

Quarry Village: How You Can Help and Work to be Done

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I. [How You Can Help.](#)

- A. **Easy.** Scan this website, sign up for a place, put some money down, fill out the survey, and subscribe to the newsletter.
- B. **Pretty easy.** Tell other people about the QV website, the personal opportunity, and the social value.
- C. **Hard.** If you have expertise in any of the skills we need you could get involved more deeply: foundation grantsmanship; real estate financial lending, planning, and development; civil engineering, on-site runoff management and conservation landscaping; solar energy and energy conservation; environmental and efficient construction materials and techniques; town planning, architecture, and design; transit technology, ridership, and financial analysis; community involvement and advocacy; public service advertising; and market research. See also “other research “ below.

II. [Market Research.](#)

- A. **The Challenge.** Demonstrating market feasibility is the most difficult aspect of QV.
 - 1. Ordinarily, lenders look at “comparables” and other factors to see if a “pro forma” of the development has realistic prices and a good “absorption rate.” Comparables are rents or prices of similar housing in the same market area. A pro forma is a financial analysis of cost and income discounted by year to estimate profitability. The absorption rate is how fast the market can sell or rent units of a given type in a given area. Good comparables, however, do not exist for a unique product like QV; there are no comparables in Hayward. There are partial comparables in San Francisco, Oakland, and Berkeley, but the distance from Hayward and other differences make them problematic. The usual experts— developers, investors, architects, engineers, lenders, Realtors—do not know enough about this market to be a good sources of information. There is a lack of expertise about the market for transit-served rentals and townhouses with limited and expensive parking
 - 2. Further increasing the challenge, HAPA has limited funds for research, and if funds are not available to buy the property when Caltrans wants to sell, the land will be sold

- to other bidders who will be unlikely to pursue QV concepts.
3. We have been unable to find any housing marketing consultants with experience in apartment rentals or condominiums with limited parking in dense, transit-served areas. There are realtors with experience selling in specific areas, and experts on smart growth (with cars) and new urbanism (with cars), but no real consultants with the experience we need.
 4. Even if we develop data showing market demand, developers and lender may not believe it. If they know that there must be more parking, information is irrelevant.
- B. Our fall-back **theory of market demand** is that prospective renters and buyers who a) have positive attitudes, b) have travel patterns supported by Quarry Village, c) want and can achieve savings on rent, utilities, and less car use, and d) say they would want to live there, would be evidence of demand. If a person puts money down to reserve place, it would be even stronger evidence. Enough prospects would show enough demand. If many hundreds or few thousands of people showed clear reasons why they would want to live in QV, and even put money down, it might persuade developers, the City of Hayward, and lenders to take it seriously
- C. **Market research needed.** The interest of potential renters or buyers depends on their ability to understand what we are trying to sell. Interviews are needed that are long enough for respondents to overcome the cultural inertia of auto-dependency and to develop an understanding of a new lifestyle. The interview needs to inform respondents about new mobility options, let them absorb the information and ask questions, relate it to their needs, and understand the pros and cons of QV for their individual concerns. Respondents would discuss their particular trips, visualize life at QV, and then be able to make a realistic response. We also need information on type of unit desired, choice of rent, rent-to-buy, and buy, and desire to rent a parking space.
- D. **Absorption.** The demand for housing in the Bay Area and Hayward is strong, as shown by high home sale prices, recently rising rents after the dot bust downturn, and job increases outside Silicon Valley. According to ABAG projections 2003, Hayward will grow from 45,000 housing units in 2000 to 53,500 units in 2030, an increase of 8,600 units or 19 percent. The 800 units along Mission and 1000 units at QV combined would be 21 percent of the growth in Hayward over 25 years. ABAG numbers should be understood as trend projections and not as what should happen. They do, at least, provide a sanity check indicating that, yes, there would be enough *general* demand for housing in this area. Research is needed to see if *specific* demand exists for QV style housing.
- E. **The car-free market.** The market for QV **should not be prejudged**. The **more market segments** served, the bigger the market, and the more feasible the Village. The car-free aspect is the hard part of the proposal, but there are good reasons to believe it can appeal to everyone: younger and older; students and non-students; faculty and staff; workers; families with and without children, singles, and couples; affluent, middle, and lower incomes; health nuts and eco-life-stylers; money savers and big spenders; short stays and long term; renters and buyers; all races, creeds, and cultures. Remarkable though it may

