

EAST GARRISON SPECIFIC PLAN RESPONSE TO COMMENTS ON THE DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

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Prepared for:

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**APPENDIX A:
TRANSPORTATION ATTACHMENTS**

**ATTACHMENT 1:
EAST GARRISON TRIP GENERATION**

Attachment 1
EAST GARRISON SPECIFIC PLAN
TRIP ASSIGNMENTS

DESTINATION	PHASE 1 PM PEAK HOUR ASSIGN.	PERCENT OF PROJECT TRAFFIC
Highway 1 (North of Marina)	1	0.1%
Highway 1 (South of Marina)	70	5.4%
Central Marina (via Reservation)	14	1.1%
Seaside (via General Jim Moore)	25	1.9%
CSUMB (via Inter-Garrison)	343	26.3%
East Marina (via Abrams)	214	16.4%
UCMBEST (via Reservation east of Reservation)	237	18.2%
Salinas (via Blanco)	0	0.0%
Salinas (via Davis)	345	26.4%
Salinas/Spreckels (via Hwy 68 East of Reservation)	46	3.5%
South River Road	0	0.0%
Highway 68 (west of Reservation)	10	0.8%
Total Assigned Traffic	1,305	100.0%
Total Model Traffic	1,379	
Total Net Project Traffic Using ITE Rates	1,322	

**ATTACHMENT 2:
THE EAST GARRISON TRAFFIC AND MODELING STUDY
LINK SEGMENT ANALYSIS USING FIVE (5) SCENARIOS**

**ATTACHMENT 3:
TRAFFIC FORECAST MODEL FOR THE EAST GARRISON STUDY AREA**

Attachment 3

Traffic Forecast Model for The East Garrison Study Area

The East Garrison Traffic Modeling study analyzed five (5) alternative scenarios. These scenarios were determined by a steering committee and believed to provide the best insight into possible traffic impacts. The five scenarios include the following:

- 1.) Year 2000-existing conditions & validation;
- 2.) Existing conditions with the East Garrison project (1,470 du);
- 3.) Year 2020 using the county-cities land use forecast, with the East Garrison project (1470 du) and a funding constrained regional road network.
- 4.) Year 2020 using the county-cities land use forecast, with build out of East Garrison (2800 du) and a funding constrained regional road network
- 5.) A build-out scenario in 2020 using the county-cities land use forecast, no East Garrison land use or network, and a funding constrained regional road network.

Land Use Assumptions

The land use information in the model's trip generation program uses housing and population information from the Census 2000 by block and by CDP. The employment data were validated to payroll data provided by the Economic Development Department. The household and employment data were organized into traffic analysis zones and validated to CDP (Census Demographic Profiles) and community areas during the County General Plan Update.

Land uses proposed by county and city land use planners for year 2020 were applied to the valid land use data described above. These data were used in place of AMBAG's population and employment forecasts, in consultation with AMBAG. AMBAG's 2000 Census-based land use was not available until March 2004, after this study was completed. As part of the County General Plan Update, the County has identified five possible growth scenarios that include growth assumptions in county unincorporated areas such as East Garrison. Key land use assumptions that were used to develop 2020 traffic projections for the East Garrison study are summarized below. The countywide population total was adjusted to include 1,470 dwelling units compared with 3,100 units used in the County General Plan Update. The year 2020 countywide population total with East Garrison adjusted is 585,491 people. The AMBAG 2020 population estimate published in March 2004 for Monterey County was 527,069 people. The Department of Finance estimate for 2020 is 590,000.

Existing and Future Network Assumptions

The assumptions regarding future network traffic improvements are listed below as List I, II, and III.

Existing road and highway network enhancements were made to the existing model to reflect improvements since 1998. The Imjin Parkway, Boronda Road extension and the San Miguel Canyon Interchange at Highway 101 were included in the update of the existing conditions model.

Details about year 2020 future road and highway enhancements used in model scenarios 3, 4 and 5 are described in List II. These lists were developed in consultation with AMBAG and TAMC. They are commonly thought to have funding and subsequently a probability of being built. Many of the FORA improvements described in the FORA Capital Improvement Program (CIP) that have significant financial commitments (at least 50%) were used in the analysis with the exception of Blanco Road extension. Another important assumption in the East Garrison study has Blanco Road as two lanes. On the other hand, internal roadways and connections to Reservation Road and Inter-Garrison Road are opened to traffic when the East Garrison project is built. Also noteworthy is that the Highway 101 Safety and Improvement Project (PIP) was constructed in the model's 2020 networks.

List III describes future road improvements with a low probability of being funded that were not included in the forecast model.

List I: Road and Highway Projects Recently Constructed and Included in the 2002-2003 Traffic Model Network for the East Garrison Specific Plan (Included in the Model)

- A. The San Miguel Canyon Road interchange at Highway 101 in Prunedale.
- B. The Imjin Parkway and 12th Street improvements between Highway 1 and Reservation Road.
- C. Blanco Road Widening and Reservation Road Widening between MBEST Driveways and Imjin Parkway, respectively.
- D. California Avenue, construct California Avenue between Imjin Parkway and Reindollar Avenue in Marina.
- E. Boronda Road, extend two-lane arterial between Constitution and Williams.
- F. The collector street network in North and East Salinas.
- G. Del Monte Avenue Improvements and widening (1998-2002 time frame) between Washington and SR 1 in Monterey City.
- H. Lighthouse Avenue, include left turn prohibitions.
- I. Presidio of Monterey, exclude through-trips in the Presidio of Monterey caused by gate closures.
- J. Carmel Valley Road, widen to four lanes east of SR 1.
- K. Bardin Road widening at Sherwood and North Main Street.

List II: Projects with Funding and a High Probability of Being Built by 2020 and Included in the 2022 Traffic Model Network for the East Garrison Specific Plan (Included in the Model)

- A. The Prunedale Improvement Project (the PIP) between Crazy Horse Canyon Road and Russell/Espinosa.
- B. The Salinas Road Interchange at SR 1 and improvements to SR 1 between the county line and 0.25 mile south of Salinas Road.
- C. Airport Road Interchange reconstruction at Highway 101.
- D. SR 1, add one northbound lane between Rio Road and Carmel Valley Road.
- E. California Avenue, upgrade California Avenue between Reindollar and Carmel Avenue.
- F. Crescent Court, construct collector street to Abrams.
- G. River Road, widen to four lanes between Highway 68 and Las Palmas Ranch.
- H. Highway 68, widen to four lanes between Ragsdale Drive and Highway 218.
- I. Davis Road, widen to four lanes between Blanco Road and Salinas City Limit (FORA) south of SR 183.
- J. Del Monte Boulevard widening at select location in the City of Monterey: six lanes west of El Estero; six lanes between El Estero and Aguajito; five lanes between Aguajito and Sloat.
- K. City of Monterey Operational Improvements including additional lanes at the following intersections: Del Monte and Washington, Fremont and Camino Aguajito, Del Monte and Figueroa.
- L. Del Monte Extension, construct two-lane collector between 2nd Avenue and Reindollar Avenue in Marina (FORA).
- M. 2nd Avenue, upgrade to four-lane arterial between Light Fighter Drive and Imjin Parkway.
- N. Imjin Parkway, widen to four lanes between California Avenue and Reservation Road (FORA).
- O. 8th Street, construct two-lane arterial from Highway 1 overpass to Inter-Garrison (FORA).
- P. Inter-Garrison Road, upgrade to a two-lane arterial between 8th Street and Reservation Road (FORA).
- Q. Gigling Road, construct four-lane arterial between General Jim Moore Boulevard and Eastside Road (FORA).
- R. 2nd Avenue, construct four-lane arterial from Light Fighter Drive to Del Monte Boulevard (FORA).
- S. General Jim Moore Boulevard, widen to four-lanes between Normandy Road and Coe Avenue. Update General Jim Moore Boulevard to arterial status between Highway 218 and Coe Avenue (FORA).
- T. Salinas Avenue, construct a two-lane arterial from Salinas Avenue to Abrams Drive near Barth Court (FORA).
- U. Eucalyptus Road, upgrade two-lane collector from General Jim Moore Boulevard to Parker Flats (FORA).
- V. Eastside Road, construct two-lane arterial from intersection with Gigling Road northeasterly to intersection with Inter-Garrison Road and Imjin Road (FORA).

- W. The Highway 101 and Highway 156 Interchange Improvements including Prunedale North and Prunedale South Connection and Highway 156 on ramp.
- X. OPTIONAL (Not Used for East Garrison): Open York Road between Highway 68 and South Boundary Road; open South Boundary Road to General Jim Moore Boulevard, construct a collector street between Upper Ragsdale and South Boundary Road.
- Y. OPTIONAL (Not Used for East Garrison): Holman Highway (68), widen Holman Highway to four lanes between Highway 1 and 0.75 miles past CHOMP driveway.

List III: Projects of Uncertain Funding with a Low Probability of Being Built by 2020 and Included in the “Build out” 2020-22 Traffic Model Network for the City of Monterey General Plan Update (Not Included in the Model)

- A. SR 1, add third southbound lane between Fremont Interchange and Del Monte Interchange.
- B. Highway 156, widen to four lanes from Highway 101 to Highway 183.
- C. Blanco Road, widen to four lanes from MBEST to Davis Road.
- D. Highway 218, widen to four lanes between General Jim Moore Boulevard and Highway 68.
- E. SR 1 in Carmel, construct additional lanes and turn lanes consistent with the Highway PSR.
- F. Dunbarton Road and San Juan Road interchange at Highway 101.
- G. Highway 68 Bypass, construct four lane highway through Fort Ord between Toro and the intersection of Highway 218 and existing Highway 68.
- H. Blanco-Imjin Connector, extend Blanco Road to Imjin Parkway (4) lanes.
- I. Reservation Road, widen to six lanes between Del Monte and Crescent and Salinas Avenue and Reservation; also construct four-lane arterial between UC MBEST and Watkin’s Gate.
- J. The Highway 101 Prunedale Bypass between Crazy Horse Canyon Road and Russell/Espinosa
- K. Highway 1 between Castroville and the Santa Cruz County Line, widen to (4) lanes.
- L. The Westside Bypass, construct four-lane bypass between Boronda Road interchange and Blanco Road west of the Boronda Community.
- M. The Rossi Street Extension, construct four lane arterial west of intersection of Rossi Street and Davis Road.
- N. The Russell Road extension, construct a four-lane arterial between Highway 101 and Old Stage Road.
- O. The Salinas General Plan Capital Improvements including: primarily associated with the future growth area north and east of Boronda Road in northeast Salinas (See the Salinas General Plan) capacity enhancements include an Alvin Drive over crossing, Boronda Road widening to six lanes, Williams Road extension, Kern Street Extension and others.

- P. The Eastside Bypass, construct new four-lane Parkway from the midpoint of the Prunedale Bypass to a proposed interchange close to Harris Road and Highway 101.
- Q. LaSalle and Hilby Gates, provide access to Seaside at General Jim Moore.
- R. The Fremont Interchange modification at SR 1, construct alternative access and egress to Del Monte and Fremont and Coe.
- S. Interchange at Highway 156 and Castroville Boulevard.

Methodology to Estimate Traffic Impacts

Two quantitative studies were performed to account for traffic impacts caused or not caused by East Garrison development. An intersection analysis was performed by TJKM with data extracted from the traffic model. Second, roadway segment Levels of Service were calculated for selected links in the East Garrison study area using AM and PM traffic volumes for the (5) scenarios described above. (Attachment 2: Link Segment Analysis Using Five Scenarios).

The segment analysis shows 32 segments in the east Garrison study area between Salinas and the Peninsula Cities. It includes roadway segments of regional significance that were anticipated to be impacted by the East Garrison development. A select zone analysis tool was used to estimate project only trips on the network.

A General Measure of Congestion (Volume to Capacity Ratio)

The (32) segments listed in the table were summarized for the five model scenarios described above. A key variable in the table is volume to capacity ratio. Volume to capacity ratio (v/c) is an indicator about traffic volume relative to the generalized capacity of the roadway segment. For example, a minor arterial may have a capacity that would allow 1100 vehicles to pass through the segment in an AM or PM peak hour. On the same segment, the model may project 1000 vehicles during the peak hour. The volume capacity ratio would be .81. In theory, a segment traffic volume to capacity ratio may not exceed 1.0. A volume to capacity ratio greater than 1.0 would suggest that vehicles may begin to experience significant delays and congestion.

Some road and highway links in the East Garrison study area already have traffic volume at or near the generalized capacity limit. During the morning and afternoon commute periods, the model accurately indicates that significant traffic delay and congestion is occurring on these segments. The remainder of this analysis describes link segments that exceed a volume to capacity ratio greater than .70 under each of the five alternative scenarios described above.

1.) Year 2000 Existing Conditions

In the existing condition, several links in the East Garrison study area are approaching or have already risen to a volume capacity ratio of 1.0 in a typical weekday. Blanco Road experiences a v/c ratio between .85 and .92. Highway 1 between Canyon Del Rey and Del Monte Avenue in the City of Monterey and Highway 1 between the Light-fighter and Fremont Interchanges have v/c ratios in excess of .91. Similarly, Davis Road, between

Blanco Road and Rossi Street near Salinas, a two-lane facility, is almost at capacity ($v/c=.96$) today.

As select roadways in the East Garrison study area reach their generalized capacity, additional trips generated in the traffic model, will begin to use alternative, circuitous, routes. Trips that seek alternative routes because of congestion are referred to as diverted trips. Congestion in the existing conditions implicates future trips and their trip routing in the East Garrison study area. See Attachment 2: Link Segment Analysis Using Five Scenarios

2.) Existing Conditions with the East Garrison project (1470 d.u.) & Collector Street Network

Traffic from East Garrison development may be significant on roads and highways throughout the study area; however, there are no traffic impacts on segments such that v/c ratios would increase above .70. The segments described above under the Existing Conditions that have v/c ratios greater than .70 occur on the same segments in the Existing Plus Project Scenario. The only exception may be Blanco Road East of Davis Road where the facility has 1 lane eastbound and two lanes westbound. The v/c ratios are at or near .70 in this model scenario. See Attachment 2: Link Segment Table Under Five Scenarios

3.) East Garrison in 2020 with 1,470 New Homes & Collector Street Network

The occurrence of additional, regional, land use in this scenario increases traffic throughout the East Garrison study area. Key segments are significantly impacted by “background” traffic—traffic that is not directly related to East Garrison development. See Attachment 2: Link Segment Table Under Five Scenarios. In addition to the network segments listed above, the cumulative effect of East Garrison and background traffic, increases the number of segments that have a v/c ratio greater than .70.

The rural segment of Davis Road between Reservation road and Blanco Road will be impacted because trips that may otherwise use the Blanco-Imjin corridor can no longer use it because congestion levels will peak and the Davis-Intergarrison corridor will become their best alternative route. East Garrison trips, in particular, may prefer the Davis corridor because of their proximity of origin to Salinas compared with the Blanco Road corridor. Reservation Road between Watkins’s Gate and Davis Road will experience high volume increases and high v/c ratios for the same reason. Traffic flow on Reservation Road between Watkins’s Gate and the main entrance (a 2-lane facility) could break down in the uphill direction.

Trips going to Salinas that typically use Blanco Road but can’t, due to congestion, may pass through the East Garrison property from Inter-garrison Road to Reservation Road to Davis Road and use the same corresponding routes on their return to or from Monterey Peninsula cities. Reservation Road between Highway 68 and Portola may also be impacted because of diverted trips from Blanco Road; however, increased population in the Salinas Valley and increased employment in the Peninsula cities could also cause additional traffic along Reservation Road and River Road. Inter-Garrison Road could

become congested near Abrams Drive due to the combination of East Garrison trips and trips diverted off the Blanco Road corridor. Traffic flow in the Highway 101 corridor north of Salinas will further degrade without additional capacity even though safety and operational improvements are planned for construction in 2012 under the (PIP).

Again, the proposed network in East Garrison includes construction of three connections to Reservation Road. The proposed Intergarrison-Davis Road corridor could provide additional timesavings for trips between the City of Salinas and Monterey Peninsula cities. In this manner, the Davis Road-Intergarrison corridor may help to reduce trips in the Blanco-Imjin-Reservation and Highway 68 Corridors. Moreover, this analysis shows that trips using Reservation Road west of Blanco Road, Imjin Parkway, and Highway 1 north of Light fighter, could decline in favor of the Davis-Inter-garrison Road corridor.

4.) East Garrison in 2020 with 2,800 New Homes & Collector Street Network

East Garrison in 2020 with 2870 homes would intensify the traffic patterns described above. Diverted trips could increase more so and become more circuitous in their travel patterns. Additional traffic moving from the final phase of East Garrison to Watkin's Gate Road and on to Reservation Road could degrade traffic flow on Reservation Road, causing blockages and alternative path routing by some trips. The need for more capacity to serve East-West trips, on Blanco Road, Davis Road and Highway 68, becomes more apparent in this scenario.

5.) Year 2020: No development at East Garrison and No Network Enhancements on Site

The 2020 no build scenario assumes no development at East Garrison. It also assumes no collector street network on site and it assumes that the Inter-garrison gate is still closed. Without the opportunity for diverted trips to use the Davis-Inter-garrison corridor, this analysis shows that trips could increase on Reservation Road between Blanco Road and the Imjin Parkway, the Imjin Parkway itself, and Highway 1 between Light fighter and the 12th Street Interchange.

**ATTACHMENT 4:
EAST GARRISON SPECIFIC PLAN TRIP GENERATION**

**Attachment 4
EAST GARRISON SPECIFIC PLAN
TRIP GENERATION**

TRIP GENERATION RATES

	ITE LAND USE CODE	ADT (DAILY TRIP RATES)	PEAK HOUR TRIP RATES & DISTRIBUTION							
			AM PEAK HOUR				PM PEAK HOUR			
			PEAK HOUR RATES	% OF ADT	% IN	% OUT	PEAK HOUR RATE	% OF ADT	% IN	% OUT
Low Density Residential	210	9.57	0.75	8%	0.25	0.75	1.01	11%	0.63	0.37
High Density Residential	220	6.72	0.51	8%	0.20	0.80	0.62	9%	0.65	0.35
Carriage Houses	220	6.72	0.51	8%	0.20	0.80	0.62	9%	0.65	0.35
Commercial	814	44.32	1.33	3%	0.75	0.25	3.55	8%	0.44	0.56
Artist Space		11.08	0.89	8%	0.19	0.06	0.89	8%	0.11	0.14

TRIP GENERATION - PHASE 1

	ITE LAND USE CODE	PROJECT SIZE	ADT (DAILY TRIPS)	NUMBER OF TRIPS GENERATED							
				AM PEAK HOUR				PM PEAK HOUR			
				PEAK HOUR TRIPS	% OF ADT	TRIPS IN	TRIPS OUT	TOTAL PEAK HOUR	% OF ADT	TRIPS IN	TRIPS OUT
Low Density Residential	210	780 Units	7,465	585	8%	146	439	788	11%	496	291
High Density Residential	220	620 Units	4,166	316	8%	124	496	384	9%	403	217
Carriage Houses	210	70 Units	470	36	8%	7	29	43	9%	28	15
Commercial		8 Acres 75,000 S.F.	3,324	100	3%	75	25	266	8%	117	149
Artist Space		100,000 S.F.	1,108	89	8%	17	72	89	8%	10	79
Open Space/Park		50 Acres	0	0				0			
TOTAL GROSS TRIPS			16,533	1,125	7%	369	1,060	1,570	9%	1,054	751
INTERNAL TRIP REDUCTION - 5%			827	56	7%	18	53	79	9%	53	38
TRIP REDUCTION - 50% OF COMMERCIAL & ARTIST SPACE			2,216	94	4%	46	48	177	8%	63	114
TOTAL NET TRIPS			13,491	975	7%	305	959	1,314	10%	938	600
OVERALL PERCENT REDUCTION			18%	13%				16%			
NET TRIP GENERATION FROM REGIONAL MODEL			13,692	1,290				1,379			

TRIP GENERATION - PROJECT BUILDOUT

	ITE LAND USE CODE	PROJECT SIZE	ADT (DAILY TRIPS)	NUMBER OF TRIPS GENERATED							
				AM PEAK HOUR				PM PEAK HOUR			
				PEAK HOUR TRIPS	% OF ADT	TRIPS IN	TRIPS OUT	TOTAL PEAK HOUR	% OF ADT	TRIPS IN	TRIPS OUT
Low Density Residential	210	1,532 Units	14,660	1,149	8%	287	862	1,547	11%	975	572
High Density Residential	220	1,285 Units	8,636	655	8%	257	1,028	797	9%	835	450
Carriage Houses	210	70 Units	470	36	8%	7	29	43	9%	28	15
Commercial		8 Acres 80,000 S.F.	3,546	106	3%	0	106	284	8%	0	284
Artist Space		100,000 S.F.	1,108	89	8%	0	89	89	8%	0	89
Open Space/Park		50 Acres	0	0				0			
TOTAL GROSS TRIPS			28,420	2,035	7%	551	2,113	2,760	10%	1,838	1,410
INTERNAL TRIP REDUCTION - 5%			1,421	102	7%	28	106	138	10%	92	70
TRIP REDUCTION - 50% OF COMMERCIAL & ARTIST SPACE			2,216	94	4%	46	48	177	8%	63	114
TOTAL NET TRIPS			24,783	1,839	7%	478	1,959	2,444	10%	1,683	1,225
OVERALL PERCENT REDUCTION			13%	10%				11%			
NET TRIP GENERATION FROM REGIONAL MODEL			24,476	2,322				2,467			

**ATTACHMENT 5:
CONGESTED FACILITIES IN THE EAST GARRISON STUDY AREAS**

Attachment 5 - Congested Facilities in the East Garrison Study Area

The East Garrison Traffic Modeling study analyzed five (5) alternative scenarios including: **1.)** The year 2000-2001 existing Condition; **2.)** An existing condition with the East Garrison project (1,470 du); **3.)** A 2020 scenario also with 1,470 du; **4.)** A 2020 scenario with 2,800 du and finally; **5.)** No development in 2020 or improvements at the East Garrison site (no-build).

The build and no-build scenarios in 2020 used Monterey County land uses as described in the GPU, Alternative 1. The regional network assumptions in scenarios 3-5 used the financially constrained street and road improvements that are described in the GPU. Many of the FORA improvements described in the FORA CIP that have significant financial commitments were used in the analysis with the exception of Blanco Road Extension. Other significant assumptions include Blanco Road with two lanes and Intergarrison Road is opened to traffic when the first phase of East Garrison is built.

Two quantitative studies were performed to account for traffic impacts caused or not caused by East Garrison development. An intersection analysis was performed by TJKM with data provided by the traffic model. Similarly, a link segment analysis combined key variables on select links in the East Garrison study area including AM, PM, ADT traffic volumes and volume/capacity ratios for the five (5) scenarios described above. The analysis that follows is based upon the data described in the segment table.

The segment table shows thirty-five (35) segments in the East Garrison study area between Salinas and the Peninsula Cities. The segment table shows links only that had some traffic impact caused by the East Garrison development. A select zone analysis tool was used to assign only project trips to the network. Again, segments that showed an impact were used to assemble the segments in the attached table.

Segments listed in the table that were analyzed under the five (5) model scenarios are described under each model scenario tested. Key variables in the table are volume/capacity ratios. Volume/capacity ratio (V/C) is an indicator about traffic volume relative to the capacity of the road. For example, a minor arterial may have a capacity that would allow 1,100 vehicles to pass through the segment in a peak hour. On the same segment, the model may project 1,000 vehicles during the peak hour. The volume capacity ratio would be .91. In theory, a segment traffic volume to capacity ratio may not exceed 1.00. A volume/capacity ratio greater than 1.00 would suggest that vehicles may begin to stack up on top of each other – a phenomenon that could only be achieved in a traffic model.

Today, select links in the East Garrison study area have traffic demand (volume) that are already at or near the theoretical capacity limit of “1”. The remainder of this analysis describes link segments that exceed a volume/capacity ratio greater than .70 under the five (5) scenarios described above.

The Existing Condition: 2001-2002

In the existing condition, today, several links in the East Garrison study area are approaching or have already reached a volume/capacity (V/C) ratio of 1 in a typical workday. Blanco Road has v/c ratios between .85 and .92. Highway 1 between Canyon Del Rey (Highway 218) and Del Monte Avenue near Monterey City and between Lightfighter interchange and Fremont interchange show limited capacity relative to traffic demands. V/C ratios may exceed .91 in these places. Similarly, Davis Road, between Blanco Road and Rossi Street, which is a two-lane facility, is almost at capacity (.96).

As select roadways in the East Garrison study area reach their theoretical capacity, additional trips generated in the traffic model will begin to use alternative, circuitous, routes. Trips that seek alternative routes because of congestion are referred to as diverted trips, herein. Congestion in the existing condition implicates future trips and their trip routing in the East Garrison study area.

The Existing Condition Plus East Garrison: 2001-2002

The traffic impact caused by East Garrison development may be significant on roads and highway throughout the study area; however, there are no new large impacts on roadways. For example, the number segments in the existing condition that have V/C ratios greater than .70 are about the same as in the Existing condition with East Garrison as without East Garrison. The only exception may be Blanco Road east of Davis Road where the facility has one lane eastbound and two lanes westbound. The V/C ratios are at or near .70.

East Garrison in 2020 with 1,470 New Homes and a New Collector Street Network

The occurrence of additional, regional, land use in this scenario increases traffic throughout the East Garrison study area. Key segments are significantly impacted by “background” traffic or traffic not related to East Garrison.

In addition to the segments listed above, the effect of East Garrison and background traffic combined could impact the following segments. The rural segment of Davis Road between Reservation Road and Blanco Road will be impacted because trips that would otherwise use the Blanco-Imjin corridor will no longer use Blanco Road. Congestion will reach levels such that the Davis Intergarrison corridor is the best alternative. East Garrison trips in particular may prefer the Davis corridor because of the proximity to Salinas compared with the Blanco Road corridor. Reservation Road between Watkins Gate and Davis Road may experience very high V/C ratios for the same reason. Trips that would otherwise use Blanco Road but cannot will pass through the East Garrison property on Intergarrison to Reservation Road to Davis Road to go to Salinas or the Peninsula cities on their return. Reservation Road between Highway 68 and Portolla may be impacted. In addition to the East Garrison trips, the background traffic could cause significant congestion on Intergarrison Road and Highway 101 in north Salinas. Traffic flow could deteriorate further.

Finally, Reservation Road between Watkins Gate and the main entrance becomes congested because of the diverted trips and because it is two lanes in the analysis.

Again, the proposed network in East Garrison includes opening the Intergarrison Gate in addition to two other driveways on the site. The proposed Intergarrison-Davis Road corridor could provide additional time savings for trips between the City of Salinas and the Peninsula cities.

In this manner, the Davis Road-Intergarrison corridor may compete for east-west traffic and reduce trips in the Blanco-Imjin corridor. The analysis shows that trips using Reservation Road between Blanco Road and Imjin Parkway, the Imjin Parkway, and then Highway 1 north of Lightfighter could decrease, as more and more trips may prefer to use the Davis Road-Intergarrison corridor instead of Blanco Road.

East Garrison in 2020 with 2,800 new Homes and a new Collector Street Network

East Garrison in 2020 with 2,800 homes will intensify the traffic patterns described above. Diverted trips could increase more so and become more circuitous in their travel patterns. The need for more capacity to serve east-west trips, at Blanco Road, Davis Road or Highway 68, becomes more apparent in this scenario.

The No-Build in 2020: No-Development at East Garrison and Network Enhancements On-Site

The no-build scenario assumes no-development at East Garrison. It also assumes no collector street network on-site and it assumes that the Intergarrison gate is still closed. Without the opportunity for diverted trips to use the Davis-Intergarrison corridor, this analysis shows that trips could increase on Reservation Road between Blanco Road and the Imjin Parkway, the Imjin Parkway itself, and then Highway 1 between Lightfighter and the 12th Street interchange. Again, the Davis-Intergarrison corridor provides an opportunity for east-west travel relative to congested roadway on Blanco and Highway 68.

**ATTACHMENT 6:
EAST GARRISON REGIONAL TRAFFIC COMPARISON ANALYSIS**



MEMORANDUM

To: Enrique Saavedra – County of Monterey Public Works Department JN 40100170
From: Bill Wiseman, Bob Matson, Paul Martin, PE, TE – RBF Consulting
Date: June 24, 2005
Subject: **East Garrison Regional Traffic Comparison Analysis**

As you requested, RBF has prepared an analysis to forecast traffic impacts at eight State Highway study intersections associated with proposed East Garrison project in unincorporated Monterey County. Exhibit 1 shows the regional project location.

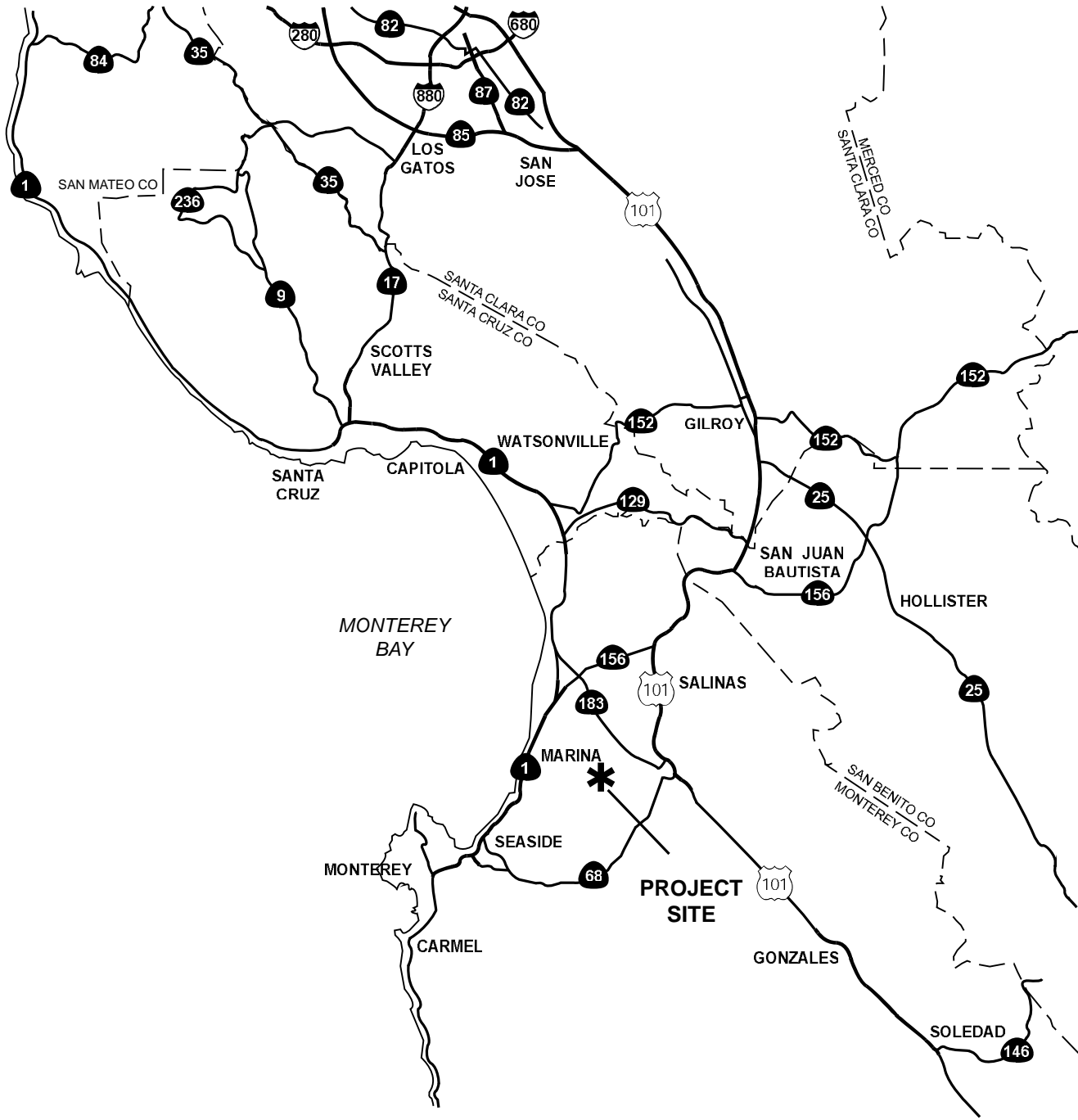
This analysis provides a comparison of forecast level of service at the study intersections utilizing the following two sets of traffic volumes:

- TJKM Traffic Volumes – Contained in *Traffic Impact Study for the East Garrison Development* (TJKM Transportation Consultants, September 7, 2004); and
- Bernardin-Lochmueller and Associates (BLA) Traffic Volumes – Generated by Association of Monterey Bay Area Governments (AMBAG) Regional Travel Demand Model.

Study Area

Caltrans identified the following eight intersections for analysis in this study:

- Highway 1 Southbound Ramps/Del Monte Boulevard (one-way stop-controlled);
- Highway 1 Northbound Ramps/Del Monte Boulevard (one-way stop-controlled);
- Highway 1 Southbound Ramps/Reservation Road (one-way stop-controlled);
- Highway 1 Northbound Ramps/Reservation Road (one-way stop-controlled);
- Highway 1 Southbound Ramps/Imjin Parkway (one-way stop-controlled);
- Highway 1 Northbound Ramps/Imjin Parkway (one-way stop-controlled);
- SR 68 Westbound Ramps/Reservation Road (signalized); and
- SR 68 Eastbound Ramps/Reservation Road (signalized).



Not to Scale



Regional Project Location

Exhibit 2 shows the location of the study intersections, which are analyzed for the following study scenarios:

- Existing Conditions; and
- Forecast Existing Plus Project Conditions.

Analysis Methodology

Level of service (LOS) is commonly used as a qualitative description of intersection operation based on the capacity of the intersection and the volume of traffic using the intersection.

The Highway Capacity Manual (HCM) analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding stopped delay per vehicle ranges for signalized and unsignalized intersections shown in Table 1.

**Table 1
LOS & Delay Ranges**

LOS	Delay (seconds/vehicle)	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10.0	≤ 10.0
B	> 10.0 to ≤ 20.0	> 10.0 to ≤ 15.0
C	> 20.0 to ≤ 35.0	> 15.0 to ≤ 25.0
D	> 35.0 to ≤ 55.0	> 25.0 to ≤ 35.0
E	> 55.0 to ≤ 80.0	> 35.0 to ≤ 50.0
F	> 80.0	> 50.0

Source: 2000 Highway Capacity Manual

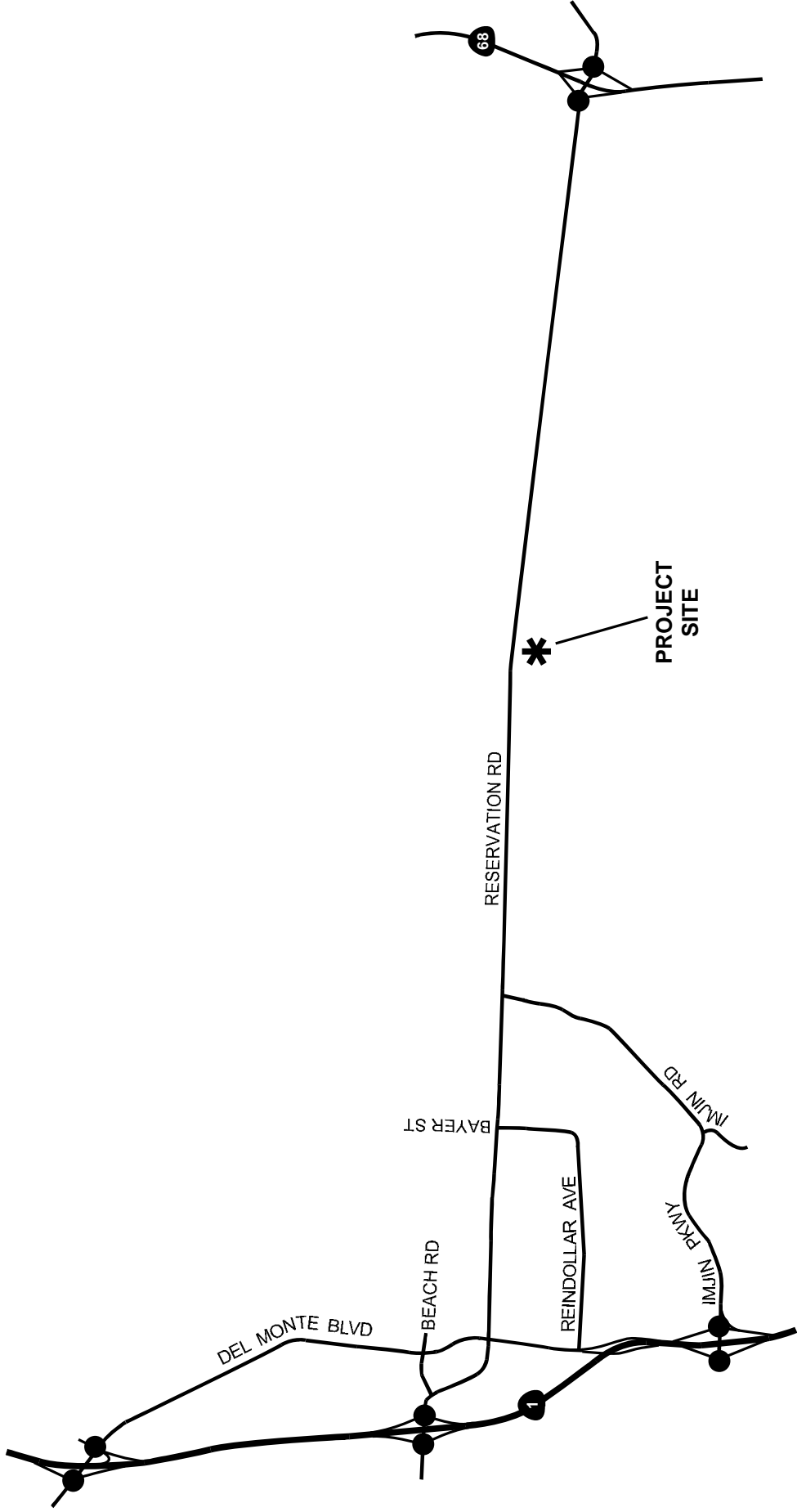
Consistent with the TJKM traffic study, this analysis assumes LOS D is the minimum threshold for acceptable operations for freeway ramp intersections within the State right-of-way.

This analysis has been prepared utilizing a Traffix-based analysis model. The intersections geometry and study parameters have been reproduced as they appear in the appendices of the TJKM traffic study.

EXISTING CONDITIONS

Existing Conditions Peak Hour Traffic Volumes

Existing conditions peak hour traffic volumes utilized in this analysis are contained in the *Traffic Impact Study for the East Garrison Development - Existing Scenario (TJKM Transportation Consultants, September 7, 2004)*, and in the AMBAG Regional Travel Demand Model.



Not to Scale

Legend:

- Study Intersection Location



Study Intersections

Exhibit 3 and 4 show a.m. and p.m. peak hour intersection volumes for existing conditions based on the TJKM traffic study and the BLA-provided volumes respectively. Exhibit 5 and 6 show existing average daily traffic (ADT) volumes for the roadway segments based on the TJKM traffic study and the BLA-provided volumes respectively. It is worth noting the existing conditions (BLA) ADT volumes shown in Exhibit 6 (based on Regional Travel Demand Model) are approximately 4.5 times higher on Imjin Parkway in the vicinity of Highway 1 and approximately 1.5 times higher on Reservation Road in the vicinity of State Route 68 than the corresponding (TJKM) ADT volumes shown in Exhibit 5 (based on TJKM model run data).

Exhibit 7 shows existing conditions intersection geometry.

Existing Conditions Intersection Peak Hour LOS

Table 2 summarizes existing conditions a.m. and p.m. peak hour LOS of the study intersections; detailed LOS analysis sheets are contained in Appendix A.

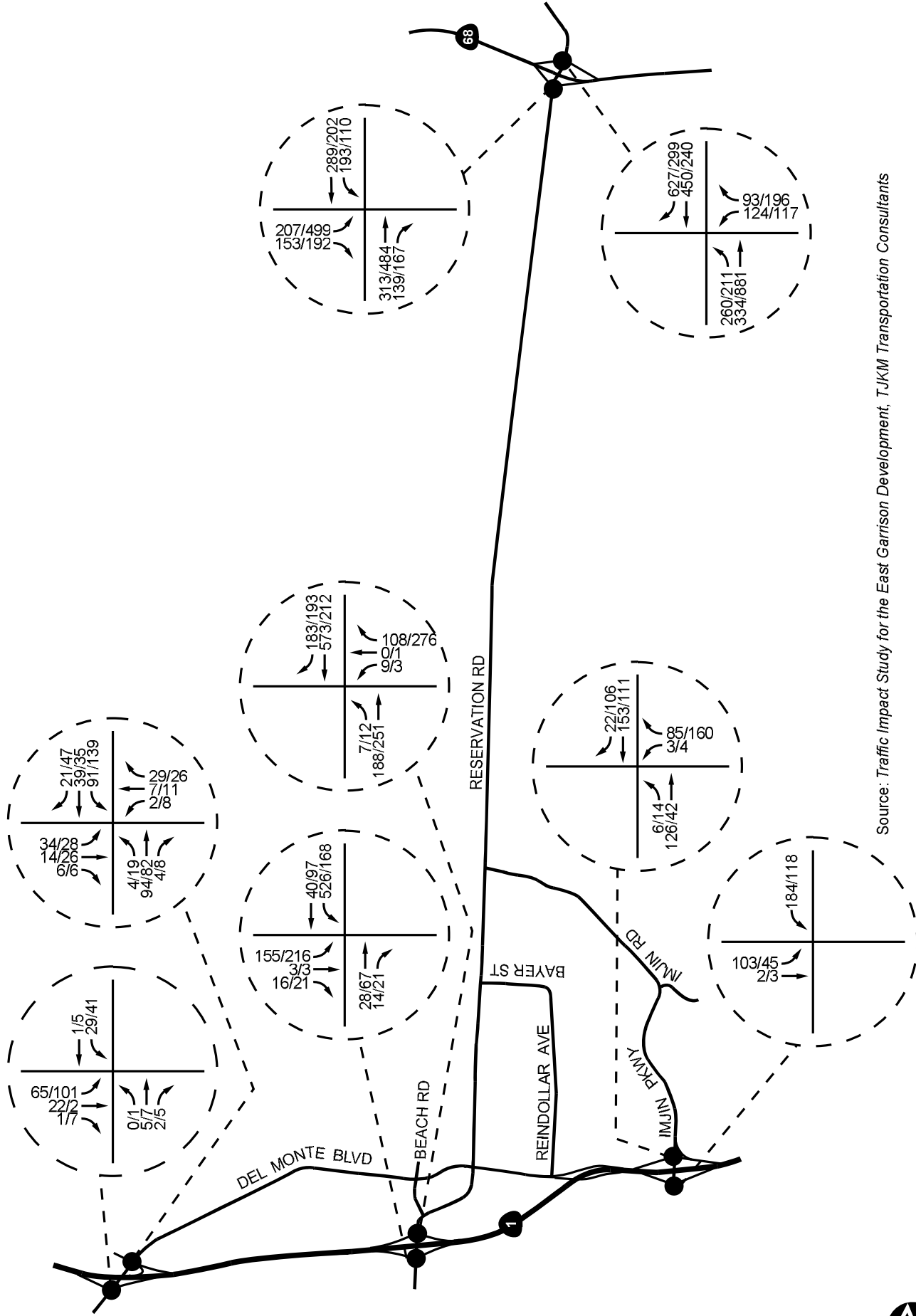
**Table 2
Existing Conditions Study Intersection AM/PM Peak Hour LOS Comparison**

Study Intersection	TJKM Volumes ¹		BLA Volumes ²		Change
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
	Delay - LOS	Delay - LOS	Delay - LOS	Delay - LOS	
Highway 1 SB Ramps/Del Monte Blvd	10.3 – B	9.8 – A	10.0 – A	9.0 – A	AM: B to A
Highway 1 NB Ramps/Del Monte Blvd	13.2 – B	16.5 – C	11.6 – B	8.8 – A	PM: C to A
Highway 1 SB Ramps/Reservation Rd	159.3 – F	18.4 – C	47.3 – E	19.8 – C	AM: F to E
Highway 1 NB Ramps/Reservation Rd	10.8 – B	12.3 – B	15.9 – C	18.5 – C	B to C
Highway 1 SB Ramps/Imjin Pkwy	13.4 – B	10.9 – B	OVRFL – F	203.9 – F	B to F
Highway 1 NB Ramps/Imjin Pkwy	10.4 – B	10.4 – B	9.0 – A	9.0 – A	B to A
SR 68 WB Ramps/Reservation Rd	13.8 – B	30.5 – C	81.8 – F	53.1 – D	AM: B to F PM: C to D
SR 68 EB Ramps/Reservation Rd	20.5 – C	15.2 – B	29.8 – C	38.4 – D	PM: B to D

Note: Deficient intersection operation shown in **bold**. OVRFL = Overflow, exceeds analysis model capabilities.

