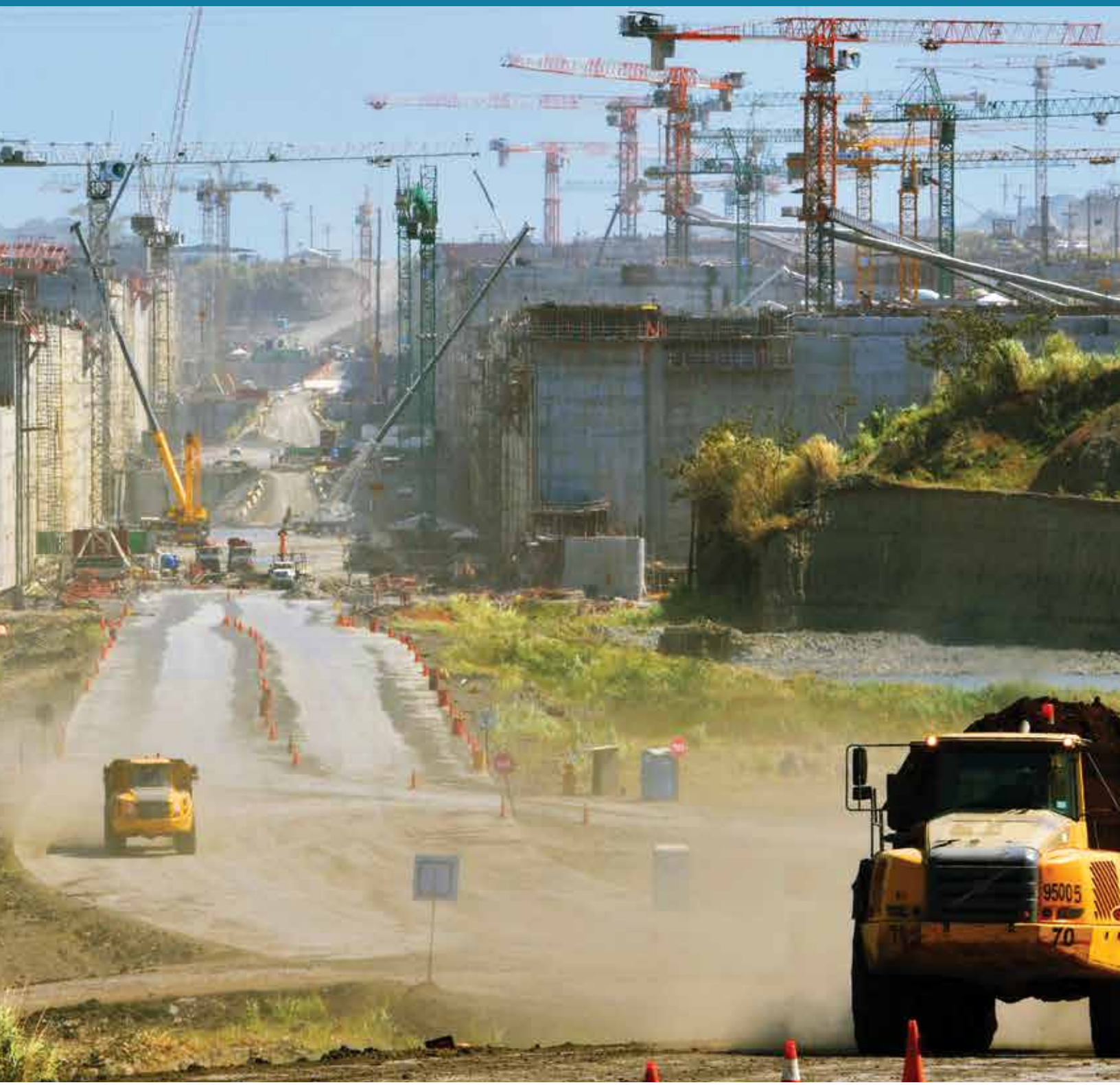
EXPANSION PROGRAM
PANAMA CANAL



APRIL.2014

CANAL DE PANAMÁ

100 años

EXPANSION PROGRAM COMPONENTS

Post-Panamax Locks

The project entails the construction of the new Post-Panamax lock complexes on the Pacific and Atlantic sides. Each complex will feature three chambers, nine water-saving basins, a lateral filling and emptying system and rolling gates.

