

High Desert Corridor
Joint Powers Authority

June 9, 2014

Meeting Materials

Item 7

Metro/JPA TIGER VI Application
Rail Revenue Study for HDC Project

HIGH SPEED RAIL REVENUE STUDY HIGH DESERT MULTI-MODAL CORRIDOR



High Desert Corridor Region



TRANSPORTATION INVESTMENT
GENERATING ECONOMIC RECOVERY
PLANNING GRANT (TIGER VI)
PROGRAM

TIGER VI DISCRETIONARY GRANT
REQUEST

Submitted by

Los Angeles County Metropolitan
Transportation Authority

Project Type:

Multimodal (Rail, bicycle, roadway, energy)

Project Location:

Palmdale and Victorville in Los Angeles and San Bernardino Counties respectively, California

Type of Jurisdiction:

Rural

Project Amount in a Rural Area Requested:

\$1,000,000 with \$430,000 (30%) local match

Congressional Districts:

8th - Paul Cook
25th - Buck McKeon



April 24, 2014



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OVERVIEW

GRANT REQUEST SUMMARY

The High Desert Corridor (HDC) is a “project specific,” multipurpose/multimodal project that incorporates capital investments for a highway/toll facility, high speed rail (HSR) infrastructure, a bike facility and the generation and transmission of green energy.

The TIGER Planning Grant request of \$1 million would fund a HSR revenue study (“the Study”) to review and update existing ridership studies and complete investment grade ridership and revenue forecasts enabling HSR connections from Los Angeles, California to Las Vegas, Nevada.

The TIGER Planning Grant application for the Study is submitted by the Los Angeles County Metropolitan Transportation Authority (LACMTA, the lead applicant) in partnership with the High Desert Corridor Joint Powers Authority (HDC JPA), the co-applicant (jointly referred to as “the Project Sponsors”). The total cost to conduct the Study is \$1.43 million, with the TIGER Planning Grant request representing 70% of this total. The \$430,000 in non-federal funds consists of \$400,000 committed by the Office of the Fifth Supervisorial District of the County of Los Angeles and \$30,000 in voter-approved Proposition C funds committed by LACMTA. **Please click [here](#) to view a video about the multipurpose, multimodal corridor in which the proposed HSR service would operate.**

SELECTION CRITERIA

Primary Criteria	Project Performance
State of Good Repair	<ul style="list-style-type: none">• Operations and maintenance costs covered by rail fares in P3.
Economic Competitiveness	<ul style="list-style-type: none">• Creates 49,500 jobs.• Enables opportunities for transit oriented development (TOD).
Quality of Life	<ul style="list-style-type: none">• Creates affordable housing opportunities through TOD.• Shortens commute times.• Reduces freight travel times in some cases by as much as 60 minutes.
Environmental Sustainability	<ul style="list-style-type: none">• Reduces dependency on oil, offsetting electricity usage on corridor.• Provides green energy transmission/generation infrastructure• Creates bike lanes as a result of community input on the project.• Uses environmentally sound construction management practices.
Safety	<ul style="list-style-type: none">• Creates a path for auto and truck traffic to avoid dangerous roads.• Creates an elevated facility for cars/trucks to avoid flooding and fire.• Provides rail infrastructure to take cars off the road.
Secondary Criteria	Project Performance
Innovation	<ul style="list-style-type: none">• Template for other corridors, combining green energy, bike paths, highway, land use and potential fiber and natural gas infrastructure.• Planned usage of TIFIA and P3 delivery mechanism.
Partnership	<ul style="list-style-type: none">• Partnership with Federal Rail Administration (FRA) and the Federal Highways Administration (FHWA) and 14 local partners.

I. PROJECT DESCRIPTION

The HDC Project would result in the construction via a [P3](#) of: i) a 63-mile long highway to improve the east-west movement of both passenger and freight traffic; ii) a bike path running adjacent to the right-of-way of the proposed highway; and iii) a 55-mile long high-speed rail (HSR) gap closure between the planned California HSR line connecting San Francisco to Los Angeles at the Lancaster/Palmdale Station and the planned XpressWest HSR line connecting Las Vegas-Nevada to San Bernardino County- California at the Victorville Station. The 55-mile HSR gap closure would also connect to the Metrolink regional rail service at the Palmdale Transportation Center in Palmdale, California. The HDC Project is proposed to be implemented as a P3. Most of the project footprint (see [Appendix A](#)), about 70%, is located in rural areas of Los Angeles and San Bernardino counties (the most populous and the largest by area among all counties in the United States, respectively).

A. DETAILED STATEMENT OF WORK

OVERVIEW

The Study must consider the following:

- A new Investment Grade ridership and revenue study which considers the entire Region with a focus on the HDC serving as the connector between California High Speed Rail Authority (CHSRA) and XpressWest. This study will build on the earlier work conducted by other entities relating to the Region under three different assumptions with regards to wide connectivity in California.
- Supplement the existing Investment Grade study between Las Vegas and Victorville;
- Review and complement relevant components of ridership studies related to Central California and Palmdale and consider ridership resulting from an upgraded Metrolink system.
- A comprehensive analysis considering potential passenger behaviors and detailed market analysis.
- Coordinating information as it relates to automobile traffic counts on the proposed highway/toll way facility.

PHASE I- REVIEW AND UPDATE EXISTING RIDERSHIP AND FEASIBILITY STUDIES

Phase 1 aims to: 1) supplement the XpressWest October 2012 Ridership Study forecasts to reflect the latest available national, regional and local data of relevance to the market; 2) review and update ridership information from CHSRA; and 3) update Metrolink data. The data sources to be reviewed and updated include:

- Business Plans and Modeling Data regarding the potential investments opportunities within the Corridor relative to Project implementation.
- Metrolink Ridership Data;

- CHSRA Business Plan and Ridership Studies, including all updates;
- Los Angeles Basin Traffic Counts on applicable freeway systems;
- Las Vegas Convention and Visitor Authority (LVCVA) Statistics and Visitor Surveys;
- Nevada Department of Transportation (NDOT) traffic studies;
- US Bureau of Transport Statistics (BTS) data on air patronage, fares and service levels;
- California fuel prices as published by the U.S. Energy Information Administration (EIA) and consumer websites;
- Forecast changes in oil prices as published by the EIA, both short and long term;
- Population and growth domestic product forecasts as produced by forecasting houses (e.g. Woods & Poole), MPOs and Council of Governments such as Southern California Association of Governments (SCAG), San Diego Association Governments and San Bernardino Associated Governments (SANBAG);
- Market reports produced by gaming companies such as MGM Resorts and Caesars Entertainment, and by other analysts and rating agencies as appropriate, including the Nevada State Gaming Commission and State Gaming Control Board;
- Current list of Las Vegas Strip capital improvement and development projects;
- Updated airport passenger statistics and Official Airline Guide (OAG) data of flights within the Region.

