“When I’m working on a problem, I never think about beauty. I think only how to solve the problem. But when I have finished, if the solution is not beautiful, I know it is wrong.”

R. Buckminster Fuller
Conclusion: “Graduates of architecture school leave well prepared as problem solvers but their curriculum seems remote from the concerns of clients, communities, or the larger challenges of the human condition.”

Ernest Boyer and Lee Mittgang
1997
Connect Academia and the Real World

- Participate in civic and public service activities; design charettes

- Design projects with civic connections so that students get to study and understand their own community in terms of urban planning, livability and sustainability and get to address real problems and real people—typical projects include Rio Vista R/UDAT, Del Paso Heights SDAT, K Street, CRC neighborhood in South Sacramento; Richards Blvd, Alkali Flat, Downtown Sacramento, The Waterfront, West Sacramento, Broadway and many others.

- Use local professionals as mentors, advisors, critics and work experience employers to connect students to practice.

- Encourage student participation in civic and profession organizations for networking and creation of communities.

- Encourage participation in Habitat for Humanity, Red Feather, Neighborhood Housing Service, Leathers Playgrounds, etc
Phase 1: Creating Livable Communities:

**Active Learning:** Students are challenged to become “experts” on the topics, issues, and resources related to urban design project:


- Precedent Research: Images and concepts

**Evaluation Rubrics:** Students are asked to document their assessment of their community and neighborhood with photographs, observations, interviews, etc.

**Civic, Community and Neighborhood Proposals for Livable Communities:**
- Written reports similar to R/UDAT or SDAT and PowerPoint presentations for the community.
Phase II: Site Selection and Building Design

**Building Design:** The students have a global and community viewpoint when entering into building design.

- Contextual Analysis: Select and Analyze Site
- Sustainable Architecture: Guided active learning about sustainable design
- Image Analysis: Consideration of context, function, architect’s people, on the appropriate image.
- Functional Analysis:

**Community and Professional Connection:**

- Engage community leaders and civic organization in the information gathering, presentation and critique of solutions.
- Use local professionals as mentors, advisors, critics to connect students to practice.
“COMING TOGETHER IS A BEGINNING, STAYING TOGETHER IS PROGRESS, AND WORKING TOGETHER IS SUCCESS.”
-HENRY FORD
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RIO VISTA: IDENTITY
Rio Vista is the gateway to the Sacramento River Delta and at the base of the Montezuma Hills, ecologically and recreationally some of the most interesting areas in California. It is a comfortable and safe community. Downtown is walkable, the river provides fishing, windsurfing, sailing, boating, and passive recreation opportunities, cycling in Rio Vista and the nearby Delta serves residents and visitors from areas as far as San Francisco, and the waterfront provides great, if largely untapped, opportunities. [1]

The AIA R/UDAT application referred to Rio Vista as “centrally isolated,” a quote which resonates with the community. Less than an hour from Sacramento or Oakland yet too small and too isolated to be attractive for many kinds of medical uses (there are currently no doctors’ offices in Rio Vista) and many other basic services. Rio Vista is the gateway and the economic center of the Delta, yet a huge percentage of retail, entertainment, and medical spending leaks to other communities. This limits community services, jobs, and municipal sales tax revenue. [1]

Rio Vista is a small community with a lot of potential, but it needs to react now that it can. So it can be a better community in every aspect; in energy, sharing, community connectivity, intergenerational, walkable, bikable, a better Rio Vista community. By doing this, it will create the base for a better community in the future as it continues to grows.
Located at the tip of Solano County, the community of Rio Vista is one of the oldest in the county. [2]

The original settlement was established in 1858, by Col. Nathan H. Davis, and was located at the mouth of Cache Slough, where it meets the Sacramento River, approximately two miles from its present location. [2]

On January 9, 1862, Rio Vista was destroyed when twelve feet of water covered the settlement. Fortunately, however, at this point half of the citizens decided to relocate in developed communities. Thus “New” Rio Vista was established at its present location in March 1862. [2]

This “new” settlement, located approximately halfway between San Francisco and Sacramento, soon became a popular stopover for weary travelers, who enjoyed the hospitality of Rio Vista’s hotels, saloons and general merchandise stores. [2]

As more individuals settled in Rio Vista, many of which were immigrants, farming became the way of life rather than fishing. Immigrants from: Germany, Portugal, England, Sweden, Scotland, and Canada, to name but a few. Each educated in their native lands, brought to the community new ideas, which were combined to create fertile crops. [2]

After two decades of local debate, it was finally decided, that in the best interest of the community, it was time to incorporate. Thus, the town of Rio Vista held its first election, and the community was officially incorporated on December 30, 1893. [2]

Seventy-five years later, on January 4, 1968 the town of Rio Vista officially became a “City”. [2]
A TRAGEDY

