Chapter 3
Section
3.06

Ministry of Training, Colleges and Universities

# Infrastructure Asset Management at Colleges



## Background

The Ministry of Training, Colleges and Universities (Ministry) has significant responsibilities for supporting Ontario's publicly funded post-secondary education system. Its mandate includes developing policy directions for universities and colleges and distributing funds allocated for their day-to-day operations, as well as providing capital funds for the upkeep and construction of physical facilities.

Most of the 24 colleges of applied arts and technology were established in the mid-1960s after the province created the publicly funded college system. Currently, students can take full-time and part-time courses at more than 100 college locations across the province. Ontario's 24 colleges are responsible for managing more than 500 infrastructure assets, including buildings and major building components. College buildings are on average 30 years old; their estimated replacement value is at least $5.4 billion.

Because buildings and their components deteriorate over time, it is important to invest sufficient funds in a renewal program to maintain their functionality and value. As well, ongoing renovations or alterations are needed to reflect student program delivery requirements and to ensure that buildings are in compliance with the latest health, safety, environmental, and other requirements. For the past 10 years, the Ministry has provided colleges with facility renewal funding of $13.3 million annually, supplemented by periodic additional allocations for renewals (see Figure 1).

In addition to providing funding to assist colleges in maintaining their current facilities, the Ministry provides capital grants to enhance and expand the physical infrastructure. In recent years, the Ministry provided this funding to build facility capacity to increase the number of students a college could accept.

**Figure 1: College Facility Renewal Funding* ($ million)**
Source of data: Ministry of Training, Colleges and Universities

| | Annual Funding | Non-recurring Funding | Total Renewal Funding |
|---|---|---|---|
| 2000/01 | 13.3 | 33.3 | 46.6 |
| 2001/02 | 13.3 | – | 13.3 |
| 2002/03 | 13.3 | – | 13.3 |
| 2003/04 | 13.3 | – | 13.3 |
| 2004/05 | 13.3 | 66.7 | 80.0 |
| 2005/06 | 13.3 | – | 13.3 |
| 2006/07 | 13.3 | – | 13.3 |
| 2007/08 | 13.3 | 170.0 | 183.3 |
| 2008/09 | 13.3 | – | 13.3 |
| 2009/10 | 13.3 | – | 13.3 |
| **Total** | **133.0** | **270.0** | **403.0** |

* excludes special-purpose funding for purposes such as equipment renewal

In 2009, the federal government initiated the Knowledge Infrastructure Program (KIP), a two-year infrastructure program for colleges and universities across Canada. At the same time, the 2009 Ontario Budget announced that the province would support infrastructure enhancement at colleges and universities. The joint federal–provincial initiative was introduced as part of a broader stimulus package in response to the global economic slowdown in 2008/09 to increase research capacity, support skilled trades, and provide employment.

The federal and provincial governments together provided capital grants to colleges totalling $300.5 million between the 2006/07 and 2009/10 fiscal years. As of March 31, 2010, the two levels of government had also announced an additional $556 million in capital grants to colleges to be paid out by the end of the 2010/11 fiscal year (see Figure 2).

## Audit Objective and Scope

The objective of our audit was to assess whether the Ministry of Training, Colleges and Universities and selected colleges of applied arts and technology had adequate procedures in place to ensure that college infrastructure assets are maintained and renewed economically, effectively, and in accordance with appropriate long-term capital plans.

The scope of our audit work included researching facility infrastructure renewal and replacement practices in other jurisdictions; reviewing and analyzing ministry files, administrative directives, policies, and procedures; and interviewing ministry staff as well as staff at one French-language and four English-language colleges. We visited the following colleges: Algonquin (Ottawa), Confederation (Thunder Bay), George Brown (Toronto), Humber (Toronto), and La Cité (Ottawa). We also contacted six other colleges to obtain their input on specific issues and met with various stakeholders, including Colleges Ontario and the Council of Ontario Universities.

Our audit also included a review of related activities of the Ministry's audit services team. We reviewed the team's recent reports and considered its work and any relevant issues it identified when planning our audit.

## Summary

College facilities are a valuable provincial asset and represent a significant taxpayer investment. However, despite the ongoing and periodic one-time capital investments by the Ministry, college facilities continue to deteriorate and the backlog of deferred maintenance is increasing.

