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ASSISTANT DEPUTY MINISTER (REVIEW SERVICES)

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Audit of Defence Infrastructure



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HMCS MONTREAL's air detachment work in the hangar and on the flight deck with the ship's embarked CH-148 Cyclone helicopter while deployed on Operation PROJECTION on 23 July 2023.

Photo by: Cpl Connor Bennett, Canadian Armed Forces Photo

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Executive Summary

Background

The Department of National Defence's (DND) real property portfolio consists of approximately 21,000 buildings, 2.2 million hectares of land and 13,500 works such as jetties, airfields, training areas and roads. The portfolio has a replacement cost of approximately \$28 billion and is intended to enable the Canadian Armed Forces (CAF) to maintain its force posture and readiness by permitting the generation, enhancement and maintenance of military capabilities. However, approximately 25 percent of existing infrastructure is greater than 50 years old and requires significant maintenance, repair and recapitalization to ensure it remains serviceable and compliant with health, safety and environmental regulations.

Engagement Objective and Importance

The objective of this engagement was to provide assurance that adequate governance, risk management and control processes are in place to ensure maintenance, repair and recapitalization services achieve their intended outcomes across existing defence infrastructure for supporting Defence Team operations.

Strong governance and control mechanisms, including risk management, are key to optimizing the allocation of available resources. These same mechanisms help ensure infrastructure is well maintained to continue supporting operational success, as well as military member retention and staff morale and welfare.

Key Findings

- Governance committees, service-level agreements and procedural guidelines are in place to govern and provide oversight on the upkeep of DND/CAF infrastructure; however, the absence of a formal risk management process and accurate and up-to-date data has resulted in less than optimal prioritization and resource allocation for maintenance, repair and minor recapitalization programs.
- Resource allocation is largely based on historical funding levels, and service delivery is primarily capacity driven.
- While health and safety are primary considerations in prioritizing projects, the absence of a national compliance program prevents consistency in funding allocation.
- Real property procedures and service agreements need to be revisited to ensure current, effective and realistic national service expectations.

Overall Conclusion

Governance mechanisms are in place and multiple infrastructure initiatives are underway with the intention of improving data integrity, asset-wide prioritization and alignment of staff capacity and capabilities across Real Property Operations detachments—all of which will support evidence-based decision making and informed resource management. Current processes for maintenance, repair and minor recapitalization planning, prioritization, execution, risk management, performance measurement and health and safety compliance assurance have room for improvement. Development and implementation of an overarching compliance program and a formal process to manage risks will improve compliance assurance and further inform real property management decisions.

Executive Summary – Key Findings and Recommendations

As the Department modernizes and consolidates systems of record through the implementation of DefenceX, along with other initiatives, Assistant Deputy Minister (Review Services) (ADM(RS)) acknowledges that the way in which the risks and recommendations are addressed may evolve; therefore, Management Action Plans could change.

Key Findings	Recommendations
<p>Governance and Information for Decision Making While governance structures and processes are in place to facilitate decision making and provide oversight on infrastructure maintenance, repair and minor recapitalization activities, information to inform planning and analysis of their requirements is incomplete and unreliable. No formal process exists to manage risks related to these activities.</p>	<p>Recommendation #1: To improve informed resource allocation, establish a process to identify, manage, monitor and report risks related to the delivery of maintenance, repair and minor recapitalization activities using up-to-date and accurate information.</p> <p>OPI: Assistant Deputy Minister (Infrastructure and Environment) (ADM(IE))</p>
<p>Processes and Controls While the maintenance, repair and minor recapitalization process guidelines, tools and procedures have improved over time through continuous updates, there remains room for improving clarity and operational-level detail.</p> <p>Mutual support and service-level agreements that support defined service expectations are outdated.</p>	<p>Recommendation #2: To achieve effective and consistent services:</p> <ul style="list-style-type: none"> A. Review, update and consolidate, where appropriate, the service-level agreements between Real Property Operations and bases and wings. B. Review and update the infrastructure maintenance, repair and minor recapitalization processes and procedures to improve national consistency and service delivery standards. <p>OPI: ADM(IE)</p>

