Dear Teri,

As you requested, this letter describes traffic issues near Carmel Middle School. These could require addressing during the environmental review for the development of the approximately 8 acres of currently vacant land immediately west of the existing Carmel Middle School campus. A site location map is included herein as Exhibit 1.

The school district proposes to acquire the site to expand their sports field area. At this time, the school district has not determined how the site would be developed and for what specific sports use. If the school district acquires the site, they will conduct studies and prepare a plan for the property.

The specific uses, facilities, frequency and time of day of activities, and users have not been determined. The acquired site may be used for a variety of activities, including practice fields and competitive sports for the Middle School and High School and competitive sports for community organizations such as baseball, softball, soccer. Other community activities may also take place. However, as previously mentioned, the school district has not made decisions around these issues.

This initial evaluation identifies traffic and parking issues that may need to be addressed by the project as it is formulated, and subsequent environmental review is conducted. A formal traffic analysis may be needed at that time.

A. SCOPE OF WORK

Exhibit 1 indicates the locations of the intersections and road segments that could potentially be impacted by the project or requested to be studied by reviewing agencies. These may need to be analyzed in future environmental documentation. They would most likely need to be analyzed when activities will occur at the site, which probably includes weekday evenings, Saturday afternoons and possibly Sunday afternoons.

The intersections may include:
1. Carmel Valley Road / Highway 1
2. Carmel Valley Road / Carmel Rancho Boulevard
3. Carmel Valley Road / Rancho San Carlos Road
4. Carmel Valley Road / Carmel Middle School Driveway
5. Highway 1 / Ocean Avenue
6. Highway 1 / Rio Road

Road segments could include:

1. Highway 1 from Rio Road to Ocean Avenue
   a. South of Rio Road
   b. Rio Road to Carmel Valley Road
   c. Carmel Valley Road to Ocean Avenue
2. Carmel Valley Road
   a. Highway 1 to Carmel Rancho Boulevard (CVMP Segment 10)
   b. Carmel Rancho Boulevard to Rancho San Carlos Road (CVMP Segments 8 and 9)
   c. East of Rancho San Carlos Road (CVMP Segments 6 and 7)
3. Rio Road from Highway 1 to Carmel Rancho Boulevard
4. Carmel Rancho Boulevard from Carmel Valley Road to Rio Road

Additional issues that may need to be studied in future environmental review include:

1. Project access and internal circulation
   a. During school dismissal times if traffic will be added by after-school activities involving off-campus participants
   b. During weekend activities
   c. During special events
2. Project parking
   a. During school dismissal times if traffic will be added by after-school activities involving off-campus participants
   b. During weekend activities
   c. During special events
3. Pedestrian and bicycle facilities

B. BACKGROUND INFORMATION

B.1 Traffic Operation Evaluation Methodologies and Level of Service Standards

The traffic study that will be prepared as a part of the future environmental document will need to generally follow the methodologies and policies adopted by Monterey County, which has jurisdiction on Carmel Valley Road and Caltrans, which has jurisdiction on Highway 1. In addition, the project is within the Carmel Valley Master Plan area, which has its own traffic study methodologies and significance criteria. Based on public agency comments on recent environmental documents, the public may also request an expanded study area that could include streets in the City of Carmel-by-the-Sea. However, this is unlikely for this project.
Level of service standards and analysis methodologies for each jurisdiction and/or planning area are as follows:

**General Traffic Operation Evaluation Methodologies**

Intersection and road segment traffic operations must be evaluated based on the Level of Service (LOS) concept, and the LOS standard adopted by the jurisdiction within which the intersection is located. LOS is a qualitative description of an intersection’s operation, ranging from LOS A to LOS F. Level of service “A” represents free flow, un-congested traffic conditions. Level of service “F” (LOS F) represents highly congested traffic conditions with what most drivers would consider unacceptable delay to vehicles at intersections. The intermediate levels of service represent incremental levels of congestion and delay between these two extremes.