**Figure 2: College Capital Funding ($ million)**
Source of data: Ministry of Training, Colleges and Universities

| | 2006/07 | 2007/08 | 2008/09 | 2009/10 | Total |
|---|---|---|---|---|---|
| capital grants (various programs) | 24.0 | 30.2 | 57.5 | 50.1 | 161.8 |
| KIP — provincial[1] | – | 6.3 | 137.8 | 258.8 | 402.9 |
| KIP — federal | – | – | – | 291.8 | 291.8 |
| **Total Allocated** | **24.0** | **36.5** | **195.3** | **600.7** | **856.5** |
| **Total Paid[2]** | **24.0** | **36.5** | **82.9** | **157.1** | **300.5** |
| **Outstanding Commitments** | **0.0** | **0.0** | **112.4** | **443.6** | **556.0** |

1. Some provincially funded programs were approved prior to the inception of the Knowledge Infrastructure Program and have been reclassified as KIP funding.
2. These funds have been paid to the colleges, but as of March 31, 2010, not all the money had been spent.

Although the recent and significant federal–provincial infrastructure funding was welcomed, it was predominantly for new capital projects to create short-term employment and to increase student capacity, which was identified as a long-term provincial priority. While some projects under the federal government's Knowledge Infrastructure Program (KIP) include renovation and modernization components, the program will have little impact on the problem of aging infrastructure. As a result, even with substantial recent investments, the Ministry and colleges will continue to face a host of infrastructure challenges that need to be addressed. Some of our more significant observations were:

- The Ministry is in the process of implementing a long-term capital planning process but did not have a formal plan in place at the time of our audit for overseeing the management of the colleges' infrastructure. Most colleges use the same capital asset management system to help them monitor the condition of their facilities and to guide capital renewal decisions. The Ministry initially funded this system but has not used it to help develop a long-term infrastructure plan or to make objective capital funding decisions. At the end of our fieldwork, we noted that the Ministry was preparing a long-term college infrastructure plan for consideration as part of the government's commitment to introduce a 10-year provincial infrastructure plan in 2011.
- Many colleges have not maintained their asset management systems to facilitate effective capital planning and performance reporting on the condition and use of their capital infrastructure.
- Notwithstanding that some of the information contained in the college asset management system was out of date, it is the best information available on the overall state of the colleges' infrastructure. According to information contained in the system as of April 2010, the deferred maintenance backlog, or the cost to perform needed maintenance and repairs, ranged from $568 million to $745 million and has been increasing annually. System data also indicated that more than $70 million in capital repairs are in the critical category and should be dealt with in the next year.
- The capital asset management system also determines the state of repair of college assets through what is called a facility condition index (FCI), an industry standard that measures the state of each infrastructure asset. As of April 2010, by this standard, half of the college system's infrastructure assets could be classified as being in poor condition.
- According to the (U.S.) Association of Higher Education Facilities Officers (formerly the Association of Physical Plant Administrators of Universities and Colleges), annual capital renewal spending should constitute from 1.5% to 2.5% of the asset replacement cost in order to maintain the asset condition and prevent an increase in the deferred maintenance backlog. Based on this guideline, annual renewal funding to all colleges over the last four fiscal years would have been in the range of $80 million to $135 million. However, actual capital renewal funding has remained at $13.3 million annually for several years; even including the periodic additional funding, which averaged $27 million per year, the total adds up to only half of the calculated recommended amount.
- Administrators at all of the colleges we visited indicated that they had to supplement ministry renewal funds with operating funds to help address their most urgent priorities and manage the risk of assets deteriorating prematurely. They noted that, although the Ministry is not responsible for 100% of their funding, a more sustainable long-term funding approach was necessary if they were to cost-effectively maintain infrastructure assets and prolong the useful life of their facilities.

- After reviewing more than half of the major capital projects approved over the past four years, we found that the Ministry's funding decisions often lacked transparency, and there was insufficient documentation to demonstrate compliance with the eligibility criteria or to indicate on what basis funding decisions were made. The Ministry acknowledged this and had initiated work on developing a more formal capital planning and allocation process—which, the Ministry indicated, had been useful in ensuring that appropriate documentation was in place for the more recent KIP projects.
- With respect to new and renewal capital expenditures at the colleges, we found that there was adequate oversight of the competitive acquisition process and evaluation of supplier proposals to select the successful bidder.