PHASE II- COMPLETE THE INVESTMENT GRADE RIDERSHIP AND REVENUE FORECAST AND FEASIBILITY STUDY FOR THE HDC PROJECT

The Study would build upon forecasts and other studies produced by multiple entities and stakeholders in the region and consider, at a minimum, the following:

- Some redistribution of current forecasted ridership in terms of access to the planned XpressWest, the existing Metrolink system and the future CHSRA project;
- Demand resulting from the enhanced appeal of a HSR connection to Las Vegas for those travelling from Los Angeles (via Metrolink Antelope Valley Line) or from Central and Northern California via the project.
- Investment and funding data impacting the Project and collected throughout the Southwest Region.
- Consideration of costs to implement the Project in relationship to revenue opportunities.
- Potential financing structures for implementation of the Project.

The following scenarios, at a minimum, have already been identified by the HDCJPA for evaluation as part of this task:

- Additional Victorville to Palmdale high-speed segment, assuming the existing LA Metro / Metrolink Rail system, including the Los Angeles to Lancaster Antelope Valley Line (including the Palmdale Station) is not upgraded,

- Additional Victorville to Palmdale high-speed segment, assuming the existing LA Metro / Metrolink Rail system, including the Los Angeles to Lancaster Antelope Valley Line (including the Palmdale Station) is upgraded according to the current California High-Speed Rail Authority's February 7, 2014 Business Plan "Early Investment" Phasing Strategy; and
- San Francisco to Los Angeles HSR infrastructure and service is completed according to the current California High-Speed Rail Authority's February 7, 2014 Business Plan "Phase 1 Blended" implementation strategy.
- The HDC freeway alternative will be constructed with some portion requiring tolls. Detailed assumptions regarding the timing of construction, tolling level and forecasted traffic demand will have to be considered.
- To maintain consistency with existing forecasts, the feasibility study would use a core forecasting approach for the extension to Palmdale that is consistent with the existing XpressWest Ridership forecasts and considers the CHSRA ridership studies. This approach would include identifying or estimating:
 - The "in-scope" market for travel which XpressWest, Metrolink and CHSRA can serve;
 - The future growth in this Mega Region and market;
 - How much of this market XpressWest, Metrolink and CHSRA can capture at a given fare; and
 - The amount of "induced" travel by an integrated XpressWest, Metrolink, and CHSRA system.

Components of this analysis include:

1. Literature Review. Existing plans and studies will be reviewed including the California High-Speed Rail Authority's Business Plan, XpressWest and Metrolink ridership data, documents published on the California High-Speed Rail Peer Review Group website (<http://www.cahsrprg.com/>) as well as the US Government Accountability Office (<http://www.gao.gov/>), public information from Metrolink and information provided by XpressWest.
2. Data Collection. While a significant volume of data was collected as part of the previous XpressWest and CHSRA Ridership study work, the high speed connector would significantly alter the travel options for a proportion of the currently forecasted ridership in all directions, as well as potentially opening up new markets throughout the High Desert region. In order to appropriately forecast the implications of this in relation to the JPA's feasibility study, we expect that a number of data collection activities must be undertaken including a review of the existing XpressWest, Metrolink and CHSRA Ridership data to help establish base trip tables at an appropriate level of aggregation given the applicable projects' specifications at a specific time. Current traffic volume data will also have to be collected encompassing a wide geographic region covering Central and Northern California in addition to Southern California and Southern Nevada.

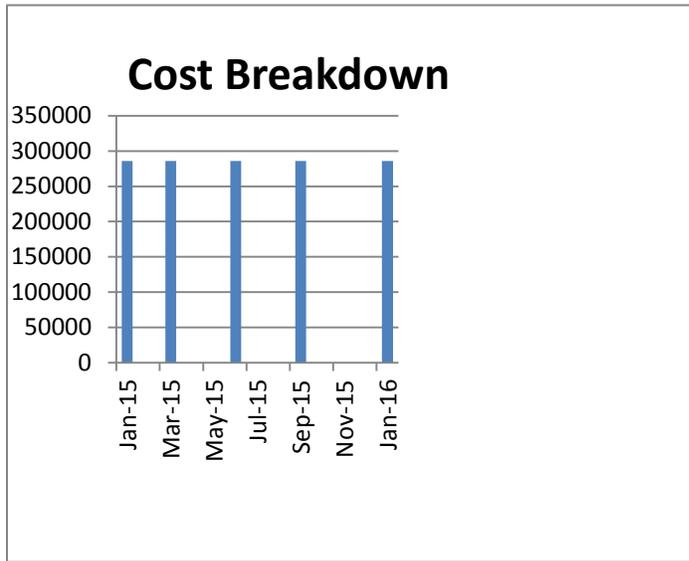
3. Forecasted Growth. Market analysis would have to be undertaken to ensure the underlying forecasts of market growth adopted are consistent with the latest expectations and confidence in the market.
4. Stated Preference and Focus Groups. To understand how the “in-scope” market for XpressWest, Metrolink, and CHSRA will be impacted as a result of the Victorville – Palmdale line it will be important to understand the relative preferences of people within Southern, Central and Northern California.
5. Analyzing Zoning and System Model Structures. The existing ridership studies by XpressWest and CHSRA incorporate certain zoning systems and model structures at an appropriate level of aggregation given specifications at a given time. These will need to be reviewed and updating to allow for forecasting at a sufficient level of detail given the Victorville – Palmdale line.
6. Analyzing Forecasting Assumptions and Model Inputs. A forecasting framework needs to be created using historical and current findings and new data arising from each of the earlier three steps.
7. Stakeholder Involvement. Draft forecasts will be shared by the JPA with key stakeholders including LACMTA, CHSRA, Metrolink and XpressWest before the final report is published.