Intersection traffic operations are typically analyzed in Monterey County and on Caltrans roadways using the Synchro analysis software (Version 9), which is based on the *Highway Capacity Manual (HCM) 2010* methodologies for signalized and un-signalized intersections. HCM 2000 methods are used in cases where the HCM 2010 methods do not allow the analysis of specific lane configurations or signal phasing.

Signalized and all-way stop controlled intersection operations are evaluated based on the average vehicular delay at the intersection. The average delay is then correlated to a level of service.

For one-way and two-way stop-controlled (side street stop-controlled) intersections, the vehicular delay for side street traffic is analyzed. LOS for each side street movement is based on the distribution of gaps in the major street traffic stream and driver judgment in selecting gaps. Improvements are often warranted when a side street approach reaches LOS F for two-way stop-controlled intersections. However, there are specific warrant criteria, such as for conversion to signalization or all-way stop control, that are not always met when LOS F is experienced on the side street.

Arterial road segment operations are based on travel speed as a percentage of free flow speed, per Exhibit 17-2 of the 2010 HCM. Two-lane highway segment operations are based on percent time spent following (PTSF), per Exhibit 15-3 of the 2010 HCM. Multi-lane highway segment operations are based on density in passenger cars per mile per lane (pc/mi/ln) per Exhibit 14-4 of the 2010 HCM.

The Carmel Valley Master Plan (CVMP) also provides the following average daily traffic (ADT) volume thresholds for the study segments along Carmel Valley Road (segments 6 to 12), which are provided in Table 1. The project likely will not have to be analyzed for impacts on the two-lane segments of Carmel Valley Road. However, due to the scrutiny that recent projects have encountered, it is helpful to have this information readily available.
Table 1 - Carmel Valley Road ADT Thresholds

<table>
<thead>
<tr>
<th>Segment (Segment Numbers correspond to the CVMP designations)</th>
<th>CVMP Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. CVR between Robinson Canyon Rd &amp; Schulte Rd</td>
<td>15,499</td>
</tr>
<tr>
<td>7. CVR between Schulte Rd &amp; Rancho San Carlos Rd</td>
<td>16,340</td>
</tr>
<tr>
<td>8. CVR between Rancho San Carlos Rd &amp; Rio Rd</td>
<td>48,487</td>
</tr>
<tr>
<td>9. CVR between Rio Rd &amp; Carmel Rancho Blvd</td>
<td>51,401</td>
</tr>
<tr>
<td>10. CVR between Carmel Rancho Blvd &amp; SR 1</td>
<td>27,839</td>
</tr>
<tr>
<td>11. Carmel Rancho Blvd between CVR &amp; Rio Rd</td>
<td>33,495</td>
</tr>
<tr>
<td>12. Rio Rd between Carmel Rancho Blvd &amp; SR 1</td>
<td>33,928</td>
</tr>
</tbody>
</table>

**Level of Service Standards**

The Monterey County Public Works Department has established LOS D as the minimum acceptable level of service for signalized intersections and road segments. For un-signalized intersections LOS E is considered the maximum acceptable level of service for the worst movement/approach. Improvements are warranted when the minor street approach operates at LOS F and any traffic control warrant is met. The LOS standard for the City of Carmel-by-the-Sea is LOS C.

Per the Caltrans “Guide for Preparation of Traffic Impact Studies” publication, “Caltrans endeavors to maintain a target LOS at the transition between LOS ‘C’ and LOS ‘D’ on State highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than the appropriate target LOS, the existing MOE should be maintained.” MOE refers to the measures of effectiveness which are used to rate the traffic operations of State highway facilities.

Except for some road segments along Carmel Valley Road, LOS C has been established as the minimum acceptable level of service for roadways and intersections within Carmel Valley. Per CVMP Policy 2.18, LOS D has been established as the minimum acceptable level of service for study segments 6 and 7, and LOS C has been established at the minimum acceptable level of service for study segments 9, 10, 11 and 12 as listed in Table 1.

