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OFFICE OF INSPECTOR GENERAL

Office of Audits and Evaluations

VETERANS HEALTH ADMINISTRATION

Improvements Needed to Reduce Aging Infrastructure Risks at Northport VA Medical Center in New York

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Executive Summary

The VA Office of Inspector General (OIG) conducted this review to assess the merits of a hotline complaint it received in March 2019 regarding building conditions and patient safety at the Northport VA Medical Center in Northport, New York.

The confidential complainant alleged that medical center managers did not adequately maintain the Northport VA Medical Center buildings. According to the complaint, the medical center's steam heat delivery system failed, causing some steam pipes to leak and others to explode. The ruptured pipes then caused dropped ceilings to fail, contaminating employee offices, patient treatment rooms, and other areas with asbestos, lead paint, and other debris.

The complaint stated that most of the damage from failing pipes occurred in building 65, which contains a residential treatment program for patients with posttraumatic stress disorder. Because the complaint did not specify when damage occurred, the review focused on incidents that led to the closure of rooms in building 65 at the beginning of January through June 4, 2019, and sought to determine the following:

1. What happened and the extent of any damage in building 65 from January 1 through June 4, 2019
2. If an incident did occur, why it occurred
3. What actions officials took to address any damage
4. What steps the medical center's managers took to reduce the risk of future infrastructure failures

What the Review Found

The review team confirmed that damage occurred in building 65. Four rooms were closed from February through mid-October 2019—a kitchen area, a women's restroom, and two psychologists' offices.[1] Three rooms were closed because of damage from a leak that occurred in an abandoned ceiling steam pipe that was unexpectedly collecting water. The fourth room, a psychologist's office, was closed when an uninsulated steam pipe that ran under the room became so hot that it discolored a floor tile. The review team did not find that steam pipes exploded, as alleged in the complaint. The three rooms affected by the ceiling pipe leak were closed from February to March 2019 because of the damage. The fourth room affected by the floor pipe was closed in February 2019 and remained unoccupied until sometime before October 15, 2019, when the psychologist who previously occupied this room reported that

[1] The review team was not able to identify the exact dates when the room closures occurred or when they were reopened. This time frame includes key dates regarding notifications of when the rooms were closed and reopened. Appendix A includes additional details regarding the timeline of events.

someone was using the office. From February to March 2019, the medical center's engineering service, environmental management service, and safety officer addressed the leak and discolored floor tile by repairing the damage from both, installing new insulation for the pipe that caused the tile discoloration, and reopening the rooms. The room closures did not affect patient care because other space was available.

Prior leaders did not effectively plan to address building 65's deficiencies. The most recent facility condition assessment report issued in June 2017 for the Northport VA Medical Center determined that about 61 percent of building 65's infrastructure systems were in poor or critical condition. The estimated cost for correction or repair was about $5.9 million. An effective plan would have ensured prior-year action plans consistently included projects to renovate and modernize building 65 or accommodated the relocation of personnel and patients to allow for building demolition. However, failure to consistently include projects to address infrastructure deficiencies in the annually prepared 10-year action plans and to clearly articulate a strategy for executing these projects can delay corrective measures because the projects will not be considered for prioritization and funding.

According to the former acting associate director, medical center leaders began developing a master plan in December 2018 to strategically reduce the campus's overall footprint. The master plan, unlike the 10-year action plan, provides a comprehensive picture of the medical center's strategy to reduce its footprint. The 10-year action plan, in contrast, details specific projects and funding to address the medical center's infrastructure needs such as renovating buildings, replacing fences, and rehabilitating roads and parking lots. The two plans can work together. Effective execution of the master plan, which includes steps to address building 65's deficiencies by moving personnel and patients to another building, will help medical center leaders better align staffing and funding resources. However, the medical center director needs to develop a timeline for the master plan and identify appropriate resources to ensure projects are considered for inclusion in the 10-year action plan prepared annually. This will make sure the projects are considered for funding and that infrastructure deficiencies, including those in building 65, are addressed as quickly as possible.

While the master plan is being executed, medical center leaders need to ensure completion of recurring and preventive maintenance. This maintenance remains a challenge due to understaffing in the engineering service and an inadequate process for work orders. The engineering service was authorized to have 109 full-time-equivalent staff, but it only had 71 at the time of the review team's work. The medical center also lacks processes and procedures to ensure that maintenance work orders are completed and fully address the repair issues.

What the OIG Recommended

The OIG made the following recommendations to the Veterans Integrated Service Network (VISN) 2 director:

1. Develop an oversight process that Northport VA Medical Center leaders can rely on to effectively develop, implement, and execute the master plan to reduce the footprint of the medical center and better manage the needs of its aging infrastructure.
2. Ensure the Northport VA Medical Center director defines a timeline for executing the master plan and communicates the objectives to stakeholders to (1) instill consistency between the master and the strategic capital investment plans and (2) execute the master plan in accordance with agreed-upon milestones and available resources.
3. Make certain the Northport VA Medical Center director develops processes and procedures for submitting work orders, including making notifications when work orders are assigned and reviewing work orders for accuracy and consistency, to ensure the medical center's engineering service is in the best position to prioritize work and manage its resources.

Management Comments

The VISN 2 director concurred with the recommendations. The director provided corrective action plans that are responsive to the intent of the recommendations. The OIG will monitor implementation of planned actions and will close the recommendations when the director provides enough evidence demonstrating progress in addressing the intent of the recommendations and the issues identified. Appendix C includes the full text of the VISN 2 director's comments.

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Abbreviations

FY	fiscal year
OIG	Office of Inspector General
OSHA	Occupational Safety and Health Administration
VHA	Veterans Health Administration
VISN	Veterans Integrated Service Network

Introduction

The VA Office of Inspector General (OIG) conducted this review to assess the merits of a hotline complaint concerning building conditions and patient safety at the Northport VA Medical Center in Northport, New York, received in March 2019. The confidential complainant alleged that medical center managers did not adequately maintain the center's buildings; that the medical center's steam heat delivery system failed, causing steam pipes to leak and explode; and that ruptured pipes then caused dropped ceilings to fail, contaminating employee offices, patient treatment rooms, and other areas of the building with asbestos, lead paint, and other debris.

