Paving the Way for Safe Routes to School

Newcastle Elementary

Walkability and Active Design Report

January 2015

WALKSACRAMENTO
Walkable Communities = Communities of Walkers

SAFE KIDS CALIFORNIA

This material was developed by PedSafe, a program of the California Department of Public Health (CDPH). Funding for the duplication of this material is from an award from CDPH's Kids Plates program.

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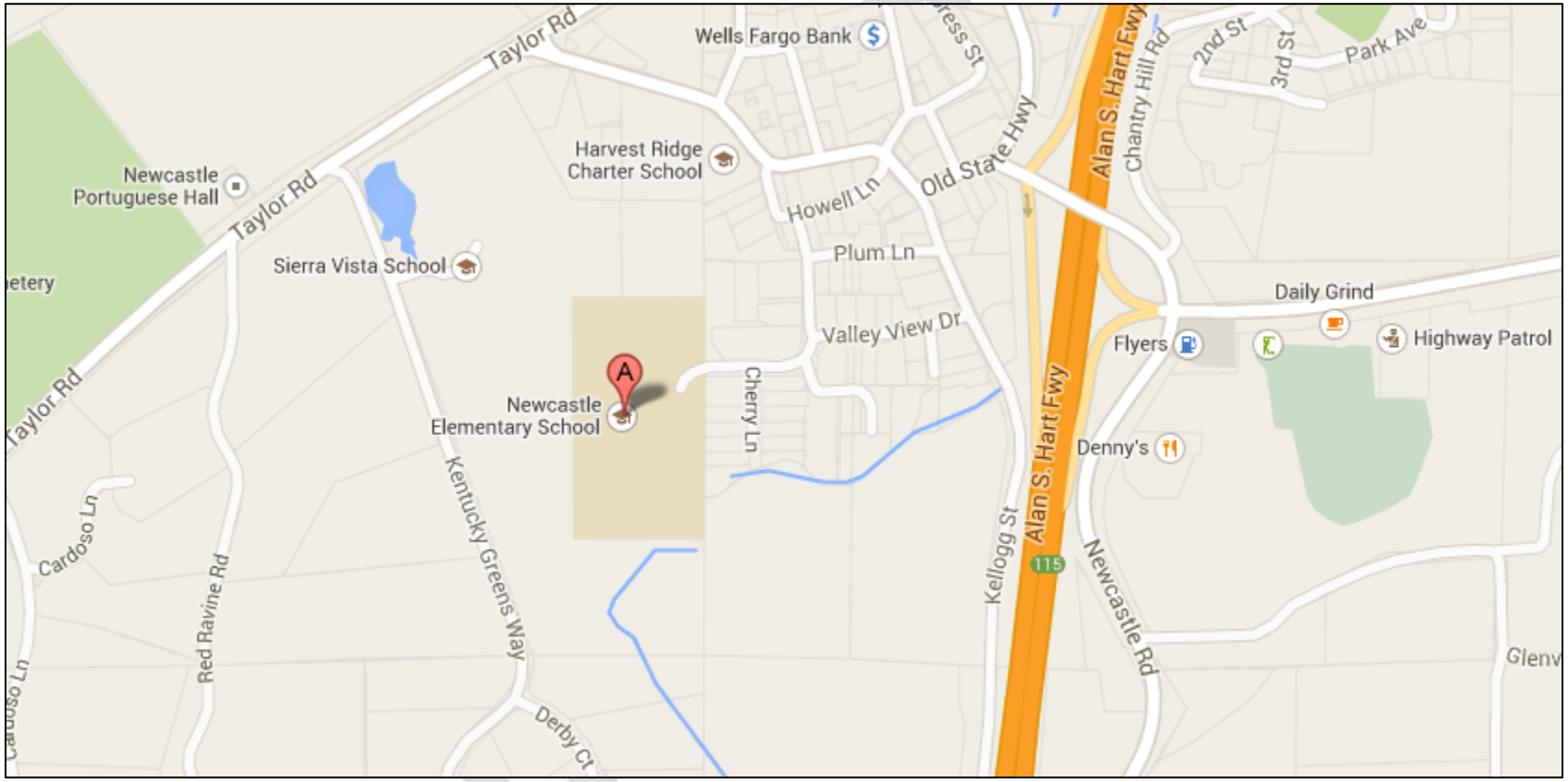
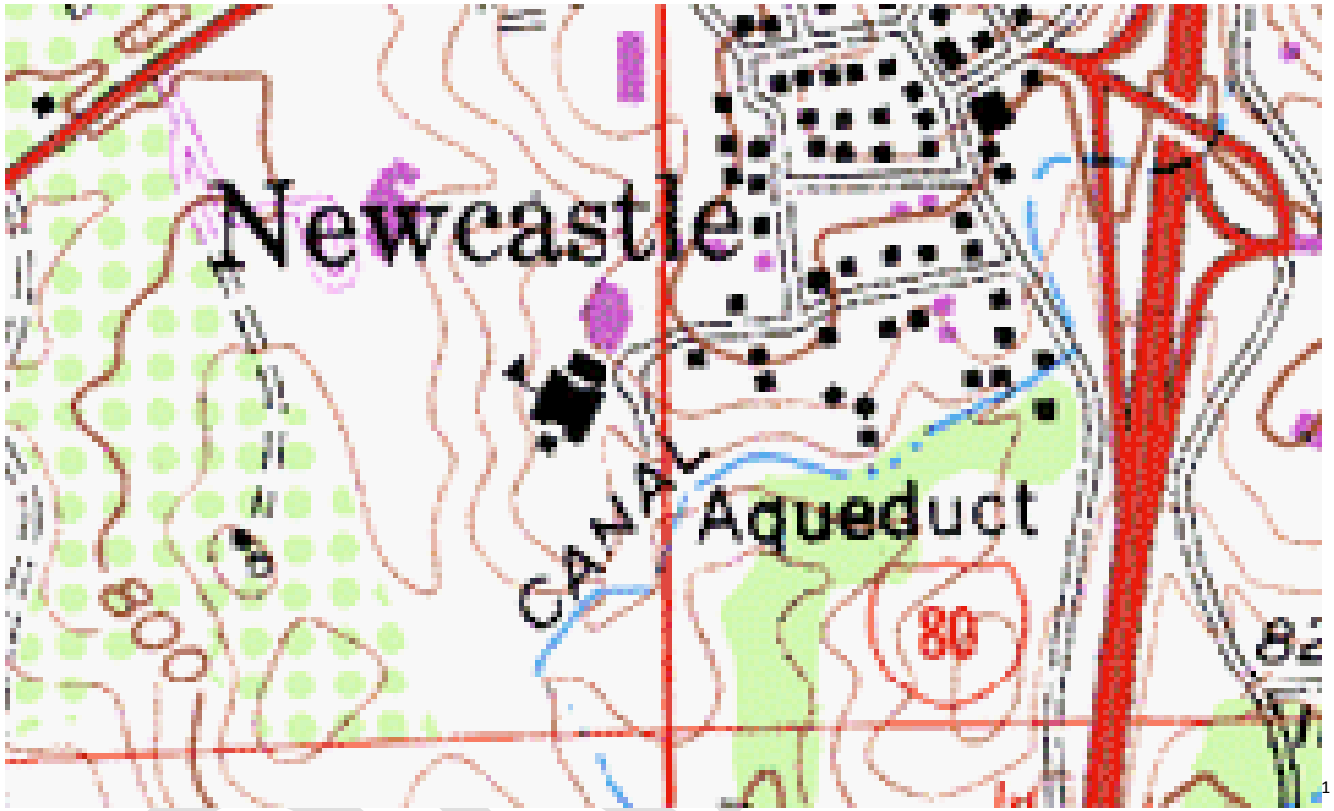
SCHOOL LOCATION

