



## MEMORANDUM

**To:** Kathy Layendecker

**From:** Brian Canepa

**Date:** June 9, 2016

**Subject:** Castilleja School Transportation Demand Management (TDM) Plan

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### INTRODUCTION

Castilleja School, located in the City of Palo Alto, CA, is an independent girls' school for grades 6 through 12. Castilleja currently operates under a conditional use permit (CUP) from the City of Palo Alto. The key CUP regulations that apply to transportation are:

- **Enrollment:** Limited to 415 students.
- **Pick-up and drop-off:** The school is required to maintain an updated pick-up/drop-off policy and inform parents of this policy regularly. Parents must be instructed on when and where they can pick up and drop off, as well as areas on-street where they are not allowed to park or pick up/drop off.
- **Traffic monitors:** The school must provide traffic monitors to educate students and parents, oversee pick up/drop off at the school, and to monitor the parking situation around the school.
- **Carpooling:** The school is required to provide information to facilitate car/vanpooling in their immediate geographic area.

Castilleja would like to increase student enrollment by 102 students, for a total student enrollment of 540 students. The school is also planning to build an approximately 130-vehicle, underground parking garage. In addition to providing off-street parking, it will allow for delivery activities to occur on campus with the goal of reducing noise complaints from neighboring residents along Kellogg Avenue.

This memo provides additional transportation demand management (TDM) strategies that aim to prevent the number of vehicle trips from increasing with the rise in student population and the addition of an underground parking facility. As the school expands, the number of vehicle trips would remain at or below the number of trips that would be expected with a population of 385 students (i.e. 511 vehicle trips).

### BACKGROUND

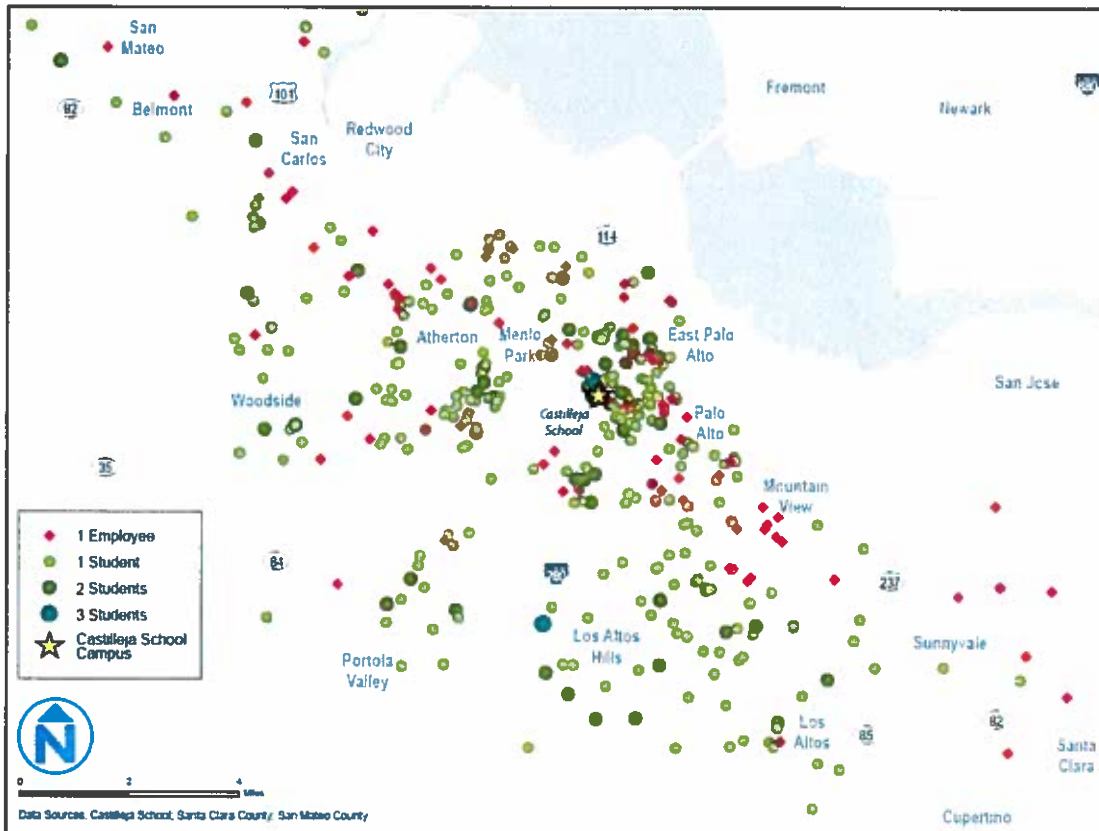
In the spring of 2013, Nelson\Nygaard developed a TDM Plan for Castilleja that provided a range of practices to help mitigate the traffic and parking impacts at the school site and in the immediate vicinity of the campus. With the pilots of the recommended TDM programs proving to be successful, Castilleja implemented a shuttle program and a Caltrain van service, established an offsite parking area for faculty/staff members, installed bicycle racks, and began conducting