The complaint stated that most of the damage from the failing pipes occurred on the first floor of building 65, resulting in six rooms being placed out of service and jeopardizing patient and employee health and safety. Building 65 contains the Northport VA Medical Center's residential posttraumatic stress disorder treatment program. The OIG limited its review of the complaint to issues surrounding this building and specifically sought to determine the following:

1. What happened and the extent of any damage in building 65 from January 1 through June 4, 2019 (because the complaint did not specify a time frame for when damage occurred)
2. If an incident did occur, why the incident occurred
3. What actions officials took to address any damage
4. What steps the medical center's managers took to reduce the risk of future infrastructure failures

Northport VA Medical Center

The Northport VA Medical Center provided healthcare services to about 31,000 veterans in fiscal year (FY) 2019. The main medical center comprises 72 buildings that are 70 years old on average, based on VA's Capital Asset Inventory. In addition to the main campus in Northport, the medical center offers healthcare services in five community-based outpatient clinics. The medical center is part of the New York/New Jersey VA Health Care Network, Veterans Integrated Service Network (VISN) 2.

Figure 1 is a picture of the Northport VA Medical Center's main campus.

Figure 1. *The Northport VA Medical Center*
Source: Northport VA Medical Center public affairs officer, November 11, 2019

Building 65 is located on the main campus. It is a two-story brick building built in 1937. This building includes sleep facilities for patients, patient treatment rooms, administrative offices, bathrooms and shower rooms, and laundry and kitchen facilities.

Roles and Responsibilities for Maintaining Medical Center Infrastructure

According to Veterans Health Administration (VHA) Directive 1002.1, *Non-Recurring Maintenance Program*, issued September 14, 2005, the medical center director, or designee, is responsible for conducting an annual risk assessment of infrastructure to define predictable and preventable infrastructure problems.[2] The assessment includes consolidation and analysis of data from all medical center condition reports, annual workplace evaluations, accrediting body recommendations, and other reviews. The medical center director is also responsible for reviewing nonrecurring maintenance projects recommended by facility managers and adding projects to the project submission that is sent to the VISN. In addition, the medical center director is responsible for ensuring any minor construction projects included in the strategic capital investment planning process support a valid medical center strategic initiative.[3]

According to the acting chief of engineering, the medical center chief of engineering is responsible for developing a long-range plan to address facility condition assessment deficiencies and submitting business cases for individual projects to address those deficiencies.

[2] VHA's nonrecurring maintenance program's purpose is to maintain a safe and efficient medical center infrastructure. Nonrecurring projects include renovations, repairs, and maintenance.

[3] VHA Handbook 1002.2, *Minor Construction Program*, November 8, 2012. Minor construction projects are stand-alone projects that expand existing facility square footage by more than 1,000 square feet.

The chief of engineering also monitors projects that are underway to ensure the projects are completed within the established milestones and budget. The chief of engineering reports to the associate director, who reports to the medical center director.

Northport VA Medical Center Facility Condition Assessment

VA contracts for independent facility condition assessments of infrastructure systems at medical centers, Veterans Benefits Administration offices, and national cemeteries. Facility condition assessments are performed on a rotating basis, and each VISN is generally evaluated every three years. Infrastructure systems such as roofs, windows, exterior walls, air-handling equipment, and heating systems are graded based on their conditions on an A through F scale. Systems in poor or critical condition receive a grade of D or F and have cost estimates assigned to identify the capital investment required to repair or correct the condition. VA uses information from facility condition assessments to plan, justify, and fund projects to correct deficiencies. Projects to correct deficiencies are included in medical facilities' annually prepared action plans, which are created as part of the strategic capital investment planning process to reduce or close gaps in access, workload, utilization, safety, space, and facility conditions over a 10-year period.

According to the VISN 2 capital asset manager, the most recent facility condition assessment for the Northport VA Medical Center was issued in June 2017 and found that about 51 percent of the medical center's campus infrastructure systems were in poor or critical condition. The estimated cost to correct or repair these infrastructure systems was reported at about $474.4 million. About 61 percent of building 65's infrastructure systems were listed in poor or critical condition. The estimated cost to correct or repair these systems was reported to be about $5.9 million, or 1 percent of the estimated cost to correct or repair all the poorly rated infrastructure systems on the medical center campus.

Northport VA Medical Center Master Plan

According to the former acting associate director, medical center leaders began working on a master plan in December 2018. The master plan is different from the 10-year action plan developed as part of the strategic capital investment planning process, as the master plan provides a comprehensive picture of the medical center's strategy to consolidate operations and reduce the overall footprint of the medical center campus by consolidating space and reducing the number of buildings occupied by personnel and patients. For example, outpatient social work personnel are spread throughout the medical center campus. According to the master plan, they would be relocated from other buildings on the campus to building 6. The 10-year action plan, however, details specific projects and resources (for example funding) to address the medical center's infrastructure needs, such as building renovations, replacing fences, and rehabilitating roads and parking lots. The master plan also includes closing as many as 11 buildings. Medical center leaders would evaluate whether to demolish these buildings or consider other uses such as

enhanced-use lease agreements.[4] Currently, building 1 and building 2 are scheduled for demolition.

Figure 2 on the next page details the campus layout proposed in the medical center's master plan.

[4] Enhanced-use lease agreements allow for a non-VA entity to develop and operate supportive housing for homeless and at-risk veterans and their families on VA property. VA enters into a long-term lease with a private, not-for-profit, or local government entity that develops, builds, finances, operates, and maintains the housing.

