

APPENDIX A

LOS RIOS TRANSPORTATION CONNECTIONS

***Where to Land:
Optimizing Parking at American River College***

by

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February 2008

Genesis

The California Department of Transportation (Caltrans) has provided a Community Planning Grant to the County of Sacramento, the Los Rios Community College District, and WalkSacramento to fund walkability, bicycling, and transit planning, to be planned for the colleges of the District. American River College, Los Rios' largest institution, is an especially challenging recipient of this assistance.

Problem/rationale

American River College was founded in 1955 and grew during the 1960's (coinciding with the United States' and California's peak use of gasoline). Growing suburbs fueled also by the availability of cheap land conspired to make AR the classic commuter campus. Currently student enrollment continues to grow, but no more land is available for acquisition on the main campus. In line with the plans of the Los Rios Community College District, satellite campuses have been planned and are in operation. AR has operated the Ethan Way Center for a number of years. The Natomas Center on San Juan Road opened for classes in 2006. Great demand has accelerated the date of Natomas's Phase II build-out, yet the main campus continues to grow.

Commuting to campus by automobile is popular; the spring 2007 parking permit purchases are as follows (Cottrell):

Spring 2007 Auto (semester) permits purchased	11,136
Spring 2007 Motorcycle (semester) permits purchased	111
Spring 2007 Daily parking tickets purchased	101,320

Chart 1: Spring 2007 Parking Permit Purchases

Parking was formerly adequate; only during the first two weeks of any semester has there historically been a serious problem of students parking where they should not either on campus or in the surrounding neighborhoods: sometimes for convenience in walking to classes, sometimes simply to avoid parking fees (which persists throughout the school terms). In the fall semester of 2007, parking problems have persisted longer into the semester, although distant spots in the northern and southern parts of the campus continue to be available. The problem is that parking is not well utilized, taking up more room than it should, and leaving little room for pedestrians and bicyclists: those arriving on campus by foot or bicycle (including from public transit) and those walking to and from their parked vehicles and the campus. Furthermore, the vast fields of asphalt are a heat generator: not enough vegetation grows to cool the temperature, shade pedestrians and automobiles, or reduce the warming of the vicinity. Here is the total count of parking spaces as of Fall 2006 (Allegre):

Handicapped	146
Staff	711
Student	3,280
Motorcycle	60
Other*	38
Total	4,235
*includes visitor metered parking, paratransit, 10 minute and 20 minute zones.	

Chart 2: Total Parking Spaces

This total excludes approximately 200 spaces lost to temporary buildings that have housed campus services and classrooms currently displaced due to building renovation. These portables have already been through two cycles of use and will doubtless house other programs and services until more single-story buildings are replaced or augmented with the multi-story variety.

The problem has been widely recognized on campus: American River College's Academic Senate issued the following resolution (2007.01):

Whereas, parking spaces at American River College's main campus are in short supply due to increased number of students, the placement of portables in former parking lots during building construction, and the emergence of "heavy use" days due to the new compressed calendar; and

Whereas, the ability to park is particularly problematic at the beginning of the term due to the unprecedented growth in the number of new students as well as faculty and classified staff; and

Whereas, it is a precondition for effective instruction, that both faculty and students be able to arrive for class on time without having lengthy searches for parking spaces; and

Whereas efforts to enroll, engage, and retain new students and help them fully participate in their new classes, and give their attention to engaging themselves in their coursework are undermined by the unreasonable exertions to secure a parking space during the first weeks of the semester; and

Whereas members of the American River Academic Senate have observed highly emotional and nearly violent interactions between students vying for parking spaces during the first weeks of the semester; and

Whereas the likelihood of emotional or physical harm resulting from such parking lot conflicts can increase unless the situation is improved; and

Whereas during the first weeks of the semester many students park in faculty spaces, thereby forcing faculty, and adjunct faculty in particular to search unduly for parking; and

Whereas access to parking is a negotiated benefit for faculty as defined in the 2005-2008 contract between the Los Rios Community College District (LRCCD) and the Los Rios College Federation of Teachers (LRCFT), Section 3.9; and

Whereas, lack of parking spaces forces students, faculty, and staff to park off-campus, in areas not secured by Los Rios police; therefore,

