

**FOR
INFORMATION**

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To: Members of the Executive Board
From: The Secretary
Subject: **HQ1 Renewal Project—Final Report**

Board Action: Executive Directors' **information**

Questions: Mr. Pienaar, OIC (ext. 34826)



HQ1 RENEWAL PROJECT—FINAL REPORT

June 9, 2022

EXECUTIVE SUMMARY

This is the twenty-fifth and final report for the HQ1 Renewal Project. The report provides an overview of the close-out of the Project as foreshadowed in the final quarterly progress report (Q2 FY20).

The Project was substantially completed in September 2019, six months ahead of schedule and within budget. Project achievements during the close-out period (Q3 FY20–Q4 FY22) include: i) all spaces and systems integrated with ongoing facilities management operations; ii) all outstanding and defective work completed and rectified; and iii) final settlement with the General Contractor completed.

Close-out activities have now been concluded. The program reserve of \$12.9 million remains intact, in addition to \$2.6 million available in released funds. A total of \$15.6 million in unspent funds has been returned.

Lessons learned have been updated to include post-completion activities and are being integrated into facilities-related project management processes.

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Glossary

Advisory Committee – The HQ1 Renewal Advisory Committee (comprising the Directors of APD, COM, FIN, LEG, OBP, SEC, and a SAC representative) provides advice on strategic aspects of the HQ1 Renewal project, which have the potential to impact the Fund’s reputation, personnel or operations. The Advisory Committee is chaired by DMD Grasso. Constituted on March 24, 2015.

Close-in Inspection – Periodic field inspections are required to ensure that the scope of work is being performed in compliance with local building codes. Special attention by the inspector is given to areas like plumbing systems, electrical wiring, fire blocking, and insulation prior to the general contractor receiving sign-off to close-in ceilings and walls.

CCR – Contractor Change Requests

CSF – Corporate Services and Facilities supports the Fund’s work through a suite of services organized under Facilities, Creative Services, Language Services, Security and General Services.

EA – Environmental Advocate

EHS – Environmental Health and Safety

EMC – Environmental Monitoring Committee

GC – General Contractor

GC Demobilization – The process (carried out by the GC) of disbanding, dismantling, and removing (from the client’s site) the GC’s and subcontractors’ workforces, equipment, supplies, and on-site work base necessary for performing the work required under the contract.

Global Settlement – A settlement where there are multiple parties and/or multiple claims and all parties reach a settlement that fully and completely resolves all submitted outstanding direct cost claims at one time.

GMP – Guaranteed Maximum Price contract is a cost-type contract (also known as an open-book contract) where the contractor is compensated for actual costs incurred plus a fixed fee **subject to a ceiling price**. The contractor is responsible for cost overruns, unless the GMP has been increased via formal change order (only as a result of additional scope from the client, not price overruns, errors, or omissions). Savings resulting from cost under runs are returned to the owner.

HQT – The HQ1 Renewal Task Force has overall responsibility and accountability for delivering all aspects of the project. The HQ1 Task Force forms part of the Office of the Managing Director, reporting directly to DMD Grasso. Constituted on March 24, 2015.

HSEC – Health, Safety and Environment Committee

HVAC – Heating, ventilation, and air conditioning

IAQ – Indoor air quality

LEED – Leadership in Energy and Environmental Design

Liquidated Damages – Are an amount of money that contracting parties agree on as the amount of damages one of them (e.g., the Owner) can recover if a party (e.g., GC) breaches the contract in a specific manner, such as failing to complete a specific milestone on a specific date.

MEP – Mechanical, Electrical, and Plumbing.

OBP – Office of Budget and Planning core responsibilities are to prepare, monitor, and control the Fund’s administrative and capital budgets. Within these overall responsibilities and against this background, OBP’s main goal is to help plan and develop strategies to steer the institution, consistent with its changing mandate and priorities, in a cost-effective manner.

Peer Review – Evaluation of work or performance by a group of professionals in the same occupation or industry.

PMO – Program Management Office

PMX – Group PMX, specialized expert in construction and project management, supporting the project’s overall planning and scheduling, on-site construction management and superintendence, and applying industry best practice solutions (technical and behavioral).

Punch List – A list of tasks that need to be completed to satisfy the terms of a construction contract. Punch lists are generated in the final phases of construction, as the site is reviewed by the architect and any issues and deficiencies that need to be resolved are noted.

SOM – Skidmore, Owings and Merrill, LLP (Architects)

Substantial Completion – The point where the owner can make use of the building or facility and ordinarily only minor work remains for the general contractor (e.g., punch list items, testing and balancing of mechanical systems, and fit out of the space).

TFRT – Task Force Review Team (consisting of FIN, OBP and LEG, and chaired by OBP), provides support to the HQ1 Task Force on key aspects relating to project scope, budget and risk, schedule, and financial and administrative controls. OIA has an observer role on the TFRT. Constituted on March 24, 2015.

Unforeseen Conditions – An unexpected or unanticipated concealed physical condition that can significantly increase the cost of performing work and affect final pricing or time of completion of a project.