B. DETAILED SCHEDULE

Upon the award of the TIGER Planning Grant funds, the Project Sponsors plan to release the procurement of the rail revenue study through LACMTA’s typical procurement process. This will enable a contract award date of January of 2015, well before the June 2016 deadline. An investment grade, rail revenue analyses typically takes 12-24 months to complete, which will enable the Project Sponsors to expend the full amount of funds awarded well before the September 2021 deadline. As cited in the Cost Breakdown figure below, the Project Sponsors expect the project funds to be expended based off milestones outlined in the detailed project scope in the amount of around \$285,000 per quarter.

Milestone	Date
Grant Award	September 2014
LACMTA Procurement Process Begins	October 2014
Contract Award	January 2015
Project Completed/Funds Expended	December 2015

C. DETAILED COST BREAKDOWN



Item	Amount
Local Match	\$430,000
TIGER Grant	\$1,000,000
Total	\$1,430,000

II. PROJECT PARTIES

A. LAMCTA

The LACMTA is a State-chartered Regional Transportation Planning Agency (RTPA) and public transportation operating agency for Los Angeles County. LACMTA is unique among the country's transportation agencies because it serves as the transportation planner and coordinator, designer, builder, and operator for the country's most populous county. More than 9.8 million live, work, and play within LACMTA's 1,433 square-mile service area. LACMTA is the second largest transit agency in the country and the largest transit providers of heavy and light rail and bus services in Los Angeles County. It has over 9,200 full-time employees and an annual budget of almost \$5 billion dollars. About 459 million passenger boardings were recorded on LACMTA's transit system in FY 2012, with about 80 percent of the total ridership on buses. A comprehensive map of LACMTA's bus and rail system is available [here](#).

B. JPA

Formed in 2007 by Los Angeles and San Bernardino County Supervisors Michael D. Antonovich and Brad Mitzelfelt, the Joint Powers Authority is a two county special authority that established policy for the development of the HDC by elected public officials in the County of San Bernardino, County of Los Angeles, and the Cities of Adelanto, Victorville, Lancaster, Palmdale and Town of Apple Valley. San Bernardino is the largest California county in land mass creating a unique partnership opportunity for linking the most populous county with the largest county.

The JPA also focuses developing consensus and combining the efforts undertaken by multiple planning entities into one combined project that can be financed through a P3 delivery mechanism.

C. OTHER STAKEHOLDERS

Caltrans, SANBAG, FRA, FHWA, SCAG, the cities of Lancaster, Palmdale, Adelanto, Victorville, Town of Apple Valley, Counties of Los Angeles and San Bernardino.

III. GRANT FUNDS AND SOURCES/USES OF PROJECT FUNDS

Local funding from Measure R, a voter-approved ½ cent sales tax increase, has dedicated approximately \$33 million dollars to the HDC for the environmental review process. Future public and private funding is needed in order to deliver the entire scope of the HDC. The \$1 million TIGER Planning Grant will help to fund the necessary Study that is required in order for the Project Sponsors to identify the method to deliver the project under a P3 delivery mechanism. The Project Sponsors are matching \$430,000 of local funds.

The TIGER Planning Grant award will allow the Project Sponsors to obtain information for the revenues for debt financing, allowing the project to be fully funded many decades sooner than without revenues. The completion of the study will enable the Project Sponsors to provide improved mobility and efficiency sooner than waiting for public funding to materialize.

Projected Project Delivery Schedule

Milestone	Date*
Tiger Planning Grant Award	September 2014
Rail Revenue Analysis Completed	September 2015
Construction Begins	August 2016
Construction Ends	August 2022

*Relies upon clearance of environmental document, selection of locally preferred alternative, and additional public funding

IV. SELECTION CRITERIA

The project meets the five primary selection criteria outlined in the March 3, 2014 *Federal Register*. These include both long and short-term outcomes.

A. PRIMARY CRITERIA

STATE OF GOOD REPAIR

The project addresses the TIGER VI State of Good Repair objective by relieving east-west traffic congestion in Los Angeles and San Bernardino Counties, and alleviating demand on the existing roadway infrastructure in Los Angeles, resulting in service and roadway congestion improvements throughout the region. The project meets the state of good repair criteria by:

Improve Mobility and Reduce Greenhouse Gas Emissions

Mobility in the region is limited by a handful of roads traversing the High Desert region; improving mobility in the area would be beneficial for travelers and freight. Greenhouse gas emissions are also reduced by diverting freight traffic from the Los Angeles basin to the High Desert, relieving congestion and idling time thus reducing pollution.

Addressing Demand on Existing Transportation Infrastructure

Current road infrastructure is above its capacity and represents a risk to the connectivity of the region. Damage to the road because of rain or fire puts the road out of service and disconnects the region. Maintenance on surrounding facilities is complicated by the high volume of traffic, meaning maintenance is not performed at optimal intervals and in the long run compromises the state of good repair. Maintenance work on the corridor would be more expensive and the road would be out of service or operate at reduced capacity for a longer period of time resulting in increased travel times due to poor condition or detours.

Construction of the HDC allows for LACMTA meet its goal to maintain roads in a state of good repair and to meet the travel demands of the High Desert, increasing safety and ensuring the future economic efficiency, growth, and stability of the region.

Enabling High Speed Rail Service between Major Population Centers

The high speed rail component of the project increases efficient mobility in the region as greenhouse gas emissions by trains are much lower than individual vehicles and can move a far greater number of people in a shorter amount of time.