### OVERALL RESPONSE OF THE COLLEGES

The colleges generally supported the recommendations made by the Auditor General and felt that they would provide the sector with a solid basis for working closely with the Ministry to develop an implementation plan, strategies, and timelines for addressing these issues. One college articulated that representatives of a broad spectrum of all colleges should participate in the development of clearly identified needs, funding criteria, and province-wide priorities, as well as the development of a long-term planning process using current, reliable information. Another college indicated that it felt the development by the Ministry of a long-term capital planning process that would provide the basis for allocation of capital grants would result in the colleges responding accordingly with the expertise and planning effort necessary to participate in the process.

# Detailed Audit Observations

## CAPITAL PLANNING

Capital planning is an ongoing process that helps an organization identify current and future capital needs. A sound process involves strategies to address an infrastructure asset's full life cycle, from the design and construction stages through its operation, renewal, preventive maintenance, and disposal. The objective is to improve the overall management of infrastructure assets, including maintaining existing facilities in good repair, identifying and prioritizing future facility needs, modifying current facilities to support service delivery and meet new requirements, estimating related funding needs, and developing appropriate performance measures to assess how effective the process has been.

To help achieve the government's goal of rebuilding Ontario's public infrastructure and improving service delivery, the Ministry of Public Infrastructure Renewal (now the Ministry of Infrastructure) issued, in 2004, *Building a Better Tomorrow*, which is a policy framework for planning, financing, building, and managing public infrastructure.

As a first step in addressing these challenges, all government ministries were to carry out strategic planning and develop both medium-term (three years) and long-term (10 years) infrastructure strategies. As a result, we expected that the Ministry of Training, Colleges and Universities would have developed a long-term capital planning process. In 2007, the Ministry underwent a reorganization that included changes aimed at enhancing its ability to focus on strategic policy and planning, including capital planning for post-secondary institutions. The Ministry recognized that its capital management approach traditionally allocated funding to specific capital projects based on the availability of funds and that it needed a more comprehensive capital planning model focused on demand, capacity, and maintenance of infrastructure assets. In 2008, the Ministry began work on long-term college infrastructure planning in collaboration with the Ministry of Energy and Infrastructure (now the Ministry of Infrastructure). At the completion of our audit in April 2010, the Ministry was still in the process of preparing a college infrastructure capital plan for consideration as part of the government's commitment in the 2010 Ontario Budget to introduce a 10-year provincial infrastructure plan in 2011.

One of the critical components of such a capital plan is reliable information from the colleges to enable the Ministry to compile, assess, and prioritize the colleges' infrastructure requirements and maintenance needs. In June 2008, the Ministry undertook to create a baseline inventory of capital projects and major infrastructure initiatives. It asked each of the colleges to submit proposals for three to five capital projects or initiatives that could be undertaken by the college if funding from the Ministry became available. The Ministry also requested that the colleges provide information on longer-term capital issues, including an assessment of future demand, enrolment projections, and space utilization.

The colleges responded with proposals for 102 projects and initiatives with an estimated $2.3 billion cost. Although this information was to be entered into a database to be periodically updated, we found that, due to changing priorities, the database was never fully utilized. Although some of these projects were subsequently funded under KIP or other programs, the Ministry has not allocated funding to capital projects on the basis of priorities derived from a longer-term strategy.

We also noted that the planning unit was not using other pertinent information that could help it prepare its capital plan. Colleges annually submit their strategic plans, business plans, and annual reports to the Ministry's college branch. These documents contain information on the colleges' delivery of post-secondary education, including planned capital needs. They are stored on a shared computer drive that can be accessed and reviewed by all ministry branches. However, we found no evidence that the planning unit reviewed these documents for details regarding planned capital initiatives.

At the colleges we visited, we noted that many did not have a formal capital plan or asset management plan. According to their administrators, formal capital plans were not developed largely because inconsistent and inadequate funding make such planning problematic. Some colleges also lacked the expertise to properly undertake detailed capital planning.

The administrators also informed us that concerns reported by a ministry consultant reviewing long-term capital planning in 2008 still persisted. These issues included the ad hoc nature of the current capital funding process and a perception that funding was all too often subjectively allocated rather than based on predictable, rigorous, and clear criteria.