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regular travel mode counts during the 2013-14 academic year. Recent vehicle trip counts to the school campus during the morning drop-off period have shown that these TDM programs have been successful and have led to roughly a 22 percent decrease in vehicle trips, though the number of single student drop-offs has remained high.

In addition to the recent implementation of the TDM programs discussed above, Castilleja has also been encouraging employees to use alternative transportation methods at least one day a week since the majority of faculty and staff members live nearby, in Palo Alto and Menlo Park (see Figure 1).<sup>1</sup> Beginning in the 2015-2016 school year, employees must use alternative travel modes at least three times per week, park remotely five days per week, or monitor student drop-offs and pick-ups two days per week.

Figure 1 Student and Employee Home Locations



<sup>1</sup> See Appendix A for a larger map of all student and employee addresses.

## Travel Mode Counts

### Vehicle Trips

Castilleja monitors the number of vehicle trips to and from campus during the peak morning hours, as the school is required to meet a threshold of no more than 511 trips during this period. Since the TDM program's inception, vehicle trips have decreased to 396 trips (see Figure 2).

**Figure 2 Vehicle Trip Counts without TDM (2000 & 2012) and with TDM (2013 -2016)**

Scenario	Trips			% Trip Reduction	AM Trip Rate			Rate (%)	
	In	Out	Total		In	Out	Total	In	Out
2000 <sup>2</sup> (385 students)	335	176	511	0%	0.87	0.46	1.33	66%	34%
May 2012 (433 students)	285	226	511	0%	0.66	0.52	1.18	56%	44%
October 2013 <sup>3</sup> (448 students)	246	211	457	11%	0.55	0.47	1.02	54%	46%
April 2014 (446 students)	255	202	457	11%	0.57	0.45	1.02	56%	44%
December 2014 (444 students)	264	208	472	8%	0.59	0.47	1.06	56%	44%
May 2015 (444 students)	231	197	428	16%	0.52	0.44	0.96	54%	46%
September 2015 (438 students)	222	176	398	22%	0.51	0.40	0.91	56%	44%
April 2016 (438 students)	216	180	396	23%	0.49	0.41	0.90	55%	45%

In order to meet the school's goal of generating no new net trips (i.e. 435 trips, an average of 2013-2016 counts) with an increase in student enrollment from 438 to 540 students, the TDM program will need to decrease the number of trips per student from 0.90 to 0.81, an 11% trip rate decrease.

### Non-Auto Trips

Castilleja conducted daily counts of students and staff between October 2014 and March 2015 to better understand what modes, other than private automobile, were being used to commute to campus. The findings of these counts can help guide the implementation of future TDM measures

<sup>2</sup> Analysis of 2000 trip counts conducted by Fehr & Peers (October 21, 2013).

<sup>3</sup> Conducted for one half-hour (7:30 – 8:00 am) only, when the majority of students arrive on campus. Fehr & Peers (February 4, 2015).

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by identifying which travel modes are more popular and are therefore good candidates for expansion.