Pacific Access Channel

A new access channel north of the new locks on the Pacific site will be created under this project. Executed in four phases (PACs 1 to 4), the project entails the excavation of some 50 million cubic meters of material along a 6.1-kilometer span.

Improvements to navigation channels

This component involves dredging of both Canal entrances, in the Atlantic and Pacific oceans, as well as the existing navigation channels in Culebra Cut and Gatun Lake.

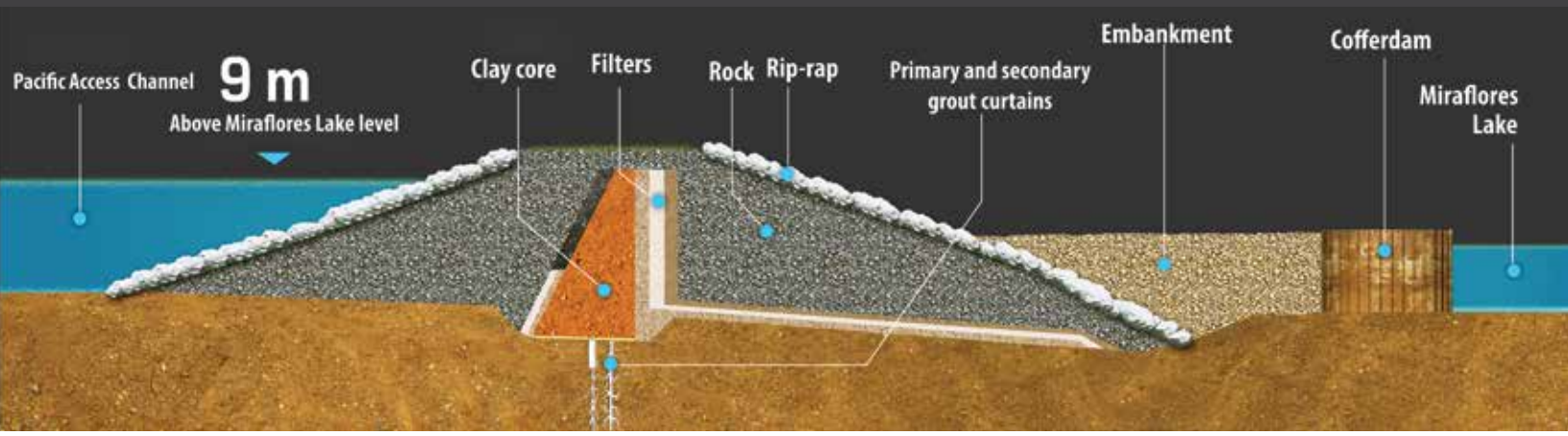
Improvements to water supply

The work will enable raising Gatun Lake's maximum operating level by 45 centimeters to improve the Canal's water supply and draft dependability.

1. Atlantic entrance dredging 2. New Atlantic locks 3. Gatun Lake

Overall progress under the Panama Canal Expansion Program was at 74 percent as of March 31, 2014.

PACIFIC ACCESS CHANNEL



Work to expand the Panama Canal officially began in September 2007 with dry excavations to create the Pacific Access Channel that will link the Third Set of Locks on the Pacific side to Culebra Cut. The work calls for the excavation of some 50 million cubic meters of material. The first three dry-excavation phases have already been completed. Consortium ICA-FCC-MECO is responsible for the fourth phase of the new 6.1 kilometer-long channel. To date, the required depth to enable navigation by vessels with deeper draft has already been achieved.

A crucial part of this project involves the construction of one out of four rock and impervious clay-core dams needed to separate the waters of Miraflores Lake from those of the new channel. Known as the Borinquen 1E, this 2.3 kilometer-long dam is located on the east bank of the new channel and will enable operating the channel nine meters above the level of Miraflores Lake.

Work on the Pacific Access Channel has also required the clearing of more than 400 hectares contaminated with unexploded ammunition (UXO) left behind by the US military during its deployment in Panama Canal areas.

Ongoing work to place the impervious clay core for the Borinquen 1E dam.

4. Culebra Cut entrance/exit **5. Pacific Access Channel** **6. Miraflores Lake** **7. New Pacific locks** **8. Pacific entrance dredging**

Cutter-suction dredge D'Artagnan completing dredging work in the Pacific entrance to the Third Set of Locks.