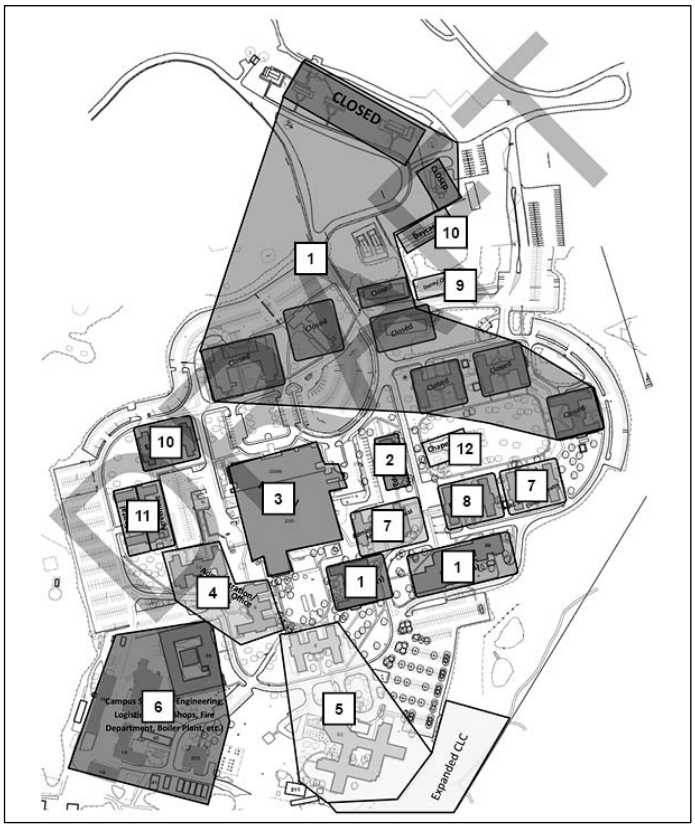

Figure 2. *Proposed Northport VA Medical Center layout*
Source: Northport VA Medical Center chief of quality management, July 3, 2019, and VA OIG analysis and modification of Northport VA Medical Center Master Plan

Legend:

1 – Buildings expected to be closed
2 – Future education building *will be used for employee learning activities and will include conference rooms, classrooms, and a computer lab.*
3 – Current hospital *will include medical center leaders, an expanded women's clinic, inpatient services, primary care services, and dialysis services.*
4 – Future administration and physician office space *will include offices for physicians and nurses, voluntary services, human resources, and fiscal services.*
5 – Current community living center *is to be expanded.*
6 – Future campus support *will include the engineering service, logistics, environmental management service, and medical center fire department.*
7 – Future mental health facilities *will include the substance abuse residential rehabilitation program, mental health clinic, social work services, recreational therapy, and psychiatry.*
8 – Future research laboratories *(building 65)*
9 – Future dorm and offices *will include residential services and space for non-Northport support offices, for example for VISN employees.*
10 – Future daycare *will serve children of staff.*
11 – Future mental health and sharing agreement offices *will include the posttraumatic stress disorder residential and outpatient program (from building 65), as well as contract housing for homeless veterans.*
12 – Current chapel

VA's Strategic Capital Investment Planning Process

VA prioritizes construction projects using strategic capital investment planning, which began in 2010. The strategic capital investment planning process governs capital projects funded through VA's major construction, minor construction, leasing, and nonrecurring maintenance programs. The objective of this process is to produce an annual consolidated list of capital projects nationally that will significantly reduce or close gaps in access, workload, utilization, safety, space, and facility conditions over a 10-year period.

According to the VISN 2 capital asset manager, each year medical centers are required to submit a 10-year action plan to address their facility's infrastructure needs, as part of the planning process. The 10-year action plans are completed two years in advance of the applicable fiscal year—for example, the 2019 to 2028 plan would have been completed in FY 2017. This plan is then submitted to the VISN capital asset manager for review. Based on estimated budget allocations and facility priorities for the upcoming year, the capital asset manager for the VISN, along with input from the facility leaders, determines which projects will be included in the VISN's operating plan, which is then rolled into VHA's national operating plan.

Results and Recommendations

Finding: Building 65 Suffered Damage Affecting Patient and Employee Space

The review team did not find that steam pipes exploded, causing damage to the building and resulting in the closure of six rooms, as alleged in the March complaint. Additionally, the review team did not identify any documented complaints regarding patient and employee health and safety issues because of the alleged incidents. However, the OIG determined that damage occurred in four rooms of building 65 due to other pipe issues. Medical center personnel acted to address the issues and reopened three of the four rooms in March 2019. Regarding the fourth room, the engineering service insulated the exposed steam pipe in February 2019; however, this room remained unoccupied until sometime before October 15, 2019, according to the psychologist who previously occupied this room. Patient care was not affected by the closure of the rooms because other space was available. Additional details regarding the timeline of events can be found in Appendix A.

Prior leaders did not effectively plan to address building 65's deficiencies. While prior leaders did ensure the required 10-year action plans were developed as part of the strategic capital investment planning process, the plans did not always clearly articulate a strategy to address the needs of building 65.[5] According to the former acting associate director, medical center leaders began developing a master plan in December 2018 to strategically reduce the campus's overall footprint, which contemplates building 65 ultimately being used as a research laboratory. Effective execution of the plan, which includes steps to address building 65's deficiencies by moving personnel and patients to another building, will help medical center leaders better align staffing and funding resources. However, the plan lacks a timeline, and the medical center director has not identified appropriate resources to ensure projects are considered for inclusion in the 10-year action plan that is prepared every year. Further, understaffing in the engineering service and the lack of a process to track work orders can affect completion of ongoing and preventive maintenance, which could impact the service's ability to plan and prioritize work orders.

What the OIG Did

The review team visited the Northport VA Medical Center during the week of June 3, 2019, and toured building 65. The team reviewed maintenance work order requests for building 65 and a

[5] The review team considers prior leaders to be individuals who served in the medical center director, associate director, and chief of engineering positions before July 2018. According to a supervisory human resources specialist, the medical center had an acting medical center director from July 2018 until July 2019, at which time a permanent medical center director was hired.

Department of Labor Occupational Safety and Health Administration (OSHA) complaint regarding issues pertaining to the building. The team also interviewed key officials from the Northport VA Medical Center, including the former acting medical center director, former acting associate director, former chief of engineering, acting chief of engineering, and the current medical center director. The team reviewed applicable VHA policies, procedures, and directives to gain an understanding of the roles and responsibilities of medical center leaders and the strategic capital investment planning process. The team also interviewed officials from VISN 2, including the director and capital asset manager, to learn more about the network and medical center's role in the planning process.

