



Office of the Auditor General
Government of the Virgin Islands

SPECIAL REPORT

ELMORE STOUTT HIGH SCHOOL PERIMETER WALL



24 August 2018

“Towards Greater Accountability”

Special Report of the Auditor General

This report has been prepared under section 20 of the Audit Act 2003 which prescribes that:

- 20. (1)** The Auditor General may at any time prepare and submit a special report to the Governor if she is satisfied that there is a matter that should be brought to the attention of the Governor.

- (2)** The Governor shall, within three months of the receipt of the special report, cause the report to be laid before the Legislative Council.

- (3)** The Auditor General shall at the same time as submitting the special report to the Governor submit a copy of the special report to the Minister and the Financial Secretary.





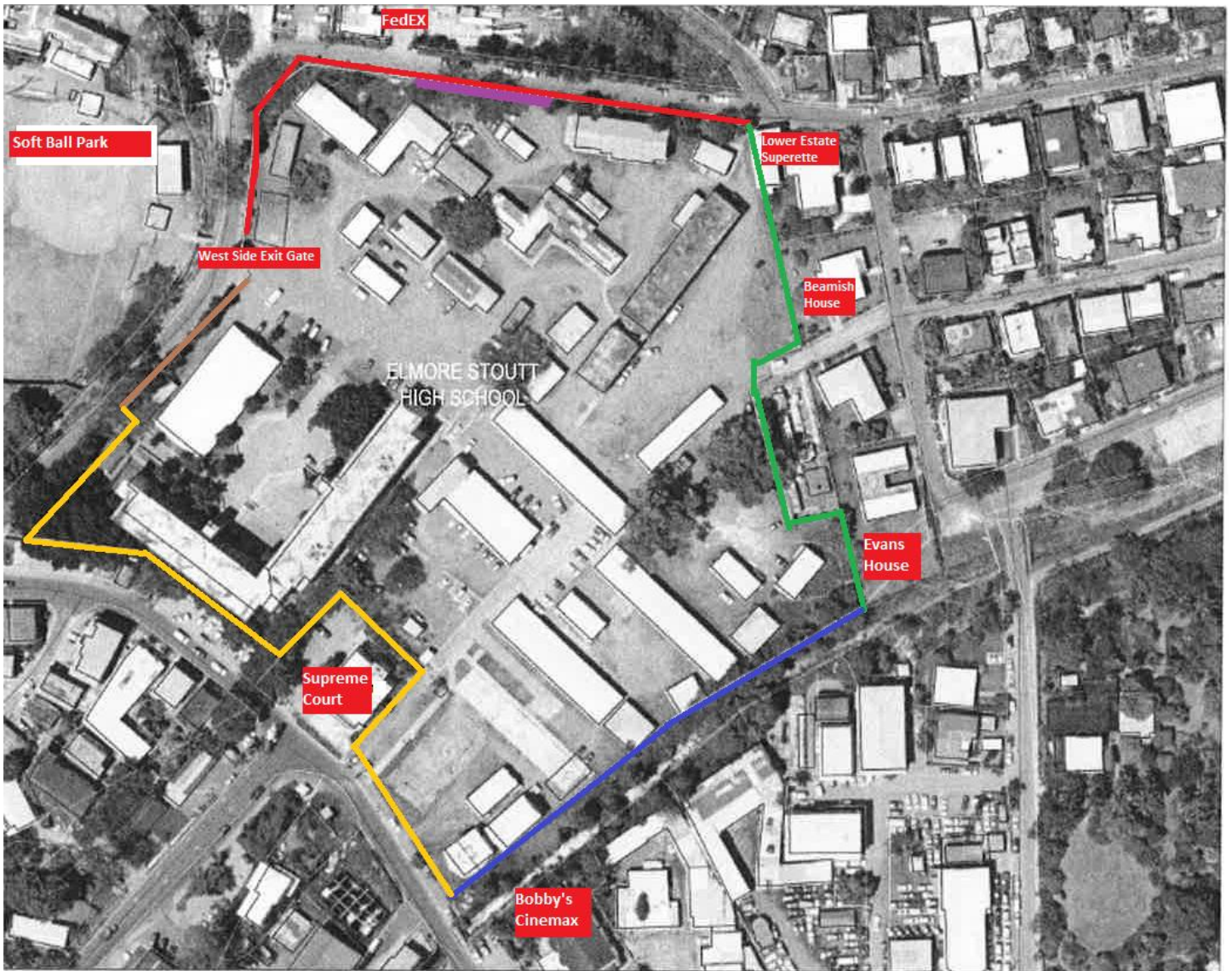
Contents

Executive Summary.....	3
Background Information.....	4
PART 1 – Planning.....	6
Funding Approval.....	6
Project Management.....	6
PART 2 – Execution.....	7
Dividing the Project.....	7
Contracting the Works.....	8
Costing the Segments.....	9
Work Completion Status.....	12
Inconsistencies in the Execution of the Works and Damage.....	13
PART 3 – Procedural Issues and Irregularities.....	14
Contractors.....	14
Contractor Assignments.....	14
Project Management.....	15
Budget and Payments.....	15
Payment Discrepancies.....	15
Planning Approval.....	16
Focus Area (2014).....	16
Dimension Discrepancies.....	17
PART 4 – Conclusion and Recommendations.....	18
Conclusion.....	18
RECOMMENDATIONS.....	19
Attachments.....	21
Site Photos.....	25








Diagram 1

Elmore Stoutt High School Perimeter Fence Layout



Perimeter Sections

- | | | | | | |
|---|---|---|---|---|----------------------|
|  | Area 1: West Side Exit Gate to Lower Estate Superette |  | Area 3: Lower Estate Superette to Evans House |  | Constructed in 2014 |
|  | Area 2: Bobby's Cinemax to Evans House |  | Project Modification: Bus Drop off Area |  | No Wall Construction |