Be it resolved that the American River College Academic Senate urge the college's Building, Grounds, and Safety Committee to form a subcommittee to develop a short-term and long-term plan for parking on the main campus including the possibility of secured off-campus parking with shuttles at semester starts, carpooling incentives, public transit use incentives, a campus parking garage, better signage for student and staff parking lots, deployment of parking attendants in lots, aggressive enforcement of parking regulations in staff parking lots, employment of parking attendants to facilitate the finding of parking spaces and to control the flow of parking lot traffic, the creation of "park and ride to ARC" locations in strategic locations in the community to augment existing public transportation, and any other effective means of addressing the dearth of parking spaces on campus; and

Be it resolved that the aforementioned subcommittee to the Building, Grounds, and Safety Committee be formed by November 1, 2007; and

Be it further resolved that the American River College and Los Rios administrations implement a short-term parking improvement plan for the start of Spring Semester 2008; and

Be it further resolved that the American River College and Los Rios administrations adopt a long-term parking improvement strategy in 2007-08 to be implemented over the next three years.

In response, AR Buildings and Grounds, a standing committee made up of staff, faculty, students, and administration, plans to address this crisis.

All indications are that AR will continue to grow its enrollment: the recent switch to a compressed schedule has led to a ten percent increase in enrollment for Fall 2007, which is well beyond the expected four-to-five percent bump after community colleges go to the shorter semester. While the new, shorter calendar would seem to move all classes to Monday and Wednesday or Tuesday and Thursday, the campus is so limited in classroom

space available that Friday-only, Friday and Saturday, and even Sunday classes are either scheduled or under consideration. While parking is much easier outside of the Monday through Thursday crunch, a majority of students are on campus during those four weekdays.

The American River College Master Plan makes clear that we are limited to the land we currently use: “There is no plan to pave fields or eliminate any PE programs for parking, therefore the solution will require a comprehensive strategy to meet the transportation needs of students” (35). Given that more classrooms, faculty offices, and space for services must be found, parking will continue to be at a premium.

Solution

The solution is ultimately to replace vehicle trips with walking, bicycling, and transit trips to and from campus. Making spatial changes to the physical environment of the parking lots will support shifting vehicle trips to these other modes.

By reconfiguring the parking lots with smaller parking spaces and narrower driveways, space can be freed up to provide walkways, bike lanes and landscaping. Because many of the driveways are broader than required, AR administrators may narrow those too. The resulting saved space may be used for tree-shaded pedestrian walkways through the parking lots, more pedestrian access to the campus from the streets, and greenbelts that incorporate grassy areas along with the existing trees, plus additional planting.

In addition, AR should create a parking/transportation committee, hire a transportation coordinator, or both. Travel to and from campus, and the utilization of AR’s limited real estate, are issues that must be addressed, and other colleges in the district have done so more thoroughly than has this institution. It has been suggested that one transportation coordinator be appointed at the district level, rather than one at each college.

Mechanics

General Mechanics

Currently AR’s parking spaces are about ten feet wide and seventeen feet long (170 square feet), well above the standard for U.S. parking lots. Furthermore, the length of each spot and width of many passage ways could be adjusted downward to meet current standards.

Walking tours of the campus conducted by Dan Burden, Director of Walkable Communities for Glatting Jackson Kercher Anglin, and David Evans of SFE Urban Design confirmed that the parking spaces are larger than today’s standard. To verify this, this researcher visited Los Rios’ newest parking solution, the parking structure at Sacramento City College. The five-story structure at SCC has two parking space sizes; the ordinary parking slots measure seven feet wide by fifteen feet long (105 square feet). Those marked “compact” measure six feet by twelve feet (72 square feet). Even if AR

does not shrink its parking spaces to these two sizes, it will still gain considerable room to accommodate cars and humans. Clearly, the savings in size will add up and create more space for pedestrians and bicyclists in AR’s existing land devoted to parking.

If we restrict our measurements to just student and staff parking, the 4,029 spaces account for 170 square feet each for a total of 684,930 square feet. Not even going as far as SCC has by only narrowing spaces to eight feet wide and shortening the length to SCC’s fifteen feet, the total space for parking alone falls to 483,480 square feet, when a 25-square foot parking space is multiplied by 4,029—a savings of 201,450.