**B.2 Criteria for Significant Project Impacts**

According to current California Environmental Quality Act (CEQA) guidelines, a project may have a significant effect on the environment if it would cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system. In accordance with CEQA, specific impact criteria have been applied to the study intersections and road segments to determine if the project specific increase in traffic is substantial in relation to the existing traffic load and capacity of the street system. It should be noted that the California Natural Resources Agency is in the process of substantial changes to the CEQA Guidelines initial study checklist, which many public agencies use to help determine whether an impact is significant.
The likely study area falls within multiple jurisdictions and planning areas, as described above. The significance criteria for the relevant jurisdictions and planning areas are listed below and will need to be considered whether they are applicable to this project, because the Carmel Unified School District is the lead agency and has some discretion regarding these criteria.

**Monterey County**

Under Monterey County’s current thresholds, a significant impact at a signalized study intersection is defined to occur under the following conditions:

- A significant impact would occur if an intersection operating at LOS A, B, C or D degrades to E or F. For intersections already operating at unacceptable level E, a significant impact would occur if a project adds 0.01 or more during peak hours to the critical movement’s volume-to-capacity ratio. If the intersection is already operating at LOS F, any increase (one vehicle) in the critical movement’s volume-to-capacity ratio is considered significant.

A significant impact at an unsignalized study intersection is defined to occur under the following conditions:

- A significant impact would occur if any traffic movement has LOS F or any traffic signal warrant is met.

A significant impact at a study road segment is defined to occur under the following conditions:

- A significant impact would occur if a roadway segment operating at LOS A through LOS E degrades to a lower level of service E or F. If a segment is already operating at LOS F any increase during the peak hour (one vehicle) is considered significant.

**Carmel Valley Master Plan (CVMP)**

The Monterey County significance criteria are applied to intersections within the Carmel Valley Master Plan Area as follows:

A significant impact at a signalized study intersection is defined to occur under the following conditions:

- A significant impact would occur if an intersection operating at LOS A, B or C degrades to LOS D, E or F. For intersections already operating at unacceptable level D or E, a significant impact would occur if a project adds 0.01 or more during peak hours to the critical movement’s volume-to-capacity ratio. If the intersection is already operating at LOS F, any increase (one vehicle) in the critical movement’s volume-to-capacity ratio is considered significant.

A significant impact at an unsignalized study intersection is defined to occur under the following conditions:

- A significant impact would occur if any traffic movement has LOS F or any traffic signal warrant is met.

A significant impact on a study road segment would occur if operations degrade from LOS C or better to LOS D, E or F (CVMP segments 8, 9, 10, 11, 12) or if operations degrade from LOS D or better to LOS E or F (CVMP segments 6, 7); or if project traffic worsens the LOS of a segment operating at LOS E; or if
project traffic is added to a segment operating at LOS F; or if the CVMP ADT threshold included in Table 1 above is exceeded.

**Caltrans**

Caltrans perceives an impact when there is any degradation in the performance measure below the cusp of C/D. If a facility is currently operating at or below LOS D, then any trips added represent a potential impact, and the performance measure should be brought back to predevelopment conditions. While a single trip added to a degraded facility is not usually reflected in the performance measure, Caltrans reserves the ability to consider a single trip as an impact. Any project trips added to a Caltrans facility operating at LOS D or below that results in an increase in the average delay at intersections or increase in Percent Time Spent Following (PTSF) on road segments is considered a significant impact in this analysis.

**Summary**

Any future traffic study associated with environmental review for future project site development will analyze whether the Project will represent a significant traffic impact. CEQA gives authority to lead agencies to determine thresholds of significance. The Carmel Unified School District, as the lead agency for this project, is not required to utilize either Monterey County’s or Caltrans’ thresholds of significance. The District has discretion as an independent public agency to establish its own criteria. The District will need to make that determination as a part of its environmental review process. The following discussion is based on findings in recent traffic studies that employed the methodologies and standards described above.

