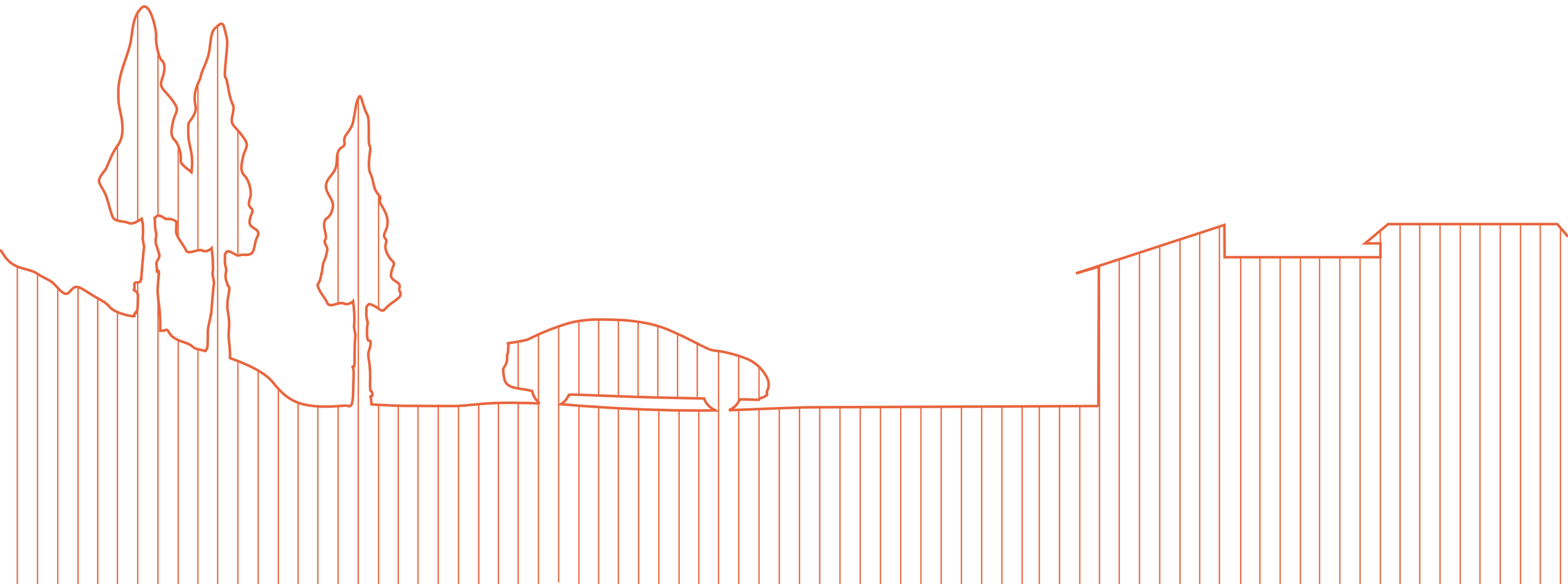
Gateway District: Urban Design Concept

Broadway Corridor | Redwood City, CA



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Introduction

The Gateway District: Urban Design Concept proposes land uses and urban form for the Gateway District in Redwood City. The plan will serve as a basis for future development within the district and help reinforce existing surrounding uses. As the project is an expansion of the Broadway Corridor Study prepared by the Senior Class Community Planning Laboratory of Cal Poly in Winter 2014, data and analysis gathered within the study guided the design decisions that are incorporated into the concept plan.

Methodology

The design concept has been carefully crafted through a dynamic process. Much of the information used to create this proposal was found within the Broadway Corridor Study and as such, analytics of land use and community outreach surveys done in the study are translated and used in the Gateway District: Urban Design Concept. However, this background information is merely a small portion of what is necessary to construct a proposal. By reviewing literature and researching case studies about gateways and different development types, more information about the project becomes available. Once the amassed data, surveys, and literature had been thoroughly analyzed, a conceptual diagram highlighting key features, proposed roads and land uses was created in Adobe Illustrator, utilizing the knowledge gained from background research. A site plan illustrating building and road placement is drawn next with calculations for building height, acreage of land uses, and projected population increase. Finally a massing model has been generated via Google Sketch-up to exhibit the height and placement of buildings.

