Memorandum

Date: October 2, 2008

To: Kristy Le, David J. Powers & Associates

From: Gary Black
       Steve Orem

Subject: Santa Teresa County Park Historic Area Traffic and Parking Study

Hexagon Transportation Consultants, Inc. has completed a traffic and parking study for the proposed Santa Teresa County Park Historic Area project located in the northern portion of Santa Teresa County Park on the southwest corner of San Ignacio Avenue and Curie Drive in San Jose, California.

The purpose of this study is to provide an assessment of the characteristics of the surrounding roadway network and to provide analysis with regard to trip generation, site access, and parking.

Site Location and Setting

The site is a parcel containing two houses and other small structures, fields, and a large hill, located on the southwest corner of San Ignacio Avenue and Curie Drive within Santa Teresa County Park (see Figure 1). Immediately to the west of the site is the Santa Teresa County Park Bernal-Gulnac-Joice Ranch site, with parking accessible off of the intersection of Camino Verde Drive and Manila Drive. The Bernal Intermediate School (grades 7-8) is located on the east side of San Ignacio Ave adjacent to the project site. The Stratford School (grades 7-8) is located on the northeast corner of the intersection of San Ignacio Ave and San Anselmo Way, approximately 930 feet north of the site. There are two other schools within one-half mile of the site: Santa Teresa School (grades K-6) and Baldwin School (grades K-6), located on Encinal Drive and Martinvale Lane, respectively. Aside from the existing park and schools, the remainder of the area in the immediate vicinity of the project site consists entirely of single family homes.

Regional connections to the project site are via SR 85 and US 101. SR 85 is a major freeway connector in the south bay area, running from US 101 near Mountain View in the north to the project area in the south, where it reconnects to US 101. US 101 is a major freeway connecting San Francisco and the Bay Area to southern California. These freeways have connections to the project area via Cottle Road, Great Oaks Boulevard, and Bernal Road.
Figure 1

SITE LOCATION
Santa Teresa County Park Historic Area Traffic & Parking Study

LEGEND

= Project Site

= Existing Ranch Site
The neighborhood containing the site location is bounded by Cottle Road to the west, Santa Teresa Boulevard to the north, Bernal Road to the east, and the County Park to the south. These roads and others in the vicinity are further described below.

Cottle Road runs from a residential cul de sac at the foot of the County Park to its intersection with Endicott Boulevard two miles to the north, near Blossom Hill Road and Monterey Highway. According to the San Jose General Plan, Cottle Road from Curie Drive to Santa Teresa Boulevard is classified as a major collector and north of Santa Teresa Boulevard is an arterial. The Cottle Road and Curie Drive intersection is a four-way stop intersection.

Santa Teresa Boulevard runs from SR 87 in the west approximately 7.5 miles to Baily Avenue in the south, where it transitions to a two-lane road before becoming Hale Avenue. Santa Teresa Boulevard is classified as an arterial in the vicinity of the project. Traffic signals are present in the vicinity of the project at Santa Teresa Boulevard’s intersection with Cottle Road, San Ignacio Avenue, Great Oaks Blvd., Martinvale Lane, and Bernal Road.

Bernal Road runs from an IBM facility in the hills south of the project to a partial interchange with US 101, and on to the north as it becomes Silicon Valley Boulevard. Bernal Road from Heaton Moor Drive to Santa Teresa Boulevard is a major collector, and north of Santa Teresa Boulevard it is an arterial.

**Neighborhood Streets**

San Ignacio Avenue begins as the continuation of Heaton Moor Drive. Heaton Moor Drive is a residential street that runs from Bernal Road northwest approximately one-half mile to Endmoor Drive. San Ignacio Avenue continues northward to Santa Teresa Boulevard, where it crosses into the Edenvale industrial/office area. Traffic was counted on San Ignacio Avenue between Prague Drive and Oronsay Way near the site on January 15 and 16, 2008. Daily traffic volumes were an average of 1,770 combined north- and southbound trips. The volumes on San Ignacio Avenue are typical of neighborhood streets.

Curie Drive borders the site to the north. Curie Drive is a residential street that runs east-west from Snell Avenue in the west, past Cottle Road to San Ignacio Avenue. Traffic on Curie Drive was counted in front of the site location on January 15 and 16, 2008. Daily traffic volumes were an average of 1,736 combined east- and westbound trips. The volumes on Curie Drive are typical of neighborhood streets.