INTRODUCTION

1. This report provides an overview of the close-out of the HQ1 Renewal Project (“Project”). The Project was substantially completed in September 2019, and all close-out activities have now been completed. The report covers Project achievements during the close-out period (Q3 FY20–Q4 FY22), since the last quarterly progress report (Q2 FY20). Lessons learned have been updated to include post-completion activities and are included as an appendix (reattached and supplemented from the Q2 FY20 Progress Report).

PROJECT CLOSE-OUT

2. Construction close-out activities. Following Project substantial completion, the priority for staff was to ensure that all outstanding punch list items and additional defective items were either completed by the General Contractor (“GC”), or assessed, outsourced to third-party vendors and charged to the GC as part of the final settlement.

3. Close-out activities were supported by outside experts. Staff contracted an independent consultant, PMx Group (“PMx”), to facilitate early discussions with the GC and to perform supporting assessments of outstanding, defective, and disputed work. PMx had been instrumental in bringing the Project back on track as part of the Project re-set that began in 2015. PMx was thus familiar with the issues and the parties involved. Following unsuccessful attempts by staff and PMx to get the GC to complete outstanding work in a timely manner, the items that largely related to HVAC and mechanical electrical systems were bid out for other vendors to complete. All remaining items were subsequently completed as planned, and the monies deducted from the final settlement agreement with the GC.

4. Transition activities are complete. CSF established a Transition and Post-Completion Working Group, comprising staff from the sunset HQ1 Task Force, CSF Facilities Management Division, and facilities vendor representatives. The Working Group, led by CSF’s Deputy Director, was responsible for the seamless handover of spaces and systems from the Project to steady-state facilities management operations and with all relevant post-completion commercial close-out activities. It ensured all documents, drawings, and warranties were received from the GC and stored in CSF Facilities Management repositories. Additionally, as spaces and systems were handed over, they were integrated into the ongoing planned maintenance and operations schedules. Additionally, following submission of all necessary documentation, LEED¹ Silver certification was achieved for the HQ1 Building in January 2022, thus meeting one of the original sustainability objectives of the Project.

¹ Leadership in Energy and Environmental Design (LEED) provides a framework for healthy, efficient, carbon and cost-saving green buildings. LEED certification is a globally recognized symbol of sustainability achievement and leadership.

5. Ancillary projects are complete. A number of ancillary projects were undertaken concurrent with the Project close-out. Chief among these were the enhancements to the HQ1 Atrium as the principal large event space on the campus. Enhancements were focused on the audio-visual experience in this space and featured the Digital Wall and acoustical upgrades through wall panel treatments and retractable curtains on the second-floor perimeter. These projects are now complete and were delivered within budget.

6. During the life of the Project several items were removed from its scope. As the Project faced schedule and budget challenges during the early years (see Appendix II), a number of items were descoped from the Project. These items have been incorporated into other campus capital projects (e.g., Atrium Digital Wall; Signage) or will be addressed as part of future facilities capital budget plans (e.g., Elevator Cab Finishes; Auditorium).

Box 1. Principal Descoped Items
Inter-Connecting Stairs w/Collaboration Space
Elevator Cab Finishes Replacement
Garage Lighting Replacement
Extensive Garden Roof System
Media Wall Audio Visual
Auditorium
Signage

7. Final settlement reached with the General Contractor. After extensive discussions, staff reached final settlement with the GC, and final settlement payment was released in December 2021. Following the substantial completion of the Project in September 2019, the Fund owed the GC three retainage payments, along with an amount to be negotiated regarding contractor change requests. At the same time, there was a list of incomplete or defective works which needed to be completed or negotiated before any settlement could be reached. There were disputes regarding both the responsibility for and value of incomplete and defective work, and negotiations about their completion. In addition, there were significant differences between the GC’s calculations of the value of outstanding change orders and the Project team’s own estimates. In an effort to reflect objective values, PMx was brought in to facilitate discussions and provide inputs from costing experts.

8. The final settlement compares well with previous settlements under the Project.

- The final settlement was a payment of around \$0.52 million which constituted all monies owed to the GC, including change order claims and retainage. This provided sufficient funds for the Fund to bring all outstanding or defective work to completion. The settlement agreement represented a 20 percent value of the GC’s total claimed amount and compares with a typical 40–50 percent settlement rate throughout the entire Project.
- The settlement preserved the \$12.9 million in HQ1 Renewal Program Reserve and resulted in a released project budget balance of \$2.6 million after completion of all outstanding work using other contractors.

9. As per the contract, the GC has released the Fund of any and all construction-related liens. However, one potential issue going forward is the possibility of subcontractor liens. By law, subcontractors in disputes with the GC over payment for work have the right to place liens against the property where the work is located. The GC has a contractual obligation to remove liens filed by its subcontractors, and in the executed settlement agreement the GC reaffirmed its agreement to

remove an existing subcontractor lien, filed last year, and any others that may be lodged in the future. Although the Fund is not aware of any continuing disputes between the GC and its subcontractors, there remains a possibility of subcontractor liens being filed. If this were to happen, staff would work with the GC to remove any liens, which, moreover, have only symbolic value to a subcontractor because the Fund's property is immune from enforcement of such liens.