During the six month period there were a total of 6,860 trips made to campus by alternative travel modes which include bicycle, shuttle bus, and van. Figure 3 shows the monthly totals and daily averages for each of the travel modes used to arrive at Castilleja.

**Figure 3 Travel Mode to School**

Month	Bicycle	Shuttle Bus	Van	Monthly Total	Monthly Daily Average
October <sup>4</sup>	236	188	57	481	96.2
November	647	552	192	1,391	92.7
December	397	462	142	1,001	71.5
January	755	587	234	1,577	87.6
February	552	483	185	1,220	81.3
March	536	476	178	1,190	91.5
Total Count	3,123	2,748	988	6,860	-
Daily Average	39.7	34.8	13.3	-	88.8

During the 2014-2015 school year (September, 2014 to June, 2015) Castilleja conducted daily shuttle ridership counts on both of its routes. There were a total of 167 days during the semester where the two shuttle routes were in operation. On average, the shuttles picked up approximately 32 students each day, which equates to 5,603 students during the entire semester. Of the two routes, the Los Altos route consistently had higher ridership, carrying 61% of all riders throughout the semester. Figure 4 shows the monthly ridership by shuttle route.

**Figure 4 Monthly Shuttle Ridership by Route**

Month	Number of Shuttle Days	Route 1 Ridership	Route 2 Ridership	Total Riders	Daily Average
September	22	284	482	776	38.6
October	21	291	476	767	36.5
November	15	214	338	552	36.8
December	14	172	290	462	33.0
January	18	220	367	587	32.6
February	15	178	292	470	31.3
March	21	321	431	752	35.8
April	17	198	312	510	30.0

<sup>4</sup> Counts for October began mid-month and therefore represent a half months total.

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May	20	297	415	712	35.6
Total	163	2,175	3,403	5,578	34.5

## CURRENT TDM MEASURES

Castilleja implemented three new TDM measures during the 2014-15 school year including off-campus employee parking, van pick-up at Caltrain, and an additional stop on one of its shuttle bus routes. Below are the TDM measures currently in place, which combined have to date resulted in a 22 percent decrease in morning peak hour vehicle trips to and from Castilleja.

- **Off-Campus Parking:** Castilleja has arranged to rent 22 parking spaces at a local Palo Alto Church, allowing employees to park and walk to the Castilleja campus.
- **Van Pick-Up at Caltrain:** In October 2014, Castilleja reinstated van pick up service for students who travel to and from school via Cal train. The van picks students up at the Palo Alto University Avenue Caltrain Station in the morning and provides return service to the station after school.
- **Shuttle Service:** There are currently two shuttle bus routes that are free to students and operate in the morning hours. The shuttles pick students up at designated stops and as of March 2015, additional stops have been added to increase ridership.
- **Alternative Mode Encouragement:** Since the TDM program was expanded in 2013, employees and students have been asked to consider alternate modes of transportation to school at least one day per week. Families and employees within one mile of campus are asked to consider walking to school. In addition, parents are asked to consider dropping off their daughters at one of several Palo Alto Shuttle stops (either end of Embarcadero, Palo Alto Train Station, etc.)
- **Employee Campaign:** Beginning in the 2015-2016 school year, employees must use alternative travel modes at least three times per week, park remotely five days per week, or monitor student drop-offs and pick-ups two days per week. The school has also opened dedicated visitor parking in the main lot for more guest parking to reduce impacts on the neighborhood.
- **Carpool to School:** Carpool to School has been launched with a link on the school's website and enables parents to coordinate carpools to and from school. A parent representative has been selected to maintain the website and facilitate carpools.
- **Drop-Off Redistribution:** Castilleja has implemented the designation of student drop off times and locations by last name and has redistributed the designated drop-off locations.
- **Transportation Coordinator:** Castilleja has designated 50% of a staff person's time to overseeing and managing transportation measures for the school.
- **Traffic Rules Enforcement:** Castilleja has aggressively enforced the right turn only rule into and out of campus driveways and parking lots with a total of eight attendance/security staff members.
- **Event Management:** The school has made a concerted effort to coordinate events, stagger start times, and move activities to different days to every extent possible, in order to minimize the impact on the neighborhood.

