

VISUAL MODELING

ATTACHMENT A

to the
Fa Yun Chan Temple Project Initial Study / Mitigated Negative Declaration

Visual Simulation Methodology and Viewpoint Choice

Photographic images showing “before” and “after” conditions from the three simulation viewpoints are presented. Visual simulations illustrating the “after” visual conditions from each of the viewpoint locations provide a depiction of the location, scale, and visual appearance of the proposed project. The visual simulations show new buildings, roadways, grading, and landscaping. Computer modeling and rendering techniques were employed to produce the visual simulation images. The computer-generated visual simulations are the results of an objective analytical and computer modeling process described below.

Preliminary viewpoint locations were chosen based on a familiarity with the area and consideration of vicinity topography, development, and trees/landscaping in coordination with County staff and utilizing Google Maps aerial, topographical, and street view functions, as well as high-quality aerial photos from the County.

Site reconnaissance was conducted by lead visual simulator for this project and photographer, Chuck Cornwall, to view the site and surrounding area, to refine potential viewpoints, and to take representative photographs of existing conditions, from which the locations and photographs for visual simulations were chosen. A single lens reflex (SLR) digital camera was used to shoot site photographs from representative public viewpoints. Site location data for each photograph was collected using global positioning system (GPS) equipment and aerial basemap. Accurate digital location data was later incorporated into a three dimensional (3D) digital model. A “normal” 50 millimeter (mm) lens (horizontal 40-degree view angle) was used to shoot site photographs from all of the viewpoints except for the close-range viewpoint 1, which was shot using a wide-angle 28mm lens (horizontal view angle of 64 degrees) in order to show the site in its landscape context.

Based on the above work and coordination with the County, the viewpoints for visual simulations were chosen with the following considerations:

- Two viewpoint locations were chosen for visual simulations along Crow Canyon Road to the south. One closer wide-angle viewpoint (1) was chosen to represent the forward view of northbound drivers with the most visible project elements – when the driver is about to reach and begin passing by the site. Various locations farther south along Crow Canyon Road were considered for an additional viewpoint, including the photo from viewpoint 4, which was not chosen for simulation. Proposed project development would generally become less noticeably visible with farther viewpoints. The specific farther south viewpoint (2) was chosen to demonstrate this effect while still being close enough to be able to identify project features.

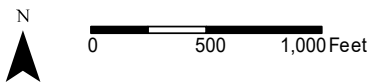
- One viewpoint (3) location was chosen along Crow Canyon Road to the north. While review of existing conditions was able to determine that forward views from southbound drivers to the north would be generally obstructed by existing topography and trees, a viewpoint was chosen that was expected to have the greatest potential to see at least one project element.
- While review of existing topography was able to determine that the project would not be able to be seen in near-range views from public trails and parks, Greenridge Park, at about a mile from the site, could have mid- to long-range views toward the site if not otherwise obstructed. Field reconnaissance of the park determined that views toward the site were fully obstructed by dense trees. No viewpoint from Greenridge Park was chosen for simulation since the project site could not be seen from this location, as demonstrated in the photo from viewpoint 5, not chosen for simulation.

Following the choice of viewpoints and photographs, computer modeling and rendering techniques were then used to produce the simulation images. Existing GIS topographic data from the County and project data from the applicant team provided the basis for developing an initial digital model. Project data files received included a SketchUp 3D model of the proposed buildings, and grading and landscape CAD drawings. Per industry standard, the simulations portray proposed trees at approximately five to ten years of growth, which is intended to portray reasonable near-to-mid-term post-construction conditions. These were used to create a 3D digital model of the proposed project.

For each of the simulation viewpoints, viewer location and elevation were added to the 3D model using GIS viewpoint data. Computer "wire frame" perspective plots were overlaid on photographs to verify scale and viewpoint location. Digital visual simulation images were then produced based on computer renderings of the 3D digital model described above combined with digital versions of the selected site photographs. Computer software used included SketchUp Pro 2023, AutoCAD 2023, Enscape, and Photoshop. The visual simulation images are presented along with the existing photographs and output to a high-resolution pdf file for presentation.



AERIAL SOURCE: ESRI 2023



- ① ➤ Simulation Photograph Viewpoint Location and Direction
- ④ ➤ Photograph Viewpoint Location and Direction

Photograph Viewpoint Locations
Fa Yun Chan Meditation Center
Alameda County, CA



1) Existing View from Crow Canyon Road looking northeast (wide-angle)



Visual Simulation of Proposed Project



2) Existing View from Crow Canyon Road looking northeast



Visual Simulation of Proposed Project



3) Existing View from Crow Canyon Road near Norris Canyon Road looking south



Visual Simulation of Proposed Project



4) Crow Canyon Road looking northeast



5) Greenridge Park looking northeast - project not visible