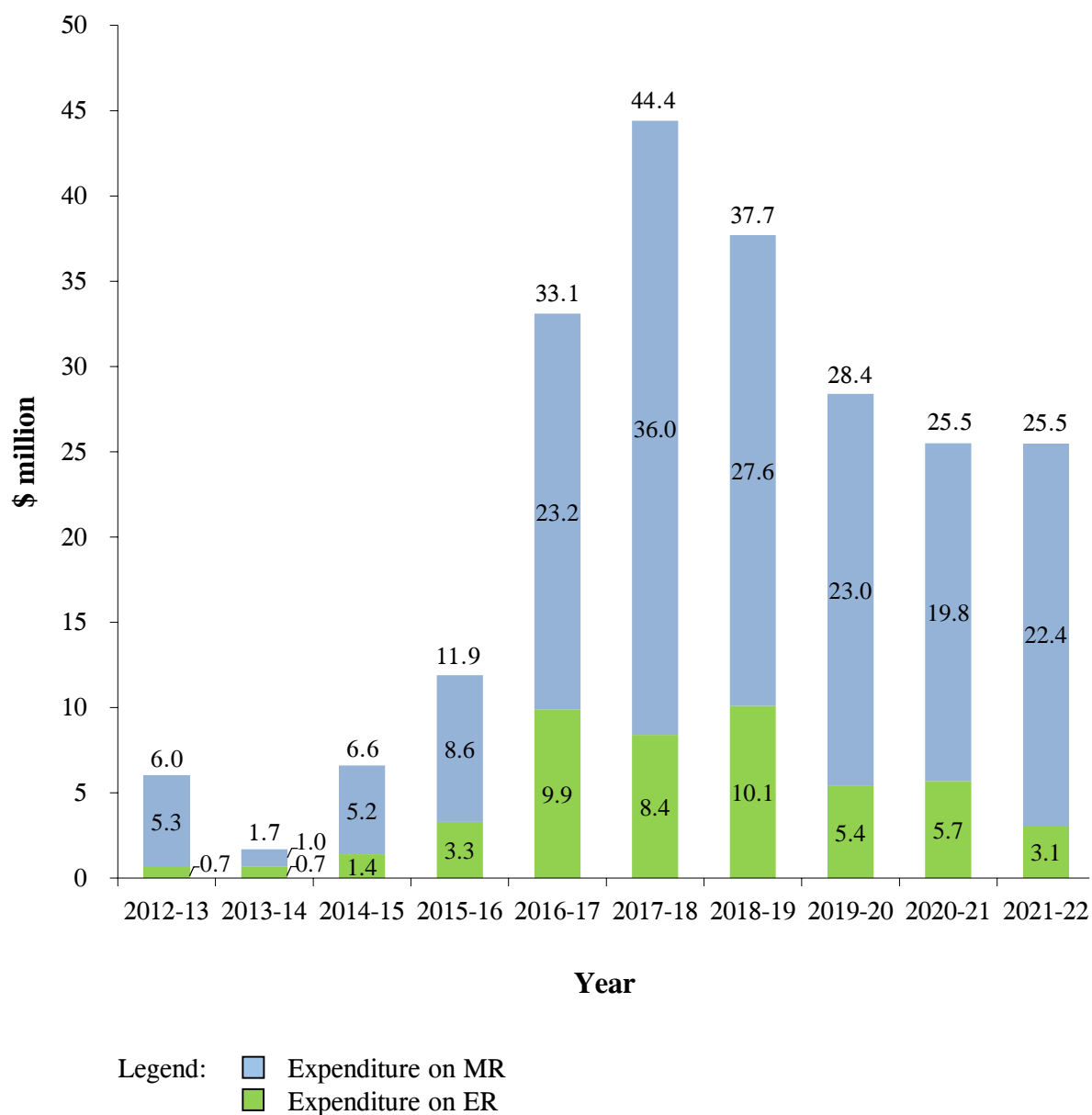


*Source: Photograph taken by Audit staff in February 2023*

5.3 As at 31 December 2022, there were 23 matchbox-style schools. In the 10-year period from 2012-13 to 2021-22, the expenditure on MR and ER for the 23 matchbox-style schools totalled \$220.8 million. The annual expenditure increased by more than three times from \$6 million in 2012-13 to \$25.5 million in 2021-22 (see Figure 2).

