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# MEMORANDUM

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Date: September 3, 2013

To: The Honorable Chairman and Members  
Pima County Board of Supervisors

From: C.H. Huckelberry  
County Administrator 

Re: **Award of Transportation Investment Generating Economic Recovery V (TIGER V)  
Grant for the Port of Tucson Container Export Rail Facility**

The Port of Tucson's Container Export Rail Facility is one of only six rail projects selected to receive TIGER V grant funding from the US Department of Transportation. Pima County submitted the grant application on behalf of the Port of Tucson.

The Port of Tucson will receive \$5 million to construct a ramp off Union Pacific's main line so containers can be unloaded at the inland port and transferred to trucks or trains. Implementation of the Container Export Rail Facility will make the Port of Tucson the only true inland port in the southwestern United States.

This new facility is a key component of the County's economic development strategy. It will enable our region's businesses to access Asian Pacific seaports through the Ports of Los Angeles and Long Beach, as well as private facilities such as American President Line's Global Gateway South (GGS). As the region that includes the Tucson/Phoenix megapolitan area (Sun Corridor) and Sonora, Mexico continue to expand in population and jobs, this facility will provide global market access for manufacturers and commodity exporters through highly efficient direct rail connection to the piers at the Ports of Los Angeles and Long Beach and GGS. Goods that would otherwise be shipped by truck will be diverted to rail with resulting decreases in fuel consumption, air pollution and traffic congestion.

The Container Export Rail Facility is expected to have an approximate 12-month construction schedule.

The grant application, as well as media reports by the *Arizona Daily Star* and *Progressive Railroading*, are attached for your review and information.

CHH/mjk

#### Attachments

c: Alan Levine, Owner, Port of Tucson  
Martin Willett, Chief Deputy County Administrator  
Hank Atha, Deputy County Administrator for Community & Economic Development  
John Bernal, Deputy County Administrator for Public Works  
Jan Leshner, Deputy County Administrator for Medical & Health Services  
Nanette Slusser, Assistant County Administrator for Public Works Policy

# PORT OF TUCSON

## PORT OF TUCSON - CONTAINER EXPORT RAIL FACILITY TIGER 2013 DISCRETIONARY GRANT APPLICATION



**Applicant: Pima County, Arizona**  
**Co-applicant: Port of Tucson**  
**Contact: Charles H. Huckelberry**  
**Pima County Administrator**  
**130 West Congress, 10th Flr.**  
**Tucson, AZ 85701**  
**520-740-8751 [CHH@Pima.Gov](mailto:CHH@Pima.Gov)**



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**Applicant: Pima County, Arizona**

**Co-applicant: Port of Tucson**

**Contact: Charles H. Huckelberry**

Pima County Administrator  
130 West Congress, 10th Floor  
Tucson, AZ 85701  
520-740-8751  
CHH@Pima.Gov

**Submittal Date: June 3, 2013**

<http://www.pima.gov/grants/dot/portoftucson/tiger-2013.shtml>

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## **I PROJECT DESCRIPTION**

Pima County, Arizona and the Port of Tucson are collaborating on a request for \$7,050,000 in TIGER V Discretionary Grant funds to complete rail infrastructure at a container rail export facility. The facility is located in a US Census Bureau designated rural area, on the Union Pacific Railroad Southern Mainline Corridor east of Kolb Road in unincorporated Pima County, Arizona. Matching funds in the amount of \$7,050,100, i.e., 54% of total project costs will be provided for equipment and high speed rail switches to equip a double loop track to load unit trains. Exhibit 1 on the next page shows the location, physical setting, and track layout.

The Port of Tucson is an existing intermodal facility located in the City of Tucson, west of Kolb Road and adjacent to the UPRR line. It lies just south of Davis-Monthan Air Force Base (DMAFB). The Pima Association of Governments assisted with the site selection for the Port by providing technical assistance in the mid-1990s. Since then, the Port established a transportation and logistics center to assist businesses in southern and central Arizona, as well as northern Mexico, with access to rail and intermodal container transportation options. Being located near the US / Mexico border stimulates trade and business relationships between companies North and South of the border. The Port of Tucson's rail access currently consists of a 6,699' siding that connects to the Union Pacific mainline complimented by an additional 5,500' siding. The 5,500' siding branches to grade level access, dock level access, intermodal container access, and team track facilities. In addition, the siding provides the connection to a double loop track that is used for the Port of Tucson Container Export Rail Facility.

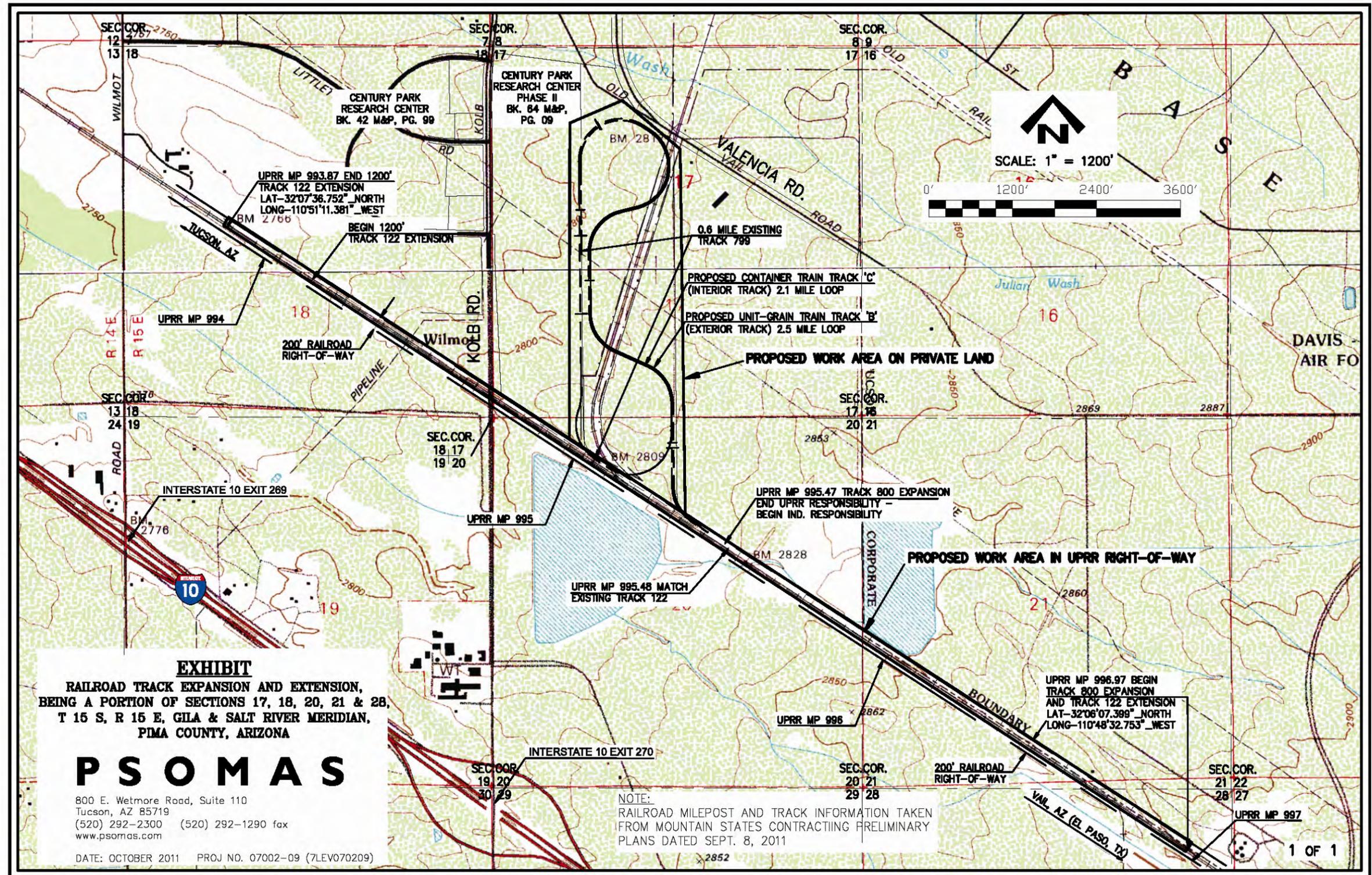
The Port of Tucson Container Export Rail Facility enables the region's businesses to access Asian Pacific sea ports through the Port of Los Angeles, Port of Long Beach and private facilities such as American President Line's (APL) Global Gateway South (GGS). As the region, which includes the Tucson - Phoenix megapolitan area (Sun Corridor) and Sonora Mexico, continues to expand in population and jobs, this facility will provide access to the global market for manufacturers and commodity exporters through highly efficient direct rail connection to the piers at the Port of Los Angeles, Port of Long Beach and GGS. Goods that would otherwise be shipped by truck are diverted to rail with resulting decreases in fuel consumption, air pollution and traffic congestion.