10. After detailed analysis, a decision was made not to pursue design errors and omissions by the Project architect (SOM). Among the challenges that contributed to cost increases on the Project were performance problems of both the architect, SOM, and the GC.² Following the Global Settlement with the GC executed in August 2018 as part of the Project re-set, staff undertook to determine whether and how to pursue recovery from SOM for costs attributable to them. Staff obtained separate expert assessments from PMx and its forensic claims analysis partner and from the law firm that had been instrumental in preparing and negotiating the Fund's contracts with SOM and the GC. While these advisors identified several substantial problems with SOM's work, they found that evidence was lacking to be able to prove that SOM breached the applicable standard of care for professional architectural services, and to quantify the amount of SOM's potential liability. On that basis, staff concluded that the countervailing risks to the Fund—including the substantial costs of pursuing arbitration against SOM, uncertainty of a favorable outcome, and diversion of staff from other priorities—did not justify the limited and speculative prospects for recovery from SOM.

11. A lawsuit by a legal services vendor was successfully defeated in appeals court. As noted in the final quarterly progress report (Q2 FY2020), one of the Fund's former external construction counsels had brought a claim in arbitration for additional fees for its work on the above-mentioned Global Settlement. After a full hearing, the arbitration panel reduced the counsels' demand from \$3.9 million to a final award of \$39,000.³ However, the vendor attempted to overturn that decision by filing a lawsuit in the federal courts of the District of Columbia. The federal district court dismissed the suit, which the vendor subsequently appealed. In February 2022, the U.S. Court of Appeals dismissed the case. Although the vendor could seek review by the U.S. Supreme Court, staff considers such an outcome extremely unlikely.

FINANCIAL CLOSE-OUT

12. The Project has been completed within the approved budget envelope. Staff closely reviewed and negotiated the GC's final change order requests and disputed charges and settled these well within the existing retainage amount. A claim for design errors and omissions was not pursued, thereby removing a major cost and close-out timeline uncertainty. Similarly, all commitments set aside for design and project management expenses were closed. This brings the total available budget to \$15.6 million, including \$12.9 million in Program Reserve, at the end of FY22 (see Appendix I). Accordingly, the remaining available budget was returned at the end of FY22.

² *HQ1 Renewal—Supplemental Capital Budget Request* (EBAP/15/108, December 22, 2015).

³ *HQ1 Renewal—Q2 FY2020 Quarterly Progress Report* (EBAP/19/110, December 19, 2019).

LESSONS LEARNED

13. The lessons learned from the Project have been updated to reflect the close-out stage.

The final quarterly progress report included a detailed summary of lessons learned, which has been updated in Appendix II. The lessons across the Project lifecycle can be summarized as follows:

Project Inception and Planning

- Ensure the project risk analysis is exhaustive, challenging assumptions and pre-suppositions and taking short-, mid-, and long-term views of risks and opportunities.
- Institution-wide projects should comprise team members from across the institution, with equal senior status given to the key workstreams (implementation, schedule, budget, and staff engagement).
- Complete the full bid package prior to bidding out to contractors or vendors. Delay this critical stage if not completely ready.
- Interrogate the preferred project scope throughout the bid process, paying attention to all bidder comments to extract additional insight and adjust scope if needed.

Project Team

- Ensure that the project team is adequately resourced and has the appropriate skills set and experience for the project and capacity to effectively manage third-party contractors and service providers.
- Streamline decision-making to ensure the Project Team is agile and able to respond to changing conditions.
- Provide an environment where all key impacts (implementation, budget, schedule and stakeholders) can be considered during the decision-making process.
- Take the opportunity to re-set relationships, structure, or personnel if a significant change of direction is needed.
- For projects with a longer duration, prepare proactively for team turnover; prepare and update an onboarding program to maintain progress; periodically review roles and responsibilities of project team members for potential conflicts of interest.

Governance

- Establish effective outcome-based reporting, drawing on data to model point-in-time impacts; this enables those leading and sponsoring the project to gain insight into impacts of decisions on strategic direction, as well as to highlight key risks at an early stage.

Engagement and Relationships

- Invest at project inception in proactive staff and stakeholder engagement, featuring genuine two-way communications to build trust.
- Document and formalize discussions with operators to ensure transparent design and implementation process, revisiting over time to re-test assumptions.
- Consider ongoing steady-state vendor contracts when undertaking large capital projects to ensure incentives and expectations are appropriate.

Project Administration and Close-out

- Consider enforcing stricter pre-agreed time limits regarding contractor response times during negotiated settlements.
- Ensure key project document and drawings submissions undergo multi-level peer review to maintain quality control and collective ownership of project results.
- Ensure ongoing adherence to Document Quality Control Plan throughout capital project lifecycles.

