SECTION 5: ALTERNATIVES TO THE PROPOSED PROJECT

5.1 - Introduction

In accordance with CEQA Guidelines Section 15126.6, this Draft Subsequent Environmental Impact Report (DSEIR) contains a comparative impact assessment of alternatives to the proposed project. The primary purpose of this section is to provide decision makers and the general public with a reasonable degree of feasible project alternatives that could attain most of the basic project objectives, while avoiding or reducing any of the project's significant adverse environmental effects. Important considerations for these alternatives analyses are noted below (as stated in CEQA Guidelines Section 15126.6):

- An EIR need not consider every conceivable alternative to a project;
- An EIR should identify alternatives that were considered by the lead agency, but rejected as infeasible during the scoping process;
- Reasons for rejecting an alternative include:
    - Failure to meet most of the basic project objectives;
    - Infeasibility; or
    - Inability to avoid significant environmental effects

Significant Unavoidable Impacts

This EIR has identified six significant unavoidable impacts of the proposed project: (1) project air emissions, (2) cumulative air emissions, (3) inconsistency with the Clean Air Plan, (4) greenhouse gas emissions, (5) growth inducement, and (6) freeway operations.

Previously Considered Alternatives

The previously certified City of San Ramon General Plan EIR and the City Civic Center EIRs evaluated the following alternatives:

City of San Ramon General Plan EIR

- **No Project:** The City of San Ramon 2020 General Plan would not be adopted, and the 1995 General Plan would remain in effect.
- **Infill/Maximum Open Space Preservation:** The 2020 General Plan would be amended to re-designate acreage in existing developed areas for more intense development, including mixed-use projects, and limiting development on undeveloped or rural parcels on the urban fringe.
- **Existing Density/Limited Hillside Growth:** The 2020 General Plan would be amended to allow for limited intensification of uses in Bishop Ranch and the San Ramon Valley Boulevard and Alcosta Boulevard corridors, and limiting hillside development. This was identified as the Environmentally Superior Alternative.

City Civic Center EIR

- **No Project Alternative:** The City Civic Center project would not be developed, and the project site would remain in its existing condition.
- **Reduced Density Alternative:** The Council Chamber, City offices, a children's museum, a center for visual arts, and an aquatic center would be developed; the library and retail components would be eliminated.

Alternatives to the Proposed Project

The four alternatives to the proposed project analyzed in this section are as follows:

- **No Project Alternative:** The project site would remain in its existing condition, and the proposed project would not be developed, except for Parcel 1A, which would be developed as a 328,220-square-foot office complex under an existing vested entitlement.
- **Reduced Density Option 1 Alternative:** The Plaza District would be eliminated from the project, and Bishop Ranch 1A, the City Hall, and Transit Center would be developed.
- **Reduced Density Option 2 Alternative:** Bishop Ranch 1A, the City Hall, and the Transit Center would be eliminated from the project, and the Plaza District would be developed. Parcel 1A would be developed as a 328,220-square-foot office complex under an existing vested entitlement.
- **City Civic Center Alternative:** The previously proposed City Civic Center Project would be developed on Parcels 1A and 3A.

As stated in Section 3.0, Project Description, the objectives of the proposed project are to:

- Strengthen San Ramon and Bishop Ranch with a vibrant mix of complementary uses, including retail, residential, office, hotel, and civic.
- Develop a new, vital neighborhood for living, working, shopping, dining, entertaining, learning, and gathering.
- Create new beautiful landscaped public spaces to accommodate community and cultural events.
- Replace the outdated and undersized current City offices and Council Chambers with a new municipal campus with modern, adequately sized facilities to serve the ever-increasing demands of planned growth in San Ramon.
- Enhance the public safety in San Ramon through the provision of a state-of-the-art Police Department headquarters.
- Improve the delivery and quality of library services to San Ramon residents through the provision of a larger, technologically advanced library.

- Increase mobility, reduce greenhouse gas emissions, and promote energy conservation in San Ramon, Bishop Ranch, and the proposed project through the inclusion of a Transit Center that would serve as a convenient, centralized location for public transit providers.
- Capitalize on the proposed project's adjacency to the Iron Horse Trail to promote the use of pedestrian and bicycle modes of transportation and encourage trip and greenhouse gas reduction and energy conservation.
- Encourage trip and greenhouse gas reduction and energy conservation throughout San Ramon, Bishop Ranch, and the proposed project through the siting of residential and office uses near shopping, dining, and entertainment.
- Establish public improvements, including landscaped sidewalks, plazas, and pedestrian connections, streets, parking structures, and a new "ring road" extending Bishop Drive to Bollinger Canyon Road.
- Add new experiences at Bishop Ranch and to the San Ramon community, including a five-star hotel, an art-screen cinema, new gourmet restaurants, and destination retail attractions.
- Include high-quality, high-density housing in a mixed-use setting to increase the diversity of housing opportunities in San Ramon and provide a type of housing option that is not currently available to local residents.
- Use high-quality architecture and landscaping consistent with the style of Bishop Ranch that will maintain and enhance the aesthetic character of the City of San Ramon.
- Maximize roadway safety through the provision of multiple vehicular ingress and egress opportunities to the proposed project internal roadways and parking facilities and improvements to the surrounding circulation system.
- Create increased new property and sales taxes annually, in perpetuity, for the City of San Ramon, and increased annual property taxes for Contra Costa County and various other local government agencies.
- Increase property values throughout San Ramon and San Ramon Valley.

Four alternatives to the proposed project are analyzed below, including a parcel-by-parcel analysis, where applicable. These analyses compare the proposed project and each individual project alternative. In several cases, the description of the impact may be the same under each alternative when compared with the CEQA Thresholds of Significance (i.e., both alternatives would result in a "Less than Significant Impact"). The actual degree of impact may be slightly different under each alternative, and this relative difference is the basis for a conclusion of greater or lesser impacts.

5.2 - Alternative 1 - No Project Alternative

Under the No Project Alternative, the proposed project would not be developed. Parcel 1A would be developed as a 328,220-square-foot office complex, as entitled under the existing City/Chevron Annexation and Development Agreement (since assigned to Sunset Development). Parcels 1B, 2, and 3A would remain in their existing condition.

Table 5-1 provides a summary of the net square footage of this alternative relative to the proposed project. This alternative would result in a net reduction of 1,222,722 square feet, which represents a 68-percent reduction relative to the proposed project.

Table 5-1: No Project Alternative Summary

Component	Square Footage
Existing vested office entitlement	328,220
Retention of Bishop Ranch 2	194,652
Total	**522,872**
Net change relative to proposed project	(1,122,722)
Source: Michael Brandman Associates, 2007.	

5.2.1 - Impact Analysis

Aesthetics, Light, and Glare

Under the No Project Alternative, three of the four parcels would remain in their existing condition and would not experience any change. Parcel 1A would be developed as a 328,220-square-foot office complex under the existing vested entitlement. The proposed project's impacts on scenic vistas visual character were found to be less than significant and did not require mitigation; therefore, the No Project Alternative would also have less than significant impacts on these areas. The No Project Alternative would result in the introduction of substantial new sources of light and glare on Parcel 1A, and mitigation similar to the proposed project would be required to reduce this impact to a level of less than significant. Therefore, the No Project Alternative would have impacts on aesthetics, light, and glare similar to the proposed project.

Air Quality

This alternative would result in a net decrease of 1,122,722 square feet relative to the proposed project. Parcel 1A would be developed as a 328,220-square-foot office complex under the existing vested entitlement. Bishop Ranch 2 would not be demolished, and construction activities would be limited to approximately 13 acres. Construction emissions associated with the entitled development Parcel 1A would occur; however, because of the size of this project, the implementation of standard construction emission measures would be expected to reduce impacts to a level of less than significant. Therefore, this alternative would avoid the significant unavoidable impact associated with construction air emissions. From an operational emissions perspective, the No Project

Alternative would result in a net decrease of 19,725 daily trips, a 79 percent reduction, relative to the proposed project. However, because this alternative would generate 3,178 daily trips, which is more than the approximately 3,000-daily-trip significance established by BAAQMD, the proposed project's operational emissions would be a significant and unavoidable operational air quality impact and, therefore, would be a significant unavoidable cumulative air quality impact. Because the entitled office space is accounted for in BAAQMD's Clean Air Plan, however, this alternative would be consistent with the plan. Therefore, this alternative would avoid the proposed project's significant unavoidable impact associated with inconsistency with the Clean Air Plan. Greenhouse gas emissions would also be emitted at lower levels under this alternative because of the reduction in project intensity; mitigation in the form of energy and water conservation measures would be implemented. Because of the much smaller scale of this alternative, its greenhouse gas emissions would not be considered cumulative considerable. In summary, the No Project Alternative would result in two significant unavoidable air quality impacts, but it would avoid three others that would occur because of the proposed project. Therefore, this alternative would have fewer air quality impacts than the proposed project.

Biological Resources

Parcel 1A would be developed as an office complex under the No Project Alternative. Because Parcel 1A contains habitat suitable for the burrowing owl and nesting birds, this alternative would have the potential to significantly impact special-status wildlife species and would require mitigation similar to the proposed project. The implementation of mitigation would reduce impacts to a level of less than significant. Therefore, this alternative would have impacts on biological resources similar to the proposed project.

Cultural Resources

Parcel 1A would be developed as an office complex under the No Project Alternative. Because Parcel 1A contains undeveloped land, this alternative would have the potential to significantly impact previously undiscovered buried cultural resources and would require mitigation similar to the proposed project. The implementation of mitigation would reduce impacts to a level of less than significant. Therefore, this alternative would have impacts on cultural resources similar to the proposed project.

Geology, Soils, and Seismicity

Parcel 1A would be developed as an office complex under the No Project Alternative. Because urban development would occur on Parcel 1A, this alternative would have the potential to create erosion during construction and expose persons or structures to hazards associated with unstable geologic units and expansive soil. As such, this alternative would require mitigation similar to the proposed project, the implementation of which would reduce impacts to a level of less than significant. Therefore, this alternative would have impacts on geology, soils, and seismicity similar to the proposed project.

Hazards and Hazardous Materials

The No Project Alternative would result in the development of 328,220 square feet of office uses on Parcel 1A under the existing vested entitlement. There is the possibility that tenants of this office space could use hazardous materials and would be required to implement mitigation similar to the proposed project. The implementation of mitigation would reduce impacts to a level of less than significant. Therefore, this alternative would have impacts on hazards and hazardous materials similar to the proposed project.

Hydrology and Water Quality

Parcel 1A would be developed as an office complex under the No Project Alternative. Because urban development would occur on Parcel 1A, this alternative would have the potential to create water quality and drainage problems in downstream waterways. As such, this alternative would require mitigation similar to the proposed project, the implementation of which would reduce impacts to a level of less than significant. Therefore, this alternative would have impacts on hydrology and water quality similar to the proposed project.

Land Use

Similar to the proposed project, the No Project Alternative would maintain the existing General Plan and Zoning Ordinance designations of the project site. The 328,220-square-foot office complex on Parcel 1A is an existing entitlement and, therefore, is consistent with applicable General Plan and Zoning Ordinance policies. The remaining parcels of the project site would remain in their existing condition and would maintain their consistency with existing General Plan and Zoning Ordinance. Therefore, this alternative would have impacts on land use similar to the proposed project.

Noise

This alternative would result in a net decrease of 1,122,722 square feet relative to the proposed project. Under this alternative, the only new construction would be the development of 328,220 square feet of office uses on Parcel 1A; all other parcels would remain unchanged. Construction activities would be required to implement mitigation similar to the proposed project that would reduce short-term noise impacts to a level of less than significant. Unlike the proposed project, the No Project Alternative does not include any residential uses and, therefore, it would not be necessary to implement the vibration and interior noise control mitigation measures identified for the proposed project. In addition, because the No Project Alternative would generate 19,725 fewer daily trips, it would have a substantial smaller contribution to ambient noise levels on local roadways, although the proposed project's contribution was not determined to be significant. Therefore, the No Project Alternative would have fewer noise impacts than the proposed project.

