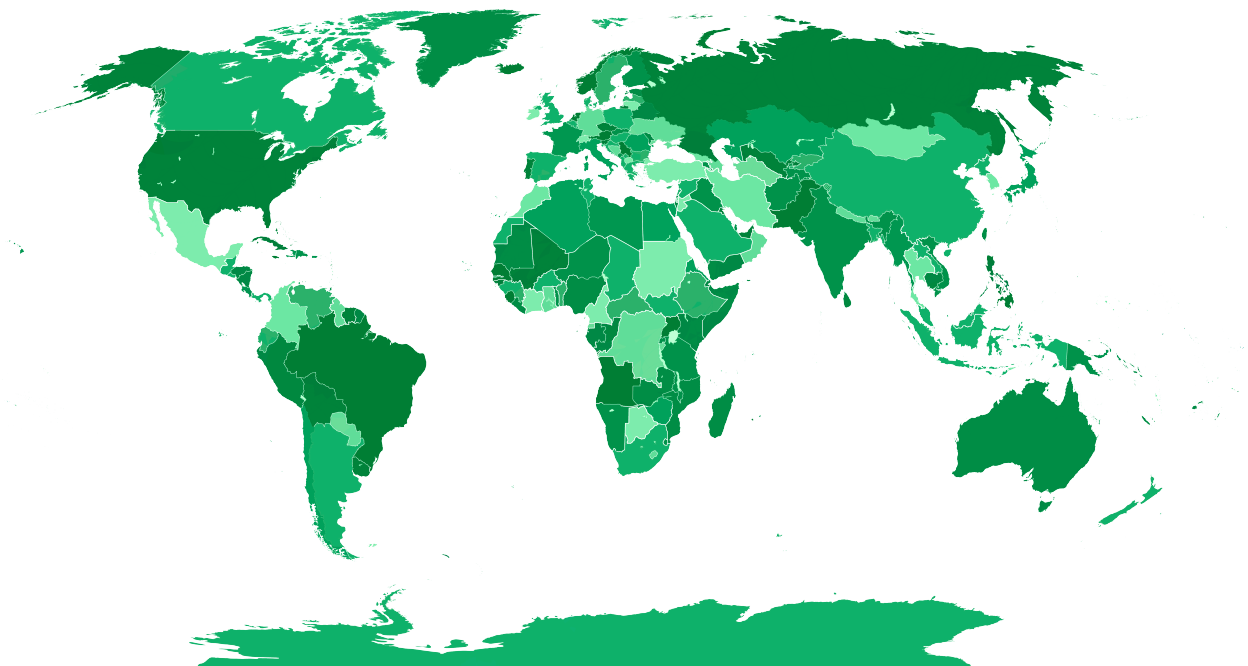




GLOBAL TOLLING NEWSLETTER

A SCAN OF TOLL ROAD DEVELOPMENT AROUND THE GLOBE

WINTER 2017



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Main Sources: IBTTA and IBTTA SmartBrief, ASECAP, World Highways, Traffic Technology Today, ITS America, Ertico – ITS Europe, Handelsblatt.com.

ABOUT IBTTA

The International Bridge, Tunnel and Turnpike Association (IBTTA) is the worldwide association for the owners and operators of toll facilities and the businesses that serve them. Founded in 1932, IBTTA has members in 20 countries on six continents. Through advocacy, thought leadership and education, members are implementing state-of-the-art, innovative user-based transportation financing solutions to address the critical infrastructure challenges of the 21st Century.

INTRODUCTION / EXECUTIVE SUMMARY

The 2017 winter issue of the global newsletter highlights interesting infrastructure developments and upgrades, maintenance challenges and toll collection system modernizations. It also mentions monitoring systems to protect transport infrastructure from disaster, like landslides. Finally, the most important events for our industry in 2017 are summarized.