seem, people continue to be born with legs, and 100 years ago American cities were thriving modern places where hardly anyone had a car. An amazing number of “Europeans” use legs and actually have a higher quality of life and health than we do. Many Americans go to Europe and actually “walk.”

F. The Existing Market.

1. The rentals most comparable in quality to QV would be Wimbledon Woods just above the site and City Center Pinnacle by the Hayward BART station. Less expensive, older apartments in the Corridor include those on Orchard Ave. and Hayward Blvd.
2. The condominiums most comparable would be Atherton Place, City Walk, and Renaissance Walk. Other condominiums in the Corridor include Creekside and University Hills.
3. These and other communities in the Corridor should be surveyed to find their rental and price levels, size and room configuration (studio, 1 to 6 bedrooms), vacancy rate, and student tenants. Rental and real estate ads in the Daily Review and Oakland Tribune and on the web could be checked for rent levels and condo prices. Realfacts, a private information service, has much data on larger apartment communities.

G. Market Survey. The car-free element requires **special market survey research** to educate prospective tenants about how they would live without a car. The following discussion is comprehensive; actual research would have to be more focused and affordable.

1. Marketing materials should include:
 - a. a promotional brochure, a sketch site plan, a perspective drawing, floor plans, rent levels and sales prices based on the pro forma, site features, and the transportation features (limited parking separately paid for on a market basis, Village Bus, Ecopass, taxi vouchers, minibus).
 - b. a mobility brochure or chart which explains the project to respondents. The Overview document and Mobility pages of the website do this, but it may also be helpful to prepare a brochure or chart on how to make trips. It would include a list of accessible local businesses by type, location, and distance from Village, and travel times by walk, bus, and BART modes to various destinations. The material would have a description and graphics showing how typical residents would travel without routine use of an automobile. The material would include trips for all purposes such as work, BART, Cal State, groceries, meals out, banking, movies, video rentals, cleaners, car rental/car share, airports, recreation, and open space. It would allow a respondent to answer questions about his or her own travel needs.
2. Questionnaire development
 - a. We need a short questionnaire to screen out people whose travel patterns won't work at the Quarry. We need to concentrate on those who might fit.
 - b. A longer survey has been developed and pretested for self-administration on the web.
 - c. We need to continue to develop the survey with details about the project for interviews, for focus groups, and mail-back questionnaires. A longer

questionnaire protocol would use of the marketing materials described above.