Executive Summary

1. Due to security concerns the Ministry of Education and Culture initiated a project to replace the chain-link fence at the Elmore Stouff High School with a concrete perimeter wall in 2014. Initial works were carried out in December 2014 to address an area on the West side that presented persistent issues (2014 Focus Area). This was done using 11 work orders at a cost of \$96,727.40.
2. In February 2015 the Minister of Education and Culture sought approval from Cabinet for emergency funding of \$828,004.10 and waiver of the tender process to continue construction of the perimeter wall. Cabinet approved funding and waived the tender process to allow for the use of petty contracts.
3. The project was managed by the Ministry of Education and Culture which outsourced these duties to an independent contractor without adequate oversight or the involvement of the Ministry of Finance's Project Management Unit or the Public Works Department.
4. For contracting purposes, the work was divided by area, segments and work type. Seventy contractors were engaged using 15 petty contracts and 64 work orders to build a wall 1562 feet long. Some individuals received multiple engagements on this project.
5. Costing of the segments was inflated to more than double the authorised costs for the wall segments. This led to over-expenditure of the authorised amount. The project also suffered from loss of economies of scale and discrepancies in the rates and quantities applied.
6. The list of Contractors used on the project was provided by the Minister of Education and Culture. There was no consultation with the MOF Project Management Unit or the Public Works Department to receive a copy of the authorised contractors.
7. Approximately 60% of the contractors used on this project did not have the required construction licences to perform this type of work within the territory.
8. Several contractors assigned to install rails and paint the walls were paid in full without completing the work.
9. The works were stopped late 2015 after expenditure on the project reached \$985,690.86, exceeding the authorised amount of \$828,004.10. The total expenditure at that time (including \$96,757.40 spent on the 2014 Focus Area) was \$1,082,418.26. In addition, a subsequent payment of \$43,292.18 was made to the Project Manager in 2016.
10. At the time of writing the project was incomplete. Approximately half of the contracts to install and paint the rails were not issued and part of the wall section between Lower Estate Superette and Evans House was not built.
11. The Ministry has estimated that it will cost an additional \$251,411 to complete the project.



Background Information

1. The Elmore Stoutt High School (ESHS) is the territory's largest and most populous secondary institution. It is centrally situated in Road Town, and is made up of several sprawling buildings occupying about eight acres of campus space.
2. The High School is located in an area where loitering along the west side and adjacent west/front corner of the perimeter is common and for some time has been alleged to serve as a sales point for illegal substances.
3. Previously, portions of the chain link fence that surrounded the campus were replaced with a concrete wall at the problematic western perimeter and a large tree used by loiterers as a hang out point was removed from the premises. Notwithstanding, undesirable activities outside the premises persisted, presenting problems for the administration, staff and students.
4. The perimeter wall project was presented as an emergency case in late 2014 when the principal Ms Sandy Underhill wrote to the Ministry requesting that the area on the west side of the premises be urgently addressed due to a number of infractions and incidences along that side. This request was supported by a report from the Commissioner of Police confirming undesirable activity and security issues.
5. In response, the Ministry received an estimate from SA Architect in October 2014 for the design and erection of a block wall around the school. The submitted proposal stipulated a 2,695 linear feet perimeter wall estimated to cost \$828,004.10.
6. Phase 1 (Focus Area 2014), was undertaken in December 2014 to address the most problematic areas, along the west perimeter of the compound, using funds from the 2014 Secondary School budget.
7. In February 2015 a proposal was presented to Cabinet for emergency funding of Phase 2, which would continue construction of the wall to completion from the west side exit gate around the sides and back of school compound ending at Bobby's Cineplex.

AUDIT SCOPE AND METHODOLOGY

8. The audit covers the Elmore Stoutt High School Perimeter Wall project that was approved by Cabinet in February 2015 (Phase 2). For completeness, a review was also done of the initial works performed in December 2014 (Phase 1).
 9. The examination included a review of relevant documents and files obtained from the
-



Ministry and other related Government agencies; verification of payment activity through the Treasury System, benchmarking with similar government projects; interviews with key personnel at the Ministry; an interview with the project manager; and onsite inspections.

Objective

10. The purpose of the audit was to provide independent information and advice on:
 - a. Whether the procedures for the procurement of goods and services were followed in the awarding of contracts and work orders in the Elmore Stoutt High School Perimeter Wall Project.
 - b. Whether Value for money was obtained in the execution of the works;
 - c. The reasons for excess expenditure incurred on this project.



PART 1 – Planning

Funding Approval

11. On 4 February 2015 the Minister of Education and Culture submitted a funding request to Cabinet for \$824,004.10 to complete Phase 2 of the project and a request for a waiver of the tender process to expedite execution.
12. The application for the waiver premised that a tender process would be lengthy and likely to result in more expensive estimates, but no information was provided in the business case in support of this nor was there any cost analysis or implementation plan.
13. Funding was approved and the tender process waived to allow the Ministry of Education and Culture to subdivide the project and offer petty contracts.
14. Contracts and work orders were issued for the works to commence from 1 March 2015.

Project Management

Government planning resources were not used on this project.

15. The project was planned and managed in its entirety by the Ministry of Education and Culture.
16. The Public Works Department (PWD) which is equipped to provide architectural, quantity surveying, contracting and project management services was not involved in the management or oversight of this project.
17. PWD regularly undertakes wall construction projects of this type and could have designed, planned and supervised the works without the additional costs of a private project manager.
18. Similarly, expertise available in the Ministry of Finance's Project Management Unit was not engaged, despite Cabinet's requirement that the Ministry should involve this Unit to assist with the management of the project.
19. The Ministry instead relied on one individual to perform all technical aspects of the project and provide supervision of its implementation. The architectural drawings, Bill of Quantities, and project management services were provided by SA Architect.
20. SA Architect was also responsible for overseeing the works, reporting to the Ministry on progress and signing payment requests to certify that the contractors had completed their work and were entitled to be paid.