Figure 2

**Expenditure on MR and ER for the 23 matchbox-style schools  
(2012-13 to 2021-22)**



*Source: Audit analysis of EDB records*

5.4 In 2016, two meetings were held among EDB, Members of the Panel on Education of LegCo and representatives of the Subsidized Primary Schools Council to explore practical options to improve premises of matchbox-style schools. The meetings identified five common problems of these premises (see Table 25).

**Table 25**

**Common problems of matchbox-style school premises and related improvement works**

<b>Problem</b>	<b>Improvement works</b>
1. Noise from adjacent classrooms	<ul style="list-style-type: none"> <li>Replacement with sound-proof doors and double-glazed window system in classrooms to mitigate noise interference due to the internal corridor design in between classrooms</li> </ul>
2. Poor ventilation at internal corridors	<ul style="list-style-type: none"> <li>Installation of mechanical ventilation system to improve ventilation along internal corridors</li> </ul>
3. Rainwater ingress at staircase landings causing slippery floor	<ul style="list-style-type: none"> <li>Installation of openable windows at staircase landings to prevent rainwater ingress from grille walls</li> </ul>
4. Hollow block wall incapable of mounting heavy teaching aids (e.g. electronic whiteboard)	<ul style="list-style-type: none"> <li>Installation of acoustic panel wall system with metal frame for internal partitions of classrooms to allow mounting of modern teaching aids, such as electronic whiteboards</li> </ul>
5. Rainwater ingress and poor ventilation at covered playgrounds	<ul style="list-style-type: none"> <li>Installation of moveable partitions on both sides of covered playgrounds to prevent rainwater ingress, as well as provision of mechanical ventilation system</li> </ul>

Source: *Audit analysis of EDB records*

5.5 In January 2017, the Chief Executive announced in the Policy Address that the Government would allocate additional resources to improve the facilities of matchbox-style schools. In July of the same year, EDB commenced an improvement programme to address the common problems of matchbox-style school premises (see Table 25). In 2019, these improvement works were completed. According to EDB, under the programme, in addition to addressing the common problems of matchbox-style school premises, it also explored other technically feasible improvements to further improve the teaching and learning environment of the schools within the constraints of space and existing building design of the premises. All these other improvement works were completed in 2021. Up to 31 March 2022, total expenditure incurred amounted to \$106.9 million.

***Need to provide assistance to matchbox-style schools before reprovisioning***

5.6 In addition to the five common problems identified and covered by the improvement programme (see paras. 5.4 and 5.5), Audit noted that some other common problems of the schools were not covered by the improvement works completed in 2019. For example:

- (a) ***Inadequate space for the schools' operations.*** In the feasibility studies conducted before the commencement of the improvement programme, in order to have more space for their operations, many schools requested to be provided an additional storey on the roof level of their premises. The consultant of the feasibility studies advised that it was not feasible because:
  - (i) the schools were located in public housing estates, prior approval from the Hong Kong Housing Authority was required (Note 16); and
  - (ii) the existing structure was inadequate to cater for the increased wind and vertical load induced by the additional storey;

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**Note 16:** *According to the Housing Department: (a) it had facilitated EDB in carrying out lift addition works and school improvement works at some schools located in public housing estates in the past; and (b) it has all along rendered support on the improvement of teaching environment of schools in public housing estates.*

## Improvement programmes

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- (b) *Sub-standard school facilities.* The Government has put in place a Schedule of Accommodation (SoA) for standard-design public primary schools, which lists out the number and types of rooms and facilities required for teaching and learning. The salient features of SoA have not been changed since 2000. Audit noted that the facilities of matchbox-style schools were far below the standard required by SoA (see Table 26). For example:
- (i) 4 (31 %) of the 13 facilities under the category “Teaching rooms” of SoA were not available in any of the 23 matchbox-style schools; and
  - (ii) 5 (63 %) of the 8 facilities under the category “Assembly hall and physical education” of SoA were not available in any of the 23 matchbox-style schools; and