14. Lessons from the Project are being integrated into facilities-related project and construction management processes. Lessons applied to ongoing facilities capital projects can be summarized as follows:

- Consider Facilities Management Operations team input when setting new project statements of work; this will ensure that new projects are addressing staff requirements and operational challenges.
- A revised construction delivery framework has been introduced that includes a “pre-planning” phase to fully evaluate, test and confirm all project opportunities, assumptions, and risks.
- Ensure that new renovation work is well-integrated with the existing building systems.
- Ensure all project closeout documentation is received in accordance with the contract requirements, reviewed jointly with the operations team and stored in the document management system.

- Consistently update record documents and drawings with any new renovation work, to ensure that the facilities records are up to date and discrepancies are eliminated. This reduces risks of unforeseen conditions affecting subsequent projects.
- Contracting instruments have been updated to align with industry standards and best practices coupled with updated construction delivery processes to manage and control budgets and schedules, manage scope and enforce project deliverables, change management, and quality assurance.

In addition to integrating lessons into the facilities capital project and construction management processes, the CSF Facilities Management Division is being reorganized and strengthened in order to successfully manage future complex construction projects, such as the planned HQ2 Renovation project, complemented by appropriate outside expertise.

Appendix I. Final Budget and Expenditure Report

<p align="center">HQ1 Renewal Project: Final Budget and Expenditure Report</p> <p align="center">Summary of Budget Categories as of April 30, 2022</p> <p align="center">(in U.S. dollars)</p>					
Budget Category	A Approved Budget /1	B Committed	C Expended	D = B + C Committed + Expended	E = A - D Balance
Construction Services	378,225,616	-	376,664,790	376,664,790	1,560,826
Design Services	35,994,368	-	35,707,326	35,707,326	287,042
Project Management	24,902,257	-	24,169,282	24,169,282	732,975
Furniture & Equipment	5,550,192	-	5,543,441	5,543,441	6,751
Operational Expenses	105,427,567	-	105,349,173	105,349,173	78,394
Sub-Total	550,100,000	-	547,434,012	547,434,012	2,665,988
Program Reserve	12,900,000	-	-	-	12,900,000
Total	563,000,000	-	547,434,012	547,434,012	15,565,988
<p>Source: CSF</p> <p>1/ Includes additional \$95.0 million in program funding and \$37.0 million in program reserve funding as approved by the Executive Board on January 21, 2016. Reflects the release of \$22.1 million from the program reserve as approved by management on August 1, 2018, and the release of \$2.0 million from the program reserve as approved by management on December 17, 2018.</p>					

Appendix II. Lessons Learned¹

Introduction

1. A staff team comprising those involved in both the execution and governance of the Project undertook a review to determine the key issues and lessons learned from the project, which is the single biggest capital investment in the Fund's history. The review, which was undertaken in 2019, was also informed by the conclusions of an Office of Internal Audit (OIA) "Audit of the HQ1 Renewal Program's Financial Management." In addition, lessons from the post-completion period were identified in 2022, following the completion of close-out activities.
2. Needless to say, this review was prepared with the benefit of hindsight. Some of the lessons were implemented as part of the establishment of the HQ1 Renewal Taskforce in 2015, while other lessons were recognized and applied as part of ongoing course correction, which is the nature of large capital projects. In addition, many of the lessons are also being applied across other projects and operations and serve as useful input into the planning and execution of future large renovation projects, including the planned HQ2 Renovation Project.

Background

3. The HQ1 building was constructed in three phases between 1973 and 1998. Facilities condition assessments conducted in 2008 and 2009 indicated that many of the building systems were nearing or beyond their useful life, and that substantial upgrading and replacement would be required.
4. Several implementation strategies to address the HQ1 deficiencies were assessed and reviewed by management and the Executive Board. An occupied renovation of the building was selected as the most appropriate course of action; other options included 'Move, Renew, and Return' and 'Move, Demolish, Rebuild, and Return'. The Executive Board approved the project in 2011; a comprehensive description of the motivation behind the Renewal is contained in the Executive Summary of the "HQ1 Renewal Program—Proposal for Remediation and Implementation" (EB/CB/11/3, March 2, 2011). Funding for the project was approved in two tranches of \$84 million in 2011 for the preconstruction period and \$347 million in 2012 for the construction.²
5. Construction began in May 2013 and was scheduled to end in March 2017. The project faced enormous challenges in 2013–15, which led to the need for supplemental funding of \$132 million in

¹ This lessons-learned document was appended to the HQ1 Renewal—Q2 FY2020 Quarterly Progress Report (EBAP/19/110, December 19, 2019) and has been updated to include lessons from the post-substantial completion and close-out period.

² "FY2012–FY2014 Medium-Term Budget" (EBAP/11/27, March 31, 2011) and "FY2013–FY2015 Medium-Term Budget" (EBAP/12/32, March 30, 2012).

January 2016 and a rescheduled completion date of March 2020.³ While some challenges were caused by decisions made early in the project, others were a feature of the complexity of the project, which involved the floor-by-floor horizontal renewal of vertical systems starting six floors below ground level and working upwards. This could only be accomplished by installing new HVAC systems while continuing to partially run the old systems throughout the project; all while operating an occupied building.