21. There was no segregation of duties or secondary checks. This allowed for incongruences in the bill of quantities to go uncorrected and contractors to be paid for unfinished work, resulting in a project that was incomplete and over-costed.

PART 2 - Execution

Dividing the Project

The Manner of Execution Led to Inefficiencies and inflated costs on the project.

22. The project was sectioned and costed to allow for multiple contractors.

23. The school campus takes the shape of a pentagon (with five sides). The wall project was designed to cover four of these sides and exclude the front area along which the Sunday Morning Well and the Supreme Court are located. See Diagram 1.

24. The 2015 works continued from where the work on the Focus Area (2014) ended at the West Exit Gate to around the back of the campus ending at Bobby's Cinemax. The project was divided by location and type as indicated below.

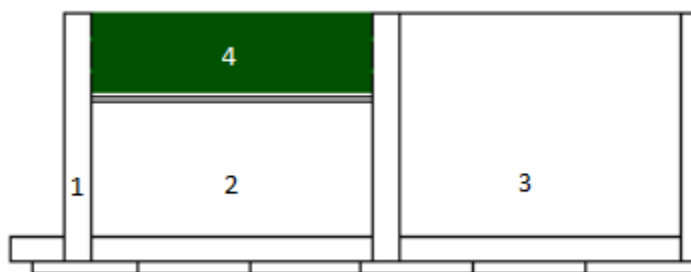
Division 1: Perimeter Sections

- 25. The works were divided by three locations:
 - Area 1 – West Side Exit Gate to Lower Estate Superette
 - Area 2 – Bobby's Cineplex to Evans house
 - Area 3 – Lower Estate Superette to Evans house

Division 2: Wall Sections

26. The perimeter wall was divided into 22 feet sections for contracting purposes. Each contracting section was made up of one high and one low wall each ten feet long and anchored with one foot wide columns. The low walls were designed to hold rails on top mounted into the concrete. The perimeter was made up of 71 of these wall sections. The diagram below illustrates the composition of a contracting section.

Diagram 2



Contracting Section

- 1: Column (1x8 ft) (two in section)
- 2: Low wall section (10x5 ft)
- 3: High wall section (10x8 ft)
- 4: Galvanize Rails (3x10 ft)

Project = 71 sections

**Division 3: Contracting Sections**

27. The project was further sub-divided into three job types. These were:
- Wall Construction;
 - Rail Installation and Wall Painting; and
 - Other Works.
28. Wall construction entailed building the high and low segments of a block wall with two supporting columns.
29. Rail installation and painting consisted of installing galvanise rails above the short walls, painting the rails and painting both sides of the wall section(s) allotted.
30. Other works comprised primarily of demolition, excavation and clearing.

Contracting the Works

31. Seventy independent contractors were engaged by the ministry using 15 petty contracts and 64 work orders to complete a wall 1,562 feet long for the 2015 continuation of the project.

TABLE 1 Area	Number of Contracting Sections	Number of Contracts/ Work orders
Area 1: Lower Estate Superette to West Exit Gate	30	43
Area 2: Bobby's Cineplex to Evans House	25	20
Area 3: Evans House to Lower Estate Superette	16	8
Other Works (Excavation and Clearing)	-	8
Total	<u>71</u>	<u>79</u>

32. The system made it possible to have two different contractors working on a 22ft wall segment, with one contractor building the wall and the other installing rails and painting both sides of the wall.
33. Area one, (the largest part of the project), from the West Exit Gate to Lower Estate Superette was made up of 30 contracting sections. These were divided into 43 contracts and work orders. Thirty of these to construct the wall in this area and 12 to insert the rails and paint both sides of the wall. One work order was awarded to complete a seventh wall section for the 2014 Focus Area.
34. Area two, which runs from Bobby's Cineplex to Evans house was made up of 25 contracting sections. A total of 20 contracts were engaged for the works. Twelve on wall construction and eight for rails and painting.



35. Area three, between Lower Estate Superette and Evans house was made up of 16 contracting sections. Eight contracts/work orders were assigned to this area. Four for walls construction, three for rails/painting and one with both construction and rail/ painting assignments.

36. Eight contracts/work orders were issued for demolition and excavation works. There was in addition one contract that was issued for both wall construction and demolition works.

Costing the Segments

37. Detailed bill of quantities, itemizing the section costs, were provided to the contractors. Review of these show a disconnect between the approved estimate and the amounts issued in contracts. The approved cost was \$828,004.10 as summarised in the first column of Table 2.

Detail	Approved Estimate	Actual Payments	Excess	Status
Wall and Columns Construction	289,360.00	652,853.85	(363,493.85)	92% Complete
Rail Installation and Wall Painting	381,996.00	208,423.71	173,572.29	40% Complete
Excavation and Site Clearance	61,375.00	70,529.80	(9,154.80)	99 % Complete
Gate Across from Soft Ball Field	20,000.00	-	20,000.00	0% Complete *
Contingency	75,273.10	53,883.50	21,389.60	
	828,004.10	985,690.86	(157,686.76)	

* Entrances were redesigned

Wall Construction

38. The approved estimate for the wall construction part of the project was \$289,360. This results in segmented cost for the project's 71 contracting sections of \$4,075.49 per section (or \$4,483.04 with 10% contractor fee added).

39. The contracts for wall construction were costed and issued at \$9,461.65 per section. More than double the estimate as shown below.