Executive Summary – Key Findings and Recommendations

Key Findings	Recommendations
<p>Human Resources and Capacity A capacity gap exists within Real Property Operations detachments, resulting in maintenance and repair work orders and minor recapitalization projects not being processed efficiently nor in accordance with processes and controls.</p>	<p>Recommendation #3: To fill gaps within the onboarding of new Real Property Operations staff, succession planning and knowledge retention mechanisms across Real Property Operations regions and detachments must be developed and informed by the Real Property Operations Capacity and Capabilities Framework.</p> <p>OPI: ADM(IE)</p>
<p>Health and Safety Compliance ADM(IE) has been working to develop an overarching compliance program. As it is not yet in place, there are currently inconsistent practices for ensuring health and safety compliance through the maintenance, repair and minor recapitalization activities.</p>	<p>Recommendation #4: To ensure health and safety compliance for infrastructure, provide monitoring mechanisms for the maintenance, repair and minor recapitalization programs that focus on establishing national compliance standards and clearly defined accountabilities, responsibilities and authorities.</p> <p>OPI: ADM(IE)</p>

Table 1: Key Findings and Recommendations

Context

DND is mandated to support the CAF in defending Canadians' interests at home and abroad. Real property and infrastructure—including property, works and facilities—are essential to generating and maintaining military capabilities and skills to enable the CAF to meet its operational requirements. DND/CAF is responsible for the largest real property portfolio¹ in the Government of Canada, with a total replacement cost of approximately \$28 billion. In response to the Audit of Real Property Management conducted by the Auditor General of Canada in 2012, management of defence infrastructure was centralized in 2016 under a sole custodian—ADM(IE).

Centralization of Real Property Management

Prior to centralization, operation and maintenance of DND/CAF's real property portfolio was delegated to 11 different Level 1 organizations and then to each base/wing commander. Centralization transformed how infrastructure is managed across DND/CAF through the creation of the Canadian Forces Real Property Operations Group, supported by seven regional Real Property Operations units and the subordinate detachments on bases and wings. The Real Property Operations Group is responsible for the upkeep of existing real property assets through maintenance, repair and recapitalization programs, ensuring the Defence Team's operational effectiveness as well as health and safety protection.

Infrastructure Maintenance, Repair and Recapitalization

The minor new construction program² comprises activities for both minor new construction and minor recapitalization of DND/CAF's infrastructure to ensure its functionality and compliance. Infrastructure maintenance, repair and recapitalization are carried out using both in-house and contracted resources.

Maintenance and Repair: Maintenance and repair are activities undertaken by Real Property Operations detachments to preserve and restore functionality of DND/CAF's existing infrastructure. While preventive maintenance addresses regulatory requirements and cyclical scheduled work, corrective maintenance is typically requested by client users to address the failure of an asset, a

¹ DND/CAF's portfolio is comprised of lands, buildings and works with infrastructures spanning from operational and training sites, offices, and residential buildings to airfields and jetties.

² The minor new construction program includes both minor new construction and minor recapitalization projects. Minor new construction projects were excluded from the audit scope.

Context

system, or a component. At the detachment level, maintenance and repair requests are prioritized over four levels,³ depending on their urgency. Each request is reviewed and approved by the authorized detachment staff to create a work order and is then responded to according to the priority level. These requests and work orders are initiated, managed and tracked within the Defence Resource Management Information System (DRMIS), which is DND/CAF's enterprise resource planning system.

Recapitalization allows DND/CAF to expand, enhance and renew its existing infrastructure through renovations and life extension projects. Funded under the minor new construction program, minor recapitalization projects are undertakings that have a project cost of up to \$10 million. Recapitalization requirements can be identified by client users or Real Property Operations in response to real property portfolio planning; updated or new compliance requirements; or Government of Canada initiatives. All minor recapitalization requirements must be assessed and scored using the standardized Project Priority Score Sheet. The requirements are then reviewed by authorized personnel at the Real Property Operations detachment prior to being presented to an oversight committee. Not all requirements can be funded as resources are limited. Non-funded requirements can be reviewed and re-presented in the following fiscal year(s) or potentially funded if there is year-end funding availability.

Authority to approve projects is delegated to Real Property Operations detachment officers or commanding and regional unit commanding officers for projects of up to \$1 million and \$1–2.5 million respectively. The ADM(IE) has the authority to approve projects of up to \$10 million.

Project financial information is recorded in DRMIS. Other systems are also used for capturing pertinent infrastructure assets and project management information; for instance, a newly developed web portal—the Integrated Infrastructure Management System—is being launched across Real Property Operations regions and detachments. This portal will contain additional project data with the goal of providing better assistance and visibility for project planning, tracking and reporting.

Continuous Development and Improvement

Following centralization, ADM(IE) undertook a five-year transformation project to position itself to deliver effectively on its new mandate. Improvements to support maintenance, repair and recapitalization activities were observed in recent years:

- establishment of the Real Property Management Framework with strengthened governance and oversight mechanisms;

³ The four levels of priority as defined in the Real Property Operations Procedures Handbook are first priority for emergency and urgent, high priority for necessary, medium priority for desirable and low priority for customer-driven work orders.

