

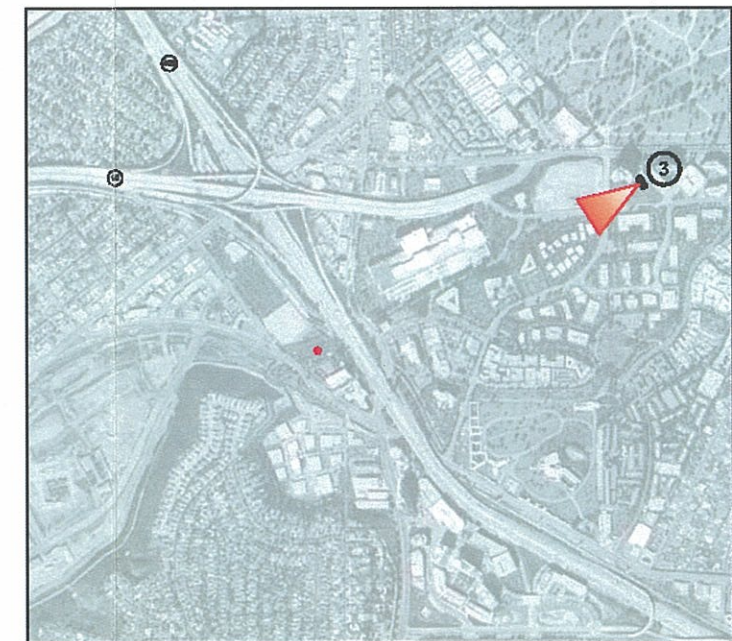
EXHIBIT D



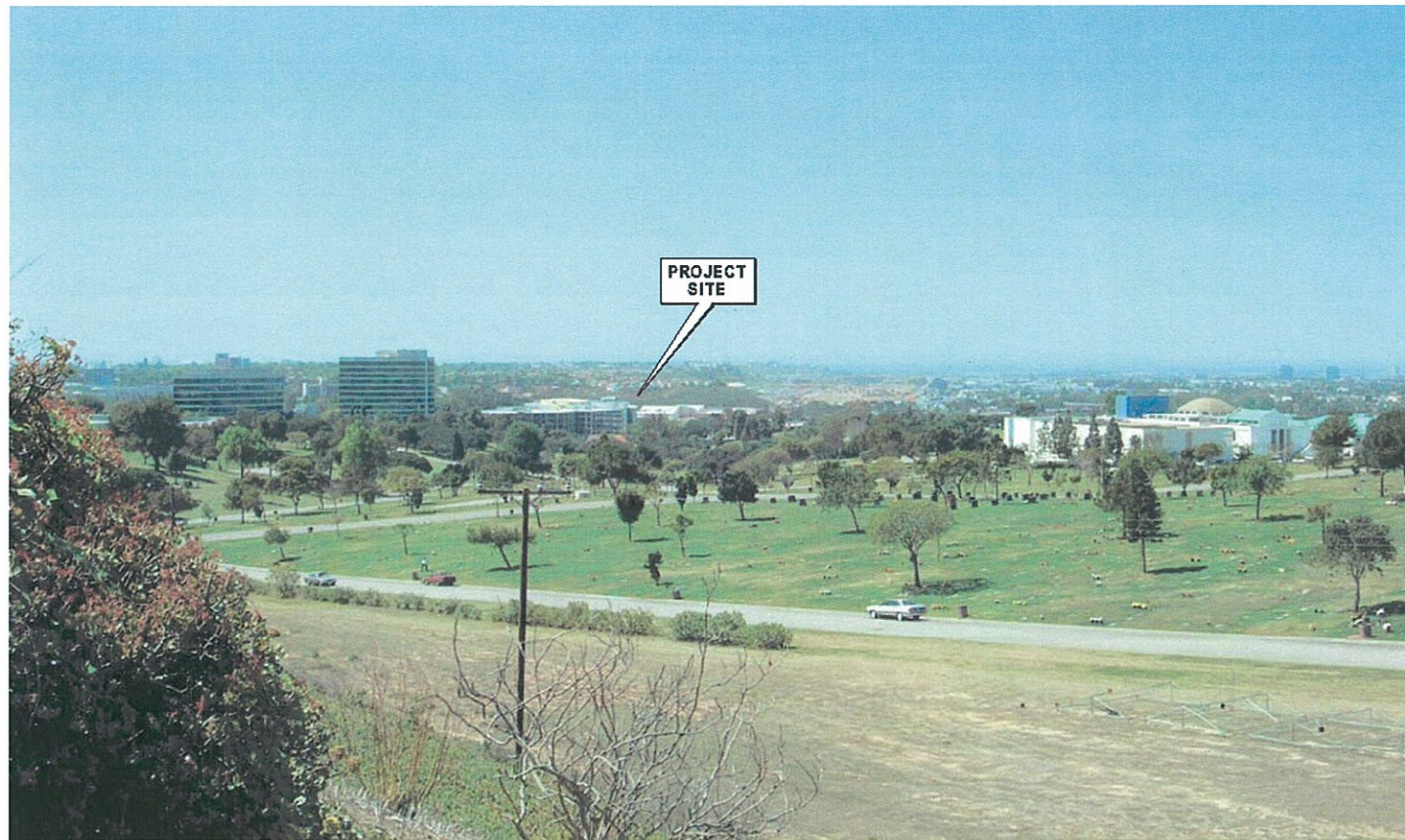
Existing view of the Project Site from Corporate Point on Slauson Avenue looking Southwest.



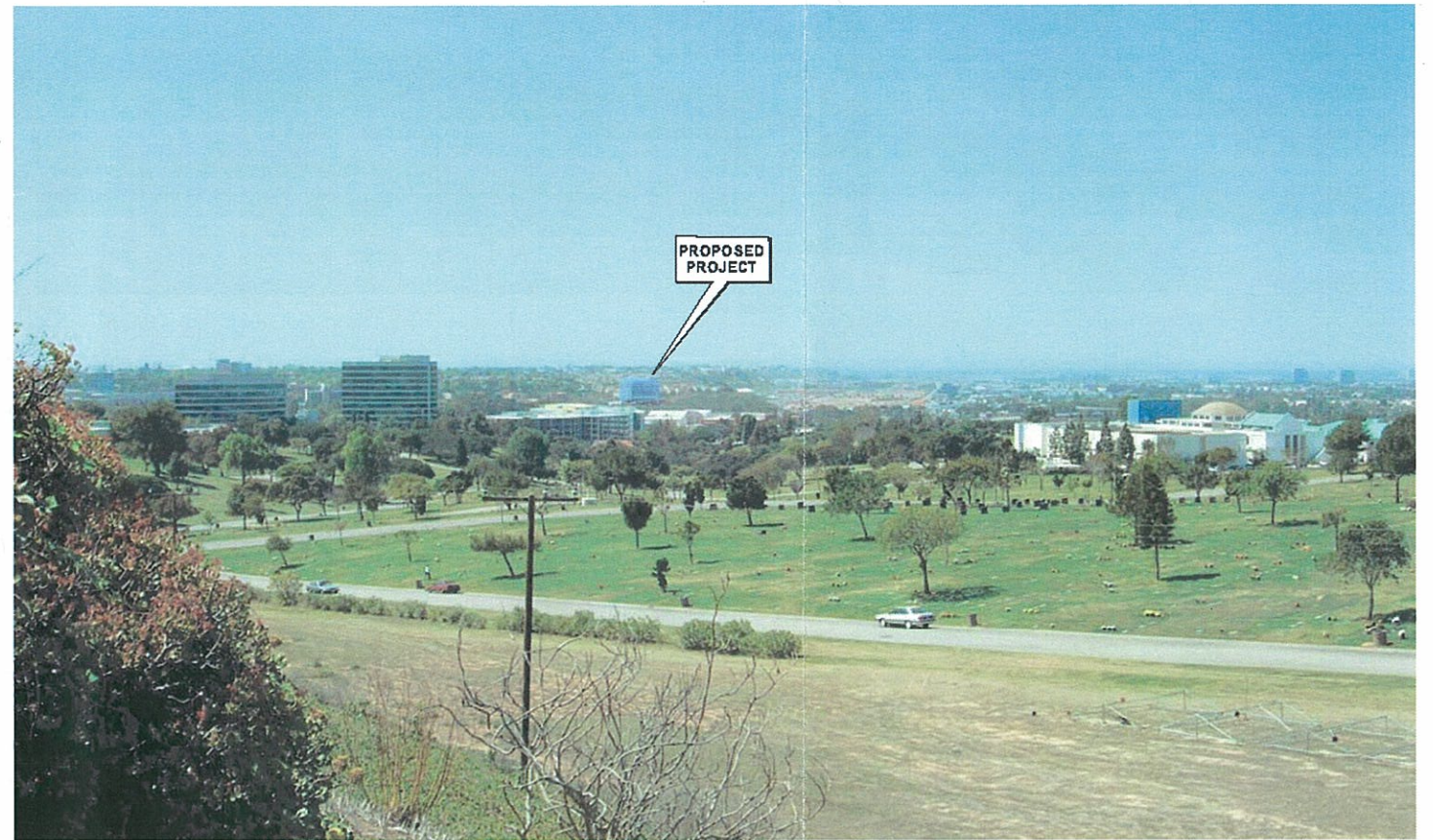
View of the Proposed Project from Corporate Point on Slauson Avenue looking Southwest.



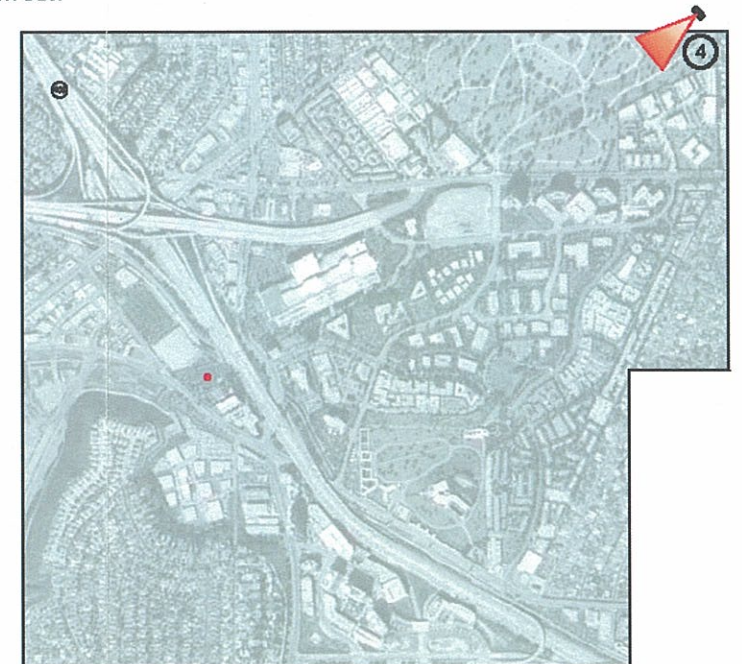
View Location 3



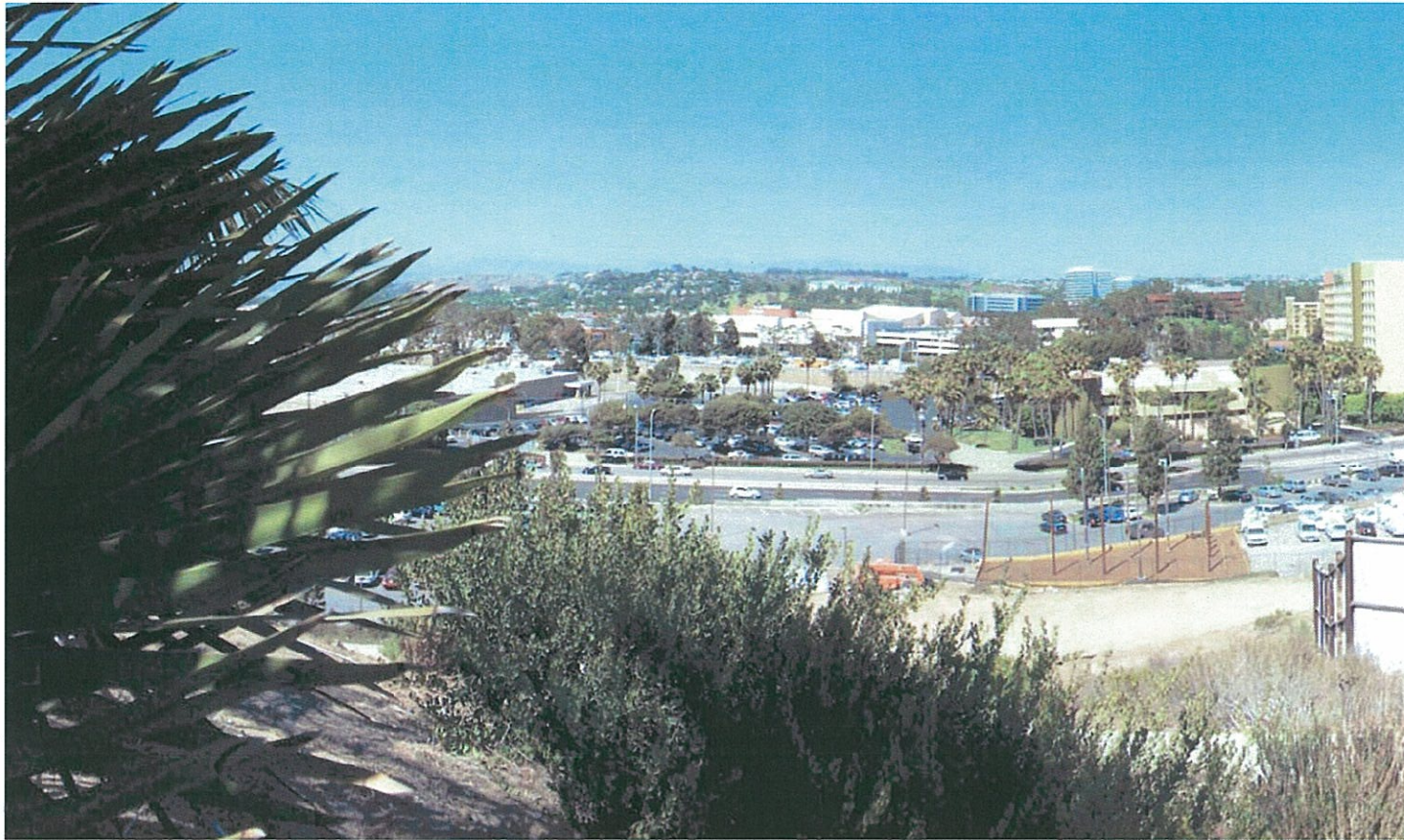
Existing view of the Project Site from Culver Crest looking southwest.



