MAJOR INFRASTRUCTURE PROJECTS IN MEXICO

A Resource Guide for U.S. Industry

Sponsored by the U.S. Trade and Development Agency

About This Report

This report has been developed to provide potential U.S. exporters with an overview of México's infrastructure sectors, the sector development plans in place through 2018, and to provide profiles of a sample of specific upcoming projects of potential interest.

This document represents just one section of a larger report developed and published by the U.S. Trade Development Agency. The full text is housed online in the U.S. Commercial Services' Market Research Library and can be accessed by visiting http://buyusainfo.net/docs/x_8012471.pdf. Please note that this document is an interim product. Further elaboration of transportation and telecommunications projects will be provided in the final version to be published later in 2014. This will include additional sections describing project opportunities in the energy and water sectors.

For More Information on These Opportunities

To learn more about the opportunities described in this report, locate the U.S. Export Assistance Center nearest you by visiting http://www.export.gov/eac and contact your local U.S. Commercial Service Trade Specialist for more information.

The U.S. Trade and Development Agency

The U.S. Trade and Development Agency (USTDA) helps companies create U.S. jobs through the export of U.S. goods and services for priority development projects in emerging economies. USTDA links U.S. businesses to export opportunities by funding project planning activities, pilot projects and reverse trade missions while creating sustainable infrastructure and economic growth in partner countries.

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Authors

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Transportation – Freight/Passenger Rail

The Secretaría de Comunicaciones y Transportes (SCT) is México's federal agency responsible for the country's transportation and communication systems. The SCT's mission is to develop and advance policies and programs in the transportation and communication sectors that contribute to the sustainable economic growth and social development needs of México. The SCT achieves this mission through area-specific administrative bodies. These administrative bodies are responsible for a given mode or group of modes of transportation, generally, and transportation statistics, information, and planning, specifically. These SCT units are covered in more detail in the background sections for each specific transportation mode.

Under the new administration the SCT has made it their priority to provide transport infrastructure that makes the movement of products, services, and people easier, in a fast, efficient, and low cost manner. Gerardo Ruiz Esparza was appointed by President Enrique Peña Nieto to serve as the Secretary of Transportation in 2012. The SCT was allocated $107 billion (MXN) of México's 2014 budget, 50% higher than the previous year's allocation to the agency. SCT funding accounts for 12.3% of the total projects to be carried out in 2015.

The administration's $590 billion (USD) 2014 – 2018 National Infrastructure Program (PNI in Spanish) encompasses a wide variety of projects aimed at the development of an enhanced national network of roads, ports, airports, railways and telecommunications services and infrastructure. Many of the investments identified in the PNI will be funded from an array of sources including federal resources from the Fondo Nacional de Infraestructura (FONADIN, México's National Infrastructure Fund), the Banco Nacional de Obras y Servicios Públicos (BANOBRAS, the National Works and Public Services Bank), state and municipal sources, user fees, and Public Private Partnerships (PPPs). Multilateral institutions including the World Bank Group, the North American Development Bank (NADB), and the Inter- American Development Bank (IADB) continue to be active partners supporting development of transportation infrastructure in México through a range of financing instruments and technical assistance.

Sector Background

The development of the national railway system of México began in the early 1800's much as in the United States, as a number of companies competed to develop different parts of the new system under government concessions. By 1909 the majority of the railway system was consolidated under a single government-owned company, Ferrocarriles Nacionales Mexicanos (FNM), which carried 80 percent of the rail traffic and operated on 70 percent of the tracks, providing both freight and passenger services. The scale of the system increased substantially over the following decades, providing service to most parts of the country. By the 1980's the railroad suffered from major problems in competitiveness and efficiency and had become heavily indebted. Between 1997 and 1999 the government completely restructured the railroad system and dismantled FNM. This process included shutting down nearly all intercity passenger rail services and transferring

operation of the network to private or public entities in vertically integrated multi-decade concessions. As of today nine companies hold operating concessions:

Ferrocarril Mexicano and Ferrosur, combined represent the largest group operating freight concessions in México. Controlling 8,600 kilometers of main lines, this group moved over 52 billion ton-kilometers of freight in 2012.

Kansas City Southern de México, the second largest freight concessionaire, operating 4,283 kilometers of main lines, KCSM transported 25.2 billion ton-kilometers of freight in 2012.

Ferrocarril y Terminal del Valle de México is a concession commonly owned between the major freight operators providing joint terminal and switching services across 297 kilometers of lines in the Valley of México.

Línea Coahuila-Durango is a regional freight concessionaire operating over 974 kilometers of mainline in the north central region of México.

Ferrocarril del Istmo de Tehuantepec, known as FIT, is a parastatal entity that operates a short line freight corridor in southern México running north from the coast at Salina Cruz.

Compañía de Ferrocarriles de Chiapas-Mayab, operated by government railroad FIT, is responsible for providing freight services on a 1,550 kilometer network in southern México.