- H. **Market segments.** See website, Supporting Different Lifestyles. The many market segments discussed below overlap. Generally, we need to reach prospects by email, newspaper or real estate flyer advertising, mailings, and other methods, to get surveys and interviews by web submission, by phone, in person, or in focus groups.
1. **Cal State students.** Student surveys show a strong demand for affordable rents very close to the campus. Two market **surveys of Cal State students** have been completed. Significantly lower rents are the major reason, according to both studies, why so many students would want to move to QV. The students require, and would have, the ability to reach the campus, basic shopping, and work in an acceptable travel time. The second most important reason was to improve personal health through walking more, and the third reason was benefits to the environment and national security. The first survey had 81 respondents and found about 22 percent of students would probably move to QV. Probable movers had positive attitudes, wanted to save on rent, and could get where they needed to go without routine use of a car. The student market alone showed enough demand to fill the Village. Details are available in the report, "Survey on Access and Housing for Cal State Enrollment," April 21, 2004. QV should especially appeal to student now paying market rents and living in the Hayward-Castro Valley-Union City area.
 - a. Finding, interviewing Cal State Students January 2006
 - (1) Meet with AS leaders, do email to all students with simple questionnaire
 - (2) Survey student sub-categories: Pioneer Heights, renting in the area, in classes
 - (3) bulletin board ads
 - (4) in-class questionnaires
 - (5) email requests for taking surveys on-line
 - (6) advertise in the Pioneer.
 2. **BART riders**, especially workers, also including those who work in the Corridor and downtown Hayward.
 - a. Station posters and placards in BART cars seem to be too expensive.
 - b. We could hand out brochures in station evening rush..
 - c. How could we find BART riders to interview?
 3. **Home buyers.** The more QV can appeal to buyers the better, because most of the housing market is buyers, and they can bring to QV the serious long-term commitment that can help it succeed. A portion of those seeking homes in the area would want to invest in the QV, as it is affordable and has a high quality lifestyle for excellent value.
 - a. We need to see if local realtors would allow our brochure in their offices, hand it out themselves, or allow us some other way to interview home seekers. We should see if we can get a focus group of home seekers.
 - b. We could advertise in home-seeker real estate publications in supermarkets and realtor offices.
 - c. We could advertise in the Daily Review or other paper in classifieds or display ads.

- d. We could interview townhouse owners in downtown Hayward and on Hayward Blvd. or invite them to a focus group.
4. **The budget conscious.** People who need to save money, and, more specifically, those seeking rentals or already renting at market rents in the Corridor, could be better off at QV. Many will be car-dependent, but market research may find a portion interested in QV.
- We could mail brochures, send post cards, or call to apartments in the Corridor; we could get acceptance by the Rental Apartment Owners Association and a list of complexes, as well as use that of Realfacts.
 - We could advertise in renter publications found in supermarkets, realtor offices, etc.
 - We could advertise in the Daily Review or other paper in classifieds or display ads. A classified ad could be worded something like “Eco-housing proposed in Hayward; affordable, no parking, easy access to Cal State and BART 1 Bdr \$954/mo. 510-538-3693 www.quarryvillage.org.” We could do phone interviews of those who call.
5. **Health conscious, active life-style.** How can we reach them? Health clubs/fitness centers? What media do they use? How much do they overlap with environment?
6. **Concerned about the environment.** QV is a major improvement over suburbia for sustainability, quality of life, oil supply and reducing global warming emissions. It is, in fact, much better than Smart Growth, which does not reduce auto use very much. See details under The Benefits. This category also includes political, religious, and spiritual progressives seeking to walk the talk.
- We could advertise in *Yodeler*, *Express* or *Guardian* asking people to call, email, or use website.
 - We could try classifieds in Oakland newspapers.
7. **Retired and empty nesters.** How can we reach them? Any local area media to seniors? Mailing to homeowners in local zip?
8. **Families with children.** The idea that families with children could not thrive at a place like QV is myth. The car-free projects in Europe are full of kids. The townhouses on QV’s north side are large, family-sized units and have a children’s play area and fencing to make caring for toddlers easier. Transportation for schools could be by the minibus owned by Quarry Residents Association, and Village Bus comes close to the Cal State Early Childhood Center (ECC). The ECC and Highland Elementary School are less than a mile away but not walkable; the junior high and high school are further away. All are easily reached by minibus. The campus now provides child care at the new Early Childhood Center, a high quality facility with room for 80 to 110 children.¹ The ECC is a result of a partnership among Head Start, State Preschool, and the Cal State

¹ Janice Fonteno, ECEC Director, 885-2571, wwwsa.csuhayward.edu/~eccweb/Index.htm). In 2003 ECEC operated from 7:30 a.m. to 5:30 p.m. Costs involved \$25 tuition and charges that ranged from \$12.50 per half day to \$32 per day. A child must be enrolled a minimum of 2 days per week, 4 hours per day.