Table 26

**Analysis of number and percentage of matchbox-style schools  
lacking facilities required by SoA  
(December 2022)**

Facility	Number of matchbox-style schools without the facility	
	Number	Percentage
<b><i>Teaching rooms</i></b>		
1. Computer-assisted learning room	1	4 %
2. General studies room	18	78 %
3. Guidance activity room	22	96 %
4. Interview room	4	17 %
5. Language room	11	48 %
6. Library	1	4 %
7. Multi-purpose room	12	52 %
8. Music room with store room	0	0 %
9. Preparation room for computer-assisted learning	23	100 %
10. Preparation room for general studies	23	100 %
11. Preparation room for multi-purpose	23	100 %
12. Small group teaching room	23	100 %
13. Visual arts room	4	17 %
<b><i>Assembly hall and physical education</i></b>		
1. Assembly hall	6	26 %
2. Chair store and dressing room	23	100 %
3. Changing rooms	23	100 %
4. Covered playground	3	13 %
5. Multi-purpose area	23	100 %
6. Physical education store	23	100 %
7. Stage	23	100 %
8. Student activity centre	3	13 %

Source: Audit analysis of EDB records

## Improvement programmes

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- (c) ***Facilities shared with residents of public housing estates.*** Located in public housing estates, some matchbox-style schools need to share ball courts with residents of the housing estates (see Photograph 7 for an example). The schools expressed concern that while they were given priority to use the facilities during school hours, the residents also had access to the facilities even though students were having lessons at the facilities. In addition, some of the facilities were sometimes damaged by people other than staff/students of the schools, making the schools difficult to use the facilities.

**Photograph 7**

**A basketball court shared between a matchbox-style school and residents of a housing estate**



*Source: Photograph taken by Audit staff in January 2023*

5.7 According to EDB's school allocation mechanism, school sites are allocated to school sponsoring bodies (SSBs) on a competitive basis. All applications are screened by the School Allocation Committee which comprises official and non-official members who are familiar with the education system, which will then make recommendations to Permanent Secretary for Education. Factors to be considered during the applications assessment process include:



- (a) the school plan submitted by SSBs, which consists of six aspects to be assessed (Note 17);
- (b) the operation track record of SSBs;
- (c) for existing schools which are housed in sub-standard premises, the physical conditions of the existing premises will also be considered. As a general indicator, schools with site area less than 3,000 square metres and premises over 30 years old warrant serious consideration; and
- (d) location of the existing school.

5.8 In February 2017, EDB informed the Panel on Education of LegCo that:

- (a) given that the site area of the majority of the matchbox-style school premises was small, the potential and feasibility for a full-scale in-situ redevelopment was limited; and
- (b) to fully address the issues of insufficient space and facilities in the long run, these schools needed to be reprovisioned or expanded to suitable vacant school premises.

5.9 In the six-year period from 2017 to 2022, 19 matchbox-style schools applied for reprovisioning and only 5 (26%) of their applications were successful. In view of the low successful rate, Audit considers that EDB needs to explore the way forward to help matchbox-style schools deal with the issues of insufficient space and facilities before they are finally reprovisioned in the future.

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**Note 17:** *The six aspects are: (a) vision and mission; (b) management and organisation; (c) learning and teaching; (d) school ethos and support for students; (e) performance targets; and (f) self-evaluation indicators.*

### Audit recommendation

5.10      **Audit has *recommended* that the Secretary for Education should explore the way forward to help matchbox-style schools deal with the issues of insufficient space and facilities before they are finally reprovisioned in the future.**

### Response from the Government

5.11      The Secretary for Education agrees with the audit recommendation. She has said that EDB had already thoroughly explored technically feasible means for more flexible use of existing space to further improve the teaching and learning environment of the matchbox-style schools within the constraints of space and existing building design of the premises. In July 2017, EDB commenced an improvement programme to address the common problems of matchbox-style school premises and completed the programme in 2019. In addition, EDB also explored other technically feasible improvements to further improve the teaching and learning environment of these schools within the constraints of space and existing building design of the premises and completed all additional improvement works in 2021. Up to 31 March 2022, the total expenditure of the programme amounted to \$106.9 million. EDB would continue to handle improvement requests under the prevailing MR mechanism.