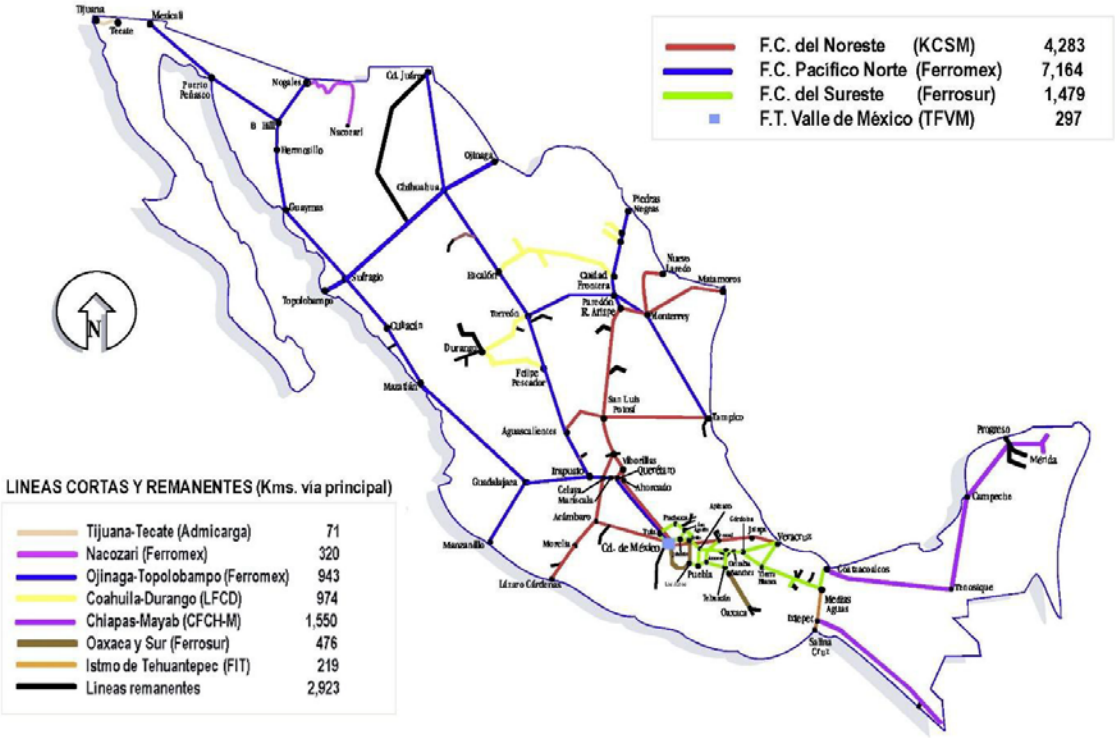
Administradora de la Vía Corta Tijuana – Tecate (ADMICARGA), a parastatal short-line freight service and tourist train operator in Baja California.

Ferrocarriles Suburbanos, S.A.P.I. de C.V. provides commuter rail service from the suburban area of Cuatitlan south to Buenavista near the center of México City.

The remaining passenger service obligations on the network have focused on providing public rail transport to isolated communities that have no other mode of public transportation available to them, promoting the development of passenger rail tourist services in regions of high market potential, and the operation of a commuter rail corridor service in México City.

The restructuring and privatization has achieved many of México's transportation policy objectives in the sector and established a base for future development. Both railroad tons transported and ton-kilometers transported have risen steadily. Rail's modal share of freight traffic has risen substantially, from 12.5% of tons and 19% of ton-kilometers transported in 1995 to 18% and 25%, respectively. The private concessionaires have made steady and significant investments in the rail networks they operate, increasing speeds, weight capacity and clearances on many routes. Today México's railway network consists of 26,727 kilometers of track reaching throughout the country. A total of 11.6 million tons and 79.4 million ton-kilometers of freight, and 911.6 million passenger-kilometers were transported on the network in 2012. By volume freight rail traffic was composed of

industrial products (48%), agricultural products (24%), minerals (14%) and petroleum and petroleum products (8%).



México's National Railway Network

México's freight rail operations are the backbone of the $1 billion per day trade partnership between the United States and México. Rail lines link manufacturers, suppliers and consumers on both sides of the border, supporting a robust bilateral trade. In 2012, foreign trade accounted for 45.5% of cargo handled on the Mexican railway network. It is an essential mode for transportation of heavier, low value cargoes. As freight rail operating performance and efficiency has steadily increased, railroads are capturing a greater share of high-value and time sensitive cargoes that traditionally moved by truck, such as containerized freight.

The modern railway system of México is overseen by the Secretariat of Communications and Transportation General Directorate of Rail and Multimodal Transportation. The Directorate serves to oversee the economic functioning, operational safety and the physical development of the Mexican railway network. As such it is an operating and economic regulator, as well having responsibility for carrying out strategic national development and planning responsibilities. This includes procurement of goods and services for, and management of, major federally supported railway infrastructure projects. The private concessionaires are responsible for management of operations on the lines they control, and for performing maintenance and investments in the track, structure, systems and rolling stock to maintain and improve the operations of their portions of the system.