**B.3 Funding for Transportation Improvements**

This section discusses funding sources that are available for transportation improvement projects in the Carmel Valley vicinity. These will assist in improving traffic operations in the project vicinity that may provide benefit to the Project. They also describe fee programs that private development projects are required to contribute toward. The Carmel Unified School District is likely exempt from the fee programs; however, the District is required to mitigate significant adverse environmental impacts in compliance with CEQA.

**Carmel Valley Traffic Impact Improvement Program**

The Carmel Valley Traffic Improvement Program (CVTIP) includes a list of projects to relieve congestion and improve traffic operations on Carmel Valley Road. The CVTIP collects fees from new developments to contribute to these improvements. The traffic fees apply to projects within Carmel Valley and to projects in the Greater Carmel Valley Area that will add traffic to Carmel Valley Road. Per the Carmel Valley Traffic Improvement Program EIR, the fee amounts are updated on an annual basis. The District will need to determine if it is subject to this traffic impact fee.

**TAMC Fee**

The Transportation Agency for Monterey County (TAMC) and its member jurisdictions have adopted a county-wide, regional impact fee to cover the costs for studies and construction of many improvements throughout Monterey County. This impact fee, which went into effect on August 27, 2008, is applied to all
new development within Monterey County. The governing document for the fee is the Regional Impact Fee Nexus Study Update (March 26, 2008) prepared by Kimley-Horn Associates, Inc. The Regional Impact Fee Nexus Study Update was updated again in 2013.

According to the “Regional Development Impact Fee Joint Powers Agency – Regional Fee Implementation Guidelines”, Chapter 6, page 15, “Any development project that is constructed with the purpose of being used as a Federal, State, or local government facility” is exempt from the TMC Fee. The Carmel Unified School District is exempt from the payment of this fee.

**Monterey County Traffic Impact Fee**

The 2010 Monterey County General Plan, which was adopted October 26, 2010, includes the following policies:

**Policy C-1.8** Development proposed in cities and adjacent counties shall be carefully reviewed to assess the proposed development’s impact on the County’s circulation system. The County, in consultation with TMC and Monterey County cities shall, within 18 months of adoption of the General Plan, develop a County Traffic Impact fee that addresses Tier 2 impacts of development in cities and unincorporated areas. From the time of adoption of the General Plan until the time of adoption of a County Traffic Impact Fee, the County shall impose an ad hoc fee on its applicants based upon a fair share traffic impact fee study.

**Policy C-1.9** All available public and private sources shall be used for the funding of road and highway development, improvement and maintenance.

**Policy C-1.10** The County, in coordination with TMC and other affected agencies, shall continue efforts to improve traffic congestion at critical locations.

**Policy C-1.11** In addition to the County Traffic Impact Fee established in Policy C-1.8, the County shall require new development to pay a Regional Traffic Impact Fee developed collaboratively between TMC, the County, and other local and state agencies to ensure a funding mechanism for regional transportation improvements mitigating Traffic Tier 3 impacts.

To date, a county-wide traffic fee program has yet to be adopted. However, the County has been assessing fees for the Countywide Traffic Impact fee on an ad hoc basis per the fee program’s draft fee schedule. The CVTIP is the only County traffic impact fee being assessed for development in Carmel Valley. There is no additional County-wide fee assessed for development in Carmel Valley.

**TMC Measure X Transportation Safety and Investment Plan**

The voters of Monterey County in November 2016 approved Measure X. It is anticipated to generate an estimated $20 million annually for a total of $600 million over thirty years through a retail transaction and use tax of a three-eighths of one-percent (3/8%). The revenue from the sales tax measure will be used to fund transportation safety and mobility projects in Monterey County. Projects in and near Carmel Valley include safety, operations, and maintenance improvements along Carmel Valley Road, and intersection safety improvements at the Carmel Valley Road / Laureles Grade intersection. This sales tax measure will leverage additional state and federal funds to expand the total funding available for transportation improvements in the County.
C. EXISTING CONDITIONS

This section describes the existing street network relevant to the proposed project and the existing operational traffic conditions.