Context

- improved guidance and support to Real Property Operations detachments and regions, such as the updated Planning Directives and Real Property Operations Procedures Handbook; and
- increased project approval authority delegated to ADM(IE), from \$5 million to \$10 million, permitting a timelier approval and implementation process.

Yearly additions of new infrastructure, the aging real property portfolio, the complexity of infrastructure service requirements and the growing need to improve and recapitalize existing infrastructure to support ever-changing operational requirements all continue to put pressure on financial and human resources within ADM(IE). To ensure infrastructure assets are available to support and enable the CAF to deliver on the defence vision set forth in Canada's Defence Policy: *Strong, Secure, Engaged*, ADM(IE) must continually prioritize resources and optimize the real property portfolio. ADM(IE) has multiple initiatives underway to evolve and improve these processes and their organization. These initiatives include:

- **IE Data Strategy:** This involves key data and analytics initiatives that collect and analyze real property data, as well as update and populate data in existing information systems, including DRMIS. The strategy will also ensure the implementation of the Integrated Infrastructure Management System to improve and standardize program management and business planning.
- **Defence Real Property Portfolio Strategy:** This aims to develop a long-term roadmap for enhanced affordability, asset suitability and operational success including a risk-based portfolio-tiering approach to prioritize asset-level investments nationally.
- **Infrastructure and Environmental Compliance Program:** This constitutes a national-level compliance program that aims to identify gaps in DND/CAF in meeting compliance requirements.
- **Real Property Operations Service Delivery Study:** Recommendations include the stand-up of an internal evolution team to implement recommendations from the 2022 Real Property Operations Service Delivery Study, which includes the development of a capacity and capabilities framework for Real Property Operations.

Governance and Information for Decision Making



Finding 1: While governance structures and processes are in place to facilitate decision making and provide oversight on infrastructure maintenance, repair and minor recapitalization activities, information to inform planning and analysis of their requirements is incomplete and unreliable. No formal process exists to manage risks related to these activities.

Why It Is Important

The Department needs up-to-date, complete and accurate information to identify requirements, prioritize resources and develop solutions that optimize infrastructure to the required level to support Defence Team operations. Quality and consistency of information are barriers to achieving Real Property Operations' operational objectives as they are important in supporting effective resource management. A risk management process will help ensure financial and human resources are allocated to address important deficiencies related to the operation of maintenance, repair and minor recapitalization, as well to health and safety and compliance activities nationally.

What We Found

Governance

Governance mechanisms are in place to inform decision making and provide oversight on infrastructure maintenance, repair and minor recapitalization activities. Informal oversight takes place through regular communication of work progress and issues at both detachment and regional levels. Formal committees are established to provide the appropriate level of oversight, from the senior management level to detachments. Defined terms of reference are in place, and seniority of committee chairs and membership is at the correct level to facilitate discussion, decision making and oversight in accordance with the committee mandate.

Governance and Information for Decision Making

What We Found

Information Systems and Management

While DRMIS is the main data source for managing and tracking maintenance, repair and minor recapitalization records, other existing information systems and tools are also needed to capture and analyze the vast and complex real property information to support informed decision making. The duplication of effort to input and maintain the data in multiple systems—coupled with limited infrastructure-focused DRMIS training to promote consistent use of the system across Real Property Operations detachments—created an inefficiency and in turn created gaps and data inconsistencies, impacting overall data integrity. For the sampled work orders and recapitalization projects, varying levels of data-entry completeness were found in the DRMIS system. Key data fields such as work order priority, problem description and infrastructure asset functional location were blank for numerous maintenance and repair work orders. The DRMIS system also does not have the functionality to track which work was assigned to an individual and why, thereby limiting follow-up capabilities and the tracking of performance information.

Planning and Requirements Identification

The Department relies on clear and justified requirements to inform resource allocation, performance targets and results to measure progress and drive continuous improvement. Accurate and complete information is not fully available to assist ADM(IE) in determining precisely how much funding should be spent on each infrastructure asset across DND/CAF, nor to track performance on the achievement of organizational goals. Elements such as real property replacement cost and facility condition index are key to determining the maintenance budget, but the information is neither accurate nor complete for every infrastructure asset. Further, the long-range tool for planning asset management that was designed to inform the timing for funding the maintenance, recapitalization, or replacement of an asset was not maintained and is no longer being used.

