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Public Transport: A New Kind of Decongestant

In California, and the rest of the United States, the transportation culture is such that the majority of commuting is done by singularly occupied vehicles. There are many challenges facing California when one considers shifting the transportation culture from that of mainly single-rider/low occupancy vehicles to public transit. Even with lanes that facilitate and incentivize carpooling, highway traffic in California is counted among the worst in the country. Anyone who attempts to take the main thoroughfares such as Highway 17-S toward Ocean Street or 1-S into Watsonville, during rush hour and especially during the summer, can attest to the fact that our infrastructure does not accommodate a smooth commute. "Gasoline-powered vehicles are the biggest polluting factor in California" (Harju 4) and traffic and wasteful travel is an environmental issue, as it increases CO₂ emission and affects air quality. Santa Cruz County is especially impacted by an influx of heavy traffic as it is a tourist destination for many, whether they are international visitors or residents of the inner valleys staying for the weekend. In Santa Cruz County, I propose that light rail transit (LRT) should be utilized to connect local areas of employment, as well as shopping and recreational centers to one another, such as the Boardwalk, Capitola Mall, Capitola Village, and places of education such as Cabrillo. The ultimate goal of this plan would be to reduce wasteful travel, in the form of low-occupancy vehicle ridership, traffic congestion, and the subsequent production of CO₂ emission, by implementing and incentivizing more efficient public transportation.

During the research process, I came across a few daunting statistical commentaries that made integrating public transit into Santa Cruz a challenging idea. Writing for the San Jose Mercury News, Paul Lewis posits in his article “California’s Car Culture at the Heart of the Struggle” that “urban regions are dense enough to create some harrowing congestion on the freeway system, but generally are not dense enough to generate enough riders to support new mass-transit systems without heavy government subsidies”. This article also states that buses are often used as a last resort, as their schedules can be inconvenient and unreliable, and buses are viewed as transportation utilized mainly by the lower class. Currently, the main source of public transit in Santa Cruz is the bus system. However, due to decreasing ridership and increased financial demands, Santa Cruz Metro is now facing budgetary issues, with a structural deficit of \$6.5 million (Metro Forward); this will likely result in cuts to 25 percent of current routes, which a committee will vote on in June of this year (Clark). This financial issue indicates a need for revamping transportation and clearly, the current bus system does not attract or accommodate enough commuters to keep ridership at a profitable level for the Metro. Another obstacle that has to be accounted for is the fact that often, it is not former drivers, but bus riders who make the shift to rail cars and other forms of transit for their commute, as stated by Jed Kolko in “Making the Most of Transit”. In order to counteract these trends, the community and its commuters must be made aware of the benefits of transit ridership in order to alter transportation culture. An encouraging analysis, however, is the fact that employment density correlates strongly with transit ridership, and this was “sensitive to workplace distance from the transit station”(Kolko 21). Many sections of Santa Cruz County that are attractive to tourists are also dense areas of employment. Also, with plans to implement a high-speed rail to connect

the major cities of California (Big Picture), it is imperative that Santa Cruz be ready to accommodate the influx of travellers, in order to maximize their economic benefit as sources of ridership. Downtown, the Beach Boardwalk, Capitola Village, Capitola Mall and 41st Avenue are areas of entertainment that bring in both tourists and county residents, whether that be in shopping, dining, movie-going, or beach access. Cabrillo College is also a major destination for commuters in the county, whether they are employees (teachers, administrators, tutors) or local students, pursuing degrees and certificates.

Effectively integrating a new system for public transportation will require a lot of cooperation between the community and local government. Education is crucial in providing locals with information about their role in reducing vehicle miles traveled (VMT), and thus reducing their negative impact on the environment and air quality. In order to facilitate this, I propose that local institutions, such as Cabrillo and UCSC should be encouraged and commissioned to host educational forums that discuss CO2 emission, air quality, and how that correlates with the transportation culture that currently exists within the United States, California, and the county of Santa Cruz. The community culture is such that we are in a unique position to incentivize transit ridership since locals often strive to directly invest and take action with environmental issues and preservation. Polls should also be designed and distributed by the city to assess the transportation needs of locals, and where the majority of commuters need to be picked up and dropped off, though the main areas would be concentrated around Cabrillo, Downtown, 41st/Capitola. Ideally, the rail cars would travel on tracks unencumbered by normal traffic flow. This would require the reworking of already existing roads, and utilization of elevated tracks to streamline

reliable, and punctual travel. The surveys and polls are crucial in that they would ensure that locals have a say in the planning process, and would therefore be more receptive to development and construction of infrastructure, as they feel their interests are accounted for.