In **Africa**, Morocco's massive infrastructure development program is continuing and another 1,649km of highways will be built within the second and third phase. These new highways for example will link the country's capital Rabat to the economic hub Casablanca. Mozambique opened a road tender to rebuild an important road route of over 170km. Work on one of Nigeria's busiest highways, the A5 route connecting Lagos with Ibadan, is close to completion. Finally, a new 1.2km long cable-stayed structure bridge is planned to span Okavango River in northern Botswana and Algeria is setting up a process to monitor potential landslides that could damage infrastructure.

In **Asia**, Australia hosted the 23rd ITS World Congress in October 2016. Kapsch TrafficCom has announced at this event that its Australian subsidiary has won a new contract for tolling equipment in the country. In Thailand, the Transport Ministry is preparing a tender process for over USD 9.87 billion worth of infrastructure projects. In Vietnam, a new highway is being planned to connect Hanoi in the north with Ho Chi Minh City in the south. Running for some 1,372km in all, the highway has an estimated cost of USD 10.25 billion. Further, upgrade work is underway for Hanoi's Ring Road 3 project to cut congestion. To improve its economic development a series of infrastructure upgrades are planned for Nepal. Initiated strategy foresees the development of roads in all 75 districts by 2022. Finally, India has approved 12 highway projects valued at nearly USD 908 million.

In **Europe**, 2016 brought major progress for European Interoperability (European Electronic Toll Service – EETS): 5 companies are registered as EETS-Providers. In addition to France, Portugal and Spain, EETS-Providers are in operation in Belgium and pilot operations are ongoing in Austria, Denmark and Italy. Austria's highway operator ASFINAG has awarded Kapsch to modernize its nationwide toll collection system, comprising of 2,200km highways. In Slovenia, the country's highway operator DARS has signed a EUR 110 million deal with Q-Free together with Telekom Slovenije to set up a nationwide electronic truck tolling system. In October, the German Ministry of Transport launched the public procurement procedure for a new operator of the German truck tolling system from September 2018 ongoing. Further, Poland decided to complete the final 80km section of the A1 highway (at a cost of around EUR 830 million), Russia completed a key road in the area of St. Petersburg and Montenegro awarded a Chinese contractor to build a new highway.

In **North America**, Donald Trump was elected as the 45th President of the United States of America. In a speech in December 2016 he has touted a plan to invest \$1 trillion in infrastructure, but it is unclear what may happen and how public-private partnerships will play a role. Atkins has won a major contract in the U.S. to support the US Federal

Highway Administration's Office of Operation to reduce congestion and improve mobility across the country's highway network. Further, major highway construction contracts have been awarded in California and Virginia. Daily updates about the U.S are available on the IBTTA SmartBrief. In Canada, Minister Garneau presented his strategy for the future of transportation in Canada on November 3, 2016. The strategy aims to create a safe, secure, green, innovative and integrated transportation system that supports trade and economic growth, a cleaner environment and the well-being of Canadians and their families.

In **South America**, work started on the new bridge linking Paraguay and Brazil. The construction work is planned to take 36 months to complete. Cities in Mexico are benefiting from a high budget therefore roads and bridges are being planned for 2017. Twelve projects are intended to improve access to Mexico City. Argentina is developing new port road links for the Greater Rosario area in Santa Fé Province. The projects will include work to upgrade port access roads and improvements to five road links in Santa Fé province. Colombia is currently working on major highway projects that will improve transport infrastructure. In Paraguay Road 2 and Road 7 routes are build and operated as Paraguay's first PPP highway projects. Finally, in Argentina and Chile a new tunnel should be built to connect the two countries.

AFRICA

MOROCCO ROAD CONSTRUCTION PROGRAM CONTINUES

<http://www.worldhighways.com/categories/auctions-equipment-supply-servicing-finance/news/moroccos-road-development-programme-continuing/>

Morocco's massive infrastructure development program is continuing. The cost of this project is expected to hit US\$61.86 billion by the time it is complete in 2035. The second and third phases of the road network development program for Morocco will see the construction of some 1,649km of highways. These new highways will link the country's capital Rabat to the economic hub Casablanca and to other major cities such as Tangiers in the North as well as Fes and Marrakesh.

