



INTERNAL AUDIT DIVISION

REPORT 2015/047

Audit of the closure of the guaranteed maximum price contract for the renovation of the United Nations Secretariat building

Overall results relating to effective management of the closure of the guaranteed maximum price contract for the renovation of the United Nations Secretariat building were initially assessed as partially satisfactory. Management has satisfactorily addressed the identified issues.

FINAL OVERALL RATING: SATISFACTORY

28 May 2015

Assignment No. AC2014/514/02

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AUDIT REPORT

Audit of the closure of the guaranteed maximum price contract for the renovation of the United Nations Secretariat building

I. BACKGROUND

1. The Office of Internal Oversight Services (OIOS) conducted an audit of the closure of the guaranteed maximum price contract for the renovation of the United Nations Secretariat building.
2. In accordance with its mandate, OIOS provides assurance and advice on the adequacy and effectiveness of the United Nations internal control system, the primary objectives of which are to ensure: (a) efficient and effective operations; (b) accurate financial and operational reporting; (c) safeguarding of assets; and (d) compliance with mandates, regulations and rules.
3. The renovation of the Secretariat building was one of the sub-projects of the Capital Master Plan and was anticipated to cost \$224,858,431. The guaranteed maximum price contract for the renovation of the United Nations Secretariat building was signed on 1 February 2010 for a not to exceed amount of \$206,966,117. Subsequently, a total of 100 contract amendments were made under the Procurement Division's delegation of authority increasing the guaranteed maximum price contract to \$236,890,359. As of January 2015, the total project cost was estimated at \$223,654,611, of which \$220,387,736 had been paid to the Construction Manager.
4. The purpose of the refurbishment of the United Nations Headquarters complex in New York was to bring the facilities into compliance with local codes and standards, replace components and systems, and preserve the architectural integrity and the original design intent of the landmark complex. The renovation was performed by a Construction Manager who entered into contracts with several trade contractors. The Office of Capital Master Plan also engaged the services of a Programme Management Firm, which carried project cost control functions on behalf of the Office.
5. The project was for the interior renovations of the Secretariat building, comprising 40 floors and approximately 840,000 square feet of office space. The works included re-skinning the building with a new curtain wall. Renovation of the Secretariat building was scheduled to be completed by October 2012, and substantial completion was achieved for most of the floors within the stipulated time; the last five floors were completed in March and April 2013. The Capital Master Plan, under which the renovation of the Secretariat building was conducted, is scheduled to be completed by 30 June 2015 and any works outstanding will be handed over to the Facilities Management Service in the Office of Central Support Services.
6. Comments provided by the Office of the Capital Master Plan are incorporated in *italics*.

II. OBJECTIVE AND SCOPE

7. The audit was conducted to assess the adequacy and effectiveness of the Office of the Capital Master Plan's governance, risk management and control processes in providing reasonable assurance regarding **effective management of the closure of the guaranteed maximum price contract for the renovation of the United Nations Secretariat building.**

8. The audit was included in the 2014 OIOS risk-based plan due to financial and reputational risks related to construction contracts.

9. The key control tested for the audit was regulatory framework. For the purpose of this audit, OIOS defined regulatory framework as controls that provide reasonable assurance that policies and procedures: (i) exist to guide the orderly closure of the guaranteed maximum price contract and ensure compliance with contract terms; (ii) are implemented consistently; and (iii) ensure the reliability and integrity of financial and operational information.

10. OIOS conducted this audit from November 2014 to March 2015. The audit covered the period from February 2010 to March 2015.

11. OIOS conducted an activity-level risk assessment to identify and assess specific risk exposures, and to confirm the relevance of the selected key controls in mitigating associated risks. Through interviews, analytical reviews and tests of controls, OIOS assessed the existence and adequacy of internal controls and conducted necessary tests to determine their effectiveness. OIOS assessed the controls over the operational close-out process of the Secretariat guaranteed maximum price contract and reviewed project related documents, building handover process, closed non-conformity logs, certificates of substantial completion, Fire Department inspection reports and status of items to be completed and corrected before issuance of certificate of final completion (punch list items). OIOS also reviewed the draft statement of final payment agreed by the Owner, the Programme Management Firm and the Construction Manager.