Literature Review

In order to create a successful gateway, it is important to review and analyze past literature of gateway planning in order to fully grasp the concept of the term and envision improvements to the site accordingly. Likewise, there must be literature review of any unique or interesting uses that one might propose to decipher the appropriateness of such developments within the district.

urban gateway

The urban gateway is an entrance, a gathering place which acts as a transition between different spaces as well as a nexus for the people who inhabit and frequent these places.

In the pre-industrial era this meant gateways were located at strategic edges, attracting monarchs, peasants and people of all class and occupation for a variety of different activities, political negotiation, commerce, ceremony, connecting different worlds and demographics (Caliskan, 2010).

This is not so different from the workings of the urban gateway in our own era, a tool to connect different places and people while establishing edges, forming a center in itself. As such, the gateway must be legible and create legibility within the surrounding environment, allowing those who pass through it to easily understand their location in context to the city as a whole.

Some experts have stated that the "state of flow" is the foundation for gateway design. "A break in the continuity of the act of passage constructs" the meaning of the break itself. This break occurs as an individual goes through the passage, experiencing a divide in the environment into here and there (Caliskan, 2010).

Simply put, the gateway meaningfully interrupts ongoing flow to create an articulated environment with great distinction and character.

Figure 1.1 Gateway into Little Italy

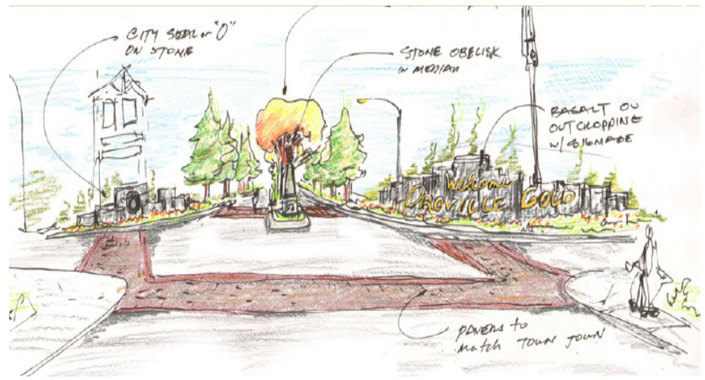

Figure 1.2 Example of Urban Gateway Design Features

boutique hotel

Figure 1.3 Boutique Hotel in Rural Setting

Figure 1.4 Boutique Hotel in Metropolitan Setting

Recent trends in hospitality indicate that a number of travelers are seeking boutique hotels. The growth of this sector is brought on by an increasing population of people who enjoy the more accommodating atmosphere and sustainable design of most boutiques.

While the Downtown remains the number one choice for hotel guests, proximity to traffic interchanges, business centres, shopping centres, and tourist destinations are often attractive to patrons of boutique hotels.

According to the Boutique Hotel Budapest, a boutique hotel is one with an upper limit of 100-rooms. Because of this smaller number, the personal connection one guest feels with the staff is increased.

Additionally, the design of boutique hotels are non-traditional and as such, a variety of styles define the most successful of them (Boutique Hotel Budapest). Four main design themes are widely prevalent within the hospitality industry: ascetic modernism, nostalgic opulence, extravagant fantasy, and exotic exclusivity. Boutique and chain hotels alike use these few themes as a basis for their design strategies.

Additional trends have recently emerged to complement these design themes. Some hotels have begun to participate in urban regeneration, refurbishing old housing in prime locales, while others incorporate the ethno-cultural diversity of their environment, complimenting local cultures and blending into the local environment.

Case Studies

The following case studies have been reviewed and analyzed due to their locational similarity to the Broadway Corridor. As such, proximity to multiple nexuses and adjacency to a key transportation artery have been observed in each case study. Information gathered from the study analyses will be used as a basis for design decisions within the Gateway District.

Case Study

east gateway district

In 2012, the City of Clearwater, Florida created a vision plan for its own East Gateway District. Clearwater is a coastal city and has a population of 132,000. Within the last decade the city has focused primarily on the redevelopment of the beach and the city's downtown.

The East Gateway District is bordered by the downtown to the west and the State Road 60 (Gulf to Bay Road) to the south. The SR 20 is the main transportation corridor to both the downtown and the beach. Though the location is well traveled, the district suffers a declining business base, deteriorating infrastructure and a mismatch of uses and vacant storefronts. Residential uses are scattered within the district and many of the units are poorly maintained.