MOZAMBIQUE ROAD TENDER DUE TO OPEN

<http://www.worldhighways.com/categories/road-highway-structures/news/mozambique-road-tender-due-to-open/>

The tender process is opening for the project to rebuild an important road route in Mozambique. The road stretch is in Cabo Delgado Province and runs a distance of over 170km from Mueda to Negomano, which lies on the country's border with neighboring Tanzania. Continuing north eastwards beyond Negomano on the same route lies the Unity Bridge that spans the Rovuma River and which forms the border between Mozambique and Tanzania.

NIGERIA KEY CONNECTION FROM LAGOS TO IBADAN

<http://www.worldhighways.com/categories/auctions-equipment-supply-servicing-finance/news/nigeria-key-connection-from-lagos-to-ibadan/>

Work on one of Nigeria's busiest highways, the A5 route connecting Lagos with Ibadan, is close to completion. Lagos and Ibadan are two of the largest cities in Nigeria and as the distance between the two is comparatively short at 128km, the highway carries heavy traffic. The tender process for the project was won by Julius Berger Nigeria in 2013, with the work being handled in two sections from Lagos to the Sagamu Interchange and from the Sagamu Interchange to Ibadan. Work on the project was halted temporarily in mid-2016 due to financing issues.

NEW BRIDGE TO SPAN OKAVANGO RIVER IN BOTSWANA

<http://www.worldhighways.com/categories/road-highway-structures/news/new-bridge-to-span-okavango-river-in-botswana/>

A new bridge is planned that will span the Okavango River in northern Botswana. The bridge will feature a cable-stayed structure and will be 1.2km long in all, with a 400m central section. The project also includes the construction of 3km of roads to connect the new bridge to existing road infrastructure, as well as installing necessary lighting and drainage systems. The project is expected to cost in excess of US\$93 million and take three years to complete.

ALGERIA ROAD PROTECTION SCHEME DEVELOPED

<http://www.worldhighways.com/categories/road-highway-structures/news/algeria-road-protection-scheme-developed/>

Algeria is setting up a process to monitor potential landslides that could damage infrastructure. The move follows a recent landslide that resulted in a stretch of the Ben Aknoun to Zéralda highway being closed for 36 hours due to severe damage. A landslide resulted in a 6m wide collapse, with five cars being caught up in the incident and 14 people being injured and having to be taken to hospital. Algeria's Ministry of Transport and Public Works is introducing the new scheme.

ASIA AND OCEANIA

23RD ITS WORLD CONGRESS, MELBOURNE, AUSTRALIA, OCTOBER 10-14, 2016

<http://ertico.com/projects/congresses/>

From October 10 to 14, 2016, Melbourne hosted the 23rd ITS World Congress. Under the theme, “ITS – Enhancing Liveable Cities and Communities,” the Melbourne Congress focused on ITS technologies increasing transport safety and mobility, to improve the sustainability of travel, reduce congestion and improve the performance and competitiveness of all modes of transport.

KAPSCH SECURES NEW TOLL TRANSPONDER CONTRACT IN AUSTRALIA

<http://www.traffictechnologytoday.com/news.php?NewsID=81932>

Kapsch TrafficCom has announced at the ITS World Congress 2016 in Melbourne that its Australian subsidiary has won a new contract for tolling equipment in the country. Kapsch TrafficCom Australia has reached agreement with Roads and Maritime Services (RMS) in New South Wales, Australia, for the supply of electronic transponders under a two-year framework agreement, with scope to extend for up to a further three years. This contract has a potential value of over €15m (US\$16.6m) if both extensions are exercised.

THAILAND TENDERS FOR INFRASTRUCTURE

<http://www.worldhighways.com/categories/road-highway-structures/news/thailand-tenders-for-infrastructure/>

Thailand's Transport Ministry is opening the tender process for over US\$9.87 billion worth of infrastructure projects. Included amongst the 11 projects being put out to tender are the 98km Bang Yai-Kanchanaburi and 196km Bang Pa-in-Saraburi-Nakhon Ratchasima highways. These two highway projects both have values in excess of \$865.75 million. Meanwhile plans to open the tender for the Tao Pun-Rat Burana highway extension project will open between December 2016 and May 2017.