Number of spaces	Square feet each	Total square footage	Savings
4,029	170	684,930	0
4,029	120	483,480	201,450

Chart 3: Savings in Space by Reducing Parking Space Size

Once driveways are added to the figures, space expands even more. For the total 4,235 parking spaces, we divide by two to account for rows of parking spaces facing each other and sharing passage lane. If we multiply those by 10 to account for the width in feet of the current parking spots, the total is 20,145 feet. If we change each spot’s width to 8 feet, the total drops to 16,116, a savings of 4,029 feet.

Number of spaces	Parking space width	Total length of driveway
4029	10	20145
4029	8	16116

Chart 4: Savings in Space by Reducing Driveway Width

Given the general 24 feet of separation between rows of parking spaces (25 feet for the metered spots in front of Priest Administration), were AR simply to reduce the width of parking lot driveways to 20 feet, driveways only take up 402,900 linear feet, down from 483,480 with a 24-foot-wide driveway, a savings of 80,580 feet. This is using the old square footage: under the new length of driveway, the total drops to 322,320, for a dramatic savings of 161,160.

	Length	Width	SQ Ft	Savings		
1)	20145	24	483480			
2)	20145	20	402900	80580		Keeping length the same
3)	16116	24	386784			With shorter driveways
4)	16116	20	322320	64464	161160	Subtracting 4) from 1)

Chart 5: Savings in Driveway Length and Width

With all these changes, the savings in square footage is 362,610, more than enough add walkways and bicycle lanes.

Total savings			
Spaces savings		201,450	From chart #3
Driveway savings with old length		80580	
Driveway savings with changed length		161160	
		282,030	Total for old length
		362,610	Total for new length

Chart 6: Total Savings in Parking Lot Space

Examples of Benefits

A pedestrian walkway in the north parking lots running from the easternmost Myrtle Avenue gate to the sidewalk to the north of the cafeteria would be 10 feet wide by 724 feet long, for a total square footage of 7,240.

A greenbelt with trees and grass running through a student parking area in the north lot would be 5 feet wide by 384 feet long for a total square footage of 1,920.

Clearly, plenty of room exists within the 362,610 square feet gained for several such projects.

Further Mechanical Issues

In addition to restriping the parking lots, replacement curbing and other concrete/asphalt work must be done in order to build walkways, some of which must be raised pedestrian islands. Further, parking lot aisles that are focused on providing the most direct pedestrian access to campus walkways are preferable to aisles parallel to destinations because they cause pedestrians to weave their way through the cars to get to the campus, as is currently the case.

Greenbelts will also require trenching and plumbing to install irrigation systems. All lots and some surrounding land will need to be engineered for adequate drainage from the additional water use. According to Preston Harris, AR's maintenance supervisor, a full-time maintenance employee would need to be hired so that the greenbelts may be regularly serviced: pruning, trimming, sprinkler maintenance, and so on will be required.

Years ago, it was possible to drive from the north to the south parking lots without leaving campus. Now motorists must exit the campus and use county streets—Myrtle Avenue and College Oak Drive—to move from north to south or south to north lots. Reopening the driveway between the two, which runs near the eastern boundary of the campus between the cafeteria and the gymnasium, will reduce congestion on the

surrounding surface streets. Coincidentally, this change bring more eyes and headlights to one of the least safe areas of campus for pedestrians due to muggers, sexual predators, and the like. The north wall of the Learning Resources Center is bereft of windows and thus an incentive to mayhem currently.

The worst offender as a pedestrian-proof driveway can be found at the intersection of Myrtle and Walnut avenues, at the northeastern entrance to the campus. Currently one southbound and two northbound lanes circulate vehicular traffic on campus and in and out of it. One possible solution is to reduce the traffic lanes to one northbound and keep the one southbound, allowing the remaining space to be divided between pedestrian walkways and bicycle lanes. If the administration would prefer to widen driveways to keep the current traffic lanes but add pedestrian walkways, the benefits would be similar albeit at a higher cost.

In addition to the benefits accruing to faculty, staff, and students, this proposal will also help the community surrounding the campus. On weekends neighbors often use the campus for health benefits: specifically, when no athletic events are scheduled, they walk or run around the track at Beaver Stadium. This proposal will improve access to the campus with a mid-block protected crosswalk on College Oak Drive between SALAM and Orange Grove Avenue.