The City split the district into four different development zones, each with different goals addressing the desires of the community. Development Zone I focused on redeveloping City-owned real estate specifically redeveloping the former Economy Inn to create a mixed-use development to serve the medical industry supported by the Ultimate Medical Academy in Clearwater. Zone II focused on furthering the streetscape initiative and improving frontages to enhance the aesthetic value of the area. Zone III focused on capitalizing on natural elements and creating open space and recreational components for the city's inhabitants. Finally, the Zone IV focused on creating a central core for a variety of community building events.

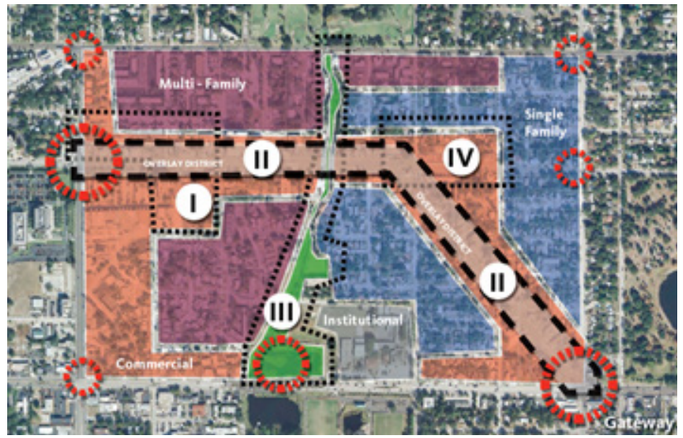

Figure 1. 5 East Gateway District with Labeled Development Zones

lessons learned

The East Gateway District vision plan introduced many ideas that can be utilized within the Redwood City Gateway District Vision. Streetscape improvements and open space elements may encourage walking and biking within the area while creating a central core is beneficial for community growth. In fact, the redevelopment of city owned real estate to serve surrounding uses is something that will be considered during the development of the Gateway District Vision Plan.

south state street corridor

Figure 1.6 Green Wall Sculpture as Possible Public Art in Ann Arbor

The South State Street Corridor project created a vision for the future of one of Ann Arbor's major thoroughfares. Ann Arbor is a city in the state of Michigan with a population of approximately 113,934 people. The South State Street Corridor is mainly an employment and retail destination and has office, retail, residential, research, and industrial uses.

The corridor is frequently traveled by commuters as it connects the Interstate 94 to downtown Ann Arbor and an adjacent city, the Pittsfield Township. While proximity to the interstate, the downtown, and the University of Michigan south athletic campus encourages growth within the area, portions of the corridor lack the aesthetic quality and legibility that are so present in other parts of the street.

Therefore the City has developed five goals for the corridor: interconnection, diversity, sustainability, attractiveness, and invigoration. The corridor must enable users to travel safely, comfortably, and seamlessly by all modes of transportation and connect people to the downtown, the University, and to important places within the City and region. The City must also provide a mix of services, housing, and amenities to accommodate the diverse demographic of Ann Arbor and use the land, energy and resources wisely, in a way that promotes healthy lifestyles and decisions. Furthermore, the South State Street Corridor must remain an attractive and desirable location with public spaces, landscapes, and architecture that provide places for people to work, live and play.

lessons learned

The South State Street Corridor Plan highlighted the importance of updating infrastructure and improving aesthetics to create new places for people to enjoy. The plan identifies a few interesting ideas to attract consumers, proposing integration of possible public arts and assessing the feasibility of creating a public trail within the corridor. The plan also explains the importance of developing a simple and easy to read wayfinding system to direct visitors to major destinations.

Case Study

hope boutique hotel

The Hope project proposed a 10-story, 44 guestroom boutique hotel on a 7829 square foot lot in Los Angeles. The hotel capitalizes on its close proximity to downtown, orienting itself toward the nearest transit options, encouraging tenants and visitors to use transit. The project lies adjacent to three condominium buildings between 13 stories to 24 stories high and as the project is within a 500 ft radius of Residential buildings, a Conditional Use Permit is required to develop the site.

The hotel features a courtyard with trees, seating and landscaping elements, a gallery and event space, a conference room, a pool deck, and green building techniques that encourage patrons to use alternatives modes of transportation. Using such techniques, the project provides a green roof to reduce solar gain, reduce the heat island effect that is so prevalent around the downtown, and collect storm water runoff that would otherwise enter the storm drain system. Similarly sidewalks, street trees, tree wells and paving are all designed to collect runoff and contribute to the sustainable green streets.