Currently, maintenance and repair requirement planning are driven primarily by the capacity of Real Property Operations detachments. Funding is allocated to detachments based on the previous year's levels of funding spent under the maintenance and repair program. Spending on minor recapitalization projects has increased significantly in the past few years, which positively impacts project delivery and budget performance. Projects are assessed and scored against pre-established weighted criteria to determine

Governance and Information for Decision Making

What We Found

project priority for funding allocation. In practice, the scores do not always reflect the changing needs and/or priorities of base/wing operations, nor of Government of Canada policies such as the Greening Government Strategy.

Continuous Improvement

ADM(IE) has developed strategies to enhance the capability of identifying, prioritizing and optimizing maintenance, repair and minor recapitalization activities. The IE Data Strategy includes initiatives to replace the obsolete long-range asset planning tool. This would allow the collection and updating of important real property information such as data for assessing facility condition, as well as real property replacement costs. Within the Defence Real Property Portfolio Strategy, an asset-tiering mechanism that aims to leverage a risk-based approach to informing asset-level investment and prioritization is currently under development. Continuing the implementation of these strategies is essential to improving the use and quality of IE data and information, and to supporting planning and decision-making processes for maintenance, repair and recapitalization activities throughout the asset lifecycle.

Risk Management

DND/CAF's Enterprise Risk Management Policy requires each Level 1 organization to use a common standard for risk severity assessment. The use of this common standard would help to achieve consistent prioritization of activities, resource planning and allocation—not only across the Department but also across Real Property Operations regions and detachments. Risks to the effective delivery of maintenance, repair and minor recapitalization services are communicated in the Real Property Operations Planning Direction and incorporated in the ADM(IE) Business Plan and DND/CAF's Corporate Risk Profile. Real Property Operations does not currently have a systematic process to identify, manage, monitor and communicate risks. As such, both financial and human resources may not be allocated to areas with the most critical deficiencies. Detachments may not have a full understanding of their risks, nor a full understanding of the risk mitigation accountabilities cascaded down to them and how to action them in their day-to-day operational activities.

Governance and Information for Decision Making

What We Found



Recommendation #1:

To improve informed resource allocation, establish a process to identify, manage, monitor and report risks related to the delivery of maintenance, repair and minor recapitalization activities using up-to-date and accurate information.

OPI: ADM(IE)

Processes and Controls



Finding 2: While the maintenance, repair and minor recapitalization process guidelines, tools and procedures have improved over time through continuous updates, there remains room for improving clarity and operational-level detail. Mutual support and service-level agreements that support defined service expectations are outdated. Existing tools, guidelines and procedures are insufficient to promote consistent and efficient execution of maintenance, repair and minor recapitalization activities.

Why It Is Important

Well-defined and up-to-date policies and procedures are key controls that guide maintenance, repair and minor recapitalization activities and assist them in being carried out systematically, efficiently and effectively. Without these controls in place, there is a risk that the existing infrastructure will not be properly maintained. This could lead to situations where the infrastructure must be closed, leading to reduced ability to support operational readiness. The impact also extends to CAF morale and welfare, as well as CAF retention.

Mutual Service Agreements

Roles for ensuring nuclear and fire safety, for instance, are defined at a strategic level in the mutual service agreements. Stated in the agreements is that Level 1 organizations would continue to provide staff functions and accountabilities, while ADM(IE) would be responsible for providing the associated policy advice.

What We Found

Service Agreements and Standards for Infrastructure Management

Service Agreements

Two types of IE service agreements were established at the time of centralization: mutual service agreements and service-level agreements. These agreements define supporting relationships, as well as the residual and transferred responsibilities between

Processes and Controls

What We Found

ADM(IE) and Level 1 organizations and between the Real Property Operations Group and military bases and wings, respectively.

Base and wing service-level agreements specify that Real Property Operations regions and detachments are responsible for the safety of personnel, equipment and infrastructure, with the assistance of the bases and wings. These agreements expand on general safety to include not only nuclear and fire safety but also field safety, equipment safety, ammunition and explosive safety, etc.

Designated Level 1 representatives are to meet at least annually to review the mutual service agreements. Some of the agreements were established prior to centralization and have not since been updated. A preliminary assessment of the mutual service agreements was completed in 2022, and approval remains pending. Of 32 bases and wings, at least seven service-level agreements were not posted to the SharePoint site. These agreements are to be formally reviewed one year after coming into effect and every three years thereafter. None of these agreements have been reviewed or updated since their first approval. Maintaining the agreements ensures that they continue to reflect the current expectations and concurrence of key stakeholders. Posting the agreements to the SharePoint site helps ensure effective communication of expectations.