INDONESIA TOLL ROAD TENDER OPENING

<http://www.worldhighways.com/categories/auctions-equipment-supply-servicing-finance/news/indonesia-toll-road-tender-opening/>

The tender process for four major toll road projects in Indonesia will commence during 2017. The Indonesian Government is partnering with the World Bank to handle the four projects. The new Bali toll road will improve transport links in Bali, while the construction of the Tegal-Cilacap toll road will provide a much-needed new link in Central Java. Also being planned is the Jogja-Bawen toll road and the Sukabumi-Ciranjang-Padalarang toll road.

NEPAL ROAD UPGRADES BEING PLANNED

<http://www.worldhighways.com/categories/earthmoving-excavation/news/nepal-road-upgrades-being-planned/>

A new bridge is being built connecting Tanahun and Chitwan for the Prithvi Highway, which lies upstream of the old Mungling Bridge over Trishuli River. A series of infrastructure upgrades are planned for Nepal that will help improve its economic development. A key infrastructure requirement for Nepal is the development of its road network. In a move to tackle the issue, Nepal's Ministry of Physical Infrastructure and Transport has initiated the strategy for the development of roads in all 75 districts by 2022.

INDIA APPROVES 12 HIGHWAY PROJECTS INCLUDING IN GOA AND NAGALAND

<http://www.worldhighways.com/categories/auctions-equipment-supply-servicing-finance/news/india-approves-12-highway-projects-including-in-go-and-nagaland/>

The Ministry of Road Transport and Highways of India has announced the approval of 12 highway projects valued at nearly US\$908 million. Projects are in the states of West Bengal, Maharashtra, Manipur, Arunachal Pradesh, Nagaland, Goa, Uttarakhand and Uttar Pradesh. The project in West Bengal entails the four-laning of the Haldia from Kolaghat section of NH-41 in addition to the upgrade and rehabilitation of the Barhani-Kataya Chowk near the Shohratgarh section of NH-730.

VIETNAM'S NORTH-SOUTH HIGHWAY PLAN

<http://www.worldhighways.com/categories/auctions-equipment-supply-servicing-finance/news/vietnams-north-south-highway-plan/>

A new highway is being planned for Vietnam that will run from north-south and feature four traffic lanes, with two in either direction. The project has been put forward to the Vietnam Government by the country's Ministry of Transport (MOT). The route of the highway has still to be revealed but the link would improve travel connections between capital Hanoi in the north of the country and Ho Chi Minh City in the South. Running for some 1,372km in all, the highway has an estimated cost of US\$10.25 billion to construct.

HANOI HIGHWAY UPGRADE UNDERWAY

<http://www.worldhighways.com/categories/road-highway-structures/news/hanoi-highway-upgrade-underway/>

Upgrade work is now underway for Hanoi's Ring Road 3 project. The work is expected to cost US\$138.3 million. The planned road improvement works are being carried out along a 5.5km section of the route, widening the highway to six lanes and installing five pedestrian bridges. The aim of the work is to cut congestion as the existing stretch of road experiences long traffic delays at peak periods.

MALAYSIA ROAD TENDER OPENING

<http://www.worldhighways.com/categories/road-highway-structures/news/malaysia-road-tender-opening/>

The tender process for a key road project is commencing in Malaysia. The tender is for building the KPC Port Link Road as well as a number of other associated works, which will be carried out in Bandar Pelabuhan Kuantan, Pahang. The project will form part of plans being set out by Malaysia's East Coast Economic Region Development Council (ECERDC). This new road link will improve connectivity to the port, allowing for more efficient transportation of goods by road, to and from the facility. To be considered for the project, contractors will have had to have carried out works worth at least US\$24.4 million within the last 10 years.