The new presidential administration strongly believes that México's productivity and global competitiveness depend upon further investment and expansion of the railroad system, including physical expansion of the network with new freight and passenger lines and services, increased multimodal connectivity and efficiency, such as between railroads and ports, and, investments to increase the capacity and efficiency of the existing tracks. Strategic national policy goals for the rail sector include reducing logistics costs for freight customers, improving the safety and efficiency of operations generally, increasing freight security, and supporting sustainable urban development and improving Mexicans' quality of life be providing new passenger rail services. Specific quantified sector goals have been set by the government. By 2018 the national score in the World Economic Forum's infrastructure and logistics competitiveness index will be increased by 0.01. Transportation modal share will be substantially increased by raising freight tons transported by rail from 25.4% to 27.3% of the total, and increasing average, monthly intercity rail passenger ridership from 4.9 million to 162 million passenger-kilometers.

To accomplish these goals the **National Infrastructure Program** has set an investment objective of more than $10 billion dollars to be accomplished through execution of 13 specific major rail projects and investment programs by 2018. This funding is expected to come from a mix of public and private sources, the balance varying significantly depending upon the project. The 13 projects include constructing three brand-new intercity passenger train services, performing a program of investments in improved signaling and communications components, particularly at-grade crossings, across the national rail network, completing a program to recapitalize large sections of the Chiapas-Mayab rail network, and execution of seven strategic projects, including bypasses, tunnels and connectors that will improve freight network efficiency and remove areas of congestion, particularly at intermodal conflict points in densely populated urban areas.

The following projects are those that are underway or nearing completion at the time of this writing:

- **Construction of the Celaya Freight Bypass (CG-195):** Budgeted at $426 million in total investment, this project is underway in the state of Guanajuato and is nearing completion.
- **Urban Rail Signaling Investment Package:** Budgeted at $152 million in total investment, this project is national in scope and focuses on at-grade crossing safety improvements. It was awarded but has not begun execution due to procurement disputes.
- **Freight Rail Bypass and Tunnel at Manzanillo (CG-073):** Budgeted at $102 million, this project improves the flow of freight rail connectivity to the port through construction of a 900-meter long tunnel and reduces multimodal conflicts. It is part of a larger initiative in the port area that includes a bypass, new rail connections and a rail yard expansion.
- **Matamoros Freight Rail Bypass and Border Crossing:** Budgeted at $61 million in total investment, this project is constructing a freight rail bypass and a new border crossing in the city of Matamoros, Tamaulipas state.
- **Relocation and Multimodal Expansion of the Durango Freight Rail Terminal:** This project is underway and budgeted for a total investment of $80 million dollars.

The following projects are yet to be initiated but are planned for completion by 2018. Insufficient planning documentation was presently available to prepare comprehensive project profiles:

- **Construction of the Freight Rail Bypass at Coatzacoalcos (CG-159):** Budgeted at $190 million in total investment, this project will take place in the state of Veracruz. Planning studies are underway by SCT.
- **Construction of the Connection between Aguascalientes and Guadalajara (CG-029):** Budgeted at $884 million in total investment, this project will take place in the states of Aguascalientes and Jalisco. Planning studies are underway by SCT.
- **Recapitalization of the Chiapas-Mayab Rail Network:** Budgeted at $462 million in total investment, this program will repair and improve the infrastructure of this network serving the southern states of Campeche, Chiapas, Veracruz and Yucatán. Works will include rehabilitation of 1,046 kilometers of rail lines, including bridges and drainage systems, along the corridors "FA" (Chapo, Veracruz – Mérida, Yucatán), "FL" (Campeche - Lerma, Campeche), "FD" (Mérida - San Ignacio, Yucatán), "FX" (Dzitas a Valladolid, en Yucatán) "K" (Chiapas Coast).
- **Rail-Urban Coexistence Improvements in the City of Juarez:** With a planned total investment of $69 million, this project in this important border city in the state of Chihuahua will invest to reduce multimodal conflicts and impacts of train traffic on the city over 19 kilometers of lines.
- **Rail-Urban Coexistence Improvements in the City of Juan Palomar:** With a total investment of $4 million planned, this project in this important border city in the state of Chihuahua will invest to reduce multimodal conflicts and impacts of train traffic on the city over 19 kilometers of lines.

The following projects were selected for detailed profiling on the following pages. They have either yet to begin or have significant phases of works yet to be procured, detailed planning documentation was available, and they are expected to have significant future potential for U.S. exporters. The investment programs of the two largest freight rail concessionaires have been included as a single profile.

- **Construction of the High-Speed Passenger Rail System between Querétaro and México City (CG-094)**
- **Capital investments by Freight Railroad Concessionaires Ferromex and Kansas City Southern de México**
- **Construction of the Intercity Passenger Rail System between Toluca and the Valle de México (CG-263)**
- **Construction of the Trans-Peninsular Passenger Train (CG-243)**

High-Speed Passenger Train from Querétaro to México City

Project Type	Intercity Passenger Rail
State(s):	Distrito Federal, México, Hidalgo,
Projected	USD $3.3 Billion
Timeline:	2014 – 2017
Project Sponsor(s):	SCT

Project Background and Scope

This new rapid intercity passenger rail system will connect the capital of México City and the city of Querétaro. The service will run from Terminal Buenavista in México City, continuing to stations at Cuatitlán, Huehuetoca, Tula, San Juan del Rio, to Terminal Querétaro. The service corridor is 209.2 route kilometers of double track, including 15.6 kilometers of elevated tracks crossing 37 viaducts, and 15 tunnels totaling over 11,000 meters. Of this, 124.7 route-kilometers will be new construction.