Associated Students. The ECC has programs for infants, toddlers, preschoolers, and nutrition. The ECC meets Head Start standards and is accredited by the National Association for the Education of Young Children and is a very high quality program. ECC maintains a ratio of one staff to four children or infants, and that limits the facility to about 80 children.

- a. If the Village attracts enough children to justify child care larger than in a home, the Office Building will have a room with bathrooms usable for child care and this room will open onto a fenceable park area big enough for a play area. QV will have then a facility easily used for child care, understanding that many additional requirements have to be met before providing such care.
 - b. This group seems to overlap with home seekers or with those seeking affordable rentals. Could we go to local child care and schools?
9. **Young singles and couples.** Want somewhere to live that is more exciting than watching grass grow? QV makes socializing easy for many different interests, and the Village Bus provides handy access to BART, Cal-State, and downtown for restaurants and shops. Hiking/biking trails lead from the Village to Garin Regional Park and Memorial Park, with miles of trails and picnic areas.
- a. This group also seems to overlap with home seekers or with those seeking affordable rentals. We could try Craig's list.
10. **Mobility for the disabled.** Every ground floor entry, about 333 homes in total, has no steps. There are no curbs from the units to the Village Center and Village Square, and the bus will have no step entry with wide doors. QV will implement elements of universal design to accommodate the disabled, especially for users of wheel chairs and the visually impaired.
- a. We could talk to the local agency for the disabled, CRIL.
11. **Women.** Women are more concerned than men about their personal physical safety. Women generally feel more vulnerable to crime and are more sensitive to street safety issues than men. which is why there are many special, even unique, security features built into the Village. Women now significantly outnumber men at Cal State, 6,051 to 3,477 for undergrads in fall 2001, and 2,365 to 1,347 for graduate students.
- a. This group overlaps with the others.

III. Timeline and Implementation

A. **Market research.**

1. **Website.** From September to December 2005 we did planning and financial research and created the website, www.quarryvillage.org. We launched a beta version of the web site for comment in mid-December 2005 The website contains user-friendly explanations, documents like this report, and interactive pages for signing up for the newsletter, taking a survey, reserving a spot, and making a deposit on a spot through PayPal.

- a. The concept of an on-line deposit to reserve a unit worked quite well for the BedZED project in Beddington, London. Using www.zedfactory.com/home.html, BedZED signed up 1,000 people to buy 82 houses in their development.
 2. In January 2006 we developed operating costs to meet requirements of the Department of Real Estate, sought financing data, wrote the overview, and wrote this document.
 3. From February to June 2006 the primary activity will be market research..
 4. When we get firmer rent and sale prices, we will make a public announcement and advertise the website, asking people to log onto the website, check us out, sign up for our newsletter, to take our survey, and reserve a spot in the Village. We will be seeking interviews with the ten market segments, as discussed above. We will revise the website and issue newsletters.
 5. **Mailings.** We will mail out an initial newsletter, a one-page tri-fold brochure explaining QV project and asking people to log on, check us out, take the survey, and reserve a spot.
 6. **Contact database.** HAPA will develop a long list of mail and email address for distribution of information to interested parties.
 7. **Newsletters.** The first will be the one-page brochure. HAPA will do about 5 more newsletters to June describing progress of research, results of the student surveys, and a report on rental parking charges at East Bay apartment complexes.
 8. **Commerce.** As time allows, we need to get more information about sizes and types of businesses QV can support.
 9. **Market Database.** The market information on the 10 markets will be kept in a data base to show investors and other interested parties.
 10. **Report.** About the beginning of June we should de-emphasize data collection and analyze what we have to prepare a report of our findings. The market research will influence the size and distribution of unit types and the marketing split among rent, rent to buy, and sale units. The size of the project will be influenced by how many people we need to support a good grocery store, restaurant, and café. We will make an estimate of demand or absorption rate for various units at various rent levels and a recommendation as to the mix of rental and ownership and sizes of units. We will recommend future research.
- B. **Support from local neighborhoods.** We plan to go to the two neighborhoods close to the Village. The Palisade neighborhood just west and below has many Caltrans tenants and is probably most interested in traffic, but visual impacts are very limited. The Highland neighborhood just north and above has visual impacts but less traffic impacts. I believe most of them can be persuaded to acquiesce in or to support QV because it will have less traffic impact than conventional development and will look as good.
1. **Traffic.** The quarry property now has a general plan designation that permits development of 277 to 555 units. Ordinary apartment units generate about 6 vehicle trips per day. QV parking allows with 100 units would generate 600 trips per day at most. Car-oriented development of 500 units, the high end of medium density, would generate about 3,000 trips, about 5 times more traffic than QV. People will be able to see the logic of this but they may just not believe it.