C.1 Existing Road Network

The key roadways near the proposed project are described below:

**State Route 1 (Highway 1 or SR 1)** provides regional access to the project vicinity. SR 1 is a major north-south roadway that connects the Monterey Peninsula with San Luis Obispo County to the south, and with Santa Cruz County and the San Francisco Bay Area to the north. SR 1 is a four-lane freeway north of Carpenter Street, a four- to five-lane (the five-lane section has a two-way center left-turn lane) roadway between Carpenter Street and Ocean Avenue, a three-lane roadway (two lanes northbound and one lane southbound) between Ocean Avenue and Carmel Valley Road, and a three-lane roadway south of Carmel Valley Road to just south of Rio Road. The construction of the second northbound lane was recently completed by Monterey County and Caltrans. SR 1 is part of the Monterey County Congestion Management Program (CMP) highway network and is designated as a State Scenic Highway.

**Carmel Valley Road** provides local access to the project site. It is an east-west roadway that begins at SR 1 and continues east through Carmel Valley to the Salinas Valley. Carmel Valley Road is a four-lane divided highway from SR 1 past Carmel Middle School to approximately 1,800 feet west of Rancho San Carlos Road. Carmel Valley Road has two lanes east of Rancho San Carlos Road. Carmel Valley Road is classified as a major arterial.

**Rio Road** includes two discontinuous segments of roadway east and west of the project site. The eastern part is a short north-south two-lane segment that connects to Carmel Valley Road and provides access to the recently-closed Rancho Canada Golf Club (RCGC) and Community Church of the Monterey Peninsula. The recently approved Rancho Canada Specific Plan will be developed on the westerly portion of the former RCGC site.

The western segment of Rio Road is an east-west arterial with four lanes between SR 1 and Val Verde Drive.

**Carmel Rancho Boulevard** is a four-lane north-south roadway that extends from Carmel Valley Road to Rio Road. It provides access to various commercial developments and serves through traffic between Carmel Valley Road and SR 1 south of Rio Road.

**Val Verde Drive** is a two-lane unimproved road that runs north-south for approximately one-quarter mile north of the western portion of Rio Road. Val Verde Drive provides access to several single-family homes and will provide direct access to the project site. It does not have a posted speed limit.
C.2 Existing Bicycle, Pedestrian, and Transit Facilities

Existing bicycle, pedestrian and transit facilities near Carmel Middle School are described in this section. Their locations are identified on Exhibit 2.

Bicycle Facilities

The County of Monterey has adopted a Bikeway Plan that designates routes along roadways that can be used by bicycling commuters and recreational riders for safe access to major employers, shopping centers and schools. Consistent with State and Federal designations, there are three basic types of bicycle facilities. Each type is described below:

1. Bike path (Class I) - A separate right-of-way designed for the exclusive use of cyclists and pedestrians, with minimal crossings for motorists.

2. Bike lane (Class II) - A lane on a regular roadway, separated from the motorized vehicle right-of-way by paint striping, designated for the exclusive or semi-exclusive use of bicycles. Bike lanes allow one-way bike travel. Through travel by motor vehicles or pedestrians is prohibited. However, crossing by pedestrians and motorists is permitted.

3. Bike route (Class III) - Provides shared use of the roadway with motorists, designated by signs or permanent markings.

Near the proposed project, a Class II bike lane is provided on the north (westbound) side of Carmel Valley Road from Carmel Rancho Boulevard through most of Carmel Valley. A Class II bike lane is provided on the south (eastbound) side Carmel Valley Road from Carmel Middle School through Carmel Valley.

Pedestrian Facilities

A dirt path is provided along the south side of Carmel Valley Road along the entire western Carmel Middle School frontage of Carmel Valley Road, extending from the west side of the track to the main campus driveway. An unimproved shoulder is provided along the north side of Carmel Valley Road west of the Carmel Middle School Main Driveway. A sidewalk is provided along the eastern side of the campus driveway with crossings, handicap ramps and additional sidewalks to the school buildings. Crosswalks are provided across Carmel Valley Road at the existing traffic signal at the Carmel Middle School driveway.