The main metro stations would need to be located where they already exist, in Scotts Valley, Downtown, and Capitola, and Watsonville. A medium-sized transit station should also be constructed at Cabrillo, in one of the lots near the sheriff station or gymnasium, such as parking lot K. Scotts Valley is a small residential town and does not necessarily need to use a rail car to connect it to Downtown, which would be the next destination along the line, as the distance is too great and the logistics would be too costly. Here, the regular bus system would remain intact. Once the bus reaches Downtown, however, rail cars would leave the Metro Station, with one line headed toward the Beach Boardwalk, along the San Lorenzo River Front, and terminating at the Boardwalk River Lot. The other would be headed toward the stations in Capitola/41st, Cabrillo, and terminate in Watsonville. Buses would be utilized as supplementary transportation for those who want to go to places not accessible by the rail car, but are close-by, such as destinations along Soquel Avenue/Soquel village, at Dominican Hospital and Aptos village.

Though initial financial investment is arguably overwhelming, the revenue generated by effective acquisition of ridership through campaigning and polling on specific commuter needs should pay off in the long run. According to the academic report, "Urban Political Transportation Systems", "The logical choice is usually LRT, because it is more efficient in operations for large passenger volume, it attracts more riders, and its operating

costs do not increase linearly with passenger volume (as is the case with buses)”(Vucich 6). The same report explains that rail vehicles are a better option than buses as they are “spacious, comfortable and durable, with life of 30-40 years”(11). The LRT system would be electrically powered, and therefore much cleaner than using a fleet of fuel guzzling buses. Buses are simply not as sustainable in terms in fuel consumption and require much more maintenance for fewer years of service. As discussed earlier, the current bus system has proved to no longer be feasible with increasing costs and flat growth of ridership, and should therefore be phased out as the main source of transport within the county. Another possible benefit of using rail cars to connect various parts of the county is an increase in bicycle use. By reducing the distance people would have to travel between origin and destination, when dropped off at major transit centers, the use of bicycles to travel the last mile or so of a commute is a realistic option. Santa Cruz County is already fairly supportive of biking culture and this service would add convenience to a bikers commute.

Though many will hop on the environmental bandwagon, a decent portion of the population continue to drive due to the fact that the driving culture still has a lot of power in its convenience, especially for families. In order to discourage driving, and especially single-ridership, this convenience should be somewhat reduced. Raising the price of parking and applying other pricing policies can act as a deterrent for single ridership and encourage people to carpool in order to be more economical (Bedsworth, et al). This is a strategy already utilized by Capitola Village, which has moderate to high hourly rates. Since the Village is pretty limited in terms of parking availability and overall area, this pushes people to seek out alternative forms of transportation, whether that is biking, bus-travel, or carpooling. Even though Downtown already has a pay-for-parking policy, prices could be

raised, and parallel parking right along Pacific Avenue could be removed, with bike racks installed in their place. Parking availability at the Boardwalk could also be reduced, with the River lot being utilized as a rail car drop off. The Bedsworth article also mentions that a gas tax should be implemented to discourage gas use, while funding public transit. This would be a good way to bring in additional financial resources for the initial stages and following upkeep of the rail, while pushing people to consider transit as a more attractive option.

A final aspect to consider is ticket/ridership pricing. I propose that the Santa Cruz Light Rail would use a pricing system similar to that of the Santa Clara Valley Transportation Authority. This grid represents pricing according to ages and access-type.

	Single Ride	Day Pass	Month Pass	6-Month	Annual
Adults (19-64)	\$2	\$5	\$60	\$300	\$570
Senior Citizens (65+)	\$2	\$3	\$25	\$125	\$350
Children (5-18)	\$2	\$3	\$30	\$150	\$380
Students/Cabrillo Employees	\$2	\$5	\$30	\$200	\$350

These tickets would be color-coded according to the type of access they provide, and would be purchased either at the transit centers, or at singular kiosks in pedestrian areas proximal to the center.

Effective and financially feasible implementation of the Santa Cruz Light Rail requires community awareness and involvement in the planning process, as its survival ultimately depends how well it serves the needs of the locals. The current bus system has failed to fully accommodate community needs, and has therefore suffered in terms of

ridership and revenue. Its failures can be used to identify various pitfalls of public transport infrastructure within the community. Pressure also has to be applied by providing financial deterrents to discourage and reduce convenience of singular vehicle ridership, and alter the car transportation culture to that of greater use of public transit. Taking cars off the road and putting people into high occupancy rail cars, especially during rush hour and the morning commute, can be a potent remedy for heavy traffic congestion on main local highways such as Highway 1 and 17. This is important as reduced traffic conditions also reduce wasteful rate of use for gasoline and resulting CO2 commissions. The reduction of the output of these greenhouse gases improve air quality and promote a healthier ecosystem. Santa Cruz County is a beautiful place to live, and is home to many unique species, whether aquatic or land-dwelling. Their survival is directly related to how we choose to go about our daily lives, and the role we play in preserving the ecosystem. It is only fair that we treat our hometown with respect, and do our part to implement sustainable lifestyle choices.

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