III. AUDIT RESULTS

12. The Office of the Capital Master Plan's governance, risk management and control processes examined were assessed as **partially satisfactory**¹ in providing reasonable assurance regarding **effective management of the closure of the guaranteed maximum price contract for the renovation of the United Nations Secretariat building**. OIOS made two recommendations in the report to address issues identified in the audit. The operational and financial closure of the Secretariat building guaranteed maximum price contract was ongoing. Substantial progress had been made to rectify architectural punch list items as well as a number of deficiencies in commissioning mechanical, electrical and plumbing systems. The issuance of a certificate of final completion and the release of final payment would be dependent on the satisfactory conclusion of these matters.

13. The initial overall rating was based on the assessment of key controls presented in Table 1 below. The final overall rating is **satisfactory**² as management has satisfactorily addressed the identified issues.

¹ A rating of "**partially satisfactory**" means that important (but not critical or pervasive) deficiencies exist in governance, risk management or control processes, such that reasonable assurance maybe at risk regarding the achievement of control and/or business objectives under review.

² A rating of "**satisfactory**" means that governance, risk management, and control processes are adequately designed and operating effectively to provide reasonable assurance regarding the achievement of control and/or business objectives under review.

Table 1: Assessment of key control

Business objective	Key control	Control objectives			
		Efficient and effective operations	Accurate financial and operational reporting	Safeguarding of assets	Compliance with mandates, regulations and rules
Effective management of the closure of the guaranteed maximum price contract for the renovation of the United Nations Secretariat building	Regulatory framework	Satisfactory	Satisfactory	Satisfactory	Partially satisfactory
FINAL OVERALL RATING: SATISFACTORY					

Regulatory framework

There were delays in initiating the operational contract close-out process

14. In accordance with the Capital Master Plan project manual, the on-site project close-out document was to be provided by the Construction Manager not more than 45 days after receipt of confirmation by New York City authorities that the renovation of the Secretariat building was in compliance with building and fire codes.

15. The renovation work on the Secretariat building began in February 2010 and was completed in Mid-2012. Staff began to reoccupy floors of the Secretariat building from July to November 2012 according to the restacking strategy adopted by the Owner and agreed to by New York City authorities. OIOS verified compliance with the conditions for reoccupation set by the authorities. New York City authorities issued a memorandum on 9 December 2013, confirming that the Capital Master Plan had applied the relevant building and fire codes in the renovation of the Secretariat building.

16. The Executive Director, Office of the Capital Master Plan issued a letter to the Construction Manager to expedite operational and financial close-out of the contract on 27 May 2014. Although the close out of the project had been delayed, no additional costs were incurred therefore OIOS did not make a recommendation.

The duration of the renovation of the Secretariat building was generally within the timeframe stipulated in the contract

17. The guaranteed maximum price contract stated that the Construction Manager was expected to achieve substantial completion of the renovation within 979 consecutive days after receiving notice to proceed from the Office of the Capital Master Plan.

18. The notice to proceed was issued on 17 February 2010 and substantial completion was achieved within the stipulated time for all but five floors (1B, 2, 3, 4 and 6), which were completed in March and April 2013, approximately five to six months after the scheduled completion time. No liquidated damages were imposed on the Construction Manager because the delay was triggered by the Owner to meet operational needs, and no additional costs were incurred by the Office. OIOS reviewed the details of all certificates of substantial completion for completeness and noted that they were all signed by the

Architect of Record, the Construction Manager and the Office of the Capital Master Plan as required by the contract. OIOS concluded that, except for the slight delay in completing 5 of the 40 floors, substantial completion of renovations was generally timely.

The Office of the Capital Master Plan initiated rectification and valuation of punch list items

19. In accordance with the signed certificates of substantial completion, the Construction Manager was to complete or correct the works on the punch list within 30 days from the date of substantial completion. Furthermore, as per the guaranteed maximum price contract, substantial completion was achieved when the punch list and close-out work were valued at less than 5 per cent of the trade contracts and general conditions cost of the project. This value was to be agreed to by the Architect of Record, Owner and the Construction Manager.

20. There were a total of 6,753 punch list items for architectural works at the time of substantial completion of the renovations. OIOS reviewed a sample of 41 completed items randomly selected from each of the floors and noted that only 8 were completed within 30 days of being recorded, while others took as long as 8 to 20 months to be rectified.