View of the Proposed Project from Culver Crest looking southwest.



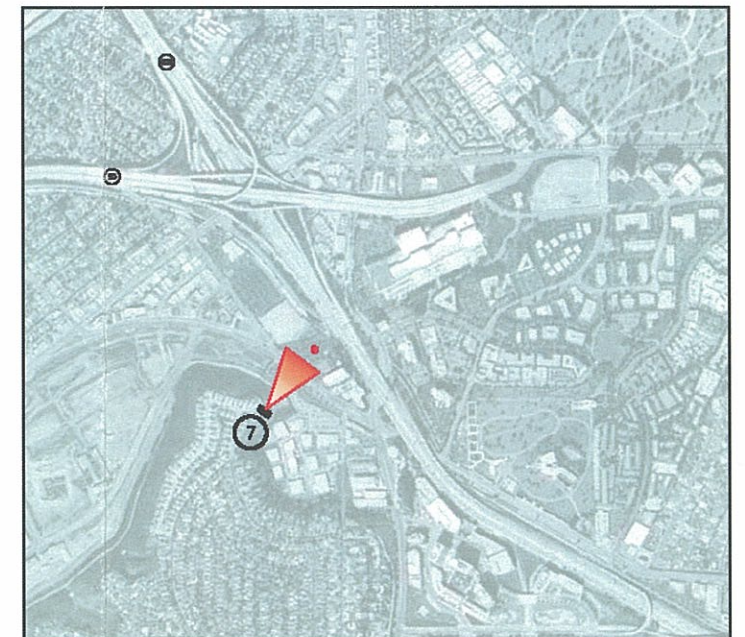
View Location 4



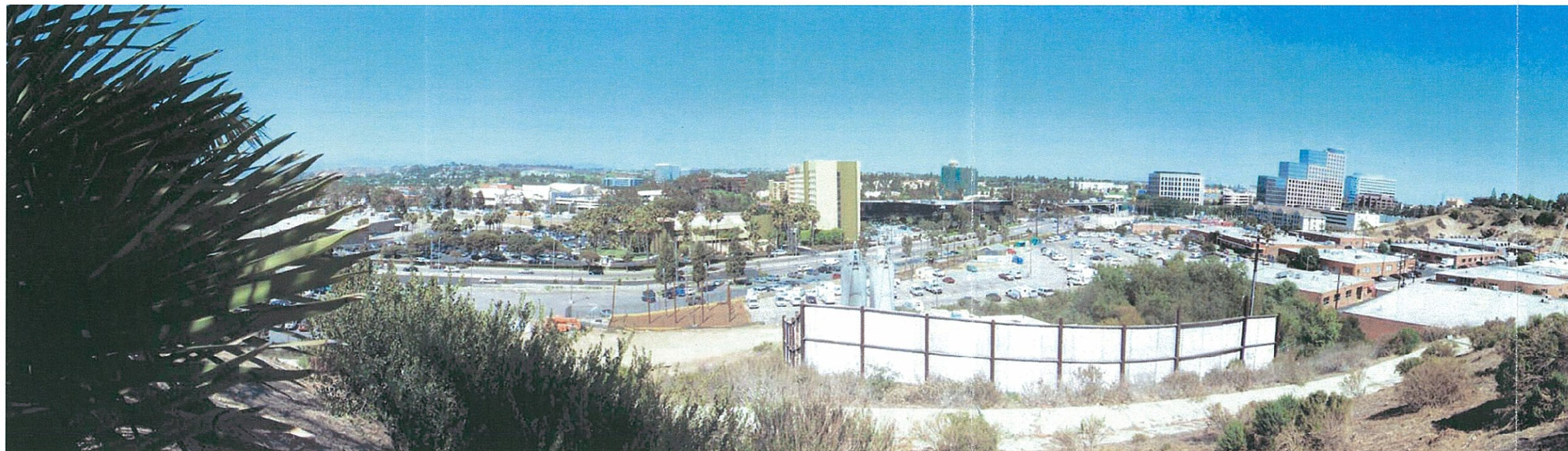
Existing direct view of the Project Site from the easterly terminus of Kentwood Court looking northeast.



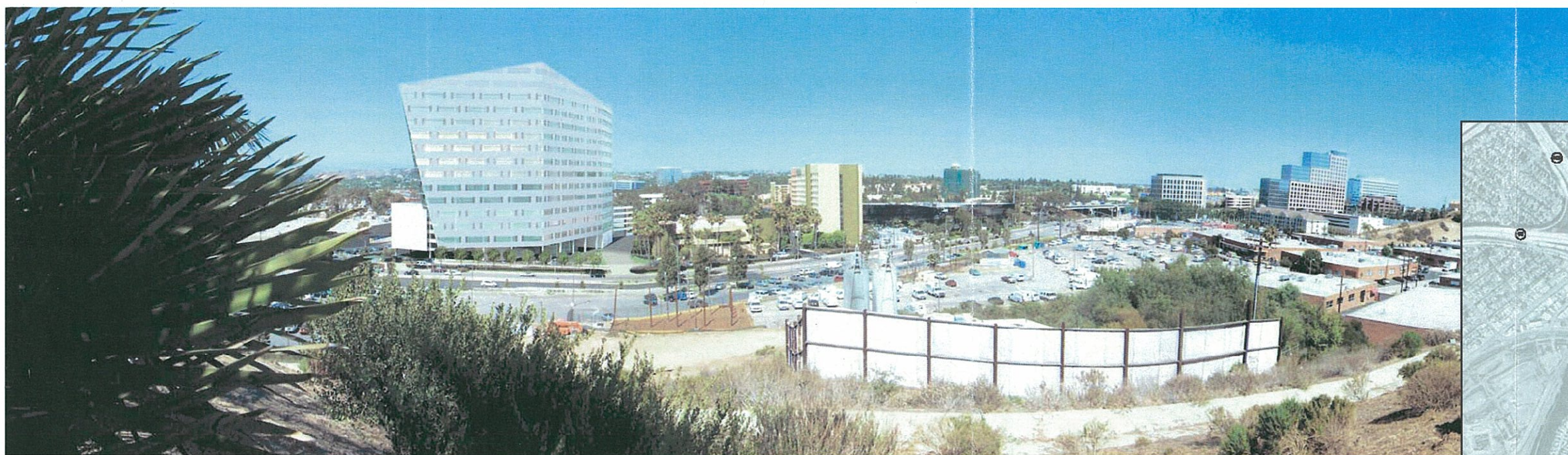
Direct view of the Proposed Project from the easterly terminus of Kentwood Court looking northeast.



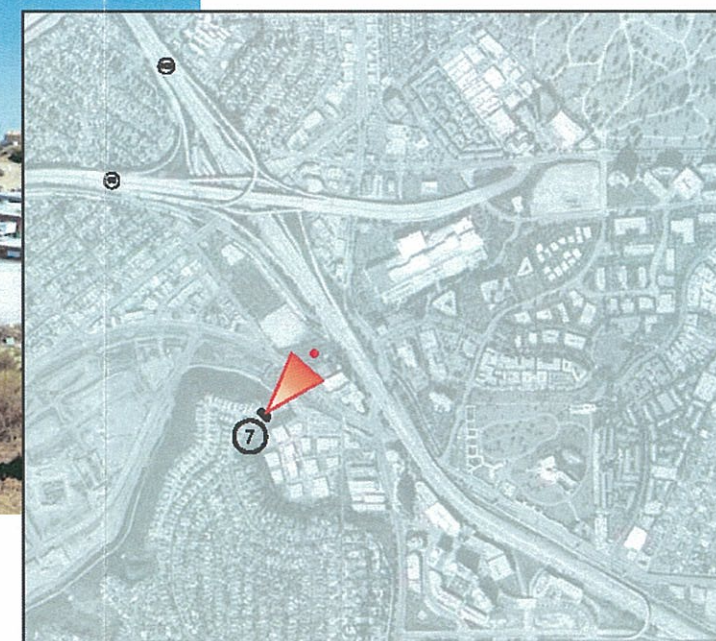
View Location 7



Existing panoramic view of the Project Site from the easterly terminus of Kentwood Court looking northeast.



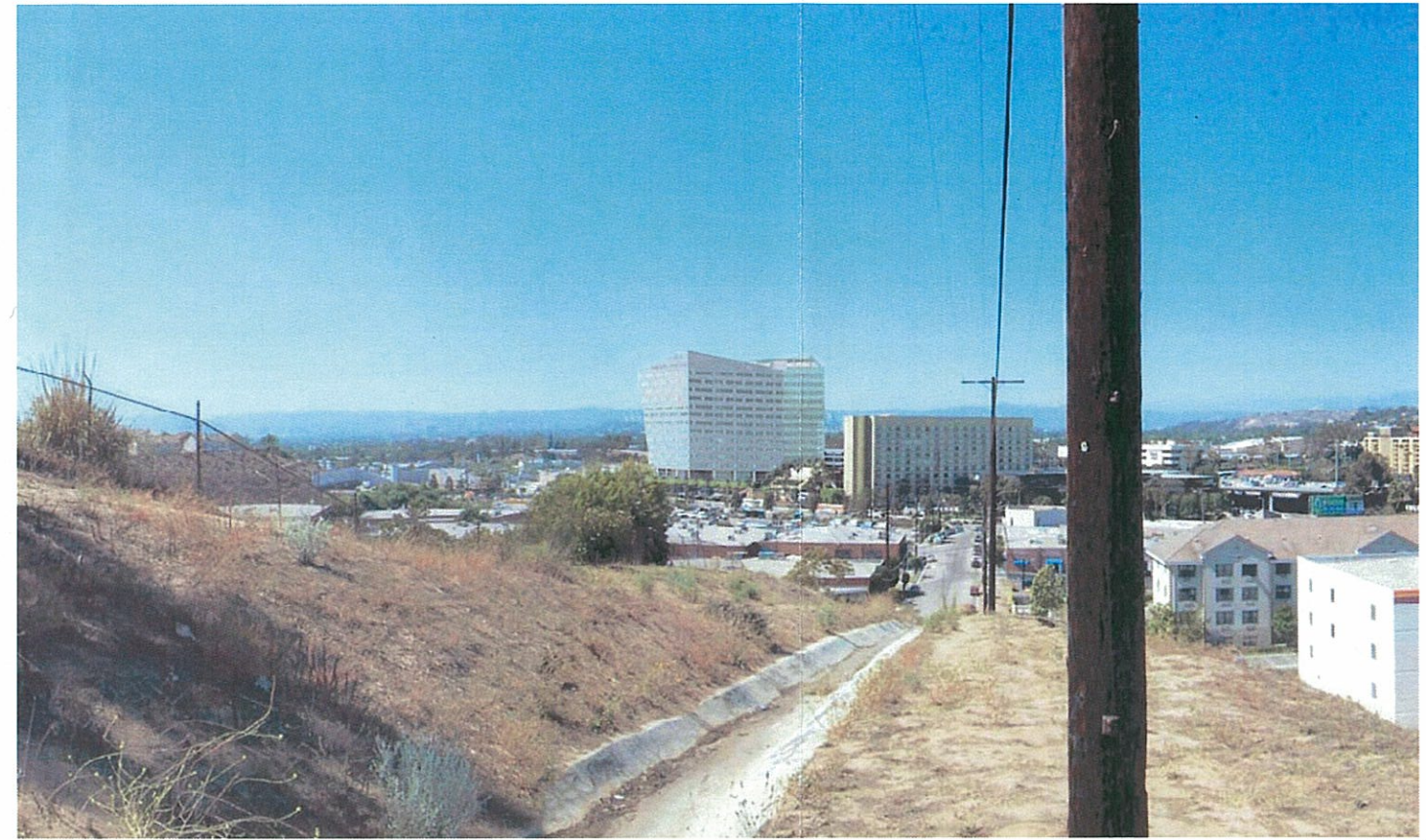
Panoramic view of the Proposed Project from the easterly terminus of Kentwood Court looking northeast.