DREDGING

Dredging activities to enable safe navigation by Post-Panamax vessels upon completion of the Panama Canal expansion are vital to the Program. Most of the work under the various projects has already been completed.

Pacific entrance

This contract was awarded to Belgian company Dredging International on April 1, 2008. The work consisted of widening the navigation channel on the Pacific entrance to a minimum of 225 meters and deepening it to 15.5 meters below mean low water springs, as well as partial construction of the south access to the Pacific locks.

A total of 8.7 million cubic meters of underwater material were dredged under this component of the Expansion Program using world-renown high-tech, powerful equipment like dredges D'Artagnan, Vlaanderen XIX and Lange Wapper. The work was completed during the last quarter of 2012.

Atlantic entrance

This contract was awarded to Jan de Nul n.v. on September 25, 2009. The work, completed in April 2013, included dredging and dry excavation of nearly 17.9 million cubic meters of material.

Dredging of the 13.8-kilometer area included widening of the existing Atlantic entrance navigation channel from 198 meters to a minimum of 225 meters as well as the north access channel to the new Atlantic locks to a minimum of 218 meters. An option for additional dredging up to 16.1 meters was executed, which represented an extra 2.3 million cubic meters of material.

The contractor deployed several dredges simultaneously along the area, including hopper dredge Fillipo Bruneleschi and cutter-suction dredges Hondius and Marco Polo. Dredging operations concluded on January 30, 2013 with Post-Panamax dredge Charles Darwin removing the remaining shoals in the new expanded channel.

GATUN LAKE AND CULEBRA CUT

This project consists of removal of some 30 million cubic meters of material to deepen and widen the navigational channels in Gatun Lake and to deepen the navigation channel in Culebra Cut. Work in the Cut was completed at the end of 2012.

Most of the dredging work in Gatun Lake is being conducted by personnel and equipment of the Canal Dredging Division, with the support of the Boskalis-owned dredge Cornelius. The remainder of the work was awarded to contractors Jan De Nul n.v., which dredged the north entrance to the new Pacific Access Channel (completed in November 2012) and Dredging International S.A., which was responsible for dredging the reaches along the north end of the Gatun Lake navigation channel (completed in March 2012.)

The Dredging Division continues working in Gamboa, Mamey and Juan Grande reaches in Gatun Lake using equipment such as hydraulic dredge Mindi and mechanical dredge Rialto Milhouse Christensen (RMC). To date, a total of 11.7 million cubic meters of material have been removed.

To improve safety during vessel transits through the waterway, contractor Ingenieria Continental S.A. (ICONSA) was tasked with the installation of 25 new aids to navigation across the lake. A separate contract was awarded on September 30, 2013 to company Fabricacion y Montajes Industriales (FMI) from Barranquilla, Colombia to build, fabricate, paint and transport 22 buoys that will be located along the new access channel and Gatun Lake as part of the Expansion Program.

A total of 635 lights will also be installed along the new channel banks - 461 on the Pacific side and 174 on the Atlantic).

Canal in-house personnel and equipment dredging in a section of Gatun Lake.

RAISING GATUN LAKE'S MAXIMUM OPERATING LEVEL

This project consists of raising the maximum operating level of Gatun Lake from 26.7 to 27.1 meters, to improve Canal water supply. The project will enable additional water storage capacity for Gatun Lake by nearly 200 million cubic meters and calls for the modification of specific structures in Canal operating areas. To this regard, all 14 Gatun spillway gates were extended and two additional gates to contain the new water level were fabricated at the Canal industrial dry dock. To complement the maintenance of the taller spillway gates, two new caissons, or floating gates, were also acquired.

Sixteen out of the total 32 new hydraulic cylinders with capacity to operate Gatun and Pedro Miguel lock gates in semi-submerged conditions were replaced in 2013. The installation of a seal system for gate upper hinges was initiated as well as the installation of concrete bulkheads to close the recesses that provide access to the hydraulic cylinders. The installation of reverse-flow valves in locomotive electrical slots, improvements to the machinery tunnel ventilation system and the construction of watertight bulkheads and isolation gates for cylinder rooms to prevent water from seeping into the tunnels were also completed. Most previously identified Canal infrastructure, including docks, marine ramps and buildings, were updated to meet the new conditions, while other structures that will require updating were identified. Third party structures were also updated, mainly previously identified docks and building reinforcements.