Service Standards

While maintenance and repair requests are triaged and prioritized according to their urgencies, most detachments have not established recommended response times nor other measurable service delivery standards. Service delivery standards could provide guidance for workflow management, highlight an expected level of performance and be used as a performance measure.

Real Property Operations Guidelines and Procedures

The Real Property Operations Procedures Handbook is intended to provide direction and support for detachment staff in managing Real Property Operations activities and resources. Detachment staff indicated that the handbook does not provide sufficient detail, resulting in staff instead referencing the 2013 Real Property Management Manual, which was developed before centralization and

Processes and Controls

What We Found

is outdated. The handbook does not sufficiently stipulate documentation and record-keeping requirements to promote proper and consistent record-keeping practices. Without these requirements, information may not be readily available to inform or demonstrate sound decision making.

Audit examination of 12 maintenance and repair work orders and 12 minor recapitalization projects revealed that adherence to the processes and controls was not demonstrated for all these files. Examples of missing records include documented project prioritization decisions, the initial project expenditure initiation authority document and updates on completed maintenance and repair work. Further, 4 of the 12 minor recapitalization projects took between 5 and 11 years to move from initial project identification to implementation, but the reason for the long time frame was not documented and, therefore, not known.

Vote Determination Tool

A vote determination tool was developed to guide staff in making decisions on whether the work or project should be funded by the Vote 1 or Vote 5 budget envelope. The criteria and examples provided within this tool leave room for interpretation, creating inconsistencies when using the tool and in reporting on capital expenditures.

Notable practices:

- Some Real Property Operations detachments have developed or are developing local guidance to support the execution of maintenance, repair and minor recapitalization activities, including standard operating procedures and guidance for work order response time.
- The Real Property Operations Group has recently developed the Community of Practice, along with a SharePoint site, for information and knowledge sharing.

Processes and Controls

What We Found



Recommendation #2:

To achieve effective and consistent services:

- A. Review, update and consolidate, where appropriate, the service-level agreements between Real Property Operations and bases and wings.
- B. Review and update the infrastructure maintenance, repair and minor recapitalization processes and procedures to improve national consistency and service delivery standards.

OPI: ADM(IE)

Human Resources and Capacity



Finding 3: A capacity gap exists within Real Property Operations detachments, resulting in maintenance and repair work orders and minor recapitalization projects not being processed efficiently nor in accordance with processes and controls.

Why It Is Important

Having the right level of human resources capacity allows infrastructure upkeep to be carried out efficiently and consistently. It also contributes to ensuring infrastructure is available to support Defence Team operations.

What We Found

The service requirements of DND/CAF's infrastructure are complex. Real Property Operations must have the right personnel and capacity consistently at bases and wings to service its widely varying and geographically dispersed infrastructure assets. There were common concerns that many positions during centralization were lost, frozen or left unfilled due to limited salaries and wages. Since then, completion of work orders and projects relies heavily on contracting resources and on a few key staff members, many of whom have multiple roles. This creates not only delays and inefficiencies but also limits Real Property Operations' ability to develop and maintain in-house expertise that is responsive to the needs of the organization. Further, it is difficult to hire individuals with the right skillset due to a lack of competitiveness and flexibility in pay, compared to the private sector. There is the additional challenge of several detachments being in remote areas, which many people find undesirable.

Inadequate consideration of infrastructure requirements for the allocation of in-service support funding has added pressure to the already strained maintenance budget, as there are insufficient funds available to maintain the infrastructure throughout its service.

Detachment succession planning is difficult partly because Real Property Operations is already understaffed and partly because many of the key positions are military. Planning and management of work orders and projects is more challenging during posting season, when staff are rotating frequently and at times in large numbers from the same unit. There is also high staff turnover on

Human Resources Capacity

What We Found

the civilian side. The existing procedural guidelines do not provide sufficient operational-level detail for onboarding new staff, and there is minimal to no formal training or handover. This means that the incumbents must learn their new roles and responsibilities through trial and error, and from locally developed instructions. This makes it challenging for Real Property Operations to retain corporate knowledge and to deliver consistent and efficient maintenance, repair and minor recapitalization services.

A consistent approach to managing human resources across the Department is critical to addressing the capacity issues and reducing differences across bases and wings. Real Property Operations is planning to address this through the development of the Capacity and Capabilities Framework. In 2023, Real Property Operations established a team to analyze workforce capacity as well as identify and respond to existing and anticipated gaps in resource levels and skillsets across Real Property Operations regional units and detachments.