The area and routes surrounding the HDC are used as a by-pass for heavy trucks and recreational vehicles traveling between Las Vegas, Barstow, Victorville, San Bernardino County, and Riverside County. Almost 10% of the traffic is due to these types of vehicles. By constructing the HDC and making future improvements to the region, trucks and recreational vehicles will have a safer facility that enables them to avoid the Los Angeles Basin and travel at freeway speeds while not sacrificing safety.

Also of note, approximately 70% of the project footprint covers rural areas with the remainder intersecting urban areas ([See HDC Farmland impact study](#)). The project is also in the vicinity of federally controlled land, a prison facility, and a military base.

ECONOMIC COMPETITIVENESS

The HDC project could create a boom in economic development that changes the makeup of the entire High Desert region. The vision for permanent and local job opportunities, housing and TOD planning, bicycle and green energy planning, and commuter behavior changes could revolutionize the High Desert region into a jobs generator for decades. Already the influence of the aerospace industry with SCLA and Palmdale Regional Airport buttressing the project limits is sending the region in the right direction.

The Project Sponsors believe that once the environmental process is completed, with the potential for a Transportation Infrastructure Finance and Innovation Act (TIFIA) loan

complimenting the funding profile of the project, the HDC will shift the way that greenfield transportation and energy projects are planned. Here is how:

- As per the Council of Economic Advisers formula highlighted in the NOFA, the project will generate 49,500 jobs based on an estimated investment for rail and highway of \$3.8 billion. Meanwhile, an independent study by Economic and Planning Systems, Inc. (ECS) found that the HDC will stimulate 42,900 sustained jobs, through relatively high paying logistics and logistics-related jobs, and spinoff jobs. Surrounding logistics activities will bring congestion relief benefits by helping improve the High Desert's jobs/housing balance.
- Opportunities for land use development, affordable housing expansion and new business development are ample if Palmdale and Victorville become regional destinations as a result of the planned HSR connections.
- [With a P3 delivery method](#), the economic benefits of the project will be available sooner than anticipated and greatly contribute to the regional economy.
- New business complexes will help create living-wage jobs closer to the growing communities in the High Desert. These new jobs will enable a reduction in average commutes for existing and future residents and thus help decrease associated vehicle emissions.
- Already, there is an oversupply of unplanned housing in the High Desert, causing the worst jobs to housing balance in the State. The unemployment percentages are the highest in the State and those who do work have the longest commutes in the State as they clog the SR14 and I-15 without transit options to other jobs centers.

QUALITY OF LIFE

This greenfield project will also provide a vital connection between the State's two Interstates connecting Mexico to Canada: Interstate 5 and Interstate 15. This will allow for passenger vehicles and freight to move more efficiently from northern and central California. This also provides a new corridor for routing truck freight on its way to the ports of Los Angeles and Long Beach. As cited by [SCAG's April 2012 RTP](#), the additional revenue and innovation provided by the proposed toll facility will greatly benefit the region. In addition, here are other ways the HDC Project will improve the quality of life surrounding the region:

The Southern California Logistical Airport (SCLA) and the Palmdale Regional Airport are two pieces of existing infrastructure that are underutilized in the region. With the addition of the HDC, these resources can be used to increase goods movement through other avenues besides road and rail. Locally planned warehouse expansion will be able to use these facilities to get their goods to their final destinations faster. In addition, the regional airport has plans to expand into an international airport. Already SCLA has made efforts at new private investment which has

resulted in \$150 million in improvements for its private sector partners. The aerospace industry currently sustains 32,000 jobs in Palmdale and Lancaster from companies like Lockheed Martin and Boeing with other research, manufacturing and military (Edwards Air Force Base).

- **Jobs-** The new jobs will enable reduced average commutes for existing and future residents
- **Emissions-** The reduction of emissions as a result of less clogging of existing routes would greatly assist the region directly and alleviate congestion heading into the already polluter Los Angeles Air Basin
- **Development-** The proposed HSR stations would allow for future housing and job growth to occur within high-quality transit oriented development that will have positive economic impacts
- **Connectivity-** with existing main streets, downtowns, and commercial corridors around the proposed HSR stations could result in an overall land use development pattern which supports and complements a transportation network that emphasizes active transportation,
- **Bike facility-** Would connect with the existing proposed network of bike paths in the Cities of Palmdale and Adelanto. This bike facility would be designed to complement the proposed freeway/expressway and HSR feeder service without impeding on the operational performance or compromising safety. The bikeway has recreational uses, offering opportunities for exercise and access to natural open spaces. Facilities such as restrooms and drinking fountains along the path and at locations within cities would incentivize the emergence of businesses like bike shops and eateries, creating amenities for residents and visitors.

ENVIRONMENTAL SUSTAINABILITY

The HDC project seeks to establish a sustainable corridor that maximizes the potential to use green energy and sustainable technologies to minimize its impact.

Alternative Energy- The development of a new transmission corridor and provision for infrastructure to enable electric charging and alternative fueling stations will be considered for potential integration into the HDC.

-Alternative energy sources, such as solar and wind energy generation are being evaluated for their potential to enable the project to offset its electricity usage.

- Infrastructure to enable electric vehicle charging and alternative fueling stations (natural gas) planned.

Construction Management Techniques- Project Sponsors have already taken steps to ensure that the construction management of the project is conducted through methods that minimize impacts (air, light, noise, vibration) and focus on the preservation of water and other resources.

Bikeway- The added bikeway creates connections to existing and proposed facilities in Palmdale and Adelanto creating a sustainable mode of transportation. Also, travel by bicycle is the lowest

emitter of greenhouse gases per passenger mile traveled. Bicycle facilities also impose a lesser impact on the environment because of the smaller footprint.

Electric HSR Infrastructure- Cited by as the United States High Speed Rail Association highlights, electric HSR infrastructure is the most efficient of all train systems. This infrastructure would also provide an alternate mode of transportation reducing individual vehicle miles traveled.

Park and Ride Facilities- The Project provides park and ride facilities for highway capacity.

Landscaping- The landscaping efforts will reduce surface heat through photosynthesis decreasing CO2 emissions.

LED Lighting- The project will make use of LED bulbs that last much longer than conventional lighting and reduce CO2 emissions.