Transit Facilities

The primary public transit service in the County of Monterey is the bus service provided by Monterey-Salinas Transit (MST). Near the project site, MST Routes 24, 91 and 92 provide bus service along Carmel Valley Road. Route 24 connects Carmel Valley Village and the Monterey Transit Plaza with 60-minute headways during weekday peak hours. Routes 91 and 92 connect to various parts of the Monterey Peninsula.

Bus stops providing transit access for Carmel Middle School are located on eastbound and westbound Carmel Valley Road immediately adjacent to the track. The eastbound bus stop has a bus turnout and pedestrian access via the dirt path. The westbound bus stop uses the westbound bike lane, requiring the bus to stop partially in the outside travel lane. Access to the westbound bus stop is provided via the
unimproved shoulder extending along the north side of Carmel Valley Road westerly from the signalized Carmel Middle School driveway.

C.3 Existing Intersection Operations

The following intersections are candidates to be studied in future project environmental documentation.

1. Carmel Valley Road / Highway 1
2. Carmel Valley Road / Carmel Rancho Boulevard
3. Carmel Valley Road / Rancho San Carlos Road
4. Carmel Valley Road / Carmel Middle School Driveway
5. Highway 1 / Ocean Avenue
6. Highway 1 / Rio Road

Based on the level of service standards described earlier in this report, all the study intersections operate at acceptable levels of service under Existing conditions. SR 1 / Rio Road recently operated deficiently. However, Caltrans, TMC and Monterey County just completed the construction of a second northbound SR 1 travel lane from south of Rio Road to Carmel Valley Road. With this improvement, this intersection now operates acceptably.

C.4 Existing Road Segment Operations

Road segment that may need to be studied include the following.

1. Highway 1 from Rio Road to Ocean Avenue
   a. South of Rio Road
   b. Rio Road to Carmel Valley Road
   c. Carmel Valley Road to Ocean Avenue
2. Carmel Valley Road
   a. Highway 1 to Carmel Rancho Boulevard (CVMP Segment 10)
   b. Carmel Rancho Boulevard to Rancho San Carlos Road (CVMP Segments 8 and 9)
   c. East of Rancho San Carlos Road (CVMP Segments 6 and 7)
3. Rio Road from Highway 1 to Carmel Rancho Boulevard
4. Carmel Rancho Boulevard from Carmel Valley Road to Rio Road

Except for segment 7 of Carmel Valley Road (CVR between Schulte Rd & Rancho San Carlos Rd), the ADT’s on the roadways included in the Carmel Valley Master Plan (CVMP) are below the CVMP ADT thresholds under Existing conditions and therefore operate acceptably based on the ADT threshold criterion. Although Segment 6 of Carmel Valley Road carries daily traffic below the acceptable threshold, it operates worse than the LOS criterion, and is therefore deficient. It is therefore included in the following list of road segments operating unacceptably based on LOS.

Based on the level of service standards, the following study road segments operate at unacceptable levels of service during the weekday AM, PM, and/or Saturday peak hours:
These road segments operate at an unacceptable LOS D, E, or F under Existing traffic conditions. Note: * - NB Highway 1 between Carmel Valley Rd and Rio Rd and south of Rio Road were, until very recently, deficient. However, the recently constructed second northbound through lane on Highway 1 from south of Rio Road to Carmel Valley Road described for Intersection 3 above corrected the deficiency in the northbound direction that was experienced until recently on these segments. No other segment improvements are currently planned.

D. CUMULATIVE CONDITIONS

This section describes 2035/2040 cumulative conditions as described in recent traffic studies analyzing the nearby road and highway network. This scenario is typically required to evaluate the Project’s contribution to long term impacts created by the combined impact of all approved and proposed but not yet approved projects. Cumulative traffic volumes are based on the 2035/2040 traffic volume forecasts from the 2014 AMBAG Regional Traffic Demand Model (RTDM) and proposed but not yet approved projects location within Carmel Valley. Traffic volumes generally are expected to increase by about 15% to 20% at most locations, which is about 1% per year over the next approximately 20 years.