City of Hayward General Plan

Land Use Designation	Units per acre	Total units	Car-based units	Trip generation
low end medium density	8.7	277	277	1,664
high end medium density/	17.4	555	555	3,329
low end high density				
high end high density	34.8	1,110	1,110	6,657
QV		1,000	100	600
Acres	31.88		Trips per unit	6

Note: The single family area on Palisade and Overlook is designated for single family. The quarry site is designated for medium density.

2. Visual impacts to the west are minimal except for a few Caltrans houses on Overlook and at the top of Palisade. The Highland neighborhood to the north is also mostly Caltrans housing and overlooks the quarry site from above. The quarry site now is an eyesore, so well-designed development with landscaping would be an improvement.
- C. **Support from local businesses.** Many businesses would probably like the increased patronage from the Village. Businesses could be concerned about poaching by QV residents but they would also get new customers delivered by transit. We could meet with businesses along Mission Blvd. to discuss the Village and commercial parking management.
- D. **Support from the community.** For the community as a whole, two public workshops during the planning process would be appropriate, the first to inform interested parties about the research and collect their ideas about the general proposal, and the second to explain the outcome of the study and collect opinions on a specific proposal. Local business expansion, visual impacts, and traffic issues for the local neighborhoods would be discussed. We should also meet with the community groups, Chamber, development interests, and the City.
- E. **Support from Cal State.** QV would add to campus life and provide better access and more affordable housing for students.
1. The Cal State administration currently would like the quarry property for faculty housing. HAPA proposes an alternative area for this purpose that could work better: the Bunker Hill area, which is also close to campus, large enough, owned by Caltrans, already subdivided, and has better views. The area has 48.5 acres, 56 existing houses, and potential for 127 more houses. It would require an assessment district to complete the road system, i.e., a short connector from Bunker Hill to Carlos Bee Blvd. and a short connector from Bunker Hill to the campus service road on the west side of the campus.
 2. The campus administration is also concerned that QV could reduce demand for the expansion of Pioneer Heights, the student apartment complex on the campus. QV, however, would not be built until years after Pioneer Heights II. The campus administration is concerned there may not be enough demand for QV. The ABAG

projections indicate enough general demand, but the question remains if there is enough demand for car-free housing, which is a major purpose of this research.

3. The Village Bus needs to go to the center of the campus. The administration is concerned about safety. The route would either not conflict with pedestrian movement or use a short distance already used by vehicles from the upper entrance to the gym to the unused east entrance to the library. The route crosses pedestrian ways at two points with slow speeds and high visibility. If the route were to go around the campus, it would be less visible, take much longer, conflict more with other vehicles, and have many more conflicts with pedestrian crossings of the loop road.
4. HAPA will seek support from Cal State faculty, the Academic Senate, staff, the Pioneer newspaper, students, and the Associated Students.

F. **Support from environmentalists.** The Village is being promoted by environmentalists.

G. **A developer.** QV needs a private developer to partner with HAPA. Private development avoids the increased costs and regulations of non-profit housing or a redevelopment agency. The housing should be affordable without subsidies, but that requires keeping costs down, which can not be done through the public or non-profit sector.