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- **Parking Management:** The school has added several parking spaces as a result of re-striping (two in the admin lot and one in the senior lot). In addition, the school has created dedicated visitor parking (12 spaces) in the admin parking lot to allow parents and guests to park at the front of the school throughout the day. The school also utilizes its athletic field for guest and visitor parking for most of its events.
- **Education:** Families and employees are educated about the importance of limiting the school's traffic impact on the surrounding neighborhood. Carpooling is encouraged for all students and employees. Students and employees who live near campus are encouraged to walk, bike, or take the free Palo Alto shuttle to school.
- **Traffic Management:** Castilleja staff monitors morning drop-offs and afternoon pick-ups to ensure smooth efficient movement of vehicles into and out of the school, preventing queuing on neighborhood streets.
- **Multiple Drop-off and Pick-up Points:** Morning drop-offs and afternoon pick-ups are done in separate locations depending on grade and the number of students being picked-up/dropped-off, as follows: last name beginning A-M - in front of the carved green doors on Bryant Street; last name beginning N-Z - in front of the Arrillaga Family Campus Center at 255 Kellogg Avenue; carpools in the employee Emerson Street parking lot by the pool, entering on Kellogg and exiting on Emerson.
- **Staggered Drop-offs and Pick-ups:** To alleviate congestion, Castilleja has a staggered bell schedule after school depending on grade levels. 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> grades are dismissed at 3:15 p.m. 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> grades are dismissed at 3:20 p.m. However, the staggered ending times are still close enough together that significant overlap occurs.
- **On-Campus Supervision:** Starting in June 2015, a nighttime and weekend supervisor lives in housing provided by and located near the school, to supervise traffic and parking during evening and weekend events. The employee is also on call should an unforeseen disruption occur.

## RECOMMENDED TRANSPORTATION DEMAND MANAGEMENT STRATEGIES

The following strategies are designed to lower traffic to a level that will ensure the school achieves the goal of no new net vehicle trips, given an increase in enrollment. The strategies are listed roughly in order of their potential impact to decrease vehicle trips.

The effectiveness of these measures can vary substantially depending on how they are implemented, but it is estimated that taken together, they will cost between \$375,000 and \$490,000 (inclusive of additional staff time necessary to operate the strategies), and reduce the current number of vehicle trips by roughly 12 – 22% to between .71 and .80 vehicle trips per student.<sup>5</sup>

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<sup>5</sup> As noted above, a .81 per student vehicle trip rate is necessary to ensure a no new net increase in vehicle trips from increased enrollment to 540 students.

## Additional Shuttle Bus Routes

**Program Design:** Establish two additional shuttle routes to provide better service to students and employees from San Francisco to San Jose. Additional routes will also increase capacity to accommodate the proposed kiss-and-ride stop.

**Program Impacts:** As discussed above, the shuttle bus program at Castilleja has been achieving high ridership and has been an effective component of the existing TDM plan. Additional routes will increase the capacity of students and employees who can potentially take a shuttle to campus. There are a high percentage of employees living in Palo Alto (20%), Mountain View (8%), Menlo Park (5%), and Atherton (2%), and many affiliates living in San Jose (see Appendix A). By providing long-distance shuttle service (one route to San Jose and another to San Mateo or San Francisco), it will increase access to both employees and students who currently have a high likelihood of driving to school.

It should be noted that a kiss-and-ride stop should increase ridership, which may necessitate additional service. A third bus route both increases coverage of the area served by transit as well as provides capacity to accommodate an increase in ridership from a kiss-and-ride stop. Costs for the additional shuttle route should closely mirror those of existing routes.

**Vehicle Trip Impacts:** This strategy is anticipated to result in a reduction of up to 60 vehicle trips or 0.11 vehicle trips per student.

## Implement Late Afternoon Shuttle Departure

**Program Design:** Operate one late afternoon shuttle run on each route on days with after-school activities, departing the school at approximately 5:00 p.m.