Details of this finding appear in the following sections:

- Damage to building 65 occurred, prompting room closures and repairs.
- Prior medical center leaders did not effectively plan to address building 65 deficiencies.
- Medical center leaders have a master plan to address the medical center campus's aging infrastructure, including building 65.
- Medical center leaders need to ensure completion of recurring and preventive maintenance.

Building 65 Was Damaged, Prompting Room Closures and Repairs

The review team determined that on February 9, 2019, a registered nurse in building 65 reported a small leak in the ceiling of the kitchen area in room 117. This leak spread to rooms 116 (a psychologist's office) and 118 (a women's bathroom), resulting in damage to the rooms' ceiling tiles and walls. The rooms were closed because of the damage. According to the former acting associate director, the leak occurred in an abandoned steam pipe in the ceiling that unexpectedly collected water until it started to leak. From February to March 2019, the medical center's engineering service, environmental management service, and safety officer addressed the issue by fixing the leak and removing damaged ceiling tiles in order to reopen the closed rooms.[6] According to a nurse manager, the three rooms reopened on March 12, 2019, after engineering and environmental management service work was completed. This work included the completion of an indoor air quality test that concluded air quality parameters were within their recognized limits. The psychologist whose office was closed reported that patient care was not affected because the psychologist was able to meet and treat patients in another office in the building.

In addition to the three rooms that were placed out of service because of the steam pipe leak, the review team identified an additional office (room 113) that was placed out of service. Room 113 was also used as a psychologist's office and was closed in February 2019. The psychologist who

[6] Additional details regarding actions taken can be found in Appendix A.

occupied the office told the review team that the former medical center safety officer closed the office because a discolored floor tile indicated excessive heat was radiating from a steam pipe running beneath the floor. According to a supervisory general engineer, insulation around the steam pipe deteriorated, causing the floor tile to become exposed to the heat from the pipe. The work order to replace the insulation was closed on February 28, 2019, indicating the repair work was completed. However, the office was still unoccupied at the time of the review team's site visit in June 2019. The psychologist told the team that the former medical center safety officer, who retired in March 2019, had not authorized the room to be reoccupied. The office was reoccupied sometime before October 15, 2019, when the psychologist reported that someone was then using his former office. The psychologist also told the team that patient care was not affected because he was able to treat patients in another office in the building.

Prior Leaders Did Not Effectively Plan to Address Building 65 Deficiencies

Prior leaders did not ensure the medical center had an effective plan to address building 65's aging infrastructure. Doing so may have prevented some of the damage and room closures. Most of building 65's infrastructure systems, including the heating system, were in poor or critical condition. An effective plan would have ensured prior 10-year action plans either included projects to renovate and modernize building 65, or accommodated the relocation of personnel and patients to other buildings to allow for 65's demolition.

The OIG recognizes that including projects in the 10-year action plan will not definitively lead to the award of a contract for every project because there are limited funds available to the medical center. For example, the medical center's 2020 to 2029 action plan includes 23 projects—none of which relate to building 65—with estimated funding requirements of about $15 million in FY 2020. According to the VISN 2 capital asset manager, the medical center received a planned allocation of about $9.5 million for FY 2020. The review team determined that despite these challenges, projects addressing building 65's deficiencies should be in the 10-year action plan to ensure they are considered for funding based on the medical center's needs.

Prior 10-Year Action Plans Did Not Detail a Strategy to Address Building 65 Deficiencies

The review team found prior leaders ensured 10-year action plans were developed as part of the facility's strategic capital investment planning process; however, prior-year plans did not always clearly articulate a strategy to address the deficiencies of building 65.

Example 1

The 10-year action plan from 2012 to 2021 included a project to construct a new building and relocate the mental health and residential programs from buildings

63, 64, and 65, which would then be demolished. Yet, the 10-year action plan also included projects to renovate buildings 63, 64, and 65.

Example 2

The 10-year action plan from 2013 to 2022 included a project to renovate the second floor of building 65 and relocate the Substance Abuse Residential Rehabilitation Treatment Program from building 64. The plan also included a project to renovate the posttraumatic stress disorder residential unit in building 65. While this plan addresses the needs of building 65, strategically the renovations should be done in separate years to allow for minimum disruption of services provided in the building. Accordingly, the projects should be included in separate action plans; however, there were no projects included in the action plan from 2014 to 2023 for renovations to the building.

The former acting associate director said that projects were placed in prior-year action plans without proper strategic planning. While the plans recognized the need to address the aging infrastructure of building 65, the review team found there was no consistency in planning what should be done, such as demolishing or renovating. The lack of consistency can lead to miscommunication among medical center leaders regarding the urgency of actions that need to be taken. For example, if building 65 is in such a condition that it should be closed versus renovated, a project associated with renovating another building and relocating personnel and patients from building 65 may receive higher prioritization for funding.

Prior 10-Year Action Plans Did Not Always Include Projects to Address Deficiencies

The most recent facility condition assessment report issued in June 2017 identified more than half of building 65's infrastructure systems as being in poor or critical condition, requiring about $5.9 million for repairs. Facilities should include projects to address facility condition assessment deficiencies in their 10-year action plans. However, the team found the following action plans, developed under prior leaders, did not include projects to address building 65 deficiencies:

- 2014 to 2023
- 2019 to 2028
- 2020 to 2029

Not including projects in the 10-year action plan and not clearly articulating a strategy for executing these projects can delay addressing deficiencies identified in the facility condition assessment, thereby placing staff and patients at continued risk of experiencing issues that can

impact their safety and care. Had prior leaders ensured previous 10-year action plans effectively addressed the deficiencies of building 65, it is possible that projects could have been funded to address these deficiencies. Instead, the expectation is now to begin renovating building 7 in 2021 and move personnel and patients from building 65 to this building in 2023, nearly 6 years after the facility condition assessment that reported more than half of the infrastructure was in poor condition.

Medical Center Leaders Have a Master Plan to Address Aging Infrastructure, Including Building 65

Medical center leaders in December 2018 began developing a master plan on their own initiative to consolidate operations and reduce the overall footprint of the campus. This plan includes addressing building 65 deficiencies by moving personnel and patients from building 65 to another building, closing building 65, and potentially using it as a research laboratory. The master plan provides a strategic vision of the medical center's future, and the review team believes that this is a promising step. However, the review team found the master plan lacks a timeline to ensure integration with the medical center's 10-year action plans.