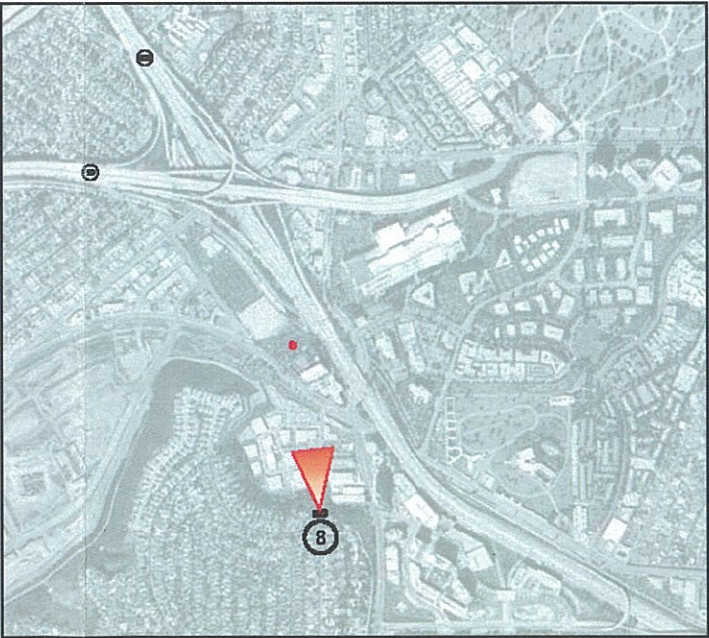
View Location 7



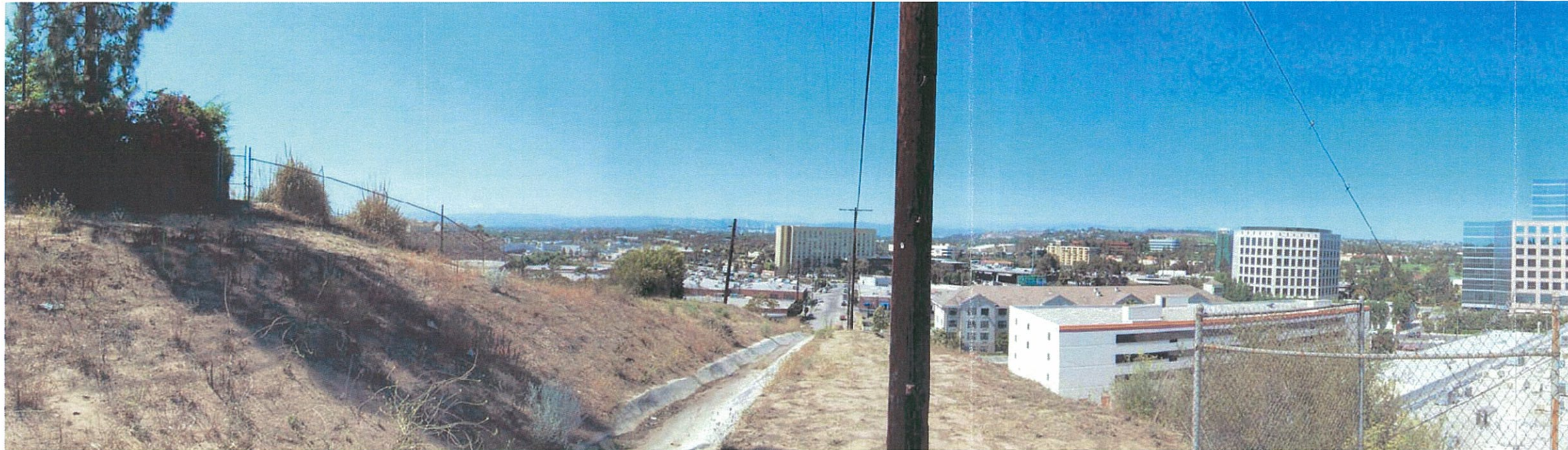
Existing direct view of the Project Site from the upper terminus of Arizona Avenue looking northwest.



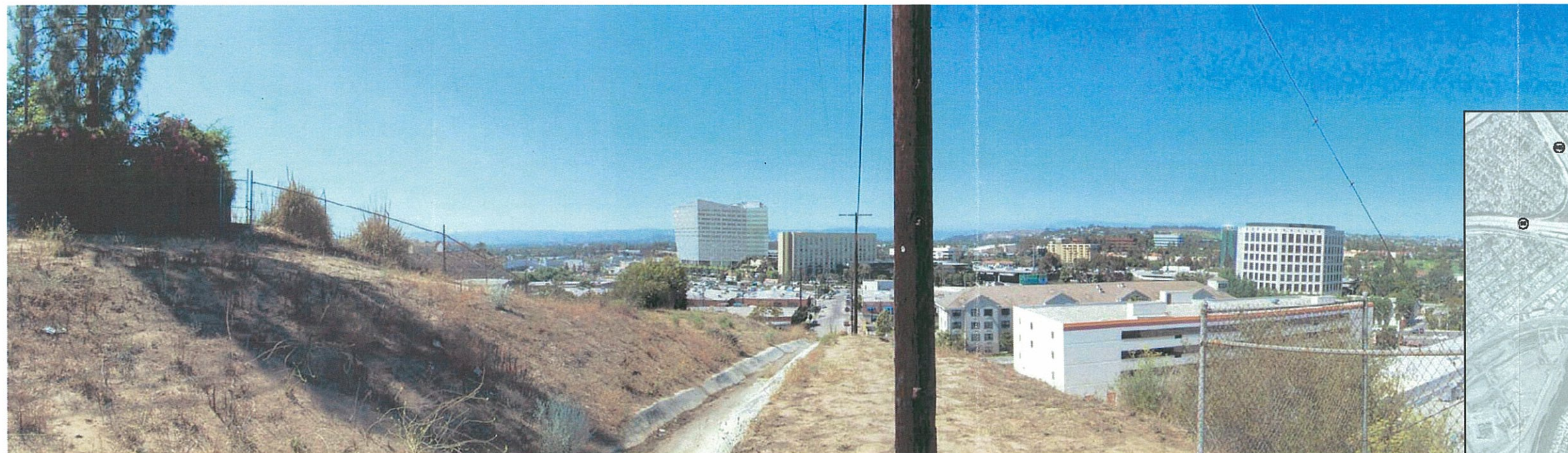
Direct view of the Proposed Project from the upper terminus of Arizona Avenue looking northwest.



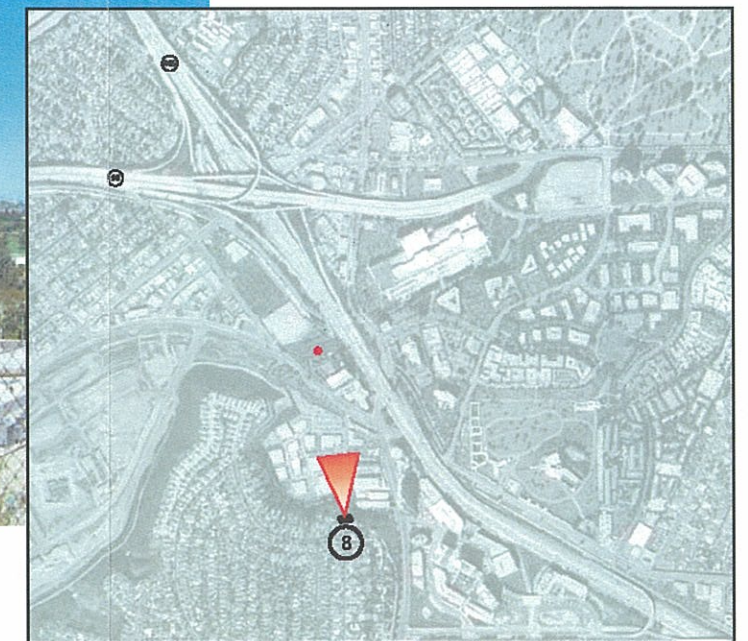
View Location 8



Existing panoramic view of the Project Site from the upper terminus of Arizona Avenue looking northwest.



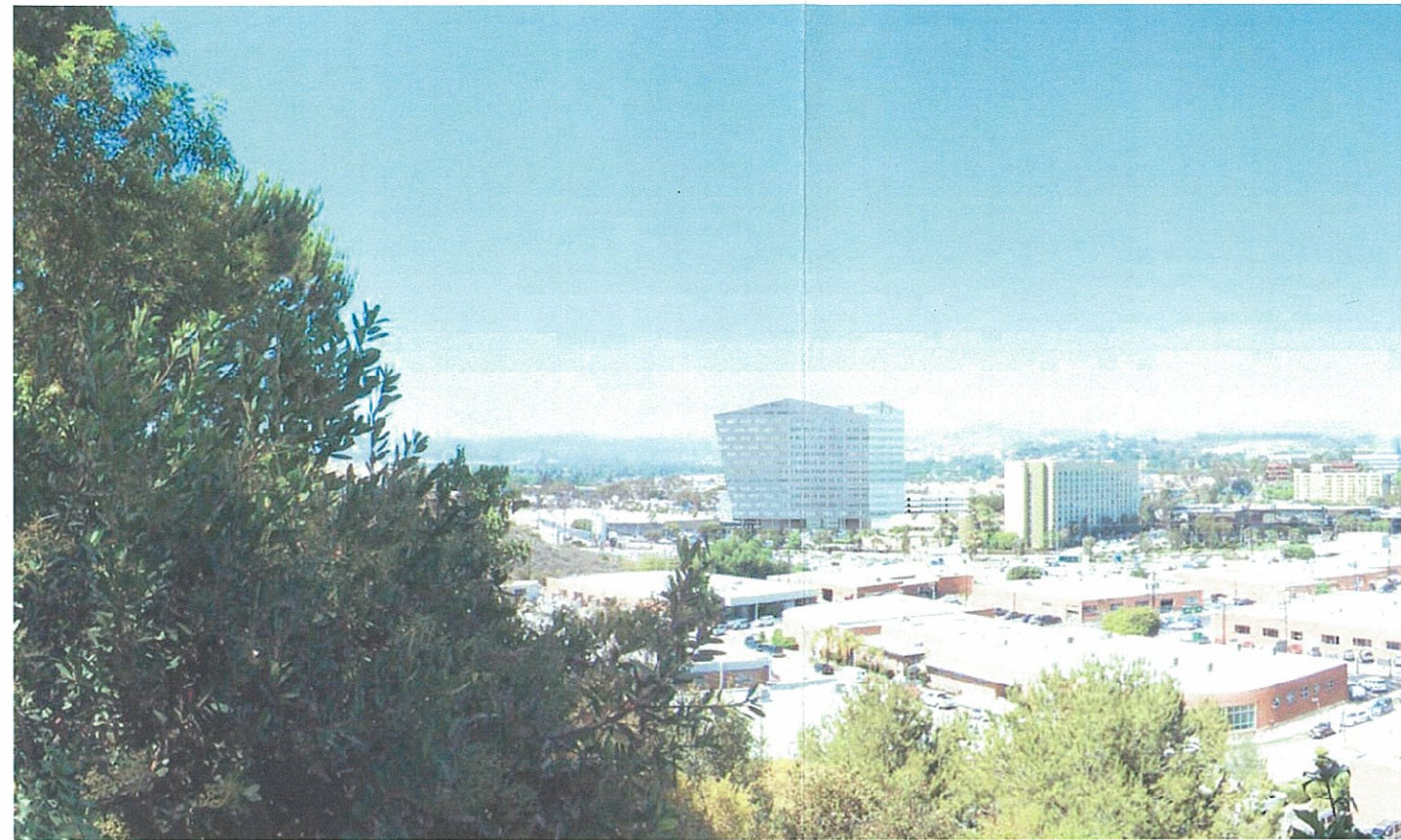
Panoramic view of the Proposed Project from the upper terminus of Arizona Avenue looking northwest.