**Program Impacts:** Offering a late afternoon shuttle will remove one of the barriers that may prevent the shuttle from currently being a viable transportation option for families. This will not only increase the number of students using the shuttle in the afternoon, but will likely attract new families to use the service in the morning who were previously prevented from riding because it was only viable in one direction.

Late afternoon shuttles would only be offered on days when there are after school activities and the departure times of the shuttles would need to be determined based on the dismissal times for afternoon activities. The routing of a late afternoon shuttle can be adjusted over time based on the make-up of after school activity participation.

**Vehicle Trip Impacts:** This strategy is anticipated to result in a reduction of up to 30 vehicle trips or 0.06 vehicle trips per student.

## Off-Site Kiss-and-Ride Stop

**Program Design:** An off-site “kiss-and-ride” stop within one mile of the Castilleja school campus allows families to drop their daughters off approximately 15 minutes before school starts and take a shuttle to school. Good candidate locations for a “kiss-and-ride” drop off location would need to be identified with ideal areas situated closer to large concentrations of nearby students and faculty/staff.

**Impacts:** Some parents may not be comfortable with dropping their children off at shuttle stops to wait alone until the shuttle arrives, and therefore continue to drop their daughters off at school.

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The kiss-and-ride program would not eliminate trips, but would re-distribute them out of the neighborhoods immediately adjacent to the Castilleja and reduce the school's vehicle trip count.

This stop should be placed along one of the two existing shuttle routes (or a new route) to allow for students to be easily picked up. As the kiss-and-ride stop would be integrated into the existing shuttle service, the only additional cost associated with this program would be the time associated with having a school staff member present to monitor students at the bus stop. This is a critical component of the programs' design to provide a safe, predictable, and organized operation for such a program.

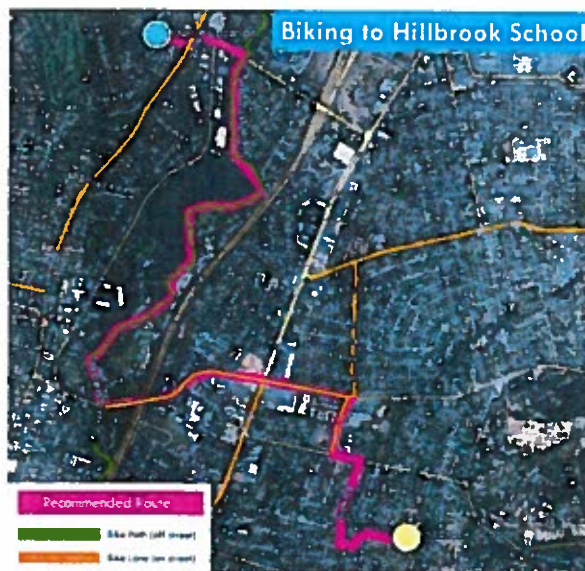
**Vehicle Trip Impacts:** This strategy is anticipated to result in a reduction of up to 15 vehicle trips or 0.03 vehicle trips per student.

### Expanded Carpool/Trip Planning Program

**Program Design:** Further expand Castilleja's carpool program to reduce the number of single student drop-offs. Before implementing a forced carpooling or sustainable travel modes requirement, the parent representative responsible for maintaining the carpool website and facilitating carpools can attempt to contact households that either live near an active carpool or live near other households that are not carpooling, and help foster a carpool arrangement between these families.

**Program Impacts:** Carpool to School has been shown to effectively link bikers, walkers or drivers. However, Castilleja's current approach is to offer families a link to the website and let them take the time to create carpool matches. Instead, the school should use the program and identify potential carpool matches along routes to school for all families and employees prior to the start of the school year, and provide those affiliates with that information in their informational packets (see below). Users will still have the option to use the website, but by providing the information to affiliates, as opposed to them having to search for the information, the school can cost-effectively reduce vehicle trips.

As an alternative to this approach, Castilleja could also create personalized trip planning information, regardless of mode, for all students. Prior to the beginning of the school year, the transportation coordinator would review the home locations of all students and determine their best options for accessing the school by each mode. For instance, based on the home location of a student, the transportation coordinator could recommend a specific shuttle stop to walk to or access via a kiss-and-ride stop. Personalized trip planning information would be presented to families in packets at the beginning of the school year (as a printout or as a PDF or email).