EUROPE

EUROPEAN APPROACH TO INTEROPERABILITY, THE EUROPEAN ELECTRONIC TOLL SERVICE – EETS

Within 2016 the European approach to Interoperability, the European Electronic Toll Service (EETS), seems to be getting off the ground: By the end of the year 5 companies are registered as EETS-Providers (Axxès, BroBizz A/S, Eurotoll, Total and Telepass), more applications are pending. Furthermore, in addition to France, Portugal and Spain, EETS-Providers have implemented their services in Belgium. In Austria, Denmark and Italy pilot operations are ongoing (Austria and Denmark most likely entering into operation first quarter 2017). German market remains challenging, but the opening there is expected for 2018 in a line with the awarding of a new contract for toll operator Toll Collect. Activities work under the umbrella of the EETS Facilitation Platform (see www.reets.eu).

KAPSCH TO MODERNIZE AUSTRIA'S NATIONWIDE TOLL COLLECTION SYSTEM

<http://www.traffictechtoday.com/news.php?NewsID=82837>

ASFINAG, Austria's highway and expressway operator, has awarded the contract to implement and operate the GO Toll 2.0 toll collection system to Kapsch TrafficCom AG. The contract comprises modernizing roadside infrastructure at 500 locations, and bringing the corresponding back office processing center up to the latest technological standards. The contract has been signed and work is due to begin immediately. After the new system has been approved, technical operation of the system will run for 10 years, with the option of five one-year extensions. Kapsch deployed the original toll system 12 years ago and has been operating it ever since.

Q-FREE WINS MAJOR CONTRACTS IN SLOVENIA AND USA

<http://www.traffictechtoday.com/news.php?NewsID=81407>

Within the space of two weeks, Norwegian tolling and ITS technology supplier, Q-Free, has won two major contracts in Europe and the USA, one of which is the largest in the company's history.

A partnership between Q-Free and Slovenia's majority state-owned telecommunications company, Telekom Slovenije, has signed a €110.5m (US\$124.2m) deal with the country's highway operator, Družba za Avtoceste v Republiki Sloveniji (DARS), to set up a nationwide electronic truck tolling system.

GERMANY: PUBLIC PROCUREMENT PROCEDURE FOR A NEW OPERATOR OF THE GERMAN TRUCK TOLLING SYSTEM LAUNCHED

<http://www.handelsblatt.com/politik/deutschland/toll-collect-bund-schreibt-lkw-mautsystem-neu-aus/14765326.html>

In October 2016 German Ministry of Transport launched the public procurement procedure for a new operator of the German truck tolling system from September 2018 ongoing. Best bidder in the procedure shall purchase the shares of Toll Collect GmbH which is awarded the contract for collection of truck tolls at least until 2030.

POLAND: MINISTRY DECIDES TO BUILD MISSING SECTION OF A1 MOTORWAY

<http://www.worldhighways.com/categories/auctions-equipment-supply-servicing-finance/news/poland-ministry-decides-to-build-missing-section-of-a1-motorway/>

The Polish government said that it will complete the final 80km section of the A1 motorway at a cost of around €830 million. Money will come out of the National Road fund (KFD), according to the Ministry of Infrastructure and Construction. The missing section stretches from Tuszyń to Czestochowa and the government will choose contractors in September 2017. Completion is set for 2020. Earlier this year, Strabag was awarded a contract to build a further section of the A1 motorway, around 16.7km between the Zawodzie Junction and Woźniki Junction.

KEY RUSSIAN ROAD CONSTRUCTION COMPLETE

<http://www.worldhighways.com/categories/auctions-equipment-supply-servicing-finance/news/key-russian-road-construction-complete/>

Construction work on the Central Section of Russia's Western High-Speed Diameter (WHSD) in St Petersburg is complete, with some small detail work now being finished off. The WHSD connects the Southern, Central and Northern sections of St Petersburg and will open to traffic at the end of December. VTB Capital was a key participant in funding the construction of the Central Section and is a major shareholder in the consortium that will operate the entire WHSD route.