21. As of 31 January 2015, there were 95 punch list items still open, which was more than 20 months after the issuance on 24 April 2013 of the last certificate of substantial completion for the renovation of the Secretariat building. The Office of the Capital Master Plan explained that these items took long to be resolved because of inability to reach consensus with the Construction Manager that the works had been completed in accordance with the design intent. In addition, time and resources were directed towards the completion of the renovation of the General Assembly building before the 69th general debate. OIOS reviewed the punch list on 18 March 2015, and noted that only 35 items were still open and work was ongoing to rectify them. The Office of the Capital Master Plan also indicated that the Construction Manager would be required to value punch list items for all guaranteed maximum price contracts that were not yet closed.

22. Since the Office of the Capital Master Plan had initiated rectification and valuation of punch list items, OIOS did not make a recommendation on this issue.

Deficiencies identified during the commissioning process needed to be addressed

23. According to the Capital Master Plan project manual, the commissioning process for mechanical, electrical and plumbing systems included a review of final installation and operation of specific systems by the commissioning engineer. The commissioning process was to be carried out in the presence of the Construction Manager, the responsible trade contractor and the Office of the Capital Master Plan. The Facilities Management Service of the Office of Central Support Services was also required to attend all commissioning exercises.

24. The Office of the Capital Master Plan engaged an independent consultant to perform commissioning services. The intent of commissioning was to provide documented confirmation that building systems functioned in compliance with criteria set forth in the project documents in order to satisfy the Owner's operational needs. The consultant bridged the gap between design, construction and occupancy by ensuring that the building's systems were constructed, operated and maintained in accordance with the integrity and intent of the design.

25. During the commissioning process a total of 2,960 deficiencies were identified of which 1,273 were still open as of January 2015. The following systems could not be commissioned because coordination was required with other parties or they had not yet been activated: (a) the smoke purges on

some floors; (b) power logic monitoring; (c) 38th floor variable air volume units; and (d) end wall heat exchangers. In accordance with the guaranteed maximum price contract, final payment to the Construction Manager would not be made until all works requiring inspections by government authorities, applicable fire underwriters and all requisite approvers had been concluded.

26. The Office of the Capital Master Plan explained that the delay in rectifying the deficiencies was due to lack of coordination between the commissioning agent, the Architect of Record and the Office of the Capital Master Plan.

(1) The Office of the Capital Master Plan should, in collaboration with the Construction Manager and representatives from Facilities Management Services, expedite the rectification of all deficiencies identified by the commissioning consultant and ensure that all systems in the Secretariat building that were not commissioned following substantial completion, are tested for compliance with the design intent.

The Office of the Capital Master Plan accepted recommendation 1 and stated that the recommendation was being implemented on an on-going basis, as part of its standard business operations. At this stage only five deficient items from the commissioning report were still outstanding. The Office, together with the Construction Manager and the Engineer of Record were working to conclude these items by 1 June 2015. In light of the substantial progress made by the Office of the Capital Master Plan in rectifying the deficiencies identified by the commissioning consultant, recommendation 1 has been closed.

There was a need to ensure all outstanding close-out documentation for the renovation of the Secretariat was provided

27. The guaranteed maximum price contract stated that all documentation necessary for the occupancy, operation and maintenance of the building and its systems (including warranties and operational and maintenance manuals and record drawings) should be turned over to Owner following substantial completion of the renovation.

28. As of January 2015, some of the mandatory documents were still outstanding including 35 record drawings, and volumes two and seven of the operational and maintenance manuals. The Office of the Capital Master Plan explained that the delay was caused by revisions that were being done by the trade contractor. The delay to provide the mandatory documents could ultimately delay the issuance of certificate of final completion for the Secretariat building and impact the overall operational and financial closure schedule.

(2) The Office of the Capital Master Plan should obtain the remaining record drawings and operational and maintenance manuals from the Construction Manager to enable the timely operational and financial closure of the Secretariat building guaranteed maximum price contract.

The Office of the Capital Master Plan accepted recommendation 2 and stated that the recommendation was being implemented on an on-going basis as part of its standard business operations. Only four documents were still to be submitted. The Office, together with the Construction Manager, was working to receive these items and the process should be completed by 1 June 2015. The Office of the Capital Master Plan will not release retainage on the contract until such time that all documentation is submitted in a satisfactory manner. In light of the substantial progress made by the Office of the Capital Master Plan in obtaining the remaining drawings and manual and the retainage held until such documents are delivered, recommendation 2 has been

closed.