**Vehicle Trip Impacts:** This strategy is anticipated to result in a reduction of up to 10 vehicle trips or 0.02 vehicle trips per student.



## Additional Remote Parking

**Program Design:** Identify additional parking away from the school for employee use.

**Program Impacts:** Although remote parking does not reduce overall driving behavior, it does shift vehicle trips away from campus and the affected neighborhood. It is best if remote parking can be located either within walking distance or along the van route (the Sheraton or Westin hotels may be options), already picking up affiliates from the Caltrain station. In order to incentivize the use of this parking (as well as the remote parking the school already leases), it is advisable to pair this strategy with a parking cash-out program.

**Vehicle Trip Impacts:** This strategy is anticipated to result in a reduction of up to 10 vehicle trips or 0.02 vehicle trips per student.

## Parking Cash-Out

**Program Design:** Offer financial incentives to employees on days they opt to carpool, park off-site, or take other sustainable transportation modes during the school year.

**Program Impacts:** Parking cash-out programs are an effective way to increase employees' use of sustainable travel modes to school. It is suggested that for each workday an employee does not drive alone and park at the school, they receive a \$2 cash credit, which is distributed at the end of the month. Assuming the employee drive alone rate decreases from roughly 75% to 65%, this program would cost almost \$16,000 per school year.<sup>6</sup>

As part of the program, it is recommended that Castilleja develop a method to track employee daily travel modes. For example, the school can use a simple database program in which employees mark the days on which they do not drive alone to work.

**Vehicle Trip Impacts:** This strategy is anticipated to result in a reduction of up to 10 vehicle trips or 0.02 vehicle trips per student.

## Transportation Information Packages

**Program Design:** To better inform parents of new students and new employees of the available, sustainable transportation options to Castilleja, informational transportation packets can be distributed upon hire and at new student/parent orientations.

**Program Impacts:** Providing a detailed overview of the available options faculty and students have to reach campus allows for better decisions to be made when affiliates are first establishing a travel pattern to campus. These materials could be created and distributed as part of the responsibilities of the designated transportation management staff person. Program costs may vary somewhat based on the amount and type of information distributed, but may cost Castilleja approximately \$10,000 per year in printing materials.

**Vehicle Trip Impacts:** This strategy is anticipated to result in a reduction of up to 4 vehicle trips or 0.01 vehicle trips per student.

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<sup>6</sup> Assumes 125 persons employed at the school.

## Zip Code Parties

**Program Design:** Organize small, informal gatherings in neighborhoods where high concentrations of families, faculty, and staff live at the start of every semester or every school year. The parties can be hosted by families, with staff members in attendance to encourage participation in the carpool program as well.

**Program Impacts:** Zip code parties are a tool implemented at other schools to strengthen community relations and allow families who live near each other to get to know one another and establish carpools. The costs associated with zip code parties would be low, assuming about eight parties a year to cover two parties in four zip codes each year. Castilleja would cover the price of food, beverages, and other materials as well as the administrative costs of inviting families to the appropriate parties.

**Vehicle Trip Impacts:** This strategy is anticipated to result in a reduction of up to 4 vehicle trips or 0.01 vehicle trips per student.