Per Section	Approved Estimate	Actual Contracted	Difference
Works Description	Sectioned	Section	
Constructing Block wall and Columns	2,745.35	7,281.50	4,536.15
Rendering of CMU	1,330.14	1,320.00	(10.14)
10% Added to Contract	-	860.15	860.15
	4,075.49	9,461.65	4,978.61

40. This discrepancy resulted in an overrun of \$363,493.85 in the wall construction part of the project.



41. Examination of the bill of quantities shows that the costing for constructing the wall and columns was \$502,423.50 as opposed to the approved amount of \$194,920.00. The costs are summarised in Table 4.

TOTAL PROJECT			
Works Description	Approved Estimate	Actual Contracted TOTAL *	Difference
Constructing block wall & Columns	194,920.00	502,423.50	307,503.50
Rendering of CMU	94,440.00	91,080.00	(3,360.00)
10% Added To Contract	-	59,350.35	59,350.35
Total Wall & Columns Construction	289,360.00	652,853.85	363,493.85

* The project was divided into 71 Sections. Only 69 of these were issued in contracts/WO. The "Actual Contracted Totals" in column 2 represent amounts paid on the 69 sections contracted

42. Tables 3 and 4 above indicate that the wall plastering (Rendering CMU) segment was costed consistent with the approved estimate.

43. To further assess the rates and quantities used in the bill of quantities a comparative examination was performed with 4 similar construction projects for reinforced block walls costed and supervised by PWD in 2015 petty contracts.

44. The analysis indicated the PWD construction costs varied from \$175.26 to \$236.01 per square yard with an average cost of \$201.14 per square yard.

45. The highest PWD rate of \$236.01 when applied to the ESHS project contracting segment approximates to a contract cost of \$3,828.07. This is substantially less than the \$9,461.65 issued in the contracts. Other observations taken from the ESHS perimeter wall bills of quantities included:

- a. The rates applied to the ESHS wall were in general greater than those used by PWD. In some cases this was doubled. The average cost per square yard for PWD reinforced block wall was \$201.14 (as stated above) compared with the cost per square yard of ESHS perimeter wall at \$530.23.
- b. Inconsistencies were noted in BOQ for the ESHS wall construction. An example of this was seen in the wall measurements used to quantify the costs for painting and rendering. The square yards applied to painting was 80 sy and for rendering 44sy for the same 22 foot segment. The actual computed square yards for the 22ft segment is 16.2 sy. For the purposes of rendering and painting both sides this becomes 32.4sy.



- c. A loss of economies of scale was incurred in splitting the contract. Examples of this can be seen with “trucking” costs on the contracts intended to cover transportation of material to the site. This cost was added to every work order and multiplied by the number of sections awarded to the contractor. The government paid for 405 trucks, totalling \$32,400 (not including disposal of excavation debris for site clearance done under separate contracts). Similar observation was made for cleaning and materials.

Rail Installation-Painting

46. The ESHS project costing for the rail installation contracts was closer to the approved estimate. The approved amount of \$381,996 when segmented into 71 parts results in costing of \$5,380.23 (\$5,918.25 with 10% contractor fee element). The actual costing for the rail/paint contracts was \$5,993.90 for each segment.

47. However, as previously noted, the bill of quantities contained anomalies in the quantities applied for costing.

- a. Rails which were mounted in a 10 feet by 3 feet area above the short walls were costed for 70 square feet; the actual computed area is 30 square feet.
- b. Wall painting was costed at 80 square yards; the actual computed was 32.4 square yards (both sides).
- c. Rust prime & paint bars was costed for 33 square yards; actual computed 6.6 square Yards (both sides).

48. The rail/paint contracts in the Bobby’s area were issued at \$4,638.70 as the contractors were required to re-use the rails taken from the old structure. As a result, the cost of procuring the rails was not eliminated but reduced from \$2,800 to \$1,820. The related capping and anchoring accessories were also reduced from \$770 to \$518.

49. Table 2 shows that the contracts for rail/paint works were within the authorised spending. At the time the project was stopped the works were about 60% unfinished. Contracts had not yet been issued for about 45% of the works; and the work for approximately 15% of the rail/paint contracts that had already been paid were not done.

Other Works

50. The approved budget for excavation and demolition works was \$61,375.00. Contracts were issued to four contractors in amounts varying from \$39,769.00 for excavation to \$4,400.00 for demolition. The total spent at the time the project was halted was \$70,529.80.

**Contingency**

51. One variation to the design was adopted after commencement of the project. This involved modifying the rear entrance facing FedEx along the West Exit Gate/Lower Estate Superette perimeter to accommodate a drop-off area for school buses. The works were done by one contractor who was awarded a petty contract in the amount of \$53,883.50. This amount was accommodated by the project's approved contingency estimate of \$75,276.10.

Work Completion Status

52. Work on the project was stopped in late 2015 after the budget was exceeded, leaving the three areas at different stages of completion.

Area 1: West Exit Gate to Lower Estate Superette

53. Thirty contracts/work orders were issued to complete thirty wall segments; and twelve for 16 rail/paint jobs. The examination showed that all the wall sections for this area had been erected. The additional wall segment for the 2014 Focus Area was also done. However, only ten of the 16 rail/paint jobs were completed. The Treasury records indicate that the contractors were all paid in full.

54. In addition, no contracts were issued for rail/paint work on 14 wall segments. This area is therefore incomplete with approximately 20 wall sections that are unpainted and without rails.

55. The ministry estimates that an amount of \$102,051.40 will be needed to complete the rails and painting for this area.

Area 2: Bobby's Cineplex to Evans House

56. Twelve contracts/work orders were issued to construct 25 wall segments, and eight to complete 16 rail/paint jobs.

57. All of the 25 wall sections have been completed. There are 18 completed rails and paint work next to the Cineplex.

58. The seven wall sections that adjoin the corner by Evans house are unpainted and do not have rails installed (the wall bears some evidence that some rails may have been displaced by the 2017 hurricanes). There is a gap in the centre of the wall along the ghut where an older wall structure collapsed after flooding in 2015. It is unclear why this had not been demolished earlier as the costing for the new perimeter wall included the full length of this side.