6. Notwithstanding the challenges, there are many positives to take away from the Renewal. In particular, it was completed without any interruption of the Fund’s core business, while accommodating an unanticipated and significant headcount growth in the institution. Throughout the six years of construction, the growing Spring and Annual Meetings were held almost entirely on campus, and recent meetings have taken advantage of the additional new and modern spaces, such as the HQ1 Atrium. Furthermore, after the reset in 2015, the project was completed six months ahead of schedule and within budget.

Project Options Analysis (2009–2010)

7. To provide context, the institution was faced with the need for the renewal at a particularly challenging time in its history. The Fund was still working through the implications of a substantial and costly downsizing while also dealing with the effects of the global financial crisis and the demands this placed on financial and staff resources.

8. In light of these challenges, the occupied renovation path was particularly attractive, given its perceived lower short-term costs and operational impact. Also, the external and internal drivers outlined above in large part guided the institution to the already-preferred option. In hindsight, key assumptions and information could have been explored more fully, which may have resulted in further discussion about alternative implementation strategies. These include:

- i. In calculating the cost of moving staff out of the building to rebuild or renovate, it was assumed that all staff should stay in the same vicinity. While spreading out staff may have been disruptive and inconvenient, many organizations house staff in different locations and thus take advantage of cheaper lease costs.
- ii. The Fund is a ‘one-off’ client, with very limited leverage over contractors because of the absence of repeat business. In addition, the majority of leverage an institutional owner has over the construction disappears once a general contractor (GC) occupies the building, given the complexity of terminating a contract at that stage.

³ “HQ1 Renewal—Supplemental Capital Budget Request” (EBAP/15/108, December 22, 2015).

- iii. More robust scenario analysis with different risk outcomes might have helped with testing assumptions and strategies. For example, what would be the impact on project schedule and cost if one or several assumptions were not to hold.

Lesson:

- **Ensure the project risk analysis is exhaustive, challenging assumptions and presuppositions and taking short, mid, and long-term views of risks and opportunities.**

Project Planning (2010–2013)

9. Once the decision had been made to deliver an occupied renovation, project planning was expedited to bid stage in January 2011, with the subsequent appointment of the GC in May 2013. The schedule acceleration was driven by the need to protect business continuity as many of the systems had reached point-of-failure; starting the project promptly was deemed mission critical.

10. However, this critical ‘project planning’ stage offered the opportunity to assemble the right team with the appropriate skills and governance mechanism, as well as to ensure all necessary preparations were made to successfully bid the job to a GC. As it turned out, these were key aspects which hampered the ability to deliver the Renewal within budget and to schedule.

The Team

11. The project was established as a real estate and facilities program rather than an institutional renewal project. The result was a narrowly focused team led primarily by construction and design considerations, rather than a broader make-up including staff engagement and communications, budget, and schedule impact perspectives. It is also worth noting that the project leadership team appointed to deliver the Renewal had recently completed the construction of HQ2, which was a new-build project. The comparative complexities and nuances of an occupied renovation, however, were outside the team’s experience.

12. Appointing senior external experts to the Project Team could have helped provide a wider focus. This may have also provided a check to the Fund’s institutional culture which requires extensive information and data gathering prior to decision making; this in turn can cause deferrals and delays when just-in-time decisions are essential to successfully advance the project.

The Expedited Bid

13. The accelerated move to the bidding process gave rise to a number of issues:

- i. Project planning relied on existing test results for asbestos containing material (ACM), which was based on nearly 2,000 samples taken between 1988 and 2009. The results were to be finalized in

a report to be used in the bid documents. However, due to the compressed timing this was not completed, and the GC was able to categorize large parts of the building and building finishes as presumed ‘homogeneous ACM’. This led to significant additional testing, mitigation and cost and schedule impacts, because the assumption was that entire areas contained asbestos. Additionally, the changing requirements of the asbestos removal gave rise to staff concerns, management action, and additional environmental health management protocols.

- ii. The design documents were not fully completed, and as a result the GC issued significantly more change orders throughout the project due to unforeseen conditions than had been budgeted for. Incomplete design documents in effect nullified many of the benefits of the Guaranteed Maximum Price contract as the GC was unwilling to accept the range of unknown risks arising from this situation, which ultimately increased costs.
- iii. The Renewal could have been used as an opportunity to modernize space management and utilization practices. New ways of working, experimenting with different layouts and space standards, teleworking policies, and the physical location of certain functions could have been considered. Instead, it was assumed that the same historic space policies would be applied with just minor tweaks. This was a lost opportunity to test and influence behavioral and culture change.
- iv. The amount of external lease space required to temporarily accommodate staff during the renovation was initially determined in 2010 when staffing levels over the medium term were expected to decline as part of the downsizing. In fact, staffing increased by about 320 from the initial projections. More time in the Project Planning stage could possibly have led to more collaborative and accurate space planning.