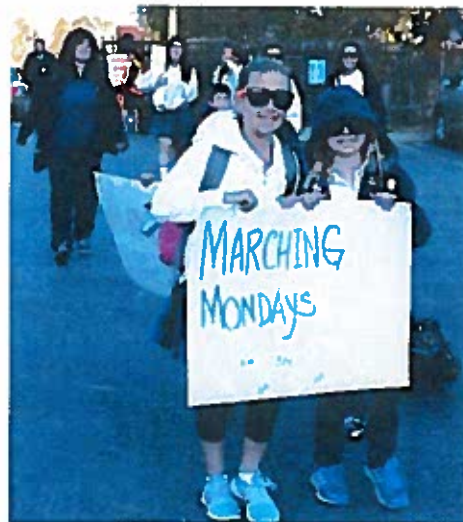
## Walking School Bus

**Program Design:** Walking school busses have gained popularity as a way to reduce traffic and parking issues that arise from parents dropping students off and increase the health of student populations. Similar to a kiss-and-ride program, a walking school bus requires a meeting point within a reasonable distance from the school campus where parents can drop their daughters off safely with faculty, staff, or parent volunteer chaperones. The participating students walk as a group, with the chaperones, from the meeting point to the school campus in time for class instruction. Good candidate locations for a walking school bus drop off location would need to be identified with ideal areas located within one mile from the school campus that have large concentrations of students and faculty/staff nearby. A walking route would also need to be established and would ideally have large sidewalks, minimal crossings of major streets, and low vehicle traffic.

**Program Impacts:** A walking school bus would not eliminate trips, but would re-distribute them out of the neighborhoods immediately adjacent to the Castilleja. With the exception of possible administrative costs associated with promoting the program as well as the staff time devoted to walking children to school, a walking school bus would not require additional costs. However, the programs overall success would greatly depend on the meeting location and walking route that is established.

It is recommended that there be one chaperone for every six to ten children under the age of ten. If children are age ten or older, one chaperone for every ten to 15 students is more appropriate.

**Vehicle Trip Impacts:** This strategy is anticipated to result in a reduction of up to 4 vehicle trips or 0.01 vehicle trips per student.



## Bike Tune-Up Day and Repair Stations

**Program Design:** To encourage bicycle riding as a reliable mode for students and employees, the school can invest in simple tools or full service days where affiliates could get their bikes repaired.

**Program Impacts:** Providing necessary tools for regular bicycle maintenance would cost the school roughly \$500 per year, and can include bicycle pumps, spare tubes, and simple tools to make adjustments. It is recommended that if these tools are provided, the school arrange for a workshop that would teach students and employees to maintain their own bicycles. Alternatively, Castilleja could provide full tune up days where a company would come and perform necessary maintenance to bicycles. The cost of this service is dependent on the company that is contracted and the number of bikes that need repair. It is assumed that each bicycle in need of service would cost approximately \$50. It should be noted that these two alternatives to maintaining bicycles for students and faculty/staff that commute by bike are not exclusive of one another and greater benefits may come from offering both options.

**Vehicle Trip Impacts:** This strategy is anticipated to result in a reduction of up to 4 vehicle trips or 0.01 vehicle trips per student.

## Guaranteed Ride Home (GRH) Program

**Program Design:** Guaranteed Ride Home (GRH) is a program that provides a “back-up” ride to employees who use transit, carpool, bike/walk, or use other alternative as their commute mode. For example, if an employee needs to leave school for an emergency, such as a sick child or other unexpected need, they will be redeemed for the cost of taxi ride to get them home. This is an important supportive measure to encourage employees to not drive alone to school.

**Program Impacts:** Castilleja could offer its own simple GRH program that could be part of the incentive package to employees who do not drive alone to school. In this program, up to five free taxi rides home would be covered by the school over the course of the year to these employees. As part of the program, the school would need to establish a reimbursement protocol and ensure the phone numbers of taxi providers were readily available to families and employees. Though there is a potential for the costs associated with this program to be high, emergencies are not regular events, therefore the expected costs of this program are low.

**Vehicle Trip Impacts:** This strategy is anticipated to result in a reduction of up to 2 vehicle trips or 0.004 vehicle trips per student.

## Carshare Vehicle(s)

**Program Design:** Provide an on-site “shared” vehicle that is available to employees to make mid-day trips.

**Program Impacts:** Carsharing programs allow people to have on-demand access to shared vehicles on an as-needed basis for errands, appointments, or other needs. Carsharing has sometimes been referred to as the “missing link” in the package of alternatives to the private automobile. For example, a shared vehicle can enable employees to commute to work via transit or other means, knowing that they’ll have a means available to them throughout the day for unanticipated work or personal trips.