CHINESE FIRM BUILDING MONTENEGRO HIGHWAY

<http://www.worldhighways.com/categories/road-highway-structures/news/chinese-firm-building-montenegro-highway/>

A Chinese contractor is building a new highway in Montenegro. The 40km highway will include a tunnel stretch as well as a bridge. China Communications Construction Company (CCCC) is the contractor carrying out the construction work, which is costing around €800 million. The project features a number of challenges as the route passes through difficult terrain. It is due to the number of mountains and valleys along the route that the tunnel stretch and bridge are required so as to ensure that the highway will not feature sharp curves or steep gradients.

NORTH AMERICA

TRUMP'S TALK OF INFRASTRUCTURE RAISES HOPES

IBTTA SmartBrief, December 15, 2016

President-elect Donald Trump has touted a plan to invest \$1 trillion in infrastructure, but it's unclear what may happen and how public-private partnerships will play a role. However, "the very fact that he's speaking about it raises the level of debate and allows a lot of players that have been standing on the side lines to come to the fore," says Pat Jones, CEO of the International Bridge, Tunnel and Turnpike Association.

ATKINS WINS U.S. DEAL TO CUT CONGESTION

<http://www.worldhighways.com/categories/traffic-focus-highway-management/news/atkins-wins-us-deal-to-cut-congestion/>

Consultancy firm Atkins has won a major contract in the U.S. to support highway operations and reduce congestion nationwide. The deal will see Atkins working with the U.S. Federal Highway Administration's (FHWA) Office of Operations to reduce congestion and improve mobility across the country's highway network. The US\$132 million multiple-award contract is intended to help improve the safety and efficiency of the U.S. transportation system by accelerating the deployment and integration of innovative technologies.

OHL AND ASTALDI WIN CALIFORNIA HIGHWAY CONTRACT

<http://www.worldhighways.com/categories/auctions-equipment-supply-servicing-finance/news/ohl-and-astaldi-win-california-highway-contract/>

Contractors OHL and Astaldi has won a major portion of a large highway project in California. The work is for the upgrade to I-405 in Los Angeles and is valued at US\$ 1.2 billion. The two firms will work in a joint venture on the project. OHL has a 60 percent stake in the project while Astaldi holds the remaining 40 percent share. The deal represents a positive move for Astaldi, which is keen to develop its presence in the western U.S.

VIRGINIA INTERCHANGE CONTRACT AWARDED

<http://www.worldhighways.com/categories/auctions-equipment-supply-servicing-finance/news/virginia-interchange-contract-awarded/>

The contract for a diverging diamond interchange (DDI) has been awarded in the U.S. state of Virginia. The project will cost close to US\$100 million and will be built in Stafford County. The contract will be handled by Shirley Contracting Company, of Lorton. The new DDI facility will replace the existing Interstate 95/Route 630 (Courthouse Road) interchange. The aim of the project is to increase traffic capacity as growing vehicle use is expected at this location in the Fredericksburg District. The work will see the Courthouse Road being relocated and widened to four lanes between Route 1 and I-95. In addition, the work will relocate the intersection of Courthouse Road and Route 1 to the South to align with Hospital Center Boulevard. *More information about U.S. tolling development is available on the IBTTA SmartBrief.*

MINISTER GARNEAU PRESENTS HIS STRATEGY FOR THE FUTURE OF TRANSPORTATION IN CANADA: TRANSPORTATION 2030

<http://news.gc.ca/web/article-en.do?nid=1146799>

The Honorable Marc Garneau, Minister of Transport, is delivering on his commitment to create a safe, secure, green, innovative and integrated transportation system that supports trade and economic growth, a cleaner environment and the well-being of Canadians and their families.

Minister Garneau was at the Chamber of Commerce of Metropolitan Montréal on November 3, 2016, to present his strategy, Transportation 2030, to over 550 key transportation stakeholders from across the country. The plan is based on the five themes around which the Minister consulted with Canadians, stakeholders, provinces and territories, academics and Indigenous groups over the past six months.