D.1 Cumulative Conditions Intersection Operations

All the study intersections are forecasted to operate at acceptable levels of service under Cumulative conditions with the following exceptions:

- SR 1 / Rio Road
- SR 1 / Ocean Avenue

These intersections are projected to operate at an unacceptable LOS D, E, or F under Cumulative traffic conditions.

D.2 Cumulative Road Segment Operations

Based on the level of service standards, the following study road segments are projected to operate at unacceptable levels of service during the weekday AM, PM, and/or Saturday peak hours:

- Southbound (SB) Highway 1 from Ocean Ave to Carmel Valley Rd
- Southbound Highway 1 between Carmel Valley Rd and Rio Rd*
- Southbound Highway 1 south of Rio Road*
- CVMP Segment 6 – EB & WB Carmel Valley Rd: Robinson Canyon Rd to Schulte Rd
- CVMP Segment 7 – EB & WB Carmel Valley Rd: Schulte Rd to Rancho San Carlos Rd
- WB Rio Road: Carmel Rancho Blvd to SR 1
These road segments are projected to operate at an unacceptable LOS D, E, or F under Cumulative traffic conditions. These are the same segments that are deficient under Existing Conditions.

D.3 Cumulative Planned Improvements

This section describes measures that would mitigate the cumulative impacts on the local and regional road network with their current status.

Intersections

- SR 1 / Ocean Avenue
  There are no planned or funded improvements at this intersection. However, some minor capacity enhancements can be achieved by widening the westbound Ocean Avenue approach to provide separate a separate right turn lane. Also, the provision of a second southbound through lane from Ocean Avenue to Carmel Valley Road would result in better lane utilization on the southbound SR 1 approach. More importantly, it would eliminate the two-lane to one-lane merge on southbound SR 1 just south of Ocean Avenue. The congestion that is experienced on southbound SR 1 near Ocean Avenue is primarily due to this merge. That is why the intersection operates acceptably under existing conditions, but there appears to be excessive delay.

Road Segments

- Southbound SR 1 from Ocean Ave to Carmel Valley Rd – The construction of a second southbound lane on SR 1 between Ocean Avenue and Carmel Valley Road would result in acceptable traffic operations. However, this improvement is not planned or funded.

- Southbound SR 1 from Carmel Valley Rd to Rio Rd - The construction of a second southbound lane on SR 1 between Carmel Valley Road and Rio Road would result in acceptable traffic operations. However, this improvement is not planned or funded.

- Southbound SR 1 south of Rio Rd - A second southbound lane was recently added on SR 1. The extension of this lane on SR 1 south of Rio Road would result in further improvement in traffic operations. However, this extension is not planned or funded.

- Carmel Valley Rd between Robinson Canyon Rd and Schulte Rd (CVMP Segment 6) - Widening this segment to two lanes in each direction would result in acceptable traffic operations. However, this improvement is not planned or funded.

- Carmel Valley Rd between Schulte Rd and Rancho San Carlos Rd (CVMP Segment 7) - Widening this segment to two lanes in each direction would result in acceptable traffic operations. However, this improvement is not planned or funded.

- Segment 12 – Rio Rd between Carmel Rancho Blvd and SR 1 - Improvements along Rio Road and channelization improvements at the SR 1 / Rio Road intersection will be warranted due to
impacts from the Rio Ranch Marketplace shopping center proposed on the north side of Rio Road at Crossroads Boulevard.