Around the 1930's the boiler of a river boat blew up while docked at Rio Vista. It caused the boat to catch fire and in this accident many people loss their live’s. Including a group of Chinese passengers that were on board. Most people that died in this horrible accident were buried in a respectful place. Except for the group of Chinese passengers, due to issues of racial bias, the Chinese dead were not permitted to be buried in either the Catholic or the Protestant cemeteries. Their bodies were laid in a new cemetery adjacent to the Catholic cemetery. This site now functions as a cemetery and city park.[3]
RIO VISTA: CONNECTIONS
CONNECTIONS
Residents often refer to the community as two parts: Rio Vista and Trilogy. Certainly the development of the 3,000-unit Trilogy at Rio Vista subdivision has added inland weight to the community's population, but the presence of Trilogy in itself is not the biggest factor driving the distinction of two communities within one. Trilogy is only a short 7-minute drive, 15-minute bike ride, or 45-minute walk from downtown. These are typical distances to travel within a community – similar to traveling from the White Elementary School to Sandy Beach Park. Trilogy's separation from downtown is much more the result of a lack of comfortable and safe connections. SR 12 serves as the primary and most direct connection between Trilogy and downtown, but the roadway is not a complete street, serving only as a conduit for cars with no sidewalks or bike facilities, with posted speeds between 45 and 55 mph.

For their own safety, pedestrians mostly keep away from SR 12. Unfortunately, this means they don’t walk across or along a road that is in the heart of their community, separating the downtown from most of its residential neighborhoods.

Closer to downtown, SR 12's speeds are a particular threat to community vitality. The short 0.6 mile stretch of highway between Front Street and Drouin Drive maintains a 45 mph posted speed limit on a roadway cross-section that averages over 80-feet wide. Such cross-section and speeds are entirely inappropriate for pedestrians, with data clearly showing such size and speed almost always results in pedestrian fatality when there is a conflict.

People are willing to walk and bike in the right circumstances. For example they need to feel safe, secure, reasonable distances, and a destination in which they will feel encourage to go. In the image below we show that most of Rio Vista Down Town is in a distance of 15 min. walks. And the rest of the community is almost in a distance of 15 min. biking. Most if not all of Rio Vista is in a reasonable distance for walking and/or biking, but many streets or SR 12 are not safe for people to walk or bike. So we need to make them safer and to encourage walking and biking. Also we need to have destination in which people would like to go.
WALKING

Studies have shown that when pedestrians, cyclists, and drivers are aware of and attentive to each other's presence, the crash rate declines. Strategies that raise awareness of pedestrians and improve visibility for people driving and on foot must be integrated into future development in Rio Vista. These may include:

- High-visibility crosswalks can incorporate rectangular rapid flash beacons and special or raised paving, which assist in calming traffic and raising driver awareness that they are in a zone where pedestrians are expected to be crossing.
- Median islands can be combined with crosswalks to simultaneously shorten crossing distances in high-traffic areas while narrowing auto lanes and diminishing straight sightlines that encourage drivers to speed.
- Pedestrian-only crossing phases during signal cycles allow pedestrians to cross the intersection in any direction while all vehicles are stopped with a red light.
- Leading pedestrian interval gives pedestrians a few second head start to claim the right-of-way ahead of turning traffic.
- Reducing intersection widths improves visual contact between drivers and pedestrians, and reduces crossing distances and the time needed to cross on foot. Curb extensions, road diets, and striped bicycle lanes are measures that rededicate space to non-motorized travelers, reduce crossing widths, and slow traffic.

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- Curb extensions, or bulbouts, extend a section of the sidewalk into the road at an intersection. Curb extensions are often placed at the end of an on-street parking lane. Pedestrians standing on the bulb can see and be seen by drivers before crossing. Bulbouts can be implemented in residential areas and mainthoroughfares alike.
- Striped bicycle lanes can be implemented in conjunction with road diets. The space gained from reducing automobile lanes can be allocated to wide bicycle lanes and striped buffers. These striped lanes serve to calm traffic by narrowing the roadway and simultaneously provide safer facilities for those who choose to make their trips by bicycle. When pedestrian and bicycle facilities are inadequate, streets with high automobile volumes can act as barriers between neighborhoods and destinations.
BIKING

Solano County has picked up many of these plans in its Countywide Bicycle Plan. A multi-use path between Rio Vista and Fairfield has long been contemplated, though funding has not yet been available. Rio Vista’s planned loops are also on the County’s plan, but funding is not expected before 2030.

In the interim, many treatments can be used to promote safe cycling on existing roadways. While Main Street is insufficient for bike treatments west of its intersection with SR 12, its remaining length to the water should be striped with “sharrows” that promote driver awareness of cyclists. Dedicated bike lanes are unnecessary on this slower-speed street where cyclists can easily take the lane.