Master Plan Lacks a Timeline

The master plan lacks a timeline that includes milestones or phases that detail when projects associated with the plan, specifically those related to building 65, should be initiated. Lack of a timeline can lead to confusion and miscommunication among medical center leaders as to when projects associated with the plan should be executed.

According to the Government Accountability Office's *Standards for Internal Control in the Federal Government*, issued in September 2014, managers should clearly define objectives to enable the identification of risks and define risk tolerances. These objectives should be defined in specific terms that are understood by all medical center leaders. The objectives should also be measurable, which allows managers to assess performance toward achieving them.

Defining a goal, who is responsible for achieving the goal, how the goal will be achieved and establishing a time frame will prevent miscommunication among medical center leaders during the planning and execution of the strategic planning process. This will provide medical center leaders with a clear understanding of what is to be done to accomplish the medical center's strategic vision and when projects associated with executing the master plan should be included in the annually prepared 10-year action plan. Furthermore, defining the goal, who is responsible, and how it will be achieved will ensure projects associated with the master plan are considered

for funding and subsequent award upon the execution of the medical center's action plan.[7] That way, the master plan and the 10-year action plan can work together.

The VISN Recently Implemented Processes to Help the Medical Center Leaders Execute Their Plans

The capital asset manager said that upon assuming his position for VISN 2 in 2017, he implemented a new process that provided the network with more control and oversight over the execution of medical facilities' strategic capital investment plans. According to the capital asset manager, before providing funding for a project, he checks to ensure the project is included in the 10-year action plan and will only provide funding once a contract has been awarded. Regarding the Northport master plan, the capital asset manager said he was not involved in the development of it, but he was aware of it and would ensure that, when medical center leaders submit their 10-year action plan to the network, projects associated with the master plan are included. The team determined that the 10-year action plan for 2021 to 2030 includes some projects associated with the details of the master plan.

According to the capital asset manager for VISN 2, there are no formal policies in place that describe the strategic capital investment planning process at the network level. The review team concluded that developing and implementing network oversight processes and procedures will help ensure the medical center leaders effectively execute their master plan to reduce the medical center's footprint, allowing leaders to allocate their resources to occupied buildings. The capital asset manager said he was in the process of developing a standardized process within the VISN that he expected would be implemented in the next 12 months.

Medical Center Leaders Need to Ensure Completion of Recurring and Preventive Maintenance

The execution of the medical center's master plan will take several years. As the plan is being implemented, it is imperative that medical center leaders reduce the risks associated with aging infrastructure by ensuring recurring and preventive building maintenance are completed. Even with recurring and preventive maintenance, critical, aging buildings still can experience maintenance issues that simply cannot be identified and addressed proactively.

Consider the example of room 124 in building 65, which is used as a therapy room. While annual preventive maintenance occurred on the building's steam distribution system in April 2017, the therapy room was closed twice for steam pipe and floor repairs. The former acting associate director, former chief of engineering, and nurse manager of the residential unit said a floor tile

[7] At the time of the review, there were no indications that major construction funds would be used in the execution of the master plan. Using major construction funds would require congressional approval (38 U.S.C. § 8140). Instead, the associate director reported the expectation was to implement the master plan using nonrecurring maintenance and minor construction funds. Using these funds does not require a higher level of approval.

cracked because of a "water hammer" in a steam pipe that runs under the room's floor. A water hammer occurs when a fluid in motion, usually a liquid but sometimes also a gas, is forced to suddenly stop or change direction. Water hammers cause hammer-like noises and can cause serious damage to steam pipes or fittings and can cause steam to escape from damaged pipes. According to the medical center's work order report,

- After a request to repair room 124 was submitted on November 8, 2017, the steam pipe and floor tile were fixed, and the work order was closed December 18, 2017.
- After another repair request for room 124 was submitted on February 7, 2018, the steam pipe and floor tile were repaired, again, and the work order was closed on February 21, 2018.

The acting chief of engineering said that although preventive maintenance and inspections are done, heating systems and building interior finishes are old and can break anytime. According to the acting chief of engineering, the engineering service performed steam distribution preventive inspections and maintenance for building 65 in April 2017 and again in July 2018.

Understaffing Impacted the Medical Center Engineering Service's Ability to Complete Recurring and Preventive Maintenance

According to medical center leaders, understaffing in the engineering service has affected its ability to keep up with recurring and preventive maintenance and prevent conditions from worsening in some buildings.[8] The engineering service's authorized staffing level was 109 full-time-equivalent staff at the time of the review team's work.[9] However, according to the acting chief of engineering, the engineering service only had 71 full-time-equivalent staff. While the engineering service is actively attempting to fill open positions, the acting chief of engineering said the lack of staffing affects the service's ability to do recurring and preventive maintenance as quickly as possible. The team found the engineering service received 142 work order requests for building 65 from January 4 to June 4, 2019, and closed 79 of those work orders in about 26 days on average. The remaining work orders remained open as of June 4, 2019, and were open about 68 days on average. According to the former chief of engineering and the acting chief of engineering, the medical facility does not have a timeliness goal for its maintenance requests.

Table 1 details the number and kinds of work orders the engineering service received and the average number of days the requests were open for building 65 from January through early June 2019.

[8] This was according to the former acting medical center director, former acting associate director, former chief of engineering, and acting chief of engineering.

[9] Authorized staffing was based on the engineering service's organization chart dated August 17, 2018.

Table 1. Outstanding Work Orders for Building 65 from January 4 to June 4, 2019

Description	Number of requests	Average days open
Work order request*	24	94
Monthly preventive maintenance (routine)**	25	31
Semiannual preventive maintenance (routine)***	7	131
Annual preventive maintenance (routine)****	7	47
Total	**63**	**68**

Source: VA OIG analysis of work order report for building 65 from January 4, 2019, to June 4, 2019

**Work order requests were to change ceiling tiles, remove a window unit air conditioner, and install a safety pull alarm in the bathroom stalls.*

***Monthly preventive maintenance includes inspections of exterior lighting, dry sprinkler compressors, and mechanical equipment rooms.*

****Semiannual preventive maintenance includes inspection of the refrigerator-freezer-water cooler.*

*****Annual preventive maintenance includes inspections of washers and dryers and split condensers/air-cooling package.*

The acting chief of engineering said the delays in completing the open work orders could be due to staffing, waiting for parts, or the prioritization of work. At the facility, patient safety and care issues are addressed immediately, which may affect how quickly repairs in nonpatient areas are completed.