Figure 1.7 Proposed Design for Boutique Hotel at Hope Street

lessons learned

Though the demographics of Redwood City and Los Angeles differ greatly, I feel there is much to learn by studying the boutique culture within the city of Los Angeles. Similar to both the Hope site in Los Angeles and the Gateway District in Redwood City is their general proximity to the downtown, a prime location for a boutique hotel. Additionally, the Hope's usage of green techniques is one common in the design of boutiques and is something that can be incorporated within the design of the proposed Gateway District. Specifically, techniques orienting buildings toward pedestrian and transit uses and using plants and trees to reduce solar gain and storm water runoff may be especially useful within the proposed Gateway District.

carnegie science center

Figure 1.8 Carnegie Science Center and its Provided Activities

The Carnegie Science center is located on the North Shore of Pittsburgh at the confluence of the Allegheny, Monongahela and Ohio Rivers. The lot encompasses 13.5 acres of land and is adjacent to the Heinz Field to the east, a casino to the west and Route 65 to the north. As the science center is situated in such a desirable and visible location, the City of Pittsburgh developed a few design principles to guide the design and construction of the center:

Build a world-class Science Center campus

Strengthen the connection between the river and the campus by moving parking away from the river front and by extending Three Rivers Park along the river's edge

Integrate nature and science into the campus landscape by creating an "eco-experience" park

Incorporate sustainable design principles into the design of the campus landscape and in future buildings.

Preserve and enhance views to Downtown and the Ohio River Basin, especially in new buildings and the renovation of the existing science center building

Involve citizen groups and adjacent business owners in the creation of the new campus plan

Provide public art that supports the science center's mission and its stunning location at the confluence of the three rivers

lessons learned

The site for Carnegie Science Center is similar to that of the Gateway District in its prime location between two heavily traveled destinations and its visibility from the freeway. A science center may be a good fit for the City of Redwood as it plans to expand its light industrial district (adjacent to the Gateway District) and encourage new technologies and companies. As such it is important to address the needs of these future companies and create an atmosphere fitting for such uses. Using sustainable design practices and integrating science into the landscape design are fascinating ideas used in the Carnegie plan that may be essential to the creation of the Gateway District's own design as it both brings sustainability to the site as well as incorporates innovative design principles, supporting Redwood City's mission to encourage new technologies. Furthermore the science center's expansion of the Three River's Park and integration of public art into its design helps strengthen community growth and enhances the walkability of the site. While the scale and scope of the Carnegie Science Center does match nor fit within the scope of the Gateway District Project, the design guidelines and principles used to design the center are applicable to the Gateway District Project.

Existing Conditions

The Redwood City Gateway District is located within the Broadway Corridor at the intersection of Woodside Road and Broadway Street. Because of its proximity to both the City's downtown and the proposed Stanford campus as well as its adjacency to the Highway 101, the district is very well traveled, receiving large amounts of vehicular traffic daily. However, the Broadway Corridor Study Area does not adequately support seamless multi-modal transportation options. Pedestrian amenities in the Corridor currently consist merely of sidewalks and crosswalks of poor condition while signalized crosswalks only exist on major intersections. It is necessary that the Gateway District improves pedestrian mobility, reinforcing existing infrastructure to increase safety and walkability within the district as the urban gateway must serve as an entrance, a public gathering place and needs to provide pedestrians adequate protection from vehicular traffic. Furthermore, as the gateway must be a nexus, uses proposed must encourage community growth and provide public spaces for people to gather. Currently the Gateway District is mainly made up of commercial and public uses. The north half of the district, divided by the Broadway Street, is the current location of the Redwood City Corporation Yard while the south portion is home to Redwood Plaza, a regional commercial center with stores such as CVS, Foods Co, and Jack in the Box. Both lots are highly underutilized and the uses that occupy them must change in order to revitalize the area and create a robust and noticeable gateway for Redwood City.

This thinking is consistent with survey analysis done earlier within the project. Findings state that majority surveyed concluded that the land that held the Corporation Yard was indeed underutilized and while residents and patrons of Redwood City enjoyed the ability to shop in the Gateway District, many felt that parking was far too abundant and the space could be used to support some other use.

location map

Figure 1. 9 Location of the Gateway District and the Broadway Corridor in relation to Redwood City's Downtown and the Proposed Stanford Campus

Figure 1. 10 Existing Land Uses in the Broadway Corridor

Opportunities and Challenges

Opportunities

Important nexus between the proposed Stanford Campus and the downtown

Adjacent to a large arterial off-ramp with potential to attract patrons from the Highway 101

Corporate Yard relocation is an important opportunity due to its location adjacent to the Highway 101 off-ramp

Possibility of including small businesses into the district to generate more employment and bring people into the district

Challenges

Automobile orientation within the Broadway Corridor provides a challenge to circulation

Possible change in Highway 101 off-ramp infrastructure may provide difficulties in creating a vision for the Gateway District.