The colleges have access to and most use a system-wide capital asset management system that provides a facility-by-facility profile. The system also provides the colleges with capital maintenance information that could be used in their capital renewal decisions. However, although the Ministry initially funded this capital asset management system, the information in the system has not always been kept up to date, so it is difficult to use the system to develop a long-term plan or to make objective capital funding decisions.

## RECOMMENDATION 1

To help ensure that capital infrastructure grants are allocated on the basis of clearly identified needs and province-wide priorities, the Ministry of Training, Colleges and Universities needs to continue developing a formal long-term capital planning process using current and reliable information obtained from the colleges and make funding decisions based on more predictable, rigorous, and clear criteria.

## MINISTRY RESPONSE

The Ministry agrees with the Auditor General on the importance of long-term capital planning and is currently in the process of developing a formal long-term capital planning process.

The long-term planning process work builds on a number of initiatives that have been completed or are under way, as well as the work being done with the Ministry of Infrastructure. These initiatives have included improvements in the collection of information on infrastructure priorities and formal project proposals from colleges and universities undertaken in 2008 and 2010. It is anticipated that this work will better prepare the Ministry to support the development of a provincial 10-year infrastructure plan that was announced in the 2010 Ontario Budget.

## FACILITIES RENEWAL AND MAINTENANCE

All college facilities and infrastructure assets suffer from the effects of age, weather, and everyday use. Failure to provide adequate maintenance results in the deterioration of these assets. However, college administrators indicated that, when compared with the publicity given to the construction of a new facility, building maintenance does not get much attention.

Since 1986, the Ministry has provided colleges with ongoing annual renewal funding through its Facilities Renewal Program to assist them in addressing the ongoing need for maintenance, repair, and renovation of existing facilities. Funding from the Ministry is used to pay for expenditures such as repairs to building structures; the upkeep of electrical, heating, and mechanical systems; alterations to improve the condition and efficiency of teaching areas; and the removal of accessibility barriers for persons with disabilities. Aside from periodic additional funding totalling $270 million, the annual facility renewal funding to all 24 colleges for the past 10 years has remained steady at a total of $13.3 million (see Figure 1).

### Information on Renewal Needs

In co-operation with the Ministry, the colleges implemented a facilities condition management information system in 2001 to improve the monitoring and reporting of the state of their physical assets. The Ministry incurred the initial $359,000 system start-up cost, after which it expected the colleges to maintain and operate the capital asset database. Currently, the colleges collectively pay about $8,000 annually in licensing and maintenance fees to use the asset management system.

Some of the system capabilities include identifying, tracking, and quantifying deferred maintenance costs; assessing facility conditions through the facility condition index; prioritizing maintenance projects; assisting in the development of capital plans; estimating life-cycle costs; and forecasting the timing and costs of capital renewal projects. If properly updated and maintained, the system could provide excellent information for college facilities staff and the Ministry to help them effectively manage the colleges' capital infrastructure assets. From a provincial perspective, this system could provide the Ministry with an overview of the condition of infrastructure assets at each of the 24 colleges and help in the development of its long-term capital plan. The Ministry could also use the information to make more informed decisions on renewal funding.

However, we found that the data in the asset management system was neither complete nor current. For example, three of the colleges we visited had not entered information for six buildings with an estimated total replacement value of $66.9 million.

The asset management system's usefulness depends on the ability of the colleges and the Ministry to ensure that the database is up to date. To keep the system current, ministry guidelines suggest that a college should assess 20% of its physical infrastructure annually through a comprehensive facility condition inspection. Inspections provide a snapshot of the physical condition of the asset and the repairs needed to maintain or prolong its useful life. We found that most of the colleges we visited had not followed this guideline and, consequently, the asset management system was out of date. We noted instances where database information had not been updated by some colleges for four to seven years.

Periodic facility inspections are important to accurately reflect estimated repair costs and the useful life of an asset. They can also help determine the nature and extent of problems and options for corrective action. Early identification and correction of problems can prevent further building wear and tear as well as potential damage to buildings and their components that is more costly or prohibitive to repair. Based on cost estimates for 2005 (the most recent information available at the time of our audit), a facility condition assessment of a college's infrastructure costs between $75,000 and $150,000, depending on whether it is a new assessment or an update of existing data.

Administrators at the colleges we visited indicated that most colleges lack the human and financial resources to ensure that the required level of detail is input into the system. Although some colleges may have used external consultants to carry out facility assessments, two of the colleges informed us that they find it more cost-effective to use internal staff to update the system, which provides them with sufficient reliable information to manage their facilities.