With a planned top speed of 300 kilometers per hour, a trip between Querétaro and México City will take approximately one hour. The train is projected to make 36 runs and transport over 23,000 users daily. This high- speed train will be the first of a series of passenger rail projects carried out over the next six years, including the México-Toluca passenger train which is also profiled in this Guide. This project is part of a government commitment to build infrastructure for passenger mobility that is modern, comprehensive, flexible, secure, sustainable, and inclusive.

Planned Route of the High-Speed Passenger Train from Querétaro to México City

The passenger terminal in Queretaro will be a completely new greenfield facility covering 14,000 square meters, including two 210 meter passenger platforms, road connections, parking lots, bus and taxi areas, drop-off lane.

The project includes construction of three significant operating and maintenance facilities. Terminal facilities (Cabecera Buenavista and Cabecera Querétaro) will each cover over 5,500 square meters and each include 660 meters of parking tracks, a 220 meter inspection track and administrative facilities. The main workshop will be a large facility covering more than 25,000 square meters, including a rail yard with four 240 meter tracks for heavy maintenance, four 240 meter of tracks for light and preventive maintenance, one 230 meter track for train washing, two 120 meter of tracks for maintenance-of-way equipment parking, a supplies warehouse, a workshop including wheel trueing equipment and administrative buildings.

This service will be electrified, utilizing 25kV 60Hz AC power provided by overhead catenary. Portions of the line have existing traction power systems, accordingly 1 x 25 kV will be used for the first 26.5 kilometers (presently utilized by the commuter service running from Buenavista to Cuautitlan) and 2 x 25 kV for the remainder. One new traction power substation is expected to be constructed as part of this project.

The system will be fully signalized, based on ERTMS level two standards for train protection, incorporating automatic stop technology and wayside fault detection systems. The trains will operate in a centralized traffic control environment with a new control center based in the Buenavista Station. The investments will include incorporate closed-circuit video surveillance and other security measures. A centralized communication system based on GSM-R technologies will be installed to tie together all aspects of operation.

The passenger rolling stock fleet is expected to begin service with a fleet of 12 trains rising eventually to 20. Rolling stock will be procured as part of the second of three procurement phases. The basic parameters for procurement will be for high-speed electrified trainsets of 200 meters in length, capable of exceeding 250 kilometers per hour.

Other works on include: site preparation, structures, cross drainage, longitudinal drainage, replacement of tracks, replacement of easements, superstructures, signaling and communications, and electrification.

Project Status and Implementation Timeline

The environmental analysis portion of the review has been completed and construction is planned to begin in 2014. The infrastructure portion of the project is expected to take 46 months. An additional 6 months will be required to commission the new rolling stock and systems, with the first passenger revenue service planned by the end of 2017.

Project Cost, Financing and Procurement

Estimated cost of the project is USD $3.3 billion. Funding will be provided federally through the SCT.

2014	2015	2016	2017
$268,681,524	$426,657,721	$971,873,833	$1,655,242,873
Total: USD $3,322,455,950			

Tren Rápido Cd. México - Querétaro Projected Investment by Year

Category	Amount
Infrastructure	$2,144,572,618
Track	$348,127,082
Electrification	$175,130,948
Security and Telecommunications	$267,995,334
Mobile Material	$355,446,443
Right of Way	$31,183,525
TOTAL	**USD $3,322,455,950**

Tren Rápido Cd. México - Querétaro Projected Investment by Type

The project will be procured in three separate phases: 1.) construction of civil works, track and structure, 2.) rolling stock, signaling, and communications, and 3.) a long-term concession for system operations and maintenance. Procurements are published through the Mexican government's web portal, Compranet.

U.S. Export Opportunities

The potential export opportunities for U.S. companies are numerous. Large quantities of track and structure components will be purchased for this system including high-quality steel rail, rail fastening systems, signaling and communication systems, and passenger information and ticketing systems. U.S. firms are competitive for some of these materials, particularly when the operation must meet high performance standards. U.S. firms will face strong competition from both Mexican and European firms, particularly for materials associated with the more generic civil and geotechnical works. There will also be acquisition of maintenance equipment for the track and structures as well as rolling stock, areas where there are strong U.S. providers. Electrified passenger

rolling stock is not a traditional strength of the U.S. rail supply industry, however there are opportunities for foreign- owned but U.S. based manufacturing facilities to potentially perform a role. The specification of European standards for signaling and communications systems is a barrier for these systems. Indirect opportunities should still exist for firms not part of winning consortiums to provide materials and services as external suppliers. The concession to operate and maintain the system is another opportunity. The Mexican government would welcome U.S. firms' participation in operating concessions, by investors, operators, or a combination.

Project Contacts and Information

For more information on project opportunities in the roads and highways sector please locate the U.S. Export Assistance Center nearest you by visiting http://www.export.gov/eac and contact your local U.S. Commercial Service Trade Specialist.