The process for preparing the draft financial close-out statement was adequate

29. In accordance with the project manual, the Construction Manager was responsible for providing close-out documentation at the completion of each project. One of the deliverables of the close-out documentation was a statement of final payment agreed between the Owner, the Programme Management Firm and the Construction Manager. The statement of final payment itemized all cost elements including the trade contractor costs and all mark-ups as agreed in the guaranteed maximum price contract.

30. As of 31 March 2015, a draft statement of final payment was agreed between the Owner, the Programme Management Firm and the Construction Manager in the amount of \$223,796,492. A total of \$220,387,736 had been paid based on invoices submitted by 31 March 2015. The largest cost element was trade contractor costs amounting to \$189,784,963. OIOS reviewed a sample of 10 trade contracts worth \$119,529,507 by tracing the amounts to the original signed trade contracts, which were all adjusted by change orders, to the final agreed balances. Very minor discrepancies were identified and brought to the attention of the Construction Manager and the Office of the Capital Master Plan. In addition, OIOS reviewed the amounts billed and paid to the trade contractors as of 31 March 2015, and noted that they were properly reflected in the statement of final payment. OIOS also reviewed the draft statement of final payment for arithmetic accuracy, and ensured that the breakdown of costs (general conditions costs, construction fees, security costs and insurance) was in accordance with the rates stipulated in the guaranteed maximum price. OIOS concluded that the process for preparing the draft statement of final payment as required by the project manual was adequate.

IV. ACKNOWLEDGEMENT

31. OIOS wishes to express its appreciation to the Management and staff of the Department of Management for the assistance and cooperation extended to the auditors during this assignment.

(Signed) David Kanja
Assistant Secretary-General for Internal Oversight Services

STATUS OF AUDIT RECOMMENDATIONS

Audit of closure of the guaranteed maximum price contract for the renovation of the United Nations Secretariat building

Recom. no.	Recommendation	Critical ³ / Important ⁴	C/ O ⁵	Actions needed to close recommendation	Implementation date ⁶
1	The Office of the Capital Master Plan should, in collaboration with the Construction Manager and representatives from Facilities Management Services, expedite the rectification of all deficiencies identified by the commissioning consultant and ensure that all systems in the Secretariat building that were not commissioned following substantial completion, are tested for compliance with the design intent.	Important	C	Action completed.	Implemented.
2	The Office of the Capital Master Plan should obtain the remaining record drawings and operational and maintenance manuals from the Construction Manager to enable the timely operational and financial closure of the Secretariat building guaranteed maximum price contract.	Important	C	Action completed.	Implemented.

³ Critical recommendations address significant and/or pervasive deficiencies or weaknesses in governance, risk management or internal control processes, such that reasonable assurance cannot be provided regarding the achievement of control and/or business objectives under review.

⁴ Important recommendations address important deficiencies or weaknesses in governance, risk management or internal control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.

⁵ C = closed, O = open

⁶ Date provided by the Office of the Capital Master Plan in response to recommendations.

APPENDIX I

Management Response

United Nations  Nations Unies
INTEROFFICE MEMORANDUM MEMORANDUM INTERIEUR

TO: Ms. Muriette Lawrence-Hume, Officer-in-Charge
A: New York Audit Service, Internal Audit Division
Office of Internal Oversight Services

DATE: 19 May 2015

THROUGH: Christian Saunders, ~~Director~~
S/C DE: Office of the Under-Secretary-General for Management

FROM: Mario Baez, Chief, Policy and Oversight Coordination Service
DE: Office of the Under-Secretary-General for Management

SUBJECT: **Draft report on an audit of closure of the guaranteed maximum price contract for
the renovation of the United Nations Secretariat building (Assignment No.
AC2014/514/01)**

OBJET: **Draft report on an audit of closure of the guaranteed maximum price contract for
the renovation of the United Nations Secretariat building (Assignment No.
AC2014/514/01)**

1. We refer to your memorandum dated 1 May 2015 regarding the above subject draft report. The Office of the Capital Master Plan (OCMP) welcomes the observations and accepts the recommendations included in the draft audit report. However, the OCMP would like to offer the following clarifications.

2. With respect to paragraph 3, the last sentence states that “[a]s of January 2015, the total project cost was estimated at \$223,654,611 of which \$220,387,736 had been paid to the Construction Manager”. It should be noted that as of May 2015 the estimated project cost is \$224,065,058, of which \$220,509,661 had been paid to the Construction Manager.