We also noted a wide variation in how colleges utilized the asset management database. In fact, some did not use it at all. One of the colleges we visited used the system to prioritize deferred maintenance projects and develop a five-year deferred maintenance budget and plan for its renewal projects. We felt that this was a good use of the database and that such information, if provided to the Ministry by all colleges, could help it determine the highest-priority renewal projects and justify directing funds to the most critical areas.

Despite the fact that some of the information is out of date, this database provides the best available condition information for individual colleges and the system as a whole. Such data, if reliably maintained, could be used by the Ministry to help formulate its long-term plans. In our audit of universities' management of facilities in our *2007 Annual Report*, we noted that universities had the same facility condition assessment system, which is used to identify and prioritize asset maintenance requirements. We also noted that the Ministry of Health and Long-Term Care is in the process of implementing the same condition assessment system to better evaluate hospital infrastructure across the province, determine the capital investments that need to be made, and develop appropriate implementation plans. To accomplish this, the Ministry of Health and Long-Term Care paid a service provider $8.6 million to perform facility condition assessments of all hospital facilities to populate the system with current facility information.

## Deferred Maintenance Backlog

A college building's useful life is based on its continuing ability to meet current educational and training needs while adhering to building codes and government policies. Since college infrastructure assets deteriorate over time, a building's useful life also depends on the level of ongoing maintenance. Specifically, every building and its components, such as the foundation, roof, plumbing, electrical, heating, and air conditioning, have a life cycle and need to be adequately maintained to achieve or exceed their useful life. Deferred maintenance results primarily from delaying routine and preventive maintenance. Routine upkeep is often deferred during times of financial constraint in order to meet more pressing fiscal requirements.

Although deferring maintenance saves money in the short term, it creates a future liability that could increase over time. Often, delaying routine repairs and upkeep leads to a higher risk of damage to related systems. Delays can also create other problems, including increased costs to correct the deficiencies, safety hazards from faulty components, or the premature—and expensive—replacement of assets. For example, a roof that is not properly maintained can leak and damage ceilings, floors, furniture, and equipment. Furthermore, the effects of neglecting regular upkeep may not be apparent for many years. Once the signs of deterioration become visible, the repair costs are typically far greater than the costs of ongoing preventive maintenance would have been.

A significant feature of the colleges' capital asset management system is its capability to estimate and quantify deferred maintenance costs. Based on the results of the physical facility inspections entered into the system and industry-standard maintenance cost data, it is able to calculate the costs of bringing a particular system or component to a satisfactory state. The results can then be aggregated to generate the deferred maintenance costs for individual buildings, a college's entire building portfolio, and the college system as a whole.

Notwithstanding that some of the information contained in the college asset management system was out of date, based on the information contained in the database as of April 2010, the deferred maintenance backlog for the college system ranged from $568 million to $745 million. The upper end of the range includes renewal costs that the system calculated for infrastructure assets that have reached, or are approaching, the end of their useful lives but may not necessarily need to be replaced. The system has also calculated that capital repairs costing more than $70 million are in the critical category and should be dealt with in the next year. However, as noted above, annual renewal funding for all colleges has been $13.3 million, supplemented by periodic additional funding, which totalled $270 million over the last 10 years.

College facilities are among the province's most valuable assets and represent a significant taxpayer investment. Considering that the average Ontario college building is 30 years old, there is a risk that the deferred maintenance backlog will continue to grow in direct proportion to the shortfall in annual maintenance requirements. The growing backlog of deferred maintenance projects is a key concern among college administrators and facility management staff. The staff we spoke to were concerned that putting off repairs impaired their ability to adequately maintain the structures in the condition required to provide an appropriate learning environment.

## Condition of College Facilities

The asset management system generates another fundamental indicator known as the facility condition index (FCI), an industry standard that measures the condition of facilities by considering the cost of deferred maintenance and the value of the building and related components. Specifically, the FCI is the ratio of the cost of fixing all identified deferred maintenance deficiencies to the current replacement value. The higher the ratio, the worse the condition of the asset. The FCI can assist in capital planning decisions, such as determining whether to further invest in a building's renewal or build a new facility. Industry guidelines suggest that an FCI of up to 5% is good, 5% to 10% is fair, and more than 10% is poor. According to data from the college asset management system that were provided to us in April 2010, the FCI for the college system overall was 10.4%, and half of the colleges' infrastructure assets were classified as being in poor condition.