Recommendation #3:

To fill gaps within the onboarding of new Real Property Operations staff, succession planning and knowledge retention mechanisms across Real Property Operations regions and detachments must be developed and informed by the Real Property Operations Capacity and Capabilities Framework.

OPI: ADM(IE)

Health and Safety Compliance



Finding 4: ADM(IE) has been working to develop an overarching compliance program. As it is not yet in place, there are currently inconsistent practices for ensuring health and safety compliance through the maintenance, repair and minor recapitalization programs.

Why It Is Important

All departments within the Government of Canada that manage an infrastructure portfolio are mandated to meet health and safety and environmental requirements identified in various legislation and applicable regulations. The number and complexity of these compliance requirements are ever increasing. Without mechanisms and structures in place to ensure that requirements are fully understood and systematically addressed through maintenance, repair and recapitalization activities, there will be increased risk of non-compliance. Such may result in health and safety, reputational and legal risks. This in turn impacts CAF retention, morale and welfare, as well as both operational readiness and military training.

What We Found

Health and safety requirements are outlined in various DND policies and guidelines, including Defence Administrative Orders and Directives, Standing Orders and Standing Operating Procedures. Each Real Property Operations region has a dedicated compliance officer to collaborate compliance-related activities between Real Property Operations and the detachments. A compliance program, with the intention of identifying compliance deficiencies, is being developed at the national level, within the existing Safety and Environment Management System.

Guidelines and Operating Procedures

Real Property Operations has developed departmental guidance documents, such as the Real Property Operations Procedures Handbook and the Minor New Construction Planning Directive, to provide direction on Real Property Operations processes and to

Health and Safety Compliance

What We Found

support staff in planning and managing their detachment activities and resources. These documents provide general information, such as the types and definitions of preventive and reactive maintenance, but not specific direction on how health and safety compliance should be incorporated into infrastructure maintenance, repair and minor recapitalization activities. Except for certain regulated inspections—such as fire safety and elevators/lifting device inspections—there are no national compliance standards, preventive maintenance schedules or formal reporting requirements, thus putting the onus on detachments to create and use locally developed mandated compliance lists. There is a need for department-wide standards to create consistency across regions and to develop a proactive approach to managing potential health and safety issues or concerns and to ensure that compliance requirements are met.

Accountabilities, Responsibilities and Authorities

Responsibilities of Real Property Operations compliance officers have not been formally developed since centralization; thus, many incumbents had to develop their own. Further, not all detachments have established dedicated compliance officer positions, and the responsibilities are shared by other positions. Unclear and inconsistent responsibilities may lead to inefficiencies due to duplication of effort or responsibilities left unfulfilled, which may result in reactive or untimely responses to health and safety concerns.

Preventive Maintenance

Maintenance plans and schedules would enable detachments to address health and safety compliance issues preventively. There are currently no preventive maintenance schedules nor formal reporting requirements in place to identify and proactively manage potential issues or concerns before they arise. Health and safety issues may only come to detachment staff's attention when an incident occurs. Most compliance reporting is done on an as-needed basis, although some detachments have started reporting to health and safety committees and/or to regions more regularly.

Health and Safety Compliance

What We Found



Recommendation #4:

To ensure health and safety compliance for infrastructure, provide monitoring mechanisms for the maintenance, repair and minor recapitalization programs that focus on establishing national compliance standards and clearly defined accountabilities, responsibilities and authorities.

OPI: ADM(IE)

Overall Conclusion

Governance mechanisms are in place and multiple initiatives are underway with the intention to improve data integrity, asset-wide prioritization and alignment of staff capacity and capabilities across Real Property Operations detachments—all of which will support evidence-based decision making and informed resource management of DND infrastructure. Opportunities exist to improve current processes for maintenance, repair and minor recapitalization planning, prioritization, execution, risk management, performance measurement, and health and safety. Without tools and information to support optimized and prioritized resource allocation decisions, the cumulative strain of aging infrastructure along with new infrastructure could reduce the Department's ability to support operational readiness, thus negatively impacting CAF retention.