Population and Housing

This alternative would result in a net decrease of 1,122,722 square feet relative to the proposed project. Under this alternative, 328,220 square feet of entitled office space would be developed on Parcel 1A. No direct population growth would occur under the No Project Alternative, and the

indirect population growth and employment growth created by this alternative have already been accounted for in local and regional forecasts, because this office space is currently entitled. Therefore, population and employment growth that would occur under this alternative would not exceed forecasted population growth assumptions. In contrast, the direct and indirect population growth facilitated by the proposed project would contribute to an exceedance of regional population projections for San Ramon and, therefore, would have a significant unavoidable impact. However, unlike the proposed project, this alternative would not include a residential component and would not contribute to providing affordable housing in accordance with the Regional Housing Needs Assessment allocation for San Ramon. Nonetheless, this alternative avoids a significant unavoidable impact associated with growth inducement while still allowing affordable housing goals to be pursued through other projects and programs. Therefore, this alternative would have fewer impacts on population and housing relative to the proposed project.

Public Services and Recreation

This alternative would result in a net decrease of 1,122,722 square feet relative to the proposed project. Because this alternative would not contain any residential uses and generate far fewer employment opportunities, it would result correspondingly lower impacts on public services and recreation through fewer calls for service, student generation, and park usage. Because this alternative would not include the Plaza District, it would not result in the potentially significant impact requiring mitigation for the Iron Horse Trail. Note that this impact was reduced to a level of less than significant after the implementation of mitigation. The 328,220 square feet of office uses on Parcel 1A would be multi-story structures and would be required to implement mitigation for fire response similar to the proposed project. However, because this alternative would not include a new Police Department headquarters or library, it would not result in the beneficial impacts of increased response times or improved delivery of services from the provision of these facilities. Therefore, the No Project Alternative would have more impacts on public services and recreation than the proposed project.

Transportation

This alternative would result in a net decrease of 1,122,722 square feet relative to the proposed project. Parcel 1A would be developed as a 328,220-square-foot office complex under the existing vested entitlement. When the trips generated by the entitled office uses on Parcel 1A are factored in, the No Project Alternative would generate 19,725 fewer daily trips relative to the proposed project, including 62 fewer trips during the morning peak hour and 409 fewer trips during the afternoon peak hour. While peak-hour trips would be reduced under the No Project Alternative, intersection operation impacts would still occur, and mitigation would be required to reduce impacts to a level of less than significant. In addition, because the development of the vested office entitlement would contribute new trips to Interstate 680 (I-680), which operates at LOS F during certain peak hours, it would have a significant unavoidable impact on freeway operations that is similar to the proposed project. The No Project Alternative would not modify intersections on Camino Ramon, Sunset Drive,

or other roadways and would avoid creating potentially significant queuing impacts; therefore, it would not need to implement mitigation to reduce this impact to a level of less than significant. In addition, the No Project Alternative would not narrow Camino Ramon to two lanes during the non-commute hours and would avoid the potentially significant impact requiring mitigation associated with that aspect of the proposed project. The No Project Alternative would be subject to City motorcycle parking and bicycle storage requirements and would implement mitigation similar to the proposed project for these issues. Because the No Project Alternative would not create the potentially significant queuing and roadway hazard impacts requiring mitigation, it would have fewer impacts on transportation than the proposed project.

Urban Decay

No new commercial retail uses would be developed under the No Project Alternative. In contrast, the proposed project would develop more than 600,000 square feet of retail uses as well as a 169-room hotel. As described in Section 4.13, Urban Decay, the proposed project's commercial retail uses would not be expected to cause store closures or long-term vacancies that would create physical deterioration associated with urban decay, and the proposed project would have a less than significant impact on this topical area. Therefore, the No Project Alternative would have impacts on urban decay similar to the proposed project.

Utility Systems

The No Project Alternative would result in the development of 328,220 square feet of office uses on Parcel 1A and the retention of the existing uses on all other parcels. The reduced development intensity of this alternative would have correspondingly less demand for potable water relative to the proposed project. Nonetheless, because of the intensity of the office uses, this alternative would be required to implement water conservation mitigation measures similar to those of the proposed project to reduce potentially significant potable water impacts to a level of less than significant. The proposed project's wastewater and storm drainage impacts were determined to be less than significant and, therefore, the No Project Alternative would have less than significant impacts on these utility systems. The No Project Alternative would not require the demolition of Bishop Ranch 2 nor would involve the development of the proposed project's 2.1 million square feet of new buildings. As such, it would be expected to have a substantial reduction in construction waste generation; however, the development of 328,220 square feet of office uses would be considered significant enough to require construction and demolition debris recycling mitigation. In addition, this alternative would also generate substantial amounts of operational solid waste and require mitigation similar to the proposed project to reduce potential impacts to a level of less than significant. Finally, while the No Project Alternative would have a substantially lower demand for energy, it would still require the implementation of similar energy conservation mitigation to reduce potential impacts to a level of less than significant. Therefore, the No Project Alternative would have impacts on utility systems similar to the proposed project.

5.2.2 - Conclusion

The No Project Alternative would have fewer impacts on noise, population and housing, and transportation, but would have a greater impact on public services and recreation than the proposed project. All other impacts would be similar to the proposed project. The No Project would meet the project objectives related to providing high-quality architecture and landscaping and enhancing property values; however, it would not meet the objectives of improving public facilities and delivery of services, developing a mixed-use district, creating new property and sales tax revenues, increasing housing options, reducing greenhouse gases, and enhancing mobility.

5.3 - Alternative 2 - Reduced Density Option 1 Alternative

The Reduced Density Option 1 Alternative consists of eliminating the Plaza District from the proposed project and developing only Bishop Ranch 1A and the City Hall and Transit Center. Bishop Ranch 1A and the City Hall and Transit Center would be identical in size, design, and use as envisioned by the proposed project. This alternative would amend the City/Chevron Annexation and Development agreement (since assigned to Sunset Development) to modify the existing 328,220-square-foot office entitlement to allow for the development of Bishop Ranch 1A. Parcels 2 and 3A would remain in their existing condition.

Table 5-2 provides a summary of the net square footage of this alternative relative to the proposed project. This alternative would result in a net reduction of 968,903 square feet, which represents a 60-percent reduction relative to the proposed project.

Table 5-2: Reduced Density Option 1 Alternative Summary

Component	Square Footage
Bishop Ranch 1A	681,769
City Hall and Transit Center	110,490
Existing vested office entitlement	(328,220)
Retention of Bishop Ranch 2	194,652
Total	658,691
Net change relative to proposed project	(986,903)
Source: Michael Brandman Associates, 2007.	

5.3.1 - Impact Analysis

Aesthetics, Light, and Glare

This alternative would result in the development of close to 800,000 square feet of office and civic uses as well as parking structures on Parcels 1A and 1B and the retention of the Bishop Ranch 2 office complex, for a net development of 986,903 square feet on the project site. The proposed project's impacts on the visual character of scenic vistas were found to be less than significant and did not require mitigation; therefore, the Reduced Density Option 1 Alternative would also have less than

significant impacts on these areas. This alternative would result in the introduction of substantial new sources of light and glare on Parcels 1A and 1B, and mitigation similar to the proposed project would be required to reduce this impact to a level of less than significant. Therefore, the Reduced Density Option 1 Alternative would have impacts on aesthetics, light, and glare similar to the proposed project.

Air Quality

This alternative would result in a net decrease of 986,903 square feet of development relative to the proposed project. Construction emissions associated with Bishop Ranch 1A and City Hall would occur and be substantial; mitigation in the form of construction air pollution control measures would be required, but, because of the size and intensity of this alternative, it would not fully reduce this impact to a level of less than significant. Therefore, construction air emissions would be significant and unavoidable under this alternative. From an operational emissions perspective, this alternative would result in a net decrease of 15,017 daily trips, a 40-percent reduction, relative to the proposed project. However, because this alternative would generate 9,909 daily trips, which is more than the approximately 3,000-daily-trip significance established by BAAQMD, the proposed project's operational emissions would be a significant and unavoidable impact. Because both construction and operational emissions would be significant and unavoidable, this alternative would also have a significant and unavoidable cumulative air quality impact. This alternative would also generate population growth and vehicle trips that would exceed the projections contained in the Clean Air Plan and, therefore, would have a significant unavoidable impact associated with inconsistency with the plan. Mitigation would be required for greenhouse gas emissions and would be similar to the proposed project; however, because of the size and intensity of this alternative, its greenhouse gas emissions would be cumulatively considerable. In summary, this alternative would result in the same significant unavoidable air quality impacts associated with the proposed project, and therefore, would have impacts on air quality similar to the proposed project.

Biological Resources

This alternative would result in the development of close to 800,000 square feet of new office and civic uses as well as parking structures on Parcels 1A and 1B. Because Parcel 1A contains habitat suitable for the burrowing owl and nesting birds, this alternative would have the potential to significantly impact special-status wildlife species and would require mitigation similar to the proposed project. The implementation of mitigation would reduce impacts to a level of less than significant. Therefore, this alternative would have impacts on biological resources similar to the proposed project.

Cultural Resources

This alternative would result in the development of close to 800,000 square feet of new office and civic uses, as well as parking structures, on Parcels 1A and 1B. Because Parcel 1A contains undeveloped land, this alternative would have the potential to significantly impact previously undiscovered buried cultural resources and would require mitigation similar to the proposed project.

The implementation of mitigation would reduce impacts to a level of less than significant. Therefore, this alternative would have impacts on cultural resources similar to the proposed project.

Geology, Soils, and Seismicity

This alternative would result in the development of close to 800,000 square feet of new office and civic uses, as well as parking structures, on Parcels 1A and 1B. Because urban development would occur on Parcel 1A, this alternative would have the potential to create erosion during construction and expose persons or structures to hazards associated with unstable geologic units and expansive soil. As such, this alternative would require mitigation similar to the proposed project, the implementation of which would reduce impacts to a level of less than significant. Therefore, this alternative would have impacts on geology, soils, and seismicity similar to the proposed project.

Hazards and Hazardous Materials

This alternative would result in the development of close to 800,000 square feet of new office and civic uses, as well as parking structures, on Parcels 1A and 1B. There is the possibility that tenants of Bishop Ranch 1A or City Hall could use hazardous materials and would be required to implement mitigation similar to the proposed project. The implementation of mitigation would reduce impacts to a level of less than significant. Therefore, this alternative would have impacts on hazards and hazardous materials similar to the proposed project.

Hydrology and Water Quality

Parcels 1A and 1B would be developed with close to 800,000 square feet of new office and civic uses as well as parking structures, under this alternative. Because urban development would occur on these parcels, this alternative would have the potential to create water quality and drainage problems in downstream waterways. As such, this alternative would require mitigation similar to the proposed project, the implementation of which would reduce impacts to a level of less than significant. Therefore, this alternative would have impacts on hydrology and water quality similar to the proposed project.

Land Use

Similar to the proposed project, this alternative would maintain the existing General Plan and Zoning Ordinance designations of the project site. Both Bishop Ranch 1A and City Hall would consistent with applicable General Plan and Zoning Ordinance policies. The remaining parcels of the project site would remain in their existing condition and would maintain their consistency with the existing General Plan and Zoning Ordinance. Therefore, this alternative would have impacts on land use similar to the proposed project.

Noise

This alternative would result in a net decrease of 986,903 square feet of development relative to the proposed project. Construction would be limited to Parcels 1A and 1B; no demolition or construction emissions would occur on Parcel 2 or 3A. Construction activities would be required to implement

mitigation similar to the proposed project that would reduce short-term noise impacts to a level of less than significant. However, unlike the proposed project, this alternative does not include any residential uses and, therefore, it would not be necessary to implement the vibration and interior noise control mitigation measures identified for the proposed project. In addition, because this alternative would generate 15,017 fewer daily trips, it would have a substantially smaller contribution to ambient noise levels on local roadways, although the proposed project's contribution was not determined to be significant. Therefore, this alternative would have fewer noise impacts than the proposed project.