SOUTH AMERICA

TIMELINE FOR NEW PARAGUAY-BRAZIL BRIDGE

<http://www.worldhighways.com/categories/road-highway-structures/news/timeline-for-new-paraguay-brazil-bridge/>

Work is now starting on the new bridge linking Paraguay and Brazil. The construction work is planned to take 36 months to complete and the new link will improve transport connections between the two countries as the existing bridge is no longer able to cope with demand. The contractor for the project is the joint venture alliance Construbase-Cidade-Paulitex. When originally planned, the bridge was expected to cost in the region of US\$71.3 million, however more recent updates as to the price tag have not yet been revealed so it is not clear if it will prove costlier than expected.

MEXICO ROADS AND BRIDGES BEING PLANNED

<http://www.worldhighways.com/categories/auctions-equipment-supply-servicing-finance/news/mexico-roads-and-bridges-being-planned/>

Nuevo Leon state will benefit from a budget of US\$455.4 million for infrastructure works during 2017. However, this is a drop of 16 percent from the budget allotted for 2016. The funding will be split between road maintenance and building new roads, with a key project being work on the Saltillo-Monterrey-Nuevo Laredo Road.

Meanwhile the elevated interconnection road linking the Periferico Sur motorway with the Tlalpan toll booth in Mexico City is seen as crucial to helping develop tourism, protecting the environment and cutting congestion in Morelos and Guerrero. The new link will help cut pollution from vehicles in traffic jams and is one of 12 projects intended to improve access to Mexico City. Some \$101 million is being set aside by the authorities for building the 5km link, although funding will have to be secured for the remaining 27 percent of the cost of the work.

ARGENTINA DEVELOPING NEW PORT ROAD LINKS

<http://www.worldhighways.com/sections/key-projects/features/tunnels-and-bridges-improving-argentinas-major-road-link/>

Argentina is developing new port road links for the Greater Rosario area in Santa Fé Province. Some US\$1.21 billion will be spent upgrading transport links to ports in Ramallo, Timbues and Quequen. The projects will include work to upgrade port access roads, with a budget of \$354.5 million being targeted at improvements to five road links in Santa Fé province.

COLOMBIA DUAL CARRIAGEWAYS UNDER CONSTRUCTION

<http://www.worldhighways.com/categories/road-highway-structures/news/colombia-dual-carriageways-under-construction/>

Colombia is currently working on major highway projects that will improve transport infrastructure in the country and form part of its 4G program. The US\$616.5 million Rumichaca-Pasto dual carriageway in Narino department will improve Colombia's transport connections with neighboring Ecuador, cutting journey times from two hours at present to just one hour. The project is being handled by a consortium, Consorcio SAC 4G and involves improving an 80km road section and building additional lanes for the 74km stretch between Ipiales and Pasto.

SACYR ENTERS PARAGUAY ROAD SECTOR

<http://www.worldhighways.com/categories/road-highway-structures/news/sacyr-enters-paraguay-road-sector/>

Sacyr Concesiones is leading a consortium to build and operate the Road 2 and Road 7 routes in Paraguay. The Road 2 route will connect Asunción and Coronel Oviedo. Meanwhile the Road 7 route will run from Coronel Oviedo to Caaguazú. Construction is expected to cost US\$520 million with the concession package being for a period of 30 years. The Route 2 and Route 7 combined deal is of note as this will be Paraguay's first PPP for a highway project. The consortium is headed by Sacyr Concesiones and also includes with Mota Engil and Ocho A.

PROGRESS WITH AGUA NEGRA TUNNEL CONNECTING ARGENTINA AND CHILE

<http://www.worldhighways.com/categories/road-highway-structures/news/progress-with-agua-negra-tunnel-connecting-argentina-and-chile/>

Discussions between Argentina and Chile over the new Agua Negra tunnel to connect the two countries are proving fruitful. A bi-national commission is overseeing the project and assessing bids, with the construction work expected to cost in the region of US\$1.5 billion. Technical proposals will have to be submitted by February 2017, with economic bids made by May 2017. The winner of the tender could be announced in early 2018, with the first excavation work then commencing in late 2018 or early 2019.