SAFETY

LACMTA's objective is to continue making investments and improvements needed to maintain safety standards in order to comply with changing safety and environmental regulations and practices, and to ensure that LACMTA can meet governmental safety requirements. Meeting and maintaining the standards of a state of good repair improves not just the comfort and reliability of the services LACMTA provides, but aids in the safe operation of service.

The SR138, which runs right through and adjacent to the proposed HDC, currently carries about 15,000 vehicles per day between the Antelope and Victor Valleys, and the percentage of trucks using it is notably higher than comparable highways (10% of the total traffic is trucks). It is the primary route through the region and is not designed to serve the high volumes of traffic that are traveling between these two urban centers. A major transportation corridor is needed between Antelope Valley and the Victor Valley, as forecast traffic volumes far exceed the capacity of SR 138. Total traffic between the two valleys is projected to exceed 100,000 vehicles per day in 2035, with the percentage of trucks increasing to 13%.

Significant segments of SR138 are only two lanes wide, it is fronted by development and dangerous driveway access in Pearblossom and other rural communities along its route. It has not been designed to standards necessary for high-speed highway travel, and its operations are affected by the high percentage of trucks carried. SR138 is a designated safety corridor due to the high traffic volumes/accident rates for a two-lane, rural state highway. Because of its twisting, mountainous segments and overloaded traffic conditions on its eastern leg, SR138 east of Palmdale and west of Interstate 15 is the site of numerous serious auto accidents. Accident data taken from the previous Project Study Report indicates that the actual total accident rate is higher in some of the segments than the average total rate for similar types of facilities in the state. In addition the fatal accident rate is also higher in some of the segments than the average fatal rate for similar types of facilities. One of the chief contributors to accidents on SR138 of

late is drivers passing on the two-lane highway in unsafe conditions as these have become undersized facilities currently servicing high truck traffic volumes.

The area surrounding the highway is also prone to brush fires and flash floods. Almost all of the major watercourses flow within culverts not originally designed to pass the 100-year storm. Only a fraction of the base flood of each of these watercourses flow through the various culverts with the remainder of the flows overtopping the highway. These conditions are a safety concern for motorists traveling through SR138 during the rainy season, especially given the increased volume of freight traffic on the road as visibility is decreased and traction on the road is affected. Through the hot and dry season, the potential for wildfires greatly increases given the prevalent grass and brush vegetation of the region. The project increases safety along the corridor by providing a dedicated facility for everyday users, in addition to alleviating congestion and improve the flow of goods through the region by getting trucks off dangerous highways like the SR138.

B. SECONDARY CRITERIA

INNOVATION

The Study will help define the revenue opportunities to deliver the project as a series of P3 contracts or as one incorporating all components of the HDC into a comprehensive P3 contract. That data will inform the Project Sponsors as to next steps once the environmental process is completed.

Once this decision is made, responsibilities for the developer or developers will require the maintenance and operations of these facilities. This will enable a high level of service through all of the aforementioned facilities while reducing life cycle costs.

The P3 delivery approach is likely to encourage greater innovation not only through increased competition but also based on selection of the winning proposal through a “best value” methodology that includes both a financial and a technical/qualitative component. Should the project to be delivered as a traditional design-bid-build or a design-build, selection would likely be purely based on a “low bid” methodology. This methodology would exclude consideration of both innovative technical concepts and operational/lifecycle efficiencies.

In addition, the ability of the corridor to offset its own electricity use, the Project Sponsors believe, will set a precedent for future projects. As innovation remains a focus for the development of this project, the Project Sponsors aim to bring multiple modes of travel together and alternative options to create sustainable infrastructure and economic development. Through the funding of this grant opportunity, the Project Sponsors with broad community and political support can demonstrate the nexus between transportation and energy infrastructure.

PARTNERSHIP

Local support is demonstrated by the availability of local match and letters of support for the project are included as attachments.

In addition, Caltrans and LACMTA have worked steadfastly to clear the environmental document while having unconditional support from the HDCJPA.

V. DEMONSTRATED PROJECT READINESS

A. ENVIRONMENTAL APPROVALS

LACMTA and Caltrans are very knowledgeable about the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) requirements and have implemented complex transportation projects by successfully developing Environmental Impact Statements, Environmental Assessments (EA), Documented Categorical Exclusions and Categorical Exclusions. Outlined below are the Project's environmental efforts:

In September 2010, Caltrans, LACMTA, SANBAG and partner agencies initiated the Draft Environmental Impact Statement/Report (EIS) and the [alternatives analysis](#) to evaluate alternatives that could address the region's recent population and economic growth, and improve transportation infrastructure to facilitate goods movement.

Most recently, LACMTA's Board amended the project to include a multi-modal, multipurpose corridor that can accommodate highway, energy production and/or transmission facilities and a HSR feeder service line. [A rail alternatives analysis](#) was completed by Caltrans in 2011 and considered the HSR feeder service option and identified feasible rail connections to the Palmdale Transportation Center in Palmdale and the proposed XpressWest station in Victorville. This study helped to highlight the benefits of each option within the environmental document. Please see the chart linked above for more information.

In addition to this study, efforts are underway to identify local routes for a bikeway that can connect the bicycle master plan routes of the cities and unincorporated areas along the HDC. Several other studies are being completed to evaluate the proposed green energy concepts and financing plans.

Currently, the Project Sponsors are pursuing a Project Approval/Environmental Document (PA/ED) allowing LACMTA to enter into an agreement and manage the development of the Project with Caltrans District 7. Caltrans District 7 is the lead on the PA/ED and plans to obtain Notice of Determination (NOD) and Record of Decision (ROD) for the Project.