Maintenance Work Order Process Needs to Be Improved

The engineering service is poorly positioned to assess the extent to which closures of work orders may have been delayed due to staffing or other issues. The review team found work order requests did not always clearly describe the maintenance issues, their severity, or their location. For example, when trying to determine when the four rooms, or any other rooms, in building 65 were closed, why they were closed, and when actions to address the issues were completed, the review team had to rely on emails and interviews with medical center leaders and officials. There were no clear work order requests specific to any of the impacted rooms.

Additionally, the review team found the work order reports for building 65 contained a duplicate line item for the same recurring maintenance request. The former acting associate director said duplicate work order requests have been an issue at the medical center because staff resubmit the work order if they do not receive notification of the request and do not see action being taken immediately to address the maintenance issue. The acting chief of engineering said duplicate work orders do not necessarily impact the engineering service's ability to assign projects and

manage staffing because the duplicates are sent to the appropriate service, identified as duplicate orders, and not assigned. While the team found no evidence that duplicate work order requests delayed the completion of work orders related to building 65, without a formal process to identify the duplicate requests, there is still a risk that these requests could delay the completion of some repairs.

The review team also found the medical center does not have a formal process for submitting or reviewing work order requests to ensure notification and completion of work orders. Lack of an adequate work order process could hinder the engineering service's ability to prioritize requests and manage its existing staffing levels. Lack of clear descriptions of issues and where the issues occurred, as well as duplicate requests, can extend the time it takes engineering to identify and prioritize requests. This also affects the medical center's ability to identify trends of issues that occur, where they occur, and the time it takes to address the issues, which can be useful when identifying and prioritizing the needs of the medical center's infrastructure. The medical center should develop processes and procedures for submitting work orders, including notification of when work orders are assigned and a review of work orders to ensure accuracy and consistency of requests. The acting chief of engineering said he is creating a formal process to establish procedures for submitting work order requests.

Conclusion

The review team determined that damage occurred in building 65 of the Northport VA Medical Center and resulted in the closure of four rooms. Three rooms were closed due to a leaking steam pipe, and a fourth room was closed due to an exposed steam pipe that resulted in the discoloration of a floor tile. Medical center officials acted by fixing the leak and insulating the exposed steam pipe to address the issues and reopen the rooms. The review team determined that prior medical center leaders did not effectively plan to address building 65's aging infrastructure. Doing so could have prevented some of the damage by ensuring projects to renovate building 65 or move personnel and patients to another building were consistently included in the medical center's 10-year action plans, thereby ensuring these projects would be considered for funding and award.

The medical center began developing a master plan in December 2018, which includes addressing the deficiencies of building 65 by relocating personnel and patients to another building, to reduce the campus footprint. The development of the master plan is a promising step; however, the medical center director needs to ensure the master plan includes details of when projects associated with the plan should be initiated. The medical center's aging infrastructure is further placed at risk because of the lack of processes and procedures to ensure work orders are completed and fully address the repair issue. Given the understaffing in the medical center's engineering service, it is important to ensure the accuracy and adequacy of work orders. Failure to ensure the accuracy and adequacy of work orders can affect the engineering service's ability to prioritize and complete requests, as well as manage its personnel.

Recommendations 1–3

The OIG made the following recommendations to the Veterans Integrated Service Network 2 director:

1. Develop an oversight process that Northport VA Medical Center leaders can rely on to effectively develop, implement, and execute the master plan to reduce the footprint of the medical center and better manage the needs of its aging infrastructure.
2. Ensure the Northport VA Medical Center director defines a timeline for executing the master plan and communicates the objectives to stakeholders to (1) instill consistency between the master and the strategic capital investment plans and (2) execute the master plan in accordance with agreed-upon milestones and available resources.
3. Make certain the Northport VA Medical Center director develops processes and procedures for submitting work orders, including making notifications when work orders are assigned and reviewing work orders for accuracy and consistency, to ensure the medical center's engineering service is in the best position to prioritize work and manage its resources.

Management Comments

The VISN 2 director concurred with Recommendations 1 through 3. To address Recommendation 1, the director reported that new leaders at the Northport VA Medical Center are evaluating the feasibility of implementing the recommendations of the preliminary master plan drafted by previous leaders; once approved, each step of the plan will be evaluated and the execution of the plan will be tracked by the medical center director. VISN leaders will also be updated quarterly on the progress of the plan. In response to Recommendation 2, the director reported that time frames are being established based on best approximated dates, and once these time frames are established, they will be communicated to stakeholders. The director reported that the engineering service implemented a new process for managing deficiencies by ensuring timely work order entry and subsequent assignment to their respective engineering shops to be responsive to Recommendation 3. Additionally, a workgroup was appointed to design a similar process for regular work orders and to train staff in the proper use of the work order system. The director also reported that the medical center's Operation Council, as well as its Executive Governance Board, will oversee the assignment and aging of regular work orders.

OIG Response

The VISN 2 director's comments and corrective action plans are responsive to the intent of the recommendations. The OIG will monitor the implementation of planned actions and will close

the recommendations when the director provides sufficient evidence demonstrating progress in addressing the intent of the recommendations and the issues identified. Appendix C includes the full text of the VISN 2 director's comments.