¹From *Traffic Impact Study for the East Garrison Development (TJKM Transportation Consultants, September 7, 2004)*.

²From BLA-provided existing conditions volumes (May 16, 2005).



Source: Traffic Impact Study for the East Garrison Development, TJKM Transportation Consultants

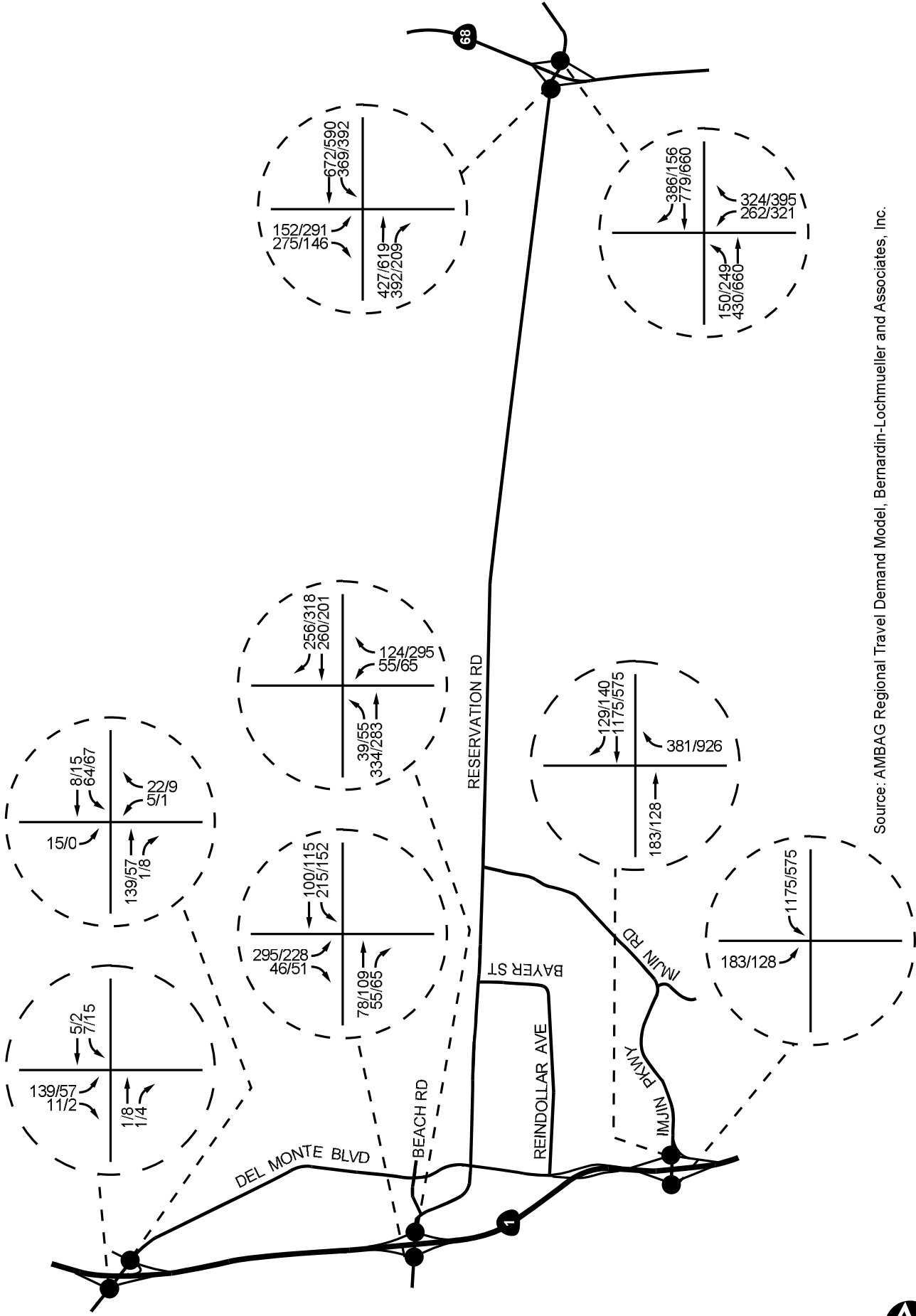
Legend:
 XX/XX AM/PM Peak Hour Volume

East Garrison Existing AM/PM Peak Hour Intersection Volumes (TJKM-Based)



Not to Scale





Source: AMBAG Regional Travel Demand Model, Bernardin-Lochmueller and Associates, Inc.

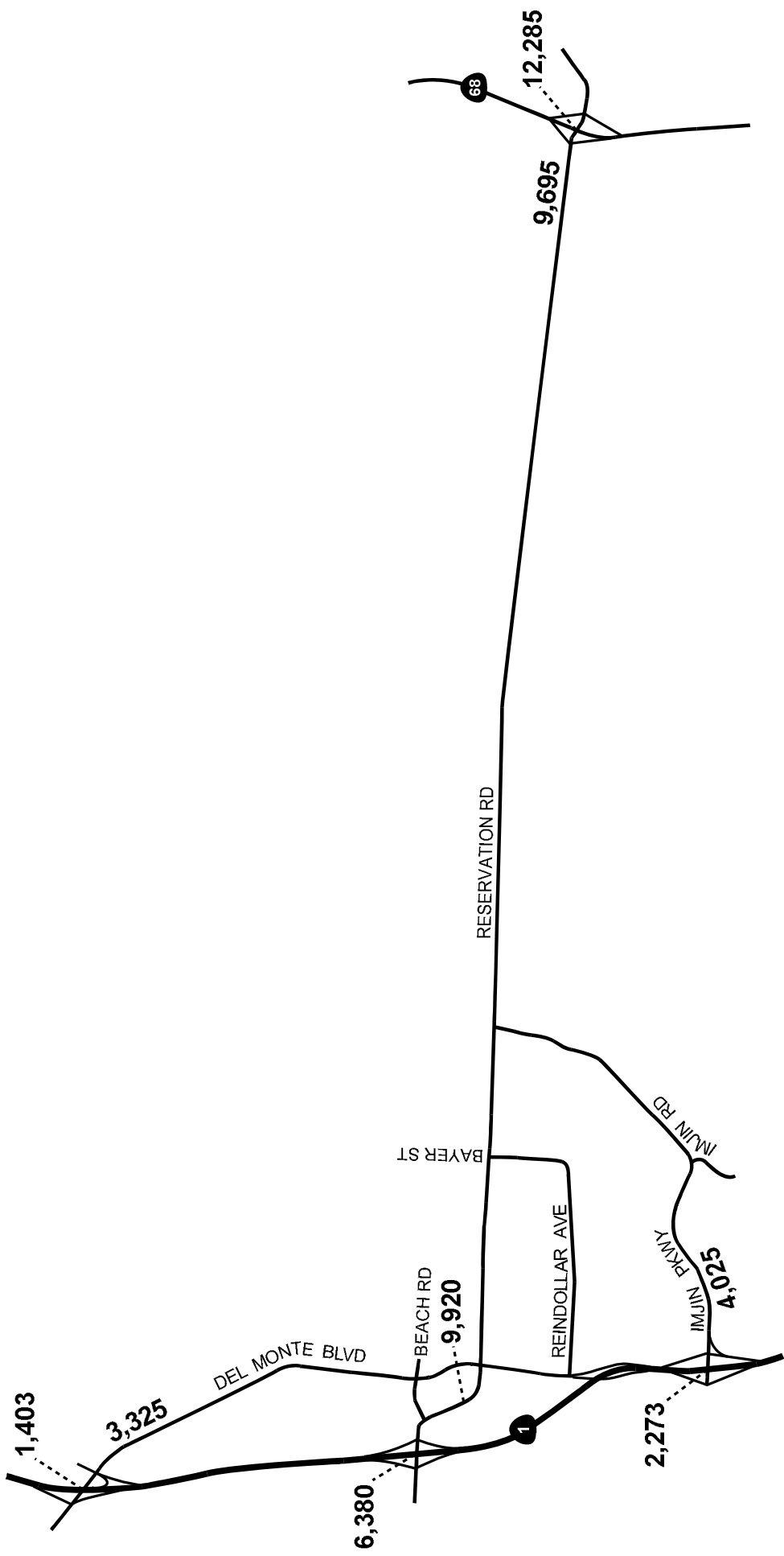
Legend:

XX/XX AM/PM Peak Hour Volume

Not to Scale



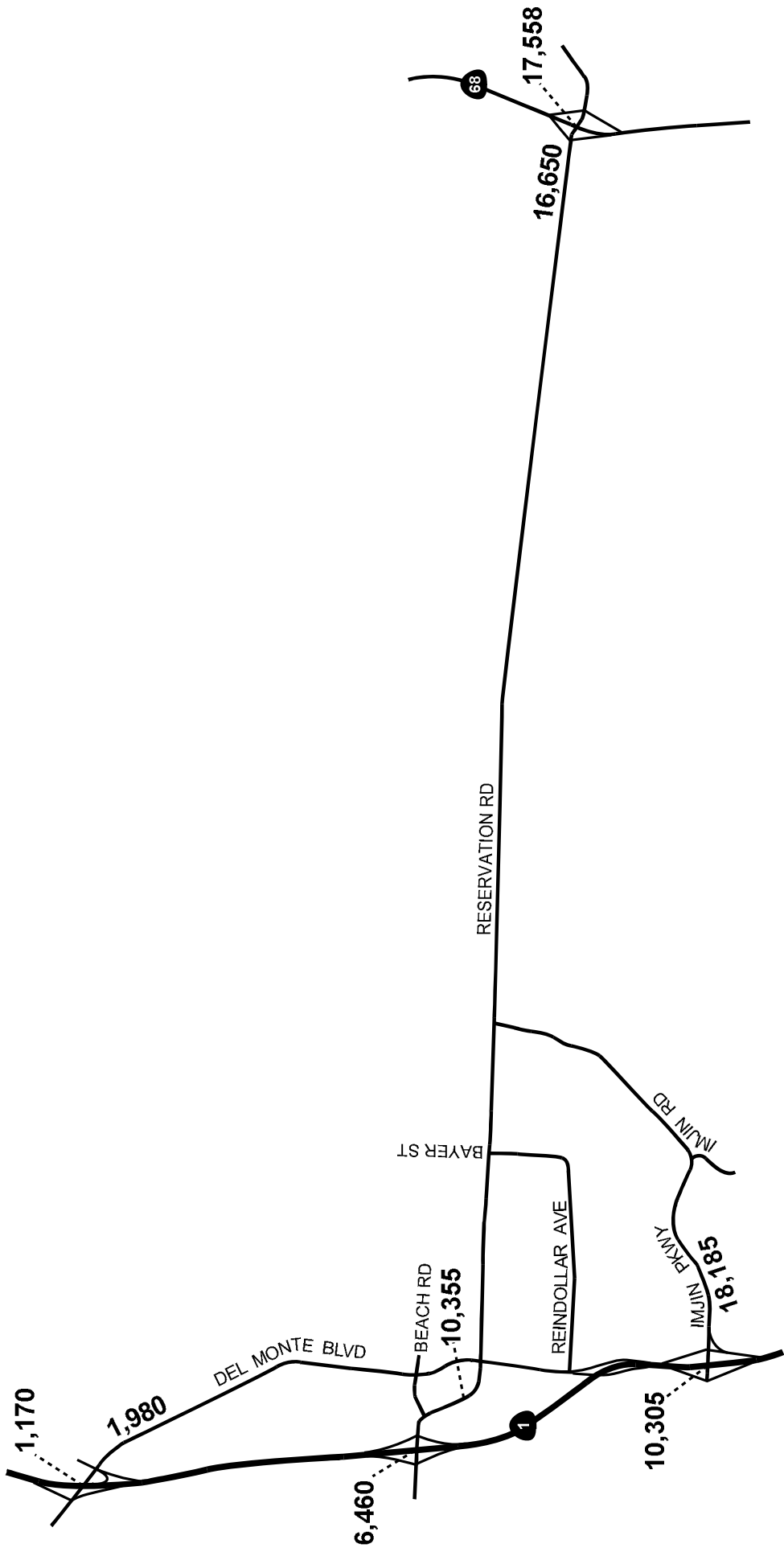
East Garrison Existing AM/PM Peak Hour Intersection Volumes (BLA-Based)



Not to Scale



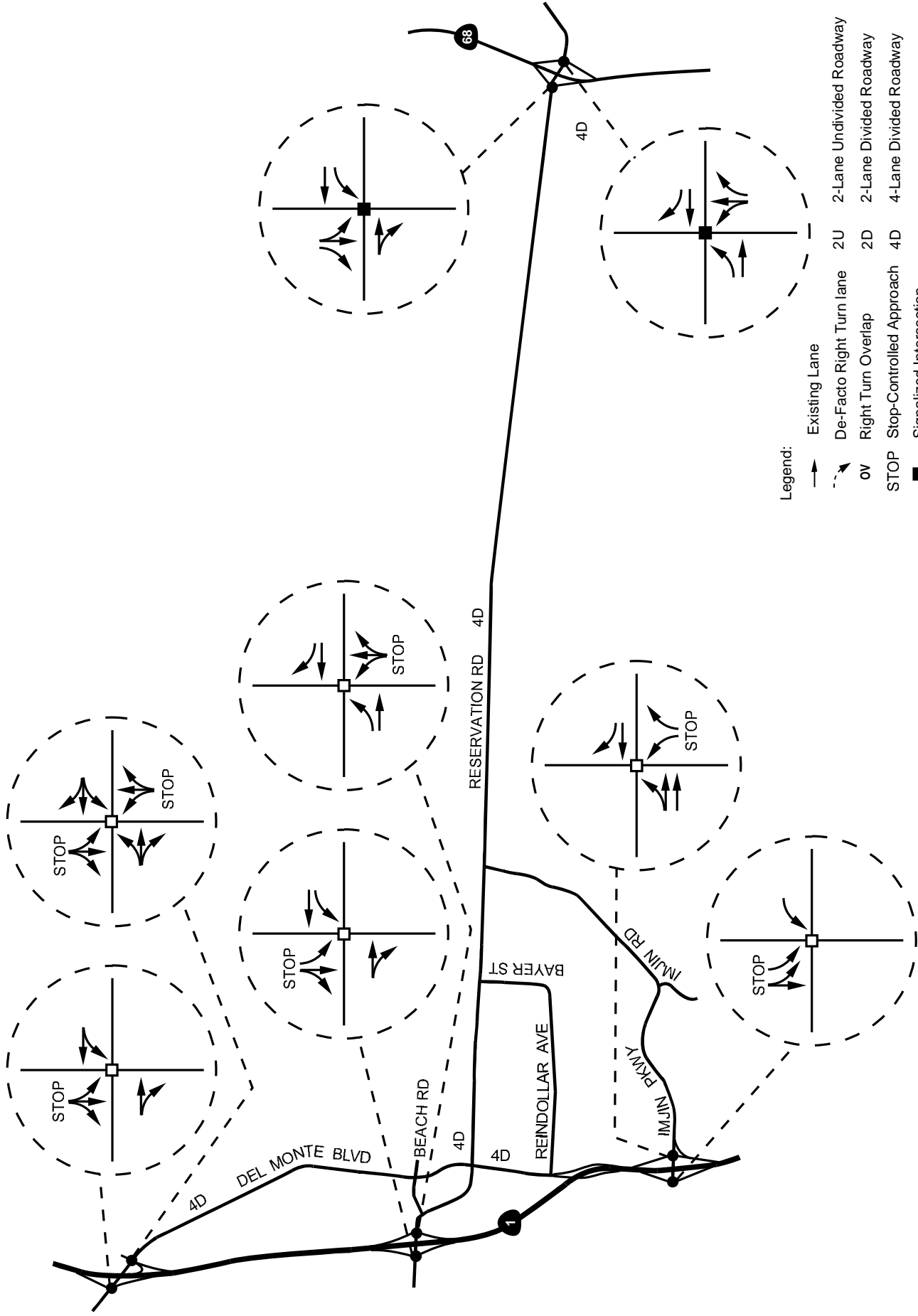
East Garrison Existing ADT Volumes (TJKM-Based)



Not to Scale



East Garrison Existing ADT Volumes (BLA-Based)



- Legend:
- Existing Lane
 - ↔ De-Facto Right Turn lane
 - 0V Right Turn Overlap
 - STOP Stop-Controlled Approach
 - Signalized Intersection
 - Stop-Controlled Intersection
 - 2U 2-Lane Undivided Roadway
 - 2D 2-Lane Divided Roadway
 - 4D 4-Lane Divided Roadway

Source: Traffic Impact Study for the East Garrison Development, TJKM Transportation Consultants



Not to Scale



Existing Intersection/Roadway Geometry

As shown in Table 2, based on TJKM-provided intersection volumes, one study intersection is currently operating at a deficient LOS (LOS E or worse) for existing conditions:

- Highway 1 Southbound Ramps/Reservation Road (a.m. peak hour).

Also, as shown in Table 2, based on BLA-provided intersection volumes, three study intersections are forecast to operate at a deficient LOS (LOS E or worse) for existing conditions:

- Highway 1 Southbound Ramps/Reservation Road (a.m. peak hour);
- Highway 1 Southbound Ramps/Imjin Parkway (a.m. and p.m. peak hours); and
- SR 68 Westbound Ramps/Reservation Road (a.m. peak hour).

Three study intersection deficiencies are forecast to occur utilizing BLA-provided intersection volumes compared to one study intersection deficiency utilizing TJKM-provided volumes since the (BLA) regional travel demand model forecasts higher traffic volumes in the vicinity of these two intersections as shown in comparing Exhibits 5 and 6.

To eliminate the deficiency at the study intersection for existing conditions based on TJKM-provided traffic volumes, the *Traffic Impact Study for the East Garrison Development (TJKM Transportation Consultants, September 7, 2004)* identified the following improvement:

- **Highway 1 Southbound Ramps/Reservation Road** – Signalize intersection.

To eliminate the three study intersection deficiencies for existing conditions based on BLA-provided volumes, the following improvements are recommended:

- **Highway 1 Southbound Ramps/Reservation Road** – Signalize intersection;
- **Highway 1 Southbound Ramps/Imjin Parkway** – Signalize intersection; and
- **SR 68 Westbound Ramps/Reservation Road** – Modify eastbound approach from one shared through right-turn lane to consist of one through lane and one right-turn lane.

Improved Existing Conditions Intersection Peak Hour LOS

Assuming implementation of the recommended improvements, Table 3 shows the forecast improved LOS of the three study intersections for existing conditions based on BLA-provided volumes.

**Table 3
Improved Existing Conditions Study Intersection AM/PM Peak Hour LOS**

Study Intersection	BLA Volumes ¹			
	Non-Improved Existing Conditions		Improved Existing Conditions	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
	Delay - LOS	Delay - LOS	Delay - LOS	Delay - LOS
Highway 1 SB Ramps/Del Monte Blvd	10.0 – A	9.0 – A	10.0 – A	9.0 – A
Highway 1 NB Ramps/Del Monte Blvd	11.6 – B	8.8 – A	11.6 – B	8.8 – A
Highway 1 SB Ramps/Reservation Rd	47.3 – E	19.8 – C	22.0 – C	21.7 – C
Highway 1 NB Ramps/Reservation Rd	15.9 – C	18.5 – C	15.9 – C	18.5 – C
Highway 1 SB Ramps/Imjin Pkwy	OVRFL – F	203.9 – F	11.5 – B	8.6 – A
Highway 1 NB Ramps/Imjin Pkwy	9.0 – A	9.0 – A	9.0 – A	9.0 – A
SR 68 WB Ramps/Reservation Rd	81.8 – F	53.1 – D	20.2 – C	28.8 – C
SR 68 EB Ramps/Reservation Rd	29.8 – C	38.4 – D	29.8 – C	38.4 – D

Note: Deficient intersection operation shown in **bold**.

OVRFL = Overflow, exceeds analysis model capabilities.

¹From BLA-provided existing conditions volumes (May 16, 2005).

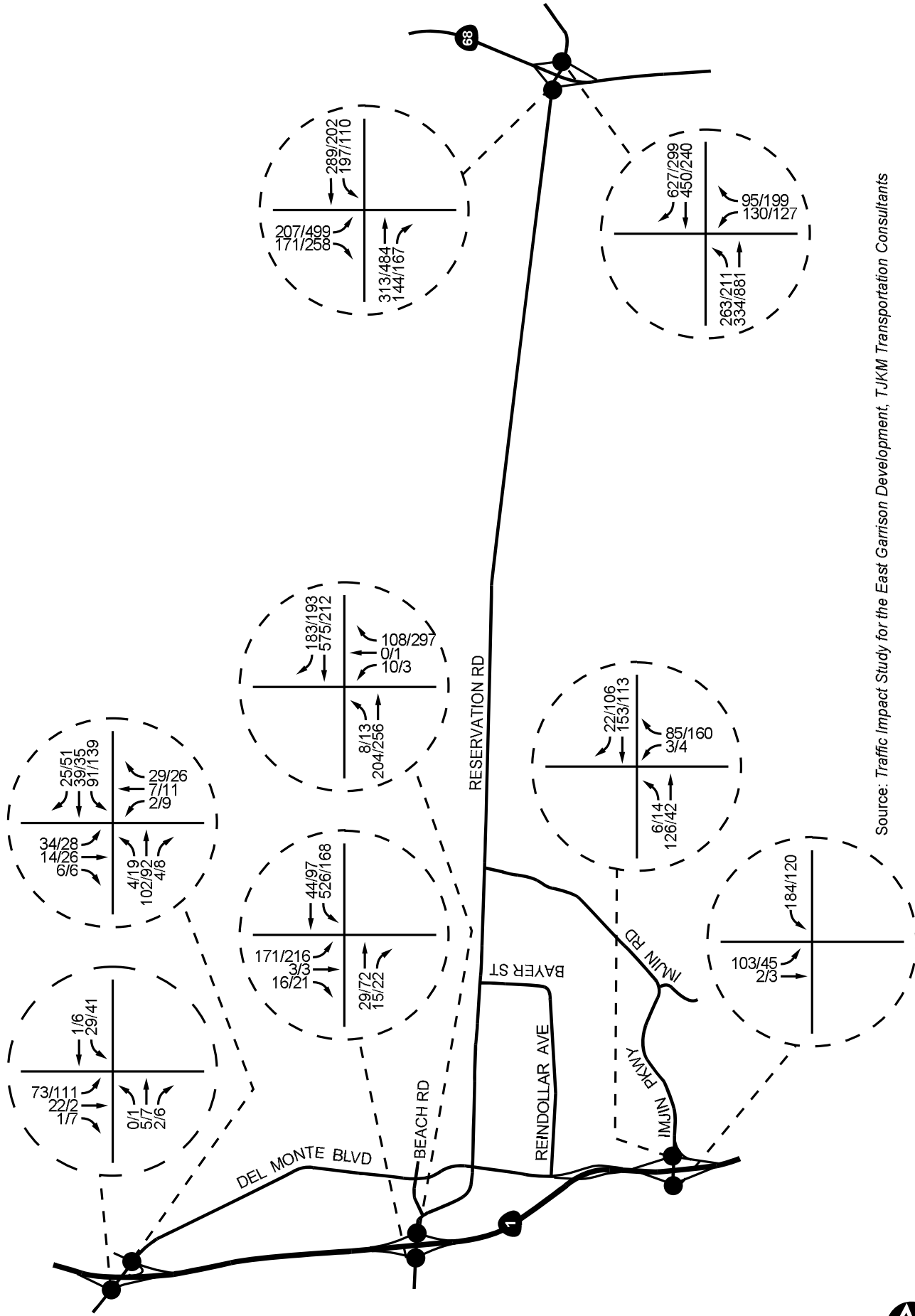
As shown in Table 3, assuming implementation of the recommended improvements, the three study intersections are forecast to operate at an acceptable LOS (LOS D or better) for existing conditions based on BLA-provided volumes.

EXISTING PLUS PROJECT CONDITIONS

Existing Plus Project Conditions Peak Hour Traffic Volumes

Existing plus project conditions peak hour traffic volumes utilized in this analysis are contained in the *Traffic Impact Study for the East Garrison Development - Existing + Project (1,470 Homes) Scenario* (TJKM Transportation Consultants, September 7, 2004), and in the AMBAG Regional Travel Demand Model.

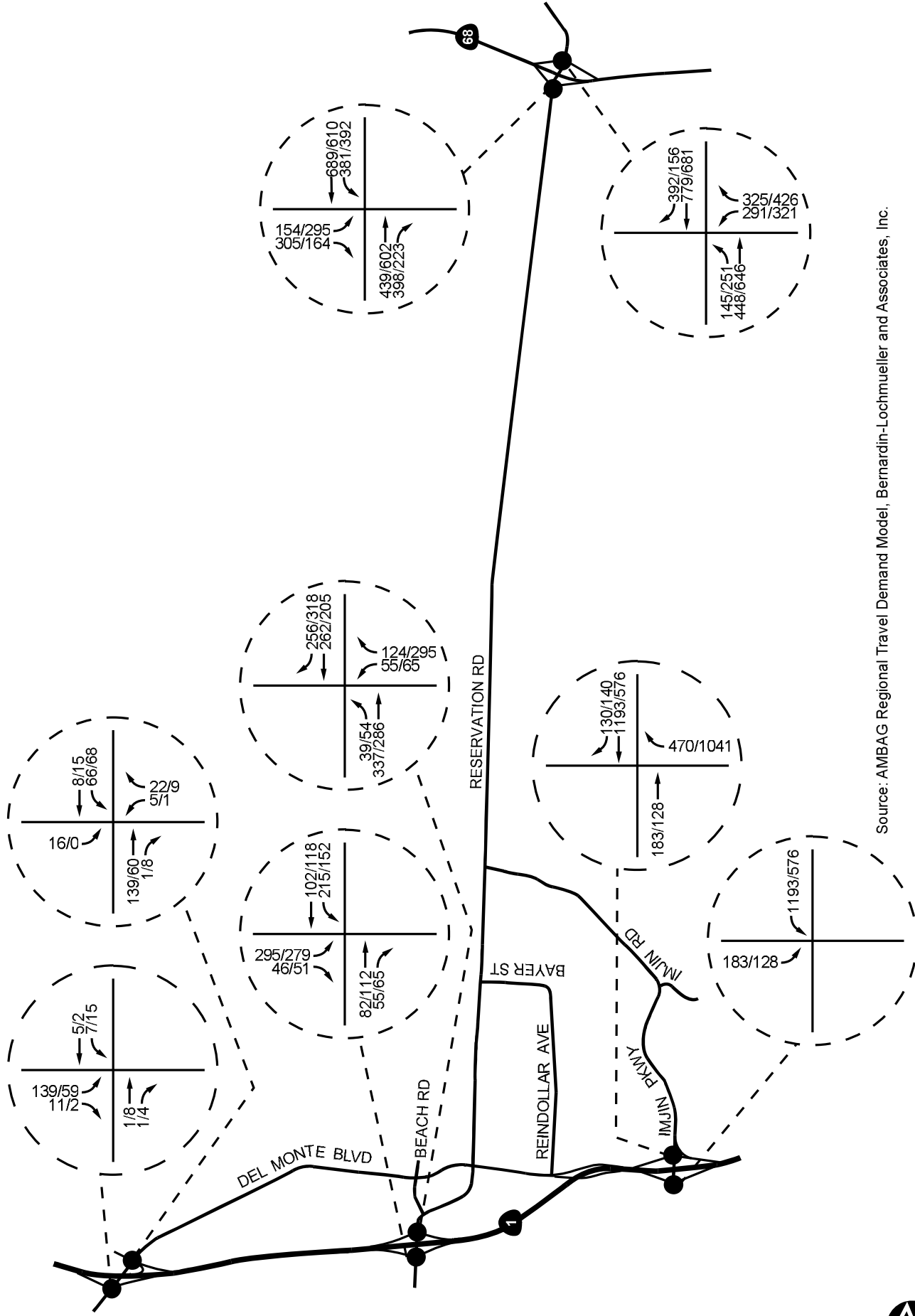
Exhibit 8 and 9 show a.m. and p.m. peak hour intersection volumes for existing plus project conditions based on the TJKM traffic study and the BLA-provided volumes respectively. Exhibit 10 and 11 show existing plus project conditions ADT volumes based on the TJKM traffic study and the BLA-provided volumes respectively. It is worth noting the forecast existing plus project (BLA) ADT volumes shown in Exhibit 11 (based on Regional Travel Demand Model) are approximately 4.5 times higher on Imjin Parkway in the vicinity of Highway 1 and approximately 1.5 times higher on Reservation Road in the vicinity of State Route 68 than the corresponding (TJKM) ADT volumes shown in Exhibit 10 (based on TJKM model run data).

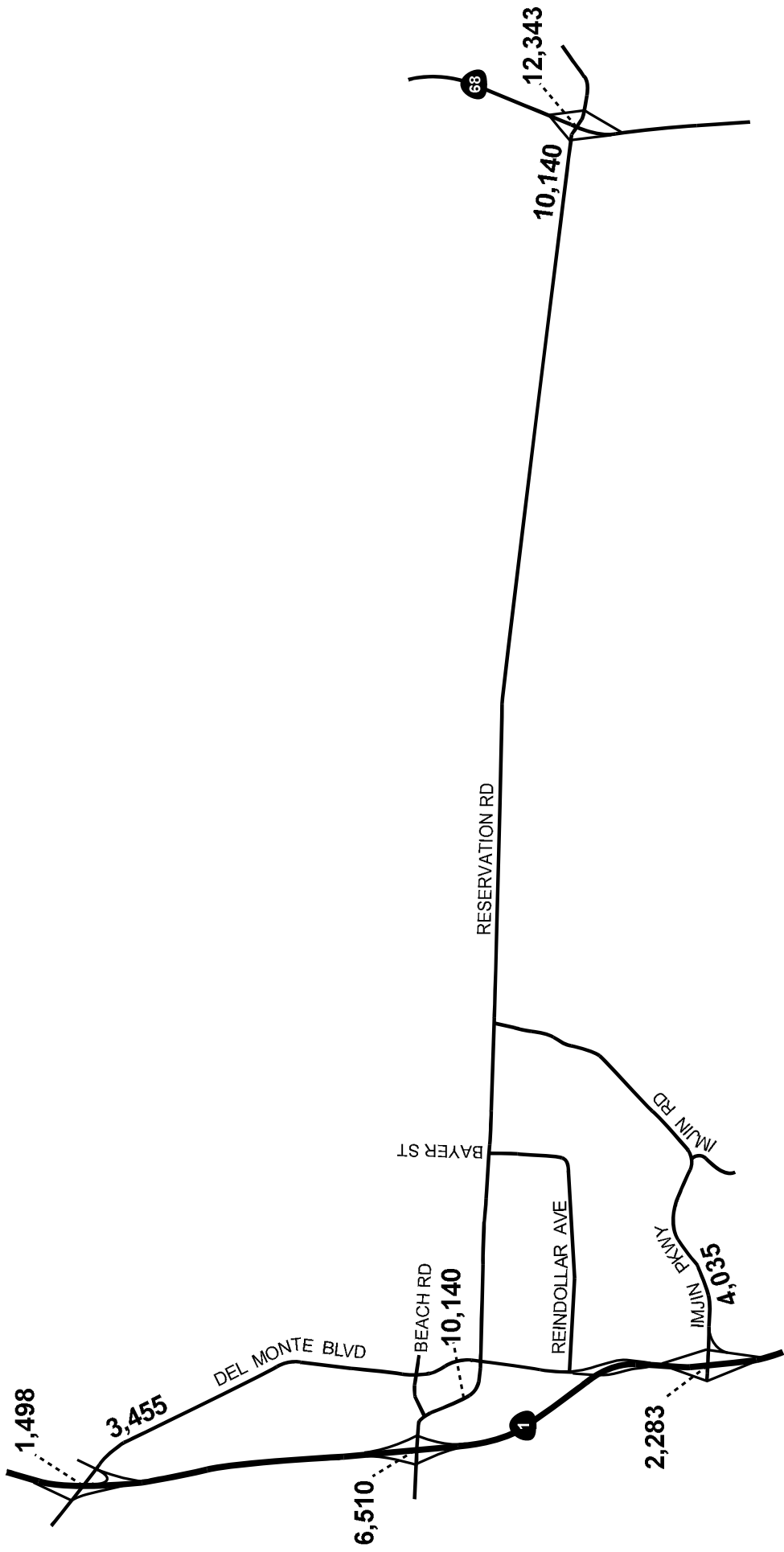


Source: Traffic Impact Study for the East Garrison Development, TJKM Transportation Consultants

Legend:
 XXXXX AM/PM Peak Hour Volume

East Garrison Existing + Project AM/PM Peak Hour Intersection Volumes (TJKM-Based)

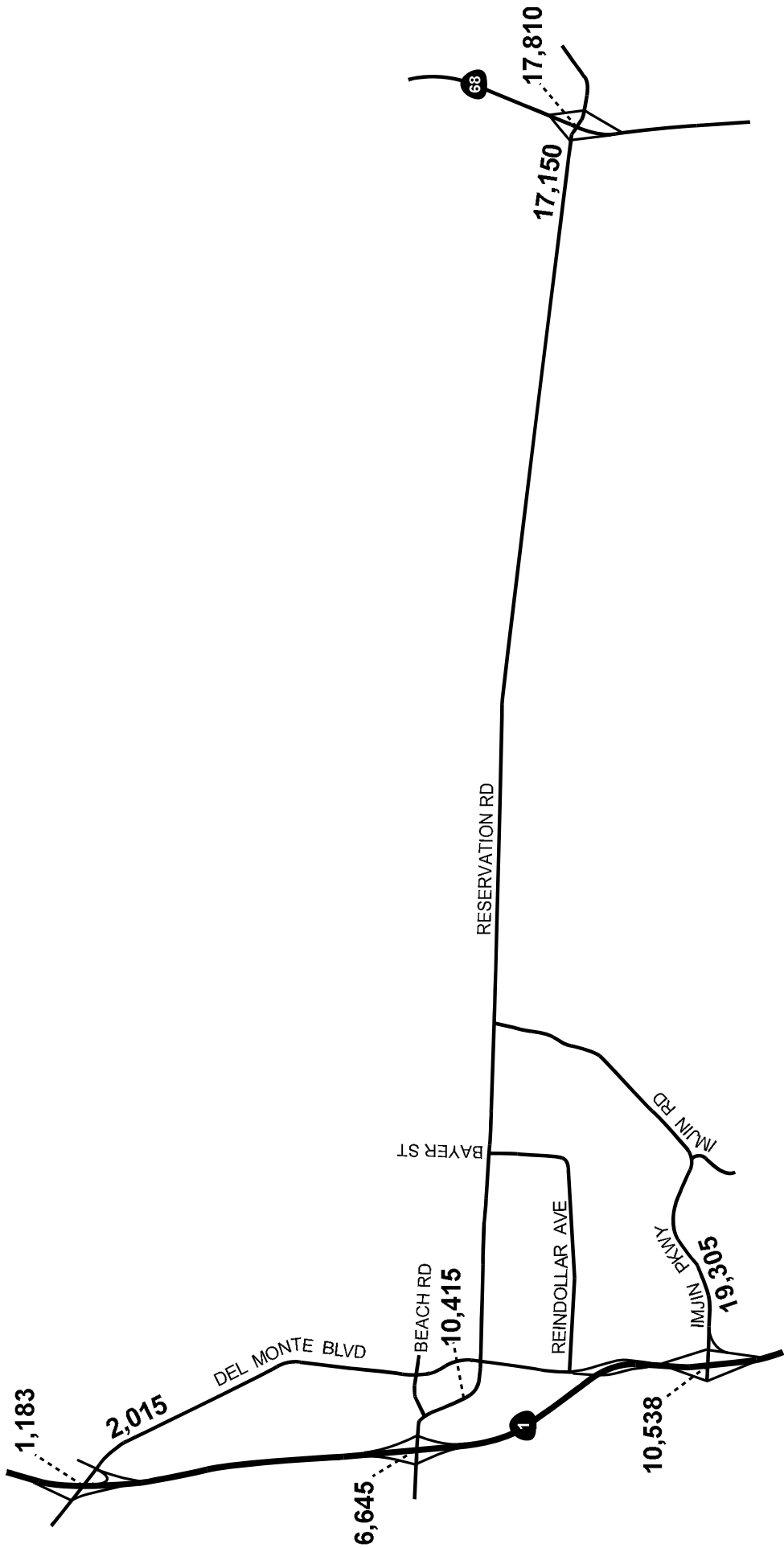




Not to Scale



East Garrison Existing & Project ADT Volumes (TJKM-Based)



Not to Scale



East Garrison Existing & Project ADT Volumes (BLA-Based)

Existing Plus Project Conditions Intersection Peak Hour LOS

The existing plus project conditions analysis scenario does not assume implementation of the geometric improvements recommended to improve existing conditions deficiencies.

Table 4 summarizes existing plus project conditions a.m. and p.m. peak hour LOS of the study intersections; detailed LOS analysis sheets are contained in Appendix B.

Table 4
Existing Plus Project Conditions Study Intersection AM/PM Peak Hour LOS Comparison

Study Intersection	TJKM Volumes ¹		BLA Volumes ²		Change
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
	Delay - LOS	Delay - LOS	Delay - LOS	Delay - LOS	
Highway 1 SB Ramps/Del Monte Blvd	10.4 – B	9.9 – A	10.0 – A	9.1 – A	AM: B to A
Highway 1 NB Ramps/Del Monte Blvd	13.3 – B	16.8 – C	11.7 – B	8.9 – A	PM: C to A
Highway 1 SB Ramps/Reservation Rd	202.2 – F	18.5 – C	48.7 – E	24.9 – C	AM: F to E
Highway 1 NB Ramps/Reservation Rd	11.0 – B	12.7 – B	16.0 – C	18.6 – C	B to C
Highway 1 SB Ramps/Imjin Pkwy	13.4 – B	11.0 – B	OVRFL – F	206.5 – F	B to F
Highway 1 NB Ramps/Imjin Pkwy	10.4 – B	10.4 – B	9.0 – A	9.0 – A	B to A
SR 68 WB Ramps/Reservation Rd	14.1 – B	30.3 – C	89.9 – F	53.2 – D	AM: B to F PM: C to D
SR 68 EB Ramps/Reservation Rd	20.8 – C	15.4 – B	29.7 – C	45.5 – D	PM: B to D

Note: Deficient intersection operation shown in **bold**. OVRFL = Overflow, exceeds analysis model capabilities.

¹From *Traffic Impact Study for the East Garrison Development* (TJKM Transportation Consultants, September 7, 2004).

²From BLA-provided existing with East Garrison conditions volumes (May 16, 2005).

As shown in Table 4, based on TJKM-provided intersection volumes, one study intersection is forecast to operate at a deficient LOS (LOS E or worse) for existing plus project conditions:

- Highway 1 SB Ramps/Reservation Road (a.m. peak hour).

Also, as shown in Table 4, based on BLA-provided intersection volumes, three study intersections are forecast to operate at a deficient LOS (LOS E or worse) for existing plus project conditions:

- Highway 1 SB Ramps/Reservation Road (a.m. peak hour);
- Highway 1 SB Ramps/Imjin Parkway (a.m. and p.m. peak hours); and
- SR 68 WB Ramps/Reservation Road (a.m. peak hour).

Three study intersection deficiencies are forecast to occur utilizing BLA-provided intersection volumes compared to one study intersection deficiency utilizing TJKM-provided volumes since the (BLA) regional travel demand model forecasts higher traffic volumes in the vicinity of these intersections as shown in comparing Exhibits 10 and 11.

Exhibit 12 shows the difference between existing conditions versus existing plus project conditions peak hour traffic volumes for both TJKM-provided volumes and BLA-provided traffic volumes.

As shown in Exhibit 12, the difference in BLA-provided traffic volumes between existing conditions and existing plus project conditions at the Highway 1 Southbound Ramps/Imjin Parkway intersection are negligible: 18 vehicles in the a.m. peak hour and 1 vehicle in the p.m. peak hour based on the regional travel demand model.

Also, as shown in Exhibit 12, the difference in BLA-provided traffic volumes between existing conditions and existing plus project conditions at the State Route 68 Westbound Ramps/Reservation Road intersection are minor: 79 vehicles in the a.m. peak hour and 39 vehicle in the p.m. peak hour based on the regional travel demand model.

To eliminate the deficiency at the study intersection for existing plus project conditions based on TJKM traffic volumes, the *Traffic Impact Study for the East Garrison Development (TJKM Transportation Consultants, September 7, 2004)* identified the following mitigation measure:

- **Highway 1 Southbound Ramps/Reservation Road** – Signalize intersection.