### Additional Air-conditioning Installation for Schools

5.12      In 1987, the Government implemented the Noise Abatement Programme for aided schools suffering from noise caused by traffic or aircraft which affected teaching in classrooms and caused undue strain and disturbance to both teachers and students. Under the Noise Abatement Programme, air-conditioning systems were installed in rooms used for teaching purpose. In addition, EDB had provided Noise Abatement Grant to schools with air-conditioning systems installed as noise mitigation measures, for paying the recurrent expenses including electricity fees, and fees related to routine maintenance, etc. In the 2017 Policy Address, the Chief Executive announced that, in order to create a better learning environment, the Government would:

- (a) provide air-conditioning systems for standard teaching facilities (including classrooms and special rooms), student activity centres and assembly halls in all public sector schools; and
- (b) arrange for the installation of air-conditioning systems for the facilities concerned as necessary in phases, taking into account the actual situation of individual schools.

5.13 In 2018, EDB launched a new programme namely “Additional Air-conditioning Installation for Schools”. Except for rooms or facilities constructed by the schools’ own funds, facilities which are used directly for teaching and learning or scheduled with regular student activities, are classified as “eligible facilities” and provided with air-conditioning systems. For air-conditioning systems installed in the eligible facilities, schools can submit MR applications or ER applications for repairs or replacement of the air-conditioning systems. Moreover, starting from the 2018/19 school year, EDB has provided a recurrent Air-conditioning Grant to aided schools to cover the related daily expenses of the air-conditioning systems in the eligible facilities. With the disbursement of Air-conditioning Grant, EDB ceased to provide schools with Noise Abatement Grant.

### ***Incorrect information communicated to schools***

5.14 In the meeting minutes of two meetings held in May 2021 on two MR projects and three meetings held in May 2022 on three MR projects among EDB, schools and the TC, it was recorded that schools were advised of the following information:

- (a) air-conditioning systems not installed under Noise Abatement Grant were not covered by MR projects or ER projects; and
- (b) any associated works involving taking down or refixing of the air-conditioning systems not installed under Noise Abatement Grant were to be carried out by schools.

5.15 However, Audit found that the information was not correct. In fact, under the “Additional Air-conditioning Installation for Schools” programme (i.e. air-conditioning systems not installed under Noise Abatement Grant), for air-conditioning

## Improvement programmes

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systems installed in the eligible facilities, schools can submit MR applications or ER applications for repairs or replacement of air-conditioning systems (see para. 5.13). These air-conditioning systems were covered by MR projects or ER projects. The incorrect information might have misled schools into giving up submitting MR applications or ER applications for repairing or replacing the air-conditioning systems installed in the eligible facilities.

5.16 EDB informed Audit in February 2023 that other communication channels with schools, including daily communications and letters, correctly stated that, EDB had provided MR or ER for the air-conditioning systems installed in all eligible facilities under the prevailing mechanism, including replacement of air-conditioning systems if necessary. Schools should be well aware of the ambit and arrangement.

5.17 Audit considers that EDB needs to take measures to ensure that the information relating to applications for repairs or replacement of air-conditioning systems are communicated to schools accurately.

### ***Need to provide assistance to schools on applications for repairs or replacement of air-conditioning systems***

5.18 In the five-year period from 2017-18 to 2021-22, 1,032 MR applications related to repairs or replacement of air-conditioning systems installed in the eligible facilities were submitted by schools. Audit examined 10 applications submitted in the 2021-22 MR cycle. In 3 (30%) applications, the TCs considered that the schools' requests for repairing or replacing air-conditioning systems were of ER nature and advised the schools to submit their applications as ER requests if necessary (see the case in paragraph 5.19 for an example).

5.19 In June 2020, a school submitted an MR application for replacing air-conditioning systems in the assembly hall, first floor and seventh floor:

- (a) ***First floor and seventh floor.*** The air-conditioning systems were dilapidated. The TC did not recommend the items under the MR application as it considered that the items were of ER nature. In April 2021, EDB notified the school that the items were not approved. In

the next month, the TC advised the school to submit another application as an ER request; and

- (b) *Assembly hall.* The air-conditioning systems were damaged and with dripping of water. The item was approved as an MR project.

5.20 Audit noted that:

- (a) the case in paragraph 5.19 revealed that the school was not familiar with the classification of repairing or replacing air-conditioning systems through MR projects or ER projects; and
- (b) submission of requests as MR applications or as ER applications would bring about different results:
  - (i) for ER projects, applications can be made anytime during the year and the works are required to be completed at a maximum of 12 calendar days after ER request submission date (see Table 21 in para. 4.18); and
  - (ii) for MR projects, applications can only be made once at the beginning of every financial year (see para. 3.3). Furthermore, for the case in paragraph 5.19, 10 months (from June 2020 to April 2021) was taken by EDB and the TC to process the items under the MR cycle before the school was notified that the items were not approved.