The Port of Tucson currently receives trainloads of containers for customers in Phoenix, Tucson, Hermosillo and Nogales, Mexico; boxcars of beer from Mexico; and unique large loads such as pipelines, wind towers, generators, and military equipment. The Port of Tucson Container Export Rail Facility provides regional businesses and industries access to export opportunities.

Currently, outbound shipments from the Port of Tucson consist largely of empty containers returning to their point of origin in the Midwest. A business partnership has been established with APL Logistics to deliver empty containers to the Port of Tucson for customers who will fill them with commodities for export, such as ore, grain and scrap metal for shipment by railcar to the Port of Los Angeles. This partnership allows consolidation of less than full load shipments into containers for export. The long-term program will increase the number of outbound containers to utilize unit train operation between the Ports of Tucson and Los Angeles.



Exhibit 1 Project Setting and Track Layout





Unit train operations at the Port of Tucson now face a number of challenges that will be eliminated by this project. Past deliveries of unit trains carrying very long wind towers have resulted in delays on adjacent roadways as well as have impeded traffic on the Union Pacific mainline as the trains slow to a stop before entering the Wilmot siding. The long trains block the Rita Road crossing of the UPRR tracks, creating delays for motorists. Once the switch is manually thrown, the trains enter the siding at a low speed until they stop again for the switch to be manually thrown to enter the Port of Tucson industrial lead. At that point the length of the train extends from the Port of Tucson to the Wilmot siding and the Union Pacific mainline creating congestion and delaying other westbound trains.



The project contains rail enhancements that will mitigate this problem. Construction of an extension of the Wilmot siding and the Port of Tucson industrial lead and the installation of high-speed powered switches controlled from the Harriman Center at Omaha, Nebraska will eliminate the need to slow and stop arriving trains. Unit trains will enter the Wilmot siding and the Port of Tucson industrial lead track at 40 mph, clear the mainline, and proceed to the loop track.

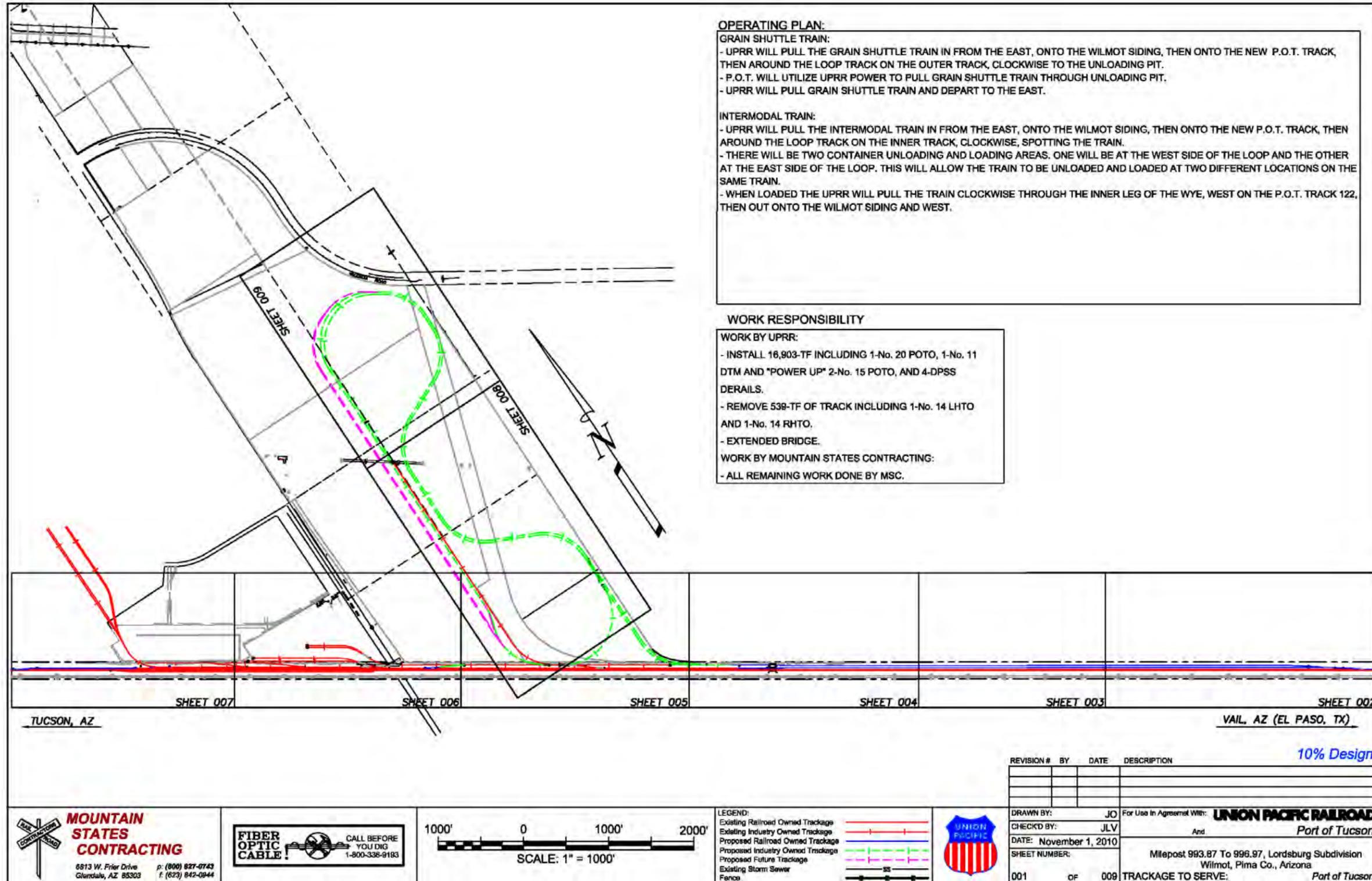
The double loop track at the Port of Tucson provides space for two unit trains to simultaneously conduct loading and unloading operations. While grain trains of hopper cars are being unloaded, unit trains of containers filled with grain can be built on the adjacent tracks. Exhibit 2, which is the cover sheet from the design plan set, shows the track layout in more detail.