Newcastle Elementary/Charter is located at 8951 Valley View Drive, Newcastle, CA 95658. Newcastle, an unincorporated community in Placer County, is located in the Sierra Nevada foothills, and the presence of hills impact walkability. The school acts as a charter school, so many students do not live in the Newcastle community and travel on Interstate-80 to reach school. The school is located at the end of Valley View Road, the only access to the school and the source of traffic conflict at drop-off/pick-up times.



Map of Newcastle location (Source: Google Maps, 2015)

Topographic Map



[1]

The variation in elevation is indicated by the topographic map. The elevation increases as students travel from Interstate-80 to reach the school. The topography contributes to the amount of traffic congestion, as drivers navigate the elevation changes.

[1] Niemi, Ryan. *TopoQuest.* 2012. Source: http://www.topoquest.com/place-detail.php?id=1723495

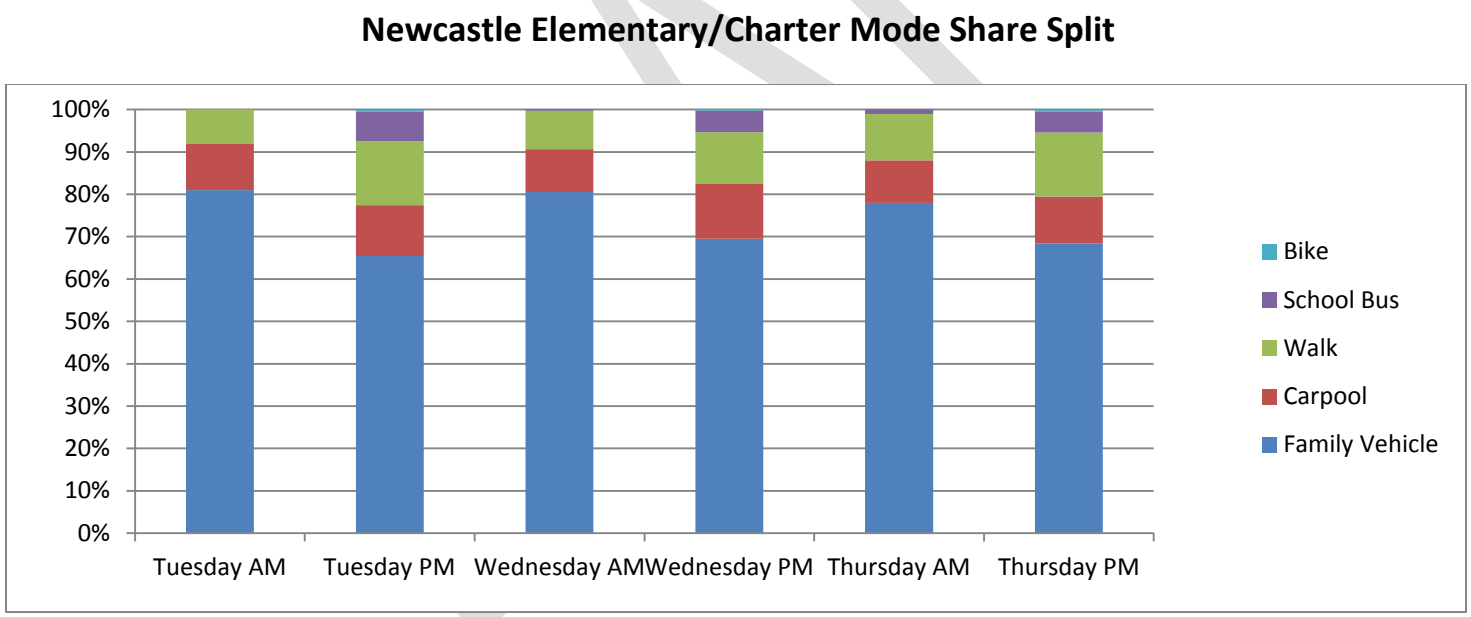
EXISTING CONDITIONS

Mode Split

Using the National Center for Safe Routes to School Student Travel Tally[2], in-class tallies of student travel mode were conducted over a period of three days in December 2013. The tally results are shown below.

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Tuesday AM	253	8%	0%	0%	81%	11%	0%	0%%
Tuesday PM	246	15%	0.4%	7%	65%	12%	0%	0%
Wednesday AM	299	9%	0%	0.3%	80%	10%	0%	0%
Wednesday PM	317	12%	0.3%	5%	69%	13%	0%	0%
Thursday AM	262	11%	0%	1%	78%	10%	0%	0%
Thursday PM	236	15%	0.4%	5%	68%	11%	0%	0%

Percentages may not total 100% due to rounding.



[2] National Center for Safe Routes to School, Evaluation: Student In-Class Travel Tally, 2013, available http://saferoutesinfo.org/program-tools/evaluation-student-class-travel-tally. Accessed April 24, 2014.

National Center for Safe Routes to School Parent Survey

Parents' attitudes toward walking and biking were surveyed using the National Center for Safe Routes to School Parent Survey.[3]

Key Results:

The issues most frequently reported to affect the decision to **not** allow a student to walk or bike to/from school are distance (71%), the lack of sidewalks (71%), and speed of traffic along the route (57%).

The majority of parents, 74%, estimated that the distance between home and school was greater than 2 miles.

The majority of parents reported the family vehicle as the typical mode of arrival (84%) and departure (75%) from school.

Traffic Congestion

One of the concerns voiced most by parents is the amount of traffic at pick-up and drop-off times. The school is located at the top of a hill with minimal circulation. There is only one way to enter and exit the school, along Valley View Drive. At peak travel times, drivers frequently back up along Valley View Drive. The school has experimented with different pick-up strategies, which have only increased the amount of cars that travel along Peach Lane.

Many parents included additional comments describing their inability to walk all the way from home to school, but expressed interest in an off-campus pick-up/drop-off meeting location. One parent wrote, "If the school had better sidewalks and a safer route I would arrange a place to meet [my student] to avoid the school pick-up traffic." Another parent wrote, "Another drop/off pick up safe route for children to get to that spot would encourage more walking/biking."

Due to these comments and many other similar comments, this walkability and active design audit report explores the possibility of a meeting location for a walking school bus.

Aggressive Driving

Many community members felt there was a strong prevalence of aggressive driving during pick-up and drop-off times. Parents are known to cut off the line of traffic waiting to drop-off students by traveling on Peach Lane rather than Valley View Drive. This aggression manifests in high speeds, and many neighbors are concerned that children may be a casualty of these speeds. It is also difficult for drivers to see when the sun is in their eyes, which is common driving around Newcastle at certain times of the day due to the topography. This can be dangerous for pedestrians, especially young students that may not be visible to drivers.

[3] National Center for Safe Routes to School, Evaluation: Parent Survey, 2009, available http://saferoutesinfo.org/program-tools/evaluation-parent-survey; Internet: accessed May 2012.

Identifying barriers to walking and biking

Infrastructure and non-infrastructure barriers to walking and biking to school were identified through a walk audit and discussions with school staff, parents, and community members.

Walk Audit

A walk audit was conducted on September 19, 2014. Participants included WALKSacramento staff, Safe Kids California, Safe Kids Placer County Coalition, a California Highway Patrol, Placer County Sherriff's Department, Auburn Parks and Recreation, a Parent-Teacher Committee member, and two Placer County Department of Public Works engineers.

Walk audit participants detailed three routes to cover paths most traveled by students to reach the school.