Absent a future multi-use path, intra-community connections beyond downtown can be facilitated through the inclusion of bike lane markings where shoulders are sufficiently wide. Airport Road and River Street make a potentially valuable biking spine between Trilogy, Home- stead, and downtown if their shoulders are improved and marked for bike lanes. If shoulders cannot be adequately

Bicycle infrastructure can be an excellent complement to traffic calming that also promotes a mode shift away from automobile dependence. Residents, commuters, and visitors alike can benefit from striped and built bicycle networks that connect major destinations. Short, internal automobile trips can be replaced, reducing overall congestion and promoting healthier lifestyles. Meanwhile, Rio Vista also has an attraction for recreational cyclists from throughout the region, with excellently graded training runs available in the Montezuma Hills where few cars travel – all in close proximity to the downtown.

Few bicycle facilities exist within Rio Vista today, unfortunately. The newest subdivision, Gibbs Ranch, included bike lanes – however no development has occurred there. No bike racks exist in town. However, the City has consistently worked to incorporate multi-use plans in future roadway and subdivision plans.
paved in the short-term, sharrows can be placed on their edge lines to warn drivers that bikes may be present.

Bikes Need a Place to Park

Without a single modern bicycle rack in town, Rio Vista is in need of multiple bicycle racks at prominent destinations in downtown that are compliant with Association of Pedestrian and Bicycle Professionals (APBP) standards, that necessitate three-point securing. Future developments should be required to provide short-term bike racks in prominent locations as well as long-term covered parking within buildings near accessible entrances or within garages.

Appropriate cycle parking standards are important to ensure that convenient, easily used, and secure bicycle parking is available throughout Rio Vista in order to encourage people to replace some of their trips by bicycle.

Racks should address all unique site conditions, but should be guided by the following:

- Locate all racks to minimize obstructions and reduction of open space
- Orient sidewalk racks to ensure bicycles are parked parallel to the curb face and parked vehicles
- Ensure clearances from walls, trees, tree wells, news racks, doorway exits/entrances, and parked cars
For several years, Rio Vista has been served by several transit routes that provide intra- and inter-community service. Delta Breeze, which is based out of a facility adjacent to the City's northern wastewater plant, operates several 16-passenger cut-away vans, which have comfortable seats, regional transit information onboard, and bike racks. The operation is grant-funded.

Within town, Route 51 provides dial-a-ride service, whereby any resident can call for a pick-up at least 30 minutes in advance of their travel time and be dropped-off anywhere in Rio Vista. Connecting service outside Rio Vista is provided by express Routes 50 and 52, which connect with Fairfield/Suisun City and Antioch respectively. Route 50 passengers have access to the Capital Corridor and Amtrak service at Suisun City, which connects Rio Vista transit riders to Sacramento, Oakland, and the full extent of the Amtrak system. Route 52 passengers have access to Bay Area Rapid Transit (BART) at Pittsburgh/Bay Point station, with frequent service into San Francisco and other Bay Area destinations.

Due to the limitations of available funding, every Route is restricted in its overall hours of operation. Express Route 50 to Suisun City only has two morning runs spaced three hours apart, plus a midday run. Only one bus returns travelers to Rio Vista near the evening peak hour. Express Route 52 to Pittsburgh/Bay Point has only one run in each direction timed near the peak hour. Route 51 can have more frequent service, but it is only available between 9:30am and 1:30pm.
Need for Change. The value of expanding transit service to Rio Vista will grow as walkability improves but especially as demographic changes continue in the near future. Auto ownership rates in the U.S. are declining dramatically due to the aging of Baby Boomers and the digital lifestyles of Millennials who much prefer the convenience of nearby interaction, rather than any time spent in a car. The movement of these large segments of the population into downtowns is pronounced, and the most successful downtowns are offering quality transit that these populations are embracing readily.

Straightening Express Routes One of the biggest impediments to effective inter-city transit is the need to serve front-door destinations within Rio Vista. All riders are expected to walk to a stop (unless they have called for a front-door deviated pick-up), but the current road and sidewalk network in Rio Vista makes this difficult for any distance. Homestead and Trilogy could be within a 10- and 5-minute walk respectively of “straightened” service that remains on Main Street/SR 12, but the complete lack of adequate walking or biking facilities makes this impossible, so each express route must meander through these neighborhoods, adding delay and rider frustration.
RIO VISTA: INTERACTION
POPULATION

Rio Vista has experienced significant demographic and market dynamics changes over the past two decades. A few of these are highlighted here to illustrate these points and to suggest that these changes bring both challenges and opportunities.