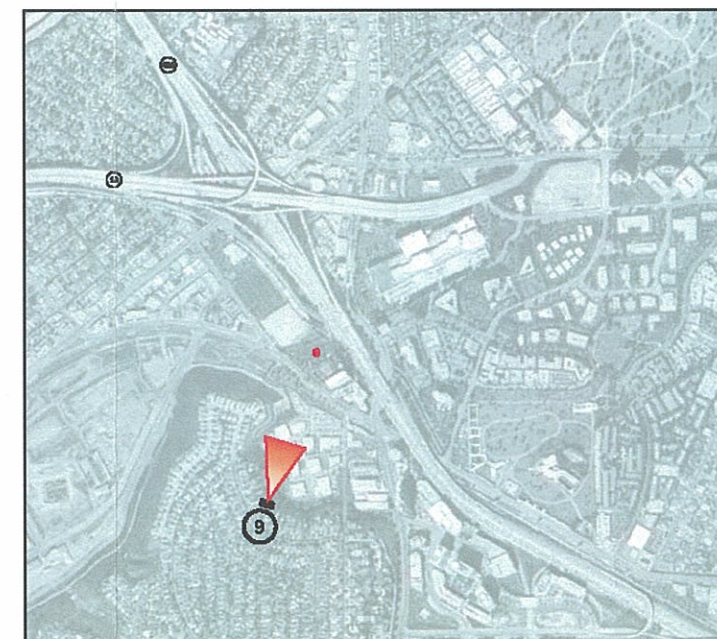
View Location 8



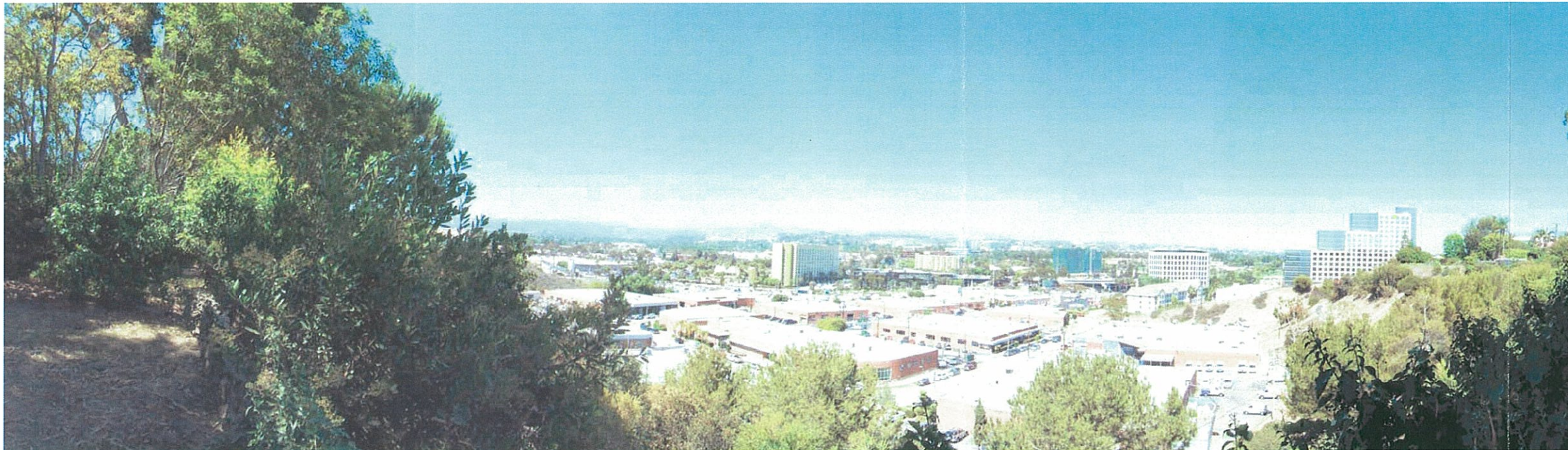
Existing direct view of the Project Site from Riggs Place (approximately mid-block) looking northwest.



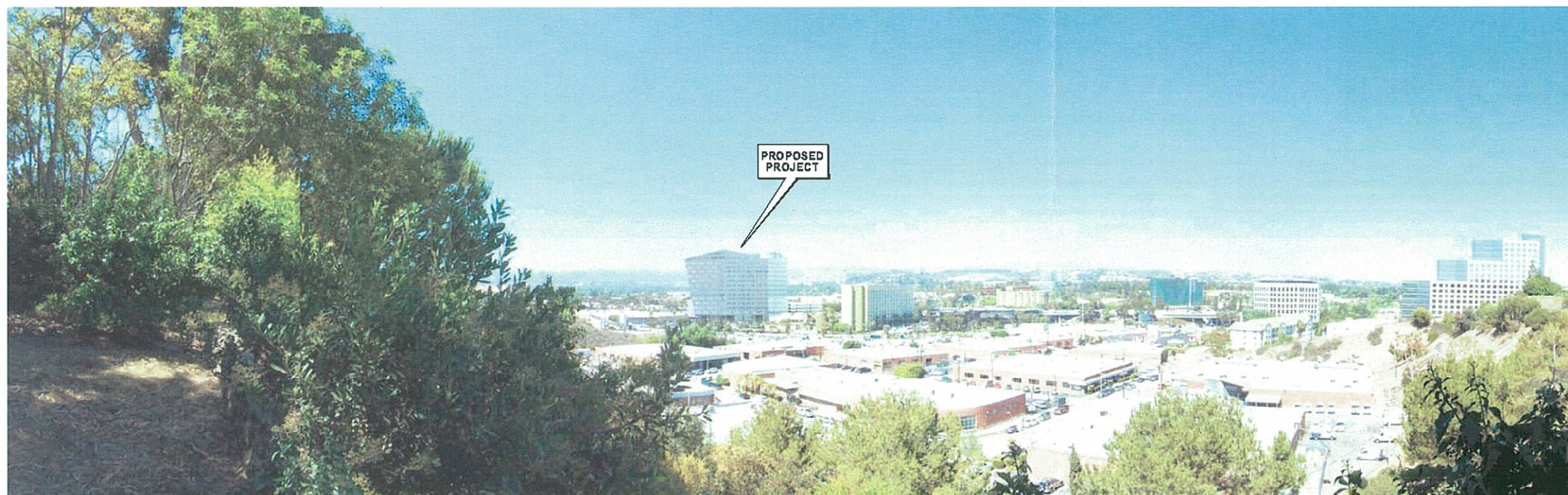
Direct view of the Proposed Project from Riggs Place (approximately mid-block) looking northwest.



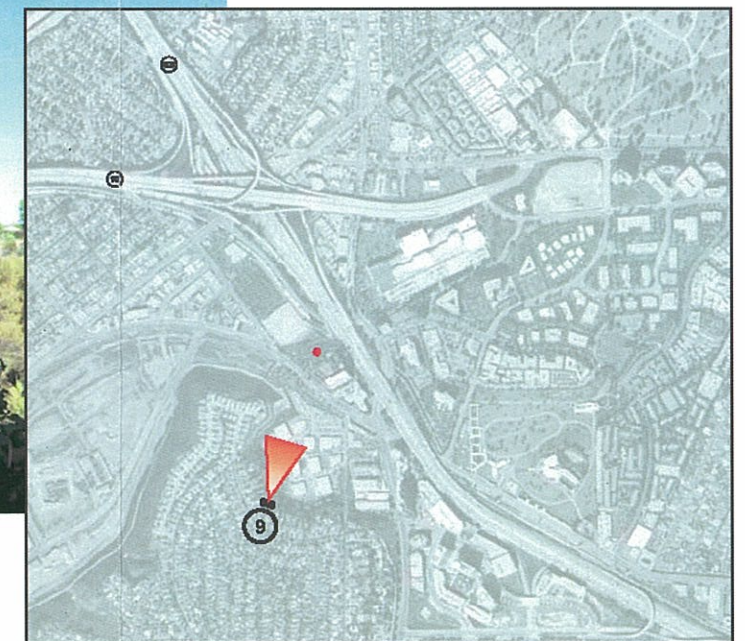
View Location 9



Existing panoramic view of the Project Site from Riggs Place (approximately mid-block) looking northeast.



Panoramic view of the Proposed Project from Riggs Place (approximately mid-block) looking northeast.



View Location 9

EXHIBIT E



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Thursday, February 13, 2008

**Sherry Jordan
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Culver City, California 90232**

**Ref: Technical Memo for the Third Party Review of the Visual Simulations prepared for the
Entrada Office Tower Project**

This technical memorandum was prepared by Michael Singleton, Principal of KTU+A, Planning and Landscape Architecture based in San Diego. KTU+A was asked by the City of Culver City, to provide a professional unbiased third party review of the techniques and simulations generated by Gensler (based in Santa Monica) and used in the November 2007 Draft EIR prepared by PCR Services.

KTU+A has no affiliation with the applicant or the architect of the project. KTU+A has no interests, contracts or projects in the Culver City area. KTU+A has no other contracts or interests with PCR. As such, there is no vested interest in any outcome of the project resulting from our third party review. Since KTU+A is not commonly in the market area of Los Angeles or Orange County (our market area is 95% San Diego County), we have no relationships with clients or other consultants in the area, and are therefore free from any concern over the results of our independent review.

As a certified planner (American Institute of Certified Planners), licensed Landscape Architect in the State of California, and County of San Diego certified environmental consultant for the preparation of visual impact assessments, my background, education and experience forms the foundation for visual simulations, visual issues, and aesthetic impact assessments. My background also allows provides insight into urban form, site design, mitigation potentials and positive design treatments. I have over 20 years of experience producing visual simulations, and 15 years of experience producing technical support visual impact studies for various clients and projects in Southern California. I have personally managed approximately 40 visual impact assessments, all of which have included some form of visual simulation to support the study.

This memo represents a review of the possible issues associated with the methodology and products used for the visual / aesthetic analysis and more specifically, the visual simulations. Given an extensive review accomplished over the past two weeks, the following are issues and opinions on approaches and work products for this study.

1.1 Overview

A review of the Draft EIR has resulted in a general agreement with the methods used in the study. This includes the potential visual issues of concern listed as well as the potential viewers affected. The document is thorough in its review of policies and the identification and selection of key views as seen by key viewers. Keyviews are representative of the worst-case situations and represents a cross section of potential viewers. The keyviews are in logical locations, in areas with a high number of viewer quantities or in areas of high viewer sensitivity to change. The keyviews were independently agreed upon by the City of Culver City. The EIR topics and approaches were broad enough to address all potential visual impacts.

Three basic overview questions that need to be answered are:

- 1) Were the simulations done in a reasonably accurate manner?;
- 2) Were the decisions made on the keyview locations, camera focal lengths and display size of the simulations appropriate based on industry standards?; and
- 3) If changes are made to the visual simulations are these changes likely to be that perceivable and if so, would these changes likely change the results of the study. On the second part of this question, the city will be responsible for making this determination but KTU+A will assist in determining the first part of the question.

The primary focus of this review is the confirmation and appropriateness of the techniques used and the products produced by Gensler. To start this evaluation, we have provided comments from the information provided by Gensler in a letter dated January 31st, 2008. My comments follow the excerpts from this letter and are shown in italicized type.

1.2 Review of the Process Used by Gensler

Below is a copy of the letter received from Gensler on 1/31/2008.

Gensler first determined the relationship in height between the existing Radisson Hotel tower and the proposed Entrada building. This was determined from producing a site section based on information from the Psomas site survey dated 2/24/06. From this, Gensler was able to ascertain that the height of the Radisson Hotel aligned with the 9th floor ceiling plenum of the proposed Entrada building.

Comments from KTU+A: The listed method of determining the height differences between the Entrada building and the Radisson Hotel, turned out not to be accurate enough. It was based on assumptions of standard floor heights and an attempt to project perspective lines from one building to another building. A twelve-story hotel would typically have 10' floorplates, with the first floor and the top of the building extending it to approximately 135 feet above the groundplane. The text of the EIR indicates an assumed height of 132 feet. However, the floorplates are less than 9' for each floor, resulting in a shorter building. It is understandable why the applicant and the consultant team assumed the height of the building to be above 130 feet.

As a result of questions from KTU+A and project opponents, it was determined that more accuracy in height was needed, especially if the hotel would be utilized as a control point for the simulations. The following notes were submitted from Psomas on February 8, 2008.

On February 6, 2008, Psomas surveyed the building height of the Radisson Hotel located at 6161 Centinela Avenue in Culver City. Los Angeles City Benchmark No. R17-03391 per Tentative Parcel Map No. 069726 was the basis of elevation for the survey. The north and south building face lines were extended to the back of sidewalk along Centinela Boulevard. The finish surface elevations were found to be 24.4 feet on the south, and 24.1 feet on the North. The finish floor elevation (Level One) was found to measure 27.0 feet. These measurements were taken at the east and west ends of the

building. Finish grade at the four corners of the building were found to be 26.5 feet at the lowest point, and 27.0 feet at the highest point. The top of the elevator shaft measured 143.0 feet and is the highest point of the building. The parapet was measured at the four corners and found to be 141.0 feet. The highest point of the roof is adjacent to and below the top of parapet by 11.4 feet. The roof slopes away from the parapet to the longitudinal centerline that measures approximately 0.5 feet lower. Based on the lowest finish grade adjacent to the building at 26.5 feet, and the highest point at 143.0 feet, the overall height of the building stands at 114.5 feet at the parapet and 116.5 feet to the top of the elevator shaft.

Gensler then constructed a 3-D AutoCAD computer model of the proposed Entrada building and the adjacent Radisson Hotel based on the above sectional information. This is a standard procedure of the design process. This model, once constructed, would, regardless of the view angle, depict the accurate relationship between the two (2) structures due to the rules of perspective construction embedded in the 3-D Model.