1. A private developer could help HAPA get private activity bond financing or community reinvestment funds. A commercial bank like Bank of America could make a loan. Banks face requirements under the Community Reinvestment Act to make non-commercial loans for disadvantaged persons, and QV could qualify.
2. Local **non-profit housing corporations** include Eden Housing and Allied Housing in Hayward, Bridge Housing and Citizens Housing Corporation in San Francisco, and Affordable Housing Associates in Berkeley.

H. **City of Hayward and the Metropolitan Transportation Commission.**

1. The first step is some informal understanding and early conceptual support from members of the City Council. They will be skeptical but can be persuaded if local neighborhoods, civic groups, environmentalists, and developers are supportive.
2. Second, the City of Hayward, with support from the community and the QV partnership, would get funds from the Metropolitan Transportation Commission to do a Specific Plan and zoning for the Corridor, leading to plan amendment, zoning, and an approved Specific Plan Environmental Impact Report (EIR) that includes QV as an option for the quarry property. MTC supports integrated land use transportation planning. The level of detail would cover project-level issues so that project level EIRs would not be needed. The EIR should also include a Health Impact Statement dealing with the health benefits of smarter smart growth compared with suburbia. A corridor specific plan is the best level of geography to make decisions that make sense for urban function, can be understood by the public, and can involve the public in hashing out all the issues. Developers can not afford the time, cost, and risk of this part of the process, especially for innovative projects.
3. Third, the QV partnership needs to acquire the land. Investors will only be willing to put up funds if the regulatory risks are reduced; the market risks are great enough to create problems. The Specific Plan needs to be in place, if necessary delaying sale of

the land until it is. Such delay also reduces regulatory risk for conventional development, which is also covered in the EIR. Having secure regulation in place increases the value of the property and decreases the uncertainty and volatility of a sale with no zoning in place.

- a. It is, therefore, in Caltrans' interest to get secure zoning. A 2004 law for State Route 238 in Hayward, SB 509 (Figueroa), regulates the sale of the land. Once the City of Hayward completes its plans for Foothill Mission improvements and needs funding from the sale of Caltrans land, Caltrans under SB 5089 will declare the land surplus and sell it to the highest bidder.
 - b. It is desirable to amend SB509. It should be amended to end the special exemptions to law which now prevent the sale of the land for affordable housing. There is no need, probably, to reduce the price below the value for conventional development because QV development should be more profitable. Other parties also have an interest in amendment. The Cal State for faculty housing, the East Bay Regional Park District for land south of Harder Road, Caltrans tenants who want to buy their houses, and non-profit housing corporations that should manage the apartment buildings all have a stake in reducing uncertainties regarding sale of surplus right-of-way from the defunct Foothill Freeway.
 - c. If the QV partnership has problems buying the land on time, the City could buy the land at auction within some ceiling market price and sell the land to the QV partnership under an option the partnership would pay for.
4. Finally, the developer would do a negative declaration on QV, tiering off the Specific Plan. "Tiering" means that the Village review does not have to cover any issues covered in the Plan EIR. The QV partnership could obtain construction loans and do the detailed planning leading to construction.

- I. **Public financing** may become necessary or desirable to make the QV work.
1. Funds for subsidized housing are limited to low income households such as senior, family, disabled, school, farm worker, and student populations.
 2. For the low-income part of the Village, a non-profit housing corporation would likely apply for a Proposition 46 (2002) Multifamily Housing loan and a California Housing Finance loan (based on tax exempt bonds). Other possible sources include four percent and nine percent tax credits.
 3. Low income is defined as below 60 percent of local median income for Prop 46 and below 50 percent for tax exempt bonds. The US Department of Housing and Urban Development determines income levels for each county and each size of household. The information is on the state website under Department of Housing and Community Development, HCD Loan and Grants Program, Income Limits, and also under State Treasurer's Office, Tax Credit Allocation Committee, Maximum Income Levels.² A Tax credit application could get extra points for its smarter smart growth. The units cannot be rented to students, defined as full-time students working part-time or less.