To eliminate the three study intersection deficiencies for existing plus project conditions based on BLA-provided volumes, the following mitigation measures are recommended:

- **Highway 1 Southbound Ramps/Reservation Road** – Signalize intersection;
- **Highway 1 Southbound Ramps/Imjin Parkway** – Signalize intersection; and
- **SR 68 Westbound Ramps/Reservation Road** – Modify eastbound approach from one shared through right-turn lane to consist of one through lane and one right-turn lane.

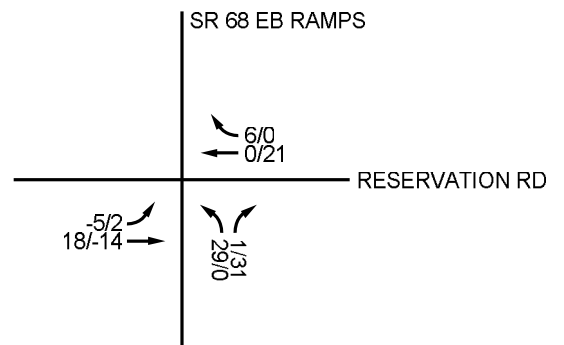
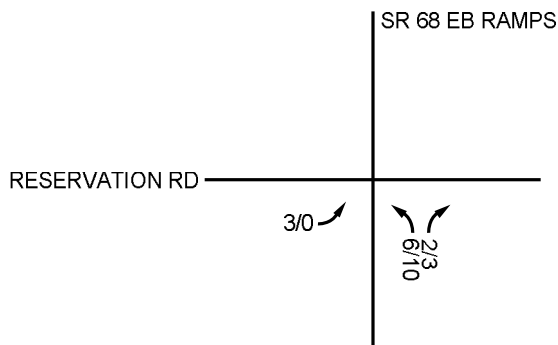
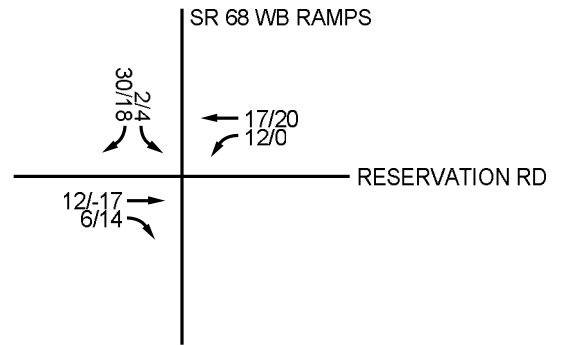
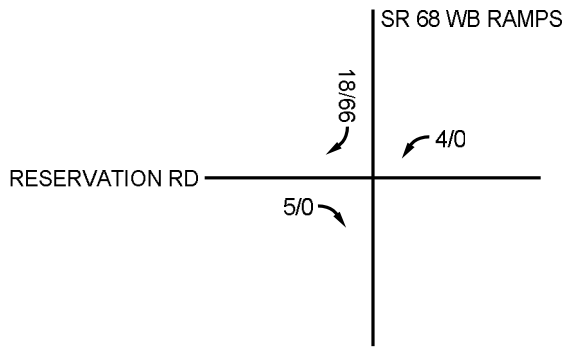
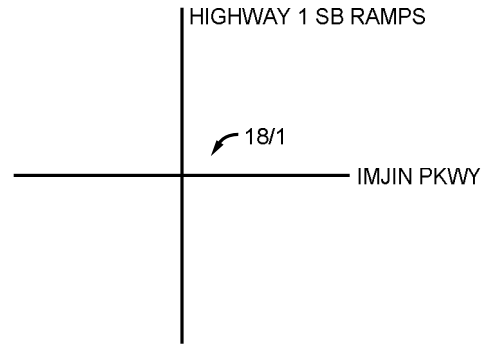
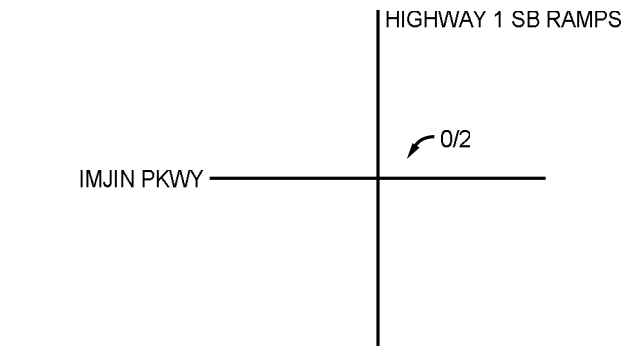
It is important to note above recommended mitigation measures to address forecast existing plus project conditions deficiencies at the study intersections are identical to recommended improvements (page 4) identified to address existing conditions deficiencies at the study intersections. This is because the minor increase in traffic volumes generated by the project at the study intersections does not require any additional capacity-enhancing improvements over what is required to accommodate existing traffic volumes.

Mitigated Existing Plus Project Conditions Intersection Peak Hour LOS

Assuming implementation of the recommended mitigation measures, Table 5 shows the forecast mitigated LOS of the three study intersections for existing plus project conditions based on BLA-provided volumes.

TJKM-BASED PEAK HOUR VOLUME
DIFFERENCE BETWEEN EXISTING VS.
EXISTING PLUS PROJECT

BLA-BASED PEAK HOUR VOLUME
DIFFERENCE BETWEEN EXISTING VS.
EXISTING PLUS PROJECT



Source: Traffic Impact Study for the East Garrison Development (TJKM Transportation Consultants September 7, 2004)

Source: Bernardin - Lochmueller and Associates - AMBAG Regional Travel Demand Model

Legend:

XX/XX AM/PM Volumes



Not to Scale



East Garrison Project AM/PM Peak Hour Volumes
Difference Between Existing Versus Existing Plus Project

Table 5
Mitigated Existing Plus Project Conditions Study Intersection
AM/PM Peak Hour LOS

Study Intersection	BLA Volumes ¹			
	Non-Mitigated Existing Plus Project Conditions		Mitigated Existing Plus Project Conditions	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
	Delay - LOS	Delay - LOS	Delay - LOS	Delay - LOS
Highway 1 SB Ramps/Del Monte Blvd	10.0 – A	9.1 – A	10.0 – A	9.1 – A
Highway 1 NB Ramps/Del Monte Blvd	11.7 – B	8.9 – A	11.7 – B	8.9 – A
Highway 1 SB Ramps/Reservation Rd	48.7 – E	24.9 – C	22.1 – C	21.6 – C
Highway 1 NB Ramps/Reservation Rd	16.0 – C	18.6 – C	16.0 – C	18.6 – C
Highway 1 SB Ramps/Imjin Pkwy	OVRFL – F	206.5 – F	11.9 – B	8.6 – A
Highway 1 NB Ramps/Imjin Pkwy	9.0 – A	9.0 – A	9.0 – A	9.0 – A
SR 68 WB Ramps/Reservation Rd	89.9 – F	53.2 – D	23.3 – C	28.1 – C
SR 68 EB Ramps/Reservation Rd	29.7 – C	45.5 – D	29.7 – C	45.5 – D

Note: Deficient intersection operation shown in **bold**.

OVRFL = Overflow, exceeds analysis model capabilities. .

¹From BLA-provided existing with East Garrison conditions volumes (May 16, 2005).

As shown in Table 5, assuming implementation of the recommended mitigation measures, the three study intersections are forecast to operate at an acceptable LOS (LOS D or better) for existing plus project conditions based on BLA-provided volumes.

Existing Plus Project Conditions Project Equitable Share Analysis

This section identifies the project applicant's equitable share at the following four study intersections:

- Highway 1 Southbound Ramps/Reservation Road;
- Highway 1 Southbound Ramps/Imjin Parkway;
- SR 68 Westbound Ramps/Reservation Road; and
- SR 68 Eastbound Ramps/Reservation Road.

In accordance with the *Guide for the Preparation of Traffic Impact Studies (Monterey County Public Works Department, October 2003)*, equitable share calculations are determined utilizing the following formula:

$$\text{Equitable Share} = \frac{\text{Proposed Project Trip Assignment}}{\text{Existing Plus Project Volumes}}$$

Table 6 summarizes the results of the equitable share analysis for existing plus project conditions a.m. and p.m. peak hour LOS of the study intersections.

**Table 6
Existing Plus Project Conditions Project Equitable Share**

Study Intersection	Project Equitable Share Percent	
	AM Peak Hour	PM Peak Hour
Highway 1 SB Ramps/Reservation Rd	0.75%	N/A
Highway 1 SB Ramps/Imjin Pkwy	1.31%	0.14%
SR 68 WB Ramps/Reservation Rd	3.33%	1.71%
SR 68 EB Ramps/Reservation Rd	N/A	1.61%

Note: N/A = Not Applicable.

CONCLUSIONS

Existing conditions and forecast existing plus project conditions (BLA) ADT volumes are approximately 4.5 times higher on Imjin Parkway in the vicinity of Highway 1, and approximately 1.5 times higher on Reservation Road in the vicinity of State Route 68 compared to the corresponding (TJKM) volumes.

Hence, three study intersection deficiencies are forecast to occur utilizing BLA-provided volumes compared to one study intersection deficiency utilizing TJKM-provided volumes.

The recommended mitigation measures to address forecast existing plus project conditions deficiencies at the study intersections are identical to recommended improvements identified to address existing conditions deficiencies at the study intersections, since the minor increase in traffic volumes generated by the project at the study intersections does not require any additional capacity-enhancing improvements over what is required to accommodate existing traffic volumes.

The County of Monterey can coordinate with the City of Marina and Caltrans to determine the proportionate fair share contribution based on the equitable share calculations included in this analysis.

Please contact us with any questions.

APPENDIX A
LOS ANALYSIS SHEETS
EXISTING CONDITIONS

EXISTING CONDITIONS
TJRM EXISTING TRAFFIC VOLUMES
AM PEAK HOUR

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Hwy 1 SB Ramps/Del Monte Blvd

Average Delay (sec/veh): 8.9 Worst Case Level of Service: B [10.3]

Street Name: Hwy 1 SB Ramps Del Monte Blvd
Approach: North Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 0 0 0 0 1 0 0 0 0 0 1 0 0 0

Volume Module:
Base Vol: 0 0 0 65 22 1 0 5 2 29 1 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 65 22 1 0 5 2 29 1 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 65 22 1 0 5 2 29 1 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57
PHF Volume: 0 0 0 114 39 2 0 9 4 51 2 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol: 0 0 0 114 39 2 0 9 4 51 2 0

Critical Gap Module:
Critical Gap: 6.4 6.5 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2
FollowUpTim: 3.5 4.0 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3
Capacity Module:
Conflict Vol: 114 116 2 2 2 2 2 2 2 2 2
Potential Cap.: 887 778 1088 865 753 1088 865 753 1088 865 753
Move Cap.: 865 753 1088 865 753 1088 865 753 1088 865 753
Volume/Cap: 0.13 0.05 0.00 0.13 0.05 0.00 0.13 0.05 0.00 0.13 0.05

Level of Service Module:
Queue: 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1
Stopped Del: 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3
LOS by Move: A A A A A A A A A A A
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: 836 836 836 836 836 836 836 836 836 836 836
Shared Queue: 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7
Shrd StpDel: 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3
Shared LOS: B B B B B B B B B B B
ApproachDel: 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3
ApproachLOS: B B B B B B B B B B B

EXISTING CONDITIONS
TJRM EXISTING TRAFFIC VOLUMES
AM PEAK HOUR

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Hwy 1 NB Ramps/Del Monte Blvd

Average Delay (sec/veh): 5.3 Worst Case Level of Service: B [13.2]

Street Name: Hwy 1 NB Ramps Del Monte Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 1 0 0 0 0 0 1 0 0 0 0 0 1 0 0

Volume Module:
Base Vol: 2 7 29 34 14 6 4 94 4 91 39 21
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2 7 29 34 14 6 4 94 4 91 39 21
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 2 7 29 34 14 6 4 94 4 91 39 21
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81
PHF Volume: 2 9 36 42 17 7 5 116 5 112 48 26
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol: 2 9 36 42 17 7 5 116 5 112 48 26

Critical Gap Module:
Critical Gap: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 6.2 4.1 6.2 6.2 6.2
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 3.3 2.2 3.3 3.3 3.3
Capacity Module:
Conflict Vol: 427 427 119 436 417 61 74 436 417 121 436 436
Potential Cap.: 542 523 939 534 530 1010 1538 436 436 1479 436 436
Move Cap.: 490 479 939 474 485 1010 1538 436 436 1479 436 436
Volume/Cap: 0.01 0.02 0.04 0.09 0.04 0.01 0.00 436 436 0.08 436 436

Level of Service Module:
Queue: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Stopped Del: 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3
LOS by Move: A A A A A A A A A A A A
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: 507 507 507 507 507 507 507 507 507 507 507 507
Shared Queue: 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5
Shrd StpDel: 13.2 13.2 13.2 13.2 13.2 13.2 13.2 13.2 13.2 13.2 13.2 13.2
Shared LOS: B B B B B B B B B B B B
ApproachDel: 10.0 13.2 13.2 13.2 13.2 13.2 13.2 13.2 13.2 13.2 13.2 13.2
ApproachLOS: B B B B B B B B B B B B

EXISTING CONDITIONS
TJRM EXISTING TRAFFIC VOLUMES
AM PEAK HOUR

EXISTING CONDITIONS
TJRM EXISTING TRAFFIC VOLUMES
AM PEAK HOUR

Level of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #4 Hwy 1 NB Ramps/Reservation Rd

 Average Delay (sec/veh): 1.2 Worst Case Level of Service: B [10.8]

 Street Name: Hwy 1 NB Ramps Reservation Rd
 Approach: North Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Uncontrolled Uncontrolled
 Rights: Include Include Include
 Lanes: 0 0 1 0 0 0 0 0 0 0 1 0 1 0 0 0 0 0 1 0 1

Level of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #3 Hwy 1 SB Ramps/Reservation Rd

 Average Delay (sec/veh): 41.2 Worst Case Level of Service: F [159.3]

 Street Name: Hwy 1 SB Ramps Reservation Rd
 Approach: North Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Uncontrolled Uncontrolled
 Rights: Include Include Include
 Lanes: 0 0 0 0 0 1 0 0 1 0 0 0 0 1 0 1 0 1 0 0 0

Volume Module:
 Base Vol: 9 0 108 0 0 0 7 188 0 0 573 183
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 9 0 108 0 0 0 7 188 0 0 573 183
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 9 0 108 0 0 0 7 188 0 0 573 183
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 9 0 114 0 0 0 7 198 0 0 603 193
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Final Vol: 9 0 114 0 0 0 7 198 0 0 603 193
 Critical Gap Module:
 Critical Gp: 6.4 xxxxx 6.2 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx xxxxx xxxxx
 FollowUpTim: 3.5 xxxxx 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx xxxxx xxxxx

Volume Module:
 Base Vol: 0 0 155 3 16 0 28 14 526 40 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 155 3 16 0 28 14 526 40 0
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 155 3 16 0 28 14 526 40 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
 PHF Volume: 0 0 167 3 17 0 30 15 566 43 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Final Vol: 0 0 167 3 17 0 30 15 566 43 0
 Critical Gap Module:
 Critical Gp: xxxxxx xxxxx xxxxx 6.4 6.5 6.2 xxxxxx xxxxx xxxxx 4.1 xxxxx xxxxx
 FollowUpTim: xxxxxx xxxxx xxxxx 3.5 4.0 3.3 xxxxxx xxxxx xxxxx 2.2 xxxxx xxxxx

Capacity Module:
 Conflict Vol: 912 xxxxx 198 xxxxx xxxxx xxxxx 796 xxxxx xxxxx xxxxx xxxxx
 Potent Cap.: 307 xxxxx 848 xxxxx xxxxx xxxxx 835 xxxxx xxxxx xxxxx xxxxx
 Move Cap.: 304 xxxxx 848 xxxxx xxxxx xxxxx 835 xxxxx xxxxx xxxxx xxxxx
 Volume/Cap: 0.03 xxxxx 0.13 xxxxx xxxxx xxxxx 0.01 xxxxx xxxxx xxxxx xxxxx
 Level of Service Module:
 Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx xxxxx xxxxx
 Stopped Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 9.4 xxxxx xxxxx xxxxx xxxxx
 LOS by Move: * * * * * A * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxx 746 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shared Queue: xxxxx 0.6 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shrd StpDel: xxxxx 10.8 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shared LOS: * * * * * B * * * * *
 ApproachDel: 10.8 B xxxxxxx xxxxxxx
 ApproachLOS: B xxxxxxx

Capacity Module:
 Conflict Vol: 1212 1219 43 xxxxx xxxxx xxxxx 45 xxxxx xxxxx
 Potent Cap.: xxx xxxxx xxxxx 203 182 1033 xxxxx xxxxx xxxxx 1576 xxxxx xxxxx
 Move Cap.: xxx xxxxx xxxxx 146 117 1033 xxxxx xxxxx xxxxx 1576 xxxxx xxxxx
 Volume/Cap: xxx xxxxx xxxxx 1.14 0.03 0.02 xxxxx xxxxx xxxxx 0.36 xxxxx xxxxx
 Level of Service Module:
 Queue: xxxxx xxxxx xxxxx 9.3 xxxxx xxxxx xxxxx xxxxx 1.7 xxxxx xxxxx
 Stopped Del: xxxxx xxxxx xxxxx 177.2 xxxxx xxxxx xxxxx xxxxx 8.6 xxxxx xxxxx
 LOS by Move: * * * * * F * * * * * A * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxx xxxxx xxxxx xxxxx xxxxx 461 xxxxx xxxxx xxxxx xxxxx
 Shared Queue: xxxxx xxxxx xxxxx xxxxx xxxxx 0.1 xxxxx xxxxx xxxxx xxxxx
 Shrd StpDel: xxxxx xxxxx xxxxx xxxxx xxxxx 13.2 xxxxx xxxxx xxxxx xxxxx
 Shared LOS: * * * * * B * * * * *
 ApproachDel: xxxxxx 159.3 F xxxxxxx xxxxxxx
 ApproachLOS: * * * * * F * * * * *

EXISTING CONDITIONS
TJRM EXISTING TRAFFIC VOLUMES
AM PEAK HOUR

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Hwy 1 SB Ramps/Imjin Pkwy

Average Delay (sec/veh): 11.4 Worst Case Level of Service: B [13.4]

Street Name: Hwy 1 SB Ramps Imjin Pkwy
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 1 1 0 0 0 0 0 0 1 0 0 0 0
Volume Module:
Base Vol: 0 0 103 2 0 0 1.00 1.00 1.00 1.00 1.00 1.00 184 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 184 0 0
Initial Bse: 0 0 103 2 0 0 0 0 0 0 0 0 184 0 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 184 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 184 0 0
Initial Fut: 0 0 103 2 0 0 0 0 0 0 0 0 184 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 184 0 0
PHF Adj: 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 184 0 0
PHF Volume: 0 0 0 0 117 2 0 0 0 0 0 0 209 0 0
Reduct Vol: 0 0 0 0 117 2 0 0 0 0 0 0 209 0 0
Final Vol: 0 0 0 0 117 2 0 0 0 0 0 0 209 0 0
Critical Gap Module:
Critical Gap: 6.4 6.5 6.5 4.0 6.5 4.0 6.5 4.0 6.5 4.0 6.5 4.0 4.1 4.1 4.1
FollowUpTim: 3.5 4.0 3.5 4.0 3.5 4.0 3.5 4.0 3.5 4.0 3.5 4.0 2.2 2.2 2.2
Capacity Module:
Conflict Vol: 418 418 418 418 418 418 418 418 418 418 418 418 0 900 900
Potent Cap.: 489 489 489 489 489 489 489 489 489 489 489 489 900 900 900
Move Cap.: 489 489 489 489 489 489 489 489 489 489 489 489 900 900 900
Volume/Cap: 0.24 0.01 0.24 0.01 0.24 0.01 0.24 0.01 0.24 0.01 0.24 0.01 0.23 0.23 0.23
Level of Service Module:
Queue: 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.9 10.2
Stopped Del: 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4 10.2 10.2 10.2
LOS by Move: B * * * * * * * * * * * * * * B * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: 485 485 485 485 485 485 485 485 485 485 485 485 485 485 485
Shared Queue: 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4
Shrd StpDel: 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5
Shared LOS: *
ApproachDel: 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4
ApproachLOS: B B B B B B B B B B B B B B B

EXISTING CONDITIONS
TJRM EXISTING TRAFFIC VOLUMES
AM PEAK HOUR

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #6 Hwy 1 NB Ramps/Imjin Pkwy

Average Delay (sec/veh): 0.2 Worst Case Level of Service: B [10.4]

Street Name: Hwy 1 NB Ramps Imjin Pkwy
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Ignore Include Include Include
Lanes: 1 0 0 0 1 0 0 0 0 0 1 1 0 0 0 0 1 0 1
Volume Module:
Base Vol: 3 0 85 0 0 0 1.00 1.00 1.00 1.00 1.00 1.00 126 0 0 153 22
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 126 0 0 153 22
Initial Bse: 3 0 85 0 0 0 0 0 0 0 0 0 126 0 0 153 22
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 126 0 0 153 22
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 126 0 0 153 22
Initial Fut: 3 0 85 0 0 0 0 0 0 0 0 0 126 0 0 153 22
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 126 0 0 153 22
PHF Adj: 0.91 0.91 0.00 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 138 0 0 168 24
PHF Volume: 3 0 0 0 0 0 0 0 0 0 0 0 7 138 0 0 168 24
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 7 138 0 0 168 24
Final Vol: 3 0 0 0 0 0 0 0 0 0 0 0 7 138 0 0 168 24
Critical Gap Module:
Critical Gap: 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 4.1 4.1 4.1 4.1 4.1
FollowUpTim: 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 2.2 2.2 2.2 2.2 2.2
Capacity Module:
Conflict Vol: 332 332 332 332 332 332 332 332 332 332 332 332 192 192 192 192 192
Potent Cap.: 667 667 667 667 667 667 667 667 667 667 667 667 1393 1393 1393 1393 1393
Move Cap.: 665 665 665 665 665 665 665 665 665 665 665 665 1393 1393 1393 1393 1393
Volume/Cap: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Level of Service Module:
Queue: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 7.6 7.6 7.6 7.6
Stopped Del: 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 7.6 7.6 7.6 7.6
LOS by Move: B * * * * * * * * * * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: 665 665 665 665 665 665 665 665 665 665 665 665 665 665 665 665 665
Shared Queue: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Shrd StpDel: 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 7.6 7.6 7.6 7.6 7.6
Shared LOS: * * * * * * * * * * * * * * * * * * A * * * * *
ApproachDel: 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4
ApproachLOS: B B B B B B B B B B B B B B B B B

EXISTING CONDITIONS
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Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Hwy 68 WB Ramps/Reservation Rd

Cycle (sec): 45 Critical Vol./Cap. (X): 0.638
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 13.8
Optimal Cycle: 38 Level Of Service: B

Street Name: Hwy 68 WB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 10 0 10 0 10 10 7 10 0
Lanes: 0 0 0 0 0 1 0 0 1 0 0 1 0 1 0 0
Volume Module:
Base Vol: 0 0 0 0 207 0 153 0 313 139 193 289 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 0 0 0 0 207 0 153 0 313 139 193 289 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 0 207 0 153 0 313 139 193 289 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 0 0 0 225 0 166 0 340 151 210 314 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 0 225 0 166 0 340 151 210 314 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 0 225 0 166 0 340 151 210 314 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
AdjStment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 0.00 1.00 0.00 0.31 1.00 1.00 0.00
Final Sat.: 0 0 0 0 1809 0 1615 0 1260 560 1805 1900 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.12 0.00 0.10 0.00 0.27 0.27 0.12 0.17 0.00
Vol/Sat: 0.08 0.00 0.07 0.00 0.00 0.00 0.17 0.21 0.00 0.00 0.28 0.46
Crit Moves: *****
Green/Cycle: 0.00 0.00 0.00 0.22 0.00 0.22 0.00 0.40 0.40 0.17 0.58 0.00
Volume/Cap: 0.00 0.00 0.00 0.56 0.00 0.46 0.00 0.67 0.67 0.67 0.29 0.00
Delay/Veh: 0.0 0.0 0.0 17.3 0.0 16.1 0.0 13.3 13.3 22.8 5.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 17.3 0.0 16.1 0.0 13.3 13.3 22.8 5.0 0.0
HCM2kAVG: 0 0 0 4 0 3 0 7 4 2 0 8 17

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Hwy 68 EB Ramps/Reservation Rd

Cycle (sec): 80 Critical Vol./Cap. (X): 0.796
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 20.5
Optimal Cycle: 63 Level Of Service: C

Street Name: Hwy 68 EB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 10 0 0 10 0 0 0 0 7 10 0 0 10 10
Lanes: 0 1 0 0 1 0 0 0 0 1 0 1 0 0 1 0 1
Volume Module:
Base Vol: 124 0 93 0 0 0 0 0 260 334 0 0 450 627
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 124 0 93 0 0 0 0 0 260 334 0 0 450 627
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 124 0 93 0 0 0 0 0 260 334 0 0 450 627
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85
PHF Volume: 146 0 109 0 0 0 0 0 306 393 0 0 529 738
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 146 0 109 0 0 0 0 0 306 393 0 0 529 738
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 146 0 109 0 0 0 0 0 306 393 0 0 529 738

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
AdjStment: 0.95 1.00 0.85 1.00 1.00 1.00 0.95 1.00 1.00 1.00 1.00 1.00 0.85
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 1.00
Final Sat.: 1809 0 1615 0 0 0 1805 1900 0 0 1900 1615

Capacity Analysis Module:
Vol/Sat: 0.08 0.00 0.07 0.00 0.00 0.00 0.17 0.21 0.00 0.00 0.28 0.46
Vol/Sat: 0.08 0.00 0.07 0.00 0.00 0.00 0.17 0.21 0.00 0.00 0.28 0.46
Crit Moves: *****
Green/Cycle: 0.13 0.00 0.13 0.00 0.00 0.00 0.21 0.26 0.00 0.00 0.56 0.56
Volume/Cap: 0.65 0.00 0.54 0.00 0.00 0.00 0.82 0.27 0.00 0.00 0.50 0.82
Delay/Veh: 39.6 0.0 35.8 0.0 0.0 0.0 43.9 2.9 0.0 0.0 11.3 20.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 39.6 0.0 35.8 0.0 0.0 0.0 43.9 2.9 0.0 0.0 11.3 20.6
HCM2kAVG: 5 0 3 0 0 0 10 3 0 0 8 17

EXISTING CONDITIONS
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Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Hwy 68 EB Ramps/Reservation Rd

Cycle (sec): 80 Critical Vol./Cap. (X): 0.796
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 20.5
Optimal Cycle: 63 Level Of Service: C

Street Name: Hwy 68 EB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 10 0 0 10 0 0 0 0 7 10 0 0 10 10
Lanes: 0 1 0 0 1 0 0 0 0 1 0 1 0 0 1 0 1
Volume Module:
Base Vol: 124 0 93 0 0 0 0 0 260 334 0 0 450 627
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 124 0 93 0 0 0 0 0 260 334 0 0 450 627
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 124 0 93 0 0 0 0 0 260 334 0 0 450 627
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85
PHF Volume: 146 0 109 0 0 0 0 0 306 393 0 0 529 738
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 146 0 109 0 0 0 0 0 306 393 0 0 529 738
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 146 0 109 0 0 0 0 0 306 393 0 0 529 738

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
AdjStment: 0.95 1.00 0.85 1.00 1.00 1.00 0.95 1.00 1.00 1.00 1.00 1.00 0.85
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 1.00
Final Sat.: 1809 0 1615 0 0 0 1805 1900 0 0 1900 1615

Capacity Analysis Module:
Vol/Sat: 0.08 0.00 0.07 0.00 0.00 0.00 0.17 0.21 0.00 0.00 0.28 0.46
Vol/Sat: 0.08 0.00 0.07 0.00 0.00 0.00 0.17 0.21 0.00 0.00 0.28 0.46
Crit Moves: *****
Green/Cycle: 0.13 0.00 0.13 0.00 0.00 0.00 0.21 0.26 0.00 0.00 0.56 0.56
Volume/Cap: 0.65 0.00 0.54 0.00 0.00 0.00 0.82 0.27 0.00 0.00 0.50 0.82
Delay/Veh: 39.6 0.0 35.8 0.0 0.0 0.0 43.9 2.9 0.0 0.0 11.3 20.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 39.6 0.0 35.8 0.0 0.0 0.0 43.9 2.9 0.0 0.0 11.3 20.6
HCM2kAVG: 5 0 3 0 0 0 10 3 0 0 8 17

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Hwy 68 WB Ramps/Reservation Rd

Cycle (sec): 45 Critical Vol./Cap. (X): 0.638
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 13.8
Optimal Cycle: 38 Level Of Service: B

Street Name: Hwy 68 WB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 10 0 10 0 10 10 7 10 0
Lanes: 0 0 0 0 0 1 0 0 1 0 0 1 0 1 0 0
Volume Module:
Base Vol: 0 0 0 0 207 0 153 0 313 139 193 289 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 0 0 0 0 207 0 153 0 313 139 193 289 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 0 207 0 153 0 313 139 193 289 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 0 0 0 225 0 166 0 340 151 210 314 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 0 225 0 166 0 340 151 210 314 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 0 225 0 166 0 340 151 210 314 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
AdjStment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 0.00 1.00 0.00 0.31 1.00 1.00 0.00
Final Sat.: 0 0 0 0 1809 0 1615 0 1260 560 1805 1900 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.12 0.00 0.10 0.00 0.27 0.27 0.12 0.17 0.00
Vol/Sat: 0.08 0.00 0.07 0.00 0.00 0.00 0.17 0.21 0.00 0.00 0.28 0.46
Crit Moves: *****
Green/Cycle: 0.00 0.00 0.00 0.22 0.00 0.22 0.00 0.40 0.40 0.17 0.58 0.00
Volume/Cap: 0.00 0.00 0.00 0.56 0.00 0.46 0.00 0.67 0.67 0.67 0.29 0.00
Delay/Veh: 0.0 0.0 0.0 17.3 0.0 16.1 0.0 13.3 13.3 22.8 5.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 17.3 0.0 16.1 0.0 13.3 13.3 22.8 5.0 0.0
HCM2kAVG: 0 0 0 4 0 3 0 7 4 2 0 8 17

EXISTING CONDITIONS
TJRM EXISTING TRAFFIC VOLUMES
PM PEAK HOUR

EXISTING CONDITIONS
TJRM EXISTING TRAFFIC VOLUMES
PM PEAK HOUR

Level of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #1 Hwy 1 SB Ramps/Del Monte Blvd

 Average Delay (sec/veh): 8.2 Worst Case Level of Service: A [9.8]

 Street Name: Hwy 1 SB Ramps Del Monte Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
 Rights: Include Include Include Include
 Lanes: 0 0 0 0 0 0 1 1 0 0 0 0 1 0 0 0

Level of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #2 Hwy 1 NB Ramps/Del Monte Blvd

 Average Delay (sec/veh): 6.3 Worst Case Level of Service: C [16.5]

 Street Name: Hwy 1 NB Ramps Del Monte Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
 Rights: Include Include Include Include
 Lanes: 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0

Volume Module:
 Base Vol: 8 11 26 28 26 6 19 82 8 139 35 47
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 8 11 26 28 26 6 19 82 8 139 35 47
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 8 11 26 28 26 6 19 82 8 139 35 47
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81
 PHF Volume: 10 14 32 35 32 7 23 101 10 172 43 58
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Final Vol: 10 14 32 35 32 7 23 101 10 172 43 58

Volume Module:
 Base Vol: 0 0 101 2 7 1 7 5 41 5 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 101 2 7 1 7 5 41 5 0
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 101 2 7 1 7 5 41 5 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85
 PHF Volume: 0 0 119 2 8 1 8 6 48 6 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Final Vol: 0 0 119 2 8 1 8 6 48 6 0

Critical Gap Module:
 Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxxx xxxxx 4.1 xxxxx xxxxx
 FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxxx xxxxx 2.2 xxxxx xxxxx
 Capacity Module:
 Conflict Vol: 588 598 106 591 573 72 101 xxxxx xxxxx 111 xxxxx xxxxx
 Potent Cap.: 423 419 954 421 432 996 1504 xxxxx xxxxx 1491 xxxxx xxxxx
 Move Cap.: 351 360 954 353 371 996 1504 xxxxx xxxxx 1491 xxxxx xxxxx
 Volume/Cap: 0.03 0.04 0.03 0.10 0.09 0.01 0.02 xxxxx xxxxx 0.12 xxxxx xxxxx

Critical Gap Module:
 Critical Gp: 6.4 6.5 6.2 4.1 xxxxx xxxxx 4.1 xxxxx xxxxx
 FollowUpTim: 3.5 4.0 3.3 2.2 xxxxx xxxxx 2.2 xxxxx xxxxx
 Capacity Module:
 Conflict Vol: 116 119 6 6 xxxxx xxxxx 14 xxxxx xxxxx
 Potent Cap.: 885 775 1083 1628 xxxxx xxxxx 1617 xxxxx xxxxx
 Move Cap.: 864 751 1083 1628 xxxxx xxxxx 1617 xxxxx xxxxx
 Volume/Cap: 0.14 0.00 0.01 0.00 xxxxx xxxxx 0.03 xxxxx xxxxx

Level of Service Module:
 Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx 0.4 xxxxx xxxxx
 Stopped Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 7.4 xxxxx xxxxx 7.7 xxxxx xxxxx
 LOS by Move: * * * * * A * * * * * A * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxx 558 xxxxx xxx 386 xxxxx xxx 386 xxxxx xxx 386 xxxxx xxx
 Shared Queue: xxx 0.3 xxxxx xxx 0.7 xxxxx xxx 0.7 xxxxx xxx 0.7 xxxxx xxx
 Shrd StpDel: xxx 12.2 xxxxx xxx 16.5 xxxxx xxx 16.5 xxxxx xxx 16.5 xxxxx xxx
 Shared LOS: * * * * * C * * * * * * * * * *
 ApproachDel: 12.2 16.5
 ApproachLOS: B C

Level of Service Module:
 Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.1 xxxxx xxxxx 0.1 xxxxx xxxxx
 Stopped Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 7.2 xxxxx xxxxx 7.3 xxxxx xxxxx
 LOS by Move: * * * * * A * * * * * A * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxx 873 xxxxx xxx 873 xxxxx xxx 873 xxxxx xxx 873 xxxxx xxx
 Shared Queue: xxx 0.5 xxxxx xxx 0.5 xxxxx xxx 0.5 xxxxx xxx 0.5 xxxxx xxx
 Shrd StpDel: xxx 9.8 xxxxx xxx 9.8 xxxxx xxx 9.8 xxxxx xxx 9.8 xxxxx xxx
 Shared LOS: * * * * * A * * * * * A * * * * *
 ApproachDel: xxx 9.8
 ApproachLOS: A

EXISTING CONDITIONS
TJRM EXISTING TRAFFIC VOLUMES
PM PEAK HOUR

EXISTING CONDITIONS
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PM PEAK HOUR

Level of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #4 Hwy 1 NB Ramps/Reservation Rd

 Average Delay (sec/veh): 3.7 Worst Case Level of Service: B [12.3]

 Street Name: Hwy 1 NB Ramps Reservation Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
 Rights: Include Include Include Include
 Lanes: 0 0 1 0 0 0 0 0 0 0 1 0 1 0 0 0 0 0 1 0 1

Level of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #3 Hwy 1 SB Ramps/Reservation Rd

 Average Delay (sec/veh): 9.6 Worst Case Level of Service: C [18.4]

 Street Name: Hwy 1 SB Ramps Reservation Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
 Rights: Include Include Include Include
 Lanes: 0 0 0 0 0 1 0 0 1 0 0 0 0 1 0 1 0 1 0 0 0

Volume Module:
 Base Vol: 3 1 276 0 0 0 12 251 0 0 212 193
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 3 1 276 0 0 0 12 251 0 0 212 193
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 3 1 276 0 0 0 12 251 0 0 212 193
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
 PHF Volume: 3 1 282 0 0 0 12 256 0 0 216 197
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Final Vol: 3 1 282 0 0 0 12 256 0 0 216 197
 Critical Gap Module:
 Critical Gp: 6.4 6.5 6.2 xxxxxx xxxxx xxxxxx 4.1 xxxxx xxxxxx xxxxxx xxxxxx
 FollowUpTim: 3.5 4.0 3.3 xxxxxx xxxxx xxxxxx 2.2 xxxxx xxxxxx xxxxxx xxxxxx

Volume Module:
 Base Vol: 0 0 216 3 21 0 67 21 168 97 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 216 3 21 0 67 21 168 97 0
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 216 3 21 0 67 21 168 97 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 PHF Volume: 0 0 0 223 3 22 0 69 22 173 100 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Final Vol: 0 0 0 223 3 22 0 69 22 173 100 0
 Critical Gap Module:
 Critical Gp: xxxxxx xxxxx xxxxxx 6.4 6.5 6.2 xxxxxx xxxxx xxxxxx 4.1 xxxxx xxxxxx
 FollowUpTim: xxxxxx xxxxx xxxxxx 3.5 4.0 3.3 xxxxxx xxxxx xxxxxx 2.2 xxxxx xxxxxx

Capacity Module:
 Conflict Vol: 595 694 256 xxxxx xxxxx xxxxxx 413 xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Potent Cap.: 470 369 787 xxxxx xxxxx xxxxxx 1157 xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Move Cap.: 466 365 787 xxxxx xxxxx xxxxxx 1157 xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Volume/Cap: 0.01 0.00 0.36 xxxxx xxxxx xxxxxx 0.01 xxxxx xxxxx xxxxx xxxxx xxxxxx

Capacity Module:
 Conflict Vol: 526 537 100 xxxxx xxxxx xxxxxx 91 xxxxx xxxxxx
 Potent Cap.: xxxxx xxxxx xxxxxx 516 453 961 xxxxx xxxxx xxxxxx 1517 xxxxx xxxxxx
 Move Cap.: xxxxx xxxxx xxxxxx 470 401 961 xxxxx xxxxx xxxxxx 1517 xxxxx xxxxxx
 Volume/Cap: xxxxx xxxxx xxxxx 0.47 0.01 0.02 xxxxx xxxxx xxxxxx 0.11 xxxxx xxxxx

Level of Service Module:
 Queue: xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx 0.0 xxxxx xxxxxx xxxxxx xxxxxx
 Stopped Del: xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx 8.1 xxxxx xxxxxx xxxxxx xxxxxx
 LOS by Move: * * * * * A * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx xxxxx xxxxxx 818 xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Shared Queue: xxxxx xxxxx xxxxxx 0.1 xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Shrd StpDel: xxxxx xxxxx xxxxxx 9.5 xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Shared LOS: * * * * * A * * * * *
 ApproachDel: xxxxxx 18.4 xxxxxx xxxxxx
 ApproachLOS: B C

Level of Service Module:
 Queue: xxxxx xxxxx xxxxxx 2.5 xxxxx xxxxxx xxxxxx xxxxxx 0.4 xxxxx xxxxxx
 Stopped Del: xxxxx xxxxx xxxxxx 19.3 xxxxx xxxxxx xxxxxx xxxxxx 7.7 xxxxx xxxxxx
 LOS by Move: * * * * * C * * * * * A * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Shared Queue: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Shrd StpDel: xxxxx xxxxx xxxxxx 9.5 xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Shared LOS: * * * * * A * * * * *
 ApproachDel: xxxxxx 18.4 xxxxxx xxxxxx
 ApproachLOS: B C

EXISTING CONDITIONS
TJRM EXISTING TRAFFIC VOLUMES
PM PEAK HOUR

EXISTING CONDITIONS
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PM PEAK HOUR

Level of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #5 Hwy 1 SB Ramps/Imjin Pkwy

 Average Delay (sec/veh): 10.1 Worst Case Level of Service: B [10.9]

 Street Name: Hwy 1 SB Ramps Imjin Pkwy
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
 Rights: Include Include Include Include
 Lanes: 0 0 0 0 1 1 0 0 0 0 0 0 0 1 0 0 0 0

Level of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #6 Hwy 1 NB Ramps/Imjin Pkwy

 Average Delay (sec/veh): 0.5 Worst Case Level of Service: B [10.4]

 Street Name: Hwy 1 NB Ramps Imjin Pkwy
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
 Rights: Ignore Include Include Include
 Lanes: 1 0 0 0 1 0 0 0 0 0 1 1 0 0 0 0 0 1 0 1

Volume Module:
 Base Vol: 4 0 160 0 0 0 14 42 0 0 111 106
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 4 0 160 0 0 0 14 42 0 0 111 106
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 4 0 160 0 0 0 14 42 0 0 111 106
 User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.74 0.74 0.00 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.74
 PHF Volume: 5 0 0 0 0 0 0 19 57 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Final Vol: 5 0 0 0 0 0 0 19 57 0 0 0
 Critical Gap Module:
 Critical Gp: 6.4 xxxxx xxxxxx xxxxxx xxxxxx 4.1 xxxxx xxxxxx xxxxxx xxxxxx
 FollowUpTim: 3.5 xxxxx xxxxxx xxxxxx xxxxxx 2.2 xxxxx xxxxxx xxxxxx xxxxxx

Volume Module:
 Base Vol: 0 0 0 45 3 0 0 0 0 0 118 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 0 45 3 0 0 0 0 0 118 0 0
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 0 45 3 0 0 0 0 0 118 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88
 PHF Volume: 0 0 0 51 3 0 0 0 0 0 134 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Final Vol: 0 0 0 51 3 0 0 0 0 0 134 0
 Critical Gap Module:
 Critical Gp: xxxxxx xxxxx xxxxxx 6.4 6.5 xxxxxx xxxxxx xxxxxx 4.1 xxxxx xxxxxx
 FollowUpTim: xxxxxx xxxxx xxxxxx 3.5 4.0 xxxxxx xxxxxx xxxxxx 2.2 xxxxx xxxxxx

Capacity Module:
 Conflict Vol: 316 xxxxx xxxxxx xxxxx xxxxx xxxxxx 293 xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Potent Cap.: 681 xxxxx xxxxxx xxxxx xxxxx xxxxxx 1280 xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Move Cap.: 673 xxxxx xxxxxx xxxxx xxxxx xxxxxx 1280 xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Volume/Cap: 0.01 xxxxx xxxxx xxxxx xxxxx xxxxxx 0.01 xxxxx xxxxx xxxxx xxxxx xxxxxx