E. PROJECT PLANNING CONSIDERATIONS

E.1 Possible Project Off-site Impacts and Mitigations

The types of uses that will occupy the proposed land acquisition have not been determined. Depending upon the future use, the project could result in increases in traffic volumes on the surrounding roads and highways. This will likely include traffic impacts at locations that are currently deficient or are expected to be deficient under Cumulative (General Plan Buildout) conditions. The locations most likely to experience project impacts include the following.

a. Road Segments

- Southbound Highway 1 from Ocean Ave to Carmel Valley Rd
- CVR Segment 6 – EB & WB Carmel Valley Rd: Robinson Canyon Rd to Schulte Rd
- CVR Segment 7 – EB & WB Carmel Valley Rd: Schulte Rd to Rancho San Carlos Rd
- WB Rio Road: Carmel Rancho Blvd to SR 1

These road segments already operate at an unacceptable LOS D, E, or F and are expected to experience traffic increases that will further degrade their operation under Cumulative traffic conditions. The Project will add nominally to these road segments. However, the public agency thresholds of significance only require the addition of a single peak hour trip to be a significant impact. There is not feasible mitigation to reduce project impacts on any of these segments to less than significant based on County and Caltrans criteria described earlier in this letter.

b. Intersections

- SR 1 / Rio Road
- SR 1 / Ocean Avenue

These intersections are projected to operate at an unacceptable LOS D, E, or F under Cumulative traffic conditions.

The SR 1 / Rio Road intersection was recently improved as a part of the construction of the second northbound travel lane on SR 1. However, cumulative traffic increases, especially from the proposed Rio Ranch Marketplace shopping center, will result in unacceptable traffic congestion. Mitigation will probably be implemented by the Shopping Center.

The SR 1 / Ocean Avenue intersection is the main exit from Carmel High School (CHS). Some modest improvements can be implemented there that would offset the impacts of the Project. It will also provide a benefit to CHS by improving the capacity for traffic to exit from CHS.

E.2 Project Vehicular Access and Internal Circulation
Carmel Middle School has a single driveway that provides all traffic entering and exiting the site. It has been observed that there is currently queue spillover onto Carmel Valley Road during peak school traffic immediately before and after school. Additional curb length to increase the pick-up and drop-off capacity appears to be warranted under existing conditions. This could be exacerbated by additional after-school sports and other activities. This queuing condition also is an indication of the type of situation that could occur if the additional lands are used to create a sports complex. Additional parking will likely be required. As part of the parking lot design, expanded pick-up and drop-off capacity should be considered.

E.3 Project Pedestrian and Bicycle Access

Pedestrian facilities are marginal between the existing transit stops and the Middle School property. Consideration should be given to providing all-weather surfaces on both the north and south sides of Carmel Valley Road. Perhaps a partnership with the County of Monterey could be developed to fund and deliver these improvements. Greater separation from high speed traffic on Carmel Valley Road could be considered. The separation can be accomplished by landscape strips or by a concrete barrier if width is limited.

Improved pedestrian and protected bicycle access (perhaps a bike/pedestrian path) to nearby activity centers near Carmel Rancho Boulevard would be desirable. However, it will be difficult to extend the bike lanes and an all-weather pedestrian path along Carmel Valley Road from the Middle School to Carmel Rancho Boulevard to the west due to constraints from topography, trees and existing land development.

The Rancho Canada Village Specific Plan (RCVSP) will provide a pedestrian and bicycle extension of Rio Road connecting with the shopping areas along Carmel Rancho Boulevard and the Crossroads. It will also provide connections to Carmel Middle School. Coordination with RCVSP representatives will be important.

E.4 Parking

Additional parking requirements, if any, for the project cannot be determined until a project description is developed. Baseball, softball and soccer generally should have about 60 parking spaces per field, which accommodates 15 parking spaces per team, with two teams playing and two teams warming up or packing to leave. More spaces may need to be considered depending on the level of tournament play that would occur, with parking for spectators based on 3 to 4 persons per vehicle. Bus parking may also need to be provided. It is unlikely that public transit, walking or biking would provide a significant modal split based on the project location away from significant population within walking or biking distance and minimal transit service. The availability of existing parking facilities at the Middle School will be a part of the determination of the need for additional parking.

If you have any questions, please do not hesitate to contact me at your convenience. Thank you for the opportunity to assist you with this project.

Respectfully submitted,

Keith B. Higgins, PE, TE

enclosures
Exhibit 1

Project and Study Intersection Locations

1. Study Intersection

Map Legend

Keith Higgins
Traffic Engineer

Basemap Source: Google Maps, 2018