Appendix A: Timeline of Damage and Actions Taken: Building 65

The review team identified the following key dates in the timeline of damage that occurred in building 65 and actions taken to address the damage from February through mid-October 2019:[10]

Rooms 116, 117, and 118

- February 9, 2019: A veteran notified a registered nurse in building 65 about a small leak discovered in room 117 (kitchen). The leak occurred in the lighting area above the sink. The registered nurse notified the administrative officer of the day, who agreed someone needed to look at the leak.
- February 11, 2019: According to a psychologist in building 65, the leak in room 117 expanded to rooms 116 (psychologist's office) and 118 (women's bathroom) over the weekend. As a result, ceiling tiles became discolored and fell to the floor, walls became saturated with water, and the rooms were overcome with a moldy smell. According to the psychologist, a plumber was on-site trying to fix the leak.
- February 12, 2019: According to the medical center safety officer at the time, engineering staff addressed the leaking pipe and the rooms were inspected by safety, infection control, and emergency management services. Based on the inspection, the safety officer made several recommendations to address the damage, including the continued vacancy and closure of the rooms, use of dehumidifiers, and installation of a negative air system and plastic zip barriers at the doors to prevent migration of odors during work to repair the damage.
- February 13 and 14, 2019: The medical center safety officer at the time provided updates to building 65 employees and medical center leaders that restoration of the rooms was ongoing, and progress was being made. The safety officer noted that the musty smell had begun to dissipate, damaged ceiling tiles were being removed, and plastic zip barriers were installed at the doors.
- February 19, 2019: OSHA sent a letter to the medical center safety officer at the time regarding a complaint of alleged workplace hazards related to building 65. The letter alleged employees might be exposed to injury due to old steam pipes leaking and breaking throughout the first floor of building 65.
- February 22, 2019: The medical center safety officer at the time responded to the OSHA letter that the complaint arose in the aftermath of the steam pipe leak and that actions

[10] The review team was not able to identify the exact dates when the room closures occurred or when they were reopened. This time frame includes key dates regarding notifications of when the rooms were closed and reopened.

were immediately taken and continued to be taken to address the issues. According to the response, the safety officer anticipated completion of all actions and reoccupation of the rooms by March 1, 2019.

- February 27, 2019: A limited indoor air quality test was conducted by an outside vendor in rooms 116, 117, 118, and the common hall, while repairs to the closed rooms were ongoing. The test found that while low levels of mold were detected, these levels were like the levels encountered in outdoor air. Additionally, the test detected no asbestos in the air. The test concluded that air quality parameters were within their recognized limits.
- March 12, 2019: The nurse manager of the residential unit, building 65, notified employees in building 65 and medical center leaders that all engineering and environmental management service work had been completed and rooms 116, 117, and 118 were open.

Figure A.1 is a picture of room 117 (kitchen) after the repair.

Figure A.1. *Room 117, after* repairs
Source: VA OIG, June 4, 2019

Room 113

- February 22, 2019: According to the Northport VA Medical Center's work order system, a work order was submitted to replace insulation on an exposed steam pipe. Reportedly, this pipe runs underneath the floor in room 113 and caused the vinyl floor tile above it to burn and become discolored.

Figure A.2 is a picture of the discolored floor tile in room 113 (psychologist's office).

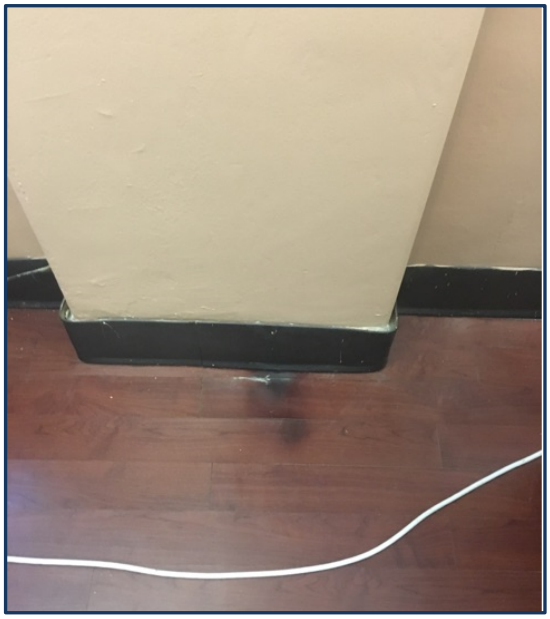

Figure A.2. *Discolored floor tile in room 113*
Source: VA OIG, June 4, 2019

- February 28, 2019: According to the Northport VA Medical Center's work order system, the engineering service completed the request to insulate the exposed steam pipe.
- June 4, 2019: During the review team's tour of building 65, the team observed that this office was still vacant and that a sign had been placed on the office door indicating it was "out of service." Medical center officials reported they were not sure why the office was vacant and that it was safe to return to the office. According to the psychologist who occupied this room, the former medical center safety officer closed the room because of concerns regarding the potential of chemical exposure due to the burnt flooring and adhesive. Additionally, the psychologist said the safety officer retired prior to clearing the room to be reoccupied.
- July 31, 2019: The psychologist informed the review team that he had not been cleared by the safety officer to return to the office.
- August 12, 2019: The acting safety officer provided a recommendation to the psychologist, along with the acting chief of engineering, nurse manager of the building 65 residential unit, and the substance abuse residential rehabilitation program director, that room 113 was habitable and that no chemical exposure was anticipated.
- August 15, 2019: The psychologist informed the review team that he had not reoccupied the room because he was waiting for a response as to whether the room would be safe to reoccupy during the colder months when the steam is back on and for reassurance that no toxic gases would be released when the vinyl flooring and adhesive are heated because of the steam pipes running beneath the floor.

- October 15, 2019: The psychologist informed the review team that he had moved into another office and someone else was using room 113.

Appendix B: Scope and Methodology

Scope

The review team conducted its work from June 2019 through February 2020. The scope of the review included incidents that resulted in the closure of rooms in building 65 from January 1 through June 4, 2019.[11]

Methodology

To gain an understanding of the roles and responsibilities for the strategic capital investment planning process the review team reviewed applicable VHA policies, procedures, and directives. Applicable criteria included the following:

- VHA Handbook 1002.02, *Minor Construction Program*, November 8, 2012
- VHA Directive 1002.1, *Non-Recurring Maintenance Program*, September 14, 2005
- VHA Handbook 0011, *Strategic Capital Investment Planning Process*, August 8, 2011
- VHA Directive 0011, *Strategic Capital Investment Planning Process*, August 8, 2011

The OIG team reviewed medical center maintenance work order requests for building 65, looked at an OSHA complaint regarding issues pertaining to the building, and interviewed key officials from the Northport VA Medical Center, including the former acting medical center director, former acting associate director, former chief of engineering, and acting chief of engineering to gain an understanding of damage that occurred in building 65, when the damage occurred, and what was done to address the issues. The team also interviewed officials from VISN 2, including the VISN director and VISN capital asset manager, as well as officials from the Northport VA Medical Center, including the current medical center director, to learn more about the VISN and medical center's roles in the strategic capital investment planning process.