Manila Drive borders the existing County Park to the north. It is an east-west residential street running from Saint Julie Drive to a dead-end just east of Manila Way. Manila Way is a short residential connector between Curie Drive and Manila Drive. An existing County Park entrance at the Bernal-Gulnac-Joice Ranch site is located just east of the intersection of Camino Verde...
Drive and Manila Drive. Traffic on Manila Drive was counted in front of the site location on January 15 and 16, 2008. Daily volumes were an average of 99 combined east- and westbound trips. The volumes on Manila Drive are very low because the street is a dead end.

**Detailed Roadway Descriptions**

A more detailed description of the streets at the site location follows, including descriptions of intersection geometries, roadway cross-sections, sidewalks and parking.

**San Ignacio Avenue**

San Ignacio Avenue borders the project site to the east. Along San Ignacio Avenue, the east side of the street from the intersection with Curie Drive, the curb is signed for a passenger loading zone from 7AM to 4PM for Bernal Intermediate School. This zone is approximately 170 feet long. There is an approximately 80-foot length of red curb for no parking on the east side of the street in front of Bernal Intermediate School. South of the no parking zone is another passenger loading zone from 7AM to 4PM. South of this area, there are separate entrance and exit driveways to the school parking lot. Parking is permitted on the east side of the street for the 120 feet south of the parking lot to Endmoor Drive.

The site frontage along the west side of San Ignacio Avenue is approximately 780 feet. Approximately 350 feet of this length south from Curie Drive has a curb and sidewalks. The remainder is unimproved. Parking is permitted on the west side of San Ignacio Avenue. A driveway onto the project site exists 350 feet south of Curie Drive, directly across from the school.

The San Ignacio Avenue and Curie Drive intersection is a three-way stop-controlled intersection. The north leg has a yellow pedestrian crossing. The Oronsay Way and San Ignacio Avenue intersection has a stop sign and yellow pedestrian crossing for Oronsay Way. San Ignacio Avenue is uncontrolled at this intersection. The 60 feet of curb on the east side of San Ignacio Avenue from Curie Drive to Oronsay Way is posted no stopping. Parking is permitted on the west side of San Ignacio Avenue north of Curie Drive and on the east side north of Oronsay Way.

Approximately 900 feet north of the project site, the Stratford Elementary School is located on the northeast corner of the intersection of San Ignacio Avenue and San Anselmo Way. The intersection is four-way stop-controlled. Yellow pedestrian crossings are present on all approaches.
Curie Drive

Curie Drive borders the project site to the north. Approximately 200 feet west of San Ignacio Avenue, north of Curie Drive, is Radko Drive. Approximately 500 feet west of Radko Drive, on the north side of Curie Drive, is Korhummel Way.

The site frontage along Curie Drive is approximately 630 feet, and the south side of Curie Drive is unimproved on this length. The north side of the street does have a curb and sidewalk. Curie Drive at San Ignacio Avenue adjacent to the site is 22 feet wide and gradually widens to 30 feet at the west end of the unimproved frontage. West of this point Curie Drive has a width of 36 feet. A private driveway onto the project site serving the Jacoba Bernal house exists on the south side of Curie Drive, approximately 200 feet west of Radko Drive.

The south side of the street is developed from a point approximately 90 feet east of Korhummel Way to the west, where a sidewalk and curb are present and parking is permitted. Street parking is not possible over the first 435 feet of the unimproved south side of Curie Drive west of San Ignacio Drive. An unimproved turnout is present over the western 200 feet of the unimproved south side of Curie Drive. Approximately 50 feet of the middle of this section is signed for 15-minute parking. No parking signs are present on either side of this parking zone.

Radko Drive is 36 feet wide and is stop-controlled at Curie Drive. A faded yellow painted crossing is present. Handicap ramps are present on both sides of the crosswalk. The north side is signed as a no-stopping zone from San Ignacio Avenue to approximately 100 feet west of Radko Drive.

Korhummel Way is 36 feet wide and is stop-controlled at Curie Drive. A painted yellow crossing is present. Handicap ramps are present on both sides of the crosswalk. Sidewalk and curb are present on the north side of the street. Parking is permitted on the curb on the north side of the street between Radko Drive and Korhummel Way.

Approximately 100 feet west of Korhummel Way, Manila Way intersects Curie Drive from the south. Curie Drive is uncontrolled, and Manila Way is stop-controlled at this intersection. A yellow crossing is painted across Manila Way and a white crossing is painted across Curie Drive on the west leg of the intersection. Handicap ramps are present on the two sides of the Manila Way crossing. A sidewalk and curb are present on both sides of Manila Way and Curie Drive. A pedestrian and bike path is present on the north side of Curie Drive at the intersection and follows a strip of land containing power lines and towers. This path, Albertson Parkway, runs for approximately 2000 feet north to Dondero Way.
Manila Drive

Manila Drive runs approximately 230 feet east of Manila Way to a dead-end. Parking is permitted on the north side of Manila Drive, which has a sidewalk and curb. The south side of Manila Drive is unimproved over a length of approximately 1,100 feet. Manila Drive is 22 feet wide at the intersection with Manila Way.