The Bid Process

14. Once the Fund entered the bidding process there were indicators that should have been acknowledged. Engagement with the ten GC bidders should have revealed issues with the project scope, design, and phasing, and this could have helped shape the project. For example, while the top bidders submitted comparable scope bids, the amounts that they wanted put aside for contingencies were substantially different. Subsequently, the contract was awarded to the lowest bidder, who also required the lowest contingency.

Construction Progress (2013–2015)

15. The early years of the Renewal were characterized by delay and conflict, both with staff and with the GC. These were caused in the most part by the aforementioned planning issues.

16. Following the contract award to the GC, along with the incomplete designs and mounting numbers of change orders, relationships broke down quickly between the Project Team, the GC, and the architect, who was overwhelmed at this stage by the volume of questions and change order requests from the GC. Interactions between these parties were characterized by a sometimes-antagonistic focus on contractual obligations and commercial considerations rather than building a shared commitment to successful completion.

Lessons:

- **Institution-wide projects should necessarily comprise team members from across the institution, with equal senior status given to the key workstreams (implementation, schedule, budget, staff engagement).**
- **Ensure that the project team is adequately resourced in terms of skills set and experience, recognizing complexities of the specific project and having the capacity to effectively manage third-party contractors and service providers.**
- **Always complete the full bid package prior to bidding out to contractors or vendors. Delay this critical stage if not completely ready.**
- **Interrogate the preferred project scope throughout the bid process, paying attention to all bidder comments to extract additional insight and adjust scope if needed.**

17. Decision-making on proposed changes involved multiple stakeholders and hampered the ability to make progress. According to project controls, major decisions were subject to approval by members of the interdepartmental review team who were not dedicated to the project full-time or even half-time, impairing the quality and timeliness of decision making.⁴ Additionally, the Project Team was principally led by facilities and construction professionals, focused on delivering the renovation. Without a Project Management Office or senior institutional communications input, decision-making did not always consider schedule and staff impact implications. In hindsight, there is a balance to be struck when designing a governance framework between overly precise controls with full stakeholder input and timely decision making.

18. The expanding asbestos removal requirements represented a big challenge from a construction and staff engagement perspective. Without a fully resourced communications team able to proactively engage the institution, the Project Team found it difficult to build trust with staff. As a result, construction came to a standstill until trust was rebuilt through Fund-wide meetings and

⁴ OIA conducted two quality assurance reviews to assess adherence to an approved framework. The first review in February 2013 found that “Overall, the governance structure for the HQ1 renewal program is well-designed and its control framework aligns with best practices.” The second audit concluded in October 2014 found that “The controls supporting financial and budget administration for the HQ1 renewal program are operating effectively.”

a management commitment to put in place exceptionally robust asbestos mitigation measures and protocols for the remainder of the Project.

Lessons:

- **Invest at project inception in proactive staff and stakeholder engagement, featuring genuine two-way communications to build trust.**
- **Provide an environment where all key impacts (implementation, budget, schedule, and stakeholders) can be considered during the decision-making process.**
- **Streamline decision-making to ensure the Project Team can be agile and respond to changing conditions.**
- **Focus on building incentivized relationships with the major contractors and vendors where, from a financial and reputational perspective, all succeed if the Project is delivered.**

Project Re-set: Establishment of the HQ1 Taskforce (2015)

19. By early 2015, the challenges had collectively reached a critical mass, and a change in approach was needed. Ms. Grasso, the Deputy Managing Director and Chief Administration Officer, established a new Taskforce and governance mechanism. The Taskforce was located in the Office of the Managing Director, with reporting lines directly to Ms. Grasso. For oversight purposes, the Taskforce Review Team (TFRT) was established, comprising senior representatives from Legal, Finance, and the Office of Budget and Planning departments, and with observer representation from OIA. An Advisory Committee (AC) of six heads of departments and a SAC representative was established and chaired by Ms. Grasso. The AC met periodically to review progress and offer institutional input. The results of the new organizational changes were much closer integration with management, the establishment of a cross-institutional team whose sole focus and priority was the management of the project, and an accelerated problem solving and decision-making process.⁵

20. The Taskforce leadership under Chris Hemus, comprised experts covering design and construction, the project management office, and staff impact. The equal weight given to each of these critical workstreams ensured that all relevant information could be considered when making decisions.

21. The reporting process was a key element which underwent significant revisions and improvements throughout the project, most as part of the establishment of the Taskforce. Outcome

⁵ See "HQ1 Renewal Project—Q3 FY2015 Quarterly Progress Report" (EBAP/15/41, May 8, 2015) for a description of the new organizational procedures.

forecasting, with more reliance on data analysis and modeling, significantly helped the scenario planning and better-informed decision making.

22. In taking these steps, the key lessons that were applied were as follows:

- Establish a single decision-maker, with as few layers as possible between the decision-maker and management.
- Form a cross-institutional team for institution-wide projects, with equal weight given to the key impact areas of the Project.
- Focus on proactively building trust through two-way communications with staff and stakeholders.
- Re-set relationships, structure, or personnel if a significant change of direction is needed.
- Establish effective outcome-based reporting that enables those leading and sponsoring the Project to gain insight into impacts of decisions on strategic direction, as well as to highlight key risks at an early stage.