In addition to the $13.3 million a year colleges receive in renewal funding, the Ministry periodically provides additional renewal funding. Administrators at the colleges we visited and the stakeholder groups we met with indicated that, even with these additional funds, there is still a growing backlog of deferred maintenance. For example, at one of the colleges we visited, $5 million was needed to replace a heating, ventilation, and air conditioning system that was beyond its useful life. However, the allocation of renewal funds to this college was just over $900,000 annually. The college would have to rely on other sources or significant one-time ministry funding to replace this system.

The (U.S.) Association of Higher Education Facilities Officers (formerly the Association of Physical Plant Administrators of Universities and Colleges) provides guidelines on capital renewal requirements. It recommends that annual funding should typically range from 1.5% to 2.5% of the asset replacement cost in order to maintain the asset in good condition and prevent an increasing backlog. We noted that a 2009 ministry consultant's report advised the government to provide facilities renewal funds equal to 1.5% of the colleges' $5.4 billion asset replacement value. Although we had concerns that some of the information in the college asset management system was out of date, applying the guideline, college renewal and maintenance expenditures, even without addressing the backlog, would have been in the range of $80 million to $135 million annually. Viewed this way, the $13.3 million allocation in the 2009/10 fiscal year represented significantly less than the recommended annual college renewal funding. Including periodic additional funding that averaged $27 million annually over the last 10 years, college renewal funding has been about half of the recommended minimum.

Space constraints due to increasing student enrolment and the age of buildings highlight the need for significant ongoing facilities renewal investments. The Ministry's 2010/11 fiscal year plans noted that addressing the anticipated post-secondary education demand growth and facilities renewal needs will require significant infrastructure investments across the system.

Although significant funding was provided under the Knowledge Infrastructure Program and the 2009 Ontario Budget, the majority of these funds went to new capital construction. While there was a renewal component in some of the 25 college capital projects funded under the program, such as renovations to increase student capacity, few projects exclusively involved building renewal.

If the current level of renewal funding is maintained over the next 15 years, the colleges' asset management system predicts that the facility condition index for the system as a whole could rise to 15%, well into the poor-condition range.

## RECOMMENDATION 2

To preserve the taxpayer's investment in the college infrastructure and maintain these assets in good condition so that colleges can provide an adequate learning environment, the Ministry of Training, Colleges and Universities should continue to work with Ontario colleges to:

- ensure that the asset management information system is regularly and consistently maintained to enable both the Ministry and colleges to make informed decisions based on current, accurate, and complete information; and
- develop strategies, targets, and timelines to address the deferred maintenance backlog.

## MINISTRY RESPONSE

The Ministry agrees with the Auditor General and is currently exploring options with colleges to improve asset management procedures as part of a 10-year infrastructure plan, as well as strengthening provincial accountability instruments, including space-utilization inventory and monitoring and reporting on facility conditions. Through legislation, regulation, and binding ministerial policy directives, colleges are granted responsibility for the stewardship of their assets.

The Ministry acknowledges the importance of protecting the public investments made in the college sector: significant investments have recently been made to assist Ontario's colleges through the provision of facilities renewal funding, equipment renewal funding, capital funding, and enhanced operating grant support. The Ministry initiated the establishment of the current facilities condition inventory almost a decade ago to improve asset management decision-making, and the Ministry acknowledges that it needs to play a more active role in ensuring that colleges maintain current and reliable data as part of a long-term college capital plan.

## MAJOR CAPITAL PROJECT MANAGEMENT

### Major Capital Project Selection

Major capital project funding assists colleges in new construction and major renovations to existing facilities. The Ministry provides this funding for projects to build facility capacity and increase the number of student spaces to address government-identified needs in various economic sectors, as well as to provide economic stimulus and promote job creation. An overview of major capital funding since the 2006/07 fiscal year is presented in Figure 2.