² The HCD site is by county. Alameda County has a median income of \$82,200 for a family of four. HCD: <http://www.hcd.ca.gov/hpd/hrc/rep/state/incNote.html>. Treasurer: <http://www.treasurer.ca.gov/ctcac/ctcac.htm>

However, part-time students, students with full time jobs, and students with working spouses are eligible.³ There is also a small program for housing Villages near state universities serving low income students. Several sources may be needed, each tailored to a specific part of the Village.

Tax Credit Allocation Committee
2004 income limits, Alameda County

% of median	1 person	2 persons	3 persons	4 persons
Very low income 50%	\$29,000	\$33,100	\$37,250	\$41,400
Lower income 80%	\$46,350	\$53,000	\$59,600	\$66,250
Median income 100%	\$57,550	\$65,750	\$74,000	\$82,200
Moderate income 120%	\$69,050	\$78,900	\$88,800	\$98,650

2004 maximum rents, Alameda County

	Efficiency	1 BR	2 BR	3 BR	4 BR
Very low income 50%	\$725	\$776	\$931	\$1,076	\$1,200
Median income 100%	\$1,450	\$1,552	\$1,862	\$2,152	\$2,400

J. How QV would be constructed. The topography lends itself towards doing the construction in stages. The site will be built from south to north. The Village Center and each floor plan and its buildings could be a stage. The site now needs cleaning up. Major grading save soil from the south side, the cut rock from the south side to raise the quarry floor on the north side. Hard rock grading would be reduced by keeping the knoll on the west side, which lends itself to a long oval of buildings with a walkway and green space in the middle and with views around the outside. Conserved soil would cover the fill rock. The first phase would be the busway and buildings on either side. Subsequent stages will be built going north with construction access using an extension of Overlook up the west side of the site. Move-ins can take place on the south while building continues on the north. At build-out the construction road becomes, in part, the walkway on the west side and, in part, the 100 car ports on Overlook. Should the car-free concept completely fail in the market place, buildings on the north side could be reduced and more parking added.

K. Living there. The rules need to anticipate needs and provide for them in a way consistent with pedestrianization.

1. There needs to be convenient ways to do everything people usually use cars to do, or the car ban could be eroded and conflict increase over how much cars could access the site.
2. Residents will need some guidance and education on car-free living. They would be given a tour and informed about how to do everything car-free. Residents not renting a space on site will also agree to accept the limitations before signing a rental or sale agreement. They would state that they do not own or have daily use of a car or, if they

³ Rick Devine, 7/12/04, notes from phone conversation.

do have a car, they would show where they plan to park it. This would help ensure that residents do not engage in poaching of parking intended for use by others.

3. On move-in day residents will get a welcome kit including a shopping cart, several cloth shopping bags, a cell phone, and a guide to transportation and local businesses.
4. Management needs to have clear step by step enforcement procedures for access issues and controlling noise and other disruptive behavior.
5. While most tenants will want to do their own thing, some will have an interest in participating in managing problems as they arise through some residents association.
6. Success of the Village will depend to some extent on a good balance between hard-headed economic management and responsiveness to idiosyncratic or even systemic problems as they arise. If the place and the people are right, a reputation for high quality living and a new life style will create success. Rents and condo prices will go up. Renters can be assured some year-to-year limit, such as inflation plus 2 percent, on rent increases, but complaints about cost have to be balanced by how increased profitability will attract investors to build more pedestrian neighborhoods. QV should be just the first olive out of the bottle. The potential for car-free housing to meet housing needs is much greater and more sustainable than continued suburbanization and auto dependency.

IV. **Other Research.** Because our priority is on market research, we do not now have time to pursue some other important and interesting questions.