Population and Housing

This alternative would result in a net decrease of 986,903 square feet of development relative to the proposed project. No direct population growth would occur under this alternative, and the indirect population growth and employment growth created would be less than half as much as the proposed project. Therefore, population and employment growth that would occur under this alternative would not exceed forecasted population growth assumptions. In contrasts, the direct and indirect population growth facilitated by the proposed project would contribute to an exceedance of regional population projections for San Ramon and, therefore, have a significant unavoidable impact. However, unlike the proposed project, this alternative would not include a residential component and would not contribute to providing affordable housing in accordance with the Regional Housing Needs Assessment allocation for San Ramon. Nonetheless, this alternative avoids a significant unavoidable impact associated with growth inducement while still allowing affordable housing goals to be pursued through other projects and programs. Therefore, this alternative would have fewer impacts on population and housing relative to the proposed project.

Public Services and Recreation

This alternative would result in a net decrease of 986,903 square feet of development relative to the proposed project. Because this alternative would not contain any residential uses and generate far fewer employment opportunities, it would result in correspondingly lower impacts on public services and recreation through fewer calls for service, student generation, and park usage. Because this alternative would not include the Plaza District, it would not result in the potentially significant impact requiring mitigation for the Iron Horse Trail. Note that this impact was reduced to a level of significant after the implementation of mitigation. Bishop Ranch 1A and City Hall would be multi-story structures and would be required to implement mitigation for fire response similar to the proposed project. This alternative would include a new Police Department headquarters and library and would have similar beneficial impacts associated with increased response times and improved delivery of services from the provision of these facilities. Therefore, this alternative would have impacts on public services and recreation similar to the proposed project.

Transportation

This alternative would result in a net decrease of 986,903 square feet of development relative to the proposed project. Bishop Ranch 1A would be developed in place of the existing entitlement for 328,220 square feet of office uses; City Hall would also be developed and Bishop Ranch 2 would be

retained. When all of these conditions are factored in, the alternative would generate 15,017 fewer daily trips relative to the proposed project, including 966 fewer trips during the afternoon peak hour, although there would be 72 more trips during the morning peak hour because of the retention of Bishop Ranch 2. While afternoon peak-hour trips would be reduced under this alternative, intersection operation impacts would still occur and mitigation would be required to reduce impacts to a level of less than significant. In addition, because this alternative would contribute new trips to I-680, which operates at LOS F during certain peak hours, it would have a similar significant unavoidable impact on freeway operations as the proposed project. This alternative would not modify intersections on Camino Ramon, Sunset Drive or other roadways and would avoid creating potentially significant queuing impacts; therefore, it would not need to implement mitigation to reduce these impacts to a level of less than significant. In addition, this alternative would not narrow Camino Ramon to two lanes during the non-commute hours and would avoid the potentially significant impact requiring mitigation associated with that aspect of the proposed project. This alternative would be subject to City motorcycle parking and bicycle storage requirements and would implement mitigation similar to the proposed project for these issues. This alternative would include a Transit Center and would create the beneficial impacts associated with more convenient public transit facilities. Because this alternative would not create potentially significant queuing and roadway hazard impacts requiring mitigation, it would have fewer impacts on transportation than the proposed project.

Urban Decay

No commercial retail uses would be developed under this alternative. In contrast, the proposed project would develop more than 600,000 square feet of retail uses as well as 169-room hotel. As described in Section 4.13, Urban Decay, the proposed project's commercial retail uses would not be expected to cause store closures or long-term vacancies that would create physical deterioration associated with urban decay and the proposed project would have less than significant impact in relation to this topical area. Therefore, this alternative would have impacts on urban decay similar to the proposed project.

Utility Systems

This alternative would result in the development of close to 800,000 square feet of new office and civic uses, as well as parking structures, on Parcels 1A and 1B. The reduced development intensity of this alternative would have correspondingly less demand for potable water relative to the proposed project. Nonetheless, because of the intensity of the office and civic uses, this alternative would be required to implement water conservation mitigation measures similar to those of the proposed project to reduce potentially significant potable water impacts to a level of less than significant. The proposed project's wastewater and storm drainage impacts were determined to be less than significant and, therefore, this alternative would have less than significant impacts on these utility systems. This alternative would not require the demolition of Bishop Ranch 2 and would develop 1.3 million fewer square feet of new buildings. As such, it would be expected to have a substantial reduction in

construction waste generation; however, the development of close to 800,000 square feet of office and civic uses would be considered significant enough to require construction and demolition debris recycling mitigation. In addition, this alternative would also generate substantial amounts of operational solid waste and require mitigation similar to the proposed project to reduce potential impacts to a level of less than significant. Finally, while this alternative would have a substantially lower demand for energy, it would still implement similar energy conservation mitigation to reduce potential impacts to a level of less than significant. Therefore, this alternative would have impacts on utility systems similar to the proposed project.

5.3.2 - Conclusion

The Reduced Density Option 1 Alternative would have fewer impacts on noise, population and housing, and transportation than the proposed project. All other impacts would be similar to the proposed project. The Reduced Density Option 1 Alternative would meet the project objectives related to improving public facilities and the delivery of services, providing high-quality architecture and landscaping, and enhancing property values; however it would not meet the objectives related to developing a mixed-use district, creating new property and sales tax revenues, increasing housing options, reducing greenhouse gases, and enhancing mobility.

5.4 - Alternative 3 - Reduced Density Option 2 Alternative

The Reduced Density Option 2 Alternative consists of eliminating the Bishop Ranch 1A and the City Hall and Transit Center components and developing only the Plaza District. The Plaza District would be identical in size, design, and use as envisioned by the proposed project. Under this alternative, the existing vested entitlement on Parcel 1A for 328,220 square feet of office uses would be exercised. Parcel 1B would remain in its existing condition.

Table 5-3 provides a summary of the net square footage of this alternative relative to the proposed project. This alternative would result in a net reduction of 135,819 square feet, which represents an 8 percent reduction relative to the proposed project.

Table 5-3: Reduced Density Option 2 Alternative Summary

Component	Square Footage
Plaza District	1,376,207
Existing vested office entitlement	328,220
Removal of Bishop Ranch 2	(194,652)
Total	**1,509,775**
Net change relative to proposed project	(135,819)
Source: Michael Brandman Associates, 2007.	

5.4.1 - Impact Analysis

Aesthetics, Light, and Glare

This alternative would result in the development of more than 1.7 million square feet of new mixed-use and office development, as well as parking structures, on Parcels 1A, 2, and 3. The proposed project's impacts on scenic vistas visual character were found to be less than significant and did not require mitigation; therefore, this alternative would also have less than significant impacts on these areas. This alternative would result in the introduction of substantial new sources of light and glare on Parcels 1A and 3A and the intensification of existing sources on Parcel 2. Mitigation similar to the proposed project would be required to reduce this impact to a level of less than significant. Therefore, this alternative would have impacts on aesthetics, light, and glare similar to the proposed project.

Air Quality

This alternative would result in a net decrease of 135,819 square feet of development relative to the proposed project. Construction emissions associated with the Plaza District and the entitled office space would occur and be substantial; mitigation in the form of construction air pollution control measures would be required, but because of the size and intensity of this alternative, they would not reduce the impact to a level of less than significant. Therefore, construction air emissions would be significant and unavoidable under this alternative. From an operational emissions perspective, this alternative would result in a net decrease of 2,685 daily trips, an 8 percent reduction, relative to the proposed project. However, because this alternative would generate 22,241 daily trips, which is more than the approximately 3,000-daily-trip significance established by BAAQMD, the proposed project's operational emissions would be a significant and unavoidable impact. Because both construction and operational emissions would be significant and unavoidable, this alternative would also have a significant and unavoidable cumulative air quality impact. This alternative would also generate population growth and vehicle trips that would exceed the projections contained in the Clean Air Plan and, therefore have a significant unavoidable impact associated with inconsistency with the plan. Mitigation would be required for greenhouse gas emissions and would be similar to the proposed project; however, because of the size and intensity of this alternative, its greenhouse gas emissions would be cumulatively considerable. In summary, this alternative would result in the same significant unavoidable air quality impacts associated with the proposed project, and therefore, would have impacts on air quality similar to the proposed project.

Biological Resources

This alternative would result in the development of more than 1.7 million square feet of new mixed-use and office development, as well as parking structures, on Parcels 1A, 2, and 3. Because Parcels 1A, 2, and 3A contains habitat suitable for the burrowing owl or nesting birds, this alternative would have the potential to significantly impact special-status wildlife species and would require mitigation similar to the proposed project. The implementation of mitigation would reduce impacts to a level of

less than significant. Therefore, this alternative would have impacts on biological resources similar to the proposed project.

Cultural Resources

This alternative would result in the development of more than 1.7 million square feet of new mixed-use and office development, as well as parking structures, on Parcels 1A, 2, and 3. Because Parcels 1A and 3A contain undeveloped land, this alternative would have the potential to significantly impact previously undiscovered buried cultural resources and would require mitigation similar to the proposed project. The implementation of mitigation would reduce impacts to a level of less than significant. Therefore, this alternative would have impacts on cultural resources similar to the proposed project.

Geology, Soils, and Seismicity

This alternative would result in the development of more than 1.7 million square feet of new mixed-use and office development, as well as parking structures, on Parcels 1A, 2, and 3. Because urban development would occur on Parcels 1A and 3A, this alternative would have the potential to create erosion during construction and expose persons or structures to hazards associated with unstable geologic units and expansive soil. As such, this alternative would require mitigation similar to the proposed project, the implementation of which would reduce impacts to a level of less than significant. Therefore, this alternative would have impacts on geology, soils, and seismicity similar to the proposed project.

Hazards and Hazardous Materials

This alternative would result in the development of more than 1.7 million square feet of new mixed-use and office development, as well as parking structures, on Parcels 1A, 2, and 3. There is the possibility that tenants of the Plaza District and the entitled office space could use hazardous materials and would be required to implement mitigation similar to the proposed project. The implementation of mitigation would reduce impacts to a level of less than significant. Therefore, this alternative would have impacts on hazards and hazardous materials similar to the proposed project.

Hydrology and Water Quality

This alternative would result in the development of more than 1.7 million square feet of new mixed-use and office development, as well as parking structures, on Parcels 1A, 2, and 3. Because urban development would occur on these parcels, this alternative would have the potential to create water quality and drainage problems in downstream waterways. As such, this alternative would require mitigation similar to the proposed project, the implementation of which would reduce impacts to a level of less than significant. Therefore, this alternative would have impacts on hydrology and water quality similar to the proposed project.

Land Use

Similar to the proposed project, this alternative would maintain the existing General Plan and Zoning Ordinance designations of the project site. Both the Plaza District and the entitled office space would be consistent with applicable General Plan and Zoning Ordinance policies. Parcel 1B would remain in its existing condition and would maintain its consistency with existing General Plan and Zoning Ordinance. Therefore, this alternative would have impacts on land use similar to the proposed project.

Noise

This alternative would result in a net decrease of 135,819 square feet of development relative to the proposed project. Construction would occur on Parcels 1A, 2, and 3A and consist of 1.7 million square feet of new mixed-use and office development. Construction activities would be required to implement mitigation similar to the proposed project that would reduce short-term noise impacts to a level of less than significant. Similar to the proposed project, this alternative includes residential uses and, therefore, it would be necessary to implement the vibration and interior noise control mitigation measures identified for the proposed project. In addition, because this alternative would generate 2,685 fewer daily trips, it would have a smaller contribution to ambient noise levels on local roadways, although the proposed project's contribution was not determined to be significant. Therefore, this alternative would have noise impacts similar to the proposed project.

Population and Housing

This alternative would result in a net decrease of 135,819 square feet of development relative to the proposed project. Direct population growth would occur under this alternative and would equivalent to the proposed project. Employment opportunities created by this alternative would be slightly less than the proposed project because of the smaller size of the office entitlement relative to Bishop Ranch 1A. The direct and indirect population growth facilitated by the proposed project would contribute to an exceedance of regional population projections for San Ramon and, therefore have a significant unavoidable impact. Because the population and employment growth that would occur under this alternative would not be significantly different from the proposed project, it would also have a significant unavoidable impact related to growth inducement. Similar to the proposed project, this alternative would include a residential component and would contribute to providing affordable housing in accordance with the Regional Housing Needs Assessment allocation for San Ramon. Therefore, this alternative would have impacts on population and housing similar to the proposed project.