5.21 Audit considers that EDB needs to provide assistance to schools on applications for repairs or replacement of air-conditioning systems (e.g. by providing examples of approved MR projects and approved ER projects of repairs or replacement of air-conditioning systems).

### *Need to draw experience from air-conditioning system repair or replacement projects*

5.22 In the period from March 2017 to June 2022, EDB identified 28 cases of air-conditioning system repair or replacement projects with workmanship issues. In various quarterly meetings between EDB and TCs, EDB brought the cases to the attention of TCs and urged them to exercise prudence in conducting their site inspections for early identification of irregularities on site and early rectification of unsatisfactory works (see Case 1 as an example).

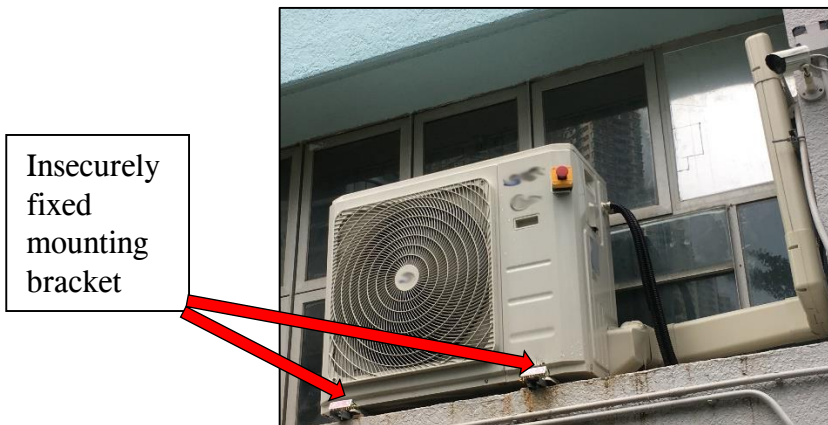
Case 1

**An air-conditioning unit replacement project with workmanship issues  
(2019)**

1. In 2019, an air-conditioning unit replacement project was completed for a school. EDB identified the following workmanship issues of the project:
  - (a) an outdoor air-conditioning unit was inappropriately installed on a window sill due to reasons including structural safety of the window sill to cope with the external loads, transmission of noise and obstruction of sunlight to indoor area, and lack of accessibility to the outdoor air-conditioning unit for repairs or maintenance;
  - (b) the outdoor air-conditioning unit was insecurely fixed with part of the mounting bracket crossing over the edge of the window sill, resulting in low stability (see Photograph 8);

**Photograph 8**

**An insecurely fixed air-conditioning unit**



*Source: EDB records*

### Case 1 (Cont'd)

- (c) the outdoor air-conditioning unit was not installed on a dedicated air-conditioning platform; and
- (d) the opening of the window panes right behind the outdoor air-conditioning unit would cause damages to the unit or even overturning it off the window sill.

#### *Audit comments*

2. In Audit's view, the project reflected room for improvement in MTC's workmanship. The project also shed some light on the need for TCs and MTCs to improve their performance.

*Source: Audit analysis of EDB records*

5.23 Audit considers that EDB needs to draw experience from the air-conditioning system repair or replacement projects with a view to improving the performance of TCs and MTCs.

## Audit recommendations

5.24 **Audit has recommended that the Secretary for Education should:**

- (a) **take measures to ensure that the information relating to applications for repairs or replacement of air-conditioning systems are communicated to schools accurately;**
- (b) **provide assistance to schools on applications for repairs or replacement of air-conditioning systems (e.g. by providing examples of approved MR projects and approved ER projects of repairs or replacement of air-conditioning systems); and**



- (c) **draw experience from the air-conditioning system repair or replacement projects with a view to improving the performance of TCs and MTCs.**

## **Response from the Government**

5.25 The Secretary for Education agrees with the audit recommendations. She has said that:

- (a) EDB would remind TCs to properly communicate the information relating to applications for repairs or replacement of air-conditioning systems to schools;
- (b) EDB would prepare guidance notes for schools including examples to illustrate the air-conditioning repairs or replacement works in ER or MR nature; and
- (c) the audit findings demonstrated that EDB's prevailing monitoring system was effective in identifying TCs' and MTCs' shortcomings. EDB would continue to share its observations with TCs and MTCs to further improve their performance.