You may also reach out to:

Project Sponsor	U.S. Trade & Development	U.S. Commercial Service
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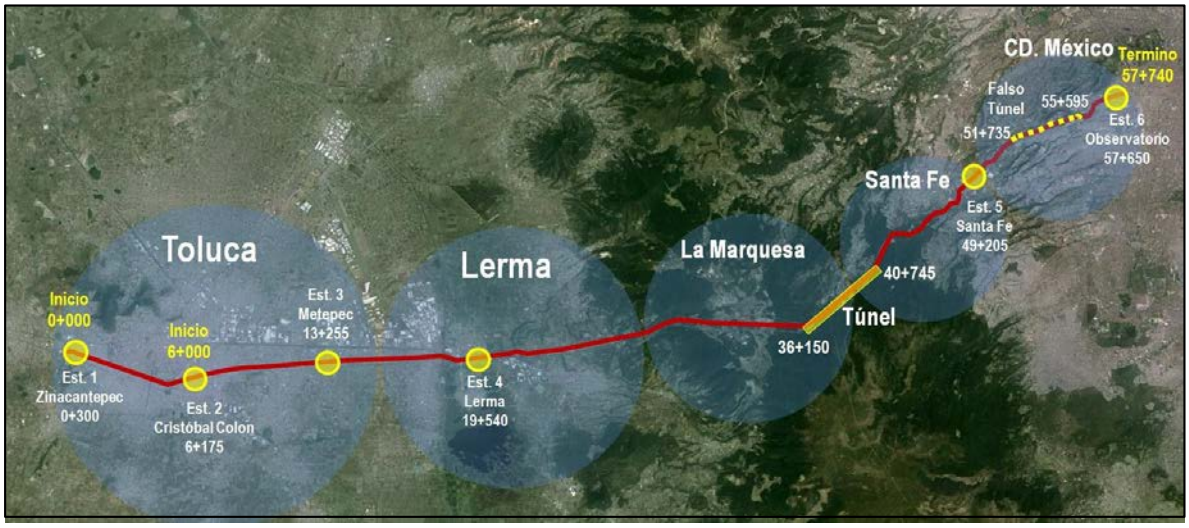
Interurban Passenger Train from Toluca to México City

Project Type	Intercity Passenger Rail
State(s):	Distrito Federal, Estado de México
Projected	USD $2.9 billion
Timeline:	2014 – 2017
Project Sponsor(s):	SCT and the state of México

Project Background and Scope

The project to create a new interurban passenger train system from Toluca to México City will construct a new 57.7 kilometer high-speed rail line linking the cities of Toluca and México City. Service will be provided to six stations: Observatorio in México City; Santa Fe, Lerma, Metepec (near the Toluca International Airport), the Toluca Bus Station, and Zinacantepec. The train will carry an estimated 300,000 passengers daily and travel at a top speed of 160 kilometers-per-hour, making the trip from Toluca to México City in 39 minutes.



Interurban Passenger Train from Toluca to México City Map

The Toluca to México City passenger train, also known as "tren interurbano," includes the construction of six stations, including the two main terminals. The first terminal will be built in the town of Zinacantepec, following the alignment of Torres Avenue. The second terminal will be constructed at Observatorio, on the western side of México City, named for the adjacent metro and the bus terminal. The Observatorio terminus will provide robust multimodal connectivity for the many thousands of people traveling between the Toluca Valley and México City. This project is part

of a government commitment to build infrastructure for passenger mobility that is modern, comprehensive, flexible, secure, and sustainable. The new service will reduce traffic congestion that presently occurs between these two urban areas, generating a 90-minute savings in travel time per passenger, reducing deaths and injuries due to automobile accidents, reducing carbon dioxide emissions by 34,000 tons, and creating substantial employment generation in the construction phase (17,000 direct and 35,000 indirect) as well as several hundred skilled long term operating jobs.

Project Status and Implementation Timeline

The technical studies on the project were completed in November of 2013. The project has been scheduled to tender in stages beginning in June of 2014 with revenue service expected to begin in 2017.

Project Cost, Financing and Procurement

The estimated cost of the project is USD $2.94 billion. Funding will be provided federally by the SCT. The project will be procured in three separate phases: 1) construction of civil works, track and structure, 2) rolling stock, signaling, and communications, and 3) a long-term concession for system operations and maintenance. Procurements are published through the Mexican government's web portal, Compranet. The procurement for the construction of the 36.15 kilometer segment "Zinancatepec – Túnel" was released on February 28, 2014 and bids were due on May 5, 2014. The contract will be awarded on June 10, 2014. The procurement for the construction of the tunnel was released on April 15, 2014 and bids are due on June 6, 2014.

U.S. Export Opportunities

The potential export opportunities for U.S. companies are numerous. Large quantities of track and structure components will be purchased for this system including high-quality steel rail, rail fastening systems, signaling and communication systems, and passenger information and ticketing systems. U.S. firms are competitive for these materials, particularly when the operation must meet high performance standards. U.S. firms will face strong competition from both Mexican and European firms in this area, more so for materials associated with the more generic civil and geotechnical works. There will also be acquisition of maintenance equipment for the track and structures as well as rolling stock, areas where there are strong U.S. providers. Opportunities for Should U.S. firms not be directly participating in winning consortiums for different phases of procurement, indirect opportunities should still exist for providing major contractors with materials and services to support the works and development of the new system. The concession to operate and maintain the system is another area where U.S. capability exists. The Mexican government would welcome U.S. firms' participation in operating concessions, by investors, operators, or a combination of the two.