Capacity Module:
 Conflict Vol: 268 xxxxx xxxxxx xxxxx xxxxx xxxxxx 0 xxxxx xxxxxx
 Potent Cap.: xxxxx xxxxx xxxxxx 725 641 xxxxxx xxxxx xxxxx xxxxxx 900 xxxxx xxxxxx
 Move Cap.: xxxxx xxxxx xxxxxx 642 546 xxxxxx xxxxx xxxxx xxxxxx 900 xxxxx xxxxxx
 Volume/Cap: xxxxx xxxxx xxxxx 0.08 0.01 xxxxx xxxxx xxxxx xxxxx 0.15 xxxxx xxxxx

Level of Service Module:
 Queue: 0.0 xxxxx xxxxxx xxxxxx xxxxxx xxxxxx 0.0 xxxxx xxxxxx xxxxxx xxxxxx
 Stopped Del: 10.4 xxxxx xxxxxx xxxxxx xxxxxx xxxxxx 7.9 xxxxx xxxxxx xxxxxx xxxxxx
 LOS by Move: B * * * * * A * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Shared Queue: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Shrd StpDel: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Shared LOS: * * * * * * * * * * * A * * * * *
 ApproachDel: 10.4 xxxxxxxx xxxxxxxx xxxxxxxx
 ApproachLOS: B

Level of Service Module:
 Queue: xxxxx xxxxx xxxxxx 0.1 xxxxx xxxxxx xxxxxx xxxxxx xxxxxx 0.5 xxxxx xxxxxx
 Stopped Del: xxxxx xxxxx xxxxxx 10.8 xxxxx xxxxxx xxxxxx xxxxxx xxxxxx 9.7 xxxxx xxxxxx
 LOS by Move: * * * * * B * * * * * A * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx xxxxx xxxxxx 629 xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Shared Queue: xxxxx xxxxx xxxxxx 0.1 xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxx xxxxx xxxxxx
 Shrd StpDel: xxxxx xxxxx xxxxxx 11.0 xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxx xxxxx xxxxxx
 Shared LOS: * * * * * * * * * * * B * * * * *
 ApproachDel: xxxxxxxx xxxxxxxx xxxxxxxx 10.9 xxxxxxxx xxxxxxxx
 ApproachLOS: * B

EXISTING CONDITIONS
TJRM EXISTING TRAFFIC VOLUMES
PM PEAK HOUR

EXISTING CONDITIONS
TJRM EXISTING TRAFFIC VOLUMES
PM PEAK HOUR

Level of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #8 Hwy 68 EB Ramps/Reservation Rd

 Cycle (sec): 55 Critical Vol./Cap. (X): 0.726
 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 15.2
 Optimal Cycle: 47 Level Of Service: B

 Street Name: Hwy 68 EB Ramps Reservation Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Split Phase Split Phase Protected Protected
 Rights: Include Include Include Include
 Min. Green: 10 0 10 0 0 0 0 7 10 0 0 10 10
 Lanes: 0 1 0 0 1 0 0 0 0 0 1 0 1 0 0 1 0 1
 Volume Module:
 Base Vol: 117 0 196 0 0 0 0 211 881 0 0 240 299
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 117 0 196 0 0 0 0 211 881 0 0 240 299
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 117 0 196 0 0 0 0 211 881 0 0 240 299
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87
 PHF Volume: 134 0 225 0 0 0 0 243 1013 0 0 276 344
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 134 0 225 0 0 0 0 243 1013 0 0 276 344
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 134 0 225 0 0 0 0 243 1013 0 0 276 344
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 AdjLanes: 0.95 1.00 0.85 1.00 1.00 1.00 0.95 1.00 1.00 1.00 1.00 1.00 0.85
 Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 1.00
 Final Sat.: 1809 0 1615 0 0 0 1805 1900 0 0 1900 1615
 Capacity Analysis Module:
 Vol/Sat: 0.07 0.00 0.14 0.00 0.00 0.00 0.13 0.53 0.00 0.00 0.15 0.21
 Crit Moves: *****
 Green/Cycle: 0.18 0.00 0.18 0.00 0.00 0.00 0.25 0.65 0.00 0.00 0.40 0.40
 Volume/Cap: 0.41 0.00 0.77 0.00 0.00 0.00 0.53 0.81 0.00 0.00 0.36 0.53
 Delay/Veh: 20.7 0.0 32.9 0.0 0.0 0.0 18.9 11.3 0.0 0.0 11.8 13.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 20.7 0.0 32.9 0.0 0.0 0.0 18.9 11.3 0.0 0.0 11.8 13.4
 HCM2kAVG: 3 0 6 0 0 0 4 15 0 0 4 5

Level of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #7 Hwy 68 WB Ramps/Reservation Rd

 Cycle (sec): 80 Critical Vol./Cap. (X): 0.866
 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 30.5
 Optimal Cycle: 80 Level Of Service: C

 Street Name: Hwy 68 WB Ramps Reservation Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Split Phase Split Phase Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 10 0 10 0 10 10 7 10 0
 Lanes: 0 0 0 0 1 0 0 1 0 0 1 0 1 0 0
 Volume Module:
 Base Vol: 0 0 499 0 192 0 484 167 110 202 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 499 0 192 0 484 167 110 202 0
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 499 0 192 0 484 167 110 202 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
 PHF Volume: 0 0 554 0 213 0 538 186 122 224 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 554 0 213 0 538 186 122 224 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 0 0 554 0 213 0 538 186 122 224 0
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 AdjLanes: 1.00 1.00 1.00 0.85 1.00 0.97 0.97 0.95 1.00 1.00
 Lanes: 0.00 0.00 1.00 0.00 1.00 0.00 0.74 0.26 1.00 1.00 0.00
 Final Sat.: 0 0 1809 0 1615 0 1363 470 1805 1900 0
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.31 0.00 0.13 0.00 0.39 0.39 0.07 0.12 0.00
 Crit Moves: *****
 Green/Cycle: 0.00 0.00 0.35 0.00 0.35 0.00 0.45 0.45 0.09 0.54 0.00
 Volume/Cap: 0.00 0.00 0.00 0.88 0.00 0.38 0.00 0.88 0.88 0.77 0.22 0.00
 Delay/Veh: 0.0 0.0 0.0 37.5 0.0 19.9 0.0 30.4 30.4 56.6 9.8 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 0.0 0.0 37.5 0.0 19.9 0.0 30.4 30.4 56.6 9.8 0.0
 HCM2kAVG: 0 0 0 17 0 4 0 20 5 3 0

EXISTING CONDITIONS
BLA 2000 VOLUMES
AM PEAK HOUR

EXISTING CONDITIONS
BLA 2000 VOLUMES
AM PEAK HOUR

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
Intersection #2 Hwy 1 NB Ramps/Del Monte Blvd
Average Delay (sec/veh): 3.7 Worst Case Level of Service: B [11.6]

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
Intersection #1 Hwy 1 SB Ramps/Del Monte Blvd
Average Delay (sec/veh): 9.5 Worst Case Level of Service: A [10.0]

Street Name: Hwy 1 NB Ramps Del Monte Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 1 0 0 1 0 0 0 0 0 0 0 0 1 0 0 0

Street Name: Hwy 1 SB Ramps Del Monte Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 0 0 0 0 1 0 0 0 0 0 0 0 1 0 0 0

Volume Module:
Base Vol: 5 0 22 15 0 0 0 139 1 64 8 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 5 0 22 15 0 0 0 139 1 64 8 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 5 0 22 15 0 0 0 139 1 64 8 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81
PHF Volume: 6 0 27 19 0 0 0 172 1 79 10 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol: 6 0 27 19 0 0 0 172 1 79 10 0
Critical Gap Module:
Critical Gap: 6.2 7.1 6.2 7.1 6.2 7.1 6.2 7.1 6.2 7.1 6.2 7.1
FollowUpTim: 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5

Volume Module:
Base Vol: 0 0 139 0 11 0 1 1 7 5 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 139 0 11 0 1 1 7 5 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 139 0 11 0 1 1 7 5 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57
PHF Volume: 0 0 244 0 19 0 2 2 12 9 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Final Vol: 0 0 244 0 19 0 2 2 12 9 0
Critical Gap Module:
Critical Gap: 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4
FollowUpTim: 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5

Capacity Module:
Conflict Vol: 340 340 172 354 340 172 340 340 172 340 340 172
Potential Cap.: 618 877 877 605 877 877 618 877 877 618 877 877
Move Cap.: 590 877 877 560 877 877 590 877 877 590 877 877
Volume/Cap: 0.01 0.03 0.03 0.03 0.03 0.03 0.01 0.03 0.03 0.01 0.03 0.03

Capacity Module:
Conflict Vol: 36 982 1079 976 36 982 1079 976 36 982 1079 976
Potential Cap.: 36 982 1079 976 36 982 1079 976 36 982 1079 976
Move Cap.: 36 982 1079 976 36 982 1079 976 36 982 1079 976
Volume/Cap: 0.25 0.02 0.02 0.02 0.25 0.02 0.02 0.02 0.25 0.02 0.02 0.02

EXISTING CONDITIONS
BLA 2000 VOLUMES
AM PEAK HOUR

EXISTING CONDITIONS
BLA 2000 VOLUMES
AM PEAK HOUR

Level of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #4 Hwy 1 NB Ramps/Reservation Rd

 Average Delay (sec/veh): 3.0 Worst Case Level of Service: C [15.9]

 Street Name: Hwy 1 NB Ramps Reservation Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Uncontrolled Uncontrolled Uncontrolled
 Rights: Include Include Include Include Include
 Lanes: 0 0 1 0 0 0 0 0 0 0 0 1 0 1 0 0 0 0 1 0 1
 Volume Module:
 Base Vol: 55 0 124 0 0 0 39 334 0 0 260 256
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 55 0 124 0 0 0 39 334 0 0 260 256
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 55 0 124 0 0 0 39 334 0 0 260 256
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 58 0 131 0 0 0 41 352 0 0 274 269
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Final Vol: 58 0 131 0 0 0 41 352 0 0 274 269
 Critical Gap Module:
 Critical Gp: 6.4 xxxxx 6.2 xxxxxx xxxxx xxxxxx 4.1 xxxxx xxxxxx xxxxxx xxxxxx
 FollowUpTim: 3.5 xxxxx 3.3 xxxxxx xxxxx xxxxxx 2.2 xxxxx xxxxxx xxxxxx xxxxxx
 Capacity Module:
 Conflict Vol: 842 xxxxx 352 xxxxx xxxxx xxxxxx 543 xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Potent Cap.: 337 xxxxx 697 xxxxx xxxxx xxxxxx 1036 xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Move Cap.: 327 xxxxx 697 xxxxx xxxxx xxxxxx 1036 xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Volume/Cap: 0.18 xxxxx 0.19 xxxxx xxxxx xxxxxx 0.04 xxxxx xxxxx xxxxx xxxxx xxxxxx
 Level of Service Module:
 Queue: xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx 0.1 xxxxx xxxxxx xxxxxx xxxxxx
 Stopped Del: xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx 8.6 xxxxx xxxxxx xxxxxx xxxxxx
 LOS by Move: * * * * * A * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx 517 xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxxx
 SharedQueue: xxxxx 1.7 xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxxx
 Shrd StpDel: xxxxxx 15.9 xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxxx
 Shared LOS: * * * * * C * * * * *
 ApproachDel: 15.9 xxxxxxx xxxxxxx xxxxxxx
 ApproachLOS: C

Level of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #3 Hwy 1 SB Ramps/Reservation Rd

 Average Delay (sec/veh): 22.6 Worst Case Level of Service: E [47.3]

 Street Name: Hwy 1 SB Ramps Reservation Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Uncontrolled Uncontrolled Uncontrolled
 Rights: Include Include Include Include Include
 Lanes: 0 0 0 0 0 1 0 0 1 0 0 0 0 1 0 1 0 1 0 0
 Volume Module:
 Base Vol: 0 0 295 0 46 0 78 55 215 100 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 295 0 46 0 78 55 215 100 0
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 295 0 46 0 78 55 215 100 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
 PHF Volume: 0 0 317 0 49 0 84 59 231 108 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Final Vol: 0 0 317 0 49 0 84 59 231 108 0
 Critical Gap Module:
 Critical Gp: xxxxxx xxxxx xxxxxx 6.4 xxxxx 6.2 xxxxxx xxxxx xxxxxx 4.1 xxxxx xxxxxx
 FollowUpTim: xxxxxx xxxxx xxxxxx 3.5 xxxxx 3.3 xxxxxx xxxxx xxxxxx 2.2 xxxxx xxxxxx
 Capacity Module:
 Conflict Vol: xxxxx xxxxx xxxxxx 683 xxxxx 108 xxxxx xxxxx xxxxxx 143 xxxxx xxxxxx
 Potent Cap.: xxxxx xxxxx xxxxxx 418 xxxxx 952 xxxxx xxxxx xxxxxx 1452 xxxxx xxxxxx
 Move Cap.: xxxxx xxxxx xxxxxx 367 xxxxx 952 xxxxx xxxxx xxxxxx 1452 xxxxx xxxxxx
 Volume/Cap: xxxxx xxxxx xxxxx 0.86 xxxxx 0.05 xxxxx xxxxx xxxxxx 0.16 xxxxx xxxxx
 Level of Service Module:
 Queue: xxxxx xxxxx xxxxxx 8.2 xxxxx xxxxxx xxxxxx xxxxxx 0.6 xxxxx xxxxxx
 Stopped Del: xxxxx xxxxx xxxxxx 53.3 xxxxx xxxxxx xxxxxx xxxxxx 7.9 xxxxx xxxxxx
 LOS by Move: * * * * * F * * * * * A * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx 952 xxxxx xxxxx xxxxxx xxxxx xxxxx
 SharedQueue: xxxxx xxxxx xxxxxx xxxxx xxxxx 0.2 xxxxx xxxxx xxxxxx xxxxx xxxxx
 Shrd StpDel: xxxxx xxxxx xxxxxx xxxxx xxxxx 9.0 xxxxx xxxxx xxxxxx xxxxx xxxxx
 Shared LOS: * * * * * A * * * * *
 ApproachDel: xxxxxxx 47.3 xxxxxxx xxxxxxx
 ApproachLOS: E

EXISTING CONDITIONS
BLA 2000 VOLUMES
AM PEAK HOUR

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Hwy 1 SB Ramps/Imjin Pkwy

Average Delay (sec/veh): OVERTFLOW Worst Case Level of Service: F[xxxxx]

Street Name: Hwy 1 SB Ramps Imjin Pkwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Rights: Include Include Include Include

Lanes: 0 0 0 0 1 1 0 0 0 0 0 0 1 0 0 0

Volume Module:
Base Vol: 0 0 0 183 0 0 0 0 0 0 0 0 1175 0 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 0 0 183 0 0 0 0 0 0 0 0 1175 0 0

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 0 183 0 0 0 0 0 0 0 0 1175 0 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88

PHF Volume: 0 0 0 208 0 0 0 0 0 0 0 0 1335 0 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Final Vol: 0 0 0 208 0 0 0 0 0 0 0 0 1335 0 0

Critical Gap Module:
Critical Gp:xxxx xxx 6.4 xxx xxxxxx xxxxxx xxxxxx 4.1 xxxxxx xxxxxx

FollowUpTim:xxxx xxx 3.5 xxx xxxxxx xxxxxx xxxxxx 2.2 xxxxxx xxxxxx

Capacity Module:
Conflict Vol: xxxx xxxx xxxxxx 2670 xxxx xxxxxx xxxxxx xxxxxx 0 xxxx xxxxxx

Potent Cap.: xxxx xxxx xxxxxx 25 xxxx xxxxxx xxxxxx xxxxxx 900 xxxx xxxxxx

Move Cap.: xxxx xxxx xxxxxx 0 xxxx xxxxxx xxxxxx xxxxxx 900 xxxx xxxxxx

Volume/Cap: xxxx xxxx xxxxxx xxxxxx xxxxxx xxxxxx 1.48 xxxxxx xxxxxx

Level of Service Module:
Queue: xxxxx xxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 62.4 xxxxx xxxxxx

Stopped Del:xxxx xxx 238.3 xxxxx xxxxxx xxxxxx xxxxxx 238.3 xxxxx xxxxxx

LOS by Move: * * * * * * * * * * * * * * * * F * * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx xxxx xxxxxx 0 xxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Shared Queue:xxxx xxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Shrd StpDel:xxxxx xxx xx xxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Shared LOS: * * * * * * * * * * * * * * * * * * *

ApproachDel: xxxxxxx xxxxxxx xxxxxxx xxxxxxx xxxxxxx xxxxxxx

ApproachLOS: * * * * * F * * * * *

EXISTING CONDITIONS
BLA 2000 VOLUMES
AM PEAK HOUR

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #6 Hwy 1 NB Ramps/Imjin Pkwy

Average Delay (sec/veh): 0.0 Worst Case Level of Service: A [9.0]

Street Name: Hwy 1 NB Ramps Imjin Pkwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Rights: Ignore Include Include Include

Lanes: 1 0 0 0 1 0 0 0 0 0 1 1 0 0 0 0 1 0 1

Volume Module:
Base Vol: 0 0 381 0 0 0 0 0 183 0 0 1175 129

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 0 381 0 0 0 0 0 183 0 0 1175 129

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 0 381 0 0 0 0 0 183 0 0 1175 129

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.91 0.91 0.00 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91

PHF Volume: 0 0 0 0 0 0 0 0 0 0 201 0 0 1291 142

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Final Vol: 0 0 0 0 0 0 0 0 0 0 201 0 0 1291 142

Critical Gap Module:
Critical Gp:xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

FollowUpTim:xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Capacity Module:
Conflict Vol: xxxx xxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Potent Cap.: xxxx xxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Move Cap.: xxxx xxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Volume/Cap: xxxx xxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Level of Service Module:
Queue: xxxxx xxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Stopped Del:xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

LOS by Move: * * * * * * * * * * * * * * * * * * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx xxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Shared Queue:xxxx xxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Shrd StpDel:xxxxx xxx xx xxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Shared LOS: * * * * * * * * * * * * * * * * * * *

ApproachDel: xxxxxxx xxxxxxx xxxxxxx xxxxxxx xxxxxxx xxxxxxx

ApproachLOS: * * * * * * * * * * * * * * * * * * *

EXISTING CONDITIONS
BLA 2000 VOLUMES
AM PEAK HOUR

Level of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Hwy 68 WB Ramps/Reservation Rd

Cycle (sec): 45 Critical Vol./Cap. (X): 1.018
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 81.8
Optimal Cycle: 100 Level Of Service: F

Street Name: Hwy 68 WB Ramps Reservation Rd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Protected Protected Protected
Rights: Include Include Include Include Include

Min. Green: 0 0 0 0 10 0 10 0 10 10 7 10 0
Lanes: 0 0 0 0 0 1 0 0 1 0 0 1 0 1 0 0

Volume Module:
Base Vol: 0 0 152 0 275 0 427 392 369 672 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Base: 0 0 152 0 275 0 427 392 369 672 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 152 0 275 0 427 392 369 672 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PCE Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 0 165 0 299 0 464 426 401 730 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 165 0 299 0 464 426 401 730 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Vol.: 0 0 165 0 299 0 464 426 401 730 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

AdjStment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 0.52 0.48 1.00 1.00 0.00

Final Sat.: 0 0 1809 0 1615 0 926 850 1805 1900 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.09 0.00 0.19 0.00 0.50 0.50 0.22 0.38 0.00

Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.22 0.00 0.22 0.00 0.40 0.40 0.18 0.58 0.00

Volume/Cap: 0.00 0.00 0.00 0.41 0.00 0.83 0.00 1.25 1.25 1.25 0.67 0.00
Delay/Veh: 0.0 0.0 0.0 15.7 0.0 31.9 0.0 138 138.3 155.0 8.1 0.0

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 15.7 0.0 31.9 0.0 138 138.3 155.0 8.1 0.0
HCM2kAVG: 0 0 0 3 0 7 0 38 38 20 8

EXISTING CONDITIONS
BLA 2000 VOLUMES
AM PEAK HOUR

Level of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Hwy 68 EB Ramps/Reservation Rd

Cycle (sec): 80 Critical Vol./Cap. (X): 0.920
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 29.8
Optimal Cycle: 101 Level Of Service: C

Street Name: Hwy 68 EB Ramps Reservation Rd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Protected Protected Protected
Rights: Include Include Include Include Include

Min. Green: 10 0 0 10 0 0 0 0 7 10 0 0 10 10
Lanes: 0 1 0 0 1 0 0 0 0 1 0 1 0 0 1 0 1

Volume Module:
Base Vol: 262 0 324 0 0 0 150 430 0 0 779 386
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Base: 262 0 324 0 0 0 150 430 0 0 779 386
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 262 0 324 0 0 0 150 430 0 0 779 386
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PCE Adj: 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85
PHF Volume: 308 0 381 0 0 0 176 506 0 0 916 454
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 308 0 381 0 0 0 176 506 0 0 916 454
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Vol.: 308 0 381 0 0 0 176 506 0 0 916 454

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

AdjStment: 0.95 1.00 0.85 1.00 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.85
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00

Final Sat.: 1809 0 1615 0 0 0 1805 1900 0 0 1900 1615

Capacity Analysis Module:
Vol/Sat: 0.17 0.00 0.24 0.00 0.00 0.00 0.10 0.27 0.00 0.00 0.48 0.28

Crit Moves: ****
Green/Cycle: 0.26 0.00 0.26 0.00 0.00 0.00 0.11 0.63 0.00 0.00 0.52 0.52

Volume/Cap: 0.66 0.00 0.92 0.00 0.00 0.00 0.92 0.42 0.00 0.00 0.92 0.54
Delay/Veh: 30.3 0.0 54.4 0.0 0.0 0.0 78.2 7.7 0.0 0.0 30.7 13.3

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 30.3 0.0 54.4 0.0 0.0 0.0 78.2 7.7 0.0 0.0 30.7 13.3
HCM2kAVG: 8 0 13 0 0 0 8 6 0 0 26 8

EXISTING CONDITIONS
BLA 2000 TRAFFIC VOLUMES
PM PEAK HOUR

Level of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Hwy 1 SB Ramps/Del Monte Blvd
Average Delay (sec/veh): 7.3 Worst Case Level of Service: A [9.0]
Street Name: Hwy 1 SB Ramps Del Monte Blvd
Approach: North Bound East Bound West Bound

Table with columns for Lane (L, T, R), Stop Sign, Uncontrolled, Include, and Volume Module.

Volume Module statistics including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol.

Critical Gap Module and Capacity Module statistics including Critical Gap, FollowUpTim, and Capacity Module metrics.

Level of Service Module statistics including Queue, Stopped Del, LOS by Move, Movement, Shared Cap, Shared Queue, Shared StpDel, Shared LOS, ApproachDel, and ApproachLOS.

EXISTING CONDITIONS
BLA 2000 TRAFFIC VOLUMES
PM PEAK HOUR

Level of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Hwy 1 NB Ramps/Del Monte Blvd
Average Delay (sec/veh): 3.8 Worst Case Level of Service: A [8.8]
Street Name: Hwy 1 NB Ramps Del Monte Blvd
Approach: North Bound East Bound West Bound

Table with columns for Lane (L, T, R), Stop Sign, Uncontrolled, Include, and Volume Module.

Volume Module statistics including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol.

Critical Gap Module and Capacity Module statistics including Critical Gap, FollowUpTim, and Capacity Module metrics.

Level of Service Module statistics including Queue, Stopped Del, LOS by Move, Movement, Shared Cap, Shared Queue, Shared StpDel, Shared LOS, ApproachDel, and ApproachLOS.

EXISTING CONDITIONS
BLA 2000 TRAFFIC VOLUMES
PM PEAK HOUR

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Hwy 1 SB Ramps/Reservation Rd

Average Delay (sec/veh): 9.3 Worst Case Level of Service: C [19.8]

Street Name: Hwy 1 SB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 0 0 1 0 0 1 0 0 0 1 0 1 0 0

Volume Module:
Base Vol: 0 0 228 0 51 0 109 65 152 115 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 228 0 51 0 109 65 152 115 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 228 0 51 0 109 65 152 115 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
PHF Volume: 0 0 235 0 53 0 112 67 157 119 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Final Vol: 0 0 235 0 53 0 112 67 157 119 0

Critical Gap Module:
Critical Gp: 6.4 xxxxx 6.2 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx
FollowUpTim: 3.5 xxxxx 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx
Capacity Module:
Conflict Vol: 578 xxxxx 119 xxxxx xxxxx xxxxx 179 xxxxx xxxxx
Potential Cap.: 481 xxxxx 939 xxxxx xxxxx xxxxx 1408 xxxxx xxxxx
Move Cap.: 440 xxxxx 939 xxxxx xxxxx xxxxx 1408 xxxxx xxxxx
Volume/Cap: 0.53 xxxxx 0.06 xxxxx xxxxx xxxxx 0.11 xxxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.4 xxxxx xxxxx
Stopped Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 7.9 xxxxx xxxxx
LOS by Move: C * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * * * A * * * * *
ApproachDel: xxxxxx 19.8 C xxxxxxx xxxxxxx
ApproachLOS: * * * * * * * * * * *

EXISTING CONDITIONS
BLA 2000 TRAFFIC VOLUMES
PM PEAK HOUR

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Hwy 1 NB Ramps/Reservation Rd

Average Delay (sec/veh): 5.8 Worst Case Level of Service: C [18.5]

Street Name: Hwy 1 NB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 1 1 0 0 0 0 0 0 1 0 1 0 0 0 1 0 1 0 1

Volume Module:
Base Vol: 65 0 295 0 0 0 55 283 0 0 201 318
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 65 0 295 0 0 0 55 283 0 0 201 318
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 65 0 295 0 0 0 55 283 0 0 201 318
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 66 0 301 0 0 0 56 289 0 0 205 324
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol: 66 0 301 0 0 0 56 289 0 0 205 324

Critical Gap Module:
Critical Gp: 6.4 xxxxx 6.2 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx
FollowUpTim: 3.5 xxxxx 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx
Capacity Module:
Conflict Vol: 768 xxxxx 289 xxxxx xxxxx xxxxx 530 xxxxx xxxxx
Potential Cap.: 373 xxxxx 755 xxxxx xxxxx xxxxx 1048 xxxxx xxxxx
Move Cap.: 357 xxxxx 755 xxxxx xxxxx xxxxx 1048 xxxxx xxxxx
Volume/Cap: 0.19 xxxxx 0.40 xxxxx xxxxx xxxxx 0.05 xxxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.2 xxxxx xxxxx
Stopped Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 8.6 xxxxx xxxxx
LOS by Move: * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx 629 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared Queue: xxxxx 3.8 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel: xxxxx 18.5 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * * * C * * * * *
ApproachDel: xxxxxx 18.5 C xxxxxxx xxxxxxx
ApproachLOS: * * * * * * * * * * *

EXISTING CONDITIONS
BLA 2000 TRAFFIC VOLUMES
PM PEAK HOUR

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Hwy 1 SB Ramps/Imjin Pkwy

Average Delay (sec/veh): 52.5 Worst Case Level of Service: F[203.9]

Street Name: Hwy 1 SB Ramps Imjin Pkwy
Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 1 1 0 0 0 0 0 0 1 0 0 0

Volume Module:
Base Vol: 0 0 128 0 0 0 0 0 0 575 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 0 0 0 0 0 0 0 0 575 0 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 128 0 0 0 0 0 0 575 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88
PHF Volume: 0 0 145 0 0 0 0 0 0 653 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol: 0 0 145 0 0 0 0 0 0 653 0 0

Critical Gap Module:
Critical Gp:xxxxx xxxxx 6.4 xxxxx xxxxxx xxxxxx xxxxxx 4.1 xxxxx xxxxxx
FollowUpTim:xxxxx xxxxx 3.5 xxxxx xxxxxx xxxxxx xxxxxx 2.2 xxxxx xxxxxx

Capacity Module:
Conflict Vol: xxxxx xxxxx xxxxxx 1307 xxxxx xxxxxx xxxxxx xxxxxx 0 xxxxx xxxxxx
Potent Cap.: xxxxx xxxxx xxxxxx 178 xxxxx xxxxxx xxxxxx xxxxxx 900 xxxxx xxxxxx
Move Cap.: xxxxx xxxxx xxxxxx 73 xxxxx xxxxxx xxxxxx xxxxxx 900 xxxxx xxxxxx
Volume/Cap: xxxxx xxxxx xxxxxx 2.00 xxxxx xxxxxx xxxxxx xxxxxx 0.73 xxxxx xxxxxx

Level of Service Module:
Queue: xxxxx xxxxx xxxxxx 5.2 xxxxx xxxxxx xxxxxx xxxxxx 6.6 xxxxx xxxxxx
Stopped Del:xxxxx xxxxx xxxxxx 203.9 xxxxx xxxxxx xxxxxx xxxxxx 18.8 xxxxx xxxxxx

LOS by Move: * * * * * F * * * * * C * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxxx xxxxx xxxxxx 73 xxxxx xxxxxx xxxxxx xxxxxx xxxxx xxxxx xxxxxx
SharedQueue:xxxxx xxxxx xxxxxx 5.2 xxxxx xxxxxx xxxxxx xxxxxx xxxxx xxxxx xxxxxx
Shrd StpDel:xxxxx xxxxx xxxxxx 203.9 xxxxx xxxxxx xxxxxx xxxxxx xxxxx xxxxx xxxxxx

Shared LOS: * * * * * F * * * * * * * * * *
ApproachDel: xxxxxxx 203.9 xxxxxxx xxxxxxx
ApproachLOS: * * * * * F * * * * *

EXISTING CONDITIONS
BLA 2000 TRAFFIC VOLUMES
PM PEAK HOUR

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #6 Hwy 1 NB Ramps/Imjin Pkwy

Average Delay (sec/veh): 0.0 Worst Case Level of Service: A[9.0]

Street Name: Hwy 1 NB Ramps Imjin Pkwy
Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Ignore Include Include Include
Lanes: 1 0 0 0 1 0 0 0 0 0 1 1 0 0 0 0 1 0 1 0 1

Volume Module:
Base Vol: 0 0 926 0 0 0 0 0 0 128 0 0 575 140
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 0 926 0 0 0 0 0 0 128 0 0 575 140
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 926 0 0 0 0 0 0 128 0 0 575 140
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.74 0.74 0.00 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.74
PHF Volume: 0 0 0 0 0 0 0 0 0 173 0 0 777 189
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol: 0 0 0 0 0 0 0 0 0 173 0 0 777 189

Critical Gap Module:
Critical Gp:xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
FollowUpTim:xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Capacity Module:
Conflict Vol: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Potent Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Move Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Volume/Cap: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Level of Service Module:
Queue: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Stopped Del:xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

LOS by Move: * * * * * * * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
SharedQueue:xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Shrd StpDel:xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Shared LOS: * * * * * * * * * * * * * * * *
ApproachDel: xxxxxxx xxxxxxx xxxxxxx xxxxxxx xxxxxxx
ApproachLOS: * * * * * * * * * * * * * * * *

EXISTING CONDITIONS
BLA 2000 TRAFFIC VOLUMES
PM PEAK HOUR

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Hwy 68 WB Ramps/Reservation Rd

Cycle (sec): 80
Loss Time (sec): 9 (Y+R = 4 sec) Critical Vol./Cap. (X): 1.038
Optimal Cycle: 180 Average Delay (sec/veh): 53.1
Level Of Service: D

Street Name: Hwy 68 WB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 10 0 10 0 10 10 7 10 0
Lanes: 0 0 0 0 0 1 0 0 1 0 0 1 0 1 0 0

Volume Module:
Base Vol: 0 0 291 0 146 0 619 209 392 590 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 0 0 291 0 146 0 619 209 392 590 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 291 0 146 0 619 209 392 590 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 0 323 0 162 0 688 232 436 656 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 323 0 162 0 688 232 436 656 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 323 0 162 0 688 232 436 656 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adj/Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 1.00 0.97 0.97 0.95 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 0.75 0.25 1.00 1.00 0.00 0.00
Final Sat.: 0 0 1809 0 1615 0 1372 463 1805 1900 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.18 0.00 0.10 0.00 0.50 0.50 0.24 0.35 0.00 0.00
Vol/Sat: 0.20 0.00 0.28 0.00 0.00 0.00 0.16 0.40 0.00 0.00 0.40 0.11 0.11
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.17 0.00 0.17 0.00 0.48 0.48 0.23 0.72 0.00 0.00
Volume/Cap: 0.00 0.00 0.00 1.04 0.00 0.58 0.00 1.04 1.04 1.04 0.48 0.00 0.00
Delay/Veh: 0.0 0.0 0.0 94.3 0.0 33.6 0.0 61.2 61.2 84.9 5.2 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 94.3 0.0 33.6 0.0 61.2 61.2 84.9 5.2 0.0 0.0
HCM2kAVG: 0 0 15 0 5 0 33 19 7 0

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)
Intersection #8 Hwy 68 EB Ramps/Reservation Rd
Cycle (sec): 55
Loss Time (sec): 9 (Y+R = 4 sec) Critical Vol./Cap. (X): 1.003
Optimal Cycle: 116
Average Delay (sec/veh): 38.4
Level Of Service: D

Street Name: Hwy 68 EB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 10 0 0 10 0 0 0 0 7 10 0 0 10 10
Lanes: 0 1 0 0 1 0 0 0 0 1 0 1 0 0 0 1 0 1

Volume Module:
Base Vol: 321 0 395 0 0 0 249 660 0 0 660 156
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 321 0 395 0 0 0 249 660 0 0 660 156
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 321 0 395 0 0 0 249 660 0 0 660 156
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87
PHF Volume: 369 0 454 0 0 0 286 759 0 0 759 179
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 369 0 454 0 0 0 286 759 0 0 759 179
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 369 0 454 0 0 0 286 759 0 0 759 179

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adj/Adjustment: 0.95 1.00 0.85 1.00 1.00 1.00 0.95 1.00 1.00 0.95 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 1.00 0.00 0.00 1.00
Final Sat.: 1809 0 1615 0 0 0 1805 1900 0 0 1900 1615

Capacity Analysis Module:
Vol/Sat: 0.20 0.00 0.28 0.00 0.00 0.00 0.16 0.40 0.00 0.00 0.40 0.11 0.11
Vol/Sat: 0.20 0.00 0.28 0.00 0.00 0.00 0.16 0.40 0.00 0.00 0.40 0.11 0.11
Crit Moves: ****
Green/Cycle: 0.28 0.00 0.28 0.00 0.00 0.00 0.16 0.56 0.00 0.00 0.40 0.40 0.40
Volume/Cap: 0.73 0.00 1.00 0.00 0.00 0.00 1.00 0.72 0.00 0.00 1.00 0.00 0.28
Delay/Veh: 23.2 0.0 62.9 0.0 0.0 0.0 77.2 11.4 0.0 0.0 50.0 11.4 11.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 23.2 0.0 62.9 0.0 0.0 0.0 77.2 11.4 0.0 0.0 50.0 11.4 11.4
HCM2kAVG: 8 0 15 0 0 0 11 11 0 0 21 0 2

Level of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #1 Hwy 1 SB Ramps/Del Monte Blvd

 Average Delay (sec/veh): 9.5 Worst Case Level of Service: A [10.0]

 Street Name: Hwy 1 SB Ramps Del Monte Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Uncontrolled Uncontrolled
 Rights: Include Include Include
 Lanes: 0 0 0 0 0 0 1 1 0 0 0 0 0 1 0 0 0

Volume Module:
 Base Vol: 0 0 0 139 0 11 0 1 1 7 5 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 0 139 0 11 0 1 1 7 5 0
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 0 139 0 11 0 1 1 7 5 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57
 PHF Volume: 0 0 0 244 0 19 0 2 2 12 9 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Final Vol: 0 0 0 244 0 19 0 2 2 12 9 0
 Critical Gap Module:
 Critical Gap: 6.4 xxxxx 6.2 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx
 FollowUpTim: 3.5 xxxxx 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx

Capacity Module:
 Conflict Vol: 36 xxxxx 9 xxxxx xxxxx xxxxx 4 xxxxx xxxxx
 Potent Cap.: 982 xxxxx 1079 xxxxx xxxxx xxxxx 1632 xxxxx xxxxx
 Move Cap.: 976 xxxxx 1079 xxxxx xxxxx xxxxx 1632 xxxxx xxxxx
 Volume/Cap: 0.25 xxxxx 0.02 xxxxx xxxxx xxxxx 0.01 xxxxx xxxxx
 Level of Service Module:
 Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx
 Stopped Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 7.2 xxxxx xxxxx
 LOS by Move: * * * * * * * * * * * * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx xxxxx xxxxx 983 xxxxx xxxxx xxxxx xxxxx xxxxx
 SharedQueue: xxxxx xxxxx xxxxx 1.1 xxxxx xxxxx xxxxx xxxxx xxxxx
 Shrd StpDel: xxxxx xxxxx xxxxx 10.0 xxxxx xxxxx xxxxx xxxxx xxxxx
 Shared LOS: * * * * * * * * * * * * * * * *
 ApproachDel: xxxxxx 10.0 xxxxxx xxxxxx
 ApproachLOS: A A xxxxxx

Level of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #2 Hwy 1 NB Ramps/Del Monte Blvd

 Average Delay (sec/veh): 3.7 Worst Case Level of Service: B [11.6]

 Street Name: Hwy 1 NB Ramps Del Monte Blvd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Uncontrolled Uncontrolled
 Rights: Include Include Include
 Lanes: 0 0 1 1 0 0 1 0 0 0 0 0 0 1 0 0 0

Volume Module:
 Base Vol: 5 0 22 15 0 0 0 139 1 64 8 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 5 0 22 15 0 0 0 139 1 64 8 0
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 5 0 22 15 0 0 0 139 1 64 8 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81
 PHF Volume: 6 0 27 19 0 0 0 172 1 79 10 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Final Vol: 6 0 27 19 0 0 0 172 1 79 10 0
 Critical Gap Module:
 Critical Gap: 7.1 xxxxx 6.2 7.1 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx
 FollowUpTim: 3.5 xxxxx 3.3 3.5 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx

Capacity Module:
 Conflict Vol: 340 xxxxx 172 354 xxxxx xxxxx xxxxx 173 xxxxx xxxxx
 Potent Cap.: 618 xxxxx 877 605 xxxxx xxxxx xxxxx 1416 xxxxx xxxxx
 Move Cap.: 590 xxxxx 877 560 xxxxx xxxxx xxxxx 1416 xxxxx xxxxx
 Volume/Cap: 0.01 xxxxx 0.03 xxxxx xxxxx xxxxx 0.06 xxxxx xxxxx
 Level of Service Module:
 Queue: xxxxx xxxxx xxxxx 0.1 xxxxx xxxxx xxxxx xxxxx 0.2 xxxxx xxxxx
 Stopped Del: xxxxx xxxxx xxxxx 11.6 xxxxx xxxxx xxxxx xxxxx 7.7 xxxxx xxxxx
 LOS by Move: * * * * * * * * * * * * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx 804 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 SharedQueue: xxxxx 0.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shrd StpDel: xxxxx 9.7 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shared LOS: * A * * * * * * * * * * * * * * * *
 ApproachDel: 9.7 A 11.6 B xxxxxx
 ApproachLOS: A A xxxxxx

IMPROVED EXISTING CONDITIONS
 BLA 2000 VOLUMES
 AM PEAK HOUR

Level of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)
 Intersection #3 Hwy 1 SB Ramps/Reservation Rd

Cycle (sec): 100
 Loss Time (sec): 0 (Y+R = 4 sec)
 Optimal Cycle: 37
 Level of Service: C
 Street Name: Hwy 1 SB Ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Lanes: 0 0 0 0 1 0 0 1 0 0 0 1 0 0 1 0 0 0

Volume Module:
 Base Vol: 0 0 0 0 295 0 46 0 78 55 215 100 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 0 0 295 0 46 0 78 55 215 100 0
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 0 0 295 0 46 0 78 55 215 100 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
 PHF Volume: 0 0 0 0 317 0 49 0 84 59 231 108 0
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 0 0 0 0 317 0 49 0 84 59 231 108 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 0.59 0.41 1.00 1.00 0.00
 Final Sat.: 0 0 0 1805 0 1615 0 1052 742 1805 1900 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.18 0.00 0.03 0.00 0.08 0.08 0.13 0.06 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.00 0.00 0.46 0.00 0.46 0.00 0.21 0.21 0.33 0.54 0.00
 Volume/Cap: 0.00 0.00 0.00 0.38 0.00 0.07 0.00 0.38 0.38 0.38 0.10 0.00
 Delay/Veh: 0.0 0.0 0.0 18.1 0.0 15.2 0.0 34.7 34.7 25.8 11.2 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 0.0 0.0 18.1 0.0 15.2 0.0 34.7 34.7 25.8 11.2 0.0
 HCM2kAVG: 0 0 0 7 0 1 0 4 4 6 2 0

Level of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)
 Intersection #4 Hwy 1 NB Ramps/Reservation Rd

Average Delay (sec/veh): 3.0
 Worst Case Level of Service: C [15.9]
 Street Name: Hwy 1 NB Ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign stop Sign Uncontrolled Uncontrolled
 Rights: Include Include Include Include
 Lanes: 0 0 1 0 0 0 0 0 0 0 1 0 0 0 0 0 1 0 1

Volume Module:
 Base Vol: 55 0 124 0 0 0 39 334 0 0 260 256
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 55 0 124 0 0 0 39 334 0 0 260 256
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 55 0 124 0 0 0 39 334 0 0 260 256
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 58 0 131 0 0 0 41 352 0 0 274 269
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Final Vol.: 58 0 131 0 0 0 41 352 0 0 274 269

Critical Gap Module:
 Critical Gap: 6.2 6.4 6.4 6.2 6.4 6.4 6.2 6.4 6.4 6.2 6.4 6.4
 FollowUpTim: 3.5 3.3 3.3 3.3 3.3 3.3 3.5 3.3 3.3 3.3 3.3 3.3

Capacity Module:
 Conflict Vol: 842 352 352 352 352 352 352 352 352 352 352 352
 Potent Cap.: 337 337 337 337 337 337 337 337 337 337 337 337
 Move Cap.: 327 327 327 327 327 327 327 327 327 327 327 327
 Volume/Cap: 0.18 0.18 0.18 0.18 0.18 0.18 0.18 0.18 0.18 0.18 0.18 0.18

Level of Service Module:
 Queue: 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1
 Stopped Del: 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.6
 LOS by Move: A A A A A A A A A A A A
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: 517 517 517 517 517 517 517 517 517 517 517 517
 Shared Queue: 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7
 Shrd StpDel: 15.9 15.9 15.9 15.9 15.9 15.9 15.9 15.9 15.9 15.9 15.9 15.9
 Shared LOS: C C C C C C C C C C C C
 ApproachDel: 15.9 15.9 15.9 15.9 15.9 15.9 15.9 15.9 15.9 15.9 15.9 15.9
 ApproachLOS: C C C C C C C C C C C C

 IMPROVED EXISTING CONDITIONS
 BLA 2000 VOLUMES
 AM PEAK HOUR

Level of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #5 Hwy 1 SB Ramps/Imjin Pkwy