Traffic Observations

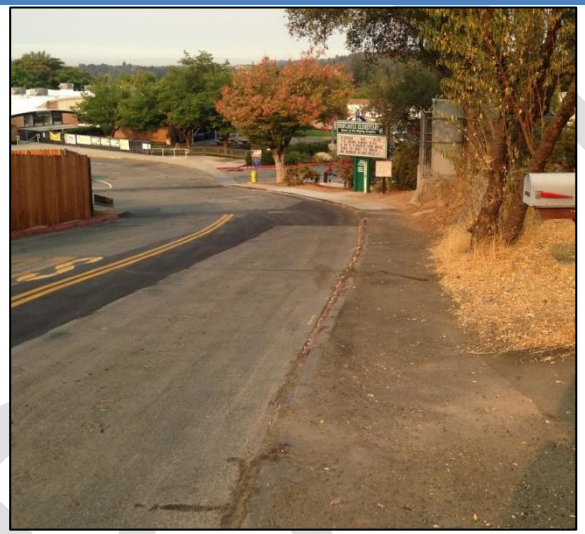
Follow-up traffic observations will be conducted winter 2014. Participants will note drop-off procedures in order to better inform suggestions for the school.

Walk to School Day

Students participated in Walk to School Day on Friday, October 10, 2014. The Walk to School Day planning team used recommendations developed at the walk audit to choose the best start location for the morning.

INFRASTRUCTURE RECOMMENDATIONS

ID	Location	Recommendation	Justification
	Valley View Drive, near school entrance	Repave street. Reconstruct sidewalk curbs. Repaint curbs.	Valley View Drive is the only entrance to the campus. The road is cracked and sidewalks are crumbling. Paint on the curbs will serve as a visual reminder that drivers may not park in the loading queue.
Visual			



Valley View Drive, approaching the entrance of the school

ID	Location	Recommendation	Justification
	Valley View Drive and Peach Lane	Consider a 3-way stop. Paint a “KEEP CLEAR ZONE” in the intersection. Repaint intersection with high visibility crosswalks.	This intersection is the source of much of the traffic congestion entering the school. Motorists back up into the intersection waiting to pick up or drop off students at Newcastle Elementary. Many motorists observe the crosswalks but block the intersection which limits other drivers’ visibility of pedestrians. Repaint the crosswalks to increase visibility of students walking to school.

Visual

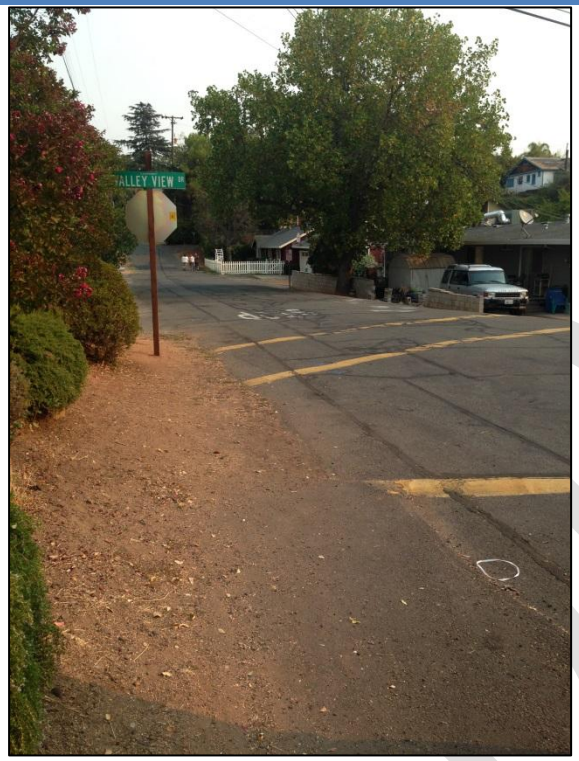


Figure A: Looking North at intersection of Valley View Drive and Peach Lane **Figure B:** Looking South at intersection.

ID	Location	Recommendation	Justification
	Valley View Drive between Peach Lane and Kellogg Street	Construct sidewalks along Valley View Drive. Limit parking along Valley View Drive during peak hours. Tag abandoned vehicles for removal. Request that residents remove basketball hoop in walking route during pick-up and drop-off times.	Many students walk along Valley View to get to Newcastle and are forced to walk in the street. Valley View Drive frequently backs up during pick-up/drop-off hours. Motorists parked in the shoulder force students to walk in the street. Residents have noted that many cars remain in the same spot for an extended period of time and may be no longer functional. Basketball hoop creates an obstacle during pick-up/drop-off times. Children may dart into the street to retrieve their ball and may not be seen by motorists.

Visual

Figure A: Looking East on Valley View Drive near intersection of Valley View Drive and Peach Lane **Figure B:** Walking East on Valley View Drive

ID	Location	Recommendation	Justification
	Valley View Drive and Kellogg Street	Design the intersection with a smaller curb turn radius. Construct a high visibility crosswalk to improve pedestrian access.	Large turning radii compromise pedestrian access, because crossing distances are increased. Motorists can make the right turn at higher speeds and pedestrians are located outside of a driver's line of vision. The existing intersection does not include a crosswalk. A marked crosswalk will enhance the visibility of pedestrians crossing Kellogg Street to reach Newcastle Elementary.
Visual			

Figure A: Existing intersection of Valley View and Kellogg Street

Figure B: Decreased turning radii.