Comments from KTU+A: *The creation of a computer models is an appropriate approach and it normally would result in accuracy. It is common practice in the production of visual simulations. The only problem that I see is that the model should have been based on the Finished Floor Elevation and the true height of the building, not on the number of floors. If it were based on the assumption that the 9th floor ceiling matched up with the top of the 12th floor Radisson and this assumption proved to be incorrect, then the model would also be incorrect.*

We then translated this AutoCAD model into the program 3-D Studio Max, and proceeded to scan and texture map the exterior materials of the Entrada onto our 3-D Studio Max model. This produced a rendered model whose color, shadow and textures can remain true to the various sunlight angles that the project will experience.

Comments from KTU+A: *This process is appropriate and needed for a realistic depiction of the surfaces and shadows. It results in a simulation that is more realistic since it provides elements of scale that the observer can relate to.*

We then proceeded to take multiple pictures from the various vantage points. The City and PCR were present when the photographs were taken and approved every photograph: all the locations were determined by the City staff.

Comments from KTU+A: *This approach is appropriate. The number and location of the keyviews simulated show many of the worst-case situations that may exist and addresses the different potential viewer groups and viewing angles.*

When taking the pictures, we used a wide-angle lens so as to capture not only the project site, but also its surrounding context. This would more accurately simulate one's dynamic experience of looking at the view, so such peripheral information as would be captured by a wide-angle lens was considered relevant to establishing a panoramic type view. In the end, both types of panoramic views -named "direct" and "panoramic" are indicated with numbered titles (e.g. view 1); more static views that crop out peripheral information were also performed, but from different vantage points. These are the renderings whose view titles are indicated with Letters (e.g. view A). The photographs were taken standing up, as we felt it was important to

take them from the point where one would see the most view. I'm 5'-10", so the line of sight for these photographs is approximately five feet tall.

Comments from KTU+A: *The approach of using two viewing angles / lenses is a good approach that addresses concerns over the relationship of background and foreground images that are close to the scale seen by the human eye, as well as the panoramic capability of the human eye. The location and height are all appropriate.*

The camera we used was a Kodak V570 -it has two (2) lens -what was termed a "direct" view was shot with a wide-angle 39.117mm zoom lens set at 39. What was termed a "panoramic" view was three pictures shot with the other wide-angle lens at 23mm and then stitched together. The pictures termed "panoramic" have more peripheral information.

Comments from KTU+A: *This is a part of the approach that is most in question. The determination of what viewing lens to use is very important. Unfortunately there is a lack of an agreed standard in the industry and the way lenses and viewing angles are defined. The Kodak V570 is a hybrid camera, with the intended primary user being one that needs to capture a significantly wide viewing angle. It is very good at taking interior shots or exterior shots where standing further back may not be possible. The unique software stitching capability of the camera is a great tool for putting together wide-panoramic views. However, the camera is not a true 35mm film / image area (charged coupling device or CCD) behind the lens. Therefore, the use of focal lengths and industry standards is cannot be applied without a conversion factor. We researched the 35mm format equivalent of the image area to see if a recalculation of the lens standards was needed to determine different viewing angles. Also, the automatic stitching that is capable in the digital software of the camera is appropriate for the production of wide-angle panoramas, but may have introduced some distortion into the photos used for the Direct Views (39mm).*

Back at the studio, we placed our rendered 3-D Studio Max model into the photograph by first locating the plan view of the model onto a Google aerial plan. The Google aerial plan was scaled to correspond to the scale of the model plan. This allowed us to locate the horizontal distance between the Entrada and any of the vantage points from which the various photographs were taken.

Comments from KTU+A: *This approach is not completely defensible, but is common when a high level of accuracy is not critical. A GPS unit or accurate base map or aerial photo should have been used to determine the viewing location, relative to the real world and the proposed project. Google Earth is a great tool, but should be used at a regional or sub-regional level and is not intended to be used for this type of measuring. The satellite images used and the geo-corrections of these images, particularly where topography exists, are not accurate enough to determine viewing angles, but are great for what most users intend to use them for.*

In order to determine the proper vertical distance relative to the horizon line of the photograph, we moved the determined point in plan up and down until the vanishing point of the photograph aligned with the vanishing point of our computer model, and the view angle of the Radisson Hotel in our 3-D model overlapped accurately with the view angle of the Radisson Hotel in our photograph. At this point we could be sure that the angle of our 3-D model was consistent with the angle of the photograph.

Comments from KTU+A: *This is a good practice and commonly used. However, it assumes accuracy in the camera position of the Photoshop file and accuracy in the computer model based on the assumed position in the computer model. Also, differences in perspective and viewing angle between the Photoshop file and the computer model may still exist at this point depending on issues related to the focal length and viewing angles assumed. This approach allows for the correcting of slight differences between these variables but not lining up items. It is a good approach, but generally would need several elements in the model that also exist in the Photoshop file in order to get an accurate "lining up" of these elements. Since the model was based on an incorrect assumption of height for the Radisson Hotel, it also represented a potential for accuracy issues to be introduced.*

Once that point was located, we set the sun angle in the computer to correspond to the sun's location in each photograph, so as to produce modeled shadows for the Entrada that were consistent with the shadows depicted in each respective photograph.

Comments from KTU+A: *No problems here.*

At that point we cropped out the Entrada portion of our 3-D model and montaged it into the photograph. We applied final touches through the use of Photoshop to provide seamless edges at the interface between our rendered 3-D model of the Entrada and the photograph.

Comments from KTU+A: *This is also a good approach and the realities of how you scale and line up pasted images into layers of Photoshop. Even in the best of computer models and accuracy of keyview locations and lens to camera image area conversions, there still is lining up and scaling that is required. The more elements that are included in the model overlay with real items in the photograph, the higher the level of accuracy. Given the inaccuracy of the Radisson Hotel assumptions, the resulting lining up of the rendered image with the Photoshop image of the hotel, would also result in inaccurate scale and alignments.*

1.3 General Discussion on Issues

The three areas of analysis involving the simulations are:

- 1) The decisions used in determining the location of the viewer (the camera position) as seen from the selected keyview;
- 2) The accuracy of the Entrada Office Tower as placed in the real world environment represented by the simulations; and
- 3) The appropriateness of different viewing angles (focal length of lenses and camera type / image types used).

1.3.1 Camera Position

The accuracy level of the viewing position represented by the keyview, as seen through the camera, is very important in determining overall accuracy of the products. In many instances, the methods used by Gensler are both appropriate and commonly used. They are not outside of the normal realm of methodologies used by consultants in the production of visual simulations. Their approach is adequate for most visual studies where changes in the overall character and the aesthetics of the proposed project are the focus. However, in instances where a particular viewing scene is considered to be regionally or subregionally important such as the downtown skyline views, Santa Monica Mountain views, views of the ocean, etc.) and the viewing corridor is potentially going to be blocked by the proposed project, minor changes in viewing angle, lens use or viewer position can result in very

different looking simulations. The type of simulation needed and the methods used to produce that simulation are therefore subject to higher levels of scrutiny and higher levels of needed accuracy.

1.3.2 Review Process

KTU+A obtained the digital AutoCAD 3D files produced by Gensler using StudioMax. We obtained and processed 2007 aerial images that have an accuracy of 4 inches, which simply means that each pixel in the raster image represents 4 inches on the ground. These images have been rectified based on existing topography, and the level of accuracy between the image, overlaid base map information and the real world is very high. Some distortion of buildings still occurs, noted by a lean in buildings where the roof and the ground plane are not in the same portion of the image. This results from parallax and the amount of distortion depends on the position of the building relative to the center of the aerial image. However, the base of the buildings are all in their correct location, as are all other elements on the ground plane.

Road centerline files and parcels obtained from the City of Culver City, were also used to improve the registration between the image, the properties, the site, existing buildings and roadway locations. Digital files were imported for the site plan and registered with the parcel boundary. Buildings that were digitized in the surrounding area by Gensler and by KTU+A were also added for reference points. The resulting ArcScene file was then used to generate a detailed Triangular Irregular Network (TIN) file based on the provided topography and Digital Elevation Models (DEMs). The TIN was then draped with the orthophoto aerial image discussed above. The resulting model is a composite of all of the overlays and landforms as well as any extruded three-dimensional buildings that were placed in the file.

With this information, KTU+A was able to more accurately determine the location of the building in relation to other buildings in the area, and more importantly, the location of the keyview photographic location. Detailed aerial images were processed and sent to Gensler for confirmation on the viewing location. Then, the 3D computer camera was set up at the locations of the keyview, and the model components of the corrected 114.5' (the parapet level) of the Radisson Hotel.

1.3.3 Accuracy of the Entrada Office Tower in the Gensler Simulations

KTU+A has analyzed the revised simulations to determine if there are any major accuracy issues associated with the Draft EIR simulations. This was done by importing the AutoCAD three-dimensional files into ArcScene 9.5 (ESRI GIS product). This tool is used to place the various elements into a real world coordinate system that also utilized landforms and draped imagery to position elements within the model.

Because of the detail provided in the AutoCAD file, a simpler version of the model was produced for the testing in ArcScene. The AutoCAD model was used to snap points to simple surfaces of the Entrada Building and the Radisson Hotel. These more simplified versions were then imported into ArcScene and placed according to the civil engineering site plan, parcel file, street centerline file and orthophoto image of the site and the surrounding areas.

The next step included inputting the coordinates for the location of the keyviews. The x and y coordinates were determined by the orthophoto mapping products and the z or height coordinate was verified based on the topographic component of the landform model within ArcScene. With these viewing locations placed in the computer model, the degrees of the Scene of View (SOV in 3D Studio Max) or View Field Angle (in ArcScene) were input. This factor was determined by entering in the size of the image area for the Gensler Kodak V570 (25.4mm by 63.5mm) into a Field of View online calculator (<http://www.mat.uc.pt/~rps/photos/angles.html>). The resulting FOV was input (78 degrees for the shots taken with the 39mm lens and 108 degrees for the 23mm lens). A visual target or area of focus was placed generally on the center of the building, at about the horizon line.

The image from the ArcScene model was then captured and then overlaid in Adobe InDesign. These files were created by importing the Acrobat pdf files of the simulations provided by Gensler. The model layer was set at a 60% transparency and overlaid and registered with the Radisson Hotel portion of the photo image. A trace outline of the model was also overlaid on the original simulation images. The results of this comparison were sent to Gensler in order to correct the positions, scale and rotation of each of the simulations.

This process was an iterative process. The basic iterations were: reviewing the images; comparing the two model geometries; sending the adjusted templates to Gensler; having Gensler adjust the Photoshop files; sending these files to KTU+A; and then rechecking the adjustments to the KTU+A model. The steps and evaluations of each of the keyviews are summarized below. A final conclusive statement is made at the end of each keyview discussion that represents our professional third party opinion on the accuracy of each of the simulations produced by Gensler.

Keyview #1: Adjusted by Gensler for Radisson height change (114.5'); reviewed by KTU+A and found that some geometry of scale and position needed to be adjusted, Gensler corrected and returned to KTU+A and was found to match with KTU+A models. **Visual Simulation #1 now confirmed by KTU+A to be reasonably accurate based on the KTU+A model and keyview location assumptions.**

Keyview #2: Adjusted by Gensler for Radisson height change (114.5'); reviewed by KTU+A and indicated it might need adjustments. However, if the keyview location was moved approximately 265' northwesterly along the freeway, the models would then match reasonably well. Given the dynamically changing relationship of buildings and scale that occur for viewers on the freeway, the slight differences between the models is immaterial and would not affect any of the thresholds of significance. **Visual Simulation #2 now confirmed by KTU+A to be reasonably accurate based on the KTU+A model and adjusted keyview location assumptions.**

Keyview #3: Adjusted by Gensler for Radisson height change (114.5'); reviewed by KTU+A and indicated the simulation was already accurate and no other adjustments were necessary. **Visual Simulation #3 was previously confirmed by KTU+A to be accurate based on the KTU+A model and keyview location assumptions.**

Keyview #4: KTU+A was not able to review the accuracy of this model because of the limits of the KTU+A landform model. Image was too far from the limits of available topographic and mapping coverage. However, the image is very distant and even if adjustments in height or horizontal displacement were similar to those on the other simulations, these adjustments would not show up or have any perceivable change in the simulation; **Visual Simulation #4 not confirmed by KTU+A to be accurate based on limitations in the KTU+A model. However, if adjustments of scale and position were similar to those found in the other simulations, this change would not be perceivable at this distance and would only represent a pixel or two given a 300dpi image resolution.**

Keyview #5: Adjusted by Gensler for Radisson height change (114.5'); reviewed by KTU+A and indicated the simulation was already accurate and no other adjustments were necessary. **Visual Simulation #5 was previously confirmed by KTU+A to be reasonably accurate based on the KTU+A model and keyview location assumptions.**

Keyview #6: Adjusted by Gensler for Radisson height change (114.5'); reviewed by KTU+A and found that some geometry of scale and position needed to be adjusted, Gensler corrected and returned to KTU+A and was found to match with KTU+A models. **Visual Simulation #6 now confirmed by KTU+A to be reasonably accurate based on the KTU+A model and keyview location assumptions.**

Keyview #7: (Direct and Panoramic): Adjusted by Gensler for Radisson height change (114.5'); reviewed by KTU+A and found that some geometry of scale, rotation and position needed to be adjusted. Gensler corrected

and returned to KTU+A and was not found to match with KTU+A models; a second revision was made to the simulations and verified by KTU+A models. Visual Simulation #7 now confirmed by KTU+A to be reasonably accurate based on the KTU+A model and keyview location assumptions. Some photo distortions still occur in the Panoramic version (and to a lesser extent in the Direct version). The distortion relates to curvatures in the image resulting from stitching together of images and the closer proximity of the project site to this keyview. This distortion does not exist in the new 50mm equivalent version attached to this memo.