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.797
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 11.5
 Optimal Cycle: 112 Level Of Service: B

Street Name: Hwy 1 SB Ramps Imjin Pkwy
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Split Phase Split Phase Split Phase Split Phase
 Rights: Include Include Include Include
 Lanes: 0 0 0 0 1 1 0 0 0 0 0 0 1 0 0 0
 Volume Module:-----

Base Vol:	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Vol:	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol:	0	0	0	0	0	0	0	0	0	0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 0.00 2.00 0.00 0.00 0.00 0.00 0.00
 Final Sat: 0 0 3618 0 0 0 1805 0
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.06 0.00 0.00 0.00 0.00 0.00 0.74 0.00
 Crit Moves: *****
 Green/Cycle: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 Volume/Cap: 0.00 0.00 0.80 0.00 0.00 0.00 0.00 0.00
 Delay/Veh: 0.0 0.0 0.0 61.3 0.0 0.0 0.0 3.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 0.0 0.0 61.3 0.0 0.0 0.0 3.8
 HCM2kAVG: 0 0 5 0 0 0 14 0

 IMPROVED EXISTING CONDITIONS
 BLA 2000 VOLUMES
 AM PEAK HOUR

Level of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #6 Hwy 1 NB Ramps/Imjin Pkwy

 Average Delay (sec/veh): 0.0 Worst Case Level of Service: A [9.0]

Street Name: Hwy 1 NB Ramps Imjin Pkwy
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
 Rights: Ignore Include Include Include
 Lanes: 1 0 0 0 1 0 0 0 0 1 1 0 0 0 1 0
 Volume Module:-----

Base Vol:	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Vol:	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	0	0	0
Final Vol:	0	0	0	0	0	0	0	0	0	0

Critical Gap Module:
 Critical Gap:xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 FollowUpTim:xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Capacity Module:
 Chflct Vol: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Potent Cap: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Move Cap: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Volume/Cap: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Level of Service Module:
 Queue: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Stopped Del:xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 LOS by Move: * * * * * * * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shared Queue:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shrd StpDel:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shared LOS: * * * * * * * * * *
 ApproachDel: xxxxxxx xxxxxxx xxxxxxx xxxxxxx
 ApproachLOS: xxxxxxx xxxxxxx xxxxxxx xxxxxxx

Level of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #7 Hwy 68 WB Ramps/Reservation Rd

 Cycle (sec): 45 Critical Vol./Cap. (X): 0.722
 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 20.2
 Optimal Cycle: 44 Level Of Service: C

Street Name: Hwy 68 WB Ramps Reservation Rd

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Split Phase	Split Phase	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	10 0 10	0 10 10	7 10 0
Lanes:	0 0 0 0	0 1 0 0	0 0 1 0	1 0 1 0

Volume Module:

Base Vol:	0	0	152	0	275	0	427	392	369	672	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	152	0	275	0	427	392	369	672	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	152	0	275	0	427	392	369	672	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	165	0	299	0	464	426	401	730	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	165	0	299	0	464	426	401	730	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	165	0	299	0	464	426	401	730	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Sat.:	0	0	1809	0	1615	0	1900	1615	1805	1900	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.09	0.00	0.19	0.00	0.24	0.26	0.22	0.38
Crit Moves:	0	0	0	0	0	0	0	0	0	0	0
Green/Cycle:	0.00	0.00	0.00	0.22	0.00	0.22	0.00	0.31	0.31	0.26	0.58
Volume/Cap:	0.00	0.00	0.00	0.41	0.00	0.83	0.00	0.78	0.84	0.84	0.67
Delay/Veh:	0.0	0.0	0.0	15.7	0.0	31.9	0.0	20.5	26.4	28.3	8.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	15.7	0.0	31.9	0.0	20.5	26.4	28.3	8.1
HCM2kAVG:	0	0	0	3	0	7	0	8	9	9	8

 HCM2kAVG: 8 0 13 0 0 0 8 6 0 0 26

Level of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #8 Hwy 68 EB Ramps/Reservation Rd

 Cycle (sec): 80 Critical Vol./Cap. (X): 0.920
 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 29.8
 Optimal Cycle: 101 Level Of Service: C

Street Name: Hwy 68 EB Ramps Reservation Rd

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Split Phase	Split Phase	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	10	0	10	0
Lanes:	0 1 0 1	0 0 0 0	0 1 0 0	0 0 1 0

Volume Module:

Base Vol:	262	0	324	0	0	150	430	0	0	779	386
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	262	0	324	0	0	150	430	0	0	779	386
Added Vol:	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	262	0	324	0	0	150	430	0	0	779	386
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	308	0	381	0	0	176	506	0	0	916	454
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	308	0	381	0	0	176	506	0	0	916	454
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	308	0	381	0	0	176	506	0	0	916	454

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.85
Lanes:	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1809	0	1615	0	0	1805	1900	0	1805	1900	1615

Capacity Analysis Module:

Vol/Sat:	0.17	0.00	0.24	0.00	0.00	0.10	0.27	0.00	0.00	0.48	0.28
Crit Moves:	0	0	0	0	0	0	0	0	0	0	0
Green/Cycle:	0.26	0.00	0.26	0.00	0.00	0.11	0.63	0.00	0.00	0.52	0.52
Volume/Cap:	0.66	0.00	0.92	0.00	0.00	0.92	0.42	0.00	0.00	0.92	0.54
Delay/Veh:	30.3	0.0	54.4	0.0	0.0	78.2	7.7	0.0	0.0	30.7	13.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	30.3	0.0	54.4	0.0	0.0	78.2	7.7	0.0	0.0	30.7	13.3
HCM2kAVG:	8	0	13	0	0	8	6	0	0	26	8

 HCM2kAVG: 8 0 13 0 0 0 8 6 0 0 26

IMPROVED EXISTING CONDITIONS
BLA 2000 TRAFFIC VOLUMES
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Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Hwy 1 SB Ramps/Del Monte Blvd

Average Delay (sec/veh): 7.3 Worst Case Level of Service: A [9.0]

Street Name: Hwy 1 SB Ramps Del Monte Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0

Volume Module:
Base Vol: 0 0 0 57 0 2 0 8 4 15 2 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 57 0 2 0 8 4 15 2 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 57 0 2 0 8 4 15 2 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85
PHF Volume: 0 0 0 67 0 2 0 9 5 18 2 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol: 0 0 0 67 0 2 0 9 5 18 2 0

Critical Gap Module:
Critical Gap: 6.4 xxxxx 6.2 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx
FollowUpTim: 3.5 xxxxx 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx

Capacity Module:
Conflict Vol: 49 xxxxx 2 xxxxx xxxxx xxxxx 14 xxxxx xxxxx
Potential Cap.: 965 xxxxx 1088 xxxxx xxxxx xxxxx 1617 xxxxx xxxxx
Move Cap.: 957 xxxxx 1088 xxxxx xxxxx xxxxx 1617 xxxxx xxxxx
Volume/Cap: 0.07 xxxxx 0.00 xxxxx xxxxx xxxxx 0.01 xxxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx
Stopped Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 7.3 xxxxx xxxxx
LOS by Move: * * * * * * * * * * * * * * * A * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx 961 xxxxx xxxxx xxxxx xxxxx xxxxx
Shared Queue: xxxxx xxxxx xxxxx 0.2 xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel: xxxxx xxxxx 9.0 xxxxx xxxxx xxxxx xxxxx 7.3 xxxxx xxxxx
Shared LOS: * * * * * A * * * * * A * * *
ApproachDel: xxxxxx 9.0 xxxxxx xxxxxx
ApproachLOS: * * * * * A

IMPROVED EXISTING CONDITIONS
BLA 2000 TRAFFIC VOLUMES
PM PEAK HOUR

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Hwy 1 NB Ramps/Del Monte Blvd

Average Delay (sec/veh): 3.8 Worst Case Level of Service: A [8.8]

Street Name: Hwy 1 NB Ramps Del Monte Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0

Volume Module:
Base Vol: 1 0 9 0 0 0 0 57 8 67 15 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1 0 9 0 0 0 0 57 8 67 15 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 1 0 9 0 0 0 0 57 8 67 15 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81
PHF Volume: 1 0 11 0 0 0 0 70 10 83 19 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol: 1 0 11 0 0 0 0 70 10 83 19 0

Critical Gap Module:
Critical Gap: 6.2 xxxxx xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx
FollowUpTim: 3.5 xxxxx 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx

Capacity Module:
Conflict Vol: 75 xxxxx xxxxx xxxxx xxxxx 80 xxxxx xxxxx
Potential Cap.: 992 xxxxx xxxxx xxxxx xxxxx 1530 xxxxx xxxxx
Move Cap.: 702 xxxxx 992 xxxxx xxxxx xxxxx 1530 xxxxx xxxxx
Volume/Cap: 0.00 xxxxx 0.01 xxxxx xxxxx xxxxx 0.05 xxxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.2 xxxxx xxxxx
Stopped Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 7.5 xxxxx xxxxx
LOS by Move: * * * * * * * * * * * * * * * A * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx 952 xxxxx xxxxx 0 xxxxx xxxxx xxxxx xxxxx
Shared Queue: xxxxx 0.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel: xxxxx 8.8 xxxxx xxxxx xxxxx xxxxx xxxxx 7.5 xxxxx xxxxx
Shared LOS: * * * * * A * * * * * A * * *
ApproachDel: xxxxxx 8.8 xxxxxx xxxxxx
ApproachLOS: * * * * * A

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #3 Hwy 1 SB Ramps/Reservation Rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.316
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 21.7
 Optimal Cycle: 33 Level Of Service: C

Street Name: Hwy 1 SB Ramps Reservation Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected Protected
 Rights: Include Include Include Include Include
 Lanes: 0 0 0 0 1 0 0 1 0 0 0 1 0 1 0 0 0

Volume Module:
 Base Vol: 0 0 228 0 51 0 109 65 152 115 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 228 0 51 0 109 65 152 115 0
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 0 228 0 51 0 109 65 152 115 0
 PCE Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97

PHF Volume: 0 0 235 0 53 0 112 67 157 119 0
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol: 0 0 235 0 53 0 112 67 157 119 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 1.00 1.00 1.00 0.95 1.00 0.85 1.00 0.95 0.95 0.95 1.00 1.00
 Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 0.63 0.37 1.00 1.00 0.00
 Final Sat: 0 0 1805 0 1615 0 1131 674 1805 1900 0
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.13 0.00 0.03 0.00 0.10 0.10 0.09 0.06 0.00

Cr't Moves: *****
 Green/Cycle: 0.00 0.00 0.00 0.41 0.00 0.31 0.31 0.27 0.59 0.00
 Volume/Cap: 0.00 0.00 0.00 0.32 0.00 0.08 0.00 0.32 0.32 0.11 0.00
 Delay/Veh: 0.0 0.0 0.0 20.2 0.0 17.9 0.0 26.4 26.4 29.2 9.1 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 0.0 0.0 20.2 0.0 17.9 0.0 26.4 26.4 29.2 9.1 0.0
 HCM2kAVG: 0 0 5 0 1 0 4 4 4 2 0

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #4 Hwy 1 NB Ramps/Reservation Rd

Average Delay (sec/veh): 5.8 Worst Case Level Of Service: C [18.5]

 Street Name: Hwy 1 NB Ramps Reservation Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
 Rights: Include Include Include Include
 Lanes: 0 0 1 0 0 0 0 0 0 0 0 1 0 0 0 0 0 1 0 1

Volume Module:
 Base Vol: 65 0 295 0 0 0 55 283 0 0 201 318
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 65 0 295 0 0 0 55 283 0 0 201 318
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
 PCE Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97

PHF Volume: 66 0 301 0 0 0 56 289 0 0 205 324
 Final Vol: 66 0 301 0 0 0 56 289 0 0 205 324
 Critical Gap Module:
 Critical Gap: 6.4 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3
 FollowUpTim: 3.5 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3
 Capacity Module:
 Conflict Vol: 768 301 755 301 755 301 755 301 755 301 755 301
 Potential Cap.: 373 301 357 301 357 301 357 301 357 301 357 301
 Move Cap.: 357 301 357 301 357 301 357 301 357 301 357 301
 Volume/Cap: 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.19

Level Of Service Module:
 Queue: 0.2 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.6
 Stopped Del: 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.6
 LOS by Move: A A A A A A A A A A A A
 Movement: LT-LTR RT-LTR LT-LTR RT-LTR LT-LTR RT-LTR LT-LTR RT
 Shared Cap.: 629 629 629 629 629 629 629 629 629 629 629 629
 Shared Queue: 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8
 Shrd StpDel: 18.5 18.5 18.5 18.5 18.5 18.5 18.5 18.5 18.5 18.5 18.5 18.5
 Shared LOS: C C C C C C C C C C C C
 ApproachDel: 18.5 18.5 18.5 18.5 18.5 18.5 18.5 18.5 18.5 18.5 18.5 18.5
 ApproachLOS: C C C C C C C C C C C C

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Level of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #5 Hwy 1 SB Ramps/Imjin Pkwy

Cycle (sec): 100 Critical Vol./Cap. (X): 0.402
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 8.6
 Optimal Cycle: 38 Level Of Service: A

Street Name: Hwy 1 SB Ramps Imjin Pkwy
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Split Phase Split Phase Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 0 0 0 1 1 0 0 0 0 0 0 0 1 0 0 0 0

Volume Module:
 Base Vol: 0 0 128 0 0 0 0 0 0 575 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 128 0 0 0 0 0 0 575 0 0
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Fut: 0 0 128 0 0 0 0 0 0 575 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Vol: 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88
 PHF Volume: 0 0 145 0 0 0 0 0 0 653 0 0
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 145 0 0 0 0 0 0 653 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 0 0 0 145 0 0 0 0 0 653 0 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjstment: 1.00 1.00 1.00 0.95 1.00 1.00 1.00 1.00 1.00 0.95 1.00 1.00
 Lanes: 0.00 0.00 0.00 2.00 0.00 0.00 0.00 0.00 0.00 1.00 0.00 0.00
 Final Sat.: 0 0 3618 0 0 0 0 0 0 1805 0 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.04 0.00 0.00 0.00 0.00 0.00 0.36 0.00 0.00
 Crit Moves: *****
 Green/Cycle: 0.00 0.00 0.00 0.10 0.00 0.00 0.00 0.00 0.00 0.90 0.00 0.00
 Volume/Cap: 0.00 0.00 0.00 0.40 0.00 0.00 0.00 0.00 0.00 0.40 0.00 0.00
 Delay/Veh: 0.0 0.0 0.0 42.9 0.0 0.0 0.0 0.0 0.0 0.9 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 0.0 0.0 42.9 0.0 0.0 0.0 0.0 0.0 0.9 0.0 0.0
 HCM2kAVG: 0 0 3 0 0 0 0 0 0 4 0 0

Level of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #6 Hwy 1 NB Ramps/Imjin Pkwy

Average Delay (sec/veh): 0.0 Worst Case Level of Service: A [9.0]
 Street Name: Hwy 1 NB Ramps Imjin Pkwy
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign stop Sign Uncontrolled Uncontrolled
 Rights: Ignore Include Include Include
 Lanes: 1 0 0 0 1 0 0 0 0 0 1 1 0 0 0 0 1 0 1

Volume Module:
 Base Vol: 0 0 926 0 0 0 0 0 128 0 0 575 140
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 926 0 0 0 0 0 128 0 0 575 140
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 926 0 0 0 0 0 128 0 0 575 140
 User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.74 0.74 0.00 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.74
 PHF Volume: 0 0 0 0 0 0 0 0 0 173 0 0 777 189
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Final Vol.: 0 0 0 0 0 0 0 0 0 173 0 0 777 189
 Critical Gap Module:
 Critical Gp.: xxxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 FollowUpTim: xxxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Capacity Module:
 Conflict Vol.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Potent Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Move Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Volume/Cap: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx

Level of Service Module:
 Queue: xxxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Stopped Del.: xxxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 LOS by Move: *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
 SharedQueue: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
 Shrd StpDel: xxxxxx xxxxx xxxxxx xxxxxx xxxxxx 9.0 xxxxx xxxxxx xxxxxx
 Shared LOS: * * * * * * * * * * * * * * * * A * * * * * * * * * *
 ApproachDel: xxxxxxxx xxxxxxxx xxxxxxxx xxxxxxxx xxxxxxxx
 ApproachLOS: *

Level of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #7 Hwy 68 WB Ramps/Reservation Rd

 Cycle (sec): 80 Critical Vol./Cap. (X): 0.881
 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 28.8
 Optimal Cycle: 85 Level Of Service: C

Street Name: Hwy 68 WB Ramps Reservation Rd

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Split Phase	Split Phase	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	10 0 10	0 10 10	7 10 0
Lanes:	0 0 0 0	0 1 0 0	0 0 1 1	1 0 1 0

Volume Module:

Base Vol:	0	0	291	0	146	0	619	209	392	590	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	291	0	146	0	619	209	392	590	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	291	0	146	0	619	209	392	590	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	323	0	162	0	688	232	436	656	0
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	323	0	162	0	688	232	436	656	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	323	0	162	0	688	232	436	656	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
AdjLanes:	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00
Final Sat.:	0	0	1809	0	1615	0	1900	1615	1805	1900	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.18	0.00	0.10	0.00	0.36	0.14	0.24	0.35	0.00
Crit Moves:	0	0	0	0	0	0	0	0	0	0	0
Green/Cycle:	0.00	0.00	0.20	0.00	0.20	0.00	0.41	0.41	0.27	0.68	0.00
Volume/Cap:	0.00	0.00	0.88	0.00	0.50	0.00	0.88	0.35	0.88	0.50	0.00
Delay/Veh:	0.0	0.0	52.1	0.0	29.4	0.0	33.2	16.5	44.5	6.4	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	52.1	0.0	29.4	0.0	33.2	16.5	44.5	6.4	0.0
HCM2kAVG:	0	0	12	0	4	0	19	4	14	8	0

 HCM2kAVG: 8 0 15 0 0 0 11 11 0 0 21

Level of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #8 Hwy 68 EB Ramps/Reservation Rd

 Cycle (sec): 55 Critical Vol./Cap. (X): 1.003
 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 38.4
 Optimal Cycle: 116 Level Of Service: D

Street Name: Hwy 68 EB Ramps Reservation Rd

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Split Phase	Split Phase	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	10	0 10	0 0 0 0	7 10 0
Lanes:	0 1 0 1	0 0 0 0	1 0 1 0	0 0 1 0

Volume Module:

Base Vol:	321	0	395	0	0	0	249	660	0	660	156
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	321	0	395	0	0	0	249	660	0	660	156
Added Vol:	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	321	0	395	0	0	0	249	660	0	660	156
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	369	0	454	0	0	0	286	759	0	759	179
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	369	0	454	0	0	0	286	759	0	759	179
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	369	0	454	0	0	0	286	759	0	759	179

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
AdjLanes:	0.95	1.00	0.85	1.00	1.00	1.00	0.95	1.00	1.00	1.00	0.85
Final Sat.:	1809	0	1615	0	0	0	1805	1900	0	1900	1615

Capacity Analysis Module:

Vol/Sat:	0.20	0.00	0.28	0.00	0.00	0.00	0.16	0.40	0.00	0.00	0.40
Crit Moves:	0	0	0	0	0	0	0	0	0	0	0
Green/Cycle:	0.28	0.00	0.28	0.00	0.00	0.00	0.16	0.56	0.00	0.00	0.40
Volume/Cap:	0.73	0.00	1.00	0.00	0.00	0.00	1.00	0.72	0.00	0.00	0.28
Delay/Veh:	23.2	0.0	62.9	0.0	0.0	0.0	77.2	11.4	0.0	0.0	50.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.2	0.0	62.9	0.0	0.0	0.0	77.2	11.4	0.0	0.0	50.0
HCM2kAVG:	8	0	15	0	0	0	11	11	0	0	21

 HCM2kAVG: 8 0 15 0 0 0 11 11 0 0 21

APPENDIX B
LOS ANALYSIS SHEETS
EXISTING PLUS PROJECT CONDITIONS

EXISTING PLUS PROJECT CONDITIONS
TJRM TRAFFIC VOLUMES
AM PEAK HOUR

Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Hwy 1 SB Ramps/Del Monte Blvd

Average Delay (sec/veh): 9.1 Worst Case Level of Service: B [10.4]

Street Name: Hwy 1 SB Ramps Del Monte Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 0 0 0 0 1 0 0 0 0 0 1 0 0 0

Volume Module:
Base Vol: 0 0 0 73 22 1 0 5 2 29 1 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 73 22 1 0 5 2 29 1 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57
PHF Volume: 0 0 0 128 39 2 0 9 4 51 2 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 0 0 128 39 2 0 9 4 51 2 0

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxx 6.4 6.5 6.2 xxxxxx xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTin:xxxxx xxxx xxxx 3.5 4.0 3.3 xxxxxx xxxx xxxxx 2.2 xxxx xxxxx

Capacity Module:
Conflict Vol: xxxx xxxx xxxxx 114 116 2 xxxx xxxx xxxxx 12 xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx 887 778 1088 xxxx xxxx xxxxx 1620 xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx 865 753 1088 xxxx xxxx xxxxx 1620 xxxx xxxxx
Volume/Cap: xxxx xxxx xxxxx 0.15 0.05 0.00 xxxx xxxx xxxxx 0.03 xxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx 0.1 xxxx xxxxx
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 7.3 xxxx xxxxx
LOS by Move: * * * * * * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx 838 xxxxx xxxx xxxxx xxxxx xxxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx 0.7 xxxxx xxxxx xxxxx xxxxx 0.1 xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx 10.4 xxxxx xxxxx xxxxx xxxxx 7.3 xxxx xxxxx
Shared LOS: * * * * * B * * * * * A * * * * *
ApproachDel: xxxxxx 10.4 xxxxxx * * * * *
ApproachLOS: * * * * * * * * * * * * * * *

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EXISTING PLUS PROJECT CONDITIONS
TJRM TRAFFIC VOLUMES
AM PEAK HOUR

Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Hwy 1 NB Ramps/Del Monte Blvd

Average Delay (sec/veh): 5.1 Worst Case Level of Service: B [13.3]

Street Name: Hwy 1 NB Ramps Del Monte Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 1 0 0 0 0 0 1 0 0 0 0 0 1 0 0

Volume Module:
Base Vol: 2 7 29 34 14 6 4 102 4 91 39 25
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2 7 29 34 14 6 4 102 4 91 39 25
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81
PHF Volume: 2 9 36 42 17 7 5 126 5 112 48 31
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 2 9 36 42 17 7 5 126 5 112 48 31

Critical Gap Module:
Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxxx xxxxx 4.1 xxxx xxxxx
FollowUpTin: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxxx xxxxx 2.2 xxxx xxxxx

Capacity Module:
Conflict Vol: 439 442 128 449 429 64 79 xxxxx xxxxx 131 xxxxx xxxxx
Potent Cap.: 532 513 927 524 521 1007 1532 xxxxx xxxxx 1467 xxxxx xxxxx
Move Cap.: 480 469 927 464 477 1007 1532 xxxxx xxxxx 1467 xxxxx xxxxx
Volume/Cap: 0.01 0.02 0.04 0.09 0.04 0.01 0.00 xxxxx xxxxx 0.08 xxxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx 0.0 xxxx xxxxx
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 7.7 xxxx xxxxx
LOS by Move: * * * * * * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 755 xxxxx xxxx 498 xxxxx xxxx xxxxx xxxxx xxxxx xxxxx
SharedQueue:xxxxx 0.2 xxxxx xxxxx 0.5 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel:xxxxx 10.1 xxxxx xxxxx 13.3 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * * * B * * * * * * * * * *
ApproachDel: 10.1 13.3 xxxxxx * * * * *
ApproachLOS: B B * * * * * * * * * * * * * * *

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TJRM TRAFFIC VOLUMES
AM PEAK HOUR

Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Hwy 1 SB Ramps/Reservation Rd

Average Delay (sec/veh): 53.4 Worst Case Level of Service: F[202.2]

Street Name: Hwy 1 SB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 0 0 1 0 0 1 0 0 0 0 1 0 1 0 0

Volume Module:
Base Vol: 0 0 0 171 3 16 0 29 15 526 44 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 171 3 16 0 29 15 526 44 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume: 0 0 0 184 3 17 0 31 16 566 47 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 0 0 184 3 17 0 31 16 566 47 0

Critical Gap Module:
Critical Gap:xxxxx 6.4 6.5 6.2 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx
FollowUpTin:xxxxx 3.5 4.0 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx

Capacity Module:
Conflict Vol: xxxx xxxxx 1218 1226 47 xxxx xxxxx xxxxx 47 xxxxx xxxxx
Potent Cap.: xxxx xxxxx 201 180 1028 xxxx xxxxx xxxxx 1573 xxxxx xxxxx
Move Cap.: xxxx xxxxx 145 115 1028 xxxx xxxxx xxxxx 1573 xxxxx xxxxx
Volume/Cap: xxxx xxxxx 1.27 0.03 0.02 xxxx xxxxx xxxxx 0.36 xxxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxxx xxxxx 11.1 xxxxx xxxxx xxxxx xxxxx 1.7 xxxxx xxxxx
Stopped Del:xxxxx 223.2 xxxxx xxxxx xxxxx xxxxx 8.6 xxxxx xxxxx
LOS by Move: * * * * F * * * * A * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxxx xxxxx 457 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx
SharedQueue:xxxxx 0.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel:xxxxx 13.2 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * * B * * * * * * * * * *
ApproachDel: 202.2
ApproachLOS: * * * * F

Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Hwy 1 NB Ramps/Reservation Rd

Average Delay (sec/veh): 1.3 Worst Case Level of Service: B[11.0]

Street Name: Hwy 1 NB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 1 1 0 0 0 0 0 0 0 0 1 0 1 0 1

Volume Module:
Base Vol: 10 0 108 0 0 0 8 204 0 0 575 183
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 10 0 108 0 0 0 8 204 0 0 575 183
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 11 0 114 0 0 0 8 215 0 0 605 193
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 11 0 114 0 0 0 8 215 0 0 605 193

Critical Gap Module:
Critical Gap:xxxxx 6.2 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx xxxxx xxxxx
FollowUpTin:xxxxx 3.5 xxxxx 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx xxxxx xxxxx

Capacity Module:
Conflict Vol: 933 xxxxx 215 xxxx xxxxx xxxxx 798 xxxxx xxxxx xxxxx
Potent Cap.: 298 xxxxx 830 xxxx xxxxx xxxxx 833 xxxxx xxxxx xxxxx
Move Cap.: 296 xxxxx 830 xxxx xxxxx xxxxx 833 xxxxx xxxxx xxxxx
Volume/Cap: 0.04 xxxxx 0.14 xxxx xxxxx xxxxx 0.01 xxxxx xxxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx xxxxx xxxxx
Stopped Del:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 9.4 xxxxx xxxxx xxxxx xxxxx
LOS by Move: * * * * * * * * A * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 720 xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
SharedQueue:xxxxx 0.6 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel:xxxxx 11.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * * * * * * * * * * * * * *
ApproachDel: 11.0
ApproachLOS: * * * * * * * * * * * * *

EXISTING PLUS PROJECT CONDITIONS
TJRM TRAFFIC VOLUMES
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Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Hwy 1 NB Ramps/Reservation Rd

Average Delay (sec/veh): 1.3 Worst Case Level of Service: B[11.0]

Street Name: Hwy 1 NB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 1 1 0 0 0 0 0 0 0 0 1 0 1 0 1

Volume Module:
Base Vol: 10 0 108 0 0 0 8 204 0 0 575 183
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 10 0 108 0 0 0 8 204 0 0 575 183
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 11 0 114 0 0 0 8 215 0 0 605 193
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 11 0 114 0 0 0 8 215 0 0 605 193

Critical Gap Module:
Critical Gap:xxxxx 6.2 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx xxxxx xxxxx
FollowUpTin:xxxxx 3.5 xxxxx 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx xxxxx xxxxx

Capacity Module:
Conflict Vol: 933 xxxxx 215 xxxx xxxxx xxxxx 798 xxxxx xxxxx xxxxx
Potent Cap.: 298 xxxxx 830 xxxx xxxxx xxxxx 833 xxxxx xxxxx xxxxx
Move Cap.: 296 xxxxx 830 xxxx xxxxx xxxxx 833 xxxxx xxxxx xxxxx
Volume/Cap: 0.04 xxxxx 0.14 xxxx xxxxx xxxxx 0.01 xxxxx xxxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx xxxxx xxxxx
Stopped Del:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 9.4 xxxxx xxxxx xxxxx xxxxx
LOS by Move: * * * * * * * * A * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 720 xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
SharedQueue:xxxxx 0.6 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel:xxxxx 11.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * * * * * * * * * * * * * *
ApproachDel: 11.0
ApproachLOS: * * * * * * * * * * * * *

Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Hwy 1 SB Ramps/Reservation Rd

Average Delay (sec/veh): 53.4 Worst Case Level of Service: F[202.2]

Street Name: Hwy 1 SB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 0 0 1 0 0 1 0 0 1 0 1 0 1 0 0

Volume Module:
Base Vol: 0 0 0 171 3 16 0 29 15 526 44 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 171 3 16 0 29 15 526 44 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume: 0 0 0 184 3 17 0 31 16 566 47 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 0 0 184 3 17 0 31 16 566 47 0

Critical Gap Module:
Critical Gap:xxxxx 6.4 6.5 6.2 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx
FollowUpTin:xxxxx 3.5 4.0 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx

Capacity Module:
Conflict Vol: xxxx xxxxx 1218 1226 47 xxxx xxxxx xxxxx 47 xxxxx xxxxx
Potent Cap.: xxxx xxxxx 201 180 1028 xxxx xxxxx xxxxx 1573 xxxxx xxxxx
Move Cap.: xxxx xxxxx 145 115 1028 xxxx xxxxx xxxxx 1573 xxxxx xxxxx
Volume/Cap: xxxx xxxxx 1.27 0.03 0.02 xxxx xxxxx xxxxx 0.36 xxxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxxx xxxxx 11.1 xxxxx xxxxx xxxxx xxxxx 1.7 xxxxx xxxxx
Stopped Del:xxxxx 223.2 xxxxx xxxxx xxxxx xxxxx 8.6 xxxxx xxxxx
LOS by Move: * * * * F * * * * A * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxxx xxxxx 457 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx
SharedQueue:xxxxx 0.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel:xxxxx 13.2 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * * B * * * * * * * * * *
ApproachDel: 202.2
ApproachLOS: * * * * F

Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Hwy 1 SB Ramps/Imjin Pkwy

Average Delay (sec/veh): 11.4 Worst Case Level of Service: B [13.4]

Street Name: Hwy 1 SB Ramps Imjin Pkwy
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 1 1 0 0 0 0 0 0 1 0 0 0

Volume Module:
Base Vol: 0 0 0 103 2 0 0 0 0 0 0 0 184 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 103 2 0 0 0 0 0 0 0 184 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88
PHF Volume: 0 0 0 117 2 0 0 0 0 0 0 209 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 0 0 117 2 0 0 0 0 0 0 209 0 0

Critical Gap Module:
Critical Gp: 6.4 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5
FollowUpTim: 3.5 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Capacity Module:
Conflict Vol: 418 418 529 529 489 489 0.24 0.01 0.4 4.4 13.4 13.4 10.2 10.2
Potential Cap.: 418 418 529 529 489 489 0.24 0.01 0.4 4.4 13.4 13.4 10.2 10.2
Move Cap.: 418 418 529 529 489 489 0.24 0.01 0.4 4.4 13.4 13.4 10.2 10.2
Volume/Cap: 0.24 0.01 0.4 4.4 13.4 13.4 10.2 10.2

Level of Service Module:
Queue: 0.4 4.4 13.4 13.4 10.2 10.2 0.9 0.9
Stopped Del: 13.4 13.4 10.2 10.2 10.2 10.2 10.2 10.2
LOS by Move: B * * * * * B * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: 418 418 529 529 489 489 0.24 0.01 0.4 4.4 13.4 13.4 10.2 10.2
Shared Queue: 418 418 529 529 489 489 0.24 0.01 0.4 4.4 13.4 13.4 10.2 10.2
Shrd StpDel: 418 418 529 529 489 489 0.24 0.01 0.4 4.4 13.4 13.4 10.2 10.2
Shared LOS: * * * * * B * * * * *
ApproachDel: 13.4 * * * * *
ApproachLOS: * * * * *

Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 Hwy 1 NB Ramps/Imjin Pkwy

Average Delay (sec/veh): 0.2 Worst Case Level of Service: B [10.4]

Street Name: Hwy 1 NB Ramps Imjin Pkwy
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Ignore Include Include Include
Lanes: 1 0 0 0 1 0 0 0 0 0 1 1 0 0 0 0 1 0 1

Volume Module:
Base Vol: 3 0 85 0 0 0 0 6 126 0 0 153 22
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 3 0 85 0 0 0 0 6 126 0 0 153 22
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.00 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume: 3 0 0 0 0 0 0 7 138 0 0 168 24
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 3 0 0 0 0 0 0 7 138 0 0 168 24

Critical Gap Module:
Critical Gp: 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4
FollowUpTim: 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5

Capacity Module:
Conflict Vol: 332 332 667 667 667 667 0.00 0.00 0.00 0.00 0.00 0.00 7.6 7.6
Potential Cap.: 332 332 667 667 667 667 0.00 0.00 0.00 0.00 0.00 0.00 7.6 7.6
Move Cap.: 332 332 667 667 667 667 0.00 0.00 0.00 0.00 0.00 0.00 7.6 7.6
Volume/Cap: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 7.6 7.6

Level of Service Module:
Queue: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 7.6 7.6
Stopped Del: 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4
LOS by Move: B * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: 332 332 667 667 667 667 0.00 0.00 0.00 0.00 0.00 0.00 7.6 7.6
Shared Queue: 332 332 667 667 667 667 0.00 0.00 0.00 0.00 0.00 0.00 7.6 7.6
Shrd StpDel: 332 332 667 667 667 667 0.00 0.00 0.00 0.00 0.00 0.00 7.6 7.6
Shared LOS: * * * * * A * * * * *
ApproachDel: 10.4 * * * * *
ApproachLOS: * * * * *

EXISTING PLUS PROJECT CONDITIONS
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Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Hwy 68 WB Ramps/Reservation Rd

Cycle (sec): 45 Critical Vol./Cap. (X): 0.645
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 14.1
Optimal Cycle: 38 Level Of Service: B

Street Name: Hwy 68 WB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 10 0 10 0 10 0 10 0 10 0
Lanes: 0 0 0 0 1 0 0 1 0 0 1 0 1 0 0

Volume Module:
Base Vol: 0 0 207 0 171 0 313 144 197 289 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 207 0 171 0 313 144 197 289 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 0 225 0 186 0 340 157 214 314 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 225 0 186 0 340 157 214 314 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 0 0 225 0 186 0 340 157 214 314 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
AdjStmnt: 1.00 1.00 1.00 0.85 1.00 0.96 0.96 0.95 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 0.68 0.32 1.00 0.00 0.00
Final Sat: 0 0 1809 0 1615 0 1245 573 1805 1900 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.12 0.00 0.12 0.00 0.27 0.12 0.17 0.00
Val/Sat: 0.08 0.00 0.07 0.00 0.00 0.00 0.17 0.21 0.00 0.00 0.28 0.46
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.22 0.00 0.22 0.00 0.40 0.40 0.17 0.58 0.00
Volume/Cap: 0.00 0.00 0.00 0.56 0.00 0.52 0.00 0.68 0.68 0.68 0.29 0.00
Delay/Veh: 0.0 0.0 0.0 17.3 0.0 16.7 0.0 13.6 13.6 23.2 5.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 17.3 0.0 16.7 0.0 13.6 13.6 23.2 5.0 0.0
HCM2kAVG: 0 0 4 0 3 0 7 4 2 0 8 17

EXISTING PLUS PROJECT CONDITIONS
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Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Hwy 68 EB Ramps/Reservation Rd

Cycle (sec): 80 Critical Vol./Cap. (X): 0.803
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 20.8
Optimal Cycle: 65 Level Of Service: C

Street Name: Hwy 68 EB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 10 0 0 10 0 0 0 7 10 0 0 10 0
Lanes: 0 1 0 0 1 0 0 0 0 1 0 1 0 1

Volume Module:
Base Vol: 130 0 95 0 0 0 263 334 0 0 450 627
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 130 0 95 0 0 0 263 334 0 0 450 627
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85
PHF Volume: 153 0 112 0 0 0 309 393 0 0 529 738
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 112 0 0 0 309 393 0 0 529 738
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 153 0 112 0 0 0 309 393 0 0 529 738

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
AdjStmnt: 0.95 1.00 0.85 1.00 1.00 1.00 0.95 1.00 1.00 1.00 0.85
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00
Final Sat: 1809 0 1615 0 0 0 1805 1900 0 0 1900 1615

Capacity Analysis Module:
Vol/Sat: 0.08 0.00 0.07 0.00 0.00 0.00 0.17 0.21 0.00 0.00 0.28 0.46
Val/Sat: 0.08 0.00 0.07 0.00 0.00 0.00 0.17 0.21 0.00 0.00 0.28 0.46
Crit Moves: ****
Green/Cycle: 0.13 0.00 0.13 0.00 0.00 0.00 0.21 0.76 0.00 0.00 0.55 0.55
Volume/Cap: 0.68 0.00 0.55 0.00 0.00 0.00 0.82 0.27 0.00 0.00 0.50 0.82
Delay/Veh: 41.4 0.0 36.2 0.0 0.0 0.0 44.0 2.9 0.0 0.0 11.4 20.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 41.4 0.0 36.2 0.0 0.0 0.0 44.0 2.9 0.0 0.0 11.4 20.9
HCM2kAVG: 5 0 3 0 0 0 10 3 0 0 8 17

EXISTING PLUS PROJECT CONDITIONS
TJRM TRAFFIC VOLUMES
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Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Hwy 1 SB Ramps/Del Monte Blvd

Average Delay (sec/veh): 8.3 Worst Case Level of Service: A [9.9]

Street Name: Hwy 1 SB Ramps Del Monte Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 0 0 0 0 1 1 0 0 0 0 1 0 0 0

Volume Module:
Base Vol: 0 0 0 111 2 7 1 7 6 41 6 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 111 2 7 1 7 6 41 6 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85
PHF Volume: 0 0 0 131 2 8 1 8 7 48 7 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 0 0 131 2 8 1 8 7 48 7 0

Critical Gap Module:
Critical Gap: 6.4 6.5 6.2 4.1 xxxxx xxxxx 4.1 xxxxx xxxxx
FollowUpTm: 3.5 4.0 3.3 2.2 xxxxx xxxxx 2.2 xxxxx xxxxx

Capacity Module:
Conflict Vol: 118 121 7 7 xxxxx xxxxx 15 xxxxx xxxxx
Potent Cap.: 883 773 1081 1627 xxxxx xxxxx 1616 xxxxx xxxxx
Move Cap.: 862 749 1081 1627 xxxxx xxxxx 1616 xxxxx xxxxx
Volume/Cap: 0.15 0.00 0.01 0.00 xxxxx xxxxx 0.03 xxxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx 0.1 xxxxx xxxxx
Stopped Del: xxxxx xxxxx xxxxx xxxxx xxxxx 7.3 xxxxx xxxxx 7.3 xxxxx xxxxx
LOS by Move: * * * * * A * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx 870 xxxxx xxxxx xxxxx xxxxx xxxxx
SharedQueue: xxxxx xxxxx xxxxx xxxxx 0.6 xxxxx xxxxx xxxxx 0.1 xxxxx xxxxx
Shrd StpDel: xxxxx xxxxx xxxxx xxxxx 9.9 xxxxx xxxxx xxxxx 7.3 xxxxx xxxxx
Shared LOS: * * * * * A * * * * * A * * * * *
ApproachDel: xxxxxx 9.9 xxxxxx * * * * *
ApproachLOS: * * * * * A

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Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Hwy 1 NB Ramps/Del Monte Blvd

Average Delay (sec/veh): 6.2 Worst Case Level of Service: C [16.8]

Street Name: Hwy 1 NB Ramps Del Monte Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0

Volume Module:
Base Vol: 9 11 26 28 26 6 19 92 8 139 35 51
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 9 11 26 28 26 6 19 92 8 139 35 51
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81
PHF Volume: 11 14 32 35 32 7 23 114 10 172 43 63
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 11 14 32 35 32 7 23 114 10 172 43 63

Critical Gap Module:
Critical Gap: 7.1 6.5 6.2 4.1 xxxxx xxxxx 4.1 xxxxx xxxxx
FollowUpTm: 3.5 4.0 3.3 2.2 xxxxx xxxxx 2.2 xxxxx xxxxx

Capacity Module:
Conflict Vol: 603 615 119 606 588 75 106 xxxxx xxxxx 123 xxxxx xxxxx
Potent Cap.: 414 409 939 412 424 992 1498 xxxxx xxxxx 1476 xxxxx xxxxx
Move Cap.: 342 351 939 344 363 992 1498 xxxxx xxxxx 1476 xxxxx xxxxx
Volume/Cap: 0.03 0.04 0.03 0.10 0.09 0.01 0.02 xxxxx xxxxx 0.12 xxxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx 0.4 xxxxx xxxxx
Stopped Del: xxxxx xxxxx xxxxx xxxxx xxxxx 7.4 xxxxx xxxxx 7.8 xxxxx xxxxx
LOS by Move: * * * * * A * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx 539 xxxxx xxxxx 378 xxxxx xxxxx xxxxx xxxxx xxxxx
SharedQueue: xxxxx 0.4 xxxxx xxxxx 0.7 xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel: xxxxx 12.5 xxxxx xxxxx 16.8 xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * * * C * * * * * * * * * *
ApproachDel: 12.5 16.8 xxxxxx * * * * *
ApproachLOS: B C * * * * *

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Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Hwy 1 SB Ramps/Reservation Rd

Average Delay (sec/veh): 9.6 Worst Case Level of Service: C [18.5]

Street Name: Hwy 1 SB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 0 0 1 0 0 1 0 0 0 1 0 1 0 0

Volume Module:
Base Vol: 0 0 216 3 23 0 72 22 168 97 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 216 3 23 0 72 22 168 97 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
PHF Volume: 0 0 223 3 24 0 74 23 173 100 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 0 223 3 24 0 74 23 173 100 0

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxx 6.4 6.5 6.2 xxxxx xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTin:xxxxx xxxx xxxx 3.5 4.0 3.3 xxxxx xxxx xxxxx 2.2 xxxx xxxxx