Lack of community support and funds for affordable housing

Current lack of character that attracts visitors and residents that pass by

Noise and air quality concerns must be considered before proposing a use adjacent to highway and major arterials.

Vision Statement

In the future, the Gateway District will foster an active community lifestyle through improved retail, business, and recreational opportunities. Local business owners and employees will have the opportunity to live in the area due to the array of available housing options. The form of future development will complement existing businesses, while activating the public realm and enhancing overall aesthetics. Public spaces will breathe a new life into the area making the district a comfortable and interactive experience. The Gateway District will become an exciting destination in Redwood City that attracts residents and visitors alike.

conceptual diagram

Figure 2.1 Conceptual Diagram for the Gateway District

Figure 3.1 Site Plan Design for the Gateway District

Design Development

development table

Building Number	Building Height in Stories	Uses (1st Floor)	Uses (2nd Floor)	Uses (3rd Floor)	Footprint in Square footage	Parking Spaces Required
1	3	Convention Center	Convention Center	Convention Center	42051	16821
2	2	Convention Center	Convention Center		8804	176
3	1	Commercial-Neighborhood			10956	55
4	1	Commercial-Neighborhood			12213	61
5	1	Commercial-Neighborhood			7464	37
6	1	Commercial-Neighborhood			6442	32
7	1	Commercial-Neighborhood			7218	37
8	3	Hotel	Hotel	Hotel	66287	60
9	1	Commercial-Regional			19614	98
10	2	Commercial	Residential		5399	7
11	2	Commercial	Residential		23333	35
12	2	Commercial	Residential		11534	15
13	3	Residential-High	Residential-High	Residential-High	29252	132
14	3	Residential-High	Residential-High	Residential-High	6091	27
15	3	Residential-High	Residential-High	Residential-High	19717	89
16	1	Commercial-Neighborhood			17449	87
17	1	Commercial-Neighborhood			12303	62
18	1	Commercial-Neighborhood			16512	83
19	2	Commercial	Residential		10183	13
20	2	Commercial	Residential		9687	13
21	2	Commercial	Residential		17848	21
22	2	Commercial	Office		29252	263
23	2	Commercial	Office		29957	270
24	2	Commercial	Office		2418	222

Table 3.1 Development Table

proposal for parking requirement

The number of parking provided within the Gateway District: Urban Design Concept Proposal is less than what is required by the Redwood City Zoning Ordinance. However, the land area required by the Zoning Ordinance for the proposed plan exceeds 40% of the total area of the site. It is crucial to consider the value of land before proposing developments. With its adjacency to the highway off-ramp and main arterials and its proximity to both the proposed Stanford Campus and the City's Downtown, the Gateway District is perhaps among the most valuable and desirable locations in the city. Consequently, in the interest of utilizing land most efficiently, it is important to reduce the total amount of parking spaces required within the Gateway District.

Redwood City has begun to expand their bike-share program and has recently proposed a light-rail system to increase public transportation options. A reduction in vehicular parking will provide incentives for people to use alternative transportation options, increasing ridership of transit, and promoting a healthier lifestyle through exercise and reduced air pollution. Specifically, a 20 percent reduction to the parking requirement for mixed-use buildings is will be appropriate in utilizing land more efficiently. This minimization will reduce a significant quantity of unused space as it is expected that occupants and patrons of mixed-use buildings will be able to share parking spaces. Such policy is feasible because residential, office, and commercial uses are projected to have staggered peak parking demands.

development types

commercial regional

Figure 3.2 - 3.3 Examples of Commercial Regional Development Types

The commercial regional uses proposed will serve the needs of patrons of the hotel. A fine dining restaurant and a retail use will be introduced directly adjacent to the hotel, encouraging guests to explore the rest of the Gateway District.

commercial neighborhood

Figure 3.4 - 3.5 Examples of Commercial Neighborhood Development Types

The commercial neighborhood uses will supplement the regional commercial uses and bring a local flavor to the district. Small businesses will thrive in the Gateway District due to its central location and outdoor seating from cafes and restaurants will increase street presence, attracting more customers, increasing economic vitality. The maximum height of these uses will be one story as the purpose of commercial neighborhood uses is to provide for local residents and support local businesses.