ID	Location	Recommendation	Justification
	Kellogg Street, Old State Highway to Valley View Drive	SHORT TERM IMPROVEMENT: Paint a shoulder line along Kellogg Street. LONG TERM IMPROVEMENT: Construct sidewalks along Valley View Drive.	Students walking along Kellogg Street are forced to walk in the street. A painted shoulder line will delineate space for pedestrians, as well as narrow the road which will decrease vehicular speeds. However, there are drainage ditches along the road shoulders, so the construction of sidewalks is a preferred alternative. Sidewalks will make the experience safer for both pedestrians and bicyclists.
Visual			

Figure A: Looking north on Kellogg Street

Figure B: Drainage ditch on Kellogg Street

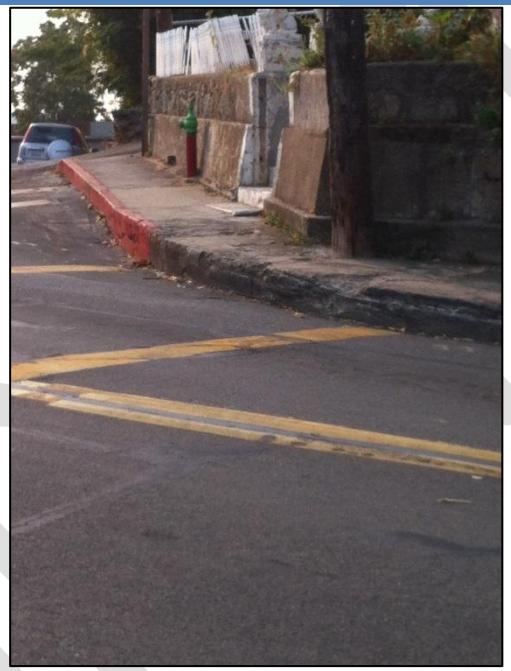
ID	Location	Recommendation	Justification
	Trail to Harvest Ridge	Remove large boulders and sharp rocks from paths that are used as cut-thrus.	Students use the trail as a cut-through to reach parents waiting in the Harvest Ridge parking lot. To improve safety, remove potentially slippery and sharp rocks. Request that the fire department clears brush that may attract transients.
Visual			

Sharp rocks potentially hazardous for students using the trail

ID	Location	Recommendation	Justification
	Howell Lane	Consider limiting vehicular traffic to one-way along Howell Lane.	Howell Lane is a narrow road and is a source of congestion at pick-up/drop-off times. The road is too narrow for students to walk beside traffic. A one-way flow of traffic will limit the number of cars that conflict at peak times.
Visual			

Figure A: Looking East at intersection of Howell Lane and Peach Lane

ID	Location	Recommendation	Justification
	Intersection of Old State Highway and Main Street	Provide an ADA accessible curb cut on the sidewalk at the intersection of the crosswalk spanning Old State Highway at Main Street.	Stepping up or down onto these elevated crosswalks is difficult and dangerous for students and the disabled. Accessible curb ramps are required by the Americans with Disabilities Act (ADA) at all crosswalks.
Visual			



Intersection of Old State Highway and Main Street

ID	Location	Recommendation	Justification
	Intersection of Old State Highway and Kellogg Street	Remove and relocate handicapped parking space. Repaint and repave intersection.	ADA Accessible parking space painted on sidewalk in front of post office. It allows handicapped motorists to park on sidewalk, directly adjacent to crosswalk. This impairs sidewalk for pedestrians and limits visibility of pedestrians using the crosswalk.
Visual			

ADA parking space painted in front of post office

ID	Location	Recommendation	Justification
	Old State Highway and Howell Lane	Repave and restripe the intersection.	Many motorists use this intersection to access Newcastle Elementary. Students must cross Howell Lane to access the sidewalk on Old State Highway, if they are travelling downtown from the trail between Newcastle and Harvest Ridge. The paint is faded and located far into the intersection. Consider increasing visibility of the stop sign on Howell Lane. Consider repainting and repaving Old State Highway to improve visibility of street markings.
Visual			

Intersection of Old State Highway and Howell Lane

Alternate view of intersection

General Recommendations

Many street corners throughout Newcastle do not have curb ramps that meet the American Disability Act standards. Construct curb ramps and locate truncated domes at lacking intersections.

Improve pedestrian-oriented lighting to increase safety and encourage walking after dark.