Keyview #7: (Normal 50mm): New photograph taken by KTU+A on site with tripod level, GPS coordinates and a lens that would produce a field of view similar to what a normal 50mm uncorrected lens would produce. Visual Simulation #7 supplemented by an additional simulation produced by KTU+A to closer replicate the scale and positioning of what the focused human eye would typically see (not counting expanded view and peripheral vision).

Keyview #8: (Direct and Panoramic): Adjusted by Gensler for Radisson height change (114.5'); reviewed by KTU+A and found that some geometry of horizontal level, rotation, scale and position needed to be adjusted. Gensler corrected and returned to KTU+A and was found to match with KTU+A models. Visual Simulation #8 now confirmed by KTU+A to be reasonably accurate based on the KTU+A model and keyview location assumptions.

Keyview #8: (Normal 50mm): New photograph taken by KTU+A on site with tripod level, GPS coordinates and a lens that would produce a field of view similar to what a normal 50mm uncorrected lens would produce. Visual Simulation #8 supplemented by an additional simulation produced by KTU+A to closer replicate the scale and positioning of what the focused human eye would typically see (not counting expanded view and peripheral vision).

Keyview #9: Adjusted by Gensler for Radisson height change (114.5'); reviewed by KTU+A and found that some geometry of scale and position needed to be adjusted, Gensler corrected and returned to KTU+A and was found to match with KTU+A models. Visual Simulation #9 now confirmed by KTU+A to be reasonably accurate based on the KTU+A model and keyview location assumptions.

Keyview #9: (Normal 50mm): New photograph taken by KTU+A on site with tripod level, GPS coordinates and a lens that would produce a field of view similar to what a normal 50mm uncorrected lens would produce. Visual Simulation #9 supplemented by an additional simulation produced by KTU+A to closer replicate the scale and positioning of what the focused human eye would typically see (not counting expanded view and peripheral vision).

Keyview #10: (Direct and Panoramic): Adjusted by Gensler for Radisson height change (114.5'); reviewed on Saturday by KTU+A and indicated it might need adjustments. Upon further review of the keyview locations and potential positioning of the camera, it was determined that the viewing angle, scale and position were all relatively accurate and that minor adjustments to the position would not be perceivable from this distance and this viewing angle. Visual Simulation now confirmed by KTU+A to be reasonably accurate based on KTU+A model and adjusted keyview location assumptions.

1.3.4 Camera Focal Length and Perspective

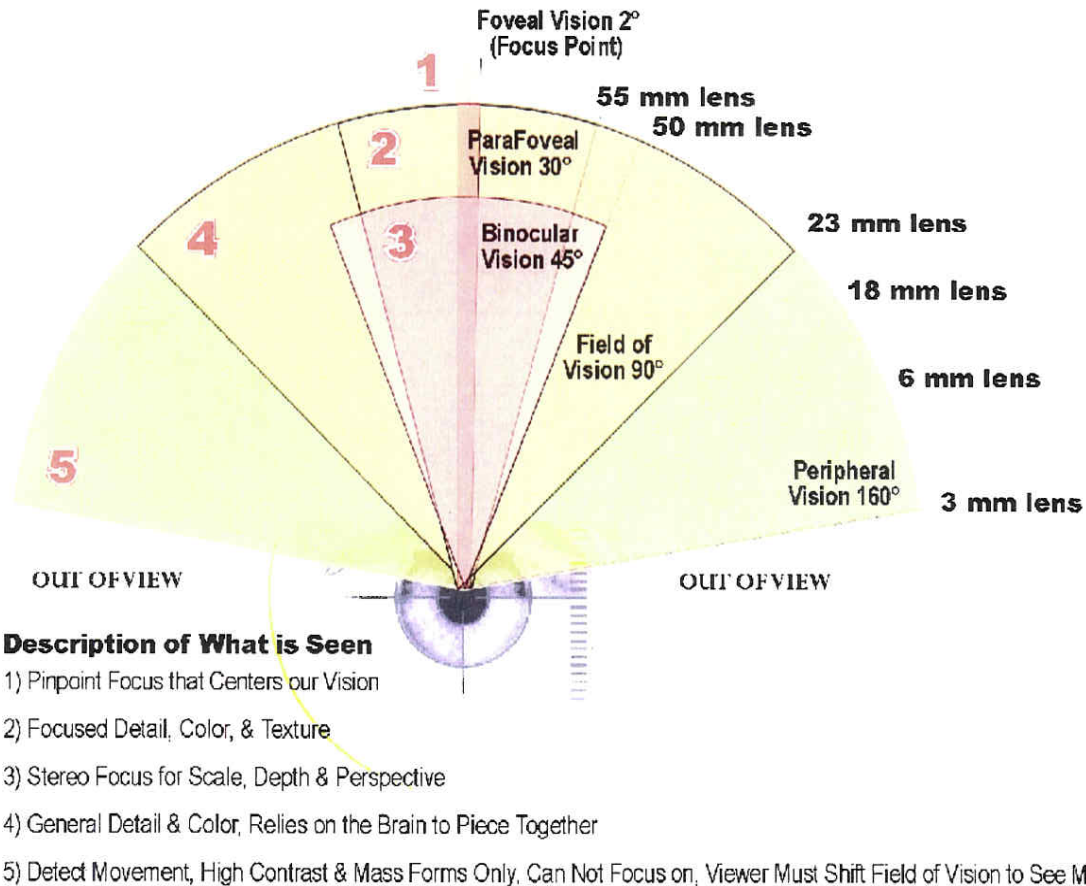
At first glance, it would appear to the layperson that there is agreement upon how to best simulate a proposed project on an existing photograph. It is common to hear that a 50 or 55mm lens is the best to use to simulate what the eyes sees. However, there is no agreement in the industry, nor are there clear definitions that allow both the layperson and the professional to agree on how to best simulate projects.

First of all, it needs to be explained that the human eye is an instrument for sensory input, and it is also attached to a brain, which takes this information and reformats it into an image that is most useful for the person to understand and utilize. Our brain takes raw images, flips them over to the proper

orientation, stitches multiple optics from regions of the cones and rod sensors, then combines and processes them in such a manner that cannot be replicated by any camera or simulation. To make simulations match our vision capability, we must remember that our visual perception and processing is directly influenced by a number of subjective items and life experiences, as well as the physical ability and condition of a particular person's human eye. The dynamics of a three dimensional environment makes it difficult to replicate in a flat paper environment. Also, when you factor in differences in the viewing environment, such as sun direction, glare, atmospheric conditions, and position, you obtain a condition that cannot be replicated.

Secondly, the eye is not like a single camera lens. It has various elements that allow it to see and format images. Figure 1 is a summary graphic that shows some of the different functions and viewing focuses that take place in the eye. Our focus of attention (Foveal Vision) is only about 2°. That is what our eye uses as the centerpoint to move our eye around. You can better understand this by noticing how your eye moves and sees this text. The second region of seeing is considered to be our ParaFoveal Vision. This is where the eye can see full detail and focus and is the strongest point of our

Figure 1: Viewing Regions of the Human Eye



vision. The third region is known as the Binocular Vision, which results from the overlay between the left eye and the right eye. This gives us sense of depth and perspective. Some periodicals and researchers call region 2 and 3 the same, but there are differences in some definitions. Region 4 of our

vision is known as the Field of Vision. This is the full extent of visibility that can be made out in detail and that contains full color and texture, though this region is generally not in focus. Everything outside of this region is known as peripheral vision. Some capable humans have peripheral views close to 180 degrees. However, most have a bit less, averaging around 160°. We cannot see color or detail in this region. But we can sense movement and forms that are high contrast. The human eye and brain works together to pull all of these regions into one perceptible image.

The capabilities of the human eye cannot be reproduced using any technology. So the best we can do is represent the visual environment in a similar fashion as the eye does. We cannot come close to displaying peripheral vision (this would require super wide angle fish eye lenses around 3mm). However, in order to provide simulations that show the context of the areas, the field of vision needs to be simulated. A wide-angle lens of 18 to 24mm may produce similar results as the field of vision that is close to 90 degrees. Anything beyond 90° would be too distorted to be useful in simulations. A panorama that attempts to cover 180 degrees has too much "barreling" and perspective distortion to be really effective.

The perspective of an image that uses a 50 or 55mm lens is probably closest to the perspective that the human eye sees in the ParaFoveal region. It is often stated that perspectives change between focal lengths. However, perspective angles and vanishing points change based on the proximity of the viewer and camera position to the object of focus, not on the focal length. These perspective lines can be distorted differently by the type of lens used, but the perspective is not determined by the lens. However, the position of objects as they appear and the relative distance between these objects is determined by the camera lens.

A wide-angle lens will make items behind the object of focus appear further away and the scale of the focus element will appear to be smaller in relationship to the viewer and other closer elements. A telephoto lens will tend to bring distant elements closer to the foreground and will collapse the space between these elements. This is why a 50mm normal lens is considered to be the lens to use to keep the relationship of elements in the proper perspective (not the perspective lines). However, this focal length also shows a narrow viewing angle (generally 30-45 degrees). This type of image will appear to the eye to be larger than real life since there is no adjacent image that comes closer to the field of vision and peripheral vision. Therefore, the best combination of imagery to produce simulations is to produce a 50mm version to replicate the tighter focus area and proper perspective of the eye. This should then be supplemented with another simulation that is wider angle or with a stitched together 50mm photo that covers closer to a 60 to 90 degree view. A 180-degree view is not necessary or desirable except for adjacent context. If only one type of simulation is produced, then a 35 mm may be most appropriate or a 50mm with two additional photos stitched together on each side.

1.3.5 Camera Focal Length and Conversions

One important factor in discussing focal length is that a 35 mm, for example, in one camera may not be the same as the same focal length in another. This is because the focal length is just one measurement that indicates the distance between the optical parts of the lens. However, the film area or the digital light sensitive diodes (sometimes referred to as a Charged Coupling Device or CCD) may be different between cameras, and therefore images different extents of the view. In general, a 35mm camera is based on a film type of a certain size that is measured across as 135 mm diagonally with a 2 to 3 ratio in height to width. This is similar to the cone of vision that is wider than it is higher in the human eye. However, cameras today do not follow this film format and their image areas in the CCD area may be a different size and ratio.

The following has been paraphrased from a recent article on focal length conversions:

"Engineers behind single-lens reflex cameras, now unleashed from the constraints of 35mm film, match the image sensors at the heart of digital SLRs to different cost and engineering priorities. Because the size of sensors varies, the same type of lens often produces different results when comparing one digital SLR to another--or to 35mm film SLRs. On traditional film SLR cameras, a lens with a 50mm focal length closely approximates the optics of a human eye. But smaller sensors on most digital SLRs mean that a 50mm lens has a narrower field of view, which leads to light from a smaller angle hitting the sensor or CCD. A conversion factor is used to describe new-era cameras in old-era terms. For example, on a Nikon or Fujifilm, a 50mm lens shows the same field of view as a 75mm lens on a film SLR and therefore has a 1.5x conversion factor. On an Olympus or Panasonic, a 50mm lens works like an old-school 100mm lens. And for digital SLR market leader Canon, the equivalent is 80mm for consumer models, 65mm for its midrange line and an unchanged 50mm for top-of-the-line models with "full-frame" sensors".

The Canon Digital Rebel XTi EOS (SLR) camera used by KTU+A has a 1.6 Focal Length Conversion Factor where 30mm is approximately equivalent to 50mm (135mm format). The Kodak V570 used by Gensler has a .568 Focal Length Conversion Factor where 88 mm is approximately equivalent to 50mm (135mm format).

In regards to the lens picked by Gensler, the 24mm is very good for the context panorama, but a full 180 degrees is not necessary or desirable. This wide-angle panorama image is still useful, but it should be cropped closer to 120 degrees. The 39 mm lens is appropriate as a compromise between a 50 mm normal lens and a 24mm wide-angle lens. Providing all three lens/ viewing angle types is the best approach where perspective, scale, background ordering, and view blockage are important issues to analyze.

1.3.6 Viewing Size of the Printed Simulation

Another factor that is important in producing clear visual simulations is the size of the page that the image is printed on. In order to get a wide enough view with the dynamics of the human eye, an 11" x 17" wide image should be produced. If the image is printed at approximately 15 inches, and is held approximately 8 to 10 inches away from the eyes, the perception of the focus of the image matches the 30-degree vision of the ParaFoveal region and the remaining image serves to replicate the context of adjacent field of vision and peripheral vision.