Project Completion (2015–2019)

23. Through the application of lessons learned at the establishment of the Taskforce, the Project moved forward. While not without its challenges, a number of improvements were made to ensure the revised schedule for a March 2020 completion could be surpassed. The principal issues that needed to be resolved or addressed during this period included:

- i. Re-setting relationships. It was difficult to entirely re-build the trust that had been eroded throughout the early years between the Project Team, the GC, and the architect. To this end, an external project management consultant team with substantial experience in addressing challenging construction projects was engaged by the Fund to offer impartial advice to all parties and act as a neutral expert umpire at times. The consultants focused on building one wider team who could all work together to successfully finish the Project.
- ii. Operator engagement. As public spaces were turned over and staff moved back into offices, some additional key lessons were learned regarding engagement with the operators. While operators (e.g., food services, hospitality, or security) were engaged at the start of the project, by the time the project was completed, often personnel had changed, or discussions had been forgotten. The Project Team should have prepared records of the discussions and formalized the agreements. Additionally, some assumptions should have been re-tested with the operators to ensure that decisions made in 2011 were still appropriate in 2019.

- iii. Vendor engagement. Vendors should have been engaged throughout the project planning process, and their contracts should have been reviewed to ensure aligned incentives and expectations. For example, managing an outcome-based appearance care contract (e.g., cleaning) during an occupied renovation was not realistic. Consequently, misaligned vendor performance (which was technically outside the remit of the Project) caused staff discontent and was mistakenly attributed to the Renewal.
- iv. Teams inevitably change during any significant project spanning multiple years. The Project Team could have instituted a more extensive onboarding program to ensure newcomers were quickly integrated with the Project. A periodic review of roles and responsibilities of project team members for potential conflicts of interest could also have been undertaken.

Lessons:

- **Document and formalize discussions with operators to ensure transparent design and implementation process, and revisit these over time to re-test assumptions.**
- **Consider ongoing steady state vendor contracts when undertaking large capital projects to ensure incentives and expectations remain appropriate.**
- **Prepare for team turnover.**

Post-Substantial Completion and Close-out (2019–2022)

24. During the period following substantial completion and final settlement, staff focused on completing all outstanding work, whether through the GC completing incomplete or defective work, or by contracting other third-party vendors to complete the work and deducting costs from the final settlement agreement with the GC. The negotiations with the GC were time consuming and laborious, with discussions on the assignment of responsibility for relatively minor issues proving difficult. At times, it was clear that the GC had no incentive to move the discussions forward, notwithstanding that the Fund held monies in retainage.

25. Negotiations also proved more complicated than anticipated as the GC produced counterclaims that were based on unclear or inconsistent documents from the engineer and architect, and in some instances staff-approved as-built drawings from earlier in the Project. Additionally, there was lack of clarity related to some components of the Project which had been descoped or accepted by staff during the earlier years of the Project. By this time in the closeout process, all staff with detailed knowledge of the day-to-day interactions with the GC in earlier stages of the Project had left the Fund, and locating historic correspondence and agreements proved challenging, with many archives located on local hard drives. Given these challenges, it was difficult to anticipate and prepare for potential GC counterclaims and the negotiations became very time consuming.

26. To address design quality control requirements, a new multi-level design peer review process has been established to ensure that all key stakeholders are involved throughout all design stages and that their requirements and expectations are efficiently addressed. The CSF Facilities Operations team will be an integral part of the design review process to ensure that their requirements are addressed upfront and the proposed renovation work components are well-integrated with the existing building systems. The collation and storage of key project documents, records, manuals, and drawings during this close-out stage of the Project were largely efficient, given the adherence to a recently-adopted Facilities Document Quality Control Plan. Had the Plan been in place and implemented at an earlier stage of the Project, many of the issues related to incomplete information during negotiations would have been addressed.

Lessons:

- **Consider enforcing stricter pre-agreed time limits regarding contractor responses during negotiations.**
- **Ensure key project documents and drawings submissions undergo multi-level peer review to maintain quality control and collective ownership of project results.**
- **Ensure ongoing adherence to Document Quality Control Plan throughout capital project lifecycles.**