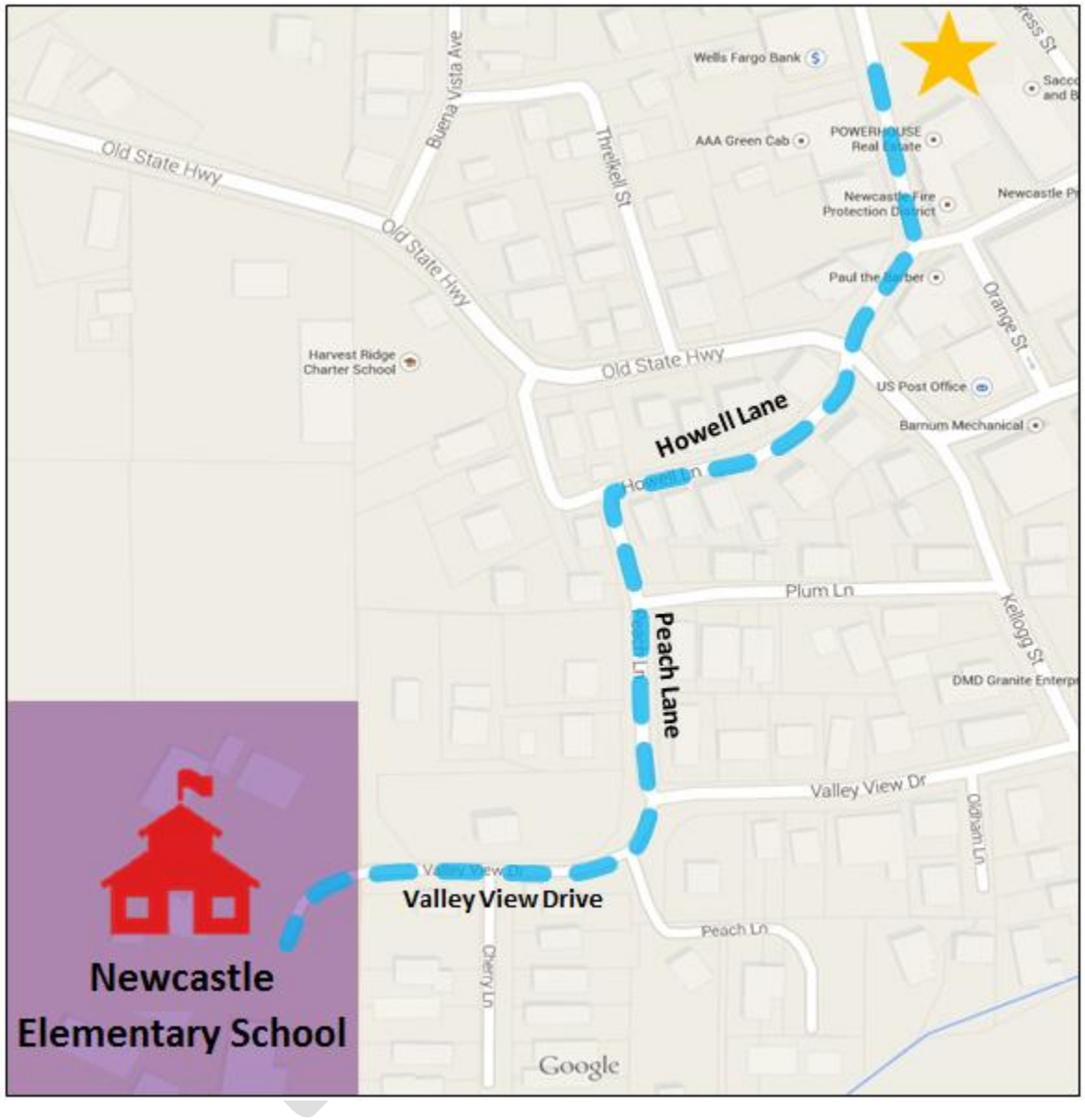
Curbs that are 10-12 inches above the street on Old State Highway need to be reconstructed to allow safe passage by pedestrians.

NON-INFRASTRUCTURE RECOMMENDATIONS:

- Encourage increased enforcement by the California Highway Patrol (CHP) to discourage aggressive driving. Work with CHP to create a plan which targets high-priority locations (such as exiting the freeway and the intersection of Valley High Drive and Peach Lane).
- Work with Harvest Ridge Charter School to create a staggered start and release plan. Offset times when each school begins and ends to minimize congestion on roads used by motorists transporting students to both schools. Consider reserving specific spaces for parents who are picking up students in multiple grade levels.
- Consider working with the Placer County School District to pick-up/drop-off students at a central Downtown location via school bus. This would decrease the congestion of parents using Valley View Drive to pick-up/drop-off students.
- Place school staff or parent volunteers along the trail between Newcastle Elementary and Harvest Ridge Charter School. Students will be encouraged to practice safe walking behaviors in the presence of an authority figure. There are many areas for children to wander off of the path such as under the bridge where dangerous objects and pools of water may be found. This is also a location with noted transient activity. Further, transients may avoid the area if school and community members are present at regular intervals.
- Organize community-wide clean up days hosted by the school or local neighborhood association. Focus on the nature trail to remove garbage and other potentially dangerous items. Large mangled scrap metal poses a significant threat to curious children. Remove large boulders and sharp rocks from paths that are used as a cut-through. Students will use cut-thru regardless, so to ensure safety, remove potentially slippery and sharp rocks.

