

CITY MANAGER'S OFFICE

23 Russell Boulevard - Davis, California 95616
530/757-5602 - FAX: 530/757-5603 - TDD: 530/757-5666



December 3, 2007

Jose Luis Caceres, Associate Planner
Sacramento Area Council of Governments
1415 L Street, Suite 300
Sacramento, CA 95814

Subject: SACOG Bicycle and Pedestrian Funding Program

Mr. Caceres:

On behalf of the City of Davis, I am pleased to submit an application for the Olive Drive Bicycle/Pedestrian Undercrossing of the Union Pacific Railroad tracks.

Enclosed please find one original, twelve copies and a CD containing a pdf file of our application.

Sincerely,

A handwritten signature in cursive script that reads "Bill Emlen".

Bill Emlen
City Manager

c: Bob Clarke, City Engineer
Tara Goddard, Bicycle/Pedestrian Coordinator



UNION PACIFIC RAILROAD COMPANY

Terrel A. Anderson
Manager of Industry and Public
Projects
taanders@up.com



9451 Atkinson Street
Roseville, CA. 95747
Fax (402) 233 3066
PH (916) 789-5134

November 15, 2007

File: Pedestrian Grade Separation
Davis, CA.
Martinez Subdivision
Roseville Service Unit

Mr. Robert Clark
City Engineer, City of Davis
1717 Fifth Street
Davis, Ca. 95616

I write to express Union Pacific Railroad's support for the City of Davis' application for a Safe Routes to School grant to construct a grade-separated pedestrian and bicyclist railroad crossing at or near the Davis Amtrak station. The railroad and the City have been working together to try to improve public safety in this area. The construction of a grade-separated crossing would not only provide local students with a safe way to cross high-traffic railroad tracks, but it would also permit the railroad to more easily make additional improvements to discourage children and their parents from trespassing on its property. For the sake of improving student safety, I encourage you to pursue a Safe Routes to School grant.

Sincerely

A handwritten signature in black ink, appearing to read "Terrel A. Anderson", with a long horizontal flourish extending to the right.

Terrel A Anderson
Manager Industrial and Public Projects

CC: Operating Files - Omaha.
Kirk Trost -
Bob Weir -
David Stewart - CPUC
David Pickett - UPRR

CITY OF DAVIS
NOV 19 2007
PUBLIC WORKS



GOVERNMENT AND COMMUNITY RELATIONS
(530) 752-2619

ONE SHIELDS AVENUE
DAVIS, CALIFORNIA 95616

December 3, 2007

Jose Luis Cáceres, Associate Planner
SACOG
1415 L Street, Suite 300
Sacramento, CA 95814

RE: Support Letter for City of Davis UPRR Crossing near Olive Drive

Dear Mr. Cáceres:

I am writing on behalf of UC Davis to support the City of Davis grant application to proceed with design and engineering for a new bicycle and pedestrian crossing of the Union Pacific Railroad tracks near Olive Drive. A new bicycle and pedestrian connection between Olive Drive and downtown Davis would improve the safety and overall circulation routes for many UC Davis students and employees. The new connection would provide a simpler and more direct route that would encourage people to walk or use bicycles for more trips in the Davis area and in particular, for trips to and from the UC Davis campus.

Proceeding with the proposed project would help overall circulation in and around UC Davis and downtown Davis and would serve as a substantial incentive for people to choose close housing options that reflect the goals of the Blueprint Project. Award of the proposed grant funding will position the City of Davis to proceed to implementation of this important project. I look forward to successful award of the grant application.

Sincerely yours,

A handwritten signature in black ink that reads "Gary Sandy".

Gary Sandy
Director, Local Government Relations
UC Davis

Gary Sandy
Director, Local Government Relations
Government and Community Relations
UC Davis
1480 Drew Avenue
Davis, CA 95616
(530) 757-8447, Fax: (530) 757-8300

- cc: Ruth Asmundsen, Mayor Pro Tem, City of Davis
Cliff Contreras, Director, Parking and Transportation Services
Marj Dickinson, Assistant Vice Chancellor, Government and Community Relations
Bill Emlen, City Manager
Ken Hiatt, Redevelopment Project Manager
John Meyer, Vice Chancellor, Office of Research and Management Planning
Bob Segar, Assistant Vice Chancellor, Office of Research and Management Planning
Helen Thomson, Supervisor, Yolo County