Manila Way runs approximately 260 feet from Curie Drive to the south to Manila Drive, an east-west street that also borders the site. Manila Way is approximately 36 feet wide. Parking is permitted on both sides of Manila Way. The Manila Way and Manila Drive intersection is uncontrolled for all legs of the intersection.

Approximately one-quarter mile west of Manila Way, Manila Drive intersects Camino Verde Drive, a north-south residential street. The intersection is uncontrolled for Manila Way and Camino Verde Drive. The south leg of this intersection, offset to the east approximately 30 feet, is the driveway to the Santa Teresa County Park’s Bernal-Gulnac-Joice Ranch site parking lot. The ranch site occupies the southeast corner of the intersection. The southwest corner is occupied by a private residence. Camino Verde Drive is 36 feet wide, and parking is permitted on both sides of the street. Sidewalks are present on both sides of Camino Verde Drive. Manila Drive is 14 feet wide from the intersection west for 200 feet. Over this segment, the north side of Manila Drive is improved, and the south side is unimproved. West of this 200-foot segment Manila Drive returns to its 36-foot width, and sidewalks are present on both sides the street.

Approximately 400 feet east of the park driveway, on the south side of Manila Drive is a turnout. A sidewalk is present on the south side of the street from the ranch site through this turnout, but ends there. The turnout is approximately 12 feet wide and 90 feet long with tapers. The north side of Manila Drive has a curb and sidewalk east between Camino Verde Drive and Manila Way, and to the dead-end.

Transit Services and Bicycle Facilities

There is no transit service to the project site. The closest transit service is located approximately three-quarters of a mile from the project site at the Santa Teresa Light Rail Transit Station. Various bus routes, as well as the LRT service, converge at the Santa Teresa station. Connectors are available to most parts of Santa Clara County.

Bike lanes exist on Santa Teresa Boulevard, one-half mile from the project site, from Bernal Road north to Blossom Hill Road. Bike lanes also exist one-half mile from the project site, on Cottle Road from Beckham Drive to Poughkeepsie Road, and on Beswick Drive between Blossom Hill Road and Cottle Road. A pedestrian and bike path, Albertson Parkway, exists between Curie
Drive and Dondero Way, following the power transmission lines’ right-of-way. The Santa Teresa LRT Station, three-quarters of a mile from the project site, is a Park and Ride facility, and bikes are permitted on the LRT.

**Current Park Activities**

The existing Santa Teresa County Park Bernal-Gulnac-Joice Ranch site is located at the intersection of Camino Verde Drive and Manila Drive, a quarter of a mile west of the project site. The ranch employs one interpreter and one maintenance worker, as well as 3 to 4 special event volunteers. The ranch site offers interpretive buildings, hiking trails, school group activities, and special event programming, all of which are patronized by various visitors, as described below.

For the interpretive buildings at the ranch, the peak periods are during the interpretive building hours, which are 10:00 AM to 5:00 PM Fridays and 11:00 AM to 5:00 PM Saturdays, with up to 50 visitors per day. Approximately 90% of trips to the ranch for the interpretive buildings are automobile trips. The remainder are walking trips from the neighborhood.

For the hiking trails, the peak periods are Saturdays and Sundays between 9:00 AM and 5:00 PM, with 25 to 50 hikers using the trails. Approximately half of hiking trips arrive at the park via automobile trips and half arrive via walking or bicycling from the nearby neighborhood.

For school group activities, the ranch experiences an average of one to two school group visits per day between 9:00 AM and 1:00 PM Monday through Friday during the academic year. This equates to between approximately 30 to 60 schoolchildren visitors and 5 to 15 adults per day. Not all school groups arrive in school buses. Some arrive in vans and personal automobiles.

Special events include movie nights one Saturday evening per month from May through October, with 40 to 60 visitors, and one other special event one Saturday evening with up to 200 visitors.