Project Contacts and Information

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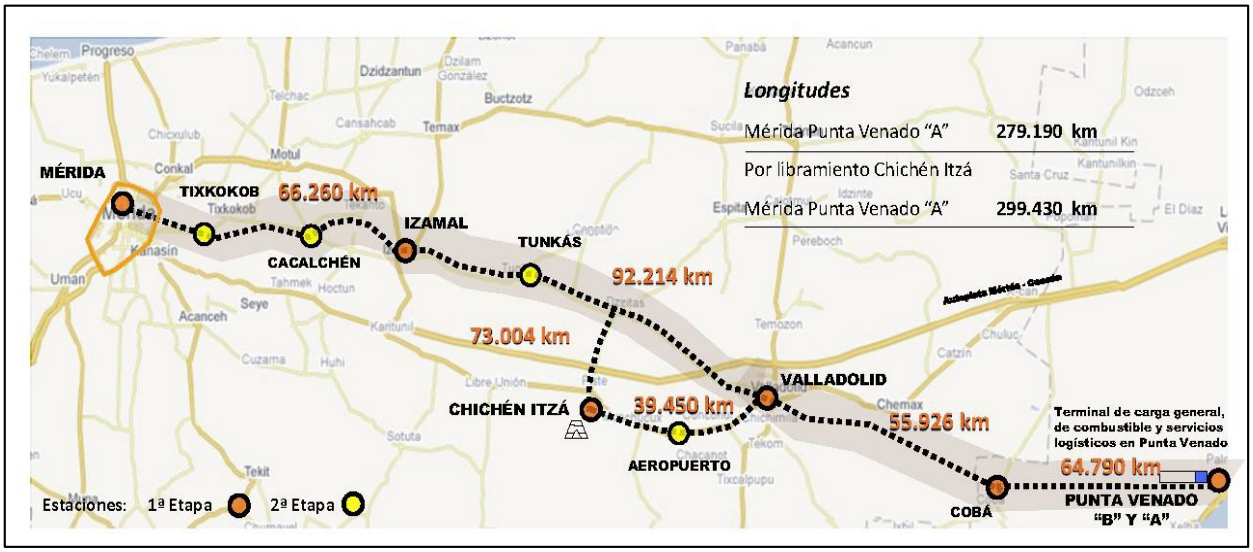
The Trans-Peninsular Train: Yucatán-Quintana Roo

Project Type	Intercity Passenger and Freight Rail
State(s):	Campeche, Yucatan, Quintana Roo
Projected	USD $1.4 billion
Timeline:	2014 – 2017
Project Sponsor(s):	SCT

Project Background and Scope

This new rail service is proposed to connect the cities of Mérida in Yucatán state with Punta Venado in Quintana Roo state. The new service would travel at an average speed of up to 160 kilometers-per-hour, and transport passengers between the terminals in less than three hours.



Proposed Alignment of the Tren Transpeninsular Phases 1 and 2

This new service is proposed to be implemented in two phases. In phase 1 of the project seven passenger stations will be established at Mérida, Izamal, Chichén Itzá,Valladolid, Cobá, Punta Venado "B" and Punta Venado "A". The twin terminals in Punta Venado will be established to serve intermodal transfers from the road service to Cancun and the cruise terminal, respectively. In the second phase of the project four stations will be added at Tixkokob, Calcachén, Tunkás and Chichén Itzá Airport. Station designs are proposed with careful consideration to include concepts based upon the indigenous and colonial architecture of the region. The project will involve reconstruction of 141 kilometers of existing freight rail lines and construction of 193.5 route- kilometers of brand new rail line. Within the City of Merida 4.19 kilometers of the line is proposed to be elevated to reduce intermodal conflicts. Numerous additional overpasses and viaducts are under evaluation for

final design, to reduce at-grade conflicts, and to mitigate potential impacts on sensitive natural and historical sites along the alignment.

Terminal Mérida will include 6 parking tracks for the passenger trains, Chichén Itzá will have 14 and Punta Venado 10 parking tracks. Punta Venado will also include RIP tracks for light maintenance. This station's infrastructure will be constructed to enable future expansion of the alignment to Cancún.

A temporally separated freight rail service is planned for the new alignment. This nighttime service would link terminals in Umán and Valladolid with Merida with improved service, including for heavy fuel oil movements to the thermal power plant at Valladolid. In Punta Venado a logistics distribution center will be established to provide freight rail service to the Riviera Maya region. Provision of this new, higher quality freight rail link is expected to incentivize substantial future rail logistics development, such as a proposed PEMEX fuels terminal, general, bulk and containerized rail cargo terminals, and associated private development in the form of warehouses and manufacturing.