PROJECT SUMMARY

Project Title	Olive Drive Bike/Ped Undercrossing of UPRR
Local agency contact information	Robert A. Clarke, City Engineer City of Davis 530-757-5636
Partners	Davis Joint Unified School District Capital Corridor Union Pacific Railroad
Project No. in SACOG Master Plan	07-12-07
Scope of project & location (not to exceed 150 words) Include aspects of project/program that contribute to Blueprint implementation and other goals of the Funding Program	The project in the Master Plan identified the Olive Drive/Richards intersection as the project. Further discussions with community groups recommended construction of a undercrossing of the railroad tracks from Olive Drive to the north side of the tracks near the Amtrak Station to be a preferred alternative. This alternative has brought the support of UPRR, local school officials and the CPUC staff. The project will link the Olive Drive neighborhood to the downtown business center, provide a safer access to the University and local schools and provide access to the Amtrak Station and transit hub of the City. This project will also provide better and safer access from the community to the US40 Bike Path which runs from the east end of Olive Drive approximately 3 miles to County Road 105. The US40 path is a significant corridor for bicycle commuters between Sacramento and Davis.
Project Schedule & Milestones:	Begin work March 2008 Mit. Neg. Dec. Clearance March 2009 Final Plans Approved and Permits Secured January 2010 Award Construction Contract March 2010 Work Completed November 2010
Overall Total Cost Estimate	\$3,800,000
Total funding sought and funding committed from other sources	\$2,400,000 sought in this application \$900,000 sought in SR2S Grant
Local funding commitment from each partner	\$500,000 City of Davis local funds
Risks to Schedule or Cost	None.
Phases/divisibility	Construction could not be phased. Environmental and Design work could be completed and put on the shelf for a limited period as a first phase and construction could be the second phase.





Davis Joint Unified School District
526 B Street, Davis, CA 95616
530-757-5300, ext 140

RESOLUTION NO. 32-08

SUPPORT FOR SAFE ROUTES TO SCHOOL GRANT APPLICATION

WHEREAS, in 1999, the Safe Routes to School Program was created from the passage of Assembly Bill 1475 to make grants available to incorporated cities and counties within the State of California to construct facilities that enhance the safety for pedestrians and bicyclists in order to encourage students to walk and bike to school; and

WHEREAS, in 2004, Senate Bill 1087 was enacted to extend the program three more years through the 2007/2008 fiscal year; and

WHEREAS, the 2007/2008 funding cycle makes available \$25.5 million statewide with a maximum amount for any single project of \$900,000; and

WHEREAS, the safety of children as they travel to and from school is vital to parents and the community; and

WHEREAS, the railroad tracks along Olive Drive adjacent to the Davis Train Station present a serious hazard and barrier to a safe route to school for students on Olive Drive; and

WHEREAS, based on the magnitude of the Olive Drive safety issue, the City of Davis will be submitting a Safe Routes to School grant application to fund a railroad crossing along Olive Drive to provide a safe route to and from school; and

WHEREAS, letters of support for the grant application from the community and governmental agency partners enhance the City's opportunity for attaining the Safe Routes to School funding;

NOW, THEREFORE BE IT RESOLVED that the Davis Board of Education supports the application by the City of Davis for a Safe Routes to School grant to assist the funding of a railroad crossing along Olive Drive,

PASSED AND ADOPTED by the Governing Board of the Davis Joint Unified School District at a meeting held on the 15th day of November 2007 by the following vote:

AYES: Allen, Daleiden, Jones, Provenza, Taylor

NOES: None

ABSTAIN: None



Jim Provenza
President, Board of Education



J. Quezon Hammond
Superintendent

PUBLIC UTILITIES COMMISSION

515 L Street, Suite 1119
Sacramento, CA 95822



November 28, 2007

Kirk Trost
Miller, Owen, and Trost
428 J Street, Suite 400
Sacramento, CA 95814

Robert Clark
City Engineer
City of Davis
1717 Fifth Street
Davis, CA 95616

Re: City of Davis Safe Routes to School Grant Application

Dear Sirs,

The California Public Utilities Commission Rail Crossings Engineering Section (RCES) is the State agency responsible for rail crossing safety in California. RCES staff approves of and fully supports the application of the City of Davis for a Safe Routes to School grant to design and construct a grade separated pedestrian/bicyclist railroad crossing near the Davis Amtrak station. The area has a history of trespass problems and incidents endangering public safety. The RCES staff believes it is very important for all parties to work together to improve public safety in this area. A grade separated crossing will not only provide safe access for students of all ages across the railroad tracks, it will also provide the same safety benefit to all of the residents in the vicinity.

Please contact me at (916) 324-8325 with any questions.