## **Time-limited Minor Works Programme**

5.26 In light of the experience gained through the improvement programme for "Matchbox-style schools", the Chief Executive announced in the 2019 Policy Address that the Government had reserved \$1 billion to take forward a time-limited minor works programme (hereinafter referred to as "FUS") under which simple minor internal conversion works would be carried out at some 600 aided school premises constructed according to past building standards to facilitate more flexible use of existing space by schools, thereby enhancing the teaching and learning environment and efficacy. Examples of minor conversion works are as follows:

- (a) merging of space to form bigger rooms;
- (b) subdivision of space into smaller rooms;

## **Improvement programmes**

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- (c) conversion of room or space for different use;
- (d) alternation of layout to meet school's operational need;
- (e) addition of built-in fixtures (e.g. movable partition);
- (f) floor surfacing for more flexible use of space (e.g. for conversion of open space to recreational or sports use); and
- (g) other minor conversion or alternation works that can enhance flexibility in the use of space within existing school premises for improving teaching and learning environment.

5.27 In 2019 and 2020, aided schools were invited to submit two rounds of applications. Up to 31 March 2022, 748 projects were approved for 475 schools and total expenditure incurred amounted to \$427.9 million.

### ***Need to enhance the dissemination of programme information to schools***

5.28 In 2019 and 2020, EDB conducted two rounds of briefing sessions for disseminating information on FUS to schools and inviting them to apply for FUS. The briefing sessions provided information including the scope of works within the project ambit and showcased examples of approved projects. Audit noted that:

- (a) the first round of briefing sessions was held in physical sessions. Of the 612 eligible schools, 132 (22%) did not attend the briefing sessions. EDB did not follow up with those schools (e.g. by sending the presentation materials to them);
- (b) during the outbreak of COVID-19 epidemic, the second round of briefing sessions was a video session uploaded on EDB's website. EDB did not ascertain the number of schools who had viewed the video; and
- (c) EDB had not sent questionnaires to schools to ask them to evaluate the effectiveness of the briefing sessions.

5.29 Audit considers that EDB needs to take measures to enhance the dissemination of programme information to schools.

***Need to ensure feasibility study reports of improvement projects include all important project information***

5.30 To apply for FUS projects, schools make their applications in the annual MR cycles. For items approved under FUS, TCs submit feasibility study reports, which include important project information (e.g. estimated costs of the works items) to EDB. Different TCs included different information in their feasibility study reports.

5.31 Audit examined 30 feasibility study reports of FUS projects conducted in the period from 2020-21 to 2021-22, and noted that the following important project information was not included in 19 (63%) feasibility study reports:

- (a) for 12 (40%) of the 30 projects, the project completion dates agreed with schools were not included;
- (b) for 14 (47%) of the 30 projects, the details of materials to be used and related cost estimates were not included; and
- (c) for 7 (23%) of the 30 projects, both information was not included.

5.32 Audit considers that EDB needs to take measures to ensure that the feasibility study reports of improvement projects include all important project information.

## **Audit recommendations**

5.33 **Audit has *recommended* that the Secretary for Education should:**

- (a) **take measures to enhance the dissemination of programme information to schools; and**