1.4 Review of Claims from the Opponents E-mail

The following e-mail is reviewed with responses shown in italics (from Mr. McDaniel and Mark Hall as a follow up to the Planning Commission meeting of January 9, 2008):

- 1) **Use a 50mm lens.** In photography, the 50mm lens is regarded as the most proximate to the human eye. Accordingly, it is often referred to as a "normal" lens. Lens of a greater millimeter are telephoto and those that are less than 50 millimeters are wide-angle. The effect of using a wide-angle lens is to accentuate the foreground and diminish the background perspective. The consequence is critical because distant objects photographed with a 24mm lens, for instance, would appear to be twice as far away as would be physically observed from an actual eye level view. The unintended result would be a bit like looking through a pair of binoculars backwards. Finally, please note that these photographic standards were established using the image plane of a 35mm camera. If the image plane is smaller (as it is in

the case of most consumer digital cameras), the lens size necessary to approximate normal will need to be larger. For our photos, we used a Nikon D2x digital camera (that has a CCD image plane equal to a 35mm film camera) with a 50mm Nikon lens.

KTU+A Comment: *This statement is correct and has been elaborated on by other discussions in this memo.*

- 2) **Level the camera.** This is particularly important in taking panoramic images. For our photographs, we used a heavy base Bogen tripod with an adjustable head that provided two separate points of leveling (a third point of level was added to the hot shoe on the camera body). We also used a professional panoramic head (Kaiden) set at 10-degree increments and aligned through the center axis of the lens plane for maximum photographic fidelity. By following these base line procedures, off horizontal axis photo results such as the images on page 36 of section III A will be avoided.

KTU+A Comment: *This statement is also correct and has been elaborated on by other discussions in this memo. However, the importance of leveling is not that important for normal photographs, just those that are stitched. If the image is not level, it can be corrected in digital image programs such as Photoshop or Aperture.*

- 4) **Use 3D software.** Any number of readily available 3D programs should be used as a critical aid in establishing the correct attributes of scale, mass, and perspective. The building model should be added to a current topographic plan in 3D space and the surrounding buildings (particularly the Radisson Hotel) should be extruded to their known heights. Note that when rendering the Entrada Tower in such programs the rule of lens selection still applies and the program camera should be located precisely where the physical photograph will be taken. Thereafter, digital manipulation in a graphics program such as Photoshop will consist simply of overlaying the rendered building onto the photographic background plates while using the wire frame outline of the existing reference buildings as a scale guide.

KTU+A Comment: *This statement is also correct and an important point. However, with the exception of the location of the keyview, the process did include the use of a detailed and accurate computer model. There is some concern about how the Photoshop files were merged and how much control was provided by other structures in the model beyond the Radisson Hotel. But as far as we can tell, this process was used and the results from the 3D software are probably accurate, although some of the variables used (keyview location, field of vision angle, height of the Radisson) may not have been correct, resulting in inaccurate simulations.*

1.5 Review of Claims from the Opponents Testimony

The following testimony has been paraphrased, and is reviewed with responses shown in italics (from Mr. McDaniel and Mark Hall testimony at the Planning Commission meeting of January 9, 2008):

All the photo exhibits that we evaluated and then recreated were produced with a wide-angle lens. That is a very significant fact. As we'll explain, the result of this fact is that each of the composite depiction exhibits are underrepresented by a full 200 percent.

KTU+A Comment: *The first statement is correct. However, the conclusion that the project has been under-represented by 200% is not correct. With wide-angle views, the relative scale of the building and its surroundings in the same location (foreground, middleground, and background) are the same regardless of the lens used. The relation of background images with other images in the middleground or foreground changes with wide angle lens, but their relative scale is the same, but they appear to be further away, which is the opposite of a telephoto lens that foreshortens this relationship. The under-represented size has more to do with the height accuracy relationship with the adjacent hotel, and the accuracy of the keyview location (x, y and z locations).*

The scale and secondly, and this is the point that Mark is quite an expert in, the scale mass and orientation of the office tower in all of these depictions are, unfortunately, in a word wrong.

KTU+A Comment: *We do not agree with this statement. It alludes to inaccuracies with the simulations that have been produced instead of just judging the decision to use wider-angle views. The use of a wide-angle lens is appropriate in order to understand the context of adjacent images that show up in normal vision that extends between 90 degrees and 160 degrees. It is also appropriate to show the amount of a view that could potentially be obstructed by the proposed project. Using the 50mm for this purpose would not be appropriate. Though the scale of the 50mm is closest to what the eye sees, it is far from how wide the eye sees and perceives.*

If you use the appropriate human eye scale of a 50-milimeter lens, this is the vision that you get from Kentwood Court. We took this page from 34 of the draft. It's an unfortunate example of some -- some inappropriate work. We've drawn lines showing you essentially where level and horizon are, and you see them in the inset on this page. Essentially, the Radisson Hotel is running downward, down hill by about 15 degrees. What that does is it throws off the scale of that building. There's no way, in our professional opinion, that building is accurately scaled. In fact, it's too small. This is what Mark Hall has created for us that depicts what that building looks like in reality when landed on that site using the tools that he -- he's quite adept with.

KTU+A Comment: *First, there is no one appropriate human eye scale of 50mm as discussed in this memo. A combination is usually needed. However, if the point of the analysis was to show accurate scale, then the 50mm is most appropriate. If the point of the analysis is to show the project in context with it's surrounding and to determine the amount of view blockage of the background-viewing scene, then a wider angle is more appropriate. At the same time, the accuracy of the simulation in regards to the each focal length used, should not be questioned based on the choice of lens used. Though the Gensler images have some accuracy questions, it is clear from our review of the opponent's simulation, that the accuracy of their image is very much in question. The opponent's image is inaccurate based on height, width, and site placement, as well as viewing angle.*

As we look at that building that exists now, which is the Radisson Hotel, as you can see, it fills up your full field of view from a hundred yards further back. So the earlier pictures, as you saw where it was barely visible, are obviously nonrepresentative and quite inaccurate.

KTU+A Comment: *It is not correct to state that the building will fill up the full field of view, which is up to 90 degrees that can only be portrayed by wide-angle views. A 50mm lens typically only covers 40-45 degrees of view. The previous Gensler views are stated as being barely visible, which is not a correct statement either. The building is clearly visible in all simulations, though slightly undersized based on the incorrect assumption of the Radisson Hotel height.*

This is a typical mid-block view from one of the Riggs Place homes that show you the kind of views we have. We don't have 180-degree views. We virtually have tunnel views, and in this tunnel view, when the building gets built, it's going to look like this.

KTU+A Comment: *We don't agree with this statement. We have 160-degree peripheral views, but we also have 90-degree cones of vision, 45-degree views of binocular vision, 30-degree views of parafoveal views and 2-degrees of focused foveal target views. The eye has multiple types of views and you cannot attribute one solution to the issue of accurately portraying projects in simulations.*

That's what we'll see. Now, that was taken with a 50-millimeter lens. That's eye accurate, and what we'd like this -- the preparer of the EIR to go back and do is to prepare information that accurately reflects exactly the conditions upon which they evaluated this significance report.

KTU+A Comment: *Most of this statement is correct and I would agree with the recommendation of adding 50mm simulations. However, the results are not likely to be what the opponents claim and they may or may not change the conclusions of the study.*

1.6 Preparation of 50mm Simulations

KTU+A was asked to produce independent simulations using a 50mm equivalent lens. KTU+A traveled to the site on February 8, 2008 around 11:00 am and took new pictures using the Canon Digital Rebel XTi, on a leveling tripod. A lens setting of approximately 31 mm was used on the Canon, which is equivalent to a 50mm lens on a traditional 135mm SLR camera. A Trimble GPS recording device was used to obtain sub-meter accuracy of the viewing locations. Three locations were used at the Kentwood Court location, similar to those taken by Gensler. The final selected location was approximately 15 feet northward of the image used in the Draft EIR. This location was more suitable because of the intervening vegetation that blocked a portion of the field of view. The coordinate x, y and z points are shown on Table 1. The coordinates of the focus of the camera on a target (the general location of the new building, generally at eye level) are also shown on this table.

Table 1: View Blockage Calculations

KEYVIEW DESCRIPTION		KEYVIEW CAMERA POSITION INFORMATION						
Keyview	KV Name	Camera X Coordinate*	Camera Y Coordinate	Camera Z Elev. (msl)	Target X Coordinate	Target Y Coordinate	Target Z Elev. (msl)	Distance (ft)
7	Kentwood Court	6440765	1815979	110	6441190	1816353	120	974
8	Arizona Avenue	6441636	1814503	120	6441360	1816400	115	1621
9	Riggs Place	6440974	1814521	120	6441355	1816368	95	1595

KEYVIEW DESCRIPTION		DEGREES OF VIEW OF THE TOWER			MAX DEGREES OF VIEW IN THE PHOTO			DEGREES OF VIEW OF FIELD		
Keyview	KV Name	Degrees to the right side of the target on the tower			Parameters Simulations Total Degrees of view to the right of the target on the tower			Parameters Simulations Total Degrees of view to the right of the target on the tower		
7	Kentwood Court	7.1	13.9	21	154.3	73.2	42	13.61%	28.69%	50.00%
8	Arizona Avenue	2	8.3	10.3	116.3	72.6	42	8.56%	14.19%	24.52%
9	Riggs Place	0.4	1.1	11.4	143.4	78	42	7.16%	13.62%	23.14%

Notes:

* Coordinates were supplied from GPS on 2/8/08

† Degrees of view in the photos were calculated by measuring the distance from the camera to the target and then dividing the distance by the distance from the camera to the horizon.

‡ The degrees of view in the photos were calculated by measuring the distance from the camera to the target and then dividing the distance by the distance from the camera to the horizon.

§ The degrees of view in the photos were calculated by measuring the distance from the camera to the target and then dividing the distance by the distance from the camera to the horizon.

|| The degrees of view in the photos were calculated by measuring the distance from the camera to the target and then dividing the distance by the distance from the camera to the horizon.

¶ The degrees of view in the photos were calculated by measuring the distance from the camera to the target and then dividing the distance by the distance from the camera to the horizon.

A variety of adjacent buildings were measured with an inclinometer to determine relative height. These heights were later used to extrude outlines of buildings that show up in the photos for each keyview. This provides additional control points besides the Radisson Hotel to be used for orientation. The GPS coordinates were entered into the ArcScene model and the orthophoto was used to verify the locations. Computer models using approximately 42 degrees of view were then generated from the computer model as screen images. These images were taken into Photoshop and merged with the actual photo as seen from each keyview. The Radisson Hotel and several other buildings were used to register the model image with the photo image. These images were then sent to Gensler along with the coordinates, and a shaded rendered model was produced from the 3D Studio Max model. The rendered images were then brought into KTU+A Photoshop files and fully registered and verified with the overlay model. Foreground images were painted back in front of the model and detail was added from the site plans to more accurately put the building into the site. Figure 2a represents the existing photo taken at Kentwood Court and Figure 2b shows the new 50mm simulation.

Figure 2a: Keyview #3 existing photo as seen from Kentwood Court using a 50mm equivalent lens:



Figure 2b: Keyview #3 simulation as seen from Kentwood Court using a 50mm equivalent lens:



Figure 3a: Keyview #8 existing photo as seen from Arizona Avenue using a 50mm equivalent lens:

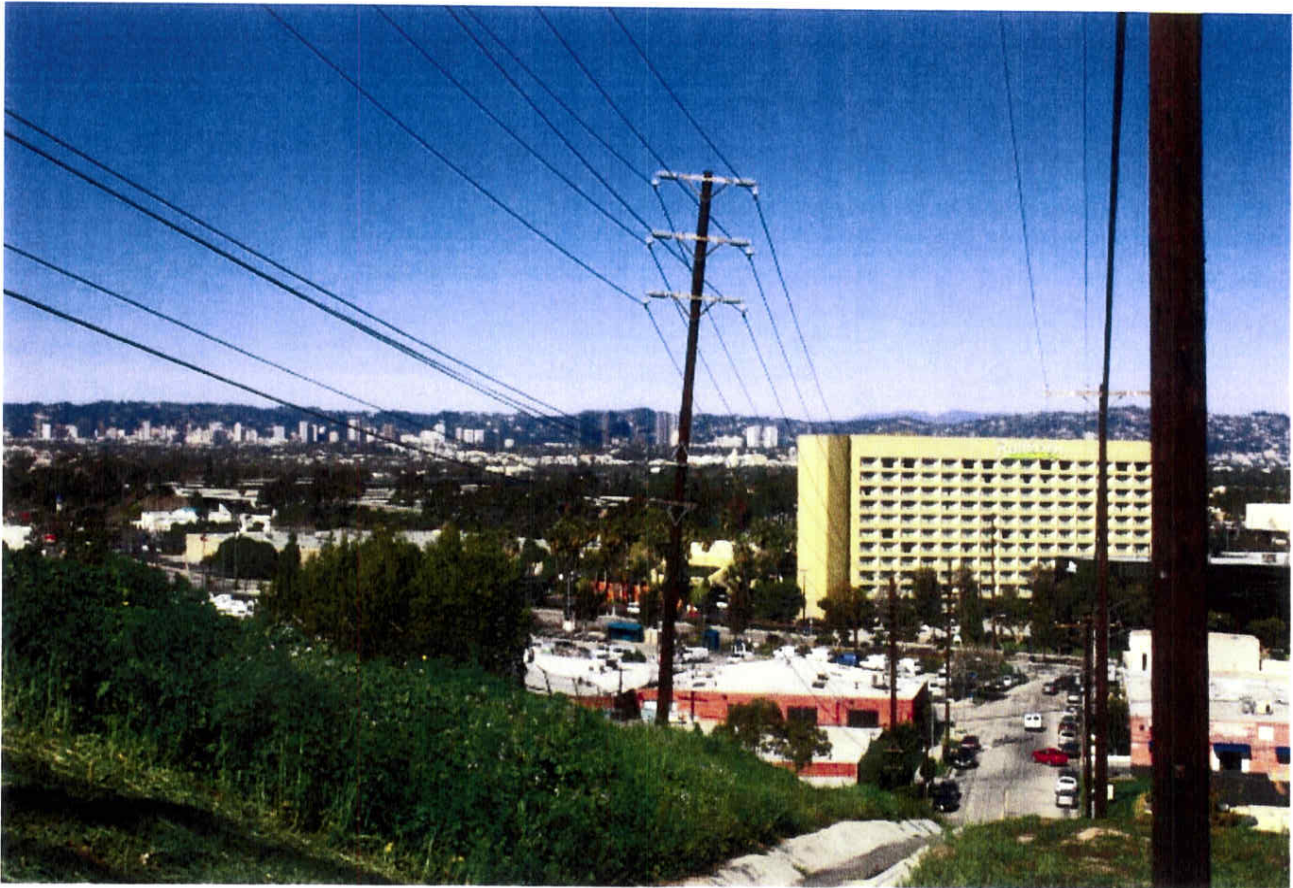


Figure 3b: Keyview #8 simulation as seen from Arizona Avenue using a 50mm equivalent lens:



Figure 4a: Keyview #9 existing photo as seen down slope from Riggs Place using a 50mm lens:

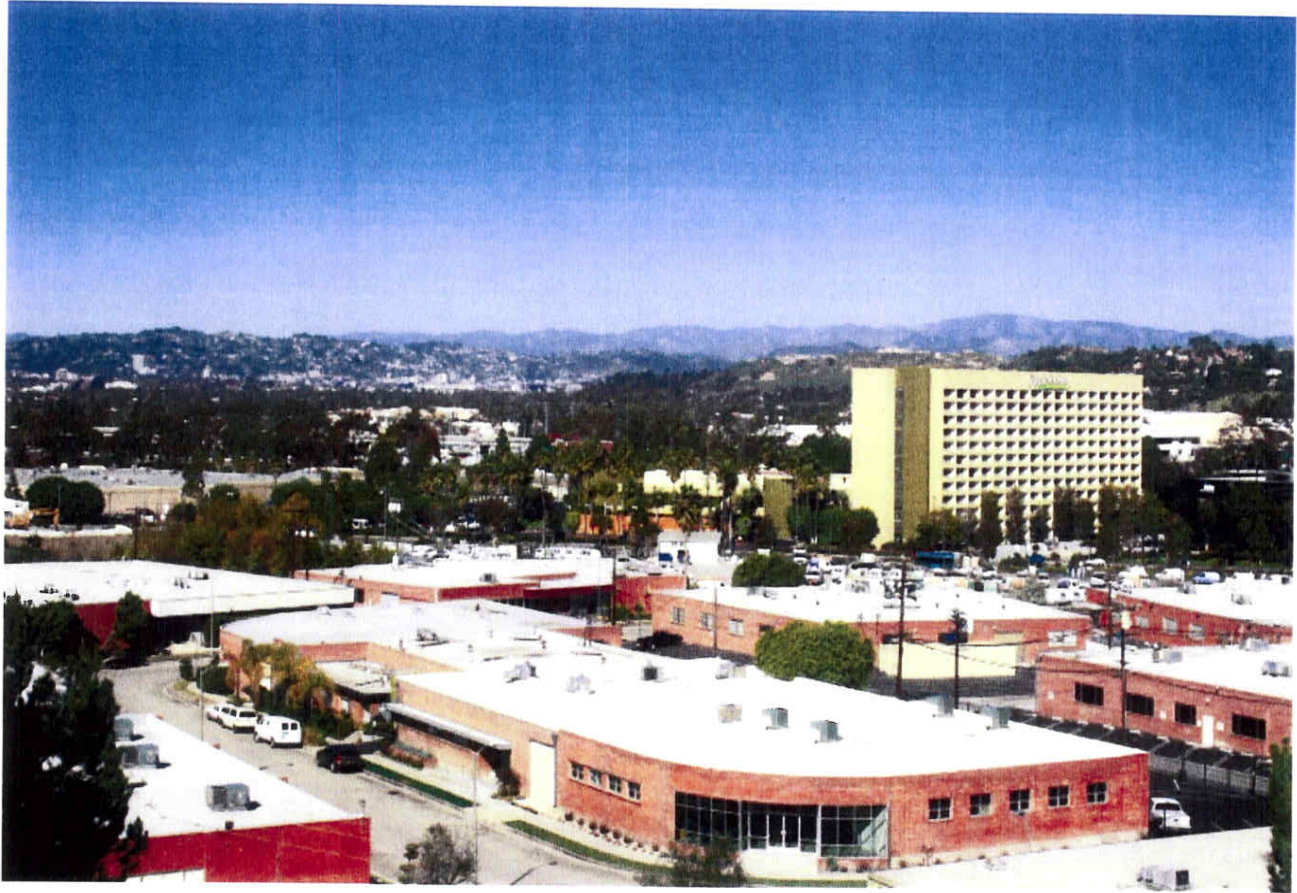


Figure 4b: Keyview #9 simulation as seen down slope from Riggs Place using a 50mm lens:

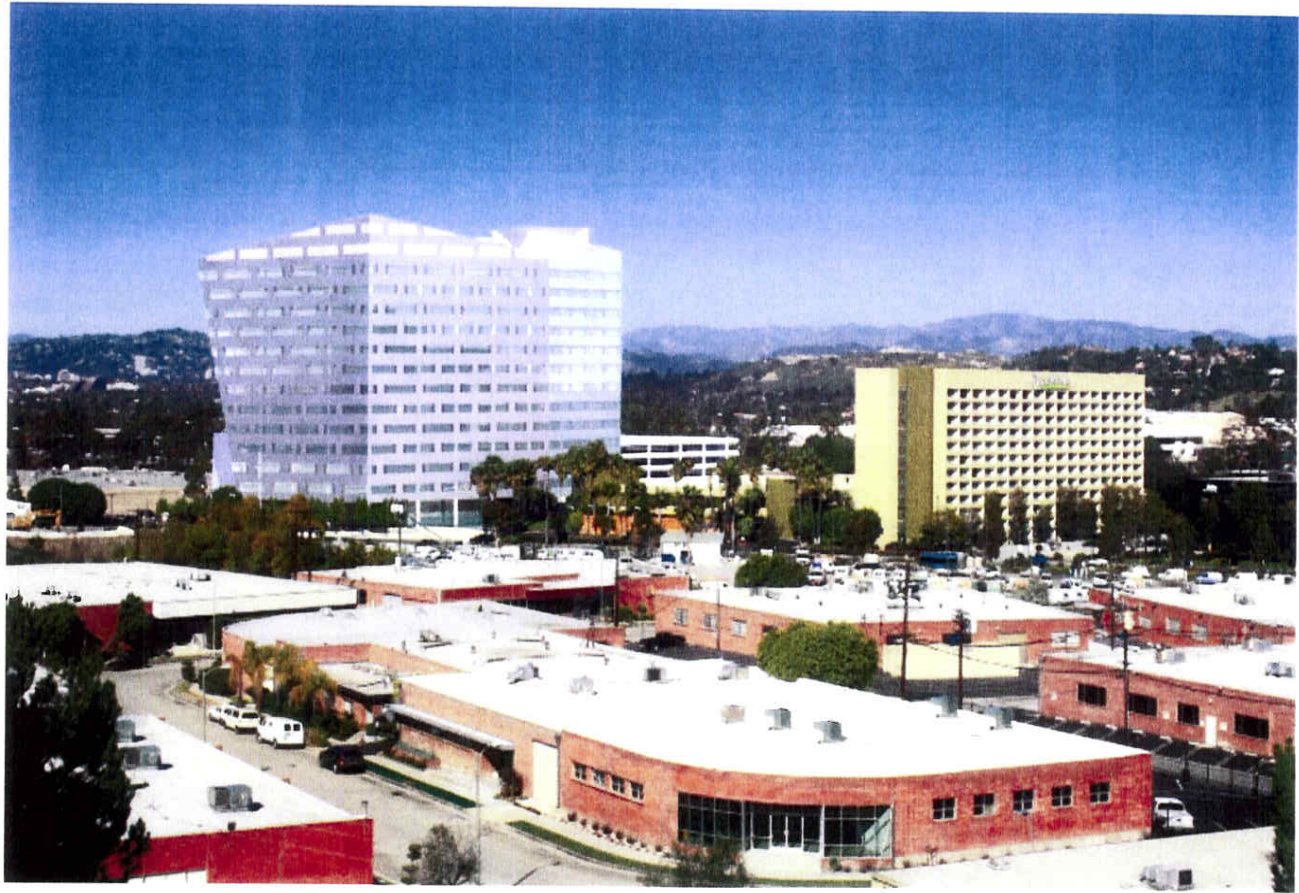


Table 1 also includes calculations that determine the amount of the view that the widest point of the tower represents when seen from each keyview. This degree was calculated from drawing extent lines from the keyview locations in the ArcScene model, to the limits of the building in plan view. The degrees were then measured. Measurements are provided to the left of the target center point of the computer model as well as to the right. In most cases, since the building does not have vertical exterior walls, the measurements are not equal in these two directions. The degrees of view that the building represents are mathematical calculations that are unaffected by camera lens. They are determined by distance between the viewing location and the front edge of the building. In order to determine the amount of the view (as a percentage) that is blocked by the building, it is first necessary to determine the viewing angle maximum represented in the photo. The images taken by KTU+A represent about a 42-degree of view. The images taken by Gensler were determined by identifying elements in the photo at the edge of the photo. Then, these elements were found in the orthophoto and viewing angles were drawn and calculated from the keyview location to the elements at the limit. This is not a precise method, but an acceptably accurate technique. Variations in the degrees covered by the panoramas may be due to cropping of the original photograph or variable stitching limits of the photos. Variations in the direct views may be due to cropping limits. The percent blockage is determined by the fixed degrees of obstruction from each keyview, divided by the maximum degree view of the photo.

1.7 Closing Remarks

The human eye is such a complex sensory organ and with it attached to the human brain, it is not possible to recreate how and what we see on a flat piece of paper. No one approach will best replicate what we see, so simulations and technical studies should always strive to produce at least two simulation types. Gensler and PCR in conjunction with the City of Culver City, did in fact utilize two methods. One could argue for or against the use of a 50mm lens as one of these two simulations or you can argue that the wide angle is essential for understanding view blockages. There does tend to be more common acceptance of a 50mm for use to obtain proportion and scale. However, there is even more agreement on the need for a wide-angle lens to produce the visual simulations needed to understand context and viewing scenes and visual corridors. If only a 50mm were used, it would not have provided the tools needed for the environmental reviewers and city officials to make an informed decision about the project. However, with the inclusion of the three simulations provided in this memo that represent the three closest and worst-case views, the decision makers now have the additional benefit of three different simulation types. Though of some benefit, having three simulation types goes above and beyond the standard and accepted methods used in most visual impact assessments.

The areas of accuracy that have been highlighted by the project opponents and brought up by our third party review have now all been corrected. Often, well-intentioned efforts can be based on faulty assumptions that in turn, create inaccuracies in work products. Given the standard floorplate of hotels, the estimated height of the Radisson Hotel was not completely without logic and a 9' floorplate is unusual. Now that it has been measured accurately, all of the models have been corrected with this new height in mind. In addition, the extensive use of geographically correct base mapping (orthophotos, parcels, street center lines, and topography, etc...) in a standard coordinate based GIS program, has allowed for increased accuracy for all of the simulations. This mapping also allowed us to adjust with a higher degree of accuracy, the location of where the photographs were taken.

As a result of the processes and corrections that were made, we feel comfortable in stating that the simulations are accurate and the methodologies used and adjusted are industry accepted standards. We also feel that the use of three lens types was not necessary for making the Draft EIR conclusions and that their inclusion does not substantially change the tools used in determining significance of visual impacts. In fact, the 50mm versions should not be used for determining field of view blockage on wide extent views, though we do agree there is benefit in providing this type of simulation in regards to scale and community character issues.

Sincerely,



Michael L. Singleton, AICP, LLA in the State of California 2386
President of KTU+A, Planning and Landscape Architecture

EXHIBIT F

PROJECT STUDY AREA



REMAINING
SIGNIFICANTLY
IMPACTED
INTERSECTION
AFTER
MITIGATION