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The school currently owns six 10-passenger vans that could be used as carshare vehicles, but it would be advisable to have at least one sedan available, as the prospect of driving and maneuvering a van may act as a deterrent to some users.<sup>7</sup> Costs for this strategy would include the purchase of a vehicle, gas, maintenance costs, and administration of the program.

**Vehicle Trip Impacts:** This strategy is anticipated to result in a reduction of up to 2 vehicle trips or 0.004 vehicle trips per student.

## **OPTIONAL ADDITIONAL TRANSPORTATION DEMAND MANAGEMENT STRATEGIES**

In addition to the program above, the school may wish to implement more strategies if vehicle trips are not reduced to desirable levels. The following programs are strictly optional and the school should weigh each carefully before implementing to both ensure it is cost-effective and does not adversely impact other school objectives (such as student retention).

### **On-Campus Bikeshare**

**Program Design:** Provide two or three school-owned bicycles on-campus for the use of students, faculty, and staff during school hours.

**Program Impacts:** By offering bicycles for the shared use of campus affiliates, the school is encouraging non-motorized travel to and from campus for mid-day trips, such as errands or other needs. This makes it possible for students and employees to commute to school by other modes without the need for a car in case there are mid-day demands.

The costs of the program would be relatively minimal and contained to the purchase (\$500 - \$1,000) and maintenance of the bicycles (\$50 - \$100 annually).

**Vehicle Trip Impacts:** This strategy is anticipated to result in a reduction of up to 2 vehicle trips or 0.004 vehicle trips per student.

### **Caltrain Go Pass**

**Program Design:** Provide Caltrain Go Passes to employees to allow for free travel on Caltrain from any zone.

**Program Impacts:** Caltrain Go Passes are a form of universal transit passes. The principle of universal transit passes is similar to that of group insurance plans – transit agencies can offer deep, bulk discounts when selling passes to a large group, with universal enrollment, on the basis that not all those offered the pass will actually use them regularly. Universal transit passes are usually an effective means to reduce the number of car trips in an area. These passes typically provide unlimited rides on local or regional transit for low monthly fees.

The Caltrain Go Pass is a type of annual pass purchased by an organization for its full-time employees. All employees receive the Go Pass, whether they use it or not. The passes are purchased at a significant discount and provide all employees with free Caltrain travel between all

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<sup>7</sup> Zipcar is an outside provider that can also provide service, but given the presence of other Zipcar vehicles in the area, it currently appears unlikely that the company would locate another vehicle to Castilleja.

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zones, seven days a week. The Go Pass is much more effective at reducing vehicle trips than a transit subsidy, because it provides a transit benefit to all regular, non-regular, and potential transit riders. Stanford has managed to increase its Caltrain ridership from 4% to 12% in two years by providing Go Pass to all employees.

The Caltrain Go Pass would cost Castilleja \$22,500 (increasing to \$23,750 next year) and would provide an affordable alternative to driving for those employees living near a Caltrain station. The Caltrain Go Pass does not cover the cost of parking at stations.

**Vehicle Trip Impacts:** This strategy is anticipated to result in a reduction of up to 10 vehicle trips or 0.02 vehicle trips per student.

### **Compulsory Ridesharing**

**Program Design:** Require all students to arrive only by carpooling, van, transit, walking, or biking. Allow for special exemptions in cases of disability or other extenuating circumstances.

**Program Impacts:** If all other TDM strategies do not achieve the necessary vehicle trip reduction goals, the school may wish to consider prohibiting students from driving alone or arriving at school as a single passenger. This option would immediately result in a reduction of vehicle trips, but would have to be weighed carefully by the school administration as it may result in negative feedback from families, problems with recruitment, and other issues. There would be no direct costs associated with this program, but there may be requests from families to increase shuttle service or other amenities to maintain access to campus.

A variation of this could be developed to only allow certain students to drive alone to school. For example, seniors could be designated as the only group of students to drive alone as a “bonus” for their last year at Castilleja.

**Vehicle Trip Impacts:** This strategy is anticipated to result in a reduction of up to 123 vehicle trips or 0.24 vehicle trips per student.

# APPENDIX A STUDENT AND EMPLOYEE HOME LOCATIONS