59. The ministry's estimate to complete this area is \$60,303.10 for rails and painting.

**Area 3: Lower Estate Superette to Evans House**

60. Five contracts/work orders were issued for 13 wall segments; and four contracts for 6 rail/paint jobs in this area. Wall construction for 14 sections was completed. (This is one more wall section than was covered in a contract.) Eleven of the sections are painted on the inside only and there is some indication that rails had been installed (these may have been displaced by the hurricanes).

61. The project was stopped when construction was being carried out in this area. The circumstances regarding the uncontracted wall section are unclear.

62. Incomplete work in this area include:

- a. Three partially completed wall sections next to Beamish's house that are unpainted and without rails.
- b. An area of 142 linear feet representing approximately 6 sections where there was no wall construction, no rails and no painting; only what appears to be some preliminary trenching.

63. The ministry has estimated the cost to complete this area at \$89,056.55. This is to cover costs of \$47,308.25 for wall construction and \$41,748.30 for rails and painting.

64. In total, the Ministry estimates that an amount of \$251,411.05 is needed for completion of the entire perimeter wall project.

Inconsistencies in the Execution of the Works and Damage

65. Throughout the project inconsistencies were noted with the length and height of the walls. Some wall segments were between 8-9 feet long. Most noticeable is the irregular height of the walls especially the low walls to hold the rails. The height of the rails also varied and in some areas these were higher than the wall casement.

66. Inconsistencies were also noted in the rendering of the wall, in some areas the block wall was visible through the unpainted plaster.

67. Subsequent to discontinuation of the works, the perimeter wall has been subjected to flooding and hurricane damage. The section by the Cineplex has been partially undermined by the floods from the gully. Various parts show damage from hurricane winds and debris. A few of the sections appear to have lost their rails (in particular in the Lower Estate Superette to Evans House Area and the Focus Area (2014)). Other areas show cracking and broken concrete.



PART 3 – Procedural Issues and Irregularities

Contractors

69. The Government's Public Finance Management Regulation (PFMR) 181 requires government offices to obtain a list of pre-qualified contractors from the Ministry of Finance for procurement services and construction works where there has been no tender process.

70. There was, however, no consultation with the Ministry of Finance's Project Management Unit (or the Public Works Department) on the selection or eligibility of contractors.

71. The contractors used on the project were selected by the Minister of Education and Culture. The Assistant Secretary who provided project liaison services within the ministry advised that the contracts and work orders sections and amounts were assigned to individuals based only on instructions received from the Minister.

72. Of the 70 contractors used on the project, 40 did not have construction trade licenses.

Contractor Assignments

Work Orders

73. Cabinet approval allowed for the project to be split into parts for the purpose of issuing petty contracts.

74. Contractors are required to present copies of their trade license, and good standing certificates (from the Social Security Board and Inland Revenue Department) before being engaged on major or petty contracts for government works. These are not required for work orders.

75. Public Finance Management Regulations 189 allows for work orders to be used for construction work or services not exceeding \$10,000. Issuing of multiple work orders on the same job is prohibited by Regulation 189. The Cabinet waiver obtained for this project does not include execution by work orders.

76. A large portion of the project was executed by work orders. The majority of the recipients (about 75%) received only one assignment under a work order, which ranged from \$4,638.70 for one rail/paint section to \$9,461.65 for one wall construction section. The remainder received multiple sections issued as multiple work orders or in rare instances combined into a petty contract.



77. Further there was no process to ensure that social security and payroll tax obligations are met from work order contracts resulting in payments that are gratuitous and contrary to government regulations.

Project Management

78. Cabinet's approval stipulated that the Ministry of Finance's Project Management Unit (PMU) would assist with the management of this project. Neither the Ministry of Finance's Project Unit nor the Public Works Department were involved management or supervision of this project.

79. Management of the project was outsourced by the Ministry to an independent contractor in 2014 without competitive solicitation or vetting by any of the two government agencies named above.

80. This arrangement was formalised in May 2016 with a petty contract for \$47,292.08 after the project was stopped for lack of funds. An amount of \$43,292.18 was paid in September 2016 with the project still incomplete. The Treasury records indicate that the project manager was paid a total of \$265,110.17 in 2016 for this project and others under the Ministry of Education and Culture.

Budget and Payments

81. The project in its entirety was estimated to cost \$828,004. Despite this, no request was made to the Ministry of Finance for an independent subhead/subledger to facilitate prudent management of the funds.

82. The funding was instead added to the school rehabilitation subhead. This meant that there were no controls to limit the total spending to the approved amount or to alert the Ministry when spending limits were being reached. As a result payments were made over the authorised amount, possibly without the Ministry being aware of the excess.

Payment Discrepancies

83. Review of the contractor assignment schedules received from the Ministry showed inconsistencies with the contracts and work orders issued for the project. In some cases the work orders were issued for different areas or different type of works than that indicated on the schedules. This was observed with work orders 037-2015, 052-2015 and 081-2015 and petty contract 23/2015.



84. In addition, two contractors were recorded on the Ministry's payment schedule as partially paid, and one was stated as cancelled. The Treasury records indicated that the Ministry processed vouchers for payment and cheques were processed for all three (including the cancelled work order) but these were uncollected at the Treasury and subsequently became stale dated.

85. In some cases payments were made where the work was incomplete. This was especially apparent in the 2014 Focus Area where contracts had been allotted and payments issued for rail and painting works to five contractors, but none of the sections were painted. The contractors were all paid in full.

Planning Approval

Contracts were issued and Works commenced before planning approval was obtained.