Public Services and Recreation

This alternative would result in a net decrease of 135,819 square feet of development relative to the proposed project. Because this alternative would contain residential uses and would generate a substantial number of new employment opportunities, it would result in similar demands on public services and recreation through fewer calls for service, student generation, and park usage as the proposed project. This alternative would increase use of the Iron Horse Trail and require the

mitigation measure related to increased trail usage that would reduce impacts to a level of less than significant. The Plaza District and the entitled office space would be multi-story structures and would be required to implement mitigation for fire response similar to the proposed project. Unlike the proposed project, this alternative would not include the City Hall and, therefore, would not provide a new Police Department headquarters and library. Therefore, this alternative would not create the beneficial impacts associated with increased response times and improved delivery of services from the provision of these facilities. As such, this alternative would have more impacts on public services and recreation than the proposed project.

Transportation

This alternative would result in a net decrease of 135,819 square feet of development relative to the proposed project. Development of the Plaza District would result in the removal of Bishop Ranch 2 and, therefore, remove those existing trips from local roadways. This alternative also assumes that the existing 328,220-square-foot, vested office entitlement on Parcel 1A would be developed. When all of these conditions are factored in, this alternative would generate 2,685 fewer daily trips relative to the proposed project, including 133 fewer trips during the morning peak hour and 263 fewer trips during the afternoon peak hour. While peak-hour trips would be reduced under this alternative, intersection operation impacts would still occur and mitigation would be required to reduce impacts to a level of less than significant. In addition, because this alternative would contribute new trips to I-680, which operates at LOS F during certain peak hours, it would have a similar significant unavoidable impact on freeway operations as the proposed project. Similar to the proposed project, this alternative would also create a potentially significant impact associated with queuing because it would implement the substantial intersection modifications associated with the Plaza District that would result in several 95th percentile queues exceeding available storage capacity. As with the proposed project, this alternative would narrow Camino Ramon to two lanes during the non-commute hours and would create a potentially significant impact requiring mitigation. This alternative would be subject to City motorcycle parking and bicycle storage requirements and would implement similar mitigation as the proposed project for these issues. However, unlike the proposed project, this alternative would not include a transit center and would not create the beneficial impacts associated with more convenient public transit facilities. Therefore, this alternative would have impacts on transportation similar to the proposed project.

Urban Decay

The commercial retail uses developed under this alternative would be identical in square footage and nature to the proposed project. As described in Section 4.13, Urban Decay, the proposed project's commercial retail uses would not be expected to cause store closures or long-term vacancies that would create physical deterioration associated with urban decay and the proposed project would have less than significant impact in relation to this topical area. Therefore, this alternative would have impacts on urban decay similar to the proposed project.

Utility Systems

This alternative would result in the development of more than 1.7 million square feet of new mixed-use and office development, as well as parking structures, on Parcels 1A, 2, and 3. Because there would be only a net reduction of 135,819 square feet relative to the proposed project, potable water demand would be similar to the proposed project. As such, this alternative would be required to implement water conservation mitigation measures similar to those of the proposed project to reduce potentially significant potable water impacts to a level of less than significant. The proposed project's wastewater and storm drainage impacts were determined to be less than significant and, therefore, this alternative would have less than significant impacts on these utility systems. This alternative would involve the demolition of Bishop Ranch 2 and would develop more than 1.7 million square feet of new buildings. As such, it would generate substantial amounts of construction waste and would require construction and demolition debris recycling mitigation. In addition, this alternative would also generate substantial amounts of operational solid waste and require mitigation similar to the proposed project to reduce potential impacts to a level of less than significant. Finally, while this alternative would have a lower demand for energy than the proposed project, it would still implement similar energy conservation mitigation to reduce potential impacts to a level of less than significant. Therefore, this alternative would have impacts on utility systems similar to the proposed project.

5.4.2 - Conclusion

The Reduced Density Option 2 Alternative would not have fewer impacts on any topical area relative to the proposed project and would have greater impacts on public services and recreation. However, this alternative meets most of the project objectives to the same degree as the proposed project, particularly those related to creating a mixed-use district, providing high-quality architecture and landscaping, and enhancing property values; nevertheless, it would not meet the objectives related to improving public facilities, integrating civic uses within the mixed-use district, and the delivery of services or enhancing mobility.

5.5 - Alternative 4 - City Civic Center Alternative

The City Civic Center Alternative consists of developing the project detailed in City Civic Center Environmental Impact Report, certified by the San Ramon City Council in December 2003. The City Civic Center Project proposed 276,000 square feet of civic and commercial uses, including City offices, Council Chambers, a library, a children's museum, a 1,200-seat performing arts center with a smaller 300-seat theater, 40,000 square feet of retail on Parcel 3A, and an aquatic center on the City-owned portion of Parcel 1A. These uses would use the existing Bishop Ranch 3 parking structure located immediately north of Parcel 3A.

The square footage for the Parcel 3A components are as follows:

- City Offices and Council Chambers: 70,000 square feet

- Library: 50,000 square feet
- Children's Museum: 20,000 square feet
- Center for Arts and Visual Arts Gallery: 96,000 square feet
- Retail: 40,000 square feet

The aquatic center would feature an Olympic-sized pool with stadium-style seating for 3,000 spectators and locker room facilities.

This alternative would amend the existing City/Chevron Annexation and Development Agreement (since assigned to Sunset Development) to modify the existing 328,220-square-foot office entitlement to allow for the development of the aquatic center. Parcels 1B and 2 would remain in their existing condition.

Table 5-4 provides a summary of the net square footage of this alternative relative to the proposed project. This alternative would result in a net reduction of 1,503,162 square feet, which represents a 91-percent reduction relative to the proposed project.

Table 5-4: City Civic Center Alternative Summary

Component	Square Footage
City Civic Center	276,000
Existing vested office entitlement	(328,220)
Retention of Bishop Ranch 2	194,652
Total	**142,432**
Net change relative to proposed project	(1,503,162)
Source: Michael Brandman Associates, 2007.	

The impacts analysis below summarizes the conclusions presented in the previously certified City Civic Center EIR.

5.5.1 - Impact Analysis

Aesthetics, Light, and Glare

The City Civic Center EIR concluded that all impacts on aesthetics, light, and glare would be less than significant and would not require mitigation. In contrast, the proposed project would have a potentially significant impact on light and glare and would require mitigation to reduce this impact to a level of less than significant. Therefore, this alternative would have fewer impacts on aesthetics, light, and glare relative to the proposed project.

Air Quality

The City Civic Center EIR concluded that all air quality impacts could be mitigated to a level of less than significant. This includes construction emissions, which would be reduced to a level of less than

significant through implementation of standard air pollution control measures, and operational emissions, which would be less than significant and would not require mitigation. Because these impacts would be less than significant after mitigation, there would be no significant cumulative air quality impacts. In addition, the EIR found that the City Civic Center Alternative would be consistent with the projections contained in the Clean Air Plan. In contrast, the proposed project would have significant unavoidable impacts associated with all of the aforementioned areas. Note that the City Civic Center EIR did not consider greenhouse gas emissions. However, with the implementation of energy and water efficiency measures similar to those of the proposed project, it can be assumed that this alternative would not have a cumulatively considerable impact associated with greenhouse gas emissions because of its reduced size and intensity. Therefore, this alternative would have fewer air quality impacts than the proposed project.

Biological Resources

The City Civic Center EIR concluded that all biological resources impacts were less than significant and did not require mitigation. In contrast, the proposed project would have a potentially significant impact on special status wildlife species and would require mitigation to reduce this impact to a level of less than significant. Therefore, this alternative would have fewer impacts on biological resources than the proposed project.

Cultural Resources

The City Civic Center EIR concluded that all cultural resources impacts were less than significant and did not require mitigation. In contrast, the proposed project would have potentially significant impacts on historic, archaeological, and paleontological resources and burial sites, and it would require mitigation to reduce these impacts to a level of less than significant. Therefore, this alternative would have fewer impacts on cultural resources than the proposed project.

Geology, Soils, and Seismicity

The City Civic Center EIR concluded that all geology, soils, and seismicity impacts could be mitigated to a level of less than significant. Mitigation was required for seismic-related hazards and unstable geologic units and is similar to the mitigation required to the proposed project. Therefore, this alternative would have impacts on geology, soils, and seismicity similar to the proposed project.

Hazards and Hazardous Materials

The City Civic Center EIR concluded that all hazards and hazardous materials impacts were less than significant and did not require mitigation. In contrast, the proposed project would have potentially significant impact related to potential hazardous materials usage and would require mitigation to reduce this impact to a level of less than significant. Therefore, this alternative would have fewer impacts on hazards and hazardous materials than the proposed project.

Hydrology and Water Quality

The City Civic Center EIR concluded that all hydrology and water quality impacts could be mitigated to a level of less than significant. Mitigation was required for construction and operational water quality and is similar to the mitigation required to the proposed project. However, the proposed project would also have a potentially significant impact on drainage that would require mitigation to reduce it to a level of less than significant. Therefore, this alternative would have fewer impacts on hydrology and water quality than the proposed project.

Land Use

The City Civic Center EIR concluded that all land use impacts were less than significant and did not require mitigation. The proposed project's land use impacts also would be less than significant and would not require mitigation. Therefore, this alternative would have impacts on land use similar to the proposed project.

Noise

The City Civic Center EIR concluded that all noise impacts could be mitigated to a level of less than significant. Construction noise impacts would be mitigated to a level of less than significant with noise control measures similar to the proposed project. Similar to the proposed project, the City Civic Center alternative would not result in substantial increases in roadway noise levels or onsite noise that would adversely impact nearby sensitive receptors. However, this alternative would not contain any residential uses and, therefore, would not require the proposed project's mitigation for potential impacts associated with onsite noise or vibration. Therefore, this alternative would have fewer noise impacts than the proposed project.

Population and Housing

The City Civic Center EIR concluded that all population and housing impacts were less than significant and did not require mitigation. In contrast, the proposed project would have a significant unavoidable impact on growth inducement because it would contribute to population growth in excess of regional projections. However, unlike the proposed project, this alternative would not include a residential component and would not contribute to providing affordable housing in accordance with the Regional Housing Needs Assessment allocation for San Ramon. Nonetheless, this alternative avoids a significant unavoidable impact associated with growth inducement while still allowing affordable housing goals to be pursued through other projects and programs. Therefore, this alternative would have fewer impacts on population and housing relative to the proposed project.

Public Services and Recreation

The City Civic Center EIR concluded that all public services and recreation impacts were less than significant and did not require mitigation. In contrast, the proposed project would have potentially significant impacts on fire protection and trails that would require mitigation to reduce them to a level of less than significant. Therefore, this alternative would have fewer impacts on public services and recreation than the proposed project.

Transportation

The City Civic Center EIR concluded that all transportation impacts could be mitigated to a level of less than significant. This alternative would result in potentially significant impacts associated with intersection operations; parking, bicycle, and pedestrian access to the Iron Horse Trail; and construction truck traffic. Mitigation would reduce all potentially significant transportation impacts to a level of less than significant. In comparison, the proposed project would also have potentially significant impacts associated with intersection operations, parking, bicycle use, and construction traffic, as well as significant impacts associated with freeway operations, queuing, and hazards associated with narrowing Camino Ramon to two lanes during non-commute hours. Mitigation is proposed for intersection operations, queuing, roadway hazards, parking, bicycle use, and construction traffic, and these impacts would be reduced to a level of less than significant after mitigation. No mitigation is available for freeway operations impacts, and this would be significant and unavoidable. Therefore, this alternative would have fewer transportation impacts than the proposed project.

Urban Decay

The City Civic Center EIR did not consider urban decay impacts. However, because this alternative has only 40,000 square feet of commercial retail uses, it can be assumed to have much lower economic impact relative to the proposed project. As described in Section 4.13, Urban Decay, the proposed project's commercial retail uses would not be expected to cause store closures or long-term vacancies that would create physical deterioration associated with urban decay, and the proposed project would have less than significant impact in relation to this topical area. Therefore, this alternative would have impacts on urban decay similar to the proposed project.