DESIGN AND CONSTRUCTION OF THE THIRD SET OF LOCKS

It is the most extensive and comprehensive project under the Expansion Program. At a cost of $3.2 billion, the design-build contract was awarded on July 15, 2009 to Grupo Unidos por el Canal, a consortium formed by companies Sacyr Vallehermoso, S.A. of Spain; Impregilo SpA of Italy; Jan de Nul n.v. of Belgium; and Constructora Urbana, S.A. of Panama. The contractor formally commenced the work on August 25 of the same year.

The project entails the construction of two similar sets of locks — one on the Pacific and the other on the Atlantic side — each with three chambers, nine water-saving basins and a redundant system of eight rolling gates per lock.

The designs for the Third Set of Locks, as well as the fabrication of its different components, are being done in different parts of the world. For instance, the 16 gates are being fabricated by Cimolai S.p.A. in Italy, with the first four, which will be installed in the middle chamber of the Atlantic lock, already in Panama. Fabrication of the valves, bulkheads and trash racks was awarded to South Korean mogul Hyundai Samho Heavy Industries. The final shipment was completed on January 15, 2014 with the delivery of these electromechanical elements to both lock sites. A total of 158 valves, 84 bulkheads and 328 trash racks were fabricated and delivered.

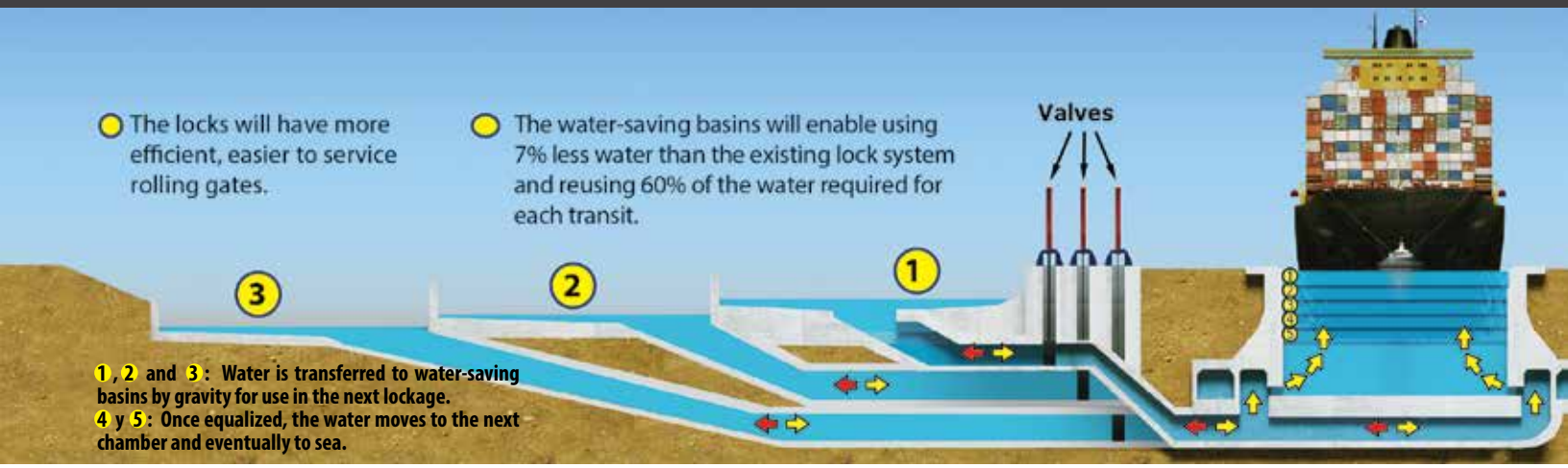
With 80 percent of the concrete already placed at both lock sites, the contractor simultaneously works on installing the metallic embeds that will enable operating the valves, bulkheads, gates and other electromechanical elements.

To build the new locks, the contractor installed its own industrial parks to produce aggregates and prepare concrete mixes. The rock extracted from excavation areas in the Pacific site, known as basalt, is crushed and used as aggregate and sand for concrete mixes in both sites.

By the end of January, an accumulated total of 3.5 million cubic meters of concrete had been placed in the Atlantic and Pacific sites, out of a required total of nearly 4.3 million.