Very truly yours,

A handwritten signature in black ink that reads "Daren Gilbert".

Daren Gilbert
Supervisor
Rail Crossings Engineering Section
Consumer Protection and Safety Division

Cc: Terrel Anderson - UPRR

CITY OF DAVIS

NOV 29 2007

PUBLIC WORKS

COST ESTIMATE

Funding Categories	Task	Cost Estimate
Environmental	Environmental Studies	\$100,000
Engineering	Engineering & Design	\$700,000
Right-of-Way*	Right-of-Way acquisition	n/a
	Utility relocation & lighting	n/a
Construction*	Environmental mitigation	n/a
	Grading	\$250,000
	Foundation & Pavement	\$455,000
	Bridges &/or tunnels	\$1,775,000
	Drainage, curb/gutter, street furniture, planting & irrigation	\$400,000
	Signage, signals, & striping	\$120,000
	Bicycle storage/parking	n/a
	Buildings/structures	n/a
	Non-capital staff activities	n/a
	Non-capital materials (maps, brochures, manuals, printing, etc)	n/a
Misc.*	Other project components	

*If project applicant is Caltrans, please provide cost estimate for the following additional two components:

- Right-Of-Way Support: _____
- Construction Support: _____

PROJECT BENEFIT ESTIMATE

Quantifiable Benefits Methodology

Estimate of Existing Usage = 2,500 trips per day

Estimate of Increase in Usage = 250 trips per day

Length of Project = 0.1 miles

Benefit = $2,500(0.1/10\text{mph}) * \$5/\text{hr} + 250(0.1/10\text{mph}) * \$10/\text{hr}$
= **\$1,500/day**

The above equation does not take into account the value of time saved by virtue of the shortened trip by having a direct route across the tracks instead of the current route through Olive Drive and Richards Avenue.

Assume: 50% of trips by Bicycle and 50% by foot

Average speed by bicycle is 10mph and average speed by foot is 3mph

Trip length reduction resulting from project is 0.6miles

Calculating time savings using \$5/hr for existing traffic and \$10/hr for new travelers results in an additional time savings benefit of \$1,950/day, or **\$3,450 per day**.

Qualitative Benefits Methodology

The primary benefit not captured by the dollar calculations above is safety. Currently Olive Drive resident trips either go through a very congested and challenging intersection at the Richards/I-80 interchange interface with Olive Drive, or involve individuals choosing to illegally cross the UPRR tracks. There have been 7 fatalities along the UPRR tracks in the Davis area over the past two years and concern about this particular safety issue is growing as a result. In recognition of this concern, UPRR has approached the City indicating a willingness to partner with the City on this project. The Olive Drive neighborhood is home to a significant number of low income and minority residents. Many of these are young families that have the adults working in service industry jobs and are typically unable to transport their children to school. The Davis Joint Unified School District has expressed concern about children crossing the tracks as a major safety concern as well.

Additionally, the Olive Drive neighborhood is very isolated from the rest of the community and will greatly benefit from a safe, direct connection to town. Olive Drive is sandwiched between the UPRR tracks and Interstate 80. The only legal bicycle and pedestrian access to downtown, the University, schools and other community points of interest is through the Olive Drive/Richards Avenue intersection. This intersection, as noted elsewhere, is congested and challenging to safely navigate.

EMISSIONS CALCULATIONS FOR CMAQ FUNDING

The new Class 1 bike/ped undercrossing of the UPRR tracks is a critical link in the city bike system that will provide residents on Olive Drive bicycle and pedestrian access to education (UC Davis and local elementary schools), employment (central business district), shopping (downtown core commercial area), and transit (Amtrak Station and bus transfer site). Within one-quarter mile of the project, there is a bank, a commercial shopping center, an Amtrak rail station, and office buildings. The project includes installation of new pavement, signage, and Class 1 bike/ped tunnel that will provide safer access to destinations north of the UPRR tracks. The weather in California's Central Valley is generally very mild and Davis residents place a higher than average priority on non-motor vehicle usage. This is primarily a college town, with a population of 64,000.