Concepto	Yucatán	Quintana Roo
Estaciones primera etapa	4	3
Estaciones segunda etapa	4	
Libramientos	4	
Derecho de vía existente	141.470 Km	
Derecho de vía nuevo	121.137 Km	72.340 Km

Longitudes	
Mérida Punta Venado "A"	279.190 km
Por libramiento Chichén Itzá Mérida Punta Venado "A"	299.430 km
Estado de Yucatán	262.607 Km
Estado de Quintana Roo	72.340 Km
Total	**334.947 Km**

Proposed New and Reconstructed Rail Lines for the Tren Transpeninsular

Workshops for heavy and routine maintenance will be established at Valladolid, roughly in the center of the alignment. This 46 acre facility will include: storage and maintenance tracks; a workshop including wheel profiling equipment, work pits and a painting cabin; a wash rack, fuel station, a rolling stock parts warehouse, and tracks and facilities for maintenance-of-way equipment

and supplies. The train control and dispatching center will also be housed at this facility. Administrative structures will provide space for security personnel, training, cafeteria, changing rooms and sanitary facilities.

The system will include a basic level of signalization, including at-grade crossing protection.

The motive power for the new passenger service is expected to be provided by high-performance diesel powered passenger trainsets. Trains are expected be a maximum of 250 meters with capacity for an average load of 820 passengers. At some point in the future the passenger service could be upgraded to operate with electric traction power however such an investment is not within the present scope of this proposed project.

Project Status and Implementation Timeline

The project is currently in the feasibility study phase and is undergoing due diligence on the final alignment, ridership and business plan and potential for environmental impacts.

Project Cost, Financing and Procurement

This project is estimated to require USD $1.4 billion in total investment to complete.

U.S. Export Opportunities

The potential export opportunities for U.S. companies are numerous. Large quantities of track and structure components will be purchased for this system including high-quality steel rail, rail fastening systems, signaling and communication systems, and passenger information and ticketing systems. U.S. firms are competitive for some of the basic materials, particularly when the operation must meet high performance standards. U.S. firms will face strong competition from both Mexican and European firms, particularly for materials associated with the more generic civil and geotechnical works. There will also be acquisition of maintenance equipment for the track and structures, as well as rolling stock, areas where there are strong U.S. providers. The choice of diesel traction power for the service potentially opens the provision of rolling stock as an opportunity for U.S. firms, which provide world class diesel motive power solutions. Indirect opportunities will exist for firms not part of winning consortiums to provide materials and services as external suppliers. The concession to operate and maintain the system is another opportunity. The Mexican government would welcome U.S. firms' participation in operating concessions, by investors, operators, or a combination.

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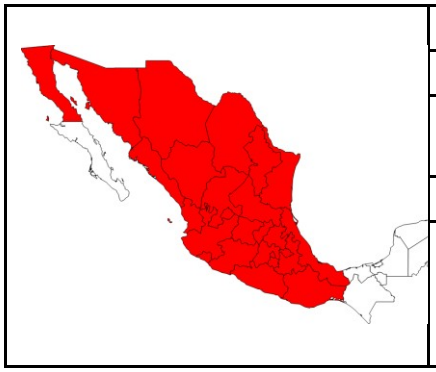
Private Freight Railroad Concessionaire Investments



Project Type	Freight Railroad
State(s):	Multiple
Projected Investment:	USD $649 million
Timeline:	2014
Project Sponsor(s):	Ferromex/Ferrosur and Kansas City Southern de México

Projects Background and Scope

Beginning in 1997 the Mexican government engaged in a major restructuring of the railway sector that privatized operations through vertically integrated long term concessions. The two largest concessionaires, Kansas City Southern de México and Ferromex/Ferrosur, including commonly-held terminal company Ferrovalle, today are responsible for management of over 63% of the railroad network infrastructure. They maintain 95% of the national locomotive fleet. Their operations account for 95% of freight rail tons transported, and 98% of ton- kilometers transported.

Since the concessions began the companies have made significant progress in increasing network capacity through steady major investments with their private funds. Freight volumes transported have risen by 199% and at the same time the accident rate has dropped by 90%. Large parts of the network have been recapitalized with important gains in speed, weight capacity and clearances. In 2013 KCSM spent $238 million and Ferromex $422 million on capital, for a total of $660 million in investments improving the Mexican railway system. This included a range of investments such as new tracks (double tracking), sidings and terminals; replacement of rail, ballast and crossties across the network; and investment in maintenance-of-way equipment, locomotives and railcars.

In 2014 these two concessionaires will invest another combined $649 million in a range of capital projects.

Kansas City Southern de México 2014 Investments

Out of KCSM's total amount of $143 million to be spent in 2014, the largest single investment will be approximately $53 million for the rehabilitation of the Monterrey to Nuevo Laredo corridor, including installation of all new crossties and rail. Defined KCSM projects and categories of spending are as follows.

<u>Infrastructure ($84 million)</u>

- Capacity improvements at the border yard at Sánchez.
- New maintenance yard at San Luis Potosí.

- Extension of 3 sidings along the México – Nuevo Laredo mainline.
- Expansion of the support yard in Saltillo, Coahuila.
- Installation of centralized traffic control (CTC) between B. López and Escobedo.
- Second phase of the expansion of the Vanegas Yard.
- Completion of double tracking of the corridor between Sánchez and Nuevo Laredo.