The ranch site has a parking lot, located off the south leg of the Camino Verde Drive and Manila Drive intersection, with a capacity of 11 spaces to serve employees and visitors. The parking lot is open only during interpretive hours. According to ranch site staff, most visitors utilize street parking on Manila Drive. Approximately 10 on-street parking spaces are present on Manila Drive. As previously noted, a turnout is located east of the ranch site, on Manila Drive. The turnout is used primarily as a school bus turnout for student drop off and pick up when attending interpretive programs at the ranch site. A sidewalk exists on the south side of Manila Drive between the turnout and the ranch site.
**Proposed Park Addition**

The proposed park addition is located along Curie Drive approximately one-quarter mile east of the Bernal-Gulnac-Joice Ranch site. The site currently is private property and has two historic buildings. The expansion would preserve the historic buildings, add a visitor center and a parking lot, and open the site to the public (see Figure 2). Expected patrons include student groups, families, and other visitors. The park interpretive buildings and visitor center would follow the schedule of the existing park located one-quarter mile west of the project site. The Parks Department expects that the project site would be used for one special event per year, but no movie nights.

Access to the park would be via a driveway off Curie Drive and a vehicle turnout off of Curie Drive with capacity for two buses. The project would be served by one parking lot accessed via the Curie Drive driveway, with a capacity of 45 parking spaces and two bus staging spaces. The project was evaluated for the increase in traffic and parking on the transportation network and area parking capacity.

**Project Trip Generation Estimate**

The project was evaluated for its potential to increase the number of daily trips on the transportation network. The following estimates are based upon information obtained from the Parks Department (see the appendix).

In order to meet the expected increase in demand for park amenities, the project would add up to three additional employees or volunteers, for six additional trips per day.

The Parks Department expects the project to generate a 100% increase in demand for the interpretive buildings during the peak periods. This would equate to an additional 100 trips per day on Fridays and Saturdays.

The project is expected to generate one additional school group visit per day. This would be equivalent to an additional 30 schoolchildren and 5 to 10 adults. The additional student group trips would be either via one school bus or via a group of private cars and vans. As a worst case, assuming an average of two children and one adult per car, the number of additional student group trips would be 30 trips per day.

The project is expected to generate no additional demand for the park’s trails.

The project is anticipated to generate one additional special event per year and no additional movie night trips. The new special event would equate to one additional Saturday evening with up to 200 new trips per day.
The total additional trips are estimated to be 36 trips per day Monday through Thursday, 136 trips per day on Fridays, and 100 trips per day on Saturdays. Most of these trips would occur during the off-peak traffic period.

The additional trips would use Manila Drive, Manila Way, Curie Drive, and/or San Ignacio Avenue. These streets were found to have traffic volumes typical of neighborhood streets. With the addition of project trips, San Ignacio Avenue and Curie Drive would see an increase of approximately 60 trips per day. Manila Drive and Manila Way would see somewhat less of an increase, since they would serve as connectors between the existing park and the new park, and not as primary access roads to the new park. Capacity exists on these streets to accommodate the relatively low number of expected trips presented by the proposed park. The addition of trips generated by the project would not cause the characterization of the traffic volumes on these streets to change.

The number of pedestrian and bicycle trips in the vicinity of the project would increase slightly. Curie Drive in front of the site is currently unimproved. The project would construct curb, gutter, and sidewalk improvements over a distance of approximately 630 feet of Curie Drive at the project site. These improvements, combined with the existing pedestrian and bicycle systems, would be adequate to serve the increase in demand generated by the park activities.

Parking

The parking supply and demand were evaluated with and without the project. The existing parking supply was determined from field work conducted at the site location and in the study area. The existing and project parking demand were estimated from information provided by the Parks Department.

Existing Parking Demand and Supply

The current use at the project site, private property, does not generate parking demand. Existing demand is at the Bernal-Gulnac-Joice site, which is one-quarter mile west of the project site. Street parking exists on the west side of San Ignacio Avenue in front of the site. This parking is heavily used for student drop off and pick up during the period when the Bernal Intermediate School day starts and ends. Street parking is not possible over most of the unimproved south side of Curie Drive west of San Ignacio Drive. Where street parking exists there, it is very limited, and no parking was observed at this location.

Project Parking Demand

Additional parking demand would be generated by employees and volunteers, school groups, interpretive building visitors, and special event visitors. As described above, up to three
employees would work at the park. An estimated 50 visitors per day would utilize the new park’s interpretive buildings on Fridays and Saturdays. An estimated one school group per day would use the park’s school group programs Monday through Friday. One Saturday per year a special event would be held at the new park, with approximately 200 visitors attending. No additional demand for the park’s trails is anticipated as a result of the project.

The new park activities would generate a project parking demand. Demand would vary throughout any day, and the typical busiest time was estimated to occur on Friday afternoon. The estimated peak parking demand at the project site at that time would include up to 15 parking spaces for a school group, 12 parking spaces for interpretive display visitors, and 3 parking spaces for employees. The total peak parking demand is estimated to be 30 parking spaces. Special events at the project site would occur once per year, and would generate a peak parking demand of up to 100 parking spaces, but this is not typical for the project.