On December 30, 2013, the contractor notified the ACP of its intention to suspend the works in the Expansion Program's main project if its claims for $1,6 billion were not resolved. As a result, the situation created an impasse that lasted almost three months and the actual suspension of the works during two weeks. However, negotiations led to the signing of an agreement, bound to the terms of the contract, through which financial support would be injected to the project by the ACP, GUPC and Zurich, the project performance bond insurer, and GUPC's commitment to complete the construction of the Third Set of Locks by December 2015.

CULVERT AND WATER-SAVING BASIN SYSTEM

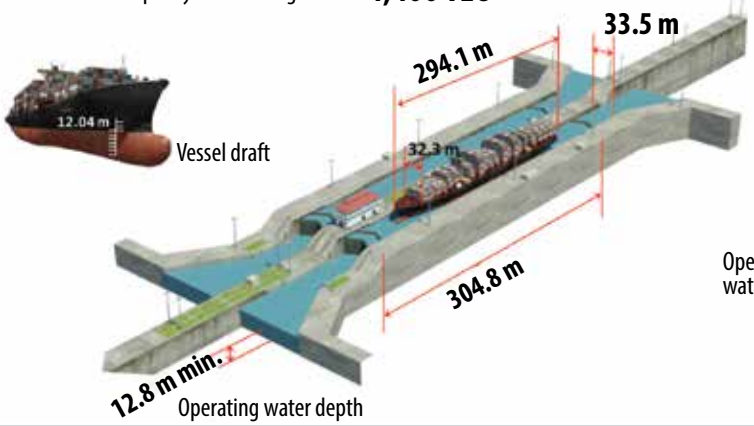


While the filling and emptying system at the existing Canal locks has a series of ports located on the chamber floor, the Third Set of Locks will operate with a lateral system with ports located on the chamber walls. The system will allow filling each lock chamber in 10 minutes whenever water-saving basins are not in use and in 17 minutes when they are part of the operation.

GENERAL INFORMATION ON THE NEW LOCKS

EXISTING LOCKS

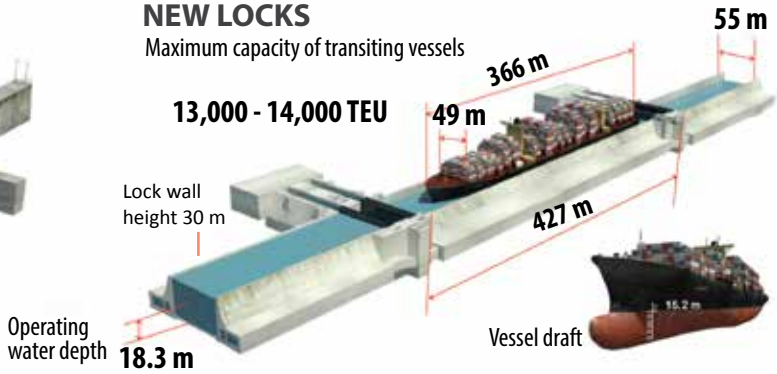
Maximum capacity of transiting vessels **4,400 TEU**