INTERNATIONAL INDUSTRY EVENTS CALENDAR

2017

TRB Annual Meeting and Transportation Research Board

Washington, DC, USA, January 8-12, 2017

www.trb.org

IBTTA Winter Board & Committee Meetings

Washington, DC, USA, January 18-20, 2017

www.IBTTA.org

IBTTA Leadership Academy

Washington, DC, USA, February 12-17, 2017

www.IBTTA.org/leadershipacademy

Mobile World Congress 2017

Tampa, Florida, USA, March 12-14, 2017

www.mobileworldcongress.com

IBTTA Communications & Administration Workshop

Barcelona, Spain, February 27 – March 2, 2017

www.IBTTA.org/tampa

10th ASECAP Road Safety Conference

Brussels, Belgium, March 21, 2017

www.asecap.com

IBTTA Spring Board & Committee Meetings

Jersey City, New Jersey, USA, April 21-22, 2017

www.IBTTA.org

IBTTA Summit on Finance, Policy, VMT

Jersey City, New Jersey, USA, April 23-25, 2017

www.IBTTA.org/jerseycity

IBTTA Foundation Annual Service Project

New Orleans, Louisiana, USA, May 21, 2017

www.IBTTA.org

IBTTA Maintenance & Roadway Operations Workshop

New Orleans, Louisiana, USA, May 22-23, 2017

www.IBTTA.org/neworleans

Intertraffic

Istanbul, Turkey, May 24-26, 2017

www.intertraffic.com

45th ASECAP Study and Information Days

Paris, France, May 29-31, 2017

www.asecap.com

12th ITS European Congress

Strasbourg, France, June 19-22, 2017

www.itsineurope.com

IBTTA 2018 Conference Planning Ideas Roundtable

Dallas, Texas, USA, July 15, 2017

www.IBTTA.org

IBTTA/TRB Joint Symposium on Managed Lanes & AET

Dallas, Texas, USA, July 16-18, 2017

www.IBTTA.org/dallas

IBTTA Fall Board & Committee Meetings

Atlanta, Georgia, USA, September 8-9, 2017

www.IBTTA.org

IBTTA 85th Annual Meeting & Exhibition

Atlanta, Georgia, USA, September 10-13, 2017

www.IBTTA.org/atlanta

IBTTA International Summit of Rome

Rome, Italy, October 15-17, 2017

www.IBTTA.org/rome

23rd World Congress on Intelligent Transport Systems

Montréal, Québec, Canada, October 29 – November 2, 2017

www.itscanada.ca/events/wc_2017.html

GLOSSARY

| | |
|-----------------|---|
| AET | All-Electronic Toll Collection |
| ASECAP | Association euro penne des concessionnaires d'autoroutes et d'ouvrages à péage – European Association of Operators of Toll Road Infrastructures |
| CCCC | China Communications Construction Company |
| C-ITS | Cooperative Intelligent Transportation Systems |
| DDI | Diverging Diamond Interchange |
| DOT | Department of Transportation |
| EBRD | European Bank for Reconstruction and Development |
| EC | European Commission |
| ECERDC | East Coast Economic Region Development Council |
| EGNOS | European Geostationary Navigation Overlay System |
| EIB | European Investment Bank |
| ERF | European Union Road Federation |
| EP | European Parliament |
| EU | European Union |
| FIA | Federation Internationale de l'Automobile |
| FHWA | Federal Highway Administration |
| GALILEO | European satellite navigation system |
| GNSS | Global Navigation Satellite System |
| HOV lane | High Occupancy Vehicle lane |
| IBTTA | International Bridge, Tunnel and Turnpike Association |
| ITF | International Transport Forum |
| ITS | Intelligent Transportation Systems |
| KFD | National Road Fund |
| KPC | Kuantan Port City |
| MOT | Ministry of Transport |
| OBE/OBU | On Board Equipment/On Board Unit |
| OECD | Organization for Economic Cooperation and Development |
| ORT | Open Road Tolling |
| PIARC | Association Mondiale de la Route – World Road Association |
| PPP | Public-Private Partnership |
| RMS | Roads and Maritime Services |
| TEN-T | Trans-European Transport Network |

TRB Transportation Research Board
UNECE Economic Commission of the United Nations for Europe
WHSD Western High-Speed Diameter