Utility Systems

The City Civic Center EIR concluded that all utility system impacts could be mitigated to a level of less than significant. Mitigation was required for water supply and infrastructure impacts and consisted of fees for new conveyance facilities and water conservation measures to reduce potential impacts to a level of less than significant. The proposed project would also result in a significant increase in potable water demand and would implement water conservation measures to reduce the impact to a level of less than significant. However, the proposed project would generate substantial quantities of solid waste and demand substantial amounts of energy; both are potentially significant impacts requiring mitigation to reduce potential impacts to a level of less than significant. Therefore, this alternative would have fewer impacts on utility systems than the proposed project.

5.5.2 - Conclusion

The City Civic Center Alternative would result in fewer impacts on 11 topical areas relative to the proposed project and similar impacts on the remaining three topical areas. This alternative would partially meet the project objectives, particularly those related to improving public facilities and the delivery of services, providing high-quality architecture and landscaping, and enhancing property values; however it would not meet the objectives related to developing a mixed-use district, creating

new property and sales tax revenues, increasing housing options, reducing greenhouse gases, and enhancing mobility. Moreover, the financial viability of this alternative is extremely uncertain because the development of the facilities associated with the City Civic Center proposal is estimated to cost $160 million. This cost would be borne entirely by the City of San Ramon, and there are significant concerns about the fiscal prudence of the City taking on such a substantial financial burden. In addition, several of the facilities included in this alternative (e.g., the aquatic center, the performing arts center, and the children's museum) have been developed elsewhere in San Ramon or nearby communities since the certification of the EIR in 2003 and, therefore, would not be considered feasible project components.

5.6 - Environmentally Superior Alternative

The environmental effects of each alternative in relation to the proposed project are summarized in Table 5-5.

Table 5-5: Summary of Alternatives

Environmental Topic Area	No Project Alternative	Reduced Density Alternative - Option 1	Reduced Density Alternative - Option 2	City Civic Center Alternative
Aesthetics, Light, and Glare	Similar Impacts	Similar Impacts	Similar Impacts	Fewer Impacts
Air Quality	Fewer Impacts	Similar Impacts	Similar Impacts	Fewer Impacts
Biological Resources	Similar Impacts	Similar Impacts	Similar Impacts	Fewer Impacts
Cultural Resources	Similar Impacts	Similar Impacts	Similar Impacts	Fewer Impacts
Geology, Soils, and Seismicity	Similar Impacts	Similar Impacts	Similar Impacts	Similar Impacts
Hazards and Hazardous Materials	Similar Impacts	Similar Impacts	Similar Impacts	Fewer Impacts
Hydrology and Water Quality	Similar Impacts	Similar Impacts	Similar Impacts	Fewer Impacts
Land Use	Similar Impacts	Similar Impacts	Similar Impacts	Similar Impacts
Noise	Fewer Impacts	Fewer Impacts	Similar Impacts	Fewer Impacts
Population and Housing	Fewer Impacts	Fewer Impacts	Similar Impacts	Fewer Impacts
Public Services and Recreation	More Impacts	Similar Impacts	More Impacts	Fewer Impacts
Transportation	Fewer Impacts	Fewer Impacts	Similar Impacts	Fewer Impacts
Urban Decay	Fewer Impacts	Similar Impacts	Similar Impacts	Similar Impacts
Utility Systems	Similar Impacts	Similar Impacts	Similar Impacts	Fewer Impacts

CEQA Guidelines Section 15126(e)(2) requires an EIR to identify an "environmentally superior alternative." If the No Project Alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives.

Each of the proposed alternatives would have fewer environmental impacts relative to the proposed project, with the City Civic Center Alternative having the fewest. Therefore, this alternative would be the environmentally superior alternative.

5.7 - Alternatives Rejected From Further Consideration

The following alternative was initially considered but was rejected from further consideration for the reasons described below.

Alternative Location

For an alternative location to be feasible to support the proposed project, it would need to meet the following criteria:

- Be located with the limits or the sphere of influence of the City of San Ramon.
- Contain a minimum of 40 acres, with the acreage being either contiguous or separated only by streets.
- Be designated for commercial, office, or mixed-uses by the City of San Ramon General Plan.
- Be located at an intersection on a highly visible commercial corridor (e.g., San Ramon Valley Boulevard, Crow Canyon Road, Bollinger Canyon Road, Alcosta Boulevard, or Camino Ramon).
- Be under the ownership of either Sunset Development or the City of San Ramon.

No alternative locations meet all of these criteria and, therefore, are not considered feasible sites for the proposed project.

SECTION 6: OTHER CEQA CONSIDERATIONS

6.1 - Significant Unavoidable Impacts

CEQA Guidelines Section 15126.2(a)(b) requires an EIR to identify and focus on the significant environmental effects of the proposed project, including effects that cannot be avoided if the proposed project were implemented.

Previously Certified Environmental Documents

The previously certified City of San Ramon General Plan EIR identified the following impact as a significant unavoidable effect of buildout of the General Plan:

- **Inconsistency with the Clean Air Plan:** Population growth and vehicle trips associated with buildout of the City of San Ramon General Plan would exceed the projections contained in the BAAQMD Clean Air Plan. The City Council adopted a Statement of Overriding Considerations for the significant unavoidable impact.

The previously certified City Civic Center EIR concluded that the residual significance of all potentially significant impacts would be less than significant after mitigation, and no significant unavoidable impacts would occur.

Proposed Project

This section describes significant impacts of the proposed project, including those that can be mitigated but not reduced to a level of less than significant. Where there are impacts that cannot be alleviated without imposing a project alternative, their implications, and the reason why the project is being proposed, notwithstanding their effect, are described. With implementation of the proposed project, six impacts related to air quality, population and housing, and transportation that cannot be avoided would occur. Each significant unavoidable impact is discussed below.

- **Construction and operational air emissions:** Daily emissions from project construction and operational activities would exceed Bay Area Air Quality Management District (BAAQMD) thresholds. Mitigation is proposed that would require implementation of air pollution control measures; however, these measures would not fully reduce this impact to a level of less than significant.
- **Cumulative air emissions:** Because construction and operational emissions would exceed BAAQMD thresholds, the proposed project would have a significant cumulative impact. No mitigation is available to reduce this impact to a level of less than significant.
- **Inconsistency with the Clean Air Plan:** Population growth and vehicle trips associated with the proposed project would exceed the projections contained in the BAAQMD Clean Air Plan. No mitigation is available to reduce this impact to a level of less than significant.

- **Greenhouse gas emissions:** The size and intensity of the proposed project would have a cumulatively considerable contribution to greenhouse gas emissions. Mitigation is proposed that would require implementation of energy and water conservation measures; however, these measures would not fully reduce this impact to a level of less than significant.
- **Growth inducement:** Population growth attributable to the proposed project would exceed Association of Bay Area Government's (ABAG) projections for San Ramon. No mitigation is available to reduce this impact to a level of less than significant.
- **Freeway operations:** The proposed project would contribute new vehicle trips to Interstate 680 (I-680), which currently operates a deficient level of service. No mitigation is available to reduce this impact to a level of less than significant.

6.2 - Growth-Inducing Impacts

There are two types of growth-inducing impacts that a project may have: direct and indirect. To assess the potential for growth-inducing impacts, the project's characteristics that may encourage and facilitate activities that individually or cumulatively may affect the environment must be evaluated (CEQA Guidelines Section 15126.2[d]).

Direct growth-inducing impacts occur when the development of a project imposes new burdens on a community by directly inducing population growth, or by leading to the construction of additional developments in the same area. Also included in this category are projects that remove physical obstacles to population growth (such as a new road into an undeveloped area or a wastewater treatment plant with excess capacity that could allow additional development in the service area). Construction of these types of infrastructure projects cannot be considered isolated from the development they facilitate and serve. Projects that physically remove obstacles to growth or projects that indirectly induce growth may provide a catalyst for future unrelated development in an area, such as a new residential community, that requires additional commercial uses to support residents.

The proposed project would result in the development of more than 2.1 million square feet of mixed-uses, including residential, commercial retail, office, and civic on 44 acres in an existing urbanized area. The residential units included in the proposed project would be expected to result in direct population growth of 1,264 new residents. The proposed project is expected to create 3,636 new jobs, and it is conservatively estimated that half of the employees (1,818) will relocate to San Ramon. In total, the proposed project is projected to add 3,082 new residents to San Ramon's population.

ABAG anticipates that San Ramon's 2010 population will be 58,700, and its 2020 population will be 70,900. Between 2000 and 2007, San Ramon has grown at an annual rate of 3.79 percent. Applying this growth rate to the City's 2007 population estimate of 58,035, the 2010 population is expected to be 64,887, which would exceed ABAG's 2010 projection of 58,700 by 10.5 percent. With the addition of population growth induced by the proposed project, the City's 2010 population is

estimated to be 67,969 persons and would exceed the ABAG projections by 15.8 percent. This is a significant growth-inducing impact because the proposed project would exceed regional population projections. No mitigation is available to reduce this impact to a level of less than significant; therefore, growth inducement beyond the ABAG regional forecast is a significant unavoidable impact of the proposed project.

The project site is currently served by infrastructure and the proposed project would not require the extension of roadways or utility systems into unserved areas; therefore, the proposed project would not remove a barrier to growth through the extension of urban infrastructure.

Because of its size and intensity, as well as its destination potential, the proposed project may be a catalyst for future unrelated projects. This may include new development projects or redevelopment of existing properties. Note that no such projects have been identified at the time of this writing, and it would be speculative to identify any potential locations or types of projects.

6.3 - Cumulative Impacts

6.3.1 - Background

CEQA Guidelines Section 15130 requires the consideration of cumulative impacts within an EIR when a project's incremental effect is cumulatively considerable. Cumulatively considerable means that "the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." In identifying projects that may contribute to cumulative impacts, the CEQA Guidelines allow one of two options:

1. The "list approach" - a list of past, present, and reasonably foreseeable future projects, producing related or cumulative impacts, including those that are outside the control of the lead agency; or
2. The "summary of projections" method - a summary of projections contained in an adopted General Plan or related planning document, which is designed to evaluate regional or area-wide conditions.

In accordance with CEQA Guidelines Section 15130(b), "the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, the discussion need not provide as great [a level of] detail as is provided for the effects attributable to the project alone." The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects that do not contribute to the cumulative impact.

6.3.2 - Previously Certified Environmental Documents

Below is a summary of the cumulative impact conclusions from the previously certified City of San Ramon General Plan EIR and the City Civic Center EIR.

City of San Ramon General Plan EIR

The City of San Ramon General Plan EIR identified the increase in potable water demand from General Plan buildout as a cumulatively considerable impact. While the local water agencies indicated that they had enough existing and planned water supplies to accommodate the potable water needs of General Plan buildout, the General Plan EIR concluded that the additional demand would be cumulatively considerable. All other impacts resulting from General Plan buildout were found not to be cumulatively considerable.

City Civic Center EIR

The City Civic Center EIR identified the increases in ambient noise levels at Camino Ramon and Executive Parkway as a cumulatively considerable impact of the project. Although the City Civic Center would contribute only a 0.2-dBA increase to this intersection, other cumulative projects would add 2.9 dBA, and the combined total would exceed the 3.0 dBA significance threshold. All other impacts resulting from the City Civic Center project were found not to be cumulatively considerable.

6.3.3 - Geographic Scope

Table 6-1 below lists the geographic scope, or study area, considered in this cumulative analysis by resource, per CEQA Guidelines Section 15130 (b).