Appendix III. Project Milestones and OED Engagement

HQ1 Renewal Program – Project Milestones & OED Engagement

as of April 30, 2022

Milestone	Completion Date	
Pre-Construction Phase Milestones		
Select project architect	September 12, 2011	
Pre-construction services contract award	February, 2012	
Design development	June, 2012	
Construction documents	February, 2013	
Construction contract award to general contractor	March 14, 2013	
Construction Phase Milestones		
Start of construction (Sequence 1)	May 1, 2013	
End of construction	September 30, 2019	
Executive Board Interim Reports		
Board paper on approach and implementation	March 1, 2011	EB/CB/11/3
Board paper FY12-14 Medium term budget (1st tranche appropriation)	March 31, 2011	EBAP/11/27
Information Note: Selection of Architect	September 16, 2011	FO/Dis/11/194
Board paper on project controls	December 20, 2011	EBAP/11/131
Board paper on length of contractual employment	February 22, 2012	EBAP/12/15
Board paper FY13-15 Medium-term budget (2nd tranche appropriation)	March 30, 2012	EBAP/12/32
Information Note: General Contractor	March 18, 2013	FO/Dis/13/39
Q1 FY 2014 report to Executive Board	October 1, 2013	EBAP/13/101
Q2 FY 2014 report to Executive Board	December 24, 2013	EBAP/13/127
Q3 FY 2014 report to Executive Board	March 21, 2014	EBAP/14/23
Q4 FY 2014 report to Executive Board	July 9, 2014	EBAP/14/66
Q1 FY 2015 report to Executive Board	August 29, 2014	EBAP/14/78
Q2 FY 2015 report to Executive Board	December 12, 2014	EBAP/14/105
Q3 FY 2015 report to Executive Board	May 8, 2015	EBAP/15/41
Q4 FY 2015 - Q1 FY 2016 report to Executive Board	October 23, 2015	EBAP/15/89
Board Paper HQ1 Renewal - Supplemental Capital Budget Request	December 22, 2015	EBAP/15/108
Q2 FY 2016 - Q3 FY 2016 report to Executive Board	March 17, 2016	EBAP/16/23
Q4 FY 2016 report to Executive Board	June 30, 2016	EBAP/16/67
Q1 FY 2017 report to Executive Board	October 11, 2016	EBAP/16/95
Q2 FY 2017 report to Executive Board	December 27, 2016	EBAP/16/122
Q3 FY 2017 report to Executive Board	March 28, 2017	EBAP/17/25
Q4 FY 2017 report to Executive Board	June 22, 2017	EBAP/17/53
Q1 FY 2018 report to Executive Board	October 19, 2017	EBAP/17/88
Q2 FY 2018 report to Executive Board	January 10, 2018	EBAP/18/3
Q3 FY 2018 report to Executive Board	March 27, 2018	EBAP/18/25
Q4 FY 2018 report to Executive Board	July 6, 2018	EBAP/18/62
Q1 FY 2019 report to Executive Board	September 26, 2018	EBAP/18/83
Q2 FY 2019 report to Executive Board	January 9, 2019	EBAP/19/2
Q3 FY 2019 report to Executive Board	April 3, 2019	EBAP/19/35
Q4 FY 2019 report to Executive Board	June 14, 2019	EBAP/19/54
Q1 FY 2020 report to Executive Board	September 27, 2019	EBAP/19/81
Q2 FY 2020 report to Executive Board	December 19, 2019	EBAP/19/110
Final report to Executive Board		
COB/Executive Board meetings		
EB Discussion - FY 12-14 Medium-term budget	April 20, 2011	
Informal Briefing - Schematic design presentation	February 7, 2012	
EB Discussion - FY 13-15 Medium-term budget	April 26, 2012	
Informal Briefing - Board room design presentation	January 29, 2013	
Informal Briefing - Start of implementation phase	March 13, 2013	
Informal Briefing - Health and safety	May 22, 2013	
Informal Briefing - Project update	June 9, 2014	
Informal Briefing - HQ1 Renewal Supplemental Capital Budget Request	December 21, 2015	
EB Formal Meeting - HQ1 Renewal Supplemental Capital Budget Request	January 21, 2016	
Informal Briefing - Project update	January 30, 2017	
Informal Briefing - Project update	January 19, 2018	
Informal Briefing - Project update	January 25, 2019	
OED/CAM Engagement		
OED design questionnaire/debrief	October 2011–February 2012	
OED meetings to review requirements	April 1, 2012	
CAM meeting - OED office design principles	May 22, 2012	
OED Focus Group - Conference rooms & floor layouts	June 2012–August 2012	
CAM meeting - Health and safety	June 11, 2013	
CAM meeting - Vertical work	December 3, 2013	
CAM meeting - OED swing space arrangements	October 28, 2014	
OED Focus Group - Review floor layout requirements	February–July, 2015	
OED meetings to review swing space arrangements/office layouts	February–December, 2015	
CAM meeting - Office layouts/Board room renovation	May, 2015	
Construction site tours for Executive Directors	August–September, 2015	
Penthouse site tours for Executive Directors	November–December, 2017	
OED town hall and meetings to prepare for the OED swing space moves	December 2017–July 2018	
OED Informal briefing regarding 2019 moves	December 6, 2019	
OED Meetings to prepare for 11th floor move back	January 7, 2019	
OED Move Back to 11th floor	February 19, 2019	
OED Office tours of the Executive Boardroom	February 20, 2019	
OED meetings to prepare for 13th floor move back	April 22, 2019	
OED Informal Briefing on HQ1 Renewal	June 11, 2019	
OED Move Back to 13th floor	July 5, 2019	

Source: CSF