Capacity Module:
Conflict Vol: xxxx xxxx xxxxx 532 543 100 xxxx xxxx xxxxx 97 xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx 512 449 961 xxxx xxxx xxxxx 1509 xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx 467 398 961 xxxx xxxx xxxxx 1509 xxxx xxxxx
Volume/Cap: xxxx xxxx xxxxx 0.48 0.01 0.02 xxxx xxxx xxxxx 0.11 xxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxx xxxxx 2.5 xxxx xxxxx xxxxx xxxxx 0.4 xxxx xxxxx
Stopped Del:xxxxx xxxx xxxxx 19.6 xxxx xxxxx xxxxx xxxxx 7.7 xxxx xxxxx
LOS by Move: * * * C * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx 826 xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxxx 0.1 xxxxx xxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxxx 9.5 xxxxx xxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * * * A * * * * *
ApproachDel: xxxxxx 18.5 C xxxxxx * * * * *
ApproachLOS: * * * * * * * * * * *

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EXISTING PLUS PROJECT CONDITIONS
TJRM TRAFFIC VOLUMES
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Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Hwy 1 NB Ramps/Reservation Rd

Average Delay (sec/veh): 4.0 Worst Case Level of Service: B [12.7]

Street Name: Hwy 1 NB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 1 1 0 0 0 0 0 0 1 0 1 0 0 1 0 1

Volume Module:
Base Vol: 3 1 297 0 0 0 13 256 0 0 212 193
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 3 1 297 0 0 0 13 256 0 0 212 193
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 3 1 303 0 0 0 13 261 0 0 216 197
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 3 1 303 0 0 0 13 261 0 0 216 197

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxx 6.2 xxxxx xxxx xxxxx 4.1 xxxx xxxxx xxxxx xxxxx
FollowUpTin:xxxxx xxxx xxxx 3.5 4.0 3.3 xxxxx xxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxxx

Capacity Module:
Conflict Vol: 603 701 261 xxxxx xxxxx xxxxx 413 xxxxx xxxxx xxxxx xxxxx xxxxx
Potent Cap.: 466 365 782 xxxxx xxxxx xxxxx 1157 xxxxx xxxxx xxxxx xxxxx xxxxx
Move Cap.: 462 361 782 xxxxx xxxxx xxxxx 1157 xxxxx xxxxx xxxxx xxxxx xxxxx
Volume/Cap: 0.01 0.00 0.39 xxxxx xxxxx xxxxx 0.01 xxxxx xxxxx xxxxx xxxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx xxxxx xxxxx xxxxx
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx 8.1 xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move: * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 774 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
SharedQueue:xxxxx 1.9 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel:xxxxx 12.7 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * * * * * * * * *
ApproachDel: 12.7 B xxxxxx * * * * *
ApproachLOS: * * * * * * * * * * *

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EXISTING PLUS PROJECT CONDITIONS
TJRM TRAFFIC VOLUMES
PM PEAK HOUR

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Hwy 68 WB Ramps/Reservation Rd

Cycle (sec): 80
Loss Time (sec): 9 (Y+R = 4 sec) Critical Vol./Cap. (X): 0.866
Optimal Cycle: 80 Level Of Service: C

Street Name: Hwy 68 WB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 10 0 10 0 10 0 10 0 7 10 0
Lanes: 0 0 0 0 1 0 0 1 0 0 0 1 0 1 0 0 0

Volume Module:
Base Vol: 0 0 499 0 258 0 484 167 110 202 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 499 0 258 0 484 167 110 202 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 0 554 0 287 0 538 186 122 224 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 554 0 287 0 538 186 122 224 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 0 0 554 0 287 0 538 186 122 224 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
AdjStmnt: 1.00 1.00 1.00 0.95 1.00 0.85 1.00 0.97 0.97 0.95 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 0.74 0.26 1.00 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat: 0 0 1809 0 1615 0 1363 470 1805 1900 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.31 0.00 0.18 0.00 0.39 0.07 0.12 0.00
Val/Sat: 0.08 0.00 0.14 0.00 0.00 0.00 0.13 0.53 0.00 0.00 0.15 0.21
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.35 0.00 0.35 0.00 0.45 0.45 0.09 0.54 0.00
Volume/Cap: 0.00 0.00 0.00 0.88 0.00 0.51 0.00 0.88 0.88 0.77 0.22 0.00
Delay/Veh: 0.0 0.0 0.0 37.5 0.0 21.3 0.0 30.4 30.4 56.6 9.8 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 37.5 0.0 21.3 0.0 30.4 30.4 56.6 9.8 0.0
HCM2kAVG: 0 0 17 0 6 0 20 5 3 0

EXISTING PLUS PROJECT CONDITIONS
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Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Hwy 68 EB Ramps/Reservation Rd

Cycle (sec): 55
Loss Time (sec): 9 (Y+R = 4 sec) Critical Vol./Cap. (X): 0.734
Optimal Cycle: 48 Level Of Service: B

Street Name: Hwy 68 EB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 10 0 0 10 0 0 0 0 7 10 0 0 0 10 0 10
Lanes: 0 1 0 0 1 0 0 0 0 0 1 0 1 0 0 1 0 1

Volume Module:
Base Vol: 127 0 199 0 0 0 0 211 881 0 0 240 299
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 127 0 199 0 0 0 0 211 881 0 0 240 299
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87
PHF Volume: 146 0 229 0 0 0 0 243 1013 0 0 276 344
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 146 0 229 0 0 0 0 243 1013 0 0 276 344
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 146 0 229 0 0 0 0 243 1013 0 0 276 344

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
AdjStmnt: 0.95 1.00 0.85 1.00 1.00 1.00 1.00 0.95 1.00 1.00 0.95 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00
Final Sat: 1809 0 1615 0 0 0 0 1805 1900 0 0 1900 1615

Capacity Analysis Module:
Vol/Sat: 0.08 0.00 0.14 0.00 0.00 0.00 0.13 0.53 0.00 0.00 0.15 0.21
Val/Sat: 0.08 0.00 0.14 0.00 0.00 0.00 0.13 0.53 0.00 0.00 0.15 0.21
Crit Moves: ****
Green/Cycle: 0.18 0.00 0.18 0.00 0.00 0.00 0.25 0.65 0.00 0.00 0.40 0.40
Volume/Cap: 0.44 0.00 0.78 0.00 0.00 0.00 0.53 0.81 0.00 0.00 0.36 0.53
Delay/Veh: 21.0 0.0 33.9 0.0 0.0 0.0 18.9 11.3 0.0 0.0 11.8 13.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 21.0 0.0 33.9 0.0 0.0 0.0 18.9 11.3 0.0 0.0 11.8 13.4
HCM2kAVG: 3 0 6 0 0 0 4 15 0 0 4 5

EXISTING PLUS PROJECT CONDITIONS
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Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
Intersection #1 Hwy 1 SB Ramps/Del Monte Blvd
Average Delay (sec/veh): 9.5 Worst Case Level of Service: A [10.0]

Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
Intersection #2 Hwy 1 NB Ramps/Del Monte Blvd
Average Delay (sec/veh): 3.7 Worst Case Level of Service: B [11.7]

Street Name:	Hwy 1 SB Ramps	Del Monte Blvd
Approach:	North Bound	South Bound
Movement:	L - T - R	L - T - R
Control:	Stop Sign	Uncontrolled
Rights:	Include	Include
Lanes:	0 0 0 0 0	0 0 0 1 0

Street Name:	Hwy 1 NB Ramps	Del Monte Blvd
Approach:	North Bound	South Bound
Movement:	L - T - R	L - T - R
Control:	Stop Sign	Uncontrolled
Rights:	Include	Include
Lanes:	0 0 1 1 0 0	1 0 0 0 0

Volume Module:	Base Vol:	Growth Adj:	Initial Bse:	User Adj:	PHF Adj:	PHF Volume:	Reduct Vol:	Final Vol:
	0	1.00	0	1.00	0.57	0	0	0
	0	1.00	0	1.00	0.57	0	0	0
	0	1.00	0	1.00	0.57	0	0	0
	0	1.00	0	1.00	0.57	0	0	0
	0	1.00	0	1.00	0.57	0	0	0
	0	1.00	0	1.00	0.57	0	0	0
	0	1.00	0	1.00	0.57	0	0	0
	0	1.00	0	1.00	0.57	0	0	0
	0	1.00	0	1.00	0.57	0	0	0
	0	1.00	0	1.00	0.57	0	0	0

Volume Module:	Base Vol:	Growth Adj:	Initial Bse:	User Adj:	PHF Adj:	PHF Volume:	Reduct Vol:	Final Vol:
	5	1.00	5	1.00	0.81	6	0	6
	0	1.00	0	1.00	0.81	0	0	0
	22	1.00	22	1.00	0.81	27	0	27
	16	1.00	16	1.00	0.81	20	0	20
	0	1.00	0	1.00	0.81	0	0	0
	0	1.00	0	1.00	0.81	0	0	0
	0	1.00	0	1.00	0.81	0	0	0
	0	1.00	0	1.00	0.81	0	0	0
	0	1.00	0	1.00	0.81	0	0	0
	0	1.00	0	1.00	0.81	0	0	0

Critical Gap Module:	Critical Gap:	FollowUpTm:
	7.1	3.5
	6.2	3.3

Critical Gap Module:	Critical Gap:	FollowUpTm:
	6.4	3.5
	6.2	3.3

Capacity Module:	Conflict Vol:	Potent Cap.:	Move Cap.:	Volume/Cap:
	345	613	585	0.01
	172	877	877	0.03
	359	601	555	0.04

Capacity Module:	Conflict Vol:	Potent Cap.:	Move Cap.:	Volume/Cap:
	36	982	976	0.25
	9	1079	1079	0.02
	36	982	976	0.25

Level of Service Module:	Queue:	Stopped Del:	LOS by Move:	Movement:	Shared Cap.:	Shared Queue:	Shrd StpDel:	Shared LOS:	ApproachDel:	ApproachLOS:
	0.1	0.1	*	LT - LTR - RT	0.1	0.1	9.7	A	9.7	A
	0.1	0.1	*	LT - LTR - RT	0.1	0.1	9.7	A	9.7	A
	0.1	0.1	*	LT - LTR - RT	0.1	0.1	9.7	A	9.7	A

Level of Service Module:	Queue:	Stopped Del:	LOS by Move:	Movement:	Shared Cap.:	Shared Queue:	Shrd StpDel:	Shared LOS:	ApproachDel:	ApproachLOS:
	0.1	0.1	*	LT - LTR - RT	0.1	0.1	7.2	A	10.0	A
	0.1	0.1	*	LT - LTR - RT	0.1	0.1	7.2	A	10.0	A
	0.1	0.1	*	LT - LTR - RT	0.1	0.1	7.2	A	10.0	A

EXISTING PLUS PROJECT CONDITIONS
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Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Hwy 1 SB Ramps/Reservation Rd

Average Delay (sec/veh): 23.1 Worst Case Level of Service: E[48.7]

Street Name: Hwy 1 SB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 0 0 1 0 0 1 0 0 0 1 0 1 0 0

Volume Module:
Base Vol: 0 0 295 0 46 0 82 55 215 102 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 295 0 46 0 82 55 215 102 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume: 0 0 317 0 49 0 88 59 231 110 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 0 317 0 49 0 88 59 231 110 0

Critical Gap Module:
Critical Gap: 6.4 xxxxx 6.2 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx
FollowUpTm: 3.5 xxxxx 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx

Capacity Module:
Conflict Vol: 690 xxxxx 110 xxxxx xxxxx xxxxx 147 xxxxx xxxxx
Potent Cap.: 414 xxxxx 949 xxxxx xxxxx xxxxx 1447 xxxxx xxxxx
Move Cap.: 363 xxxxx 949 xxxxx xxxxx xxxxx 1447 xxxxx xxxxx
Volume/Cap: 0.87 xxxxx 0.05 xxxxx xxxxx xxxxx 0.16 xxxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxxx xxxxx 8.4 xxxxx xxxxx xxxxx xxxxx 0.6 xxxxx xxxxx
Stopped Del: xxxxx xxxxx xxxxx 54.9 xxxxx xxxxx xxxxx xxxxx 8.0 xxxxx xxxxx
LOS by Move: * * * * F * * * * A * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx 949 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared Queue: xxxxx xxxxx xxxxx xxxxx xxxxx 0.2 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel: xxxxx xxxxx xxxxx xxxxx xxxxx 9.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * * * A * * * * *
ApproachDel: xxxxxx 48.7 E xxxxxx
ApproachLOS: * * * * * xxxxxx

Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Hwy 1 NB Ramps/Reservation Rd

Average Delay (sec/veh): 3.0 Worst Case Level of Service: C[16.0]

Street Name: Hwy 1 NB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 1 1 0 0 0 0 0 0 0 1 0 1 0 1

Volume Module:
Base Vol: 55 0 124 0 0 0 39 337 0 0 262 256
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 55 0 124 0 0 0 39 337 0 0 262 256
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 58 0 131 0 0 0 41 355 0 0 276 269
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 58 0 131 0 0 0 41 355 0 0 276 269

Critical Gap Module:
Critical Gap: 6.4 xxxxx 6.2 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx
FollowUpTm: 3.5 xxxxx 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx

Capacity Module:
Conflict Vol: 847 xxxxx 355 xxxxx xxxxx xxxxx 545 xxxxx xxxxx
Potent Cap.: 335 xxxxx 694 xxxxx xxxxx xxxxx 1034 xxxxx xxxxx
Move Cap.: 325 xxxxx 694 xxxxx xxxxx xxxxx 1034 xxxxx xxxxx
Volume/Cap: 0.18 xxxxx 0.19 xxxxx xxxxx xxxxx 0.04 xxxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.1 xxxxx xxxxx xxxxx xxxxx xxxxx
Stopped Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 8.6 xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move: * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx 514 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared Queue: xxxxx 1.7 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel: xxxxx 16.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * * * C * * * * *
ApproachDel: xxxxxx 16.0 C xxxxxx
ApproachLOS: * * * * * xxxxxx

EXISTING PLUS PROJECT CONDITIONS
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Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Hwy 1 NB Ramps/Reservation Rd

Average Delay (sec/veh): 3.0 Worst Case Level of Service: C[16.0]

Street Name: Hwy 1 NB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 1 1 0 0 0 0 0 0 1 0 1 0 1 1

Volume Module:
Base Vol: 55 0 124 0 0 0 39 337 0 0 262 256
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 55 0 124 0 0 0 39 337 0 0 262 256
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 58 0 131 0 0 0 41 355 0 0 276 269
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 58 0 131 0 0 0 41 355 0 0 276 269

Critical Gap Module:
Critical Gap: 6.4 xxxxx 6.2 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx
FollowUpTm: 3.5 xxxxx 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx

Capacity Module:
Conflict Vol: 847 xxxxx 355 xxxxx xxxxx xxxxx 545 xxxxx xxxxx
Potent Cap.: 335 xxxxx 694 xxxxx xxxxx xxxxx 1034 xxxxx xxxxx
Move Cap.: 325 xxxxx 694 xxxxx xxxxx xxxxx 1034 xxxxx xxxxx
Volume/Cap: 0.18 xxxxx 0.19 xxxxx xxxxx xxxxx 0.04 xxxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.1 xxxxx xxxxx xxxxx xxxxx xxxxx
Stopped Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 8.6 xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move: * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx 514 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared Queue: xxxxx 1.7 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel: xxxxx 16.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * * * C * * * * *
ApproachDel: xxxxxx 16.0 C xxxxxx
ApproachLOS: * * * * * xxxxxx

Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Hwy 1 NB Ramps/Reservation Rd

Average Delay (sec/veh): 3.0 Worst Case Level of Service: C[16.0]

Street Name: Hwy 1 NB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 1 1 0 0 0 0 0 0 1 0 1 0 1 1

Volume Module:
Base Vol: 55 0 124 0 0 0 39 337 0 0 262 256
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 55 0 124 0 0 0 39 337 0 0 262 256
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 58 0 131 0 0 0 41 355 0 0 276 269
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 58 0 131 0 0 0 41 355 0 0 276 269

Critical Gap Module:
Critical Gap: 6.4 xxxxx 6.2 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx
FollowUpTm: 3.5 xxxxx 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx

Capacity Module:
Conflict Vol: 847 xxxxx 355 xxxxx xxxxx xxxxx 545 xxxxx xxxxx
Potent Cap.: 335 xxxxx 694 xxxxx xxxxx xxxxx 1034 xxxxx xxxxx
Move Cap.: 325 xxxxx 694 xxxxx xxxxx xxxxx 1034 xxxxx xxxxx
Volume/Cap: 0.18 xxxxx 0.19 xxxxx xxxxx xxxxx 0.04 xxxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.1 xxxxx xxxxx xxxxx xxxxx xxxxx
Stopped Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 8.6 xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move: * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx 514 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared Queue: xxxxx 1.7 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel: xxxxx 16.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * * * C * * * * *
ApproachDel: xxxxxx 16.0 C xxxxxx
ApproachLOS: * * * * * xxxxxx

Level of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #5 Hwy 1 SB Ramps/Imjin Pkwy

 Average Delay (sec/veh): OVERFLOW Worst Case Level of Service: F[xxxxx]

Street Name:	Hwy 1 SB Ramps		Imjin Pkwy		
Approach:	North Bound	South Bound	East Bound	West Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled	Uncontrolled
Rights:	Ignore	Ignore	Include	Include	Include
Lanes:	0 0 0 0	1 1 0 0	0 0 0 0	1 0 0 0	1 0 0 0

Volume Module:
 Base Vol: 0 0 183 0 0 0 1193 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 183 0 0 0 1193 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88
 PHF Volume: 0 0 208 0 0 0 1356 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0
 Final Vol.: 0 0 0 208 0 0 0 1356 0 0

Critical Gap Module:
 Critical Gap:xxxxx xxx 6.4 xxxx xxxxxx xxxxxx xxxxxx 4.1 xxxx xxxxxx
 FollowUpTm:xxxxx xxx 3.5 xxxx xxxxxx xxxxxx xxxxxx 2.2 xxxx xxxxxx

Capacity Module:
 Conflict Vol: xxxxxx xxxxxx 2711 xxxxx xxxxxx xxxxxx 0 xxxxx xxxxxx
 Potent Cap.: xxxxxx xxxxxx 24 xxxxx xxxxxx xxxxxx 900 xxxxx xxxxxx
 Move Cap.: xxxxxx xxxxxx 0 xxxxx xxxxxx xxxxxx 900 xxxxx xxxxxx
 Volume/Cap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 1.51 xxxxx xxxxxx

Level of Service Module:
 Queue: xxxxx xxxx xxxxxx xxxxx xxxx xxxx xxxxx xxxxx 64.8 xxxx xxxxxx
 Stopped Del:xxxxx xxxx xxxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 248.2 xxxxx xxxxxx
 LOS by Move: * * * * * * * * * * * * * * * * F

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx xxxxx xxxxx 0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 SharedQueue:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shared LOS: *
 ApproachDel: xxxxxxx xxxxxxx xxxxxxx xxxxxxx
 ApproachLOS: *

Level of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #6 Hwy 1 NB Ramps/Imjin Pkwy

 Average Delay (sec/veh): 0.0 Worst Case Level of Service: A[9.0]

Street Name:	Hwy 1 NB Ramps		Imjin Pkwy		
Approach:	North Bound	South Bound	East Bound	West Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled	Uncontrolled
Rights:	Ignore	Ignore	Include	Include	Include
Lanes:	1 0 0 0	1 0 0 0	0 1 1 0	0 0 1 0	0 0 1 0

Volume Module:
 Base Vol: 0 0 470 0 0 0 183 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 470 0 0 0 183 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.91 0.91 0.00 0.91 0.91 0.91 0.91 0.91
 PHF Volume: 0 0 0 0 0 0 0 201 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0
 Final Vol.: 0 0 0 0 0 0 0 201 0 0

Critical Gap Module:
 Critical Gap:xxxxx xxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 FollowUpTm:xxxxx xxx 3.5 xxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Capacity Module:
 Conflict Vol: xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Potent Cap.: xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Move Cap.: xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Volume/Cap: xxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx

Level of Service Module:
 Queue: xxxxx xxxx xxxxxx xxxxx xxxx xxxx xxxxx xxxxx 9.0 xxxxx xxxxxx
 Stopped Del:xxxxx xxxx xxxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 1.0 xxxxx xxxxxx
 LOS by Move: * * * * * * * * * * * * * * * * A

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx xxxxx xxxxx 0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 SharedQueue:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shared LOS: *
 ApproachDel: xxxxxxx xxxxxxx xxxxxxx xxxxxxx
 ApproachLOS: *

EXISTING PLUS PROJECT CONDITIONS
BLA VOLUMES
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Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Hwy 68 WB Ramps/Reservation Rd

Cycle (sec): 45 Critical Vol./Cap. (X): 1.042
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 89.9
Optimal Cycle: 112 Level Of Service: F

Street Name: Hwy 68 WB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 10 0 10 10 10 7 10 0
Lanes: 0 0 0 0 1 0 0 1 0 0 1 0 1 0 0 0

Volume Module:
Base Vol: 0 0 154 0 305 0 439 398 381 689 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 154 0 305 0 439 398 381 689 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 0 167 0 332 0 477 433 414 749 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 167 0 332 0 477 433 414 749 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 0 0 167 0 332 0 477 433 414 749 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
AdjStmnt: 1.00 1.00 0.85 1.00 0.94 0.94 0.95 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 0.52 0.48 1.00 1.00 0.00
Final Sat: 0 0 1809 0 1615 0 933 846 1805 1900 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.09 0.00 0.21 0.00 0.51 0.51 0.23 0.39 0.00
Val/Sat: 0.19 0.00 0.24 0.00 0.00 0.00 0.09 0.28 0.00 0.00 0.48 0.29
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.22 0.00 0.22 0.00 0.40 0.40 0.18 0.58 0.00
Volume/Cap: 0.00 0.00 0.00 0.42 0.00 0.92 0.00 1.28 1.28 1.28 0.68 0.00
Delay/Veh: 0.0 0.0 0.0 15.7 0.0 46.1 0.0 151.3 167.2 8.4 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 15.7 0.0 46.1 0.0 151.3 167.2 8.4 0.0
HCM2kAVG: 0 0 0 3 0 9 0 40 40 21 9 0

EXISTING PLUS PROJECT CONDITIONS
BLA VOLUMES
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Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Hwy 68 EB Ramps/Reservation Rd

Cycle (sec): 80 Critical Vol./Cap. (X): 0.917
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 29.7
Optimal Cycle: 100 Level Of Service: C

Street Name: Hwy 68 EB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 10 0 0 10 0 0 0 0 7 10 0 0 10 10
Lanes: 0 1 0 0 1 0 0 0 0 1 0 1 0 0 1 0 1

Volume Module:
Base Vol: 291 0 325 0 0 0 145 448 0 0 779 392
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 291 0 325 0 0 0 145 448 0 0 779 392
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85
PHF Volume: 342 0 382 0 0 0 171 527 0 0 916 461
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 342 0 382 0 0 0 171 527 0 0 916 461
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 342 0 382 0 0 0 171 527 0 0 916 461

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
AdjStmnt: 0.95 1.00 0.85 1.00 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.85
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00
Final Sat: 1809 0 1615 0 0 0 1805 1900 0 0 1900 1615

Capacity Analysis Module:
Vol/Sat: 0.19 0.00 0.24 0.00 0.00 0.00 0.09 0.28 0.00 0.00 0.48 0.29
Val/Sat: 0.19 0.00 0.24 0.00 0.00 0.00 0.09 0.28 0.00 0.00 0.48 0.29
Crit Moves: ****
Green/Cycle: 0.26 0.00 0.26 0.00 0.00 0.00 0.10 0.63 0.00 0.00 0.53 0.53
Volume/Cap: 0.73 0.00 0.92 0.00 0.00 0.00 0.92 0.44 0.00 0.00 0.92 0.54
Delay/Veh: 33.1 0.0 53.6 0.0 0.0 0.0 78.5 7.9 0.0 0.0 30.2 13.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 33.1 0.0 53.6 0.0 0.0 0.0 78.5 7.9 0.0 0.0 30.2 13.3
HCM2kAVG: 10 0 13 0 0 0 8 7 0 0 25 8

EXISTING PLUS PROJECT CONDITIONS
BLA VOLUMES
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Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
Intersection #1 Hwy 1 SB Ramps/Del Monte Blvd
Average Delay (sec/veh): 7.3 Worst Case Level of Service: A [9.1]
Street Name: Hwy 1 SB Ramps Del Monte Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 0 0 0 0 1 1 0 0 0 0 0 0 1 0 0 0 0 0

Volume Module:
Base Vol: 0 0 0 59 0 2 0 8 4 15 2 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 59 0 2 0 8 4 15 2 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85
PHF Volume: 0 0 0 69 0 2 0 9 5 18 2 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 0 0 69 0 2 0 9 5 18 2 0

Critical Gap Module:
Critical Gap: 6.4 xxxxx 6.2 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx
FollowUpTm: 3.5 xxxxx 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx

Capacity Module:
Conflict Vol: 49 xxxxx 2 xxxxx xxxxx xxxxx 14 xxxxx xxxxx
Potent Cap.: 965 xxxxx 1088 xxxxx xxxxx xxxxx 1617 xxxxx xxxxx
Move Cap.: 957 xxxxx 1088 xxxxx xxxxx xxxxx 1617 xxxxx xxxxx
Volume/Cap: 0.07 xxxxx 0.00 xxxxx xxxxx xxxxx 0.01 xxxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx
Stopped Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 7.3 xxxxx xxxxx
LOS by Move: * * * * * * * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx
Shared Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.2 xxxxx xxxxx
Shrd StpDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 9.1 xxxxx xxxxx
Shared LOS: * * * * * * * * * * * A * * * * *

ApproachDel: 9.1
ApproachLOS: * * * * *
ApproachLOS: * * * * *

EXISTING PLUS PROJECT CONDITIONS
BLA VOLUMES
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Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
Intersection #2 Hwy 1 NB Ramps/Del Monte Blvd
Average Delay (sec/veh): 3.7 Worst Case Level of Service: A [8.9]
Street Name: Hwy 1 NB Ramps Del Monte Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 0 0 0 0 0

Volume Module:
Base Vol: 1 0 9 0 0 0 0 60 8 68 15 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1 0 9 0 0 0 0 60 8 68 15 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81
PHF Volume: 1 0 11 0 0 0 0 74 10 84 19 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 1 0 11 0 0 0 0 74 10 84 19 0

Critical Gap Module:
Critical Gap: 6.4 xxxxx 6.2 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx
FollowUpTm: 3.5 xxxxx 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx

Capacity Module:
Conflict Vol: 265 xxxxx 79 xxxxx xxxxx xxxxx 84 xxxxx xxxxx
Potent Cap.: 728 xxxxx 987 xxxxx xxxxx xxxxx 1526 xxxxx xxxxx
Move Cap.: 696 xxxxx 987 xxxxx xxxxx xxxxx 1526 xxxxx xxxxx
Volume/Cap: 0.00 xxxxx 0.01 xxxxx xxxxx xxxxx 0.06 xxxxx xxxxx

Level of Service Module:
Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.2 xxxxx xxxxx
Stopped Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 7.5 xxxxx xxxxx
LOS by Move: * * * * * * * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap: xxxxx 947 xxxxx xxxxx 0 xxxxx xxxxx xxxxx xxxxx
Shared Queue: xxxxx 0.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.2 xxxxx xxxxx
Shrd StpDel: xxxxx 8.9 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 7.5 xxxxx xxxxx
Shared LOS: * * * * * * * * * * * A * * * * *

ApproachDel: 8.9
ApproachLOS: * * * * *
ApproachLOS: * * * * *

EXISTING PLUS PROJECT CONDITIONS
BLA VOLUMES
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EXISTING PLUS PROJECT CONDITIONS
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Level of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #4 Hwy 1 NB Ramps/Reservation Rd

 Average Delay (sec/veh): 5.9 Worst Case Level of Service: C [18.6]

 Street Name: Hwy 1 NB Ramps Reservation Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Uncontrolled Uncontrolled Uncontrolled
 Rights: Include Include Include Include
 Lanes: 0 0 1 0 0 0 0 0 0 0 1 0 1 0 0 0 0 1 0 1

Level of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #3 Hwy 1 SB Ramps/Reservation Rd

 Average Delay (sec/veh): 12.1 Worst Case Level of Service: C [24.9]

 Street Name: Hwy 1 SB Ramps Reservation Rd
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Uncontrolled Uncontrolled Uncontrolled
 Rights: Include Include Include Include
 Lanes: 0 0 0 0 0 1 0 0 1 0 0 0 0 1 0 1 0 1 0 0

Volume Module:
 Base Vol: 65 0 295 0 0 0 54 286 0 0 205 318
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 65 0 295 0 0 0 54 286 0 0 205 318
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
 PHF Volume: 66 0 301 0 0 0 55 292 0 0 209 324
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Final Vol.: 66 0 301 0 0 0 55 292 0 0 209 324

Volume Module:
 Base Vol: 0 0 279 0 51 0 112 65 152 118 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 279 0 51 0 112 65 152 118 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 PHF Volume: 0 0 288 0 53 0 115 67 157 122 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Final Vol.: 0 0 288 0 53 0 115 67 157 122 0

Critical Gap Module:
 Critical Gp: 6.4 xxxxx 6.2 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx xxxxx xxxxx
 FollowUpTim: 3.5 xxxxx 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx xxxxx xxxxx
 Capacity Module:
 Conflict Vol: 773 xxxxx 292 xxxxx xxxxx xxxxx 534 xxxxx xxxxx xxxxx
 Potent Cap.: 370 xxxxx 752 xxxxx xxxxx xxxxx 1044 xxxxx xxxxx xxxxx
 Move Cap.: 355 xxxxx 752 xxxxx xxxxx xxxxx 1044 xxxxx xxxxx xxxxx
 Volume/Cap: 0.19 xxxxx 0.40 xxxxx xxxxx xxxxx 0.05 xxxxx xxxxx xxxxx
 Level of Service Module:
 Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.2 xxxxx xxxxx xxxxx xxxxx
 Stopped Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 8.6 xxxxx xxxxx xxxxx xxxxx
 LOS by Move: * * * * * A * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxx 626 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 SharedQueue: xxxxx 3.8 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shrd StpDel: xxxxx 18.6 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shared LOS: * * * * * A * * * * *
 ApproachDel: 18.6 C xxxxxxx xxxxxxx
 ApproachLOS: * * * * *

Critical Gap Module:
 Critical Gp: 6.4 xxxxx 6.2 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx
 FollowUpTim: 3.5 xxxxx 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx
 Capacity Module:
 Conflict Vol: 584 xxxxx 122 xxxxx xxxxx xxxxx 182 xxxxx xxxxx
 Potent Cap.: 477 xxxxx 935 xxxxx xxxxx xxxxx 1405 xxxxx xxxxx
 Move Cap.: 437 xxxxx 935 xxxxx xxxxx xxxxx 1405 xxxxx xxxxx
 Volume/Cap: 0.66 xxxxx 0.06 xxxxx xxxxx xxxxx 0.11 xxxxx xxxxx
 Level of Service Module:
 Queue: xxxxx xxxxx xxxxx 4.6 xxxxx xxxxx xxxxx xxxxx 0.4 xxxxx xxxxx
 Stopped Del: xxxxx xxxxx xxxxx 27.8 xxxxx xxxxx xxxxx xxxxx 7.9 xxxxx xxxxx
 LOS by Move: * * * * * D * * * * * A * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxx xxxxx xxxxx xxxxx xxxxx 935 xxxxx xxxxx xxxxx xxxxx
 SharedQueue: xxxxx xxxxx xxxxx xxxxx xxxxx 0.2 xxxxx xxxxx xxxxx xxxxx
 Shrd StpDel: xxxxx xxxxx xxxxx xxxxx 9.1 xxxxx xxxxx xxxxx xxxxx
 Shared LOS: * * * * * A * * * * *
 ApproachDel: 24.9 C xxxxxxx xxxxxxx
 ApproachLOS: * * * * *

EXISTING PLUS PROJECT CONDITIONS
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Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Hwy 1 SB Ramps/Imjin Pkwy
Average Delay (sec/veh): 53.0 Worst Case Level of Service: F [206.5]

Street Name: Hwy 1 SB Ramps Imjin Pkwy
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 1 1 0 0 0 0 0 0 0 0 1 0 0 0 0

Intersection #6 Hwy 1 NB Ramps/Imjin Pkwy
Average Delay (sec/veh): 0.0 Worst Case Level of Service: A [9.0]

Street Name: Hwy 1 NB Ramps Imjin Pkwy
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Ignore Include Include Include
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1

Volume Module:
Base Vol: 0 0 1041 0 0 0 0 0 128 0 0 576 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 1041 0 0 0 0 0 128 0 0 576 0 0
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.74 0.74 0.00 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.74
PHF Volume: 0 0 0 0 0 0 0 0 173 0 0 778 189
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 0 0 0 0 0 0 0 173 0 0 778 189

Volume Module:
Base Vol: 0 0 128 0 0 0 0 0 576 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 128 0 0 0 0 0 576 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88
PHF Volume: 0 0 145 0 0 0 0 0 655 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 0 145 0 0 0 0 0 655 0 0

Critical Gap Module:
Critical Gap:xxxxx 6.4 xxxxx xxxxxx xxxxxx xxxxxx 4.1 xxxxx xxxxxx
FollowUpTin:xxxxx 3.5 xxxxx xxxxxx xxxxxx xxxxxx 2.2 xxxxx xxxxxx

Critical Gap Module:
Critical Gap:xxxxx 6.4 xxxxx xxxxxx xxxxxx xxxxxx 4.1 xxxxx xxxxxx
FollowUpTin:xxxxx 3.5 xxxxx xxxxxx xxxxxx xxxxxx 2.2 xxxxx xxxxxx

Capacity Module:
Conflict Vol: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
Potent Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
Move Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
Volume/Cap: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx

Capacity Module:
Conflict Vol: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
Potent Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
Move Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
Volume/Cap: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx

EXISTING PLUS PROJECT CONDITIONS
BLA VOLUMES
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Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Hwy 68 WB Ramps/Reservation Rd

Cycle (sec): 80 Critical Vol./Cap. (X): 1.040
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 53.2
Optimal Cycle: 180 Level Of Service: D

Street Name: Hwy 68 WB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 10 0 10 0 10 0 10 0
Lanes: 0 0 0 0 1 0 0 1 0 0 1 0 1 0 0

Volume Module:
Base Vol: 0 0 295 0 164 0 602 223 392 610 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 295 0 164 0 602 223 392 610 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 0 328 0 182 0 669 248 436 678 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 328 0 182 0 669 248 436 678 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 328 0 182 0 669 248 436 678 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
AdjStmnt: 1.00 1.00 1.00 0.95 1.00 0.85 1.00 0.96 0.96 0.95 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 0.73 0.27 1.00 0.00 0.00
Final Sat.: 0 0 1809 0 1615 0 1337 495 1805 1900 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.18 0.00 0.11 0.00 0.50 0.50 0.24 0.36 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.17 0.00 0.17 0.00 0.48 0.48 0.23 0.71 0.00
Volume/Cap: 0.00 0.00 0.00 1.04 0.00 0.65 0.00 1.04 1.04 1.04 0.50 0.00
Delay/Veh: 0.0 0.0 0.0 94.5 0.0 35.9 0.0 61.9 61.9 85.5 5.4 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 94.5 0.0 35.9 0.0 61.9 61.9 85.5 5.4 0.0
HCM2kAVG: 0 0 0 15 0 5 0 34 34 19 8 0

EXISTING PLUS PROJECT CONDITIONS
BLA VOLUMES
PM PEAK HOUR

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Hwy 68 EB Ramps/Reservation Rd

Cycle (sec): 55 Critical Vol./Cap. (X): 1.046
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 45.5
Optimal Cycle: 149 Level Of Service: D

Street Name: Hwy 68 EB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 10 0 0 10 0 0 0 0 7 10 0 0 10 10
Lanes: 0 1 0 0 1 0 0 0 0 1 0 1 0 0 1 0 1

Volume Module:
Base Vol: 321 0 426 0 0 0 251 646 0 0 681 156
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 321 0 426 0 0 0 251 646 0 0 681 156
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87
PHF Volume: 369 0 490 0 0 0 289 743 0 0 783 179
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 369 0 490 0 0 0 289 743 0 0 783 179
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 369 0 490 0 0 0 289 743 0 0 783 179

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
AdjStmnt: 0.95 1.00 0.85 1.00 1.00 1.00 0.95 1.00 1.00 0.95 1.00 0.85
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00
Final Sat.: 1809 0 1615 0 0 0 1805 1900 0 0 1900 1615

Capacity Analysis Module:
Vol/Sat: 0.20 0.00 0.30 0.00 0.00 0.00 0.16 0.39 0.00 0.00 0.41 0.11
Crit Moves: ****
Green/Cycle: 0.29 0.00 0.29 0.00 0.00 0.00 0.15 0.55 0.00 0.00 0.39 0.39
Volume/Cap: 0.70 0.00 1.05 0.00 0.00 0.00 1.05 0.72 0.00 0.00 1.05 0.28
Delay/Veh: 21.7 0.0 73.7 0.0 0.0 0.0 90.1 11.7 0.0 0.0 62.3 11.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 21.7 0.0 73.7 0.0 0.0 0.0 90.1 11.7 0.0 0.0 62.3 11.6
HCM2kAVG: 7 0 17 0 0 0 12 11 0 0 24 2

Level of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Hwy 1 SB Ramps/Reservation Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.386
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/Veh): 22.1
 Optimal Cycle: 37 Level Of Service: C

 Street Name: Hwy 1 SB Ramps Reservation Rd
 Approach: North Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected Protected Protected
 Rights: Include Include Include Include Include Include
 Lanes: 0 0 0 0 1 0 0 1 0 0 0 0 1 0 1 0 0 0
 Volume Module:
 Base Vol: 0 0 0 295 0 46 0 82 55 215 102 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 0 295 0 46 0 82 55 215 102 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
 PHF Volume: 0 0 0 317 0 49 0 88 59 231 110 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 317 0 49 0 88 59 231 110 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 0 0 0 317 0 49 0 88 59 231 110 0
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 AdjStmnt: 1.00 1.00 1.00 0.95 1.00 0.85 1.00 0.95 0.95 0.95 1.00 1.00
 Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 0.60 0.40 1.00 1.00 0.00
 Final Sat.: 0 0 0 1805 0 1615 0 1076 722 1805 1900 0
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.18 0.00 0.03 0.00 0.08 0.08 0.13 0.06 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.00 0.00 0.46 0.00 0.46 0.00 0.21 0.21 0.33 0.54 0.00
 Volume/Cap: 0.00 0.00 0.00 0.39 0.00 0.07 0.00 0.39 0.39 0.39 0.11 0.00
 Delay/Veh: 0.0 0.0 0.0 18.3 0.0 15.3 0.0 34.4 34.4 26.0 11.1 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 0.0 0.0 18.3 0.0 15.3 0.0 34.4 34.4 26.0 11.1 0.0
 HCM2kAVG: 0 0 0 7 0 1 0 4 4 6 2 0

Level of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #4 Hwy 1 NB Ramps/Reservation Rd

 Average Delay (sec/Veh): 3.0 Worst Case Level Of Service: C [16.0]

 Street Name: Hwy 1 NB Ramps Reservation Rd
 Approach: North Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
 Rights: Include Include Include Include
 Lanes: 0 0 1 1 0 0 0 0 0 0 1 0 1 0 0 0 0 1 0 1
 Volume Module:
 Base Vol: 55 0 124 0 0 0 39 337 0 0 262 256
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 55 0 124 0 0 0 39 337 0 0 262 256
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 58 0 131 0 0 0 41 355 0 0 276 269
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Final Vol.: 58 0 131 0 0 0 41 355 0 0 276 269
 Critical Gap Module:
 Critical Gap: 6.4 xxxxx 6.2 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx xxxxx xxxxx xxxxx
 FollowUpTim: 3.5 xxxxx 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx xxxxx xxxxx xxxxx
 Capacity Module:
 Conflict Vol: 847 xxxxx 355 xxxxx xxxxx xxxxx 545 xxxxx xxxxx xxxxx xxxxx
 Potent Cap.: 335 xxxxx 694 xxxxx xxxxx xxxxx 1034 xxxxx xxxxx xxxxx xxxxx
 Move Cap.: 325 xxxxx 694 xxxxx xxxxx xxxxx 1034 xxxxx xxxxx xxxxx xxxxx
 Volume/Cap: 0.18 xxxxx 0.19 xxxxx xxxxx xxxxx 0.04 xxxxx xxxxx xxxxx xxxxx
 Level Of Service Module:
 Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.1 xxxxx xxxxx xxxxx xxxxx xxxxx
 Stopped Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 8.6 xxxxx xxxxx xxxxx xxxxx xxxxx
 LOS by Move: * * * * * A * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap: xxxxx 514 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 SharedQueue: xxxxx 1.7 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shrd StpDel: xxxxx 16.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shared LOS: *
 ApproachDel: 16.0 C *
 ApproachLOS: *

IMPROVED EXISTING PLUS PROJECT CONDITIONS
 BLA 2000 PLUS PROJECT VOLUMES
 AM PEAK HOUR

Level of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #5 Hwy 1 SB Ramps/Imjin Pkwy
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.809
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 11.9
 Optimal Cycle: 119 Level Of Service: B

 Street Name: Hwy 1 SB Ramps Imjin Pkwy
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Split Phase Split Phase Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 0 0 0 1 1 0 0 0 0 0 0 0 1 0 0 0 0
 Volume Module:
 Base Vol: 0 0 0 0 183 0 0 0 0 0 0 0 0 1193 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 0 0 183 0 0 0 0 0 0 0 0 1193 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88
 PHF Volume: 0 0 0 0 208 0 0 0 0 0 0 0 0 1356 0 0
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 1356 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 0 0 0 0 208 0 0 0 0 0 0 0 0 1356 0 0
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 AdjStmnt: 1.00 1.00 1.00 0.95 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.95 1.00 1.00 1.00 1.00
 Lanes: 0.00 0.00 0.00 2.00 0.00 0.00 0.00 0.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 0.00
 Final Sat.: 0 0 0 3618 0 0 0 0 0 0 0 0 1805 0 0
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.06 0.00 0.00 0.00 0.00 0.00 0.00 0.75 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.00 0.00 0.07 0.00 0.00 0.00 0.00 0.00 0.00 0.93 0.00 0.00
 Volume/Cap: 0.00 0.00 0.00 0.81 0.00 0.00 0.00 0.00 0.00 0.00 0.81 0.00 0.00
 Delay/Veh: 0.0 0.0 0.0 62.9 0.0 0.0 0.0 0.0 0.0 0.0 4.1 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 0.0 0.0 62.9 0.0 0.0 0.0 0.0 0.0 0.0 4.1 0.0 0.0
 HCM2kAv9: 0 0 0 5 0 0 0 0 0 0 15 0 0

IMPROVED EXISTING PLUS PROJECT CONDITIONS
 BLA 2000 PLUS PROJECT VOLUMES
 AM PEAK HOUR

Level of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #6 Hwy 1 NB Ramps/Imjin Pkwy
 Average Delay (sec/veh): 0.0 Worst Case Level of Service: A [9.0]