3. With respect to paragraph 19, it should be clarified that operational and financial closeout of the contract had already been initiated by the Construction Manager with the submission of documents as listed in sections 9.3 and 10.12 of the Secretariat contract, irrespective of the day two works which were undertaken simultaneously. The memorandum that was issued on 27 May 2014 was intended to expedite the close-out process with respect to both the original works and the day two works.

4. With respect to paragraphs 23 and 28, it should be noted that the punch list and commissioning related works, from their nature, have minimal impact on the building and its functionality. These works usually refer to residual small items to be fixed with no impact on the completion of the overall renovations. For that reason, such works are performed after the building has been handed over and is fully occupied and operational. However, all the 6,753 punch list items of the Secretariat contract have now been resolved. Only five deficiencies, out of 2,960, are still pending and will be resolved by the end of May 2015.

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5. With respect to paragraph 32, it should be noted that only four records of drawing, out of 195 close-out documentation items, are pending and expected to be submitted by the Construction Manager by the end of May 2015. It should be noted that even if a trade-contractor completed its work in a satisfactory manner, the OCMP does not release the final retainage at the amount equivalent to 2.5 per cent of its entire contract value, until such time it meets all its contractual obligations, including the submission of the required documentation at standard and quality acceptable to the OCMP.

6. Comments on the implementation of the two recommendations are included in the attached Appendix I.

7. Thank you for giving us the opportunity to provide comments on the draft report.

Management Response

Audit of closure of the guaranteed maximum price contract for the renovation of the United Nations Secretariat building
(Assignment No. AC2014/514/01)

Rec. no.	Recommendation	Critical/ Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1	The Office of the Capital Master Plan should, in collaboration with the Construction Manager and representatives from Facilities Management Services, expedite the rectification of all deficiencies identified by the commissioning consultant and ensure that all systems in the Secretariat building that were not commissioned following substantial completion, are tested for compliance with the design intent.	Important	Yes	ASG/CMP	1 June 2015	The recommendation is being implemented on an on-going basis, as part of the standard business operations of the CMP. Once the construction works are substantially completed, a punch list is issued to the Construction Manager to ensure that any deficiencies identified are addressed and rectified. Similarly, a list of deficient items is issued from the commissioning report. The works are completed on a gradual basis, depending on the progress of the works. At this stage, only five deficient items are left open. The CMP together with the Construction Manager and the Engineer of Record are working to conclude these items in the same manner undertaken with respect to the rest of the 2,955 items specified in the commissioning report. The works are currently undertaken by the Construction Manager and the relevant trade-contractors and will be concluded by 1 June 2015. It should be noted that as part of the standard operating procedure, the CMP does not release the final retainage equivalent to 2.5 per cent of the entire contract value of the relevant trade contractor, until such time that the punch list work and commissioned items are completed in a satisfactory manner.

¹ Critical recommendations address significant and/or pervasive deficiencies or weaknesses in governance, risk management or internal control processes, such that reasonable assurance cannot be provided regarding the achievement of control and/or business objectives under review.

² Important recommendations address important deficiencies or weaknesses in governance, risk management or internal control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.

Rec. no.	Recommendation	Critical ¹ / Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
2	The Office of the Capital Master Plan should obtain the remaining record drawings and operational and maintenance manuals from the Construction Manager to enable the timely operational and financial closure of the Secretariat building guaranteed maximum price contract.	Important	Yes	ASG/CMP	1 June 2015	<p>The recommendation is being implemented on an on-going basis, as part of the standard business operations of the CMP. As part of their contractual obligations, trade contractors are required to submit relevant documentation depending on the type of work, such as drawing, warranties, as-builts, Leadership in Energy and Environmental Design (LEED) certificate, operation and maintenance manual, training packages and/or documentation, etc.</p> <p>Currently only four documents are yet to be submitted. The CMP together with the Construction Manager are working to receive these items in the same manner undertaken with respect to the rest of the 191 items that were submitted as part of the Secretariat Guaranteed Maximum Price (GMP) contract. It should be noted that as part of the standard operating procedure, the CMP does not release the final retainage equivalent to 2.5 per cent of the entire contract value of the relevant trade contractor until such time that all documentation is submitted in a satisfactory manner at standard and quality acceptable to the OCMP.</p>