**Project Parking Supply**

The project would provide a parking lot with capacity for 45 parking spaces and two bus staging spaces. The project would improve the south side of Curie Drive, providing a gutter, curb, and sidewalk, a 6-½ foot parkway for on-street parking for approximately 20 vehicles, and a vehicle turnout with capacity for two buses. The proposed parking would accommodate the estimated project peak parking demand of 30 parking spaces.

The special event parking demand of 100 parking spaces could be accommodated by the use of the nearby Bernal Intermediate School parking lot. The Bernal Intermediate School parking lot has a capacity of approximately 65 parking spaces. The Oak Grove School District has authorized the use of the Bernal Intermediate School parking lot for overflow parking for special events in the Historic Area. If such events were scheduled for weekends or after school hours, the use of the parking lot should not pose a problem for the school. Arrangements for the use of the parking lot should be made with the office of the Director of Maintenance, Transportation, and Operations at the School District and with the Bernal Intermediate School Principal in advance of any events at the Historic Area.
Conclusions

- The total additional trips are estimated to be 36 trips per day Monday through Thursday, 136 trips per day on Fridays, and 100 trips per day on Saturdays. Most of these trips would occur during the off-peak traffic period.

- Traffic volumes on San Ignacio Avenue, Curie Drive, Manila Way, and Manila Drive are typical of neighborhood streets, and capacity exists to accommodate the relatively low number of expected trips presented by the proposed park.

- The project’s proposed parking supply would accommodate the estimated project peak parking demand of 30 parking spaces.
Santa Teresa County Park Historical Area
Constraints Analysis
Technical Appendices
<table>
<thead>
<tr>
<th>Description</th>
<th>Existing</th>
<th>Proposed (Additional to Existing)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours</td>
<td>Park Trail Hours: 7 days, sunrise-sunset; Interpretive buildings, Fridays 10-5 and Saturdays 11-5.</td>
<td>No change</td>
<td>San Ignacio parking is existing but doesn’t currently serve the park as the adjacent area is closed. Curie will be new parking on the park side as a part of street improvements.</td>
</tr>
<tr>
<td>Parking</td>
<td>8 off-street spaces; 1 handicap space; 2 reserved spaces for Park resident; 10 on-street spaces, 1 bus pull-out. Off-street spaces are currently open only during interpretive building hours (Fridays 10-5 and Saturdays 11-5)</td>
<td>40 off-street spaces; 2 on-street bus parking/pullout spaces; on-street parking on San Ignacio and Curie All off-street parking (existing and additional) will be open from 8 am to sunset.</td>
<td></td>
</tr>
<tr>
<td>School Visits</td>
<td>Peak visitation 9 am-1 pm Monday-Friday with 1-2 school classes, with a total of 30-60 children and 5-15 adults.</td>
<td>Additional class for a total of 2-3 classes with 60-90 children and 10-20 adults. Not all school groups arrive in school buses. Some carpool in private cars/vans.</td>
<td></td>
</tr>
<tr>
<td>Trail users</td>
<td>Peak visitation Saturday and Sunday, mid morning and late afternoon, 25-50 hikers</td>
<td>No addition</td>
<td>Assume 50% of trail users walk from neighborhood, 50% drive</td>
</tr>
<tr>
<td>Movie nights</td>
<td>Saturday evening, once per month May-October, 40-60 people</td>
<td>No addition</td>
<td>Assume 50% 30% walk from neighborhood, 50% 70% drive</td>
</tr>
<tr>
<td>Family Historic visits</td>
<td>Fridays 10-5 and Saturdays 11-5. Peak time Saturdays – Assume 50 visitors at peak times</td>
<td>Assume 100% increase</td>
<td>Assume 90% drive</td>
</tr>
<tr>
<td>Special Event</td>
<td>Summer Saturday evening, (5-8 pm) 200 people. Once per year</td>
<td>Increase by 1 time per year</td>
<td>School parking lot adjacent to site could be used for special events</td>
</tr>
<tr>
<td>Employees</td>
<td>1 Park Interpreter (Tues.-Sat. 9-5); 1 Traveling maintenance worker (responsible for multiple sites)</td>
<td>1 Additional Interpreter; 1 full-time on-site maintenance worker</td>
<td></td>
</tr>
<tr>
<td>Volunteers</td>
<td>3-4 per special event</td>
<td>2 additional per special event; 1 per family historic visit peak time</td>
<td>Assume 100% drive</td>
</tr>
</tbody>
</table>