NEW LOCKS

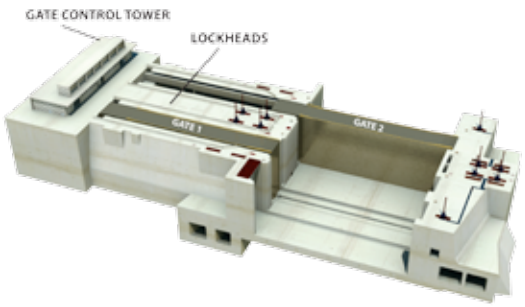
Maximum capacity of transiting vessels

13,000 - 14,000 TEU



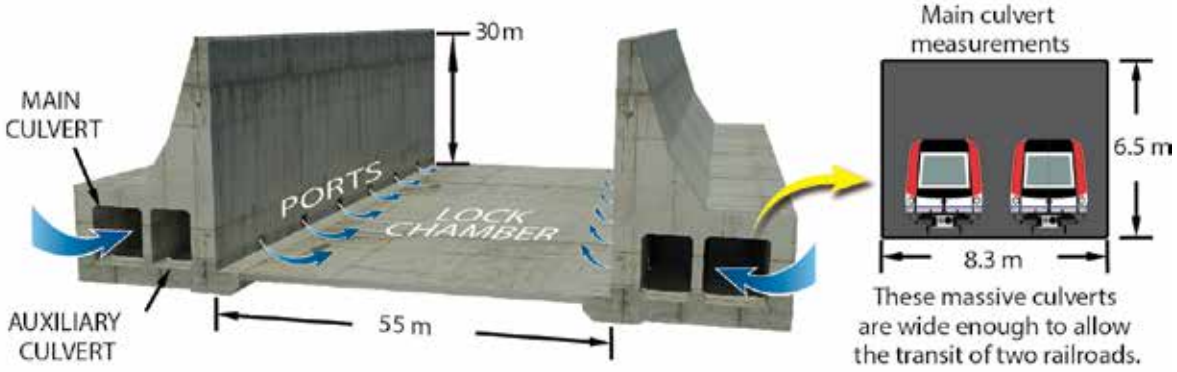
The new rolling gates are easier to service.

GATES AND GATE RECESSES



The new locks will have 16 rolling gates operating from concrete recesses located perpendicular to the lock chambers. Such gate configuration turns each recess into a sort of dry dock which will allow servicing the gates on site without the need to remove them or interrupting lock operations.

This design increases the capacity and flexibility of lockage operations, and allows for shorter maintenance times at a lower cost.



ROLLING GATES IN THE ATLANTIC SIDE-STAGING AREA

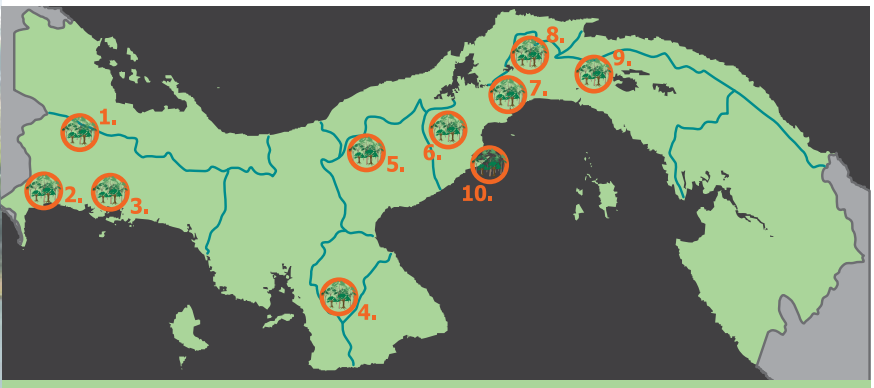
The first four rolling gates will be installed in the Atlantic locks middle chamber.

Following a nearly one month-long journey, the first four rolling gates arrived at the entrance to the Third Set of Locks on the Atlantic side on August 20, 2013. Built for the two middle chamber lock heads in the Atlantic site, the giant gates are 57.60 meters long by 10 meters wide by 30.19 meters high and weigh an average 3,100 tons. Cimolai SpA is the subcontractor responsible for the fabrication of the gates.

At a cost of $547.7 million, including fabrication, transportation and installation, the gate system is one of the main elements of the locks design and construction. Each one is made up of the gate itself, the track system and the electromechanical elements required for its operation. The rolling gates will be installed in concrete recesses built at one side of the chamber and will roll on track to the opposite side. Each gate will open and close within five minutes. They will move perpendicular to the central axis of the lock, as opposed to the exiting miter gates, which are made up of two leafs, each hoisted at one side of the lock wall, and turn on an axis to open and close.

Rolling gates were selected after numerous studies of the types of gates used in Post-Panamax locks around the world. Among the features analyzed for their selection were their dimensions and the ease of their maintenance, which can be conducted on site inside the recess, thus, reducing potential interruptions to vessel transits. Rolling gates are used in Post-Panamax locks in Europe, including Berendrecht and Zandvliet, in Antwerp, Belgium. A total of six different gate types will be fabricated, with different characteristics according to their final location. For instance, the tallest and sturdiest gates will be installed at the Pacific entrance to the Canal to make up for the significant tidal variation. Although the heaviest gates will weigh nearly 3,700 tons, their design includes buoyancy chambers that will enable them to move on the track at a mere 15 percent of their real weight.