Table 1: Project Environmental Schedule

Milestone	Date
Draft Technical Studies Completed	April 2014

Circulate Draft Technical Studies	May 2014
Circulate Admin Draft	June 2014
Complete Admin Draft	July 2014
Circulate Environmental Document to public	September 2014
Public Hearings	September 2014
Final PA/ED	April 2015
Prepare, sign and file ROD/NOD	August 2015

B. LEGISLATIVE APPROVALS

LACMTA has the legal authority to apply for Federal grants and are regular recipients of federal funds grant funds. Legislative approval is not needed for the projects proposed in this application. The LACMTA has sought and received support for its proposal from local and elected officials. Letters of commitment showing existing or confirmed collaboration and partnerships are included as part of this application’s supporting documentation and these demonstrate strong collaboration among a broad range of participants and/or integration of transportation with other public service efforts.

C. STATE AND LOCAL PLANNING

The project in this grant application is consistent with the SCAG’s “TIP” the transportation plan for the region. The TIP ID number is LA0G1099.

D. TECHNICAL FEASIBILITY

LACMTA serves as the transportation planner, coordinator, designer, builder, and public transportation operator for Los Angeles County. In this position, LACMTA has the technical capacity to implement the Project and to meet the requirements of the TIGER Program. LACMTA’s sound procurement, accounting, and project management practices and its ability to meet all applicable Federal, State, and local laws and regulations, support its technical capacity for successful project delivery and performance monitoring. It is also LACMTA’s policy that its assets be operated and maintained safely and effectively using established maintenance practices and procedures. Over the past few years, LACMTA has completed several projects demonstrating its adequate technical capacity to manage, implement, and operate complex transit projects, such as the proposed HDC Project. Noteworthy projects implemented during the last ten years include assuming ownership and opening the LACMTA Gold Light Rail Line from Union Station in the downtown of the City of Los Angeles to the City of Pasadena,

implementing a network of new 28 LACMTA Rapid lines that provide over 420 miles of service throughout Los Angeles County, constructing and operating the LACMTA Orange Line bus rapid transit system, and constructing the LACMTA Gold Line Eastside Extension that extended the LACMTA Gold Line by six miles to reach East Los Angeles.

E. FINANCIAL FEASIBILITY

As the designated Regional Transportation Planning Agency for Los Angeles County, LACMTA has the authority to program, to itself and other agencies, regional transportation funds in Los Angeles County. LACMTA is legally authorized to administer the three voter-enacted local sales tax initiatives (Measure R, Proposition A, and Proposition C). Each one of these initiatives imposed a sales and use tax of 1/2 cent in the Los Angeles County to fund transportation investments. The Measure R sales and use tax has a sunset provision and will expire in 2039, but the other two initiatives are permanent. These local sales taxes flow directly to LACMTA for its use or to be programmed to other agencies according to the requirements of the applicable ordinances. The revenue generated by each initiative is about \$600 million per year. These funds can be leveraged by bonding for capital projects. The relative strength of LACMTA as an issuer is also manifested in its high bond ratings.

HDC PROJECT COSTS

The total capital costs for the highway component of the project were estimated based on Caltrans data assuming a single design-build construction contract, totaling slightly more than \$2.2 billion. The assumed rail costs are estimated at approximately \$1.6 billion from Palmdale to Victorville. The \$33 million of Measure R money is directed at clearing the environmental phase of the project. It is assumed that the Project will need additional public funds in order to construct and deliver under a P3 delivery mechanism.

VI. FEDERAL WAGE RATE CERTIFICATION

FEDERAL WAGE RATE CERTIFICATION

To the extent applicable, I, Arthur T. Leahy, Chief Executive Officer of the Los Angeles County Metropolitan Transportation Authority certify that we will comply with the requirements of subchapter IV of chapter 31 of title 40, United States Code (Federal Wage Rate Requirements), as required by the FY 2014 Continuing Appropriations Act.

CERTIFIED BY:



for ARTHUR T. LEAHY, CEO

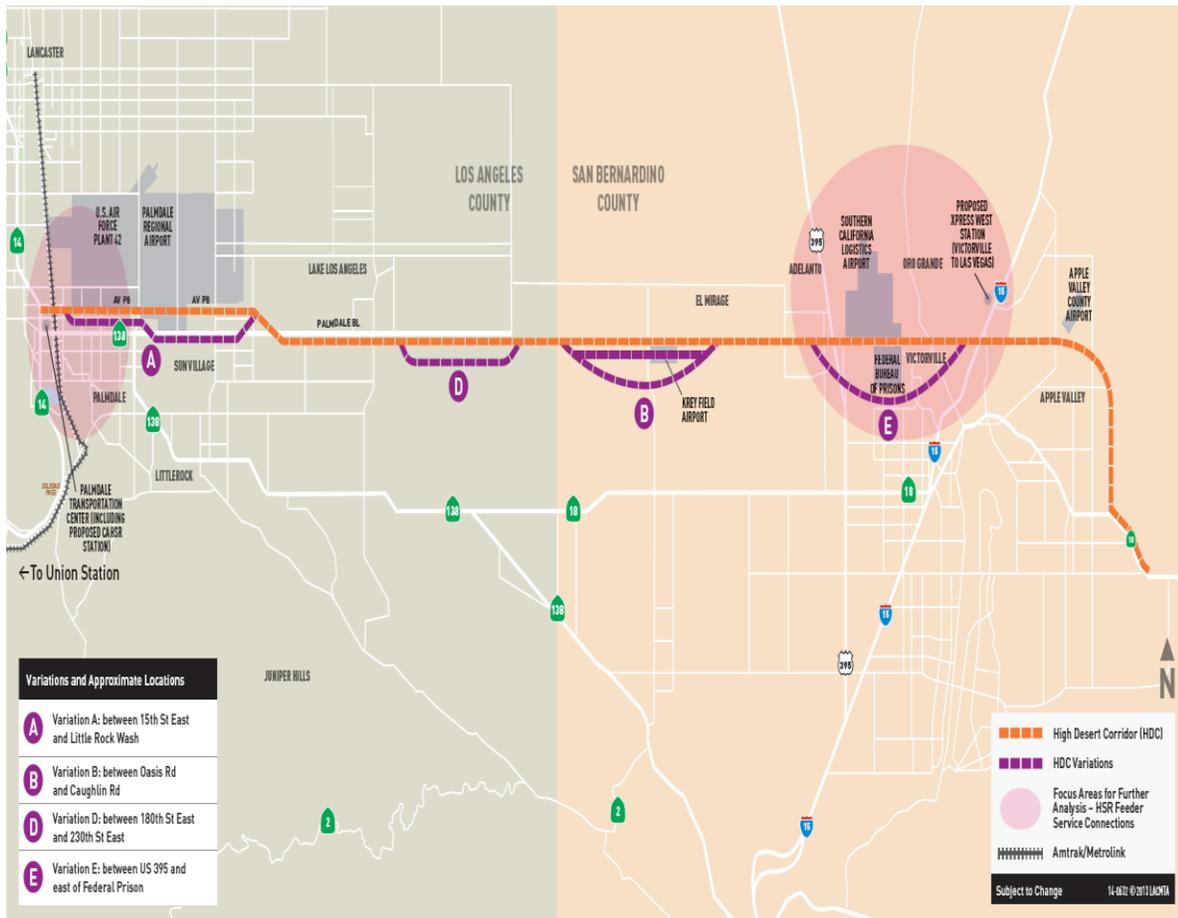
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