Table 6-1: Geographic Scope of Cumulative Analysis by Resource

Resource	Cumulative Analysis Study Area
Aesthetics, Light, and Glare	City of San Ramon
Air Quality	San Francisco Bay Area Air Basin
Biological Resources	Bishop Ranch subarea
Cultural Resources	Bishop Ranch subarea
Geology, Soils, and Seismicity	Bishop Ranch subarea
Hazards and Hazardous Materials	Bishop Ranch subarea
Hydrology and Water Quality	Bishop Ranch subarea
Land Use	City of San Ramon
Noise	Project Area Ambient Noise Environment
Population and Housing	San Francisco Bay Area Region
Public Services and Recreation	City of San Ramon
Transportation	City of San Ramon
Urban Decay	Cities of San Ramon and Dublin, Town of Danville

Table 6-1 (Cont.): Geographic Scope of Cumulative Analysis by Resource

Resource	Cumulative Analysis Study Area
Utility Systems	East Bay Municipal Utility service area (potable water), Central Contra Costa Sanitary District (wastewater); South San Ramon Creek watershed (drainage); San Francisco Bay Area region (solid waste); Pacific Gas and Electric service area (energy)
Source: Michael Brandman Associates, 2007.	

6.3.4 - Cumulative Impact Analysis

Aesthetics, Light, and Glare

The analysis area for evaluation of cumulative impacts on aesthetics, light, and glare is the City of San Ramon. The city is characterized as a suburban community located within the San Ramon Valley. The valley bottom is mostly developed with urban uses, while significant portions of the hillsides and nearly all of the ridgelines have remained undeveloped. Mt. Diablo, Wiedemann Hill, and the Dougherty Hills are prominent visual features. I-680 is designated as a State Scenic Highway through San Ramon.

The proposed project, in conjunction with development contemplated by the City of San Ramon General Plan, would result in changes to views of scenic vistas, views from I-680, visual character, and light and glare. However, the incremental changes that would occur relative to the baseline conditions would not be cumulatively considerable, because of the extent and nature of existing development in San Ramon. Moreover, planned development would be required to comply with development guidelines and would be reviewed by the City to ensure consistency with architectural standards, viewshed policies, and lighting requirements. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on aesthetics, light, and glare.

Air Quality

The analysis area for evaluation of cumulative impacts to air quality includes the San Francisco Bay Area Air Basin (Air Basin), which is identical to the boundaries of the San Francisco Bay Area Air Quality Management District. The Air Basin consists of Napa, Marin, San Francisco, Contra Costa, Alameda, San Mateo, and Santa Clara counties; the southern portion of Sonoma County; and the western portion of Solano County.

Cumulative impact analysis is guided by buildout assumptions identified in regional population projections for the Air Basin. BAAQMD, which oversees air quality in the Air Basin, uses the ABAG population growth projections as the basis for its projections for air pollution reduction strategies contained in its Clean Air Plan. As discussed in Section 6.2, Growth Inducement, the proposed project and other planned growth in San Ramon would contribute to population growth above ABAG projections for San Ramon and, therefore, would be inconsistent with the projections

contained in the Clean Air Plan and would have a cumulatively considerable impact associated with inconsistency with regional air quality planning. In addition, as discussed in Section 4.2, Air Quality, the proposed project would result in project-level emissions that exceed BAAQMD daily thresholds for criteria pollutants during construction and operations. BAAQMD considers any project that exceeds daily thresholds to have a cumulatively considerable impact on regional air quality. Finally, the proposed project is an intensive, large-scale urban development project that would result in a net increase in greenhouse gas emissions. Given its size and intensity, the proposed project's direct and indirect emissions would have a cumulatively considerable contribution to greenhouse gas concentrations in the atmosphere.

Biological Resources

The analysis area for evaluation of cumulative impacts to biological resources includes the Bishop Ranch subarea, identified in the San Ramon General Plan. Of the four parcels in the proposed project, one is completely undeveloped, another is partially developed, and the other two are fully developed with parking areas and an office building.

The Bishop Ranch subarea is mostly built out and is considered an urban environment. The burrowing owl and nesting birds protected by the Migratory Bird Treaty Act (MTBA) are the only two special-status species with the potential to occupy this area. Development activities associated with the proposed project, as well as other future development projects in the subarea, may impact these special-status species. Standard pre-construction surveys and, if necessary, avoidance or relocation procedures would be required for any project with the potential to affect these special-status species. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on biological resources. Because of the urban, built-up nature of Bishop Ranch, there is no potential for any other significant individual or cumulative biological resource impacts.

Cultural Resources

The analysis area for evaluation of cumulative impacts to cultural resources includes the Bishop Ranch subarea, identified in the San Ramon General Plan. Of the four parcels in the proposed project, one is completely undeveloped, another is partially developed, and the other two are fully developed with parking areas and an office building.

The Bishop Ranch subarea is mostly built out and is considered an urban environment. Nearly all of the land within the subarea has been previously graded and developed or substantial disturbed. In addition, there are no known cultural resources within the subarea. Development activities associated with the proposed project, as well as other future development projects in the subarea, would result in ground-disturbing activities that may encounter previously undiscovered cultural resources. Standard construction monitoring and, if necessary, avoidance or recovery procedures would be required for any project with the potential to adversely affect cultural resources. Therefore, the proposed project,

in conjunction with other future development projects, would not have cumulatively considerable impacts on cultural resources.

Geology, Soils, and Seismicity

The analysis area for evaluation of cumulative impacts to geology, soils, and seismicity includes the Bishop Ranch subarea, identified in the San Ramon General Plan. Of the four parcels in the proposed project, one is completely undeveloped, another is partially developed, and the other two are fully developed with parking areas and an office building.

The Bishop Ranch subarea is mostly built out and is considered an urban environment. Nearly all of the land within the subarea has been previously graded and developed or substantially disturbed. There are no known geologic hazards within the subarea (active faults, liquefaction zones, steep slopes, etc.). Development activities associated with the proposed project, as well as other future development projects in the subarea, would be required to comply with building code standards for foundations and structures to ensure that buildings are adequately supported to withstand seismic events and abate any unstable soil conditions. In addition, future development would be required to implement standard erosion control measures to ensure that ground-disturbing activities do not create offsite hazards. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on geology, soils, and seismicity.

Hazards and Hazardous Materials

The analysis area for evaluation of cumulative impacts to hazards and hazardous materials includes the Bishop Ranch subarea. The subarea is mostly built out and contains office buildings. There are several existing users of hazardous materials within the subarea; however, there are no known contaminated sites within the subarea, and the area has low potential for toxic exposure. The PG&E research tap (electric sub-transmission line) runs adjacent to the east side of the subarea along the Iron Horse Trail, but there is no definitive evidence indicating that exposure to electromagnetic fields constitutes a substantial health hazard. The proposed project, as well as future development projects, would be required to comply with all applicable hazardous materials handling and storage requirements to ensure that public health and safety are not at risk. Development activities associated with the proposed project, as well as other future development projects in the subarea, may result in diesel particulate matter (DPM) emissions during construction and operation. For DPM emissions to be considered a significant health hazard, sustained exposure to them over several decades are required. Construction and operational activities associated with future development in the subarea would not have the potential to create sustained exposure to DPM. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on hazards and hazardous materials.

Hydrology and Water Quality

The analysis area for evaluation of cumulative impacts to hydrology and water quality includes the Bishop Ranch subarea, identified in the San Ramon General Plan. Of the four parcels in the proposed

project, one is completely undeveloped, another is partially developed, and the other two are fully developed with parking areas and an office building.

The South San Ramon Creek watershed in San Ramon is mostly built out and is considered an urban environment. Nearly all of the land within the watershed has been previously graded and developed or substantially disturbed. Existing urban drainage infrastructure exists in the San Ramon portion of the watershed that adequately conveys flows to South San Ramon Creek and downstream waterways. Development activities associated with the proposed project, as well as other future development projects in the subarea, would increase impervious surface coverage and create the potential for additional runoff volumes to enter South San Ramon Creek. To reduce the potential for adverse water quality and downstream flooding impacts, future development projects would be required to provide drainage impoundment and water quality treatment facilities that would detain runoff and treat it prior to discharge into the creek. This would ensure that the proposed project, in conjunction with future development projects, would not create cumulatively considerable downstream water quality and flooding impacts. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on hydrology and water quality.

Land Use

The analysis area for evaluation of cumulative impacts on land use in the City of San Ramon. Most of the City contains urban development, with more than 23,000 dwelling units and 16 million square feet of non-residential square footage. The General Plan contemplates 4,065 additional dwelling units and close to 2.3 million square feet of non-residential development above existing and approved/ underway/programmed development. The addition of this residential and non-residential development potential translates to 14 percent increase over existing and approved/underway/ programmed development. The proposed project, in conjunction with future development contemplated by the General Plan, is inherently consistent with the development projections contained in the General Plan. Future development projects would be required to demonstrate consistency with General Plan policies and Zoning Ordinance policies and ensure that they do not create land use conflicts with adjacent properties. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on land use.

Noise

The analysis area for evaluation of cumulative noise impacts encompasses the ambient noise environment around the project site, which includes the Bishop Ranch Business Park, Central Park, the Market Place, the Reflections Condominiums, and the residential neighborhood south of Bishop Ranch 1, as well as roadways that would experience increases in traffic volumes from project-generated trips.

The cumulative noise impact analysis is guided by evaluating increases in ambient noise levels in the project vicinity relative to existing conditions. Construction noise would result in temporary increases in ambient noise levels, and mitigation is proposed that would require implementation of noise control measures during construction activities. Because construction would be temporary, ambient noise levels would not experience a permanent increase and, therefore, no cumulatively considerable increase would occur. The proposed project would result in construction and operational vibration. Vibration during both construction and operational activities would not exceed significance thresholds at the nearest land uses (the Marriot Residence Inn and the Reflections Condominiums) and, therefore, would not be cumulative considerable. Project residential units may be exposed to substantial vibration from vehicular activities in adjacent parking garages. Mitigation is proposed that would require a vibration analysis to be performed to determine if significant impacts would occur, and identify vibration attenuation measures to reduce impacts to a level of less than significant. Therefore, project residents would not be exposed to significant sources of vibration, and impacts would not be cumulatively considerable. Vehicular trips generated by the proposed project would not cause ambient noise levels along any affected roadway segments to exceed acceptable noise standards under near-term or Year 2020 conditions. Therefore, the proposed project would not have a cumulatively considerable impact related to increased ambient noise levels on nearby roadways. Onsite noise associated with the proposed project would not result in ambient noise levels increasing to unacceptable levels at any surrounding land uses. Therefore, the proposed project would not have a cumulatively considerable impact related to increased ambient noise levels at surrounding land uses. Onsite noise associated with the proposed project may expose project residents to unacceptable levels. Mitigation is proposed that would require the installation of various structural noise attenuation measures to ensure that interior residential noise levels are within acceptable standards to reduce impacts to a level of less than significant. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts to noise.

Population and Housing

The analysis area for evaluation of cumulative impacts to population and housing encompasses the nine-county San Francisco Bay Area region. As described in Section 6.2, Growth Inducement, the proposed project, in conjunction with other future development in San Ramon, would be consistent with the population projections contained in the General Plan, but the proposed project would be inconsistent with the projections contained in ABAG's 2005 Projections. The proposed project and other future development projects in San Ramon would exceed ABAG projections by approximately 9,000 residents, or 15.8 percent. This is considered a significant growth-inducement impact at a regional level because ABAG population projections are the basis for regional strategies for air quality, affordable housing, transportation planning, and other activities. Therefore, the proposed project, in conjunction with other future development projects, would have cumulatively considerable impacts on population and housing.

Public Services and Recreation

The analysis area for evaluation of cumulative impacts to public services and recreation is the City of San Ramon. The proposed project and future development projects would increase demands for fire protection, police protection, schools, libraries, parks, trails, and other recreational facilities. These projects would be required to provide development fees to finance capital improvements to the facilities to maintain acceptable service ratios and performance standards. The proposed project would provide new, larger, state-of-the-art facilities for the San Ramon Police Department and the library. These facilities would be sized to accommodate increased demands made on each public service provider from planned growth and, therefore, would be a cumulative benefit of the proposed project. Future development would also be conditioned to provide adequate fire suppression technology. If applicable, future development projects may also be required to dedicate parkland or provide in-lieu-of fees to mitigate for impacts on parks and recreational facilities. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on public services and recreation.