Inputs to Calculate Cost-Effectiveness:

Funding Dollars (Funding): \$2,400,000

Effectiveness Period (Life): 20 years

Days (D): 240

Average Length (L) of bicycle trips: 1.8 miles

Annual Average Daily Traffic (ADT): 3,000

Adjustment (A) on ADT for auto trips replaced by bike trips from the bike facility: 0.0104

Credit (C) for Activity Centers near the project: 0.002

Emissions Factors (From Table 3, for a 15-year Life):

	Auto Trip End Factor	Auto VMT Factor
ROG Factor	0.606 grams/trip	0.229 grams/ mile
NOx Factor	0.348	0.269
PM10 Factor	0.008	0.219

Calculations:

$$\begin{aligned} \text{Annual Auto Trip Reduced} &= (D) * (ADT) * (A + C) \\ &= (240) * (3,000) * (0.0104 + 0.002) \\ &= 8,928 \end{aligned}$$

$$\begin{aligned} \text{Annual Auto VMT Reduced} &= (\text{Auto Trips}) * (L) \\ &= (8,928) * (1.8) \\ &= 16,070 \end{aligned}$$

Annual Emission Reductions (ROG, NOx and PM10) in lbs. per year

$$\begin{aligned} &= [(\text{Annual Auto Trips Reduced}) * (\text{Auto Trips End Factor}) \\ &\quad + (\text{Annual Auto VMT Reduced}) * (\text{Auto VMT Factor})] / 454 \\ \text{ROG:} &\quad [(8,928 * 0.606) + (16,070 * 0.229)] / 454 = 20.0 \text{ lbs. per year} \\ \text{NOx:} &\quad [(8,928 * 0.348) + (16,070 * 0.269)] / 454 = 16.4 \text{ lbs. per year} \\ \text{PM10} &\quad [(8,928 * 0.008) + (16,070 * 0.219)] / 454 = 7.9 \text{ lbs. per year} \end{aligned}$$

$$\begin{aligned} \text{Cost-Effectiveness of Funding Dollars: } &(\text{CRF} * \text{Funding}) / (\text{ROG} + \text{NOx} + \text{PM10}) \\ &= [0.0672 * 2,400,000] / [44.3] \\ &= \mathbf{\$3,640.63 \text{ per lb.}} \end{aligned}$$

FOR CMAQ PROJECTS ONLY:

$$\frac{\text{lbs. reduced per year}}{2.2 \text{ lbs./kg} * 365 \text{ days/year}} = \frac{20.0}{2.2 * 365} = \mathbf{0.03 \text{ kg/day ROG}}$$
$$\frac{\text{lbs. reduced per year}}{2.2 \text{ lbs./kg} * 365 \text{ days/year}} = \frac{16.4}{2.2 * 365} = \mathbf{0.02 \text{ kg/day NOx}}$$
$$\frac{\text{lbs. reduced per year}}{2.2 \text{ lbs./kg} * 365 \text{ days/year}} = \frac{7.9}{2.2 * 365} = \mathbf{0.01 \text{ kg/day PM10}}$$

ENVIRONMENTAL JUSTICE

The City of Davis is known for its community outreach efforts and interest in engaging the public in the discussion of issues impacting the City. This project is in response to significant interest from many different community groups, including; the Olive Drive neighborhood, the Davis Joint Unified School District (DJUSD), the Union Pacific Railroad (UPRR), the Capital Corridor (CPUC), the Downtown Davis Business Association (DDBA) and the University of California at Davis (UCD). Letters of support from some of these groups are included in this application. Meetings have been ongoing with UPRR and CPUC staff looking at options to improve access across the rail corridor. The DJUSD is in the process of redefining the attendance boundaries and has identified safe access from the Olive Drive neighborhood as a major issue in their decision making. All this is to say that significant public outreach has been taking place for some time on this project.

If funded, the project would initiate public informational meetings and workshops to allow for more comment on the plan. Public meetings will also be held via a number of City Commissions that will have an interest in the project, including the Bicycle Advisory Commission, the Safety and Parking Advisory Commission, the Historic Resources Management Commission and others. Presentations and community comments would also be received from the DJUSD at Board meetings and possibly meetings with individual school PTA groups.

The Olive Drive neighborhood represents one of the lower socio-economic areas in Davis and is predominantly rental housing mixed with some retail businesses. A significant percentage of the Olive Drive population includes either minority families, or low income families working in the service industry. Much of the local service industry employment is in downtown Davis. Another notable segment of Olive Drive residents are low-income students attending the University who must cross the tracks to access the University to attend classes and to access shops and stores in the downtown.

The benefit of this project to the low income and minority populations in Davis will be to provide a much safer and shorter access to the major destinations. This project will eliminate individuals from having to make a choice between crossing the UPRR tracks illegally at grade, or to go out of their way through a very congested and challenging intersection at Olive Drive and the I-80/Richards interchange. No burden to this segment of the City's population is expected as the primary beneficiary of this project will be the lower income and minority residents of Davis.