APRIL 2014

VII. APPENDICES

A. MAPS

FIGURE 1



B. FARMLAND STUDY

City of Palmdale	Households	Percentage
Total households	40,702	100%
Less than \$10,000	2,483	6.1%
\$10,000 to \$14,999	1,902	4.7%
\$15,000 to \$24,999	4,149	10.2%
\$25,000 to \$34,999	3,791	9.3%
\$35,000 to \$49,999	6,095	15.0%
\$50,000 to \$74,999	8,018	19.7%
\$75,000 to \$99,999	5,595	13.7%
\$100,000 to \$149,999	5,827	14.3%
\$150,000 to \$199,999	1,773	4.4%
\$200,000 or more	1,069	2.6%
Median household income	\$54,277	
Mean household income	\$67,219	
Source: 2008-2012 American Community Survey 5-Year Estimates. Figures in 2012 inflation-adj. \$		

City of Victorville	Households	Percentage
Total households	31,186	31,186
Less than \$10,000	2,665	8.50%
\$10,000 to \$14,999	1,710	5.50%
\$15,000 to \$24,999	3,508	11.20%
\$25,000 to \$34,999	3,062	9.80%
\$35,000 to \$49,999	3,983	12.80%
\$50,000 to \$74,999	7,161	23.00%
\$75,000 to \$99,999	3,928	12.60%
\$100,000 to \$149,999	3,865	12.40%
\$150,000 to \$199,999	954	3.10%
\$200,000 or more	350	1.10%
Median household income	\$52,165	
Mean household income	\$59,779	
Source: 2008-2012 American Community Survey 5-Year Estimates. Figures in 2012 inflation-adjusted dollars.		

C. LETTERS OF SUPPORT

HDC JPA



High Desert Corridor Joint Powers Authority



E-220 HIGH DESERT CORRIDOR

April 10, 2014

The Honorable Anthony Foxx, Secretary
U.S. Department of Transportation
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

Dear Mr. Foxx:

The High Desert Corridor Joint Powers Authority (HDCJPA) is writing in support of the TIGER VI Application for a Passenger Rail Revenue Study.

The High Desert Corridor E220, officially designated in SAFETEA-LU as a High Priority Goods Movement Corridor from Los Angeles to Las Vegas via Palmdale and Victorville, is a proposed Strategic Multipurpose Corridor that addresses current and future regional growth, improves east-west mobility, enhances safety, and improves connections between regional airports and efficient goods movement within the High Desert region of Southern California. The High Desert Corridor also aims to connect residential, commercial, and industrial areas in the Antelope and Victor Valleys, including the cities of Palmdale, Lancaster, Adelanto, Victorville, and the Town of Apple Valley.

The partnership of the HDCJPA cities, Metro, and Caltrans has been an outstanding model of interagency cooperation in planning a complex, multipurpose corridor. Widespread support exists from the cities unified by the HDCJPA, and communities along the right-of-way. The population centers connected by the HDC are jobs poor, and housing rich, and has suffered one of the Nation's highest foreclosure percentages. Income education levels are among the lowest in the state. This project will provide considerable benefit to the nation, region, and the cities and communities it will serve.

As envisioned, the multipurpose nature of the proposed High Desert Corridor has the potential to bring a number of added benefits, including: creation of valuable jobs in the desert region that could help limit the number of vehicle miles traveled into the Los Angeles basin for work; establish the potential for creation of inland ports along the High Desert Corridor that would provide needed congestion relief for the region; and stimulate the development of renewable energy strategies for surrounding land uses and infrastructure.

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Mayor, Town of Victorville





San Bernardino Associated Governments

1170 W. 3rd Street, 2nd Floor San Bernardino, CA 92410-1715
Phone: (909) 884-8276 Fax: (909) 885-4407 Web: www.sanbag.ca.gov



- San Bernardino County Transportation Commission
- San Bernardino County Transportation Authority
- San Bernardino County Congestion Management Agency
- Service Authority for Freeway Emergencies

April 16, 2014

The Honorable Anthony Foxx, Secretary
U.S. Department of Transportation
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

RE: Application for TIGER Planning Grant for the High Desert Corridor Project

Dear Secretary Foxx:

On behalf of the San Bernardino Associated Governments (SANBAG) I am pleased to see the Los Angeles County Metropolitan Transportation Authority (LACMTA) apply to secure federal financial assistance for the High Desert Corridor Project. The proposed project would demonstrate economic development, housing/land use, innovation and safety benefits that support increased mobility within the high desert between Apple Valley in San Bernardino County and Palmdale in Los Angeles County. SANBAG has been active in project development activities to date and acknowledges LACMTA's request of \$1,000,000 in federal financial assistance to initiate planning activities specifically for the Xpress West ridership forecasts for the segment between Victorville and Palmdale.

In conclusion, SANBAG will be a partner with LACMTA as they seek TIGER resources to supplement local funds for the High Desert Corridor Project. We believe that this innovative opportunity will support economic development and improve accessibility for the entire Southern California region.