- A. **Costs of Quarry Village vs. Suburbia.** There are two frames of comparison, one based only on the site and the other on a comparable amount of housing.
 1. **The Site.** Construction costs would be compared between QV and conventional development. Conventional development of the site in the current market would be two stories with parking underneath and surface parking of about one parking space per bedroom, plus on-street parking spaces and driveways, consistent with city requirements. It would have a mix of apartments and condos. Estimated savings for providing the same living space using a car-free approach run from 15 to 20 percent per unit of the same size. Savings come from having more units due to less area for roads and parking, lowering the **land cost per unit**. Savings also come from lower construction costs from **not having to build streets and parking**.
 2. **The Housing.** QV has construction and operating costs that could be compared to a probable suburban alternative. As many variables as possible would be held constant in order to reveal the role of density and mode shift. The suburban alternative would have some units on the quarry site and others at a detached single family density which are further away, to make the total up to 1,000 units. Additional savings come from multiple structures providing economies of scale and mutual insulation of units to prevent heat loss.
- B. **Environmental Impact Report.** QV will use much less energy, pollute less, and so on, as discussed under benefits, than some probable alternative of suburban and two-story over parking housing with the same number and types of units. Research on environmental impacts similar to the economic research is needed to quantify these differences.

- C. **Business Analysis.** What kind of businesses can QV support on-site, and how big should their square footage be? Similarly, can we estimate the impact of QV spending on receipts of near-by businesses as a result of increased local population, walking, and transit ridership? An estimate can be made from the number of home-based shopping attractions in the trip table and from household income of QV residents. Total economic demand would remain the same; it is just moved from dispersed locations to the Corridor and shifted from transportation to other consumption and savings or investment (including investment in human capital: higher education). Spending would go up at on-site, corridor, downtown, and campus businesses.
- D. **College enrollment.** We need to estimate the impact of the Village on enrollment at Cal State. We would work with Cal State staff and draw on experiences of other campuses to estimate how Cal State could increase enrollment with better transit access and more nearby affordable housing.
- E. **Village Bus Study.** We need a Village bus feasibility study covering equipment, operation, ridership and financing. It would have a comprehensive traffic analysis, not just Level of Service (LOS) at intersections. The time it takes to reach destinations for typical purposes (work, shopping, social-recreational, non-home based), is more important. The analysis should compare QV with a car-based alternative for the site and in relation to a comparable amount development otherwise likely to occur, i.e., low density development some distance away. Evaluation criteria would include total Vehicle Miles Traveled, transit and walking, energy use, and pollution. The analysis would include expert discussion of modeling issues, direct and indirect pricing of auto use, and induced demand and restraint.⁴
- F. **Household travel data.** The data on QV mobility can also be related to data from the National Household Transportation Survey and to data from a similar survey of the Bay Area by the Metropolitan Transportation Commission. This data covers a long list of travel purposes and average durations and modes for those purposes. Village trip making would be compared to national and regional norms and provide more evidence as to the ability of QV to meet travel needs in acceptable durations.
- G. **Macro-economic analysis.** A sophisticated economic analysis would measure and compare the total economic product, including external costs, of QV and a similar suburban system. We predict shifts in industrial sector from auto-oil to transit and to other consumer goods and services. We predict lower external costs. The combination of sectoral shifts and reduced externalities should produce a higher total economic product. The growth will be caused in part by how QV charges separately for parking, creating an incentive to live without a car with no loss in mobility. QV contrasts with suburbia which forces people to pay for car space when buying living space, based on the assumption that virtually everyone has a car. QV also achieves growth by reducing costs of construction

⁴ For more details see C:\My\Quarry Village\Rapid bus and traffic\Rapid Bus Modeling.wpd

for cars and by using more land for housing. Thus, its underlying cost structure allows more housing for the same amount of investment. The analysis would relate QV to a free market economy which has reformed indirect pricing of auto use. Such reform challenges the cultural and vested interest biases built into the assumptions of national accounting system. pricing reform links the resource economy to the money economy in a context of economic freedom. If QV can succeed in a hostile pricing environment, it would indicate strong elasticity for car-free systems in response pricing reform.

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