This is well in line with suggestions from the Master Plan:

Strategies to supplement on-site parking include the following:

Provide off site parking lots either with frequent campus shuttle service or within a safe and convenient walking distance.

Encourage other forms of transportation:

- Bicycles: Increase safety of bike routes and improve the access to and through campus with clearly identified bike lanes.
- Carpooling: Allow these parking stalls to be located the front of each parking lot to promote convenience.
- Bus and shuttles: Increase the frequency of a campus shuttle service in the community and provide convenient bus service to common destinations.

Another solution to the shortage of surface parking would be to build a parking structure. At this point in the master planning process the funds are not available. (35-37)

In any case, a parking structure would be built upon what is currently surface parking. Since the Master Plan points out that additional land adjacent to the campus cannot be purchased and that other buildings or activities will not be eliminated for the growth of parking, and “[i]mproving efficiency and circulation will maximize existing lots but not provide the parking needs projected for 2015” (37), the college seems firmly ensconced between a rock and a hard place. However, the suggestions of the consultants who visited AR in 2006 and 2007 show that reducing the size of parking spaces and drive

lanes will at least keep the same number of parking places and add room for pedestrians, cyclists, and greenery.

Overall Benefits

Currently, walking through AR's parking areas requires taking one's life in one's hands—or at least taking one's safety lightly. Providing space to accommodate pedestrians as well as cyclists and motorists will improve safety.

The saved space may provide more than just land for walkways and greenbelts: it may free room for an integrated on-campus transportation plaza, moving all RT stops to the college's side of College Oak Drive, or even for additional campus structures.

The advantage of new green space cannot be overemphasized: this will benefit our campus population immensely, especially through Sacramento's hot months. August temperatures are often in excess of 100 degrees, and keeping students and staff cooler and healthier. Because American River College is in a mainly residential area bordering a business district and Interstate highways, cooling the temperature of the Foothill Farms community is vitally important to our college's being a good environmental citizen.

Possible Objections

It could be argued that spaces would be too narrow: Sacramentans have not given up their love for full-sized pickup trucks and SUVs, and our students and staff are no exceptions.

Driveways would be too narrow: this will increase parking accidents.

Law enforcement, safety: as elsewhere, violent crime, including sexual assault, is rising on the AR campus. With the addition of more trees and greenbelts, Los Rios Community College Police Department (LRPD) officers will lose line-of-sight advantages now available in protecting the public.

Similarly, opening a perimeter road again along the eastern edge of the campus will increase auto-pedestrian, auto-cyclist and auto-auto accidents due to increased congestion and speeding by motorists, overtaxing the LRPD.

Rebuttal

Fortunately, rising gasoline prices and student commutes that have become no shorter have made gas-guzzling vehicles less popular. We expect the transportation fleet to become smaller as time goes on.

The narrow driveways will certainly making parking and driving more precarious, but the added space and the slowing of traffic on campus will make it worthwhile. Regionally, the City of Sacramento has narrowed several downtown and midtown streets by one traffic lane to add bicycle routes with no major changes to traffic patterns. Furthermore,

AR has had to install a large number of speed humps and platforms owing to the width of the lanes into the lots. The consultants indicated that narrowing traffic lanes discourage speeding. Since this would allow more room for pedestrians and bicyclists, the benefits would accrue quickly.

We would encourage adding police officers, patrols, and equipment for the improvement of public safety on AR's campus. We have been told that law enforcement grants are available to increase staffing and provide hardware for enhanced policing. Furthermore, we need not fear an open perimeter road on the north side of campus. Law enforcement professionals tell us that the punitive nature of their occupation must be de-emphasized in favor of safety, service, and education. In any case, a commuter campus such as AR cannot act "*in loco parentis*" and treat its students—much less its staff—like children.

Changes to the Master Plan

The Master Plan for American River College already calls for changes in parking utilization. As can be seen from the illustration, the Plan calls for more trees that this proposals demands. We argue for proceeding with this plan because the Master Plan does not allow for logical egress through the parking lot to desire lines and because this plan calls for green belts with grass and/or shrubs in addition to trees. This would potentially save money as well as optimize safety and convenience for pedestrians.