The unloading and future installation of the gates will be conducted using specialized self-propelled modular transporters. The gates will be installed in the dry and will be tested once the locks complexes are flooded. This construction system will take the installation of these mechanical elements out of the critical path of the construction.



LOCATION OF REFORESTATION PROJECTS

1. Volcan Baru National Park - 30 ha
2. Chiriqui Viejo River mangrove - 50 ha
3. Forest Research Center - 100 ha
4. El Montuoso Forest Reserve - 50 ha
5. Omar Torrijos National Park - 150 ha
6. Altos de Campana National Park - 30 ha
7. Camino de Cruces National Park - 115 ha
8. Chagres National - 40 ha
9. Tapagra Hydro-Protected Zone, Chepo - 61 ha
10. Chame Bay - 59 ha

Activities under the Panama Canal Expansion Program abide by strict environmental standards since the beginning of the work on September 3, 2007. Nearly seven years into the execution of the program, environmental activities continue to be coordinated jointly with contractors, Panama's National Environmental Authority (ANAM) and the Aquatic Resources Authority (ARAP).

To date, more than 5,000 mammals, birds, reptiles and amphibians have been rescued and relocated in safe areas.

Reforestation projects with native species are also carried out as ecological compensation for expansion work. The reforestation is conducted in protected areas within city limits like Camino de Cruces National Park and the Tapagra Hydro-Protection Zone in Chepo, east of Panama City, as well as in the Chiriqui province and in selected areas in the Cocle and Herrera provinces. Additionally, three other projects are also being executed in the ANAM Forest Research Center (100 hectares) and in mangrove areas in Chiriqui Viejo and Chame Bay.

As of July 2013, the ACP had paid ANAM and ARAP a total of $3,893,977.85 as ecological compensation.

A beautiful young ocelot rescued and relocated in a protected area of the Panama Canal.

Area residents take part in mangrove reforestation activities in Chame Bay.

PALEONTOLOGICAL AND ARCHAEOLOGICAL STUDIES

As part of the efforts to preserve the cultural patrimony, highly-valuable archaeological items, such as a 16th-Century Spanish dagger, pre-Colombian arrowheads and bottles dating from last century have been recovered from excavation sites, restored and preserved.

A contract for paleontological research signed by the Panama Canal Authority with the Smithsonian Tropical Research Institute (STRI) concluded at the end of 2012. As a result of the work conducted by STRI, 8,862 items were collected and catalogued, of which 5,377 are made up of rock and sediments, and 3,485 are fossils.

Smithsonian Institute paleontologists search for fossils on the site.

Construction sites are visited almost daily by different groups of interest, both local and international.

ACCOUNTABILITY

To fulfill its responsibility of keeping the public informed about the Expansion Program, and in compliance with Law 28 of July 17, 2006, the Canal publishes quarterly reports on the progress achieved in the contracts under the Expansion Program for the Executive Branch, the National Assembly, the Office of the Controller General, and the Ad-hoc Committee (formed by members of civil society).

The contents of these reports are available for public consultation in the Canal Internet page at *www.pancanal.com.* The Expansion Program has also established a hotline (800-0714) and an e-mail address (ampliacion@pancanal.com) to provide general information on the program as well as to respond to queries, complaints and suggestions related to the execution of the work.

The ACP is fully committed to keeping everyone informed about progress achieved under the Expansion Program.

LABOR

The Panama Canal Expansion Program has become a significant source of job opportunities and training for professionals in different fields. More than 33,000 jobs have been created in nearly seven years of execution.

Technology, modernization and human resources are just some of the aspects boosted by the Canal expansion, in which the talents of thousands of men and women have been put to work, with the motivation of seeing this mega-project through to completion for the benefit of the nation and world shipping.

FINANCING

To procure the required financing of $2.3 billion to complete the expansion of the waterway, the Panama Canal Authority signed contracts with a group of bilateral and multilateral credit institutions. The full amount of the credit has been disbursed to date.

FINANCING INSTITUTIONS					
Japan Bank for International Cooperation (JBIC)	European Investment Bank (BEI)	Inter-American Development Bank (BID)	International Financial Corporation (CFI)	Latin American Development Bank (CAF)	Total
B/.$800 million	B/.$500 million	B/.$400 million	B/.$300 million	B/.$300 million	$2.3 billion

CANAL DE PANAMÁ

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