To summarize the major advantages of this project include:

1. Diverting truck traffic to rail which will result in
  - a. lower fuel consumption,
  - b. less pollution, and
  - c. less traffic congestion.
2. Lower and more competitive freight rates which will open global markets for
  - a. manufacturers,
  - b. exporters of all commodity, and
  - c. rural Arizona and New Mexico and Sonora, Mexico's *maquiladoras*.
3. Providing a central location and seamless transaction for Sun Corridor businesses to access West Coast and Gulf Coast ports for export to Asian, European and South American markets.
4. Providing construction jobs and long term employment for transloading operators.
5. Ready to build with construction drawings approved by Union Pacific Railroad.
6. Eliminating traffic delays and improves safety at nearby railroad crossings.



Exhibit 2 Track Design



**OPERATING PLAN:**

**GRAIN SHUTTLE TRAIN:**

- UPRR WILL PULL THE GRAIN SHUTTLE TRAIN IN FROM THE EAST, ONTO THE WILMOT SIDING, THEN ONTO THE NEW P.O.T. TRACK, THEN AROUND THE LOOP TRACK ON THE OUTER TRACK, CLOCKWISE TO THE UNLOADING PIT.
- P.O.T. WILL UTILIZE UPRR POWER TO PULL GRAIN SHUTTLE TRAIN THROUGH UNLOADING PIT.
- UPRR WILL PULL GRAIN SHUTTLE TRAIN AND DEPART TO THE EAST.

**INTERMODAL TRAIN:**

- UPRR WILL PULL THE INTERMODAL TRAIN IN FROM THE EAST, ONTO THE WILMOT SIDING, THEN ONTO THE NEW P.O.T. TRACK, THEN AROUND THE LOOP TRACK ON THE INNER TRACK, CLOCKWISE, SPOTTING THE TRAIN.
- THERE WILL BE TWO CONTAINER UNLOADING AND LOADING AREAS. ONE WILL BE AT THE WEST SIDE OF THE LOOP AND THE OTHER AT THE EAST SIDE OF THE LOOP. THIS WILL ALLOW THE TRAIN TO BE UNLOADED AND LOADED AT TWO DIFFERENT LOCATIONS ON THE SAME TRAIN.
- WHEN LOADED THE UPRR WILL PULL THE TRAIN CLOCKWISE THROUGH THE INNER LEG OF THE WYE, WEST ON THE P.O.T. TRACK 122, THEN OUT ONTO THE WILMOT SIDING AND WEST.

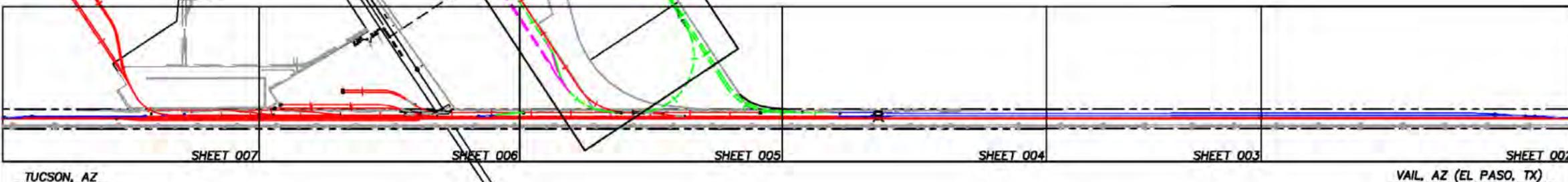
**WORK RESPONSIBILITY**

**WORK BY UPRR:**

- INSTALL 16,903-TF INCLUDING 1-No. 20 POTO, 1-No. 11 DTM AND "POWER UP" 2-No. 15 POTO, AND 4-DPSS DERAILS.
- REMOVE 539-TF OF TRACK INCLUDING 1-No. 14 LHTO AND 1-No. 14 RHTO.
- EXTENDED BRIDGE.

**WORK BY MOUNTAIN STATES CONTRACTING:**

- ALL REMAINING WORK DONE BY MSC.



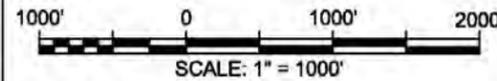
REVISION #	BY	DATE	DESCRIPTION

**10% Design**

DRAWN BY: JO	For Use In Agreement With: <b>UNION PACIFIC RAILROAD</b>
CHECKED BY: JLW	And <b>Port of Tucson</b>
DATE: November 1, 2010	Milepost 993.87 To 996.97, Lordsburg Subdivision
SHEET NUMBER: 001 OF 009	Wilmot, Pima Co., Arizona
TRACKAGE TO SERVE:	<b>Part of Tucson</b>

**MOUNTAIN STATES CONTRACTING**  
6813 W. Frier Drive  
Glendale, AZ 85303  
P: (800) 927-0743  
F: (623) 942-0944

**FIBER OPTIC CABLE**  
CALL BEFORE YOU DIG  
1-800-338-9193



**LEGEND:**

- Existing Railroad Owned Trackage (solid black line)
- Existing Industry Owned Trackage (dashed black line)
- Proposed Railroad Owned Trackage (solid red line)
- Proposed Industry Owned Trackage (dashed red line)
- Proposed Future Trackage (dotted red line)
- Existing Storm Sewer (SS, dashed blue line)
- Fence (two parallel lines)





## **II PROJECT PARTIES**

Pima County, the Port of Tucson, Union Pacific Railroad, and American President Lines Ltd., are collaborating on this project. The project is supported by Pima Association Government (PAG), Tucson Regional Economic Opportunities (TREO) and the Arizona Commerce Authority (ACA), among many others. Pima County is the lead applicant.

### ***Pima County***

Over the past 30 years Pima County has invested over \$168 million in improvements to the transportation infrastructure on the south side of metropolitan Tucson. These improvements link the industrial areas around the Tucson International Airport and the University of Arizona Science and Technology Park to midtown residential areas and the University of Arizona.