We assessed capital project management procedures within the Ontario government and researched other jurisdictions and compared their best practices to our review of college major capital projects. As a result, we determined that adequate project management procedures were generally in place for the federal–provincial Knowledge Infrastructure Program. However, for its own programs, the Ministry made funding decisions through a process that was largely informal and lacked appropriate oversight procedures and adequate documentation to demonstrate that project proposals complied with eligibility criteria, where such criteria existed, or that the projects selected best achieved the Ministry's program objectives. Specifically, we found that:

- For its major capital programs, the Ministry did not have a standard project submission process in place and could not provide us with documentation indicating how projects were evaluated, prioritized, and subsequently approved. However, the Ministry had recognized the need for a more objective capital planning process and had initiated work on a more formal process. The Ministry indicated that this had helped it ensure that for the federal–provincial Knowledge Infrastructure Program, colleges submitted capital funding proposals that were required to comply with formal criteria and were subject to a comprehensive evaluation, ranking, and selection process.
- The Ministry funded between 21% and 98% of a proposed project's total estimated cost. However, it was unable to provide us with any documentation showing how these funding decisions were made.
- Colleges generally did not submit the required audit and progress reports for major capital projects, and the Ministry did not consistently follow up to ensure that all required reports were received. Without proper reporting and sufficient documentation, it is difficult for the Ministry to ensure that the work is progressing on time and within budget, and is ultimately completed in accordance with the Ministry's funding expectations.
- In contrast to the Knowledge Infrastructure Program, where funds were advanced to the colleges as needed, the Ministry often provided much of the approved capital funds to colleges at the start of a project. As a result, funds could remain unspent for significant periods of time until the expenditures were actually incurred. At the colleges we reviewed, we noted that $39 million advanced by the Ministry during the 2007/08 and 2008/09 fiscal years had not been spent as of March 2010. Furthermore, these funds had been unspent for periods ranging from 15 months to 24 months. As required, the colleges we visited accounted for these funds separately by depositing them in investment certificates and restricting their use to approved projects.

### Monitoring Capital Projects

The government's corporate management directive for transfer-payment accountability requires that ministries have an oversight process to ensure that recipients (in this case, the colleges) are using the grants and providing the services to achieve the desired result. Appropriate oversight includes administering the capital program, assessing risk, communicating with colleges on a regular basis, monitoring the results for contracted projects, and taking corrective action when necessary. Although the Ministry expects colleges to have appropriate processes in place to ensure that capital funds are used efficiently, effectively, and for the intended purpose, it is ultimately accountable for ensuring that capital funding objectives are met.

Except for projects funded under KIP, we questioned whether the Ministry had sufficient information to determine whether capital funding is being spent for the planned purposes. Formal agreements were generally not in place outlining the Ministry's and colleges' respective responsibilities. With respect to new construction, the Ministry could not demonstrate that it carried out an effective oversight of college activities.

Specifically, colleges were required to complete and submit a monthly expenditure form to help the Ministry determine its remaining financial obligation and to facilitate government reporting requirements. However, after reviewing a number of projects that received approximately $102 million in provincial capital support, we found that two-thirds of these projects did not submit the required monthly expenditure documentation. Yet, we noted that the Ministry generally ensured compliance with a similar monthly reporting process required under the Knowledge Infrastructure Program administered as a co-operative federal–provincial program.

Colleges are required to submit an annual capital project audit statement that is audited by an external auditor. This statement is to outline project progress and to indicate the funds spent on the project to date, the source of all project funding, and that the funds allocated by the Ministry were disbursed in accordance with the project approval. Of the 14 Ministry-funded projects that were required to submit annual audited project statements at the time of our audit, 11 had not done so. Many of these statements had been overdue for two years, and until we raised the issue, no follow-up action had been taken. The Ministry subsequently obtained several of the overdue reports from the 11 colleges.

Similarly, except for projects funded under KIP, the Ministry had not gathered such information for completed projects. These annual statements would be helpful to the Ministry in its oversight role and to help it evaluate the achievement of its overall capital funding objectives, including increasing facility space and/or creating jobs.

The Ministry is responsible for overseeing the capital funding provided to colleges under the Knowledge Infrastructure Program. Furthermore, under this program, construction work must be substantially completed by March 31, 2011. If the projects are not completed by that date, the colleges will be financially responsible for completion. From our review of this program, we noted that as of March 31, 2010, only 24% of the $695 million KIP commitment had been spent. Because the federal funding is conditional on the projects being completed by March 31, 2011, the financial burden for incomplete work may become the responsibility of the province. Therefore, it is important for the Ministry to have adequate oversight procedures in place to ensure that these projects meet the substantial-completion requirement.