86. The 2014 Focus Area of the project was constructed from 1 – 30 December 2014. The plans for this phase were submitted to the Planning Authority on the 15 December 2014 and approved on 17 December 2014. These were then subsequently approved by the Building Authority on 13 January 2015 after the works had ended and contractors paid.

87. Works for the 2015 phase, for continuation of the wall, commenced 1 March 2015. The plans were submitted to Town and Country Planning for approval on 23 March 2015 and approved on 2 April 2015.

88. The process of getting approval after the fact rendered the process irrelevant.

Focus Area (2014)

89. The initial phase of the project commenced in December 2014 in response to the Principal's request for urgent action.

90. The plan submitted to the Town and Country Planning Department for this part of the project stipulated a 180 feet block wall estimated to cost \$156,124.95. This, in accordance with PFMR, would require either a tendering process or a Cabinet waiver. Neither was pursued.

91. Execution of the 2014 works was scaled back from 180 feet to 120 feet and work orders were issued to eleven contractors for the works. Six for wall construction (\$9,989.65 each) and five for rail installation and painting (\$7,357.90 each). The sixth rail/paint contract was not issued.

92. The total for work orders issued in 2014 for this phase was \$96,727.40. Other costs for this section include excavation works \$4,400.00 that were not paid until 2015. These together brought the costs to \$108,485.30.



Work Orders Issued	96,727.40
Rail/Painting Section not issued	7,357.90
Excavation (Paid in 2015)	4,400.00
Total	108,485.30

93. The contracts were issued for wall sections 20 feet long to accommodate the 120 linear feet length.

94. At the time the project was stopped, the works on this section of the project was incomplete as none of the wall sections had been painted.

Dimension Discrepancies

95. Discrepancies in the length of the wall and the composition of the project appear throughout the various documents. The cost estimate by SA Architect that was presented to Cabinet in February 2015 stipulated a perimeter wall 2695 linear feet. This would encompass the full circumference of the premises including the front.

96. The actual wall length covered in the project execution (for 2014 and 2015 works) was 1650 linear feet per the Ministry's records.

97. Similarly, the square yards for painting and rendering are stated on the Approved Estimate at 3148 square yards. The actual computed area for the walls constructed is 2499 square yards (both sides). This results in a difference of 649 square yards or approximately one-fifth of the area in the approved estimate.

98. The above analyses indicate that the Approved Estimate of \$828,004.10 was based on the full perimeter of the wall. All five sides. Instead of pro-rating this amount to the portions undertaken, the entire Approved Estimate was instead applied to only three sides of the perimeter. This resulted in a loss of value to the government.



PART 4 – Conclusion and Recommendations

Conclusion

99. The need for student and faculty security on the ESHS campus cannot be overstated. These issues have existed for some time and could, with proper planning, have been addressed with the assistance and support of the relevant government agencies and funded through the annual budget process, thereby obviating the need for an emergency process.

100. The project's manner of execution and its outcome underscore why procurement rules are required. The project gives an appearance of an agency that sought to avoid the procurement requirements that have been established to secure value for money on government projects.

This can be seen in:

- a. The scaling down of the 2014 works from 180 feet to 120 feet and non-issuing of the final rail contract to avoid major contract regulations that would come into play with the project reaching \$100,000 ceiling.
- b. Waiver of the tender process to avoid competitive submissions,
- c. Wide-scale use of work orders that are intended to be used for small one-of jobs,
- d. Use of un-vetted contractors,
- e. Micro splitting of the project,
- f. Exclusion of other government agencies.

101. Significant discrepancies in the costing of the sections, in particular the per-unit measurements used to derive itemised costs, resulted in overpriced contracts.

102. Failure to involve pertinent government agencies eliminated checks that may have identified over-costing on the bill of quantities and result in more efficient and economical execution.

103. Division of the project into multiple parts eliminated possible economies of scale and further escalated the cost to government.

104. Use of unlicensed contractors constitutes a breach of Trade Licence Regulations (by the individuals and by the Government). It also may have facilitated breaches of the Inland Revenue and Social Security requirements.

105. There was insufficient ministerial oversight on this project. Some of this is demonstrated by:

- a. Payments were made in full on contract segments that were incomplete.



- b. Bill of quantities were adopted and used for contracting costs when a mathematical cross check of these could have ascertained that they were incompatible with the authorised costs;
- c. The Ministry's attributing the excess project expenditure to the variation for the bus pick up area, without undertaking an active examination of why the project costs were overrun.

106. The subjective manner with which contractors were selected and assigned introduces issues of inappropriate political influence into the procurement process.

107. No evidence was presented to show that this was open, impartial, on merit or in-keeping with the Public Finance Management Regulations.

108. This process is contrary to best practices and contributes to a culture where contractors expect gratuitous public contracts from political representatives without due regard to fairness, transparency and proficiency in the selection process.

109. It also compromises the government's ability to achieve fair value on money spent, both in terms of the monetary cost to the public, and the quality of the work rendered.

RECOMMENDATIONS

Project Recommendations

1. Individuals responsible for the over costing and loss of economy on this project should be made accountable.
2. The Public Works Department should, at the appropriate time, be brought in to do an assessment of the project and provide costing for completion.
3. Contractors who received full payment without completion of the works should be required to complete or be held ineligible for further government work.
4. Other remaining works should be completed with a single contractor.

General Recommendations

5. Contractors should not be considered for work on Government projects without valid (and job specific) trade licences for the relevant works.