Population: Rio Vista has experienced an unusual spike in growth (increasing 65.5% since 2000), reaching 7,563 residents (96% of them urban) over the past decade and is poised to absorb considerably more residents over the next two decades.

Rio Vista's population is considerably older (median age 57.2 years) than the rest of the state (median age 45.6 years) which impact services and development types needed in the community.

Income: Median household income for Rio Vista declined, as did the county and state, from pre-recession highs but is now on the rebound. While these median incomes, as well as the City's low unemployment rate preclude its eligibility for certain public investment programs (e.g., New Markets Tax Credits), they open the doors for others. Low Income Housing Tax Credits, for example, can be used for mixed-income apartments that accommodate workforce residents who earn 60% of the county's regional median income.)
PARKING

Parking availability is often confused with parking supply. Many regular visitors to downtown Rio Vista find the lack of available front-door parking frustrating and have to park around the corner. While this free side-street space may only be a 30-second walk from Main Street, the fact that others have filled front-door spaces leads to the misperception that there is not enough parking. This problem is a resource management issue, not a supply issue. Rio Vista has ample existing parking for all of its needs, and no supply expansions are necessary. In fact, the amount of space dedicated to paved surfaces such as parking, streets, and sidewalks in the heart of downtown overwhelms grassy areas and buildings.
BIKE RACKS

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REINFORCE CHARACTERISTICS

Settled in 1862, Rio Vista has evolved over many decades. Along the way, there have been successes and there have been failures. There have been times of progress, times of inactivity and times of decline. Through it all, the city has maintained its “good bones” and a few fine jewels.

Architecturally, Rio Vista is very eclectic. There is no unifying style or predominant building form. There is not a single streetscape in the core that has any coherent design characteristics. Oddly, this random collection of forms and materials seems to work, much like a beautiful patchwork quilt. This makes Rio Vista unique and there should be a conscious effort to not replace the richness and variety of the place with the overly homogeneous and banal results found in recent suburban efforts.

Like most small towns facing challenges, mistakes have been made but few of those are irreversible. Ideally, we should learn from our mistakes as well as the mistakes of others. Conversely, when we see something that works, we should evaluate why and then try to replicate those conditions. The regulations that guide growth and development should be based on what we know works and allows the kind of place and “community” that the citizens aspire to create. That sense of community – rooted in the wonderful people of Rio Vista -- is perhaps the single greatest asset.

The community of Rio Vista has reported: The downtown has a 1950s undisturbed look and feel to it... Many buildings have facades that obscure the charming brickwork of years past and some buildings were victims of 1960s “upgrades” that now look dated. Storefronts have little curb appeal...
COMMUNITY CENTER

A place where people from a particular community can meet for social, educational, or recreational activities. It can be used:

- As the place for all-community celebrations at various occasions and traditions.
- As the place for public meetings of the citizens on various issues.
- As the place where politicians or other official leaders come to meet the citizens and ask for their opinions, support or votes ("election campaigning" in democracies, other kinds of requests in non-democracies).
- As a place where community members meet each other socially.
- As a place housing local clubs and volunteer activities.
- As a place that community members (and sometimes others), can rent cheaply when a private family function or party is too big for their own home. For instance the non-church parts of weddings, funerals etc.
- As a place that passes on and retells local history.
- As a place where local non-government activities are organized.
- As a place where indoor circuses can entertain the paying public.
A community Center should be the center of the community and everybody in the community should be able to reach it fairly easy. We chose the site because it is a central point in Rio Vista and it will allow the community center to become a town square. And it is very accessible from main street and SR 12. And from this location almost all Rio Vista can reach it by walking and/or bicycling. This is very important because we want to encourage people to walk to it as much as possible.
While researching our site we encounter a grave yard in the middle of it. So we added an adjacent site. We decided to keep as well and celebrate the people that were buried here because they were forgotten. We would have a Civic Center right next to it and a Community Center in the other side and connected as one.
ANALYSIS

We went through a site analysis. This helps us determine the best options for the Community Center. We can see what are the best views and where are the most traffic generators. Also, how should the structure be oriented based on the sun path, so it can be shaded where it needs to and cover where it should.
NOISE AND CIRCULATION

SUN AND WIND
PROGRAM

Rio Vista is a great community and they know what they want. They got together to discuss as a community what should the Community Center should be. We took notes on what their necessities were and we refined them as we saw what Rio Vista Needed.
DRAFT PERSPECTIVES

HONORING THE DEAD

MIAN STREET VIEW
By Sergey, Gabriel, and Erin
[1] R/UDAT
The Vision

“We propose an enriched educational climate in the academy and the profession—dedicated, with equal intensity, to promoting professional competence, and to placing architecture more firmly behind the goal of building not only great buildings but more wholesome communities.”

Ernest Boyer and Lee Mittgang