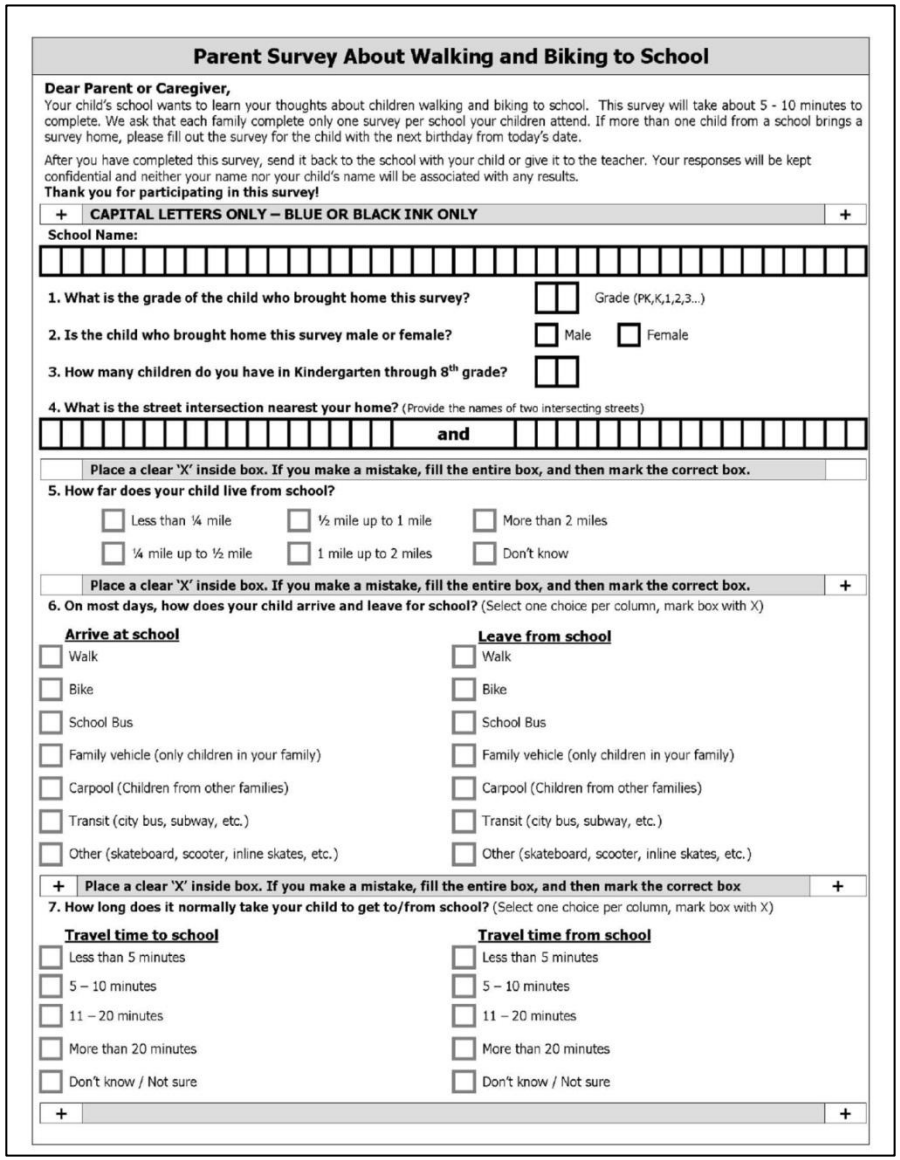
CONCLUSIONS:

Small roads with narrow shoulders constrict the small town of Newcastle. With one way in and out of the school, the surrounding roads are highly congested. Once major infrastructure improvements have been made, a “walking school bus” may be encouraged to guide students to walk to and from school as a group.



Walk to School Day October 2014 route

APPENDIX A: NATIONAL CENTER FOR SAFE ROUTES TO SCHOOL PARENT SURVEY FORM



Parent Survey About Walking and Biking to School

Dear Parent or Caregiver,

Your child's school wants to learn your thoughts about children walking and biking to school. This survey will take about 5 - 10 minutes to complete. We ask that each family complete only one survey per school your children attend. If more than one child from a school brings a survey home, please fill out the survey for the child with the next birthday from today's date.

After you have completed this survey, send it back to the school with your child or give it to the teacher. Your responses will be kept confidential and neither your name nor your child's name will be associated with any results.

Thank you for participating in this survey!

CAPITAL LETTERS ONLY – BLUE OR BLACK INK ONLY

School Name:

1. What is the grade of the child who brought home this survey? ☐☐ Grade (PK,K,1,2,3...)

2. Is the child who brought home this survey male or female? ☐ Male ☐ Female

3. How many children do you have in Kindergarten through 8th grade? ☐☐

4. What is the street intersection nearest your home? (Provide the names of two intersecting streets)

and

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box.

5. How far does your child live from school?

☐ Less than ¼ mile ☐ ½ mile up to 1 mile ☐ More than 2 miles
☐ ¼ mile up to ½ mile ☐ 1 mile up to 2 miles ☐ Don't know

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box.