## College Purchasing Policies and Procedures

At the colleges we visited, we found that policies and procedures were in place to monitor renewal expenditures and the construction or modification of facilities. From our review and discussion with college staff, we found appropriate policies for a competitive acquisition process and an evaluation of supplier proposals to select the successful bidder. Where a college did not have the internal expertise to manage a major capital construction project, we noted that it hired an external project management consultant.

## RECOMMENDATION 3

To help ensure that new construction and major renovations efficiently and cost-effectively achieve both college capacity goals and ministry economic objectives, the Ministry of Training, Colleges and Universities should:

- implement fair and transparent procedures, similar to those developed for the Knowledge Infrastructure Program, for its project proposal, evaluation, and selection process;
- enter into an agreement with each college to indicate the Ministry's and college's respective responsibilities for completing the project and the necessary reporting requirements;
- advance funds to colleges as the work progresses; and
- maintain adequate documentation throughout the process to demonstrate that the program is transparent, fair, and achieves value for money, as well as college and ministry objectives.

## MINISTRY RESPONSE

The Ministry recognizes the importance of objective and transparent procedures for project proposal, evaluation, and selection. Consistent with the Auditor General's recommendation, the Ministry has communicated post-secondary capital priorities. The Ministry is currently developing more rigid criteria for project evaluation that build on the business practices associated with the federal–provincial KIP program.

The Ministry's existing Capital Support Program outlines the responsibilities and reporting requirements of a college receiving capital support funding and provides a mechanism for advancing funds on a monthly basis as work progresses on the project. It ensures that the government's transfer-payment directives are being adhered to for all capital funding.

The Ministry acknowledges that there have been gaps in enforcing compliance with ministry reporting requirements. Based on reports received for the projects reviewed, including reports received since the completion of the Auditor General's fieldwork, no significant issues have been identified to date with respect to use of funding or project outcomes. The Ministry will continue to make the necessary improvements to the oversight of capital projects that link the release of funding to the submission of required reports.

## MEASURING AND REPORTING ON PROGRAM EFFECTIVENESS

Capital expenditures are made to acquire or construct building assets and to extend the useful life of facilities and property. Provincial corporate management directives require ministries to establish clear objectives for making public infrastructure capital expenditures and to establish measures by which performance will be evaluated, including performance standards or service levels to be achieved.

Thus, given the significant funds invested in college infrastructure, the Ministry should have appropriate monitoring and performance measures in place to determine and report on whether college infrastructure assets and facilities are maintained in good condition to enable the colleges to deliver their programs. However, the Ministry's 2010/11 fiscal year plans did not include any performance measures that are linked to levels of service, and there was no plan at the time of our audit to include such measures in the ongoing capital planning process.

From a public-reporting perspective, although the Ministry reported publicly the specific funding directed to major capital projects and college renewal programs, we found that it had not established measurable objectives and criteria for evaluating the effect of the funding on the condition of college capital facilities, nor were these reported in the Ministry's published results-based plans or otherwise publicly reported. Some of the performance measures that could be reported by the Ministry to demonstrate whether its capital asset management goals are being achieved include targets for the appropriate condition of college facilities, space-utilization rates, college maintenance-expenditure levels, and accumulated deferred maintenance. The Standing Committee on Public Accounts has recommended that such information be reported by Ontario ministries as a result of its hearing on our 2007 audit on universities' management of facilities.

Although colleges have been delegated the responsibility for ensuring that their infrastructure assets are maintained in good condition, many of the colleges we visited did not have any specific performance measures in place to evaluate the success of their capital programs.

## RECOMMENDATION 4

To help ensure that all stakeholders have a good understanding of the condition of the province's college infrastructure assets, the Ministry of Training, Colleges and Universities and the colleges should continue to develop and report long-term performance indicators on the management and condition of their facilities.

## MINISTRY RESPONSE

The Ministry agrees with the Auditor General on the importance of current and reliable data on college infrastructure assets and has engaged the college system in discussions on how to implement a Building Inventory and Utilization Reporting System, as well as a Facility Condition Assessment Program. As part of the discussions with the sector, the Ministry will seek to develop performance indicators on the management and condition of college assets. The Ministry will continue to work with the Ministry of Infrastructure to ensure that college indicators are consistent with other province-wide infrastructure performance measures.