6. Project Unit can take a proactive role in government projects by:
 - a. providing guidelines to Ministries for preparing supporting information in the preliminary stages including a proper business plan and relevant financial analyses;
 - b. periodically reviewing government projects undertaken by the Ministries, to ensure that quality and economy are maintained.
7. Where the tender process has been waived, only contractors on the approved list maintained by the Ministry of Finance should be used on the project (PFMR 181). These should be vetted and approved by the Public Works Department as competent for the work being undertaken.
8. The practice of using private contractors for work that can reasonably be carried out by government departments should cease. Where private contractors are required for services, such as project management or quantity surveying, they should be engaged by PWD and their work supervised and reviewed by that department.
9. To allow for monitoring of payments and greater transparency, a separate expenditure sub-ledger should be established for projects estimated to cost in excess of \$100,000 or projects where multiple contractors will be used in execution.
10. The government should focus on reorganising and strengthening of the Public Works Department to serve as the default agency for the planning and execution of minor public projects and to provide guidance and oversight on major works. The reorganisation should include checks and balances that prevent inappropriate influence in procurement and contracting of works. This is essential if the government is to receive improved value on public funds spent on development projects.
11. Amendments to the procurement regulations are required to prevent the application of subjective political involvement in the procurement process. This will serve as a protection for the government, political representatives and the contractors seeking to obtain public contracts. It will also secure greater economy, transparency and fairness in the process.

Sonia M Webster
Auditor General
Office of the Auditor General
British Virgin Islands



Attachment 1

Cabinet Approved Estimate

Issued 2nd October 2014

Road_Town_Block_2837F_2838F_Parcel_256



(General) Quantum Takeoff for Improvements at the Elmore Stoutt High School
 Prepared by Quantum Management, construction & project management
 Takeoff dated 2nd October 2014

Project Location: Road Town., Tortola, B.V.is.
 Cadastral Section: Road Town, Block 2837 & 2838F, Parcel 256
 Drawings prepared by:

Contractor: Not yet identified

Preamble							
a	The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, General and Special Conditions of Contract, Technical Specifications, and Drawings.						
b	The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Architect and valued at the rates and prices bid in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Architect may fix within the terms of the Contract.						
c	General directions and descriptions of work and materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering prices against each item in the priced Bill of Quantities.						
d	The rates and prices bid in the priced Bill of Quantities shall, except insofar as it is otherwise provided under the Contract, include all Constructional Plant, labor, supervision, materials, erection, maintenance, insurance, profit, taxes, and duties, together with all general risks, liabilities, and obligations set out or implied in the Contract.						
e	The bill of quantities is priced in United States Dollars (US \$)						

Item	Description	Quantity	Unit	Rate	Amount
F	Perimeter Wall - approx.. 2,695 lf				
1	Site Clearance	1	item	\$4,000.00	\$4,000.00
2	Excavation works	2,295	lf	\$25.00	\$57,375.00
3	Columns at 20'-0" O/C	115	item	\$600.00	\$69,000.00
4	Blockwork between columns	1574	sq. yd.	\$80.00	\$125,920.00
5	Rendering of CMU	3148	sq. yd.	\$30.00	\$94,440.00
6	Paint Works	3148	sq. yd.	\$12.00	\$37,776.00
7	Galvanize Rail Works	5737	sq. ft.	\$60.00	\$344,220.00
8	Main Gate Works (softball area entry gate to be re-used)	2	items	\$10,000.00	\$20,000.00
9					
10	Subtotal				\$752,731.00
11	Unforeseen @ 10%				\$75,273.10
12	Total				\$828,004.10
H	Works Summary				
1	Perimeter Wall - 2,695 lf				\$828,004.10
3	Grand Total				\$828,004.10

Steve Augustine, MPM
 Principal Project Manager, Quantum Management

Note: more detailed pricing will be provided upon completion of all working drawings. Prices as quoted are general and are intended to provide an indication of general cost projections. The listed works are all in a drawing stage of concept development.



Attachment 2

Bill of Quantities for Wall Works

Quantum Takeoff for Wall & Fencing Works at the EHS - West facing proposed wall - Wall Works proper
 Prepared by Quantum Management, Construction & Project Management
 Date: 20th November 2014



Project Location: Elmore Stouff High School
 Identified Contractor:

Division	Description	Qty	Unit	Rate	Amount	% Completed	Valuation of existing works
Preamble							
1	The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, General and Special Conditions of Contract, Technical Specifications, and Drawings.						
2	The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Architect and valued at the rates and prices bid in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Architect may fix within the terms of the Contract.						
3	General directions and descriptions of work and materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering prices against each item in the priced Bill of Quantities.						
4	The rates and prices bid in the priced Bill of Quantities shall, except insofar as it is otherwise provided under the Contract, include all Constructional Plant, labor, supervision, materials, erection, maintenance, insurance, profit, taxes, and duties, together with all general risks, liabilities, and obligations set out or implied in the Contract.						
5	The bill of quantities is priced in United States Dollars (US \$)						
6	Construction Works						