New arterial roads programmed by the Regional Transportation Authority (RTA) include \$200 Million to extend the road connections further to the north and west along the major arterials of Valencia Rd and Houghton Rd. Valencia Rd. is adjacent to north property line of the Port of Tucson. According to the County Administrator, “[t]hese developing transportation corridors provide critical infrastructure links between employment centers; connections to key transportation hubs such as Tucson International Airport; and access to logistics functions such as the Port of Tucson. All are located in the prescribed boundaries and support modalities required by major manufacturers.” Further information and the Administrator’s letter is available on the project website at <http://www.pima.gov/Grants/DOT/PortofTucson/>.

Pima County’s most recent initiative to link together the major employment centers on the south side will create new transportation alternatives to access the Port of Tucson from the south and west sides of the Tucson region. Similarly, the Arizona Department of Transportation has begun alignments studies for an extension of State Route 210 that would connect Downtown Tucson and University of Arizona to Interstate 10. The new alignment would include Swan Rd. which is merely two miles west of the Port of Tucson.

UPRR acquired the Sunset Route in 1998 when it purchased the Southern Pacific Railroad. The 800 miles between Los Angeles and El Paso are the core of the UPRR’s Southern Mainline route that provides access to Texas, Chicago and New Orleans. Since 2001, a \$2 billion construction project has been underway to complete the double-tracking of the Yuma, Gila and Lordsburg subdivisions stretching from the West Colton yard in California to El Paso Texas. These improvements will provide rail access for goods to travel between Asian ports via the Port of Los Angeles to the Sun Corridor cities of Tucson and Phoenix.

### ***Port of Tucson***

The Port of Tucson was founded in 1996 with the purchase of Century Park Research Center by Alan L. Levin. The 770 acre industrial subdivision had been fully developed with roads, sewer, water and electricity. Foreign Trade Zone 174 was established on the site and is granted to the Tucson Regional

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Economic opportunities (TREG). The US Customs Service has designated the Port of Tucson a Customs Examination Station for rail cargo.

Since the purchase, over 2 million square feet of warehousing has been constructed on the site and leased to tenants. The 6699-foot Wilmot siding of the Union Pacific Railroad lies adjacent to the south side of the property. In the ensuing years Union Pacific Railroad approved the connection of the Port of Tucson's industrial lead track to the Wilmot siding and then entered into a switching contract.

Over the past 10 years the Port of Tucson has expanded to over 50,000 feet of rail for receiving trains including a 5,500 foot long industrial lead track, a 40 acre intermodal yard consisting of 6,000 ft of working track, 2,000 ft of dock side track, 3,000 ft of grade access track and 33,500 ft. for unit train unloading. Three on site locomotives and two packers provide the efficient movement of rail cars for unloading.

The Port of Tucson provides switching services for Mac Steel, spots 1,700 boxcars at the warehouse siding and conducts 11,200 container lifts (photo) annually. In addition the Port of Tucson is the only location in Arizona that can accommodate large loads such as pipeline or wind tower components. The Port of Tucson is the last intermodal ramp for westbound trains before entering the Los Angeles basin.



***American Presidents Line***

American President Lines, Ltd. is one of Union Pacific Railroad's largest intermodal customers . The Port of Tucson and American President Lines Ltd. have signed a tariff rate agreement and entered into an agreement to store empty containers on site and market their availability to all U.S. domestic customers especially those in the Midwest, Texas, Arizona, New Mexico and Sonora, Mexico. American President Line would handle all the logistics of forwarding containers to Asian destinations.



See Letters of Support on the project website at <http://www.pima.gov/grants/dot/portoftucson/tiger-2013.shtml>.



### III Grant Funds and Sources/ Uses of Project funds

This section tabulates the construction costs for the \$13 M project. Of this amount 54% (\$7 M) of the project costs would be provided by TIGER Discretionary Grant Funds and 46% (\$6.0 M) of the project costs provided by the Port of Tucson. Importantly, the Port of Tucson has a loan commitment for the entire local funding share from the Alliance Bank of Tucson in the amount of \$7,000,000. See Exhibit 3 and the project website at <http://www.pima.gov/grants/dot/portoftucson/tiger-2013.shtml>.

#### Exhibit 3 Project Costs

##### Construction in the UPRR Right of Way (Grant Request)

Activity	Quantity	Unit Cost	Total
Earth Work	1	\$988,700.00	\$988,700.00
Bridge/Structural Work	1	\$443,750.00	\$443,750.00
Track (Linear feet)	16,730	\$193.25	\$3,233,072.50
Powered Derails	3	\$175,000.00	\$525,000.00
Switches 2-#11,2-#15,1-#20 (5 total)	Lot	\$1,100,000.00	\$1,100,000.00
Survey	1	\$40,000.00	\$40,000.00
Testing	1	\$30,000.00	\$30,000.00
Plans	1	\$40,000.00	\$40,000.00
Permits	1	\$10,000.00	\$10,000.00
<b>Project Subtotal</b>			<b>\$6,410,522.50</b>
Contingency and Management @ 10%	1		\$641,052.25
<b>TIGER 2013 Request Total</b>			<b>\$7,051,574.75</b>

##### Project Private Match

Item	Quantity	Unit Cost	Total
Locomotive	1	\$425,000.00	\$425,000.00
Packer	2	\$375,000.00	\$750,000.00
Yard Tractor	4	\$82,000.00	\$328,000.00
Powered Control Points (2), Switches(3)	Lot	\$4,500,000.00	\$4,500,000.00
<b>Private Match Total</b>			<b>\$6,003,000.00</b>
<b>Project Total</b>			<b>\$13,054,574.75</b>



## **IV SELECTION CRITERIA**

This section addresses the TIGER selection criteria most applicable to the project.

### ***Long Term Outcomes***

#### ***Economic Competitiveness***

The Port of Tucson Container Export Rail Facility will contribute to the economic competitiveness of the United States by providing access to the global markets for businesses located in the Sun Corridor. The Sun Corridor is a megapolitan region stretching across central Arizona for 140 miles and encompassing eastern Maricopa, Pinal and Pima Counties. Megapolitan regions are defined by their closeness of metropolitan areas (in this case Tucson and Phoenix) and by the interconnectivity of the regions' economy as measured by commuter trips from one city to another. The population of the Sun Corridor is expected to double to over 10,000,000 between 2040 and 2050. Over 2,500,000 new jobs will be added, the majority in services industries. Approximately 100,000 new manufacturing jobs will be added. The region will have 85% of Arizona's population and 90% of the jobs. Past studies have indicated that there is sufficient land and water to support the population growth. See Patton/Vest Study on the project website at <http://www.pima.gov/grants/dot/portoftucson/tiger-2013.shtml>.



Export businesses in the Sun Corridor are connected to California ports by trucks using Interstate 10 and further to the north by Interstate 40. Sections of I-10 have up to 40% heavy trucks, which have required ADOT to continually maintain and upgrade the freeway. Increases in diesel fuel costs, regulatory changes that limit driver's hour, increases in traffic congestion on the Interstates and especially near the ports have driven up the price of getting goods to market. These factors also have contributed to a shortage of long haul truck drivers.