Transportation

The analysis area for evaluation of cumulative impacts to transportation is the City of San Ramon. The proposed project, in conjunction with other development projects contemplated by the City of San Ramon General Plan, would increase traffic volumes at intersections within the City limits under Existing Plus Project (Year 2010) and Year 2020 conditions. With the addition of the cumulative trips generated by the proposed project and future development, several intersections would operate at deficient levels of service. Mitigation is proposed that would require improvements to intersections resulting in acceptable performance levels under Existing Plus Project and Year 2020 conditions. Therefore, cumulative impacts on intersection operations would not be considerable.

Cumulative trips generated by the proposed project and future development could contribute to existing deficient freeway mainline and ramp performance on I-680. No mitigation is available to mitigate the proposed project's contribution to a level of less than significant, and, therefore, the proposed project and other planned development projects could have a cumulatively considerable impact on freeway operations under Existing Plus Project and Year 2020 conditions.

The proposed project would result in deficient queuing operations. Mitigation is proposed that would require intersection improvements, resulting in queuing operations at acceptable levels. Therefore, cumulative impacts on queuing would not be considerable.

The proposed project would result in alterations to the street network around the project site, including narrowing Camino Ramon to two-lanes to allow on-street parking during non-commute hours. This has the potential to create roadway hazard impacts associated with the on-street parking and mitigation is proposed that would require monitoring of the roadway and, if necessary, the implementation of corrective measures to ensure that traffic hazards are not created. Therefore, cumulative impacts associated with roadway hazards would not be considerable.

The proposed project and other future development projects would be required to provide adequate off-street parking and, therefore, would ensure that cumulative impacts associated with parking would not be considerable.

The proposed project and other future development projects would be required to provide appropriate transit, bicycle, and pedestrian facilities and, therefore, would ensure that cumulative impacts associated with alternative transportation would not be considerable.

Urban Decay

The analysis area for evaluation of cumulative impacts to urban decay includes the Trade Area for the project, which comprises San Ramon, Dublin, and Danville. The potential for urban decay occurs when existing retail businesses experience lost sales revenues of 10 percent or more for 4 consecutive years. As described in Section 4.13, Urban Decay, the development of the proposed project and other planned retail projects in the Trade Area are expected to result in lost businesses at existing retail establishments averaging 7.4 percent between 2010 and 2013; however, because of household and income growth, there would be a net increase in sales at existing businesses afterwards. This would not meet the 10-percent threshold for four or more years and, therefore, would not create the potential for urban decay in the Trade Area. Moreover, vacancy rates in the Trade Area are approximately 3 percent, indicating that vacant retail storefronts are likely to be re-tenanted relatively quickly. As such, it is highly unlikely the proposed project, in conjunction with other planned retail projects, would create urban decay conditions in the Trade Area. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on urban decay.

Utility Systems

The proposed projects cumulative impacts to utility systems are discussed separately below.

Potable Water

Potable water demand from the proposed project, in conjunction with other planned growth in the East Bay Municipal Utility District service area, is accounted for in the agency's 2005 Urban Water Management Plan. As indicated in the Urban Water Management Plan, the agency has adequate existing and planned water supplies to satisfy projected demand, even during drought-year scenarios, through 2030. In addition, the proposed project and future projects would be required to implement water-efficiency measures to reduce the demand for potable water. In addition, the proposed project and some future development projects would be served by recycled water systems for outdoor irrigation, which would further reduce the demand for potable water. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on potable water.

Wastewater

Wastewater generation by the proposed project, as well as with other planned growth in the Central Contra Costa Sanitary District service area, is factored into the agency's long-range planning projections. The agency indicates that its treatment plant's average daily flow is approximately 72 percent of capacity and has available treatment capacity to serve the proposed project and other planned projects. In addition, the agency in undertaking capital improvements to its conveyance system, including upsizing the San Ramon Interceptor in anticipation of planned growth in the San Ramon area. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on wastewater.

Storm Drainage

The proposed project, in conjunction with planned growth in the South San Ramon Creek watershed, would create the potential for additional runoff volumes to enter the creek. Future development projects would be required provide drainage impoundment facilities that would detain runoff prior to discharge into the creek. The proposed project would provide onsite drainage facilities such as green roofs and bioswales and the re-routing of an existing storm drain line so that it can accept drainage from the project. This would ensure that the proposed project, in conjunction with future development projects, would not create cumulatively considerable downstream drainage impacts. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on storm drainage.

Solid Waste

The proposed project and future development projects would generate construction and operational solid waste that would need to be disposed of in landfills in the San Francisco Bay Area region. Landfill capacity in the region is available to serve the proposed project, as well as other planned projects, through 2025. In addition, the proposed project and other future development projects would be required to implement waste diversion measures, including recycling, to reduce waste generation. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on solid waste.

Energy

The proposed project, in conjunction with future development in the PG&E service area, would increase demand for electricity and natural gas. PG&E has adequate existing energy supplies to meet existing demand and has access to other energy supplies necessary to meet future demand. In addition, the proposed project and future projects would be required to implement energy-efficient measures in accordance with the 2005 Title 24 standards to reduce energy demand. Therefore, the proposed project, in conjunction with other future development projects, would not have cumulatively considerable impacts on energy.

6.4 - Energy Conservation

Public Resources Code Section 21100(b)(3) and CEQA Guidelines Section 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted AB 1575, which created the California Energy Commission (CEC). The statutory mission of the CEC is to forecast future energy needs, license thermal power plants of 50 megawatts or larger, develop energy technologies and renewable energy resources, plan for and direct State responses to energy emergencies, and—perhaps most importantly—promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code Section 21100(b)(3) to require EIRs to consider the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F of the CEQA Guidelines. Appendix F is an advisory document that assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. For the reasons set forth below, this EIR concludes that the proposed project will not result in the wasteful, inefficient, and unnecessary consumption of energy, will not cause the need for additional natural gas or electrical-energy producing facilities, and, therefore, will not create a significant impact on energy resources.

6.4.1 - Regulatory Setting

Federal and State agencies regulate energy use and consumption through various means and programs. At the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency are three federal agencies with substantial influence over energy policies and programs. Generally, federal agencies influence and regulate transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks, through funding of energy-related research and development projects, and through funding for transportation infrastructure improvements. At the State level, the California Public Utilities Commission (CPUC) and the CEC are two agencies with authority over different aspects of energy. The CPUC regulates privately owned utilities in the energy, rail, telecommunications, and water fields. As set forth above, the CEC collects and analyzes energy-related data, prepares statewide energy policy recommendations and plans, promotes and funds energy efficiency programs, and adopts and enforces appliance and building energy efficiency standards. California is exempt under federal law from setting State fuel economy standards for new on-road motor vehicles. Some of the more relevant federal and State energy-related laws and plans are discussed below.

Federal Energy Policy and Conservation Act

The Federal Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the Act, the National Highway

Traffic and Safety Administration, which is part of the United States Department of Transportation, is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 miles per gallon. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is not determined for each individual vehicle model; rather, compliance is determined on the basis of each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States. The Corporate Average Fuel Economy (CAFE) program, which is administered by United States Environmental Protection Agency, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The United States Environmental Protection Agency calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on the information generated under the CAFE program, the United States Department of Transportation is authorized to assess penalties for noncompliance. In the course of its over thirty-year history, this regulatory program has resulted in vastly improved fuel economy throughout the nation's vehicle fleet.

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) such as ABAG were required to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values that were to guide transportation decisions in that metropolitan area. The planning process for specific projects would then address these policies. Another requirement was to consider the consistency of transportation planning with federal, State, and local energy goals. Through this requirement, energy consumption was expected to become a decision criterion, along with cost and other values that determine the best transportation solution.

The Transportation Equity Act for the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators, and encouraging urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access.

Title 24, Energy Efficiency Standards

Title 24, which was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption, provides energy efficiency standards for residential and nonresidential buildings. According to the CEC, since the energy efficiency standards went into effect in 1978, it is estimated that California residential and nonresidential consumers have reduced their utility bills by at least $15.8 billion. The CEC further estimates that by 2011, residential and nonresidential consumers will save an additional $43 billon in energy costs.

In 2005, the CEC adopted new energy efficiency standards. All projects that apply for a building permit on or after October 2005 must adhere to the new 2005 standards. A copy of the 2005 Energy Efficiency Standards may be reviewed online at ww.energy.ca.gov/title24/2005standards/index/html. The 2005 Energy Efficiency Standards may also be reviewed at the Energy Efficiency Division, California Energy Commission, 1516 Ninth Street, MS-29, Sacramento, CA 95814-5512.

Because the adoption of Title 24 post-dates the adoption of AB 1575, it has generally been the practice throughout the State that compliance with Title 24 (as well as compliance with the federal and State regulations discussed above) ensures that projects will not result in the inefficient, wasteful, and unnecessary consumption of energy. As is the case with other uniform building codes, Title 24 is designed to provide certainty and uniformity throughout the State while ensuring that the efficient and non-wasteful consumption of energy is carried out through design features. Large infrastructure transportation projects that cannot adhere to Title 24 design-build performance standards may, depending on the circumstances, undertake a more involved assessment of energy conservation measures in accordance with some of the factors set forth in Appendix F of the CEQA Guidelines. As an example, pursuant to the California Department of Transportation CEQA implementation procedures and FHWA Technical Advisory 6640.8A, a detailed energy study is generally only required for large-scale infrastructure projects. However, for the vast majority of residential and nonresidential projects, adherence to Title 24 is deemed necessary to ensure that no significant impacts occur with respect to the inefficient, wasteful, and unnecessary consumption of energy. As a further example, the adoption of federal vehicle fuel standards, which have been continually improved since their original adoption in 1975, have also protected against the inefficient, wasteful, and unnecessary use of energy.

According to the CEC, reducing energy use has been a benefit to all. Building owners save money, Californians have a more secure and healthy economy, the environment is less negatively impacted, and our electrical system can operate in a more stable state. The 2005 Standards (for residential and nonresidential buildings) are expected to reduce the growth in electricity use by 479 gigawatt-hours per year (GWh/y) and reduce the growth in natural gas use by 8.9 million therms per year (therms/y). The savings attributable to new nonresidential buildings are 143 GWh/y of electricity savings and 0.5 million therms. Additional savings result from the application of the Standards on building alterations. In particular, requirements for cool roofs, lighting, and air distribution ducts are expected to save about 175 GWh/y of electricity. These savings are cumulative, doubling in two years, tripling in three, etc. Table 6-2 provides a summary of the electricity savings envisioned by the 2005 standards.

Table 6-2: Electricity Savings Projected From the 2005 Standards

Category	2001 Standard (GWh)	2005 Standard (GWh)	Savings (GWh)	Percent Reduction
Lighting	861.6	777.5	84.1	9.8
Heating	38.8	36.9	1.9	4.9
Cooling	537.5	501.5	35.9	6.7
Fans	424.7	403.6	21.1	5.0
Total	**1,862.6**	**1,719.5**	**143.0**	**7.7**

GWh = Gigawatt hours
Source: California Energy Commission, 2005.

Since the California 2000/2001 electricity crisis, the CEC has placed more and more emphasis on demand reductions. Changes in 2001 (following the electricity crisis) reduced electricity demand (for newly constructed residential and nonresidential buildings) by about 110.3 megawatts (MW) each year. Newly constructed nonresidential buildings account for 44 MW of these savings. Like energy savings, demand savings accumulate each year. The 2005 Standards are expected to reduce electric demand by another 180 MW each year. Table 6-3 provides a summary of the demand savings envisioned by the 2005 standards.

Table 6-3: Demand Savings Projected From the 2005 Standards

Category	2001 Standard (MW)	2005 Standard (MW)	Savings (MW)	Percent Reduction
Lighting	157.9	142.6	15.3	9.7
Heating	3.6	3.5	0.1	2.2
Cooling	276.7	253.1	23.6	8.5
Fans	79.7	74.6	5.0	6.3

Table 6-3 (Cont.): Demand Savings Projected From the 2005 Standards

Category	2001 Standard (MW)	2005 Standard (MW)	Savings (MW)	Percent Reduction
Total	**517.9**	**473.9**	**44.0**	**8.5**

Notes:
MW = Megawatts
Source: California Energy Commission, 2005.