Terminals

- Infrastructure improvements to the terminals at Toluca, Celaya y SLP.
- Expansion of the cargo siding at SLP.
- Purchase of a straddle crane for the terminal at Toluca.
- Installation of a wheel truing facility at Toluca.

Systems

- Business solutions, data centers, processing and storage capacity.
- Security systems.
- Telecommunications.
- Information systems to manage logistics and Transportation operations.

Rolling Stock ($16 million)

- Completion of the warehouse at la Pila, San Luis Potosí.
- Replacement of control stands and air conditioning systems in locomotives.
- Installation of air conditioning systems at yard and intermodal terminal facilities.
- Installation of surveillance cameras in locomotives.

Ferromex/Ferrosur 2014 Investments

The $506 million to be spent includes:

Track and Structure ($195 million)

- Replacement of rail and crossties
- Investment in roadbed ($32.2 million)
- Rehabilitation of crossings, sidings and yards ($21 million)
- Bridge rehabilitation ($12.6 million)
- Improvement of cuts and fills ($7.9 million)

Capacity ($123.4 million)

- Construction and reconfiguration of yards and terminals ($84.4 million)
- Double tracking ($17.8 million)
- Extension and rehabilitation of sidings ($11.3 million)
- Equipment ($9.9 million)

Rolling Stock and Equipment ($59.9 million)

- Locomotive overhauls ($23.7 million)

- Rehabilitation of workshops and storehouses ($5.8 million)
- Purchase of new/rebuilding of old maintenance-of-way equipment ($24.9 million)
- Purchase of new/rebuilding of old freight cars ($5.4 million)

Signaling and Communications, Safety and Security ($24.6 million)

- Wayside fault detection equipment ($9.7 million)
- Signals ($4.6 million)
- Security systems, lighting, CCTV and access control ($7.8 million)
- Communications equipment ($1.4 million)
- Air conditioning equipment ($1 million)

Project Status and Implementation Timeline

These projects will occur throughout 2014.

Project Cost, Financing and Procurement

These projects will be financed from the internal capital funds of Kansas City Southern de México and Ferromex/Ferrosur. Procurement will occur through the established processes at the companies.

U.S. Export Opportunities

Investments by Ferromex/Ferrosur and KCSM in 2014 will create a wide range of opportunities for U.S. suppliers. Infrastructure components to be purchased will include high-quality rail, crossties, fastening systems, switches, at-grade crossing components, and signaling and communications systems. Information systems for operations and business process management will be purchased. A range of freight cars and track maintenance and construction equipment will be procured, and heavy overhauls of a number of U.S.-origin locomotives will create demand for parts and components.

Project Contacts and Information

For more information on project opportunities in the roads and highways sector please locate the U.S. Export Assistance Center nearest you by visiting http://www.export.gov/eac and contact your local U.S. Commercial Service Trade Specialist.

You may also reach out to:

Project Sponsor	U.S. Trade & Development	U.S. Commercial Service

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Technical Assistance for Analysis of the Specialty Freight Railcar Market in México

The U.S. Trade and Development Agency is funding a new technical assistance study to support the further development of México's freight rail sector.

The selected consultant will conduct an overall examination of the supply and demand for freight cars from the perspective of the Mexican railway system as a whole, considering cross border dynamics, with an emphasis on the needs of shippers, particularly smaller and medium-sized firms. The consultant will examine national, regional and seasonal market dynamics impacting provision of wagons, bottlenecks and constraints on the efficient movement of wagons, with specific analyses by wagon types and commodities transported. The potential evolution of the leasing and private fleet market will examined. The markets for open-top and covered hopper cars, petroleum product tank cars, and new high-capacity boxcars, including refrigerated services, will be examined in depth. The study will evaluate institutional and operational improvements that will optimize wagon supply and utilization generally, as well as recommend specific investments in systems, services, infrastructure, terminal facilities, and new railcars necessary to meet projected growth of existing traffic and new opportunities.

Project Procurement and Implementation Timeline

This study will be let for bid by USTDA to a U.S. consulting firm through an open competitive bidding process. The execution of the study will be supervised by the host country sponsor, the Mexican Railway Association (Asociación Mexicana de Ferrocarriles or AMF). Founded in 2004 the AMF is the national trade association representing the passenger and freight railway operators in México. From award to completion the study is expected to take approximately 8 months.

Project Contacts and Information

For more information on project opportunities in the roads and highways sector please locate the U.S. Export Assistance Center nearest you by visiting http://www.export.gov/eac and contact your local U.S. Commercial Service Trade Specialist.

You may also reach out to:

Project Sponsor	U.S. Trade & Development	U.S. Commercial Service
Dr. Iker de Luisa Plazas Director General Mexican Railway Association (AMF) Tel. +52 (55) 5454-6283 ikerdeluisa@amf.org.mx	Mr. Keith Eischeid Country Manager for México and Central America Tel. +1-703-875-4357 KEischeid@ustda.gov	Please locate the U.S. Export Assistance Center nearest you http://www.export.gov/eac and contact your local U.S. Commercial Service Trade Specialist for more information.