The cost of delivering a container of goods by truck from Tucson to Los Angeles is about \$1600. This project when completed will result in freight rates of \$1600 to \$1800 to deliver a container from the Port of Tucson to Shanghai China or Hanoi Vietnam via the Port of Tucson. American Presidents Line will provide the service using Union Pacific double stack unit trains over the Southern Mainline Corridor.



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Shipping by container over the railroad network has additional cost efficiencies. Containers can weigh 52,000 pounds while truck cargos are limited to 42,000 pounds. Container shipments represent a 20% savings compared to truck shipments. There are annually 5,000 truck loads transporting containers to the Ports of Long Beach and Los Angeles that could be diverted to rail car service.

The destination for the containers is the pier at the Port of Los Angeles, avoiding the transloading of containers at the Union Pacific Railroad's Intermodal Container Transfer Facility (ICTF) and the slow trip on Interstate 710 from the ICTF to the Port of Los Angeles.

Over the long term the Port of Tucson could accommodate 150,000 container loads annually. The transloading facility for grain and ores could result in over 60,000 containers annually for export. New business from the Sun Corridor is projected to result in another 40,000 containers annually for export. The estimated 5000 container loads currently being trucked to the West Coast ports will be the initial target for diversion to intermodal shipment by rail.

*Livability*

The Port of Tucson Container Rail Export Facility will have a positive impact on development and growth of Tucson and the Sun Corridor. The Port is located in the geographic center of the Tucson region served by I-10 and major regional arterials such as Kolb Road, Wilmot Road, and Valencia Road. Planned road projects which are funded by a voter-approved sales tax will further add to accessibility of the Port from within and outside the Tucson metro area. The Port's location in a 5 square mile industrial area outside of the downtown and midtown area reduces the conflicts between automobiles and trucks. Kolb Road is the major arterial for accessing the Port of Tucson and is grade separated from the Union Pacific Railroad tracks which eliminates train and automobile congestion and delays.

**Exhibit 4 Proximity to Highways and Airports**



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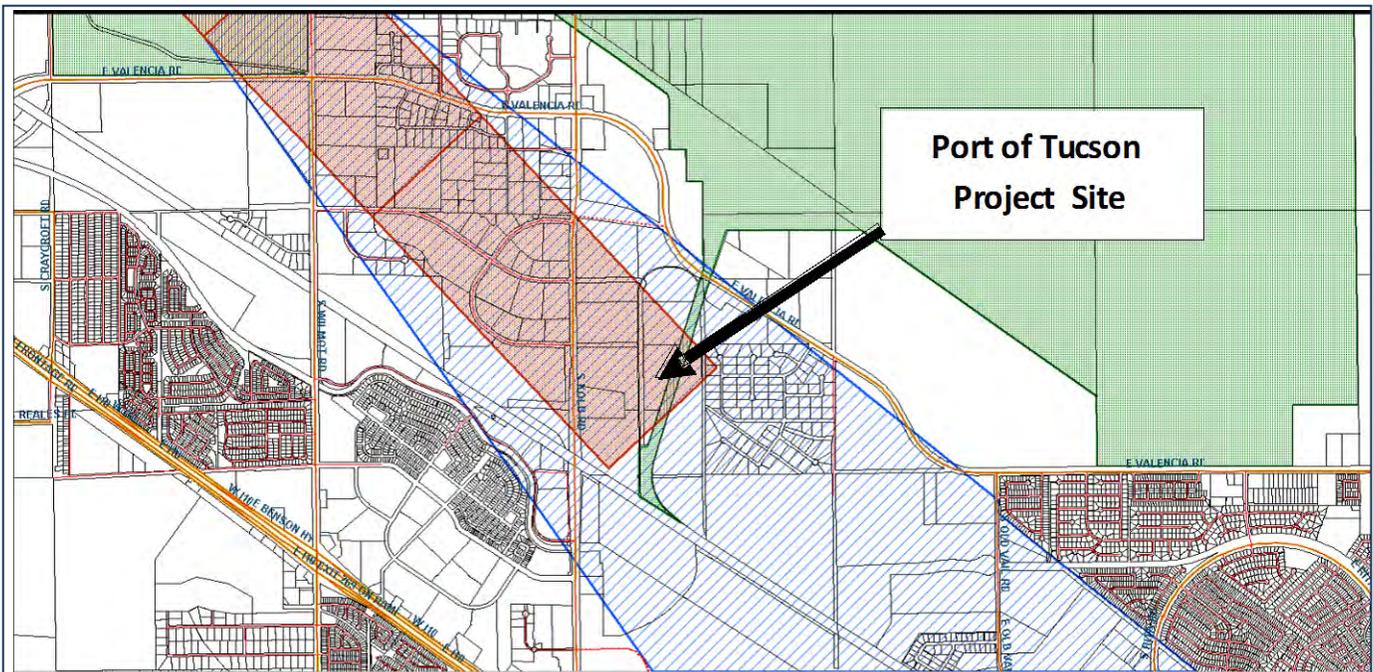


In 1998 and 2000 The Arizona Legislature adopted Smart Growth and Smart Growth Plus as major revision to the Arizona Revised Statutes governing land use planning and zoning requirements for cities and counties. These new laws triggered a major review and revision of planning documents throughout the State of Arizona. One measure required jurisdictions within the vicinity of a military airport to consider the military operations in the General Plan and Comprehensive Plan.

As a result of this legislation, in 2003 the DMAFB Joint Land Use Study (JLUS) began under the sponsorship of the Arizona Department of Commerce. The purpose of the study was to facilitate the development of compatible land uses around DMAFB in cooperation with the City of Tucson and Pima County. After extensive analysis and public involvement, the report was approved and adopted. As a result the Pima County Comprehensive Plan and Zoning Code were amended to prescribe compatible land use activities within the DMAFB approach and departure corridor. DMAFB is adjacent to the north property line of the proposed facility and consists of 16.5 square miles. The website has supplemental information on JLUS and the Pima Comprehensive Plan and Zoning Code.

The Port of Tucson's location within the DMAFB approach departure corridor provides security and safety for the rest of the community. Because the development of a transportation hub and logistics center has been approved by Pima County, the threat of residential encroachment into the flight path has been eliminated. The adoption of the Airport Overlay Zone by Pima County prevents Davis Monthan Air Force Base from becoming land locked by incompatible uses and provides assurance to the Department of Defense of its continuing viability. Davis Monthan Air Force Base is Tucson's third largest employer with 8600 employees.

**Exhibit 5 DMAFB Airport Overlay Zone**





The Port of Tucson plays another role in supporting Davis Monthan Air Force Base as well as other military installations in Arizona and southwestern United State. Because of Tucson's proximity to the Barry Goldwater Gunnery Range, the Department of Defense has used the Port of Tucson as a point for transferring from rail flatcars to military convoys. Military detachments from Fort Bliss have shipped mechanized vehicles to the Port of Tucson where they are unloaded for the 150 mile trip by way of I-10 and I-8 to the Barry Goldwater Gunnery Range. As the military conflicts in Iraq and Afghanistan wind down, surplus equipment will be shipped by rail to the Port of Tucson for transfer and storage at the 309th Aerospace Maintenance and Regeneration Group (309 AMARG) facility.