development types

convention center

Figure 3.6 - 3.8 Examples of Convention Center Development Types

The convention center will act as an important attraction to the Gateway District. Its proximity to the proposed Stanford Campus will ensure that it is used often. Similarly, by erecting a convention center within the Gateway District, new research and development businesses will be attracted to the adjacent Light Industrial Incubator Overlay, realizing the City's goal to promote new start-ups and developments related to innovative light industrial and research/ development businesses. Underground parking for the convention center will be provided for visitors to both the convention center and the surrounding commercial uses.

development types

hotel

Figure 3.9 - 3.10 Examples of Hotel Development Types

The proposed Stanford Campus and convention center will attract many foreign guests and with the hotel's adjacency to both and the City's downtown, the proposed hotel lies in a prime location. The temporary residency of projected guests will not only bring more people into the Gateway District, but it will also encourage them to explore the rest of Redwood City, stimulating the local economy. Underground parking will supply both the hotel and its connected commercial regional uses with parking, allowing patrons the opportunity to leave their cars, explore the Gateway District and the Downtown via bike- share or the City's proposed light rail transit options.

residential-high

Figure 3.11 - 3.12 Examples of Apartment Development Types

Apartments will be erected on the edge of the Gateway District to allow residents to enjoy the comfort and convenience of the surrounding uses. These residents will support the local businesses within the district and become regular customers of the proposed cafes and restaurants. The use is planned to be quite dense, allowing 50 units per acre. As the average household size in Redwood City is 2.8 persons, the projected population increase the residential development will contribute is 102 residents at full capacity.

development types

mixed-use

Figure 3.13 - 3.15 Examples of Mixed Use Development Types

Both mixed-use live/work and mixed-use office/retail will be incorporated into the design of the Gateway District. Introducing mixed-use developments into the district will effectively reduce the number of vehicular trips needed by residents and workers within the developments. Residents of the live/work units will no longer need to commute to offices and to restaurants as both will be provided within their vicinity. Similarly, businessman employed within office units will also have the option to eat within their vicinity, eliminating a large amount of unnecessary traffic and carbon emissions. In the event that residents or office employees must travel outside the Gateway District, alternative transportation options will be provided to encourage a healthier lifestyle.