The review team conducted a site visit, with short notice given to the Northport VA Medical Center, during the week of June 3, 2019, and toured building 65.

[11] The review team was not able to identify the exact dates when the rooms were closed or when they were reopened. This time frame includes key dates regarding notifications of when the rooms were closed and reopened.

Fraud Assessment

The OIG assessed the risk that fraud, violations of legal and regulatory requirements, and abuse could occur during this review. The OIG exercised due diligence in staying alert to fraud indicators. The OIG did not identify any instances of fraud or potential fraud during this review.

Data Reliability

The OIG did not use computer-processed data during the performance of this review.

Government Standards

The OIG conducted this inspection in accordance with the Council of the Inspectors General on Integrity and Efficiency's *Quality Standards for Inspection and Evaluation.*

Appendix C: Management Comments

Department of Veterans Affairs Memorandum

Date: February 21, 2020

From: Director, Veterans Integrated Service Network 02 (10N02)

Subj: Draft Report, *Improvements Needed to Reduce Aging Infrastructure Risks at Northport VA Medical Center New York* (Project Number 2019-07482-R1-0005

To: Assistant Inspector General for Audits and Evaluations (52)

Cc: Jensen, Zachery (OIG), Zachery.Jensen@va.gov

1. Thank you for the opportunity to review the OIG Draft Report - Improvements Needed to Reduce Aging Infrastructure Risks at Northport VA Medical Center New York. I concur with the report findings and recommendations.

The OIG removed point of contact information prior to publication.

(Original signed by)

Joan E. McInerney, MD, MBA, MA, FACEP
Network Director, VISN 2

Attachment

Attachment

February 18, 2020

Memorandum

To: Director, VISN 2 (10N2)

From: Director, Northport VA Medical Center (632/00)

Subj: Improvements Needed to Reduce Aging Infrastructure Risks at Northport VA Medical Center New York (Project Number 2019-07482-R1-005)

1. Thank you for the opportunity to review the draft report of the Northport VA Medical Center inspection. I have reviewed the document and concur with findings and recommendations.

2. A plan of action for each recommendation is attached. The plans of action have been carefully analyzed and will be implemented and monitored through satisfactory completion.

(Original signed by)

Antonio Sanchez, MD, MHSA, FAPA, FACHE
Director, Northport VA Medical Center

Attachment

Improvements Needed to Reduce Aging Infrastructure Risks at Northport VA Medical Center New York
(Project Number 2019-07482-R1-005)

Recommendation 1: Develop an oversight process to ensure Northport VA Medical Center leaders effectively develop, implement, and execute the medical center's master plan to reduce its footprint so that leaders can better manage the needs of aging infrastructure.

VA Response: Concur

Target date for completion: September 2020

As of June 2019, previous leadership at Northport VA Medical Center had drafted a preliminary master plan with feedback from interdisciplinary team members. The goal of the master planning effort was to reduce the campus footprint so that leaders can better manage resources that support the needs of the aging infrastructure. The new Leadership at Northport received this preliminary master plan and have been evaluating the feasibility of implementing its recommendations.

Once the master plan is approved, each step will be evaluated for feasibility and its execution tracked closely by the Northport VA Medical Center Director. All possible projects will be reviewed as part of the Facility Strategic Plan. The Master Plan execution will be a standing agenda item of the Operation Council of the facility which reports to the Executive Governance Board of Northport VAMC. VISN leadership will be updated of the progress on quarterly basis.

Recommendation 2: Ensure the Northport VA medical center director develops and defines a timeline for implementing and executing the master plan and communicates these objectives to stakeholders to (1) ensure consistency between the medical center's master plan and the strategic capital investment plan and (2) ensure the master plan is executed in accordance with agreed-upon milestones and available resources.

VA Response: Concur.

Target date for completion: August 2020

During FY20, a timeline for implementing and executing the preliminary master plan was received by the new leadership at Northport VAMC and has been under evaluation. Due to the volume of projects and internal movements within various buildings on the Northport campus, leadership has been evaluating the feasibility of those that can be performed within the existing resources and those that require a project for execution. Timeframes are being established based on the best approximated dates; however, this can be impacted by the day to day operations, the process to award contracts, and the budget allocation for proper execution. This will ensure consistency between the medical center's master plan and the strategic capital investment plan. Once the approximate timeframes have been established, these objectives will be communicated to stakeholders specifying any changes that can occur in the process.

Recommendation 3: Ensure the Northport VA medical center director develops processes and procedures for submitting work orders, to include notification of when work orders are assigned and a review of work orders for accuracy and consistency, to ensure the medical center's engineering service department is in the best position to prioritize work and manage its resources.

VA Response: Concur.

Target date for completion: August 2020

In December 2019, Engineering Services implemented a new process for managing deficiencies by ensuring timely work order entry and subsequent assignment to their respective engineering shops. With this new process in place, Northport has maintained appropriate compliance with Environment of Care

(EOC) items being closed within 14 day and has been able to complete and document the disposition of many outstanding issues.

A workgroup was appointed to design a similar process for regular work orders (issues not identified in the Environment of Care rounds) and to train staff in the proper use of the work order entry system. The assignment and aging of regular work orders will be properly tracked and will be a regular standing agenda item of the Operation Council. The council will then report on monthly basis to the Executive Governance Board which is composed of Leadership within the Organization. This will allow proper oversight and early identification of any barriers to proper resource allocation.

For accessibility, the original format of this appendix has been modified to comply with Section 508 of the Rehabilitation Act of 1973, as amended.

OIG Contact and Staff Acknowledgments

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