The expansion of the Port of Tucson's services to provide door to door shipment to foreign ports allows the Tucson metro area and the entire Sun Corridor to tap into an existing asset, the Union Pacific Southern Mainline Corridor which has been largely underutilized. This project makes Tucson and the Sun Corridor a participant in the global economy rather than a bystander watching the global economy roll through Arizona.

The development of the Port of Tucson Container Rail Export Facility at its location will protect and support other regional employment activities, minimize truck - automobile conflicts and reduce truck congestion on the Interstate system.

### *Environmental Sustainability*

Diverting existing truck shipment to rail cars and increasing future intermodal container shipments results in a significant savings in fuel consumption and a concurrent reduction in pollution. Shipments by rail are three times more fuel efficient than shipment by truck. The American Association of Railroads reports that railroads move a ton of freight using one gallon of fuel on average of 484 miles and the fuel efficiency continues to increase. The US Environmental Protection Agency estimates that a truck emits 3 times more nitrogen oxides than a locomotive. Similarly, shipment by freight railroads can reduce highway congestion and highway maintenance costs. A single double stack unit train of 100 railcars can remove 280 trucks from the highways, as documented at:

[http://nationalatlas.gov/articles/transportation/a\\_freightrr.html#three](http://nationalatlas.gov/articles/transportation/a_freightrr.html#three).

The Port of Tucson plays an important role in delivering alternative energy equipment for construction in Arizona. The Port is the only location in Arizona that can accommodate the unloading of wind tower components. In 2012, the Port expects 2100 railcars of wind tower components to be delivered on 135 unit trains.



### *Job Creation and Near Term Economic Activity*

The construction of the Port of Tucson Container Export Rail Facility will require 40 heavy construction workers to complete the infrastructure improvements. One hundred logistic workers will be hired to



operate the facility when it is fully operational. But more importantly this facility will act as a catalyst for the development of additional jobs located nearby in Sun Corridor warehouses and distribution centers and faraway in the mines of New Mexico and the cornfields of Kansas. The transportation and logistics sector is the backbone of the regional economy. The transportation of goods to and from the Sun Corridor in an innovative, cost effective and environmentally responsible manner insures that the employment growth of the region will successfully compete in the global economy.

### ***Innovation***

Until recently, the conventional thinking has always been that intermodal service is not economical for distances less than 500 miles. Increased fuel cost, truck driver shortages, and congestion delays on interstate highways coupled with energy efficiency for locomotives, pier side delivery, and on site cargo consolidation has changed this thinking. The economic result is a freight rate to ship a container to Shanghai, China from Tucson by rail is equal to the rate for shipping a container to Los Angeles from Tucson by truck. The competitive advantage to ship by rail is obvious: The tripartite program transforms a burden (the empty container) into an asset (a full container of commodities for export to Asian ports).

### ***Partnership***

#### ***Jurisdictional and Stakeholder Collaboration***

In 2006, Pima Association of Governments and the City of Tucson's Puerto Nuevo Office commissioned a Strategic Plan for Puerto Nuevo Inland Port by the Tioga Group. The report, prepared by Philadelphia-based The Tioga Group, concludes an inland port could bring the following benefits to Tucson:

- 4,292 additional jobs created in Pima County by 2020,
- 5,236 additional jobs created in Pima County by 2030,
- \$165 million annual wages and salaries that these jobs could contribute to the regional economy by 2020, and
- \$202 million annual wages and salaries these jobs could contribute to the regional economy by 2030.

The report includes a description of the Port of Tucson's service schedule and facilities, noting that intermodal facilities and frequent service are key components of an inland port. An additional study commissioned by Tucson Regional Economic Opportunities (TREO) in 2008 produced "Inland Port Development Plan." TREO's Economic Blueprint for the region identifies Transportation and Logistics as an economic cluster that is targeted for retention and expansion.

The Arizona State Rail Plan was adopted by the Arizona Department of Transportation in March of 2011. Section 4.3.2 states:

"Inland Port to support International Trade; Inland ports/logistic facilities are intermodal facilities that allow containerized freight to be shipped directly from the port terminal to an inland facility for trade processing, sorting, and other value-added services. The



ability to develop inland port and logistic facilities in Arizona to spur economic development depends on meeting warehousing/distribution location requirements, particularly in relation to “just-in-time” product delivery needs. One logistic facility currently exists at the Port of Tucson, along the UPRR Sunset Route. Studies have been conducted for sites near Flagstaff and Yuma for future inland ports/logistic facilities, with discussion of an additional site near Kingman. From an economic perspective, inland ports/logistics facilities provide locations for value-added activities that create investment opportunities for Arizona, including freight manipulation, warehousing/distribution, and manufacturing – all of which bring jobs and improve the business climate for economic development.”

Arizona has the opportunity to develop inland ports and associated warehouse/distribution facilities to help address some of the capacity constraints at the west coast deepwater ports and to serve the growing Sun Corridor.

The majority of import commodities arrive from foreign trade through POLA/POLB. The current annual capacity of these ports is approximately 28.5 million twenty foot equivalent units (TEUs). With substantial capital investment (about \$3 billion), capacity could nearly double. Forecasts of POLA/POLB container traffic demand range from 36.2 million to 56.4 million TEUs by 2020 – potentially exceeding their capacity. In the long run, trade with Asia will continue to grow. After the POLA/POLB reach capacity, there may be opportunities for the development of inland ports in Arizona, offloading containers from ships and directly transferring them to trains headed for inland ports, with customs facilities and Foreign Trade Zones provided at the inland locations. Prime sites for inland ports are the junctions of transportation corridors, including railroads, freeways, and airports. Several such junctions already exist in Arizona. Smaller infrastructure investments, such as railroad sidings or access roads, may be required, but much of the public investment has already been made. A proposed new UPRR classification yard near Red Rock presents an opportunity to supplement classification activities occurring at the Tucson Yard, increasing switching volumes and thereby enhancing the overall efficiency of the Sunset Route. The proposed yard at Red Rock will serve to break down and reclassify trains carrying goods destined for the Phoenix metropolitan area.

Development of such a logistics facility could evolve into an inland port and foreign trade zone (FTZ), to attract adjacent manufacturing that desires excellent intermodal transportation options. A recent study prepared for the Joint Planning Advisory Council (MAG, CAAG, YMPO and PAG) identified transportation logistics and associated manufacturing, as one of the key economic engines that could drive growth and development of the Sun Corridor over the next 40 years.”

