

**Appendix F:
Traffic Analysis**

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January 2, 2018

Ms. Elizabeth Johnson
First Carbon Solutions
1350 Treat Boulevard, Suite 380
Walnut Creek, CA 94597

RE: TRAFFIC IMPACT ASSESSMENT FOR SOLANO COMMUNITY COLLEGE DISTRICT'S (SCCD) NEW LIBRARY BUILDING IN FAIRFIELD, CA

Dear Ms. Johnson:

Thank you for contacting our firm regarding the environmental document for the Solano Community College District's (SCCD) New Library Building at its Fairfield campus on Suisun Valley Road. The proposed project involves demolishing existing permanent and portable buildings and constructing a new 59,252 sq. ft. Library building.

Approach. Our approach to this assessment considers whether the change in on-site uses at the Fairfield campus would generate any appreciable increase in external traffic and, if so, whether the increase is likely to have potential traffic impacts. By comparing overall pre- and post-project trip generation we have been able to conclude that the impact of replacing current structures with the new building is negligible, based on City of Fairfield traffic analysis guidelines and the relative increase in traffic on Suisun Valley Road.

Project Description. The proposed project includes demolition of a 49,000 sq. ft. building and five old portables (8,643 sf), and replacing them with a new 59,252 sq. ft. Library building.

Trip Generation Estimate. The number of vehicle trips that are expected to be generated by development of the proposed project has been estimated using published trip generation data. The Institute of Transportation Engineers (ITE) publication *Trip Generation Manual, 10th Edition*, has been used.

Community colleges contain a variety of education and support facilities that together accommodate the student population, staff and administrative functions. These facilities include classroom and laboratory space that is specifically designated for classes, as well support facilities that enhance the SCCD mission. Thus, ITE Trip Generation Manual estimates for the land use category 540, "Community College" are based on overall facility building floor area or overall student enrollment, and rates for individual campus components are not applicable or available. A campus library is different from a free standing Public Library, which by itself attracts vehicular traffic.

The applicable trip generation rates and resulting trip generation estimates for the project are presented in Tables 1 and 2, respectively. As shown, the proposed Library project is projected to have a small net effect on overall campus trip generation, with an increase of 33 daily trips, 4 trips in the a.m. peak hour and 3 trips in the pm peak hour.

**TABLE 1
 TRIP GENERATION RATES**

Land Use	Unit	Trips per Unit				
		Daily	AM Peak Hour		PM Peak Hour	
		Rate	Rate	In / Out	Rate	In / Out
Community College (ITE 540)	Ksf	20.25	2.07	77% / 23%	1.86	50% / 50%
Source: Trip Generation Manual, 10 th Edition Ksf is 1,000 gross square feet						

**TABLE 2
 NET PROJECT TRIP GENERATION**

Land Use	Quantity (ksf)	Trips Generated						
		Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Existing permanent and portable buildings	57.64	1,167	92	27	119	54	53	107
New Library	59.25	1,200	94	29	123	55	55	110
Net Change		33	2	2	4	1	2	3

Background Conditions. In 2015 our firm prepared a traffic impact analysis for the IS/MND accompanying SCCD’s new Science Building¹. That analysis indicated that the area circulation system operated with Levels of Service (LOS) that satisfied minimum City of Fairfield and Solano County standards and would continue to do so with the addition of trips associated with the Science Building as well as other approved and pending projects known at the time. That analysis also addressed long term cumulative impacts and concluded that minimum LOS standards would be met with and without the Science Building.

Evaluation. We evaluated the potential significance of the project’s trip generation increase from two standpoints:

1. City of Fairfield Traffic Study Guidelines for determining the need for a Traffic Impact analysis, and
2. The relative increase in traffic volume on Suisun Valley Road resulting from the project and the likely effect of that increase on intersection Level of Service.

¹ Traffic Impact Analysis for Solano Community College District New Science Building, KDA, 11/30/2015

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Under City of Fairfield Guidelines a “screen line” assessment is first performed to determine whether the trip generation increase associated with a proposed project may result in traffic impacts and warrant a traffic impact analysis. The City’s minimum threshold for requiring an impact analysis is 50 peak hour trips. As the net increase in trips associated with the CSSD Library project is only 3-4 peak hour trips, significant traffic impacts would not be anticipated under City guidelines, and a traffic impact analysis would not be required.

Review of background traffic conditions on Suisun Valley Road and consideration of the potential effects of the project’s net trips yields a similar conclusion of no significant impact. Suisun Valley Road carries 919 a.m. and 1,018 p.m. peak hour vehicles per hour in the area north of Business Center Drive under the “Existing Plus Approved Projects Plus Science Building” scenario addressed in our 2015 study. The net trips associated with the Library project would increase those volumes by less than 1%. An increase of this magnitude would have an immeasurable effect on peak hour intersections Level of Service, and the acceptable conditions identified in our 2015 study would continue with the proposed project.

Thank you again for considering our firm for this work. Please feel free to contact us at (916) 660-1555 if you have any questions or need more information.

Sincerely yours,

KD Anderson & Associates, Inc.

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

Kenneth D. Anderson, P.E.
President