In many parts of the world, the wasteful and poorly-managed use of energy has led to oil spills, acid rain, smog, and other forms of environmental pollution that have ruined the natural beauty people seek to enjoy. California is not immune to these problems, but the CEC-adopted appliance standards, building standards, and utility programs that promote efficiency and conservation have gone a long way toward maintaining and improving environmental quality. Other benefits include reduced destruction of natural habitats, which, in turn, helps protect wildlife, plants, and natural systems.

Many experts believe that burning fossil fuel is a major contributor to global warming; carbon dioxide is being added to an atmosphere already containing 25 percent more than it did two centuries ago. Carbon dioxide and other greenhouse gases create an insulating layer around the Earth that leads to global climate change. CEC research shows that most of the sectors of the State economy face significant risk from climate change, including agriculture, forests, and the natural habitats of a number of indigenous plants and animals.

Scientists recommend that actions be taken to reduce emissions of carbon dioxide and other greenhouse gases. While adding scrubbers to power plants and catalytic converters to cars are steps in the right direction (both of which are currently enforced as part of existing regulatory schemes), the use of energy-efficient standards can be effective actions to limit the carbon dioxide that is emitted into the atmosphere. According to the CEC, using energy efficiently, in accordance with Title 24 Energy Efficiency standards, is a proven, far-reaching strategy that can and does present an important contribution to the significant reduction of greenhouse gases.

In fact, the National Academy of Sciences has urged the country to follow California's lead on such efforts, and has recommended that nationwide energy efficiency building codes modeled after Title 24 be adopted. The CEC's Title 24 program has played a vital, if not the most important, role in maximizing energy efficiency and preventing the wasteful, inefficient, and unnecessary use of energy throughout the State.

The CEC's 2005 Energy Efficiency Standards include the following:

- Time Dependent Valuation (TDV). Source energy was replaced with TDV energy. TDV energy values energy savings greater during periods of likely peak demand, such as hot summer weekday afternoons, and values energy savings less during off-peak periods. TDV

gives more credit to measures such as daylighting and thermal energy storage that are more effective during peak periods.

- New Federal Standards. Coincident with the 2005 Standards, new standards for water heaters and air conditioners took effect. These changes affect all residential buildings, but also affect many nonresidential buildings that use water heaters and/or residential-size air conditioners.
- New Lighting in Historic Buildings. The exception to the Standards requirements for historic buildings has changed for lighting requirements so that only those historic or historic replica components are exempt.
- Cool Roofs. The nonresidential prescriptive standards require cool roofs—high-reflectance, high-emittance roof surfaces or exceptionally high-reflectance and low-emittance surfaces—in all low-slope applications. The cool-roof requirements also apply to roof replacements for existing buildings.
- Acceptance Requirements. Basic "building commissioning," at least on a component basis, is required for electrical and mechanical equipment that is prone to improper installation.
- Demand Control Ventilation. Controls that measure CO_2 concentrations and vary outside air ventilation are required for spaces such as conference rooms, dining rooms, lounges, and gyms.
- T-bar Ceilings. Placing insulation directly over suspended ceilings is not permitted as a means of compliance, except for limited applications.
- Relocatable Public School Buildings. Special compliance approaches are added for relocatables so they can be moved anywhere statewide.
- Duct Efficiency. R-8 duct insulation and duct sealing with field verification is required for ducts in unconditioned spaces in new buildings. Duct sealing is also required in existing buildings when the air conditioner is replaced. Performance methods may be used to substitute a high-efficiency air conditioner in lieu of duct sealing.
- Indoor Lighting. The lighting power limits for indoor lighting are reduced in response to advances in lighting technology.
- Skylights for Daylighting in Buildings. The prescriptive standards require that skylights with controls to shut off the electric lights are required for the top story of large, open spaces (spaces larger than 25,000 feet with ceilings higher than 15 feet).
- Thermal Breaks for Metal Building Roofs. Continuous insulation or thermal blocks at the supports are required for metal building roofs.
- Efficient Space Conditioning Systems. A number of measures are required that improve the efficiency of heating, ventilation, and air conditioning (HVAC) systems, including variable-speed drives for fan and pump motors greater than 10 horsepower, electronically-commutated

motors for series fan boxes, improved controls, efficient cooling towers, and water-cooled chillers for large systems.

- Unconditioned Buildings. New lighting standards—lighting controls and power limits—apply to unconditioned buildings, including warehouses and parking garages. Lighting power tradeoffs are not permitted between conditioned and unconditioned spaces.
- Compliance Credits. Procedures are added for gas cooling, underfloor ventilation.
- Lighting Power Limits. The Standards set limits on the power that can be used for outdoor lighting applications such as parking lots, driveways, pedestrian areas, sales canopies, and car lots. The limits vary by lighting zones or ambient lighting levels. Lighting power tradeoffs are not permitted between outdoor lighting and indoor lighting.
- Shielding. Luminaires in hardscape areas larger than 175 watts are required to be cutoff luminaires, which will save energy by reducing glare.
- Bi-level Controls. In some areas, outdoor lighting controls are required, including the capability to reduce lighting levels to 50 percent.
- Lighting Power Limits. Lighting power limits (or alternative equipment efficiency requirements) apply to externally and internally illuminated signs used either indoors or outdoors.

Pursuant to the California Building Standards Code and the Title 24 Energy Efficiency Standards, the City will review the design and construction components of the project's Title 24 compliance when specific building plans are submitted.

6.4.2 - Energy Requirements of the Proposed Project

Short-term construction and long-term operational energy consumption are discussed below.

Short-Term Construction

The United States Environmental Protection Agency (EPA) regulates nonroad diesel engines. The EPA has no formal fuel economy standards for nonroad (e.g., construction) diesel engines but does regulate diesel emissions, which indirectly affects fuel economy. In 1994, EPA adopted the first set of emission standards ("Tier 1") for all new nonroad diesel engines greater than 37 kilowatts (50 horsepower). The Tier 1 standards were phased in for different engine sizes between 1996 and 2000, reducing NO_x emissions from these engines by 30 percent. EPA has since adopted more stringent emission standards for NO_x, hydrocarbons, and particulate matter from new nonroad diesel engines. This program includes the first set of standards for nonroad diesel engines less than 37 kW. It also phases in more stringent "Tier 2" emission standards from 2001 to 2006 for all engine sizes and adds yet more stringent "Tier 3" standards for engines between 37 and 560 kW (50 and 750 hp) from 2006 to 2008. These standards will further reduce nonroad diesel engine emissions by 60 percent for NO_x and 40 percent for PM from Tier 1 emission levels. In 2004, EPA issued the Clean Air Nonroad

Diesel Rule. This rule will cut emissions from nonroad diesel engines by more than 90 percent, and it will take effect beginning in 2008 and will be fully phased in by 2014. These emission standards are intended to promote advanced clean technologies for nonroad diesel engines that improve fuel combustion, but they also result in slight decreases in fuel economy.

The first phase of project construction is scheduled to begin in mid-2008 and the last phase would be completed in mid-2011. Table 6-4 provides an estimate of construction fuel consumption during the grading and paving phases. These two phases are the most energy-intensive aspects of construction and are the phases that were modeled as part of the short-term air quality analysis contained in Section 4.2, Air Quality. The assumptions contained in the table below are the same assumptions used in the short-term air quality analysis.

Table 6-4: Construction Fuel Consumption

Project Component	Fuel Consumption (gallons)
Plaza District	60,005
Bishop Ranch 1A	57,724
City Hall and Transit Center	6,143
Total	**123,872**
Construction fleet assumptions and vehicle miles traveled provided by URBEMIS Air Quality Modeling output. Source: Michael Brandman Associates, 2007.	

As shown in Table 6-4, project construction would be estimated to consume approximately 123,872 gallons of diesel fuel. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region. Therefore, it is expected that construction fuel consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than at other construction sites in the region.

Long-Term Operations

Transportation Energy Demand

Vehicle fuel efficiency is regulated at the federal level. Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic and Safety Administration is responsible for establishing additional vehicle standards and for revising existing standards. As discussed above, since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 miles per gallon. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is not determined for each individual vehicle model: rather, compliance is determined on the basis of each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States.

Trip generation rates provided in the Traffic Operations Evaluation prepared by DMJM Harris were used to estimate vehicular fuel consumption associated with trips to and from the proposed project. Table 6-5 provides an estimate of the daily fuel consumed by vehicles traveling to and from the proposed project. These estimates were derived using the same assumptions used in the long-term vehicular air quality analysis in Section 4.2, Air Quality.

Table 6-5: Operations Fuel Consumption

Vehicle Type	Percent of Vehicle Trips	Daily Vehicle Miles Traveled	Average Fuel Economy (miles per gallon)	Total Daily Fuel Consumption (gallons)
Passenger cars	54.7	132,128	21.6	6,117
Light trucks	31.4	75,845	17.2	4,410
Heavy trucks/ Other	12.3	29,710	6.1	2,415
Motorcycles	1.6	3,865	50.0	77
Total	**100.0**	241,548		**13,019**

Notes:
Daily trips and vehicle miles traveled provided by URBEMIS Air Quality Modeling output.
Average fuel economy provided by the United States Department of Transportation, Bureau of Transportation Statistics.
"Other" consists of urban buses, school buses, and motorhomes.
Source: Michael Brandman Associates, 2007.

As indicated in the Urban Decay Analysis prepared for the proposed project by Economic and Planning Systems, the proposed project would primarily cater to customers living in San Ramon, Danville, and Dublin area, although it may also attract customers from Pleasanton, Livermore, Alamo, and Walnut Creek. While the proposed project would have a regional appeal and may create longer than average trip lengths, it does incorporate a number of trip reduction design features. These trip reduction measures are listed below.

Trip Reduction Design Features

- Inclusion of a Transit Center that would be served by County Connection bus service, which would provide service to local communities and the Dublin/Pleasanton and Walnut Creek BART stations.
- Creation of a pedestrian-oriented environment in the Plaza District by limiting parking to on-street spaces and parking structures; no off-street parking would be provided in front of Plaza District buildings, thereby enhancing pedestrian safety and mobility.
- Development of high-density residential uses in the Plaza District within walking or biking distance of employment centers (Bishop Ranch Business Park), commercial retail centers (Plaza District retail, The Shops at Bishop Ranch, The Market Place), and public facilities (City Hall, Transit Center, Library, Central Park, and San Ramon Community Center).

- Creation of direct "as the crow flies" pedestrian and bicycle connections to the Iron Horse Trail from the Plaza District and Bishop Ranch 1A.
- Creation of pedestrian connections to surrounding land uses, including The Shops at Bishop Ranch, Bishop Ranch 1, Bishop Ranch 3, Chevron Park, and the AT&T campus.
- Extension of Bishop Drive Class II bicycle facilities from Sunset Drive to Bollinger Canyon Road.
- Creation of Class II bicycle parking in parking structures.

Building Energy Demand

The proposed project is estimated to demand 34 million kWH of electricity and 26 million kBTUs of natural gas on an annual basis. These figures were derived from energy consumption rates provided by the CEC. Refer to Impact US-5 in Section 4.14, Utility Systems for further discussion of the calculations used to arrive at these consumption estimates.

PG&E provided a "will-serve" letter dated May 17, 2007 indicating that the electrical and natural gas loads of the proposed project are within the parameters of project load growth and, therefore, would be able to be served with electricity and natural gas. The letter is provided in Appendix H.

Nonetheless, the proposed project can promote building energy efficiency through compliance with energy efficiency standards and the provision of energy efficiency measures that exceed required standards. These energy conservation measures are listed below.

Energy Conservation Design Measures

- Extensive use of glass windows in all project components, particularly in upper floors, to promote natural day lighting of interior areas to reduce the need for lighting.
- Automated occupancy sensors in structures that automatically shut off lights when rooms are unoccupied.
- Participation in PG&E energy efficiency rebate programs (e.g., air conditioning, gas heating, refrigeration, and lighting).
- High-efficiency clothes washers and dishwashing machines.
- Re-circulating hot water systems to reduce the need to heat water.
- Green roofs that capture stormwater runoff during the rainy season and keep building interiors cool during warmer months.