Suggestions for Further Improvement

This is but a small step toward improvement pedestrian and bicyclist access to American River College. Other possible projects include but are not limited to the following:

All the streets surrounding AR need to be "completed": sidewalks are inconsistent on both College Oak Drive and Myrtle Avenue. Bike lanes, while they exist, are too narrow in spots for cyclists to safely share the road with motorists. In addition, Winding Way is so narrow that automobile must share the road with only bicycles, not pedestrians.

To alleviate the latter, a bicycle and/or pedestrian bridge over the Winding Way-Walnut Avenue intersection leading to the trail bordering Arcade Creek is a possible solution.

A former AR faculty member cleared a pedestrian hiking trail paralleling Arcade Creek east of campus during the 1960s and 1970s. It has not been maintained but is still used by area residents, especially on weekends, and at all times by transients. Cooperation between college, district, and county authorities to improve, maintain, light, and patrol this trail could result in a beautiful and useful path from Winding Way all the way to the corner of Madison and Manzanita avenues. If all or part of the trail is converted to bicycle use, it could potentially connect to Winding Way's bicycle trail, with the eventual goal of being joined to the American River Parkway bike trail that runs from Folsom to Davis.

Pedestrian crossings on Auburn Boulevard, College Oak Drive, and Myrtle and Orange Grove avenues are dangerous and should be improved.

An on-campus transit center for Regional Transit buses would alleviate much of the dangerous street crossings by moving all AR bus stops to College Oak Drive. In addition, this would reduce problems with students being dropped off by private vehicles if we were to provide drop-off space within this transit plaza. This researcher is aware that a previous transit center in the current "E" lot west of Davies Hall was eliminated as a result of staff members desiring closer parking to their work stations. A number of incentives could be offered to keep this location: new staff-only parking elsewhere on campus or a union contract change that allows reimbursement instead of a free parking permit (more about this below) are two possibilities. In addition, a transit center in the stadium parking lot might be an alternative. (A transit plaza in the north lots is not advisable: currently Paratransit drops off disabled passengers there using smaller, van-based vehicles, but the possibility of full-sized city buses driving regularly on narrow Myrtle Avenue would be a nightmare for all involved. A center at the corner of Myrtle and College Oak would seriously impact fine arts facility parking, especially when performances are scheduled.)

The bus schedule between campus and the I-80/Watt Avenue light rail station is poorly coordinated. A shuttle bus running between campus and the station, on the model of the Hornet Dash bus serving California State University, Sacramento, is a possible solution. In addition, a trail exists between the two locations that includes a bridge over the creek on Pasadena Avenue. Were this to be widened and the area lighted and patrolled, pedestrian traffic into the neighborhood would increase, perhaps reducing the use of private vehicles.

One of AR's disadvantages could be turned into an opportunity if we were to fit the campus with solar collectors. In addition to the tops of buildings, collectors could be installed over parking lots and walkways to not only add electricity to the power grid but to shade the summer sun that is often the bane of this campus's vernal existence.

A possibility for legislative action could be asking the state to allow differential parking rates for different times of the year (charging less as the semester goes along, for example) or charging more for near-in parking and less for more distant spots. In addition, semester parking passes could be sold for more than daily passes, making motorists choose savings or convenience and encouraging alternate modes of travel to campus. Because state law currently prohibits such remedies, a concerted effort by all interested parties is required.

Faculty could make parking part of collective bargaining negotiations: perhaps free parking could be exchanged at a professor's discretion for a free bicycle locker or an RT pass. Perhaps differential parking could allow faculty to park in distant lots for free and in closer lots for a fee.

Conclusions

Adapting a 1950's community college campus to the twenty-first century is no small feat. No doubt parking at AR was added on at times with good planning in mind, at other times in an ad hoc fashion, but currently it isn't working as it should. This is a campus for cars, not people, and as soon as we can adapt our land and structures to the best uses for people, we will reap the benefits of better accommodated students and staff.

Sacramento, one of the nation's most car-dependent metropolitan areas, must at the very least begin to wean itself from this dependency. The sooner small parts of the area, such as our very popular community college, begin to do their part to change to balance to more pedestrians, more cyclists, and more transit riders, the sooner we can alleviate the effect on government budgets, individual and family expenditures and degradation to the environment and the quality of life.

Energy savings and global warming were on few people's radars when this campus was built; now both are elementary problems to address. Implementing this plan will make the campus friendlier to pedestrians and the environment.

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