Section 4.5.5 Recommended Actions for the Sunset Corridor states:



“Partner with the railroads to locate and develop intermodal and logistics centers along key railroad corridors. Additional capacity in an expanded distribution system could enhance the movement of freight in Arizona. The expected growth within the State, and a means of balancing the freight movements within the State among various modes, require the expansion of the freight rail distribution system. This action includes any partnerships that could be formed between the public and private sectors to streamline the implementation of improvements. Partnerships could involve completion of studies, expediting the permit process, and providing a combination of public and private funding for the improvements.

Development of intermodal and logistics centers and supporting rail infrastructure can act as a catalyst for economic development in the Sun Corridor, and establish Arizona as a major distribution center for goods. Distribution and warehousing activities are expected to grow in the region as a result of this and lead to creation of jobs and a diverse economic base. These types of developments can provide distribution capacity which may enable the State to capitalize on the potential implementation of the Port of Punta Colonet in Mexico. New rail connections between Mexico and the U.S. to move this trade may be attracted to an inland port location within Arizona.”

**Results of Cost Benefit Analysis**

The Project, which is contained within the Port of Tucson property, will generate large, geographically dispersed benefits. After completion of the Project, the Port of Tucson projects that annual container lifts at the facility will increase from 12,000 to 130,000 by 2032. The Port of Tucson projects that annual container lifts for shipping to export

markets will increase from zero to 65,000 by 2032. The BCA concentrates for export markets. Some of these new container lifts will represent existing shipping to export markets where the exporter is taking advantage of lower shipping rates offered by rail over truck. In these instances, the monetized benefit of the shipping cost savings times the number of container lifts switched to rail from truck. In other instances, the new container lifts represent new exports that would not be made except for the opportunities offered by the Project. In these

instances, the monetized value is the value of the commodities shipped to export markets. The BCA focused on new shipments to export markets of ore and grain. The BCA shows a Net Present Value from

<b>Exhibit 6</b>	
<b>Discounted Benefits</b>	<b>Values</b>
Switch from Truck to Rail	\$ 87,552,695.00
New Ore Shipments	\$ 1,337,244,251.00
New Grain Shipments	\$ 3,448,900,329.00
<b>Total Discounted Benefits</b>	<b>\$ 4,873,697,275.00</b>
<b>Discounted Costs</b>	
Construction	\$13,054,574.75
Annual O&M Costs	\$ 18,805,810.00
<b>Total Discounted Costs</b>	<b>\$ 31,860,384.75</b>
Total Discounted Benefits	\$ 4,873,697,275.00
Total Discounted Costs	\$ 31,860,384.75
<b>Net Present Value</b>	<b>\$ 4,841,836,890.25</b>
<b>B-C Ratio</b>	<b>152</b>

**PORT OF TUCSON  
CONTAINER EXPORT RAIL FACILITY  
TIGER 2013 DISCRETIONARY GRANT APPLICATION**



the Project of \$4.8 billion, with a Benefit-Cost ratio of 152.0 to 1. Exhibit 6 summarizes the economic analysis. The entire BCA report is available on the project website at <http://www.pima.gov/grants/dot/portoftucson/tiger-2013.shtml>.

**V PROJECT READINESS**

The project is ready to commence construction in the third quarter of 2013 assuming that the TIGER IV funds are available. Construction would be complete by the second quarter of 2014 or twelve months following commencement. No additional local permitting is required for construction of the railroad tracks and appurtenant structures.



**Exhibit 7 Project Schedule**

**Port of Tucson Project Schedule 2013**

Activity	July	August	September	October	November	December	January	February	March	April	May	June
<i>Notice of Award</i>												
<i>Order switches</i>												
<i>Finalize plans</i>												
<i>Optain permits</i>												
<i>Order equipment</i>												
<i>Bid and start earthwork for roadbed</i>												
<i>Bid and start bridges and culverts</i>												
<i>Bid track work</i>												
<i>Finish earthwork</i>												
<i>Finish bridges and culverts</i>												
<i>Start track work</i>												
<i>Finish track work</i>												
<i>Field test equipment and trains</i>												
<i>As built survey and initiation</i>												

**Environmental Approvals and NEPA**

The site of the double loop tack for unit train loading and unloading has been thoroughly reviewed by Pima County Development Services Department. The Pima County Board of Supervisors approved a rezoning of the property entitled the South Kolb Road Specific to permit commercial and industrial uses. On November 15, 1988 an ordinance was approved the South Kolb Rd. Specific plan. In 2006, the Board of Supervisors approved amendments to the South Kolb Rd, Specific Plan eliminating the distinction between primary and secondary uses. On November 18, 2010 a final plat was approved for Century Park Research Center Phase II Blocks 5 thru 16 and parcel B1 & B2 (Railroad) and Common are A (Private Roads) and Common Area C (Functional Open Space and Riparian Mitigation Area.)



As a condition of development plan and subdivision plat approval by Pima County, the Port of Tucson conducted environmental surveys for native plants, Pima Pineapple Cactus, Western Burrowing Owls and Cultural Resources. As a result of the studies, a riparian habitat preservation Plan, a native Plant preservation plan and a Landscape Plan were submitted and approved by Pima County. No Pima Pineapple Cactus, Western Burrowing Owls or significant cultural resources were found on the property. A hydrology report was submitted to US Army Corps of Engineers for a Section 404 Jurisdictional Delineation review and received a determination that there are no waters of the United States on the property.

We completed an FRA Categorical Exclusion Worksheet, adhering to FRA instructions, which illustrates that two categories of exception are likely. Our assessment finds that the construction activity within the Union Pacific Railroad Right of Way is minor. The worksheet is posted on the project website at <http://www.pima.gov/grants/dot/portoftucson/tiger-2013.shtml> along with other supporting information.

### ***State and Local Planning***

The Pima Association of Governments 2040 Regional transportation plan was developed over a 24 month period and involved members of the public, businesses, local organizations and jurisdiction staff. One of the goals of the plan is for multi-modal expansion: A balanced network of expanding alternative mobility choices to meet rail, highway, transit, roadway, bicycle, and pedestrian mobility needs. The 2040 Regional Transportation Plan (RTP) was adopted on July 1, 2010. The Plan's reserve project list shows other Interregional Multimodal Transportation Facilities with a capacity for \$2.9 Billion.

On October 5, 2011 the Transportation Planning Committee of Pima Association of Government received information on the proposed TIGER IV Grant application. When awarded, the project will be included in the five-year Transportation Improvement Plan (TIP) for the region. See the project website at <http://www.pima.gov/grants/dot/portoftucson/tiger-2013.shtml> for PAG meeting minutes.

## **VI FEDERAL WAGE RATE CERTIFICATION**

A federal wage rate certification letter has been obtained and is included in this application as Exhibit 8.



Exhibit 8

Federal Wage Rate  
Certification



**COUNTY ADMINISTRATOR'S OFFICE**  
PIMA COUNTY GOVERNMENTAL CENTER  
130 W. CONGRESS, TUCSON, AZ 85701-1317  
(520) 740-8661 FAX (520) 740-8171

C.H. HUCKELBERRY  
County Administrator

**Federal Wage Rate Certification  
For  
TIGER Discretionary Grants**

Pima County hereby certifies that, if awarded TIGER Discretionary Grant Funds for the Port of Tucson Container Export Rail Facility project, it will meet the requirements of subchapter IV of chapter 31 of title 40, United States Code (federal wage rate requirements), as required by the FY 2013 Appropriations Act.