Sincerely,

Raymond W. Wolfe
Executive Director



ASSOCIATION OF GOVERNMENTS
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Keith Millhouse, Ventura County Transportation Commission

April 23, 2014

Mr. Howard Hill
Transportation Analyst
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

RE: TIGER FY2014 Planning Grant Program
High Desert Corridor Passenger Rail Revenue Study

Dear Mr. Hill:

On behalf of the Southern California Association of Governments (SCAG), I am pleased to submit this letter of support for the Los Angeles County Metropolitan Transportation Authority (Metro) application for the Transportation Investment Generating Economic Recovery (TIGER) FY2014 Planning Grant Program for their Passenger Rail Revenue Study.

The High Desert Corridor/E220, officially designated in SAFETEA-LU as a High Priority Goods Movement Corridor from Los Angeles to Las Vegas via Palmdale and Victorville, is a proposed Strategic Multipurpose Corridor that addresses current and future regional growth, improves east-west mobility, enhances safety, and improves connections between regional airports and efficient goods movement within the High Desert region of Southern California. The High Desert Corridor also aims to connect residential, commercial, and industrial areas in the Antelope and Victor Valleys, including the Cities of Palmdale, Lancaster, Adelanto, and Victorville and the Town of Apple Valley.

As envisioned, the multipurpose nature of the proposed High Desert Corridor has the potential to bring a number of added benefits, including: Creation of valuable jobs in the desert region that could help limit the number of vehicle miles traveled in the Los Angeles basin for work, establish the potential for creation of inland ports along the High Desert Corridor that would provide needed congestion relief for the region, and stimulate the development of renewable energy strategies for surrounding land uses and infrastructure.

The project hopes to serve as a national laboratory to integrate four components in a Public-Private Partnership (P3) into a single right-of-way: Passenger rail station connections, an eight-lane freeway built in phases and tolled in the greenfield segment, a green energy corridor to generate sustainable energy to power the trains and freeway operations, lighting, and maintenance, and a bikeway connection Bicycle Master Plans in Palmdale and the Victor Valley cities. The population centers connected by the High Desert Corridor are jobs poor, and housing rich, and have suffered one of the nation's highest foreclosure rates. Income and education levels are amongst the lowest in the state. This project will provide considerable benefit to the nation, region, and the cities and communities it will serve.

As a project that is consistent with the policies and goals set forth in the adopted 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), we support this project proposal. Many thanks in advance for your consideration of the Los Angeles County Metropolitan Transportation Authority's TIGER application.

Sincerely,

Handwritten signature of Hasan Ikharta

Hasan Ikharta
Executive Director

The Regional Council consists of 84 elected officials representing 19 cities, six counties, six County Transportation Commissions, one representative from the Transportation Corridor Agencies, one Tribal Government representative and one representative for the Air Districts within Southern California.

ANTELOPE VALLEY



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DAVID KRAMER, Director of Loans

April 24, 2014

The Honorable Anthony Foxx, Secretary
U.S. Department of Transportation
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

Dear Secretary Foxx:

I am pleased to write in strong support of the Los Angeles County Metropolitan Transportation Authority (Metro) application to the Department of Transportation requesting federal financial assistance through the *Transportation Investment Generating Economic Recovery Act* (TIGER) grant program in order to initiate planning for the High Desert Multipurpose Corridor Project.

The High Desert Multipurpose Corridor Project is a multimodal project that incorporates constructing a 63 mile long highway, a bike path running adjacent to the highway, and a 55 mile long high-speed rail track that will serve as a gap closure between the future Lancaster/Palmdale Station and Xpress West line running from Las Vegas to Victorville, CA. This project is being planned as a public/private partnership. The benefits of this project include improved east-west movement of passenger and freight traffic, opportunities for alternative transportation and implementation of rail infrastructure to meet anticipated growth in passenger travel demands.

The TIGER grant funding request is for \$1 million to complete a revenue study that will review and update existing ridership studies and complete the Investment Grade Ridership and Revenue Forecast for the project. Federal funds will be matched by \$400,000 in local sources and \$300,000 from State sources.

For over fifty-six years the mission of the Antelope Valley Board of Trade has been *"to promote diverse business and industry, quality infrastructures, and a strong legislative voice for the benefit of our members and the greater Antelope Valley."*

Thank you for your time and attention to this important matter. I kindly ask that you give Metro's application every consideration.

Sincerely,

Vicki Medina
Executive Director

John Currado
Transportation Committee Co-Chair

C. TRANSMITTAL LETTER



High Desert Corridor Joint Powers Authority



E-220 HIGH DESERT CORRIDOR

April 11, 2014

The Honorable Anthony Foxx, Secretary
U.S. Department of Transportation
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

Dear Mr. Foxx:

On behalf of the High Desert Corridor Joint Powers Authority (HDCJPA), representing Los Angeles County, San Bernardino County, the cities of Lancaster, Palmdale, Victorville, Adelanto, and the Town of Apple Valley, I am pleased to express our support of the TIGER VI Application for a Passenger Rail Revenue Study.

The High Desert Corridor/E220, officially designated in SAFETEA-LU as a High Priority Goods Movement Corridor from Los Angeles to Las Vegas via Palmdale and Victorville, is a proposed Strategic Multipurpose Corridor that addresses current and future regional growth, improves east-west mobility, enhances safety, and improves connections between regional airports and efficient goods movement within the High Desert region of Southern California. The High Desert Corridor also aims to connect residential, commercial, and industrial areas in the Antelope and Victor Valleys, including the cities of Palmdale, Lancaster, Adelanto, Victorville, and the Town of Apple Valley.

A funding award under this round of TIGER grants would support our commitment to continue developing this Strategic Multipurpose Corridor under a Public-Private Partnership. To that end, the HDCJPA commits \$400,000 towards matching funds for this study, courtesy of the office of Los Angeles County Fifth District Supervisor, Michael Antonovich.

If you have any questions, please the undersigned at (909) 387-4830. Thank you for your consideration of this grant application

Sincerely,

Robert Lovingood
Supervisor, San Bernardino County First District
Chairman, High Desert Corridor Joint Powers Authority

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