A	Segmented Quantities per 22'-0"						
B							
C	Formwork at concrete columns	11	sq. yd.	\$30.00	\$330.00		
D	Bracing at columns	1	item	\$150.00	\$150.00		
E	Polythene Sheet	12	sq. yd.	\$2.00	\$24.00		
F	#5 Bars at Strip Footing	200	lbs.	\$1.80	\$360.00		
	#4 Bars Stirrups at Strip Footing	252	lbs.	\$1.80	\$453.60		
G	#5 Bars at Columns	100	lbs.	\$1.80	\$180.00		
H	#3 Stirrups at Columns	116	lbs.	\$1.80	\$208.80		
I	#4 Bars at Top-of-Wall	56	lbs.	\$1.80	\$100.80		
J	#3 Bars at Top-of-Wall	15	lbs.	\$1.80	\$27.00		
K	#5 Bars at 16" at wall	126	lbs.	\$1.80	\$226.80		
L	DuroWall at 16"	160	lf	\$1.50	\$240.00		
M	8" CMU at walls	15	sq. yd.	\$80.00	\$1,200.00		
N	3,500 psi Concrete at Strip Footing	5.5	cu yd.	\$270.00	\$1,485.00		
O	3,500 psi Concrete at Columns	2	cu yd.	\$270.00	\$540.00		
P	3,500 psi Concrete at Wall-Top	0.5	cu yd.	\$271.00	\$135.50		
Q	3,500 psi Solid Concrete Fill at Wall	2	cu yd.	\$270.00	\$540.00		
R	Short load service charge	2	item	\$100.00	\$200.00		
S	Rendering at wall	44	sq. yd.	\$30.00	\$1,320.00		
T	Work Supplies, inclusive of nails, snap ties, tie wire and other like items	1	item	\$400.00	\$400.00		
U	Trucking	4	items	\$80.00	\$320.00		
V	Clean-up	1	item	\$160.00	\$160.00		
W	Subtotal				\$8,601.50		
X	Contractor's fee	10%			\$860.15		
Y	Grand Total				\$9,461.65		

Z Works Summary

Z1	Total Budgeted Cost	\$9,461.65
Z2	Earned Value	\$0.00
Z3	Mobilization at 65%	\$6,150.07
Z4	EV & Mobilization Total	\$0.00
Z5	Outstanding Value	\$9,461.65

Steve Augustine, MPM
 Principal Project Manager, Quantum Management



Attachment 3

Bill of Quantities for Rail /Paint Works



Quantum Takeoff for Wall & Fencing Works at the ESHS
 Prepared by Quantum Management, Construction & Project Management
 Date: 20th November 2014

Project Location: Elmore Stouff High School
 Identified Contractor:
 Galvanize Rail Works

Division	Description	Qty	Unit	Rate	Amount	% Completed	Valuation of existing works
Preamble							
1	The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, General and Special Conditions of Contract, Technical Specifications, and Drawings.						
2	The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Architect and valued at the rates and prices bid in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Architect may fix within the terms of the Contract.						
3	General directions and descriptions of work and materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering prices against each item in the priced Bill of Quantities.						
4	The rates and prices bid in the priced Bill of Quantities shall, except insofar as it is otherwise provided under the Contract, include all Construction Plant, labor, supervision, materials, erection, maintenance, insurance, profit, taxes, and duties, together with all general risks, liabilities, and obligations set out or implied in the Contract.						
5	The bill of quantities is priced in United States Dollars (US \$)						
6	Construction Works - Galvanize Rails Complete						
A	Segmented Quantities per 22'-0" wall 10'-0" galvanize rail						
B	Decorative 1"x1" Galvanize Sq. pipe at Wall	70	sq. ft.	\$40.00	\$2,800.00		
	Wall plates, pegging, capping and anchoring accessories	14	items	\$55.00	\$770.00		
C	Prime & painting at wall	80	sq. yd.	\$12.00	\$960.00		
D	Rust prime & painting at 1x1 bars	33	sq. yd.	\$13.00	\$429.00		
E	Work Supplies	1	item	\$90.00	\$90.00		
F	Trucking	3	items	\$80.00	\$240.00		
G	Clean-up	1	item	\$160.00	\$160.00		
H	Subtotal						
I	Contractor's fee				\$5,449.00		
J	Grand Total	10%			\$544.90		
					\$5,993.90		

K1 Works Summary

K2	Total Budgeted Cost	\$5,993.90
K3	Earned Value	\$0.00
K4	Mobilization at 65%	\$3,896.04
K5	EV & Mobilization Total	\$0.00
K6	Outstanding Value	\$5,993.90

Steve Augustine, MPM
 Principal Project Manager, Quantum Management

**Attachment 4****Estimate of Additional Funds Required to Complete Project**

ELMORE STOUTT HIGH SCHOOL PERIMETER WALL		
ESTIMATE APPROVED BY CABINET:	\$	828,004.10
TOTAL COST OF WALL TO DATE:	\$	914,971.61
DIFFERENCE:	\$	86,967.51
Note: This cost includes the cost of constructing the bus layby at the Lower Estate entrance and repairs and instalation of iron gate. This is not included in the original estimate submitted to Cabinet		
TOTAL ESTIMATED FIGURE FOR COMPLETION OF WALL		
Wall sections remaining on Evan/Brewley side (back entrance) <i>(5 sections remaining)</i>	\$	47,308.25
Rail and Paint sections on Evan/Brewley side (back entrance) <i>(9 sections remaining - using existing rails)</i>	\$	41,748.30
Rails and Paint sections on Bobby's Cineplex side <i>(13 sections remaining - using existing rails)</i>	\$	60,303.10
Rails and Paint sections on Softball Field side <i>(22 sections remaining - using existing rails)</i>	\$	102,051.40
TOTAL OF REMAINING WALL	\$	251,411.05
GRAND TOTAL OF PERIMETER WALL	\$	1,166,382.66



Site Photos



Photo 1: Focus Area (2014)



Photo 2: Focus Area (2014) - West Side of Premises



Photo 3: Area 1 (View from the Soft Ball Park)



Photo 4: Area 1 (View from Lower Estate Superette)



Photo 5: Area 1 (Bus Stop Modification to project)



Photo 6: Focus Area Wall around Tree



Photo 7: Area 2 (Wall Next to Bobby's Cineplex)



Photo 8: Area 2 (Unpainted Wall approaching Evans House)



Photo 9: Area 3 (No wall Construction Behind Lower Estate Superette for Approx. 6 Sections)



Photo 10: Area 3 (Unpainted Wall behind Beamish House - 3 sections)



Photo 11: Area 3 (Finished Wall behind Evans House)



Photo 12: Area 2 (Area 2 Unpainted Wall meets Area 3 Partially Painted wall behind Evans House)