Date: May 28, 2013

Signature: 

Title: Assistant County Administrator for Policy, Public Works

Applicant: Pima County

## Federal grant a boon for Port of Tucson, region



SEPTEMBER 01, 2013 12:00 AM • BY GABRIELA RICO  
ARIZONA DAILY STAR

A \$5 million grant to expand the ability to service rail freight in Tucson has put the region in a new league, officials said Saturday.

The Port of Tucson received the award from the U.S. Department of Transportation to build a ramp off Union Pacific's main line that will allow a train to run through the facility and journey coast to coast.

"I can't believe it," Port of Tucson owner **Alan Levin** said Saturday after he heard the news from U.S. Rep. Ron Barber.

It was the third time he had applied for the Transportation Investment Generating Economic Recovery (TIGER) grant.

Officials told the port there were \$8 billion worth of requests and only \$500 million available, said **Mike Levin**, Alan's son.

The port will be able to service 240 containers daily without having to pull a train apart, saving time and money for imports and exports rolling through Tucson, Levin said.

"In less than 15 hours I can unload and reload that train, and it can head on out to Long Beach," he said. With the high-speed switch, the train can roll off the Union Pacific main line at up to 45 mph and come to a stop in front of the Port of Tucson.

Union Pacific gave the port permission earlier this year to service international ocean containers via Long Beach and Los Angeles ports twice a week. The port can also send containers from Tucson to the California ports five days a week, which gives local business the ability to export goods worldwide.

Before that designation, ocean containers bound for Southern Arizona had to be trucked directly to the importer. The empty containers were then returned by truck to the California ports.

For an export shipment, the empty container was trucked to Arizona and returned to Long Beach or Los Angeles loaded.

The alternative of rolling a 120-car, double-stacked train through town takes 240 trucks off the road, lowering fuel costs and shortening delivery time.

“The biggest benefit is that local businesses will be able to be part of the global economy, whether receiving or exporting,” Levin said. “Local businesses are really the ones that will benefit.”

The 27-year-old Port of Tucson is a 780-acre facility on Tucson’s southeast side. The family business has invested more than \$15 million in the project.

Levin said he is indebted to Pima County administrators and supervisors who applied for the grant on behalf of the Port of Tucson.

“It’s taken a lot of time and a lot of meetings to sell the vision,” he said. “This validates everything I’ve been trying to do.”

Former Tucson Mayor **Bob Walkup**, who was recently appointed the honorary consul to South Korea views the Port of Tucson as a tool in his new role of increasing trade between the two countries.

“It is an extraordinarily important moment for the region because we really haven’t been able to compete globally,” Walkup said. “We’re now playing a new game.”

He stressed that the news was not simply a boon for businesses.

“Expanded trade and commerce ultimately means better quality jobs for Tucson,” Walkup said.

In a statement announcing the award, Barber said the port’s role in expanding Southern Arizona’s economy is the biggest impact.

“The expansion of the port’s current capacity...dramatically increases Arizona’s competitiveness in overseas markets and distinguishes this project as one of regional significance.”



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## Federal Legislation & Regulation Article

# TIGER V grants on tap for six rail projects, congressmen say

Federal Legislation & Regulation

Six freight- and passenger-rail projects will receive Transportation Investment Generating Economic Recovery V (TIGER V) grants from the [U.S. Department of Transportation](#), a number of congressmen announced on Friday.

• In Missouri, Sen. Claire McCaskill (D-Mo.) announced the city of Kansas City will receive a \$20 million grant to build a two-mile streetcar line from the River Market area to the Crown Center/Union Station area, primarily by using the Main Street corridor.

The line is slated to be operational by summer 2015. The TIGER V grant will cover about 20 percent of the project's cost, McCaskill said in a press release.

"This streetcar project will encourage housing, construction and business development in the city — and that will mean more jobs across the region," she said.

• In Illinois, Sen. Dick Durbin (D-Ill.) announced the city of Springfield will obtain a \$14.4 million grant to build one of eight underpasses for the 10th Street railroad consolidation project.

The \$22 million underpass would be built where Carpenter Street intersects tracks at 10th Street in Springfield. The city must complete complete design and engineering work by September 2014 or it risks losing the grant, according to Durbin.

In December 2012, the Federal Railroad Administration approved the proposed relocation of [Union Pacific Railroad](#) and [Amtrak](#) tracks from Third Street to a [Norfolk Southern Railway](#) line along 10th Street. The consolidation would require construction of a second set of tracks for UP and Amtrak trains, a \$315 million project expected to take eight years to complete.

• In Maryland, Sens. Barbara Mikulski (D-Md.) and Ben Cardin (D-Md.), and Reps. Elijah Cummings (D-Md.), Dutch Ruppersberger (D-Md.) and John Sarbanes (D-Md.) announced the Maryland Port Administration (MPA) will receive a \$10 million grant to complete the Fairfield Terminal project at the Port of Baltimore.

## RAIL EMPLOYMENT

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The project involves the replacement of an obsolete and dilapidated wet basin in the port with a new 7.6-acre, rail-served cargo lay-down area at the terminal. The project will expand handling capacity at the marine terminal, improve rail access and increase intermodal flexibility for exports, according to the MPA.

- In Arizona, Rep. Ron Barber (D-Ariz.) announced Pima County will obtain a \$5 million TIGER V grant for a new an intermodal ramp at the Port of Tucson.

The project calls for building a ramp off UP's mainline so containers can be unloaded at the inland port and transferred to trucks or trains. The 780-acre port has invested about \$15 million to develop the project, including the addition of warehouses totaling 2 million square feet, said Barber in a press release.

"The Port of Tucson is Union Pacific Railroad's only intermodal ramp in Arizona," Barber wrote in the county's TIGER V grant application submitted in May. "The expansion of the port's current capacity to handle transloading to and from international ocean containers dramatically increases Arizona's competitiveness in overseas markets and distinguishes this project as one of regional significance."

- In Colorado, Sen. Mark Udall (D-Colo.) announced the town of Windsor won a \$2.7 million grant to establish two quiet zones.

"Train noise is a serious issue affecting communities throughout Colorado. It can deter economic development, hurt small businesses and reduce Coloradans' quality of life," Udall said in a press release. "This competitive grant will help Windsor work with the Federal Railroad Administration to reduce train noise and address this serious issue for the town."

- In New York, Sens. Charles Schumer (D-N.Y.) and Kirsten Gillibrand (D-N.Y.) announced the Port of Oswego will receive a \$1.5 million grant to upgrade infrastructure.

The port plans to construct a roadway, embedded with heavy rail, connecting the main east Terminal to a six-acre open-storage area to accommodate both truck and rail traffic — nearly doubling the current storage and operation area — and construct two additional side tracks to increase rail-car storage capacity from 16 to 48 cars.

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