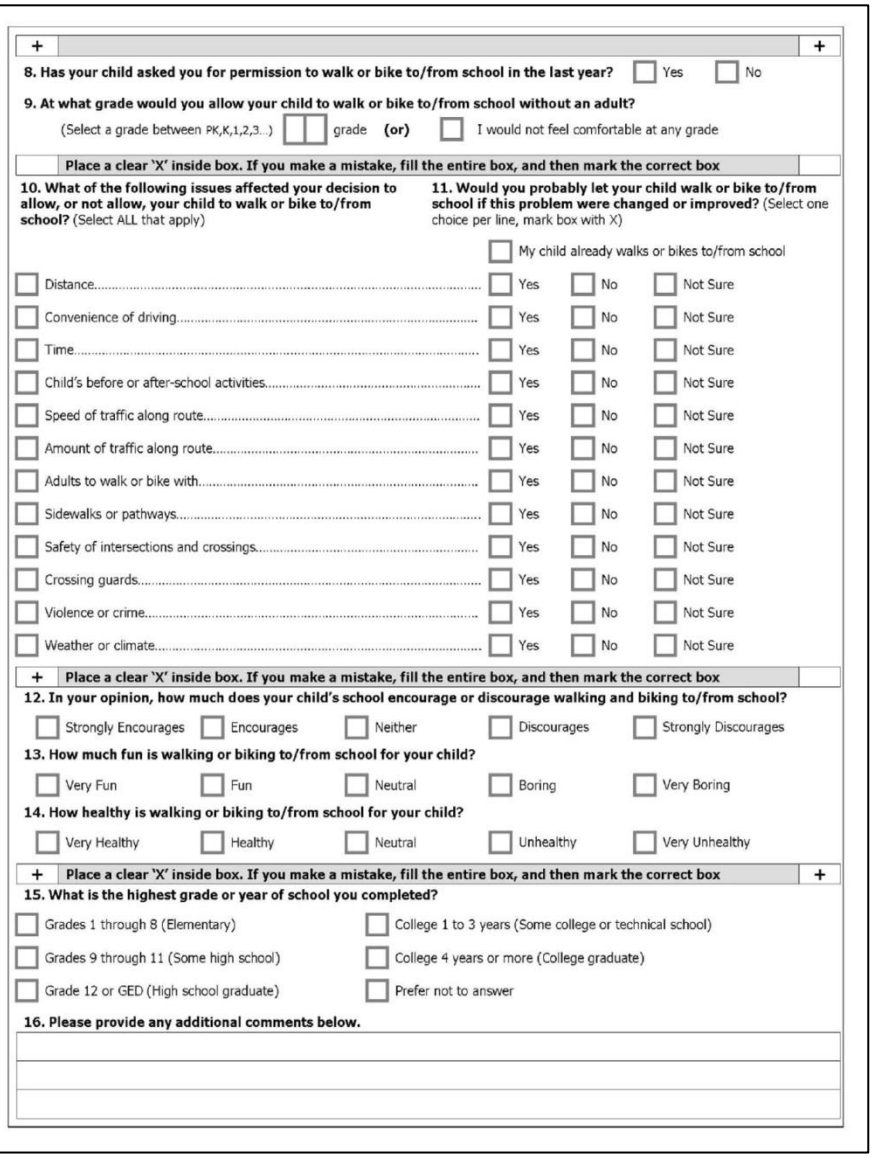
6. On most days, how does your child arrive and leave for school? (Select one choice per column, mark box with X)

Arrive at school	Leave from school
☐ Walk	☐ Walk
☐ Bike	☐ Bike
☐ School Bus	☐ School Bus
☐ Family vehicle (only children in your family)	☐ Family vehicle (only children in your family)
☐ Carpool (Children from other families)	☐ Carpool (Children from other families)
☐ Transit (city bus, subway, etc.)	☐ Transit (city bus, subway, etc.)
☐ Other (skateboard, scooter, inline skates, etc.)	☐ Other (skateboard, scooter, inline skates, etc.)

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box

7. How long does it normally take your child to get to/from school? (Select one choice per column, mark box with X)

Travel time to school	Travel time from school
☐ Less than 5 minutes	☐ Less than 5 minutes
☐ 5 – 10 minutes	☐ 5 – 10 minutes
☐ 11 – 20 minutes	☐ 11 – 20 minutes
☐ More than 20 minutes	☐ More than 20 minutes
☐ Don't know / Not sure	☐ Don't know / Not sure



8. Has your child asked you for permission to walk or bike to/from school in the last year? ☐ Yes ☐ No

9. At what grade would you allow your child to walk or bike to/from school without an adult?

(Select a grade between PK,K,1,2,3...) ☐☐ grade **(or)** ☐ I would not feel comfortable at any grade

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box

10. What of the following issues affected your decision to allow, or not allow, your child to walk or bike to/from school? (Select ALL that apply)

11. Would you probably let your child walk or bike to/from school if this problem were changed or improved? (Select one choice per line, mark box with X)

☐ My child already walks or bikes to/from school

	Yes	No	Not Sure
☐ Distance	☐	☐	☐
☐ Convenience of driving	☐	☐	☐
☐ Time	☐	☐	☐
☐ Child's before or after-school activities	☐	☐	☐
☐ Speed of traffic along route	☐	☐	☐
☐ Amount of traffic along route	☐	☐	☐
☐ Adults to walk or bike with	☐	☐	☐
☐ Sidewalks or pathways	☐	☐	☐
☐ Safety of intersections and crossings	☐	☐	☐
☐ Crossing guards	☐	☐	☐
☐ Violence or crime	☐	☐	☐
☐ Weather or climate	☐	☐	☐

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box

12. In your opinion, how much does your child's school encourage or discourage walking and biking to/from school?

☐ Strongly Encourages ☐ Encourages ☐ Neither ☐ Discourages ☐ Strongly Discourages

13. How much fun is walking or biking to/from school for your child?

☐ Very Fun ☐ Fun ☐ Neutral ☐ Boring ☐ Very Boring

14. How healthy is walking or biking to/from school for your child?

☐ Very Healthy ☐ Healthy ☐ Neutral ☐ Unhealthy ☐ Very Unhealthy

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box

15. What is the highest grade or year of school you completed?

☐ Grades 1 through 8 (Elementary)
☐ Grades 9 through 11 (Some high school)
☐ Grade 12 or GED (High school graduate)
☐ College 1 to 3 years (Some college or technical school)
☐ College 4 years or more (College graduate)
☐ Prefer not to answer

16. Please provide any additional comments below.