Annex A—Management Action Plans

ADM(RS) Recommendation	Management Action
<p>1. To improve informed resource allocation, establish a process to identify, manage, monitor and report risks related to the delivery of maintenance, repair and minor recapitalization activities using up-to-date and accurate information.</p>	<p>ADM(IE) accepts the recommendation and recognizes the need for improved risk management practices related to the delivery of the maintenance and repair program (Defence Results Framework 6.3.1) and the minor recapitalization program (Defence Results Framework 6.2.3).</p> <p><u>Action 1.1</u> Conduct an assessment of Real Property Operations Group maintenance, repair and minor recapitalization (Level 2) program risks. In addition to maintaining a Level 2 Program Risk Register, the Real Property Operations Group’s program risk data will be included in the ADM(IE) Level 1 Corporate Risk Profile as needed. (December 31, 2024)</p> <p><u>Action 1.2</u> Set risk-based priorities, objectives and performance metrics for Defence Results Framework 6.2.3 and 6.3.1 programs for inclusion into the ADM(IE) Business Planning process (fiscal year 2025/26) and for ongoing corporate planning cycles. (March 31, 2025)</p> <p>OPI: ADM(IE)</p> <p>Target Date: March 31, 2025</p> <p>Closure: This Management Action Plan will be considered closed once the renewed maintenance and repair program (Defence Results Framework 6.3.1) and the minor recapitalization program (Defence Results Framework 6.2.3) risks are assessed and communicated to ADM(IE) senior management.</p>

Annex A—Management Action Plans

ADM(RS) Recommendation	Management Action
<p>2. To achieve effective and consistent services:</p> <ul style="list-style-type: none">A. Review, update and consolidate, where appropriate, the service-level agreements between Real Property Operations and bases and wings.B. Review and update the infrastructure maintenance, repair and minor recapitalization processes and procedures to improve national consistency and service delivery standards.	<p>ADM(IE) accepts these recommendations. The Real Property Operations Group recognizes the gaps that remain following DND Real Property centralization as well as the IE Transformation initiative. These and other important ongoing issues are being addressed within the Real Property Operations Group Modernization Initiative, which was launched in March 2022.</p> <p><u>Action 2.1</u> Commit to providing the necessary attention and priority that will permit the timely completion of ADM(IE)'s Real Property Operations Group Modernization Initiative.</p> <p><u>Action 2.1.1</u> Finalize the review of mutual service agreements (currently 85 percent complete). Analysis shows that most content within the current agreements is now covered within existing policies and governance structures. A determination will be made to assess if current agreements are relevant, whether an abbreviated version is required, or outright removal is warranted. For service-level agreements, a dedicated analysis will be conducted of the service lines the Real Property Operations Group provides to its base/wing clients, as well as the services Real Property Operations is meant to receive (information technology, transportation, administration, etc.). (November 30, 2025)</p> <p><u>Action 2.1.2</u> Engage with the relevant authorities (Directorate of Architecture and Engineering Services, Defence General Defence Security, Canadian Forces Fire Marshal, etc.) to establish standards and guidelines that the Real Property Operations Group can implement across the formation.</p> <p>OPI: ADM(IE)</p>

Annex A—Management Action Plans

	<p>Target Date: November 30, 2025</p> <p>Closure: This Management Action Plan will be considered closed upon the completion of the mutual support and service-level agreements review and consolidation. As an important milestone in the Real Property Operations Group Modernization Initiative, a detailed implementation order will be published, which will communicate how pan-formation adaptation/alignment of the organization will be achieved, as well as standardization of its business processes and service delivery.</p>
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Annex A—Management Action Plans

ADM(RS) Recommendation	Management Action
<p>3. To fill gaps within the onboarding of new Real Property Operations staff pertaining to succession planning and knowledge retention, mechanisms across Real Property Operations regions and detachments must be developed and informed by the Real Property Operations Capacity and Capabilities Framework.</p>	<p>ADM(IE) accepts this recommendation. The Real Property Operations Group views the management of human resources as a fundamental enabler for future success. Human resources lines of effort—including staffing, classification, career development and progression, succession planning, and retention—are all critical considerations within the Real Property Operations Group Modernization Initiative.</p> <p><u>Action 3.1</u> Evolve ADM(IE)’s approach to managing human resources as a key component of the Real Property Operations Group Modernization Initiative by attracting, developing and retaining the skilled workforce necessary for future success, including such concepts as enabling hybrid work environments and fully leveraging technological tools to facilitate this. To this end, a key line of effort within the Modernization Initiative will address the evolution of formation human resources policies and processes, and it will culminate in the publication and subsequent implementation of a strategic human resources plan for the Real Property Operations Group.</p> <p>OPI: ADM(IE)</p> <p>Target Date: November 30, 2025</p> <p>Closure: This Management Action Plan will be considered closed upon the publication of a detailed implementation order that communicates how pan-formation adaptation/alignment of the organization—as well as standardization of its business processes and service delivery, including a Real Property Operations Group strategic human resources plan—will be achieved.</p>