 Street Name: Hwy 1 NB Ramps Imjin Pkwy
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
 Rights: Ignore Include Include Include
 Lanes: 1 0 0 0 1 0 0 0 0 0 1 1 0 0 0 0 1 0 1
 Volume Module:
 Base Vol: 0 0 470 0 0 0 0 0 0 0 183 0 0 1193 130
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 470 0 0 0 0 0 0 0 183 0 0 1193 130
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.91 0.91 0.00 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
 PHF Volume: 0 0 0 0 0 0 0 0 0 0 201 0 0 1311 143
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Final Vol.: 0 0 0 0 0 0 0 0 0 0 201 0 0 1311 143
 Critical Gap Module:
 Critical Gap:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 FollowUpTin:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Capacity Module:
 Conflict Vol: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Potent Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Move Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Volume/Cap: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Level of Service Module:
 Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Stopped Del:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 LOS by Move: * * * * * LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 SharedQueue:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shrd StpDel:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shared LOS: * * * * * A * * * * *
 ApproachDel: xxxxxx xxxxxx * * * * *
 ApproachLOS: * * * * *

IMPROVED EXISTING PLUS PROJECT CONDITIONS
BLA 2000 PLUS PROJECT VOLUMES
AM PEAK HOUR

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Hwy 68 WB Ramps/Reservation Rd

Cycle (sec): 45 Critical Vol./Cap. (X): 0.737
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 23.3
Optimal Cycle: 45 Level Of Service: C

Street Name: Hwy 68 WB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 10 0 10 10 10 7 10 0
Lanes: 0 0 0 0 1 0 0 1 0 0 1 1 0 1 0 0

Volume Module:
Base Vol: 0 0 154 0 305 0 439 398 381 689 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 154 0 305 0 439 398 381 689 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 0 167 0 332 0 477 433 414 749 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 167 0 332 0 477 433 414 749 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 167 0 332 0 477 433 414 749 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
AdjStmnt: 1.00 1.00 1.00 0.95 1.00 0.85 1.00 1.00 0.85 0.95 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00
Final Sat.: 0 0 1809 0 1615 0 1900 1615 1805 1900 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.09 0.00 0.21 0.00 0.25 0.27 0.23 0.39 0.00
Val/Sat: 0.19 0.00 0.24 0.00 0.00 0.00 0.09 0.28 0.00 0.00 0.48 0.29
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.23 0.00 0.88 0.00 0.31 0.31 0.26 0.57 0.00
Volume/Cap: 0.00 0.00 0.00 0.40 0.00 0.88 0.00 0.82 0.88 0.88 0.70 0.00
Delay/Veh: 0.0 0.0 0.0 15.2 0.0 36.8 0.0 23.8 31.2 32.9 9.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 15.2 0.0 36.8 0.0 23.8 31.2 32.9 9.0 0.0
HCM2kAVG: 0 0 2 0 8 0 9 10 10 9 0

IMPROVED EXISTING PLUS PROJECT CONDITIONS
BLA 2000 PLUS PROJECT VOLUMES
AM PEAK HOUR

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Hwy 68 EB Ramps/Reservation Rd

Cycle (sec): 80 Critical Vol./Cap. (X): 0.917
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 29.7
Optimal Cycle: 100 Level Of Service: C

Street Name: Hwy 68 EB Ramps Reservation Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 10 0 0 10 0 0 0 0 7 10 0 0 10 10
Lanes: 0 1 0 0 1 0 0 0 0 1 0 1 0 0 1 0 1

Volume Module:
Base Vol: 291 0 325 0 0 0 145 448 0 0 779 392
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 291 0 325 0 0 0 145 448 0 0 779 392
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85
PHF Volume: 342 0 382 0 0 0 171 527 0 0 916 461
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 342 0 382 0 0 0 171 527 0 0 916 461
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 342 0 382 0 0 0 171 527 0 0 916 461

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
AdjStmnt: 0.95 1.00 0.85 1.00 1.00 1.00 0.95 1.00 1.00 1.00 1.00 0.85
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00
Final Sat.: 1809 0 1615 0 0 0 1805 1900 0 0 1900 1615

Capacity Analysis Module:
Vol/Sat: 0.19 0.00 0.24 0.00 0.00 0.00 0.09 0.28 0.00 0.00 0.48 0.29
Val/Sat: 0.19 0.00 0.24 0.00 0.00 0.00 0.09 0.28 0.00 0.00 0.48 0.29
Crit Moves: ****
Green/Cycle: 0.26 0.00 0.26 0.00 0.00 0.00 0.10 0.63 0.00 0.00 0.53 0.53
Volume/Cap: 0.73 0.00 0.92 0.00 0.00 0.00 0.92 0.44 0.00 0.00 0.92 0.54
Delay/Veh: 33.1 0.0 53.6 0.0 0.0 0.0 78.5 7.9 0.0 0.0 30.2 13.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 33.1 0.0 53.6 0.0 0.0 0.0 78.5 7.9 0.0 0.0 30.2 13.3
HCM2kAVG: 10 0 13 0 0 0 8 7 0 0 25 8

IMPROVED EXISTING PLUS PROJECT CONDITIONS
 BLA 2000 PLUS PROJECT VOLUMES
 PM PEAK HOUR

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Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #1 Hwy 1 SB Ramps/Del Monte Blvd
*****
Average Delay (sec/veh): 7.3 Worst Case Level of Service: A [ 9.1]
*****
Street Name: Hwy 1 SB Ramps Del Monte Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 0 0 0 0 1 1 0 0 0 0 0 0 1 0 0 0
Volume Module:
Base Vol: 0 0 0 0 59 0 2 0 8 4 15 2 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 0 59 0 2 0 8 4 15 2 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85
PHF Volume: 0 0 0 0 69 0 2 0 9 5 18 2 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 0 0 0 69 0 2 0 9 5 18 2 0
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxx 6.4 xxxx 6.2 xxxxx xxxx xxxxx 4.1 xxxxx xxxxx
FollowUpTin:xxxxx xxxx xxxx 3.5 xxxx 3.3 xxxxx xxxx xxxxx 2.2 xxxx xxxxx
Capacity Module:
Conflict Vol: xxxx xxxx xxxxx 49 xxxxx 2 xxxxx xxxxx xxxxx 14 xxxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx 965 xxxxx 1088 xxxxx xxxxx xxxxx 1617 xxxxx xxxxx
Move Cap.: xxxx xxxx xxxxx 957 xxxxx 1088 xxxxx xxxxx xxxxx 1617 xxxxx xxxxx
Volume/Cap: xxxx xxxx xxxxx 0.07 xxxxx 0.00 xxxxx xxxxx xxxxx 0.01 xxxxx xxxxx
Level of Service Module:
Queue: xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 7.3 xxxxx xxxxx
LOS by Move: * * * * * * * * * * * * * * * * * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxx xxxxx xxxxx xxxx 961 xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxxx 0.2 xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxxx 9.1 xxxxx xxxxx xxxxx xxxxx 7.3 xxxxx xxxxx
Shared LOS: * * * * * * * * * * * * * * * * * * A * *
ApproachDel: xxxxxx 9.1 xxxxxx * * * * *
ApproachLOS: * * * * *
  
```

IMPROVED EXISTING PLUS PROJECT CONDITIONS
 BLA 2000 PLUS PROJECT VOLUMES
 PM PEAK HOUR

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Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #2 Hwy 1 NB Ramps/Del Monte Blvd
*****
Average Delay (sec/veh): 3.7 Worst Case Level of Service: A [ 8.9]
*****
Street Name: Hwy 1 NB Ramps Del Monte Blvd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include
Lanes: 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 0 0 0
Volume Module:
Base Vol: 1 0 9 0 0 0 0 0 60 8 68 15 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1 0 9 0 0 0 0 0 60 8 68 15 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81 0.81
PHF Volume: 1 0 11 0 0 0 0 0 74 10 84 19 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 1 0 11 0 0 0 0 0 74 10 84 19 0
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxx 6.2 xxxxx xxxx xxxxx xxxxx 4.1 xxxxx xxxxx
FollowUpTin:xxxxx xxxx xxxx 3.5 xxxx 3.3 xxxxx xxxx xxxxx 2.2 xxxx xxxxx
Capacity Module:
Conflict Vol: 265 xxxxx 79 xxxxx xxxxx xxxxx xxxxx xxxxx 84 xxxxx xxxxx
Potent Cap.: 728 xxxxx 987 xxxxx xxxxx xxxxx xxxxx xxxxx 1526 xxxxx xxxxx
Move Cap.: 696 xxxxx 987 xxxxx xxxxx xxxxx xxxxx xxxxx 1526 xxxxx xxxxx
Volume/Cap: 0.00 xxxxx 0.01 xxxxx xxxxx xxxxx xxxxx xxxxx 0.06 xxxxx xxxxx
Level of Service Module:
Queue: xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx xxxxx xxxxx 0.2 xxxxx xxxxx
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 7.5 xxxxx xxxxx
LOS by Move: * * * * * * * * * * * * * * * * * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxx 947 xxxxx xxx 0 xxxxx xxxxx xxxxx xxxxx 0.2 xxxxx xxxxx
SharedQueue:xxxxx 0.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.2 xxxxx xxxxx
Shrd StpDel:xxxxx 8.9 xxxxx xxxxx xxxxx xxxxx xxxxx 7.5 xxxxx xxxxx
Shared LOS: * A * * * * * * * * * * * * * * * * A * *
ApproachDel: 8.9 xxxxxx * * * * *
ApproachLOS: * * * * *
  
```

Level of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #3 Hwy 1 SB Ramps/Reservation Rd

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.347
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 21.6
 Optimal Cycle: 35 Level Of Service: C

 Street Name: Hwy 1 SB Ramps Reservation Rd
 Approach: North Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected Protected Protected
 Rights: Include Include Include Include Include Include
 Lanes: 0 0 0 0 1 0 0 1 0 0 0 0 1 0 1 0 1 0 0
 Volume Module: -----
 Base Vol: 0 0 0 0 279 0 51 0 112 65 152 118 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 0 0 279 0 51 0 112 65 152 118 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 PHF Volume: 0 0 0 0 288 0 53 0 115 67 157 122 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 0 0 0 0 288 0 53 0 115 67 157 122 0
 Saturation Flow Module: -----
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj/Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 1.00 0.95 0.95 0.95 1.00 1.00
 Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 0.63 0.37 1.00 1.00 0.00
 Final Sat.: 0 0 0 1805 0 1615 0 1142 663 1805 1900 0
 Capacity Analysis Module: -----
 Vol/Sat: 0.00 0.00 0.00 0.16 0.00 0.03 0.00 0.10 0.10 0.09 0.06 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.00 0.00 0.46 0.00 0.46 0.00 0.29 0.29 0.25 0.54 0.00
 Volume/Cap: 0.00 0.00 0.00 0.35 0.00 0.07 0.00 0.35 0.35 0.35 0.12 0.00
 Delay/Veh: 0.0 0.0 0.0 17.7 0.0 15.2 0.0 28.4 28.4 31.3 11.3 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 0.0 0.0 17.7 0.0 15.2 0.0 28.4 28.4 31.3 11.3 0.0
 HCM2kAvg: 0 0 0 6 0 1 0 5 4 2 0

Level of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #4 Hwy 1 NB Ramps/Reservation Rd

 Average Delay (sec/veh): 5.9 Worst Case Level of Service: C [18.6]

 Street Name: Hwy 1 NB Ramps Reservation Rd
 Approach: North Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
 Rights: Include Include Include Include
 Lanes: 0 0 1 1 0 0 0 0 0 0 1 0 1 0 0 0 1 0 1
 Volume Module: -----
 Base Vol: 65 0 295 0 0 0 54 286 0 0 205 318
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 65 0 295 0 0 0 54 286 0 0 205 318
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
 PHF Volume: 66 0 301 0 0 0 55 292 0 0 209 324
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Final Vol.: 66 0 301 0 0 0 55 292 0 0 209 324
 Critical Gap Module: -----
 Critical Gap: 6.4 xxxxx 6.2 xxxxx xxxxx xxxxxx 4.1 xxxxx xxxxxx xxxxxx xxxxxx
 FollowUpTim: 3.5 xxxxx 3.3 xxxxxx xxxxx xxxxxx 2.2 xxxxx xxxxxx xxxxxx xxxxxx
 Capacity Module: -----
 Conflict Vol: 773 xxxxx 292 xxxxx xxxxx xxxxxx 534 xxxxx xxxxxx xxxxxx
 Potent Cap.: 370 xxxxx 752 xxxxx xxxxx xxxxxx 1044 xxxxx xxxxxx xxxxxx
 Move Cap.: 355 xxxxx 752 xxxxx xxxxx xxxxxx 1044 xxxxx xxxxxx xxxxxx
 Volume/Cap: 0.19 xxxxx 0.40 xxxxx xxxxx xxxxxx 0.05 xxxxx xxxxxx xxxxxx
 Level of Service Module: -----
 Queue: xxxxx xxxxx xxxxxx xxxxxx xxxxxx 0.2 xxxxx xxxxxx xxxxxx xxxxxx
 Stopped Del: xxxxxx xxxxx xxxxxx xxxxxx xxxxxx 8.6 xxxxx xxxxxx xxxxxx xxxxxx
 LOS by Move: * * * * * A * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap: xxx 626 xxxxx xxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 SharedQueue: xxxxxx 3.8 xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Share StpDel: xxxxxx 18.6 xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
 Shared LOS: * * * * * * * * * * *
 ApproachDel: 18.6 C
 ApproachLOS: * * * * * * * * * * *

IMPROVED EXISTING PLUS PROJECT CONDITIONS
 BLA 2000 PLUS PROJECT VOLUMES
 PM PEAK HOUR

IMPROVED EXISTING PLUS PROJECT CONDITIONS
 BLA 2000 PLUS PROJECT VOLUMES
 PM PEAK HOUR

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Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
*****
Intersection #5 Hwy 1 SB Ramps/Imjin Pkwy
*****
Cycle (sec): 100          Critical Vol./Cap. (X): 0.403
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 8.6
Optimal Cycle: 38          Level Of Service: A
*****
Street Name:          Hwy 1 SB Ramps          Imjin Pkwy
Approach:            North Bound          South Bound          East Bound          West Bound
Movement:           L - T - R          L - T - R          L - T - R          L - T - R
Control:            Split Phase          Split Phase          Split Phase          Split Phase
Rights:             Include              Include              Include              Include
Min. Green:         0 0 0 0          1 1 0 0          0 0 0 0          1 0 0 0
Lanes:              0 0 0 0          0 0 0 0          0 0 0 0          0 0 0 0
Volume Module:
Base Vol:           0 0 0 0          0 0 0 0          0 0 0 0          0 576 0
Growth Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:        0 0 0 0          0 0 0 0          0 0 0 0          0 576 0
User Adj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:        0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88
PHF Adj:           0 0 0 0          0 0 0 0          0 0 0 0          0 655 0
Reduced Vol:       0 0 0 0          0 0 0 0          0 0 0 0          0 0 0 0
PCE Adj:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:        0 0 0 0          0 0 0 0          0 0 0 0          0 655 0
Saturation Flow Module:
Sat/Lane:          1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
AdjStmnt:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:             0.00 0.00 0.00 2.00 0.00 0.00 0.00 0.00 1.00 0.00 0.00
Final Sat.:        0 0 0 0          0 0 0 0          0 0 0 0          0 1805 0
Capacity Analysis Module:
Vol/Sat:           0.00 0.00 0.00 0.04 0.00 0.00 0.00 0.00 0.36 0.00 0.00
Crit Moves:        *****
Green/Cycle:       0.00 0.00 0.00 0.10 0.00 0.00 0.00 0.00 0.90 0.00 0.00
Volume/Cap:        0.00 0.00 0.00 0.40 0.00 0.00 0.00 0.00 0.40 0.00 0.00
Delay/Veh:         0.0 0.0 0.0 43.0 0.0 0.0 0.0 0.0 0.9 0.0 0.0
User DelAdj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:        0.0 0.0 0.0 43.0 0.0 0.0 0.0 0.0 0.9 0.0 0.0
HCM2kAVG:          0 0 0          0 3 0          0 0 0          0 4 0
*****
  