sketch-up rendering

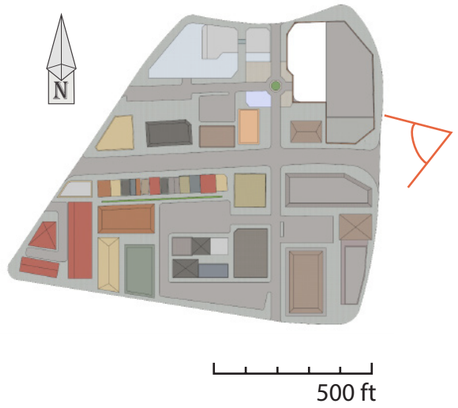

Figure 3.16 Render Location

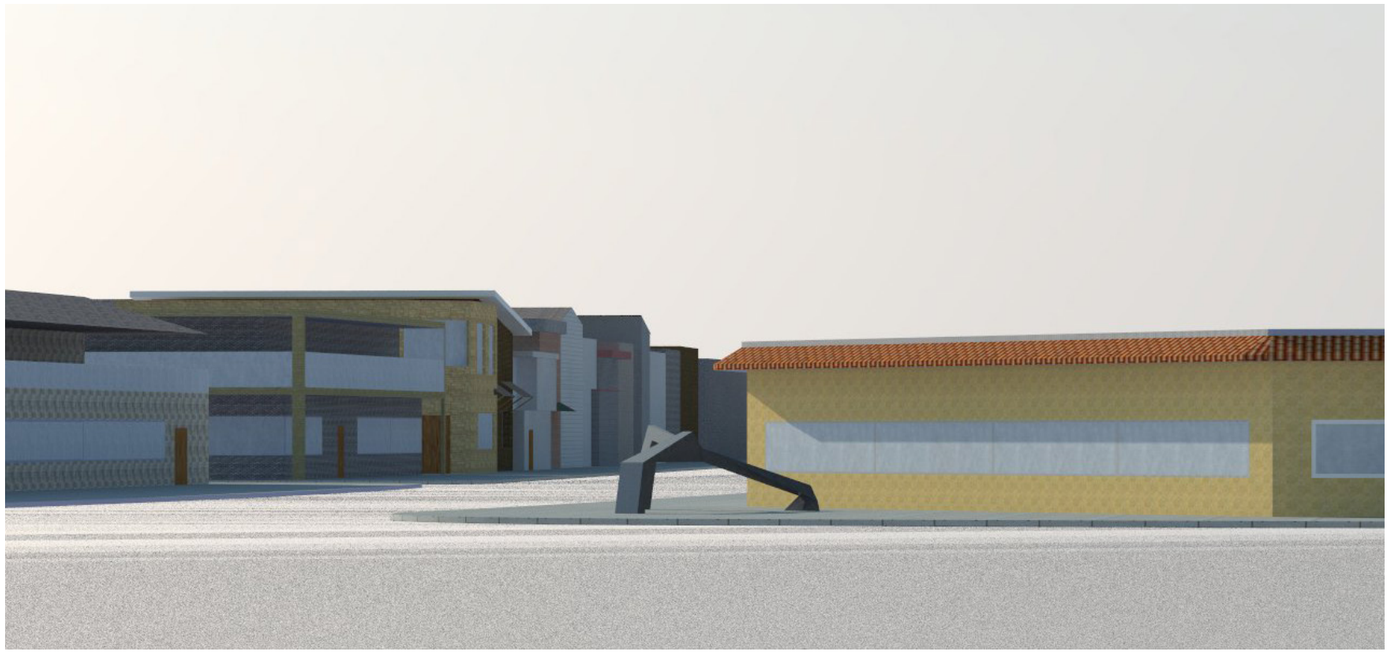

Figure 3.17 Sketchup Rendering of Gateway District

section/elevation

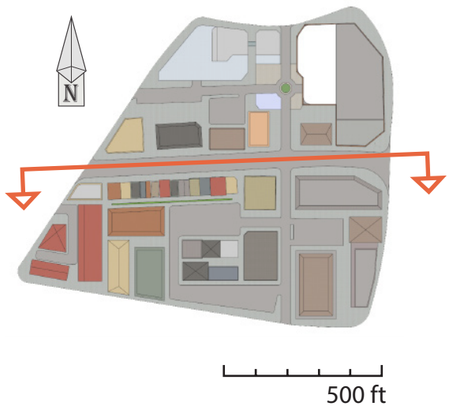

Figure 3.18 Cross Section Location

Figure 3.19 Cross Section of the South Half of the Gateway District

Conclusion

The exposure of the intersection at Woodside Road and Broadway Street to commuters, visitors and residents makes the Gateway District an ideal location for development. The opportunities for the area are outstanding due to the availability of land, its visibility from the freeway, and its proximity to both Redwood City's Downtown and the Stanford Campus. Such factors make the Gateway District one of the most desirable places for development in Redwood City. As an urban gateway, the proposed district will support surrounding uses by providing shops for consumers, restaurants for commuters, and housing for local residents. Additionally, the hotel and convention center will help promote both the Stanford Campus and the emerging businesses from the adjacent Light Industrial Incubator. With the help of locals of Redwood City, these potential prospects of the Gateway District can be maximized and realized.

References

Çalışkan, O. (). Urban Gateway: Just a Symbol, or More? (Reappraising an Old Idea in the Case of Ankara). Journal of Urban Design, 15, 91-122.

The Concept. (n.d.). Boutique Hotel Budapest. Retrieved , from http://www.boutiquehotelbudapest.com/en/home/the-concept/

Joseph, B. P., & Wu, J. The Effects of the New Trend in Hotel Design. International Hospitality Research Centre Switzerland.

Gensler, Social Impact. (Jan 2012) Clearwater East Gateway Vision Plan.

City of Ann Arbor. (2013) South State Street Corridor Plan

Urban Design Center. (2013) Boutique Hotel 1130 Hope Street.

Urban Design Associates. (Sept 2008) Carnegie Science Center Master Development Plan.

Approval

Title: Gateway District: Urban Design Concept
Author: Jonathan Chiu
Date Submitted: 6/11/14

Zeljka P. Howard | Senior Project Advisor

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Date

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Approval

Title: Gateway District: Urban Design Concept
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Grade Assigned _____

Zeljka P. Howard | Senior Project Advisor

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Signature Date

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