## **Improvement programmes**

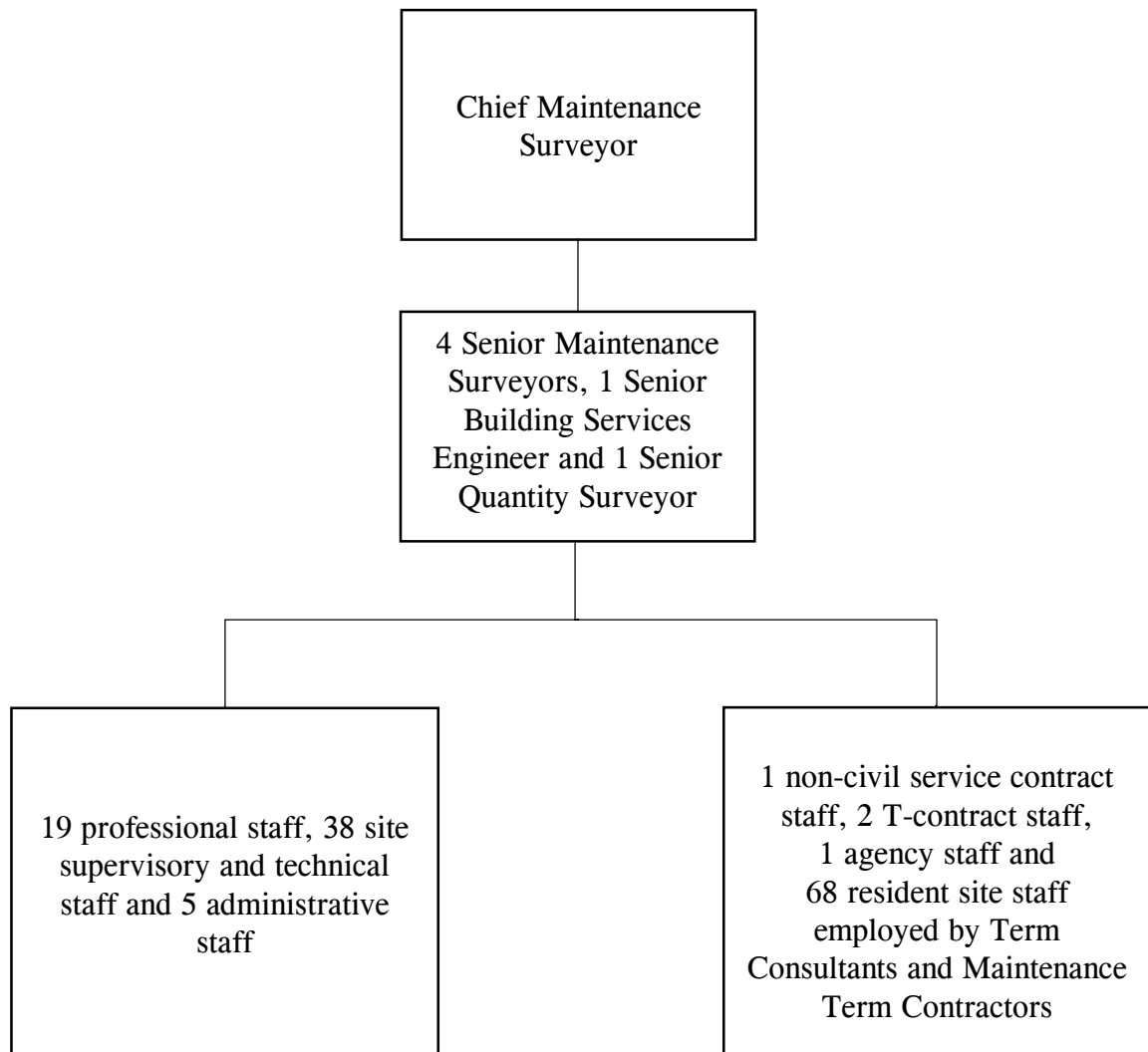
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- (b) **take measures to ensure that the feasibility study reports of improvement projects include all important project information.**

## **Response from the Government**

5.34 The Secretary for Education agrees with the audit recommendations. She has said that EDB would take measures to enhance the dissemination of programme information to schools and ensure that the feasibility study reports of improvement projects include all important project information.

**Education Bureau's School Premises Maintenance Section:  
Organisation chart (extract)  
(31 December 2022)**



*Source: Audit analysis of EDB records*

**Acronyms and abbreviations**

ACMs	Asbestos-containing materials
Audit	Audit Commission
Chief Executive	Chief Executive of the Hong Kong Special Administrative Region
CSCs	Comprehensive Site Checks
EDB	Education Bureau
ER	Emergency Repairs
FUS	Time-limited Minor Works Programme
HKSAR	Hong Kong Special Administrative Region
LegCo	Legislative Council
MR	Major Repairs
MTCs	Maintenance Term Contractors
REOs	Regional Education Offices
SoA	Schedule of Accommodation
SSBs	School sponsoring bodies
TAAAs	Technical Assurance Audits
TCs	Term Consultants
QAAs	Quality Assurance Audits