Annex A—Management Action Plans

ADM(RS) Recommendation	Management Action
<p>4. To ensure health and safety compliance for infrastructure, provide monitoring mechanisms for the maintenance, repair and minor recapitalization programs that focus on establishing national compliance standards and clearly defined accountabilities, responsibilities and authorities.</p>	<p>ADM(IE) accepts this recommendation and notes that compliance is a shared responsibility across DND/CAF. ADM(IE) currently monitors the compliance of its programs and activities using software including, but not limited to, DRMIS and PowerBI. ADM(IE) will ensure that health, safety and environmental compliance remain a key component of the Real Property Operations Group Modernization Initiative to enable future high performance and sustainability of this critical function.</p> <p><u>Action 4.1</u> Deliver a compliance tool. The tool defines the regulatory framework with which DND must comply in order to ensure health and safety compliance for infrastructure. The output of this project will result in a legal register that includes the full set of laws and regulations that outline compliance requirements in the form of an automated process whereby the register is always accurate. The output from the tool will also be leveraged to reshape the framework for the ADM(IE) Compliance Program. (November 30, 2024)</p> <p><u>Action 4.2</u> Develop a Real Property Operations Group Safety and Environment Management System. (June 30, 2025)</p> <p>OPI: ADM(IE)</p> <p>Target Date: November 30, 2025</p> <p>Closure: This Management Action Plan will be considered closed once a compliance tool and legal register is delivered (November 30, 2024); the Real Property Operations Group Safety and Environment Management System framework is published (June 30, 2025); and, as an important milestone in the Real Property Operations Group Modernization Initiative, a detailed implementation</p>

Annex A—Management Action Plans

	order is published that communicates how pan-formation adaptation/alignment of the organization, its business processes and service delivery will be achieved. (November 30, 2025).
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Table 1-1: Management Action Plans

Annex B—About the Engagement

Objective

The objective of this engagement is to provide assurance that adequate governance, risk management and control processes are in place to ensure maintenance, repair and recapitalization services achieve their intended outcomes across the existing defence infrastructure for supporting Defence Team operations.

Scope

The audit includes an examination of ADM(IE)’s oversight and monitoring, maintenance and repair control processes, and recapitalization of up to \$10 million (known as minor recapitalization) on existing defence infrastructure. The scope period for maintenance, repair and minor recapitalization samples is between fiscal years 2019/20 and 2022/23.

Scope Exclusions

Exclusion	Rationale
Defence infrastructure outside of Canada	Defence infrastructure located outside of Canada is relatively insignificant compared to DND/CAF’s real property located within Canada. Most infrastructure and facilities outside of Canada where DND/CAF personnel are present are managed by other countries and do not follow the same maintenance and repair process as Canada.
Contracting activities	Contracting was not identified in the audit planning risk assessment as a key risk to maintenance, repair and recapitalization activities.
New/underway construction	The need for infrastructure maintenance, repair or recapitalization is minimal for new or underway construction. The recent requirement to engage ADM(IE) from the onset in information technology and equipment projects that have a Defence Capability Infrastructure requirement is expected to reduce the risk associated with infrastructure in-service support. Additionally, ADM(RS) recently completed an audit of project management in 2022.

Table B-1: Scope Exclusions

Annex B—About the Engagement

Methodology



Document Review

A review of relevant internal/governmental policies, legislation, directives, communications, procedures, guidelines and templates was conducted.



Interviews

Interviews with key stakeholders were conducted. Responses were used to identify areas of concern and to learn about existing processes, controls and risks.



Data Analysis

Twelve maintenance and repair work orders and twelve minor recapitalization projects were analyzed. The information and conclusions derived were used to supplement the document review and interviews, and to further enhance knowledge of the existing processes, controls and risks.



Site Visits

Five Real Property Operations detachments in Trenton, Kingston, Halifax, Shearwater and Petawawa were visited to observe the needs and gaps related to maintenance, repairs and the minor recapitalization programs. The visits also enabled in-person interviews with key stakeholders and access to physical files located at sites to complete data analysis and samples review.

Audit Criteria

- A. Governance:** Governance structures and mechanisms are in place to support effective management of existing infrastructure asset maintenance, repair and recapitalization.
- B. Controls:** Existing infrastructure assets are maintained to support operational readiness and compliance with policies, guidelines and legislative requirements.

Statement of Conformance

The findings and conclusions contained in this report are based on sufficient and appropriate evidence gathered in accordance with procedures that meet the Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing*. The assessment thus conforms to the Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing* as supported by the results of the quality assurance and improvement program. The opinions expressed in this report are based on the conditions as they existed at the time of the engagement and apply only to the consulted entity.