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Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #6 Hwy 1 NB Ramps/Imjin Pkwy
*****
Average Delay (sec/veh): 0.0 Worst Case Level of Service: A [ 9.0 ]
*****
Street Name:          Hwy 1 NB Ramps          Imjin Pkwy
Approach:            North Bound          South Bound          East Bound          West Bound
Movement:           L - T - R          L - T - R          L - T - R          L - T - R
Control:            Stop Sign          stop Sign          Uncontrolled          Uncontrolled
Rights:             Ignore              Include              Include              Include
Lanes:              1 0 0 0 1          0 0 0 0 0          0 1 1 0 0          0 0 1 0 1
Volume Module:
Base Vol:           0 0 1041          0 0 0 0          0 128 0          0 576 140
Growth Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:        0 0 1041          0 0 0 0          0 128 0          0 576 140
User Adj:          1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:           0.74 0.74 0.00 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.74
PHF Volume:        0 0 0 0          0 0 0 0          0 173 0          0 778 189
Reduct Vol:        0 0 0 0          0 0 0 0          0 0 0 0          0 0 0 0
Final Vol.:        0 0 0 0          0 0 0 0          0 173 0          0 778 189
Critical Gap Module:
Critical Gap:       xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
FollowUpTm:        xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Capacity Module:
Conflict Vol:       xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Potent Cap.:       xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Move Cap.:         xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Volume/Cap:        xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Level of Service Module:
Queue:             xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Stopped Del:       xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
LOS by Move:       * * * * *          * * * * *          * * * * *          * * * * *
Movement:          LT - LTR - RT          LT - LTR - RT          LT - LTR - RT          LT - LTR - RT
Shared Cap.:       xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
SharedQueue:       xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Shrd StpDel:       xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Shared LOS:        * * * * *          * * * * *          * * * * *          * * * * *
ApproachDel:       xxxxxx          xxxxxx          xxxxxx          xxxxxx
ApproachLOS:      * * * * *          * * * * *          * * * * *          * * * * *
  
```

IMPROVED EXISTING PLUS PROJECT CONDITIONS
BLA 2000 PLUS PROJECT VOLUMES
PM PEAK HOUR

Level of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Hwy 68 WB Ramps/Reservation Rd

Cycle (sec): 80 Critical Vol./Cap. (X): 0.873
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 28.1
Optimal Cycle: 83 Level Of Service: C

Street Name: Hwy 68 WB Ramps Reservation Rd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Protected Protected Protected
Rights: Include Include Include Include Include

Min. Green: 0 0 0 0 10 0 10 10 10 7 10 0
Lanes: 0 0 0 0 0 1 0 0 1 0 0 1 1 0 0 0

Volume Module:
Base Vol: 0 0 0 295 0 164 0 602 223 392 610 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Base: 0 0 0 295 0 164 0 602 223 392 610 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 0 0 328 0 182 0 669 248 436 678 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Vol.: 0 0 0 328 0 182 0 669 248 436 678 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

AdjStmnt: 1.00 1.00 1.00 0.95 1.00 0.85 1.00 1.00 0.85 0.95 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 1.00 1.00 1.00 0.00

Final Sat.: 0 0 0 1809 0 1615 0 1900 1615 1805 1900 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.18 0.00 0.11 0.00 0.35 0.15 0.24 0.36 0.00

Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.21 0.00 0.21 0.00 0.40 0.40 0.28 0.68 0.00

Volume/Cap: 0.00 0.00 0.00 0.87 0.00 0.54 0.00 0.87 0.38 0.87 0.52 0.00
Delay/Veh: 0.0 0.0 0.0 50.2 0.0 30.1 0.0 32.8 17.2 43.1 6.8 0.0

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 50.2 0.0 30.1 0.0 32.8 17.2 43.1 6.8 0.0

HCM2kAVG: 0 0 0 12 0 5 0 19 4 14 9 0

IMPROVED EXISTING PLUS PROJECT CONDITIONS
BLA 2000 PLUS PROJECT VOLUMES
PM PEAK HOUR

Level of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Hwy 68 EB Ramps/Reservation Rd

Cycle (sec): 55 Critical Vol./Cap. (X): 1.046
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 45.5
Optimal Cycle: 149 Level Of Service: D

Street Name: Hwy 68 EB Ramps Reservation Rd

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Protected Protected Protected
Rights: Include Include Include Include Include

Min. Green: 10 0 0 10 0 0 0 0 7 10 0 0 10 10
Lanes: 0 1 0 0 1 0 0 0 0 1 0 0 0 0 1 0 1

Volume Module:
Base Vol: 321 0 426 0 0 0 251 646 0 0 681 156
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Base: 321 0 426 0 0 0 251 646 0 0 681 156
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87
PHF Volume: 369 0 490 0 0 0 289 743 0 0 783 179
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Vol.: 369 0 490 0 0 0 289 743 0 0 783 179

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

AdjStmnt: 0.95 1.00 0.85 1.00 1.00 1.00 0.95 1.00 1.00 0.95 1.00 0.85
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00

Final Sat.: 1809 0 1615 0 0 0 1805 1900 0 0 1900 1615

Capacity Analysis Module:
Vol/Sat: 0.20 0.00 0.30 0.00 0.00 0.00 0.16 0.39 0.00 0.00 0.41 0.11

Crit Moves: ****
Green/Cycle: 0.29 0.00 0.29 0.00 0.00 0.00 0.15 0.55 0.00 0.00 0.39 0.39

Volume/Cap: 0.70 0.00 1.05 0.00 0.00 0.00 1.05 0.72 0.00 0.00 1.05 0.28
Delay/Veh: 21.7 0.0 73.7 0.0 0.0 0.0 90.1 11.7 0.0 0.0 62.3 11.6

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 21.7 0.0 73.7 0.0 0.0 0.0 90.1 11.7 0.0 0.0 62.3 11.6

HCM2kAVG: 7 0 17 0 0 0 12 11 0 0 24 2

**APPENDIX B:
BIOLOGICAL OPINION**



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003

IN REPLY REFER TO:
PAS 200.1858.2400

March 14, 2005

Gail Youngblood
Environmental Coordinator, Base Realignment and Closure
Department of the Army
P.O. Box 5004, Building #4463 Gigling Road
Monterey, California 93944-5004

Subject: Cleanup and Reuse of Former Fort Ord, Monterey County, California, as it affects California Tiger Salamander and Critical Habitat for Contra Costa Goldfields (1-8-04-F-25R)

Dear Ms. Youngblood:

This document transmits the U.S. Fish and Wildlife Service's (Service) biological opinion based upon our review of the U.S. Department of the Army (Army) actions associated with the cleanup and reuse of former Fort Ord and their effects on the federally threatened California tiger salamander (*Ambystoma californiense*) and on critical habitat for the endangered Contra Costa goldfields (*Lasthenia conjugens*). This biological opinion addresses the effects of these actions on this species and on designated critical habitat, in accordance with section 7 of the Endangered Species Act of 1973, as amended (Act). Your request for formal conference and consultation was dated July 19, 2004, and received by us on July 20, 2004. The conference request was changed to a formal consultation request on August 11, 2004, following listing of the California tiger salamander (see Consultation History section).

This biological opinion was prepared using information contained in the biological evaluation (BE) that accompanied your consultation request (Army 2004), clarifications of that biological evaluation submitted by Army staff via electronic mail, the Installation-wide Multi-species Habitat Management Plan for Former Fort Ord (HMP) (U. S. Army Corps of Engineers (ACOE) 1997), the Memoranda of Agreements you submitted on November 30, 2004, and other documents from our files. A complete administrative record for this consultation is on file at the Ventura Fish and Wildlife Office.

CONSULTATION HISTORY

Informal consultation on Contra Costa goldfields proposed critical habitat was initiated by the Army via telephone conversations with the Service in 2003. In a letter dated June 18, 2003, the Army requested the Service's concurrence that actions they proposed to conduct through April 2005 would not likely adversely affect proposed critical habitat for Contra Costa goldfields. In a

telephone conversation in December 2003, we indicated that we needed more information on invasive weed control actions in order to evaluate the concurrence request. The Army decided to provide the information during formal consultation, since the California tiger salamander had been proposed for listing in May 2003 and the Army intended to initiate formal consultation on both the California tiger salamander and Contra Costa goldfields critical habitat. Therefore, the Service did not evaluate the concurrence request further. In December 2003, Army biologist William Collins and Service biologist Diane Steeck met to discuss the type of information that would be needed for a formal consultation on the effects of the Army's ongoing cleanup and disposal actions on the California tiger salamander, Contra Costa goldfields critical habitat, and Yadon's piperia (*Piperia yadonii*). The Army formally requested consultation and conference with the Service on the California tiger salamander and critical habitat for Contra Costa goldfields on July 20, 2004. The Army did not include Yadon's piperia in this request for consultation and conference, although future disposal actions may affect this species.

On August 4, 2004, we published the final rule to list the California tiger salamander as threatened (69 FR 47212). The Army subsequently asked that the conference request be changed to a formal consultation request for the California tiger salamander (Collins *in litt.* 2004a).

The consultation history for the closure and reuse of former Fort Ord through October 2002 is described in biological and conference opinions 1-8-99-F/C-39R and 1-8-01-F-70R and is not repeated here.

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

This biological opinion evaluates only those actions associated with the cleanup and land reuse that may affect the California tiger salamander and critical habitat for Contra Costa goldfields. Biological and conference opinions 1-8-99-F/C-39R (Service 1999) and 1-8-01-F-70R (Service 2002) address the effects of the closure and reuse of former Fort Ord on other listed species known to occur on the former base, including Contra Costa goldfields.

Fort Ord is a formerly active Army installation in northern Monterey County, California. It occupies approximately 28,000 acres adjacent to the Monterey Bay. The Army was directed to close Fort Ord pursuant to the Defense Base Closure and Realignment Act of 1990. The Army consulted with us previously on the closure and reuse of former Fort Ord in 1993, 1997, 1999, and 2002. The number of consultations was necessary because the proposed action was refined and additional species were discovered on the base or were listed under the Act. The Army's current proposed action is the disposal and reuse plan described in the April 1997 HMP and the 2004 BE (Army 2004). Pre-disposal actions and transfer of lands for reuse at the former Fort Ord are likely to continue for at least another decade due, in part, to the complexity associated with the clean-up of contaminated sites and munitions and explosives of concern (MEC). The closure process is divided into two major categories in the Army BE and in the April 1997 HMP: (1) pre-disposal

actions, and (2) disposal and reuse actions. The description of pre-disposal actions below was summarized from the 2004 BE unless otherwise cited.

Pre-disposal Actions

Army pre-disposal actions on former Fort Ord that may adversely affect the California tiger salamander and critical habitat for Contra Costa goldfields are: (1) remedial actions necessary to prepare lands for property transfer, (2) caretaker actions, and (3) permitting local entities the interim use of Army lands prior to formal transfer. Each of these three actions is summarized below, followed by the conservation measures the Army has proposed to reduce their effects on listed species and critical habitat.

1.0 Remedial Actions overview

Former Fort Ord is on the National Priorities List as a Superfund site. A Federal Facilities Agreement, negotiated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), requires the Army to prepare and coordinate environmental documentation necessary to conduct remedial actions in accordance with applicable or relevant and appropriate requirements. The Army is required to ensure remediation of the property is protective of both human health and the environment.

Pre-disposal remedial actions carried out under CERCLA that may adversely affect the California tiger salamander and critical habitat for Contra Costa goldfields are: (1) munitions response (MR) actions and (2) contaminated soil remediation.

1.1 Remedial Actions – Munitions response

Fort Ord was established as a soldier training and staging facility for infantry troops in 1917. The Army has identified approximately 11,500 acres of the original approximately 28,000 acres of the former base as having either known or suspected MEC (in the HMP referred to as “ordnance and explosives” or “unexploded ordnance”). Actions to investigate and remove MEC, termed munitions response (MR) actions, have been ongoing since 1993 resulting in the determination that no further action is necessary on approximately 3,691 acres of munitions response sites. Although no further actions are considered necessary at this time, additional munitions response actions at these sites may be necessary if the remedial investigation/feasibility study (RI/FS) that is underway and the associated record of decision (ROD) determine that the previous remediation does not meet cleanup objectives. Munitions response actions on most of the remaining 7,809 acres will continue once the MR RI/FS and ROD are completed in 2006. Until then, munitions response actions would take place on those ranges addressed in the Army’s interim action ROD, in designated development parcels, fuel breaks, and in limited OE investigations (Collins *in litt.* 2004d). Munitions response actions would occur on lands that are being managed by the Bureau of Land Management (BLM), as well as those still retained by the Army (Army 2004, Figure 6A).

Munitions response takes place in three phases relevant to biological resources: (1) vegetation clearance, (2) locating, mapping, and removing the MEC under typical circumstances, and (3) identifying and removing MEC from “special case” areas. Each of these activities is supported by existing or newly constructed roads, fuel breaks, and staging areas.

1.1.1 Vegetation clearance: Vegetation clearance is required prior to munitions response actions under the base-wide munitions response RI/FS if the vegetation prohibits safe entry into a site or if the vegetation would prevent effective use of MEC detection equipment. After the Army identifies the need for vegetation clearance, site-specific vegetation clearance methods are selected. A 2002 Army technical memorandum (ACOE 2002) identifies those vegetation clearance methods that are being evaluated for use on former Fort Ord within specified vegetation types. The three methods still being considered for use are mechanical clearance, manual clearance, and prescribed burning. Two other vegetation clearance methods, the use of animal grazing and crushing vegetation prior to prescribed burning, are listed in the technical memorandum as needing further evaluation (ACOE 2002). Because its future potential use is undefined, animal grazing is not considered here. The Army has proposed to use and evaluate crushing prior to burning as an experimental technique on up to 250 acres of maritime chaparral within two munitions response sites to test its feasibility for future use (Collins *in litt.* 2004b).

The specific method proposed to clear vegetation at a specific site will depend on the type of MEC and vegetation, and the proposed reuse designation of the parcel (e.g. Habitat Reserve, Development, etc.). Any of the above vegetation clearance methods may be used in areas designated as Development in the HMP. In areas designated in the HMP as Habitat Reserve, Development with Reserve Areas or Development with Restrictions, Habitat Corridor, or Habitat Corridor with Development Allowances, proposed vegetation clearance methods are specific to vegetation type (ACOE 2002). The following vegetation types may support California tiger salamander and critical habitat for Contra Costa goldfields and can be cleared for munitions response using the following methods: chaparral and coastal sage scrub (prescribed burning, and limited mechanical and manual methods in specific circumstances), oak woodland/savannah (prescribed burning, and understory by manual and mechanical methods), riparian (manual and mechanical methods), grassland (prescribed burning, manual, and mechanical methods), and wetlands (mechanical and manual methods) (ACOE 2002).

The majority of munitions response sites on former Fort Ord occur within maritime chaparral. Where maritime chaparral vegetation must be cleared to support munitions response actions, prescribed burning is the primary proposed vegetation clearance method. In addition to clearing the ground surface in a manner sufficient for ordnance detection, prescribed burning typically stimulates germination of the rare chaparral shrubs and annual species that occur there; manually or mechanically clearing vegetation removes adult plants above ground, but does not promote germination and growth of these species.

Prescribed burning would typically occur in areas several hundred acres in size, would be limited to 800 acres per year to create a mosaic of habitat patches burned at different times (ACOE 1997), and would occur between 1 July and 31 December, prior to the onset of substantial winter rains

(Mettee-McCutchon, Army, *in litt.* 1997). The pretreatment of a prescribed burn area includes the use of water, foam, and fire-retardant to further reduce the risk of a wildfire (Army 2004). Foam applications involve high volumes of water to saturate the vegetation prior to conducting prescribed burns. The Army applies foams from the roads and fuel breaks onto the cut vegetation within fuel breaks and onto adjacent vegetation. Retardant is applied to the outside of the burn perimeter from the air before and during prescribed burns, as necessary. The widths of foam and fire retardant use on the burn perimeter are between 50 and 100 feet (Collins *in litt.* 2004g).

Although prescribed burning is the primary method of vegetation clearance in areas designated as Habitat Reserve and Development with Reserve Areas or Restrictions containing maritime chaparral, manual and mechanical vegetation clearance methods may be used under very restrictive circumstances and where they will not undermine the goals of species preservation described in the HMP. Manual or mechanical clearance of maritime chaparral within designated Habitat Reserve areas may be necessary when: prescribed burns cannot be done safely; burning cannot be used because the size of the area is too small or lacks existing fuel breaks and access roads; areas have high vegetation moisture content or did not burn or burned incompletely during a prescribed burn; and areas require sampling before scheduled remedial actions and prescribed burns. Vegetation clearance using manual and mechanical methods to clear unburned maritime chaparral areas within areas designated in the HMP as Habitat Reserve, Development with Reserve Areas or Development with Restrictions, Habitat Corridor, or Habitat Corridor with Development Allowances, will be restricted to areas 50 acres or less within each munitions response site (Collins *in litt.* 2004c). This limitation does not apply to the maintenance or establishment of fuel breaks.

Manual and mechanical vegetation removal methods will be the primary type used in grasslands, oak savannahs, and oak woodlands. The vegetation in and directly around ephemeral California tiger salamander breeding ponds at former Fort Ord is dominated by nonnative and native grasses, and wetland or facultative wetland herbaceous species. Mechanical mowing will only be needed in these areas where the vegetation is too dense to safely locate and remove the MEC (Army 2004).

Manual vegetation clearance methods consist of using hand tools such as mowers, weed whippers, loppers, and chain saws. In most cases, standing vegetation is cut at the base or pruned sufficiently to allow for access and improved visibility under canopies of trees and shrubs prior to MR actions. Grasses, non-woody vegetation, and small shrubs are typically cut off at the base, and larger shrubs and trees are typically pruned to allow access by MEC detection and removal technicians and equipment. Manually cleared vegetation is typically chipped and hauled offsite, and in some cases may be redistributed onsite in limited amounts.

Mechanical vegetation clearance is conducted by an equipment operator using equipment such as a Brush Hog, Bobcat with Treads and Mowing Deck, or similar machinery. The operator clears the standing vegetation by making one or more passes over the vegetation and in a manner to keep ground disturbances, such as ruts, to a minimum. The mowing apparatus shreds woody vegetation in place leaving shredded material on the ground. The amount and size of the material depends on the type of cutting head or blade and the density of vegetation.

1.1.2 Locating, removing, and mapping MEC. Once vegetation has been cleared, MEC will be located, identified and rendered harmless for disposal. During the location process, inert ordnance and ordnance scrap will be collected and disposed of in accordance with the site-specific work plans. Removal of MEC may require excavation of soil from around the ordnance. Locating and excavating subsurface MEC could require excavations of greater than 10 feet deep. Excavations could range in size from a single cubic foot to several thousands of cubic feet, depending on the type, number, location, and position of the MEC, although approximately 97 percent of items recovered at the former Fort Ord thus far have been found within the top 2 feet of the surface and excavations are typically done manually, using a shovel. For safety reasons, the primary method of MEC disposal is *in situ* detonation, which may increase the amount of soil disturbed. Once subsurface MEC are detected, removed, and mapped, quality control and assurance inspections occur.

In some areas, such as around range targets, MEC occurs in such high densities that this approach is not feasible. These are delineated as “special-case” areas and will be addressed separately. At a minimum, MR sites will receive a removal of visual surface MEC.

The Army typically conducts MR actions concurrently within different areas of a site. Based on experience at former Fort Ord, the Army expects maritime chaparral will re-grow to a height that will limit access to the surface within approximately 15 months following a burn. Therefore, surface and subsurface removal actions within areas designated in the HMP as Habitat Reserves that contain maritime chaparral will be considered first priority for cleanup following vegetation treatments, to avoid the need to re-disturb species-of-concern in the HMP and their habitats.

1.1.3 MEC Special-Case Areas. As a result of being fired upon for decades, the region around range targets may be saturated with large amounts of metallic debris and designated as “special-case” areas. Range targets are scattered throughout the MR sites and more are expected to become visible following prescribed burns. Range targets include: 6-foot-tall metal silhouettes, 55-gallon drums, armored personnel carriers, cement-filled targets, dumpsters, tanks, and wheeled vehicles. In MEC special-case areas, range targets will be either relocated or removed from the site.

Remediation of special-case areas may result in significant ground disturbances similar to disturbances expected from remediation of contaminated soils. Remediation of special-case areas will be based on the amount of MEC located, future reuse, and potential impacts to HMP species and habitat. Remediation may include large-scale excavations and sifting operations or the MEC may be left on-site and future site access restricted.

Although we do not know the acreage of special-case areas at this time, the Army anticipates that remediation of the special-case areas can be accommodated within the 75 acres identified by the Army in previous consultation requests (Mettee-McCutcheon, *in litt.* 1997) as being affected by soil remediation. The Army proposes to reinitiate consultation with the Service if more than 75 acres of large-scale excavation is necessary within future Habitat Reserve areas, due to the combined needs of special-case area remediation and soil remediation.

Proposed Conservation Measures for Munitions Response Actions

The Army has proposed the following conservation measures to minimize the adverse effects of their munitions response actions on the California tiger salamander, the other species-of-concern addressed in the HMP (termed "HMP species" in the biological opinion), and critical habitat for Contra Costa goldfields:

1. Conduct Employee Education Program. A biologist familiar with HMP species will present the training to all supervisors and field personnel prior to the beginning of any MEC investigations or removal activities and to any new personnel prior to their beginning work on the project. Topics covered in the training will include a description of HMP plant and wildlife species that could be encountered in the project area, environmental laws related to the conservation of these species, guidelines that personnel must follow to reduce or avoid impacts to HMP species, and the appropriate points of contact to report unforeseen impacts on HMP species.
2. Prepare a habitat checklist that identifies HMP resources present and recommends measures to reduce or avoid impacts during the pre-disposal actions.
3. Use only fire retardants and foams that do not contain sodium ferrocyanide and apply them no closer than 300 feet from vernal pools or ponds to reduce the likelihood that they will contaminate wetlands (Collins *in litt.* 2004g).
4. Monitor the vernal pools or ponds near which foams or retardants are deployed for 5 years following deployment, in the manner described in the Army's wetland restoration plan (Collins *in litt.* 2004g).
5. Flag the population boundaries of HMP species to the extent possible to avoid unnecessary disturbances.
6. Set-aside topsoil during excavations and replace it once excavations are back-filled.
7. Schedule excavations to occur after Contra Costa goldfields plants have set seed, to the extent possible.
8. Avoid vegetation clearance within occupied Contra Costa goldfields areas since the vegetation is typically low growing (<6 inches) and does not limit safe access.
9. Restrict munitions response sites to the smallest area possible to limit unnecessary disturbance of habitat, while still allowing for the safe and effective removal of explosive hazards. Place access roads, fuel breaks, staging areas, and other necessary support facilities so as to avoid areas containing HMP plant and wildlife species and maritime chaparral vegetation, when possible. Use existing roads whenever possible and minimize use of vehicles off roads to the greatest extent practicable.

10. In munitions response special-case areas, use existing fuelbreaks and established dirt roads for target removal actions when available. When targets are further from existing roads, a safety team will determine access routes using the safest route from the existing road to the range target, taking into consideration the route with the least biological impacts.
11. After it is determined that a range target can be moved safely, it will be hauled over the same access route to return to the existing road. This "one-time-in/one-time-out" procedure will be performed in a manner that minimizes impacts to the habitat. For multiple targets that are in close proximity to each other, the same access route may be used again if doing so would reduce the impact on the environment.
12. Conduct follow-up visits to MR sites to identify potential erosion areas and apply weed-free straw as necessary.
13. Monitor wetland and chaparral habitats affected by munitions responses actions annually for five years to document recovery of HMP species and their habitats and implement corrective actions, if necessary. This is an iterative process designed to improve the Army's ability to implement the remediation in a manner that effectively conserves listed and sensitive species and their habitats.
14. Consider HMP plant species recovery successful if, at the end of 5 years: (1) self-sustaining populations in different stages of succession result within a mosaic of maritime chaparral habitat, (2) the amount of occupied habitat varies over time within a range that was estimated for these species in 1992, and (3) population sizes vary from year to year within a range that was estimated for these species in 1992.

Wetland Restoration Plan and Mitigations

Vernal pools and ponds will be avoided whenever possible during cleanup of MEC and contaminated soils remediation. However, if these habitats must be disturbed during remedial actions (i.e., during excavation or *in situ* detonation of MEC), the Army proposes to follow the minimization, monitoring, and restoration measures described in the *Wetland Restoration Plan for Unexploded Ordnance Removal Activities at Former Fort Ord* (Jones and Stokes Associates, Inc. 1997). The Army's goal will be to restore affected wetlands so that they are of the same acreage and provide the same functions as before clearing of ordnance. Restoration objectives will include establishment of self-sustaining populations of California tiger salamanders similar to those that existed before ordnance removal. The measures from the wetland restoration plan (Jones and Stokes Associates, Inc. 1997) and Army BE (Army 2004) that are beyond those already listed for HMP species, are summarized below:

1. Conduct pre-activity surveys of hydrology, vegetation, and wildlife (including aquatic surveys for California tiger salamanders in mid-April), prior to MEC removal actions.

Control sites may be included in the evaluation. Characterize the soil profile when excavations will be greater than 2 feet deep.

2. If vegetation clearance is necessary, conduct these activities in the dry months when the wetlands are dry
3. Flag wetland boundaries to alert remediation personnel of necessary special measures.
4. Develop mitigation success criteria for each pool or pond that may be disturbed.
5. Schedule MEC removal to occur either when the vernal pool is completely dry during the the summer and fall or when the water level is at its lowest.
6. Minimize excavation area and depth.
7. Conduct in situ detonation, if needed, in a manner that minimizes soil disturbance.
8. Salvage topsoil and other soil layers containing plant seeds and California linderiella (*Linderiella occidentalis*) eggs prior to disturbance and replace them, in the order removed, after remediation. Clay layers are particularly important for the hydrologic function of the wetlands.
9. Follow more stringent requirements developed by a biologist with wetland and soils expertise, if special circumstances arise (e.g. excavations greater than 10 square feet or greater than 4 feet deep) to ensure the restoration of wetland size and functions.
10. Conduct post-disturbance monitoring for at least 5 years to ensure that wetlands are of the same acreage and provide the same functions as before remediation, and support self-sustaining populations of California tiger salamanders similar to those that existed before remediation of contaminated soils or MEC.
11. If wetland success criteria are not satisfied, develop and implement measures on a case-by-case basis to identify and correct the cause of the failure. This may require analyzing monitoring data and conducting specific studies. Corrective measures must be implemented within 1 year of the determination of failed success criteria and wetlands must be monitored for an additional 3 years after implementation of corrective actions. The Army will provide all proposed wetland corrective measures to the Service for review before they are implemented. If after two attempts of implementing corrective measures success criteria are still not satisfied, another mitigation site may be chosen for vernal pool or pond enhancement or creation.

12. Include in pre-activity surveys and monitoring:
 - a. Dates each pool or pond begins to fill and when it dries relative to timing and abundance of yearly rainfall;
 - b. Water conditions including depth, surface area, turbidity, and pH;
 - c. Percent submergent, floating, and emergent vegetative cover (estimated using transects, quadrats, or other appropriate techniques) and species composition; and
 - d. Occurrence and relative abundance of California linderiella (*Linderiella occidentalis*) adults and adults and larvae of California tiger salamanders and California red-legged frogs (*Rana aurora draytonii*).
13. Analyze and compile monitoring information into annual monitoring reports.
14. Modify subsequent ordnance removal practices in wetland habitats as appropriate, implement future wetland restoration plans, and adjust the level of monitoring needed in the future, based on analyses and conclusions from the monitoring data.

1.2 Remedial Actions – Contaminated Soil Remediation.

Remediation of contaminated soils discussed in this biological opinion is only that which is likely to occur in Contra Costa goldfields critical habitat or in California tiger salamander habitat. Therefore, we do not discuss soil remediation occurring in the beach ranges. The following information is summarized from the Army's biological evaluation (Army 2004) and Chapter 3 of the HMP (ACOE 1997).

Contaminated soil remediation involves removal of vegetation, excavations, and in some cases re-contouring excavated areas to reshape the land into adjacent slopes. A typical soil remediation site would be 5 to 6 acres and may be excavated and recontoured within a month or the excavation may remain open for 2 to 3 months while the soils are tested and agencies evaluate the results (W. Collins, pers. comm. 2005). The Army completed initial investigations of the approximately 8,000-acre "impact area" of the base in 1994 and subsequently established cleanup levels in a remedial investigation ROD. However, due to changes in reuse planning and further investigations and review, a Base-wide Range Assessment program was later developed to re-evaluate potential soil contamination related to training, including use of small arms ammunition throughout the installation.

The Base-wide Range Assessment program consists of two phases: the site assessment phase or preliminary assessment/site inspection and the remedial phase. The first phase includes data review, site reconnaissance and mapping, and limited soil sampling. The remedial phase includes site characterization, risk evaluation, preparation of remedial work plans, remediation, final risk evaluation, and preparation of remediation confirmation reports. The first phase identified 21 historic ranges and training areas as requiring site characterization. Field activities associated with site characterization activities have been completed and are the basis for the acreage estimates and map provided in the BE submitted as part of the Army's proposed project (Army 2001).

The Army has identified approximately 1 acre of known and potential California tiger salamander breeding habitat and approximately 53 acres of potential California tiger salamander upland habitat that may be affected by contaminated soil remediation. The combined acreage expected to be affected by contaminated soil remediation and munitions response "special-case" area remediation is expected to be less than 75 acres. The Army will reinitiate formal consultation if more than 75 acres is expected to be impacted by these large-scale excavations within Habitat Reserve areas (Army 2004).

The Army has identified that soil remediation activities could occur on approximately 15 acres that support the primary constituent elements of Contra Costa goldfields critical habitat (that is, they occur in the watersheds of wetlands within the critical habitat designation boundary). About 0.6 acre of this is actual wetland habitat.

Although the Army has provided acreage estimates, the actual amount that may need to be remediated is still being assessed. Based on additional data collected since the issuance of the remedial investigation sites ROD, the remedial approach for Habitat Reserves and Habitat Corridors has been modified. The Army is currently conducting a Net Environmental Benefit Analysis (NEBA) to assess remediation requirements based on a balance between human health risk, ecological risk, and ecological damage from remediation techniques. The NEBA will be based on two broad categories of data. First, ranges will be mapped to identify potential remediation zones based on accumulations of spent ammunition and concentrations of residual metals and to describe the extent and quality of habitat that would be disturbed by remediation. Second, the Army will conduct a site-wide ecological risk assessment for the entire Impact Area to evaluate ecological risks associated with existing conditions and various degrees of remediation. The results of this analysis, which does not specifically address the California tiger salamander, are expected in late 2004 or in 2005 (Army 2004; W. Collins, Army, pers. comm., 2004). Excavation of contaminated soils is expected to begin in 2005 following completion of the NEBA and other remaining CERCLA documentation.

Proposed Conservation Measures for Contaminated Soil Remediation

The primary purpose of the following mitigation measures is to reestablish a healthy, high diversity habitat with microhabitats for HMP species following remediation of contaminated soils. These measures will be implemented at all soil remediation sites not planned for future development in the HMP (or by BLM, should they propose future development (Collins *in litt.* 2004f)). The Army's measures can be summarized as: assessing the extent of the anticipated remediation and the site's existing resources prior to beginning work; developing measures to minimize impacts and enhance natural regeneration and recolonization of the site; actively restoring the site, if recolonization does not appear likely; and monitoring to determine whether the regeneration meets success criteria. The Army has defined the following conservation measures, similar to those defined for the munitions remediation (ACOE 1997, Army 2004):

1. Determine the baseline condition during pre-activity assessment. During the design phase of the contaminated soil removal process, impacts will be identified based on

anticipated levels and types of disturbance required to treat each area, and mitigation will be incorporated into the project design to minimize disturbance to natural resources including HMP species. The remediated areas will either be allowed to recover naturally or will be actively restored by planting species consistent with the baseline condition.

2. Biological surveys for HMP plant species will be conducted in accordance with the *Protocol for Conducting Vegetation Sampling at Fort Ord in Compliance with the Installation-Wide Multispecies Habitat Management Plan, September 1995*.
3. Wetland surveys will be conducted in accordance with the Wetland Restoration Plan for Unexploded Ordnance Removal Activities at Former Fort Ord, May 1997 and the "Declining Amphibian Populations Task Force Fieldwork Code of Practice."
4. Excavations will be scheduled to the extent possible to occur during the dry season and after seed is collected, if necessary, to avoid impacts to wetlands and HMP species.
5. Invasive weed and erosion control will continue to occur within the remediation areas to prevent the degradation of the Natural Resource Management Areas and critical habitats.
6. Remediation area footprints will be minimized to the extent possible.
7. Remediated areas will be monitored annually for five years following remediation to determine if the HMP success criteria are met.
8. Results of monitoring will be reported to the Service annually in accordance with the HMP reporting requirements.
9. Habitat restoration plans will be prepared in coordination with the Service when active planting is necessary. These will include:
 - a. Disturbed areas will be graded to recreate a natural landscape contour, transitioning smoothly into surrounding topography.
 - b. Site restoration will include soil stabilization using certified weed-free straw applications, and crimping where necessary, or other suitable techniques to prevent erosion.
 - c. Restoration plans will identify plant species and population densities to be reestablished at each site, include a monitoring plan, and identify corrective measures if goals are not met.
 - d. At a minimum, chaparral and wetland plant species present prior to remediation will be established at each site through active planting.

- e. The Army will be responsible for restoring biological resources lost during soil excavations so that the success criteria in the HMP addressing maritime chaparral and federally listed annual plant species are met.
 - f. The success criterion for restored or regenerated wetland habitat is defined as when, “affected wetlands are of the same acreage and provide the same functions as before clearing of ordnance.” The HMP also states that affected water bodies must support healthy populations of California linderiella, California tiger salamanders, and California red-legged frogs upon completion of restoration activities and through at least 5 years of monitoring, if the affected water body supported these species prior to the action.
10. If wetlands are within the disturbance zone, the Army will follow the conservation measures described previously in this document, under “Wetland Restoration Plan and Mitigations.”

2.1 Caretaker Actions – Physical Security, Emergency Fire Suppression and Rescue, Fuel Break Maintenance

In addition to the pre-disposal actions described above, the Army, as a steward of natural resources, is implementing caretaker actions until the property is transferred. Caretaker actions include physical security, fire prevention, fuel break maintenance, non-native invasive weed control, and erosion control.

2.1.1 Physical Security. The Army, Presidio of Monterey, Federal Police Department performs security activities on Army lands which consist of patrols, maintaining gates and locks, and apprehending and fining trespassers. These actions typically occur on paved roads, and occur both day and night (Army 2004, Collins *in litt.* 2004b). The BLM also provides assistance as needed to cover undeveloped portions of former Fort Ord to reduce unauthorized access and damage to natural resources.

2.1.2 Emergency Fire Suppression and Rescue. The Army, Ord Military Community (OMC) Fire Department, is responsible for fire prevention and assisting in prescribed burns under the munitions response program. In addition to responding to structural fires, the OMC Fire Department is also a first responder to search and rescue emergencies and responsible for preventing wildfire threats to life and property.

2.1.3 Fuel Break Maintenance. On January 31, 2001, the Service concurred with the Army that re-establishing a system of fuel breaks within the Impact Area was necessary to manage future prescribed burns and potential wildfires. The Army divided the approximately 8,000-acre impact area into a series of defensible polygons bounded by their connecting network of fuel breaks. Fuel breaks were re-established by widening existing 15-20 foot wide access roads to a total width of 45 to 50 feet. This results in a zone with little or no vegetation taller than 6 inches for purposes of containing a fire.

The fuel break system is cleared of vegetation annually or as necessary to serve as both a fuel break and access into the Impact Area. Fuel break maintenance is conducted using heavy equipment such as Brush-Hogs, or a Bobcat with a mowing deck. Mechanical vegetation clearance generally occurs during the summer months, June through August, to avoid impacts to HMP annual plant species. Once MEC is removed from the fuel breaks, portions of the fuel break system may be grubbed to mineral soil to further reduce the risk of a wildfire. Grubbing will only occur within designated defensible polygon fuel breaks and only as necessary due to the risk of erosion and damage to habitat.

In addition to the defensible polygons, fuel breaks are also established around the perimeter of the Impact area and around MR sites that are being prepared for prescribed burning. Although these fuel breaks may need to be wider than 45 – 50 feet, the manual or mechanical vegetation clearance is necessary to reduce the risk of a fire escaping and they would not be maintained at the expanded size following the prescribed burn (Army 2004, Willison *in litt.* 2002, W. Collins pers. comm. 2004). The wider fuel breaks are necessary because fire-fighting personnel cannot be on the ground during a prescribed burn due to the explosive hazards associated with MEC.

To reduce impacts to listed and rare species, the Army establishes fuelbreaks along existing roads and trails. Maintenance is restricted to summer months to reduce effects to wetland species and California tiger salamander breeding habitat.

2.2 Caretaker Actions – Weed and erosion control

Invasive weed control and erosion control have been and will continue to be conducted through a service agreement between the Army and BLM. These natural resource management programs have been ongoing since 1995. Invasive weed control is conducted in accordance with BLM's Integrated Weed Management Program for former Fort Ord.

The purpose of the Army's invasive weed control program is to continue to control and eradicate invasive non-native species using an integrated vegetation management approach based on guidelines established in BLM's programmatic environmental impact statement (EIS) for the California Vegetation Management Program. Integrated vegetation management conducted at former Fort Ord is subject to site-specific constraints. The program is implemented to minimize the use of herbicides in the long-term, and to minimize long-term maintenance costs. The goal is to eliminate existing populations of invasive non-natives and to reduce activities that introduce and/or contribute to the spread of these species. Monitoring and adaptive management strategies are used to assure continuous program refinement in meeting program objectives. Individuals involved in the program are given a resources overview in order to ensure their awareness of sensitive areas. This same program is implemented on lands that have already been transferred to the BLM.

In their biological evaluation, the Army has identified the largest non-native invasive weed infestations that are targeted for eradication or control. A combination of manual removal and

hand spraying with the herbicide Roundup Pro® are being used to abate invasive non-native species and to reduce the potential for re-infestation.

All herbicide spraying is administered by hand, using a backpack, slip-on, or trailer-mounted spray unit according to Roundup Pro® label directions. All OSHA, EPA, state, and local agency rules and regulations regarding the application of herbicides are followed. Herbicide is only applied by a certified applicator. Herbicide storage, mixing, and equipment cleaning occurs on BLM property.

Based on the last four years of invasive weed control, BLM has applied an average of 48.5 gallons of Roundup Pro® concentrate annually on Army owned lands to control invasive weeds such as pampas grass (*Cortaderia jubata*), sea fig (*Carpobrotus chilensis*), hottentot fig (*C. edulis*), and French broom (*Genista monspessulana*). An average of 1,700 hours are spent annually controlling these non-native invasive weeds on Army lands. Approximately 850 acres of Army lands at former Fort Ord are searched annually and spot treated with herbicide to eradicate or control the spread of these non-native invasive weeds.

Erosion control is conducted using heavy equipment to repair existing erosion, typically within access roads and fuel breaks, and to construct rolling dips or water bars to prevent future erosion. Approximately 10 miles of fuel breaks and access roads require annual grading or repairs. Construction of erosion control features reduces damages caused by surface run-off during rain events by diffusing run-off into vegetated areas thereby reducing the likelihood that larger amounts of run-off will channel and undermine roadways. The Army anticipates the construction of erosion control structures would result in temporary impacts to natural resources, but provide the long-term net benefit of reducing or eliminating severe erosion. BLM staff assist with construction of erosion control features and are familiar with the need to design erosion control structures to both reduce or eliminate erosion and keep the footprint of the construction site to a minimum to reduce unnecessary impacts to adjacent natural resources.

Proposed Conservation Measures for Weed and Erosion Control

The Army proposes the following conservation measures to reduce the effects of erosion and weed control:

1. Use of herbicides will be conducted in accordance with the product labels.
2. Herbicide applications will not occur when wind speeds exceed 10 miles per hour.
3. Isolated spot spraying of herbicides will reduce the likelihood that non-target plant species will be exposed to herbicides.
4. Herbicide applications will not occur within habitat occupied by Contra Costa goldfields.

5. Erosion control actions will be conducted in a manner to prevent sediments from entering basins or swales that could be used by California tiger salamanders or that are within Contra Costa goldfields critical habitat.
6. Erosion control activities on access roads and fuel breaks that is necessary during the rainy season, when California tiger salamander are most active, will be designed and conducted to minimize the footprint of the erosion control structures and repairs. This will avoid, to the extent possible, potential impacts to California tiger salamanders that may be moving between breeding and upland habitats.

3.0 Interim Uses Overview

Since 1994, the Army has leased and permitted early access to portions of former Fort Ord to allow jurisdictions, agencies, and organizations the ability to begin preparing and using the former Army base for civilian reuse. These uses, leases, and permits include the York School Lease; Turn 11 lease; permits allowing Laguna Seca Raceway use of Wolf Hill and Lookout Ridge for parking during events; permits allowing use of the Youth Camp; permits and lease of the Military Operations, Urban Terrain (MOUT) facility for law enforcement and military training; and rights-of-entry allowing early access to Development parcels for the purpose of constructing infrastructure necessary to prepare the land for future developments. Infrastructure improvements include construction of storm water retention basins, road construction, and road widening projects. The following is a description of interim uses occurring at former Fort Ord that may adversely affect California tiger salamanders and critical habitat for Contra Costa goldfields.

3.1 Interim Uses - Parker Flats Habitat Reserve

The Army is supporting a request from the Fort Ord Reuse Authority (FORA) to allow the interim use of approximately 147 acres of Army land located in the Parker Flats Habitat Reserve. Interim use will provide non-federal entities a wildfire training opportunity. The prescribed burning is also proposed and intended to enhance the degraded maritime chaparral habitat within the future habitat reserve, and to provide information on the use of, and vegetation response to, pre-burn treatments in previously cut maritime chaparral. Vegetation treatments applied prior to the burn could include crushing, cutting, chaining, or treatments that would similarly reduce the vegetation moisture content, promote fuel consumption, and potentially enhance the germination of the soil seedbank of chaparral shrubs. Repair of eroding roadbeds to make them accessible to fire fighting equipment may also be necessary, as well as the installation and maintenance of erosion control structures after the burn to prepare the lands for winter rains.

Proposed Conservation Measures for Parker Flats Habitat Reserve Interim Use

Establishment of fuel breaks and access roads around and within the 147-acre Parker Flats Habitat Reserve will occur within existing roads and trails to the extent possible to reduce impacts to HMP species and their habitats. Maintenance of the fuel breaks and access roads will occur during the summer months to avoid impacts to HMP species including California tiger salamanders.

Maintenance will only occur within fuel breaks necessary to support a prescribed burn or to contain a potential wildfire to Army property.

3.2 Interim Uses - Laguna Seca

The Army has leased 5.9 acres of Parcels L20.3.1 and L20.3.2 to Monterey County for use by Laguna Seca (Mazda Raceway). The leased parcel contains a portion of the Mazda Raceway, Turn 11, and a smaller portion of the leased parcel is undeveloped. The undeveloped portion of the parcel contains an ephemeral wetland that is considered potential habitat for California tiger salamanders. The Army permits Laguna Seca to use the remaining 73 acres of Parcels L20.3.1 and L20.3.2 (Wolf Hill) and approximately 195 acres of Parcels L20.5.1, L20.5.2, and L20.5.3 (Lookout Ridge) as parking areas during approximately 10 weekend events that occur throughout the year. These parcels are designated in the HMP as Development with Reserve Areas or Development with Restrictions. Use of these parcels for parking is consistent with the reuse identified in the HMP (ACOE 1997).

Proposed Conservation Measures for Laguna Seca Interim Use

The HMP requires implementation of resource conservation and management actions to preserve the vernal pools and their shared watershed. Interim use permits will require Laguna Seca to implement the requirements identified on HMP pages 4-43 and 4-44, which include preventing erosion and sedimentation, prohibiting off-road vehicle use, installing fuelbreaks, removing trash after parking events, and inspecting the adjacent potential California tiger salamander breeding habitat for damage after each event. If damage is observed, Laguna Seca would be required to implement additional protective measures during events to correct the problem.

3.3 Interim Uses - Youth Camp

The Youth Camp parcels (L20.2.2, L20.2.3.1, and L20.2.1) are designated in the HMP as Habitat Corridor and Habitat Corridor with Development Allowances. These parcels total approximately 398 acres of which approximately 52 acres are identified for future development of a youth camp. The Army currently permits use of these parcels for non-motorized recreational events, such as camping, bicycle racing, and horseback riding by the County of Monterey and other organizations such as the Boy and Girl Scouts of America, Central Coast Cycling, Society for Creative Anachronism, Monterey Bay Schutzund Club, Western States Driving/Draft Horse Group, Bay Area Donkey and Mule Club, and the American Endurance Horse Ride Conference. The Youth Camp is used throughout the year primarily on weekends except for the scout camp events that occur for two months during the summer. Recreational events may involve the staging of as many as 200 participants and their horses or bicycles (Collins *in litt.* 2004n). Uses will occur primarily on existing roads, trails, and recreational fields (Army 2004, Collins *in litt.* 2004n).

3.4 Interim Uses – Marina Coast Water District Project

The Army proposes to issue a right-of-entry to the Marina Coast Water District (MCWD) for improvements to an existing water storage tank on an approximately 0.115-acre parcel (parcel L35.4), designated for development in the HMP and located directly adjacent to the Youth Camp. The improvements would include demolition of the existing tank and replacement with two 1.6 million gallon above-ground storage tanks. Each tank would be approximately 117 feet in diameter and 25 feet tall. In addition, a small (400 square feet) single story pump station would be located adjacent to the tanks. A buried pipeline within the existing unpaved roads in the area would also be included. The action would require expansion of the L35.4 Parcel from 0.11 acre to 1.1 acres. To accommodate this expansion in acreage, the County of Monterey has agreed to reduce the development footprint previously identified for the Youth Camp polygon by one acre to a total of 52 acres (Collins *in litt.* 2004n).

3.5 Interim Uses - Military Operation, Urban Terrain (MOUT) Facility

The MOUT facility is located in HMP Development parcel F1.7.2. The parcel is approximately 54 acres and is located within the 8,000-acre Impact Area. The site is developed with roads and cinder block buildings simulating a small European village for training soldiers and law enforcement personnel in urban combat and counter-terrorism. A small arms range is located in the southwest corner of the parcel. The MOUT facility is currently owned by the Army and will be leased to Monterey Peninsula College (MPC). Eventually, MPC would receive permanent transfer of the property for law enforcement training in accordance with the East Garrison – Parker Flats Land Use Modification Assessment and agreements. The lease would allow continued use of the facility in the interim until the property is transferred.

Proposed Conservation Measures for Use of the MOUT Facility

The Army will continue to control invasive weeds within and adjacent to the MOUT and ensure the property recipient constructs an appropriate fuel break within the development parcel to reduce impacts to the adjacent Habitat Reserve from activities within the parcel.

3.6 Interim Uses on Other HMP Parcels

Other interim actions continue to occur, or are planned to occur, prior to property transfer. These actions include the lease and use of 30 acres of parcel L3.2 by York School, and Rights-of-Entry issued to FORA and the County of Monterey to construct infrastructure improvements on parcels E24, E29, E29a, L20.2.2, L23.3.3.1, and S4.2.1 prior to transfer. York School has developed and uses the property as a recreational facility which is an extension to the private high school's campus located adjacent to the southern Fort Ord boundary. Infrastructure improvement projects, such as new road construction, road widening, and groundwater well and pipeline installation and maintenance would be consistent with the intended use of the property as identified in the HMP and biological opinions that have been issued to the Army (Army 2004).

Approximately 75 acres of infrastructure development and improvements have occurred over the last 5 years. There are several more road projects planned to occur over the next 10 years which may affect up to 155 acres of habitat. Some of these projects are likely to be proposed on property over which the Army maintains authority and others are likely to be proposed in existing utility easements that were previously granted by the Army. Within easements, the easement-holders are responsible for complying with state and Federal laws. The Army does not retain any discretionary authority over utility-related activities that occur in these easements (Collins *in litt.* 2004o), therefore they are not addressed in this biological opinion. Interim construction projects addressed in this biological opinion are those that will occur on property over which the Army maintains authority. In these areas, the Army has identified that 70 acres may be temporarily or permanently disturbed by infrastructure improvement projects in parcels designated in the HMP as Development. In addition, 5 acres of road widening is proposed in the Youth Camp parcel designated as Habitat Corridor with Development Allowance (Collins *in litt.* 2005a, W. Collins pers. comm., 1/18/05).

Disposal Actions

The Army continues to transfer excess lands to Federal, state, and local jurisdictions for reuse consistent with their 1993 environmental impact statement (EIS) and 1996 supplemental EIS on the disposal and reuse of former Fort Ord (Army 2004), and with the HMP. The April 1997 HMP addresses the effects of disposal actions on listed species and species of concern for all parcels to be disposed of by the Army. All recipients of parcels from the Army have signed the HMP. The general goal of the April 1997 HMP is to promote preservation, enhancement, and restoration of habitat and populations of HMP species (those listed and sensitive species considered in the HMP conservation strategy), while allowing development of selected properties to promote economic recovery (ACOE 1997). After disposal is complete, lands at the former Fort Ord that support California tiger salamanders and critical habitat for the Contra Costa goldfields would either be under Federal, state, local, or private control. The Army transfers lands to Federal agencies using Memoranda of Understanding and to non-federal recipients using deed restrictions, covenants, or conservation easements to ensure that entities acquiring parcels designated as Habitat Reserves, Habitat Corridors, or Development with Reserve Areas or Restrictions manage the land in a manner consistent with the HMP. To obtain incidental take authorization for listed species under section 10(a)(1)(B) of the Act and under the California Endangered Species Act following transfer, parcel recipients are developing a base-wide habitat conservation plan (HCP).

The former Fort Ord parcels that are designated as critical habitat for Contra Costa goldfields and support California tiger salamanders have one of the following designations: (1) Habitat Reserve, (2) Habitat Corridor, (3) Development with Reserve Areas or with Restrictions, (4) Borderland Development Areas, and (5) Development. Base-wide, the Army has transferred 12,108 acres to date, with 7,493 acres transferred as Habitat Reserve, 424 transferred as Development with Reserve Areas or Development with Restrictions, and 4,190 acres transferred as Development parcels. The five designations that are assigned to parcels are discussed below.

Habitat Reserves and Habitat Corridors

Habitat Reserves are lands that will be set aside from development with the primary management goal being conservation and enhancement of threatened and endangered species and protection of biologically important habitat for the HMP species. Habitat Corridors would be managed to allow the movement of HMP species between Habitat Reserve lands (ACOE 1997). The April 1997 HMP describes management goals, needs for enhancement and restoration, and identifies entities responsible for appropriately managing each Habitat Reserve and Habitat Corridor. Base-wide, about 14,866 acres (78 percent of the total) of known and potential upland habitat for California tiger salamanders on former Fort Ord has this designation and about 74 acres (88 percent of the total) of known and potential breeding habitat has this designation (revised Table 1 from Collins *in litt.* 2004j).

Designated Habitat Reserves and Habitat Corridors will encompass about 1,439 acres (96 percent) that support the primary constituent elements of Contra Costa goldfields critical habitat. The Army has identified 8 designated Habitat Reserve and Corridor areas that support California tiger salamanders and critical habitat for the Contra Costa goldfields (Table 1 in Army 2004). These Habitat Reserves are all contiguous with one or another except the Natural Area Expansion (NAE), which is the smallest of them. Of these 8, only the University of California (UC) reserve lands have been transferred out of Army ownership.

The largest future habitat reserve is the approximately 15,000-acre Natural Resource Management Area (NRMA) managed by BLM. Approximately 8,000 acres of the NRMA is still owned by the Army and about 7,000 acres have been transferred to BLM. Land management consistent with the conservation of biological resources would be conducted in 98 percent of the NRMA. According to the HMP, up to two percent (about 300 acres) of the NRMA with natural vegetation could eventually be converted to development-oriented uses for activities such as public access, grazing, police and fire training, and education and research. The BLM will develop and implement a Natural Resource Management Plan for the area (ACOE 1997). As designated (and considering lands that have been and will be transferred), this Habitat Reserve will support about 13,514 acres of known and potential upland habitat for California tiger salamanders (about 91% of the upland habitat in all areas designated as Habitat Reserve and Habitat Corridor). In addition, 53 of the 60 known and potential breeding pools on former Fort Ord occur within its boundaries, although parts or all of 6 of these pools are located within the State Route 68 easement that is designated through the southern region of the reserve.

The other 7 Habitat Reserve and Corridor areas support the remaining 9 percent of the upland habitat for California tiger salamanders to be conserved and 50 acres supporting the primary constituent elements of Contra Costa goldfields critical habitat. They do not have development allowances other than one percent (about 6 acres) for the UC Reserve. The Monterey County Habitat Corridor parcel (L20.2.1) also may be exposed to some land management practices other than those emphasizing conservation of biological resources, such as low-impact programs for youth, outdoor nature education, and trail creation (ACOE 1997). However, all vegetation is to be

preserved within this parcel and habitat values are to be retained at high levels to allow movement of HMP species between conservation areas (ACOE 1997).

Development with Reserves or Restrictions

The land designation “Development with Reserve or Development with Restrictions” is assigned to parcels that will include a mix of development and Habitat Reserve areas or that have restrictions on development to protect biological resources. Reserves that result from this land-use category are subject to the same management practices as the other Habitat Reserves described above. The HMP describes the restrictions on development in parcels with this mixed-use designation. The parcels that support California tiger salamander habitat or Contra Costa goldfields critical habitat with this designation that remain under Army authority are the Recreation Area Expansion (Wolf Hill (L20.3) and Lookout Ridge (L20.5)), a portion of the State Route 68 transportation easement, the Youth Camp Habitat Corridor with Development (L20.2.2), the Landfill, and the Del Rey Oak’s Office Park parcel (E31) (ACOE 1997, Army 2004). Because each has distinct requirements, they are discussed in the paragraphs below.

After disposal, the 275-acre combined Recreation Area Expansion parcels are to be managed by Monterey County and used for overflow parking during major events at the adjacent Laguna Seca Recreation Area. These areas support maritime chaparral, nonnative annual grassland, and coast live oak woodland. If native vegetation is removed for parking, grass is to be maintained over the site to prevent erosion. One known breeding pool and one potential breeding pool occur on these parcels and Monterey County is responsible for preserving the pools and their watersheds. Specific protection measures for these parcels are listed in the HMP (ACOE 1997) and summarized in section 3.2 earlier in this document.

The Caltrans State Route 68 transportation easement runs through the southern end of the future NRMA Habitat Reserve. This is a generally 1,000 foot-wide study corridor for a potential new route for Highway 68, currently located south of former Fort Ord. This easement would be managed as Habitat Reserve until a new highway is planned. The HMP indicates that, within the 1,000 foot-wide study corridor, the developed portion would be about 300 feet wide. Resource conservation requirements in the HMP direct Caltrans to design and construct the highway to minimize impacts on all natural habitats and HMP species populations, and specifically to avoid impacts on vernal pools and their watersheds. It directs Caltrans to minimize and mitigate those impacts where avoidance is not possible.

The HMP identifies the Youth Camp parcel as a Habitat Corridor with a development allowance. Working with the future recipients, the Army has proposed up to 52 acres of this 144-acre parcel for recreational development, including the addition of camping areas, unpaved roads, and perhaps a parking area (Army 2004, Collins *in litt.* 2004n). Other than small pockets of vegetation in the 52 acres of campground, no other losses of HMP species habitat is expected (ACOE 1997). The remainder of the parcel would be managed in its natural state, receiving some low-impact uses such as outdoor nature education, trail use, and resource management activities (ACOE 1997).

Approximately 28 acres of the Landfill parcel are within 2 kilometer (km) of known or potential breeding pools for California tiger salamanders and may support California tiger salamanders. No Contra Costa goldfields critical habitat occurs on the Landfill parcel. The exact placement of development in this parcel has not been resolved (Army 2004).

The Del Rey Oaks' office park parcel is located next to a small Habitat Reserve called the Natural Area Expansion. The office park parcel has no requirements for land preservation, but must be developed in such a way as to minimize its adverse effects on the adjacent Habitat Reserve. Development of this parcel must include a fuel break on the development side of the reserve/development boundary, barriers to prevent unauthorized vehicle use in the reserve, and controls on storm water to prevent adverse changes to the drainages and wetland habitats on the reserve parcel.

Development Areas and Borderland Development Areas

Parcels designated for development typically have no resource conservation requirements under the Army's proposal, unless they border the future BLM NRMA (ACOE 1997). These "Borderland" parcels have requirements to minimize the effects of development on the adjacent Habitat Reserves by controlling discharge of storm water to avoid erosion, controlling nonnative plant species, installing barriers to prevent unauthorized vehicle trespass from development parcels to Habitat Reserves, and placement of adequate fuel breaks on the development side of the boundary.

On November 30, 2004, the Army submitted two memoranda of agreement (MOAs) for the Service to consider in this consultation (Fisbeck 2004). The Fort Ord Reuse Authority submitted Exhibit C (development restrictions) of these MOAs on February 9, 2005. We have included these MOAs and their Exhibits as Enclosure 1. These MOAs address post-disposal restrictions on the development of two properties in California tiger salamander habitat that the Army has not yet transferred. The two properties are referred to here as the East Garrison Specific Plan Property, consisting of 244 acres, and the Del Rey Oaks Property, consisting of 321 acres. The MOA for the East Garrison Specific Plan Property would be signed by FORA, the County of Monterey, the Redevelopment Agency of the County of Monterey (RACM), and East Garrison Partners I, LLC (East Garrison Partners), the developer of the property. The MOA for the Del Rey Oaks Property would be signed by FORA, the City of Del Rey Oaks, the Redevelopment Agency of the City of Del Rey Oaks (RACDRO), and Federal Development LLC, the developer of the property. The entities signing the MOAs are hereinafter referred to as the "Signatories to the MOAs," or "Signatories to the MOA" as appropriate. The purpose of the MOAs is to ensure that adequate measures to minimize adverse effects to California tiger salamanders are fully implemented during the development of the properties, which is anticipated to occur prior to completion of a regional HCP covering the former Fort Ord and issuance of a Section 10(a)(1)(B) permit to FORA and the local jurisdictions. The development planned for these properties is discussed generally below.

The East Garrison Specific Plan Property is located south of Reservation Road in the northeastern area of former Fort Ord on 244 acres, approximately 108 acres of which are already developed

with buildings and other former Army facilities. The proposed development of the East Garrison Specific Plan Property includes construction of 1,470 residential units, as well as civic buildings, commercial units, artist studio space, associated roads, and infrastructure. The proposed development would result in a human population increase in the East Garrison areas of approximately 4,337 persons (Michael Brandman Associates 2004). The MOA contains conservation measures, in the form of binding restrictions, to reduce impacts to California tiger salamanders and other listed and sensitive species in the area that would likely result from development of this property (Enclosure 1). The conservation measures include salvage of California tiger salamanders prior to development, actions to minimize the adverse effects of construction on California tiger salamanders, and actions that would reduce or eliminate the adverse effects of an increase in human population along the border of the habitat reserve.

The Del Rey Oaks Property (parcels E29a, E29b.1, E36, and E31a-c) is located in the southwest portion of former Fort Ord and comprises approximately 321 acres of land that is currently undeveloped and supports potential breeding and upland habitat for California tiger salamanders. Detailed development plans are not currently available for this property but future development is anticipated to include a 400 – 500 unit luxury hotel; 18-hole championship golf course; and retail, commercial, and possibly residential development (Endsley *in litt.* 2004; Houlemard *in litt.* 2004). The specific level of increase in human population that may result from development of these areas has not been identified to our knowledge. The MOA contains conservation measures, in the form of binding restrictions, to reduce impacts to California tiger salamanders and other listed and sensitive species in the area (Enclosure 1). The conservation measures include salvage of California tiger salamanders prior to development, actions to minimize the adverse effects of construction on California tiger salamanders, and actions that would reduce or eliminate the adverse effects of an increase in human population along the border of the habitat reserve.

STATUS OF THE SPECIES

California Tiger Salamander

On August 4, 2004, we published a final rule listing the California tiger salamander as threatened rangewide, including in the previously identified Sonoma and Santa Barbara distinct population segments (69 FR 47212). We proposed critical habitat for the Central California population of the California tiger salamander on August 10, 2004 (69 FR 48570).

The California tiger salamander is a lowland species wholly endemic to central California. They persist in disjunct remnant vernal pool complexes in Sonoma County and Santa Barbara County, in vernal pool complexes and isolated ponds scattered along a narrow strip of rangeland on the fringes of the Central Valley from southern Colusa County south to northern Kern County, and in vernal pools and human-maintained stock ponds in the coast ranges from the San Francisco Bay Area south to the Temblor Range.

The California tiger salamander is restricted to grasslands and low-elevation foothill regions in California (generally under 1500 feet), where it uses seasonal aquatic habitats for breeding. The

salamanders typically breed in natural ephemeral pools, or ponds that mimic ephemeral pools (stock ponds that go dry), and occupy substantial areas surrounding the breeding pool as adults. Among salamanders, California tiger salamanders require a relatively short period to complete development of the aquatic larvae, and may breed successfully in waters that last for more than two months. In colder weather the developmental period is prolonged, with periods in excess of four months being relatively common. This requirement restricts California tiger salamander breeding to deeper vernal pools, vernal playas, large sag ponds, and artificial ponds with adequate periods of inundation. However, California tiger salamander larvae are vulnerable to the predators that commonly occur in permanent waters, and the species is rarely found in permanent ponds, streams, or rivers. Because many of the areas of suitable habitat may be small and support small numbers of salamanders, local extinctions may commonly occur. California tiger salamanders therefore require large contiguous areas of vernal pools (vernal pool complexes) containing multiple breeding ponds to ensure that recolonization occurs at individual pond sites.

California tiger salamander larvae obtain oxygen through gills and through the skin. The larvae feed largely on invertebrates, including a variety of aquatic insects and crustaceans. Larvae may also feed on other larval amphibians. The larvae probably rest in contact with pond bottom mud during part of the day, and are known to bury themselves in the mud when pursued. At metamorphosis, the gills are resorbed, and the animal transitions to a primarily terrestrial lifestyle. At this time, they may be only 2 to 3 inches long (Trenham et al. 2000) and have been documented to shelter in the first soil crevices or burrows they encounter (Loredo et al. 1996). After metamorphosing and emerging from breeding pools as juveniles, California tiger salamanders spend most of their time in the grasslands surrounding breeding pools. The skin remains moist in both the juvenile and adult stages, consequently, the salamanders can only survive brief periods in low humidity conditions, especially at higher temperatures. They survive hot, dry summers by residing underground in refugia (such as burrows created by Beechey ground squirrels (*Spermophilus beecheyi*) and other mammals and deep cracks or holes in the ground) where the soil atmosphere remains near the water saturation point. During wet periods, the salamanders may emerge from refugia and feed in the surrounding grasslands. The diet of adults is not well known but may include insects, isopods, and worms.

Mass migrations of adults to breeding ponds occur annually with the onset of reliable, pool-filling rains, typically between December and March. Juveniles do not participate in these breeding migrations. Individual adults spend only limited amounts of time in the breeding pool (a few days to a week or two), where they mate and lay eggs. The females lay their eggs singly or occasionally in clusters of two to four, attached to plant stems in the water column. Little is known about whether juveniles may disperse from their natal pool in search of other breeding habitat, although dispersing juvenile California tiger salamanders have been found to travel as far as 1.5 kilometers from breeding sites (Austin and Shaffer 1992, Jennings and Hayes 1994). California tiger salamanders may live for more than 10 years or more in the wild, although an average female may breed only once or twice in that time (Trenham et al. 2000).

The primary causes of the decline of California tiger salamander populations are the loss and fragmentation of habitat from human activities and the encroachment of nonnative predators. The

California tiger salamander has lost a large proportion of its habitat (including uplands and sites that were likely habitat but never sampled) due to human activities. All of the estimated seven genetic populations of this species have been substantially reduced because of urban and agricultural development, land conversion, and other human-caused factors. Development threatens to permanently reduce the amount of grassland and ground squirrel habitat available to California tiger salamanders, and to destroy natural ephemeral water bodies California tiger salamanders require. Automobiles and off-road vehicles can kill a substantial number of dispersing or over summering California tiger salamanders.

A strong negative association between bullfrogs (*Rana catesbeiana*) and California tiger salamanders has been documented. Although bullfrogs are unable to establish permanent breeding populations in vernal pools, dispersing immature bullfrogs can take up residence and prey on salamanders in ephemeral pools if there is a permanent water source within two miles. Louisiana swamp crayfish (*Procambarus clarkii*), mosquitofish (*Gambusia affinis*), green sunfish (*Lepomis cyanellus*) and other introduced fishes also prey on the California tiger salamanders.

Ground squirrel control programs, carried out on more than 10 million acres in California, likely have an adverse effect on the California tiger salamander. Poison typically used on ground squirrels (fumigants) is likely to have a disproportionately adverse effect on California tiger salamanders, which are smaller and have more permeable skins. Use of insecticides, such as methoprene, in mosquito abatement may have an indirect adverse affect on the California tiger salamander by reducing the availability of prey. Contaminated runoff from roads, urban areas, and agriculture may also adversely affect the breeding, survival, or development of California tiger salamanders.

Deformities caused by a trematode infection have affected pond-breeding amphibians in California at known California tiger salamander breeding sites; this infection has become widespread among amphibian populations in Minnesota and poses the threat of becoming widespread in California. In addition, tiger salamanders have been known to be locally extirpated by a pathogenic, chytrid fungus (*Batrachochytrium dendrobatidis*) at stock tanks in Arizona (Davidson et al., 2003).

Various non-native subspecies of the tiger salamander within the *Ambystoma tigrinum* complex have been imported into California for use as fish bait. The introduced salamanders may competitively exclude the California tiger salamanders, or interbreed with the natives to create hybrids that may be less adapted to the California climate or are not reproductively viable past the first or second generations. Hybridization with nonnative tiger salamanders is a substantial problem in Monterey County.

Contra Costa goldfields

Contra Costa goldfields (*Lasthenia conjugens*), an annual plant in the aster family (Asteraceae), was listed as endangered on June 18, 1997 (62 FR 33029). We designated critical habitat for this species on August 6, 2003 (68 FR 46809). The following information is summarized from the listing document and critical habitat designation.

Contra Costa goldfields is a showy spring annual that grows 10 to 30 centimeters (4 to 12 inches) tall. It typically grows in vernal pools, swales, moist flats, and depressions within a grassland matrix (California Natural Diversity Data Base 2003). Vernal pools are a natural habitat type of the Mediterranean climate region of the Pacific coast and the Central Valley of California. Because they support shallow water for extended periods during the cool season but are completely dry for most of the warm season drought, vernal pools hold water long enough to allow some purely aquatic organisms to grow and reproduce, but not long enough for the development of a typical pond or marsh ecosystem. The alternation of very wet and very dry conditions creates an unusual ecological situation that supports a unique biota (Zedler 1987). The vernal pool types from which Contra Costa goldfields has been characterized are Northern Basalt Flow, Northern Claypan, and Northern Volcanic Ashflow (Sawyer and Keeler-Wolf 1995). Although Contra Costa goldfields is most commonly found in vernal pools, several historical collections were from populations growing in the saline-alkaline transition zone between vernal pools and tidal marshes on the eastern margin of the San Francisco Bay (P. Baye *in litt.*, 2000a). Soil textures at Contra Costa goldfields locations, where known, are clays or loams. Most occurrences of Contra Costa goldfields are at elevations of 2 to 61 meters (6 to 200 feet), but the Monterey County occurrences are at 122 meters (400 feet) and one Napa County occurrence is at 445 meters (1,460 feet) elevation (California Natural Diversity Data Base 2003).

Many plant species grow in association with Contra Costa goldfields in various parts of its range, but no comprehensive survey of associates has been undertaken. The two most commonly reported associates are Italian ryegrass (*Lolium multiflorum*) and popcorn flower (*Plagiobothrys* sp.). Other plant species that occur at several Contra Costa goldfields sites include brass buttons (*Cotula coronopifolia*), valley downingia (*Downingia pulchella*), button-celery (*Eryngium* sp.), smooth goldfields (*Lasthenia glaberrima*), common mousetail (*Myosurus minimus*), and California semaphore grass (*Pleuropogon californicus*).

The primary constituent elements of Contra Costa goldfields critical habitat are the habitat components that provide: 1) Vernal pools, swales, moist flats, and other ephemeral wetlands and depressions of appropriate sizes and depths and the adjacent upland margins of these depressions that sustain Contra Costa goldfields germination, growth, and reproduction, including, but not limited to, vernal pools on clay soils from a variety of soils series, rock outcrop pools on basalt flows, and vernal pools in saline alkaline transition zones with tidal marsh habitats. All of these habitats typically become inundated during winter rains, but are dry during the summer and do not necessarily fill with water every year; and 2) the associated watersheds and hydrologic features, including the pool basin, swales, and surrounding uplands (which may vary in extent depending on pool size and depth, soil type and depth, hardpan or claypan type and extent, topography, and climate) that contribute to the filling and drying of the vernal pool or ephemeral wetland, and that maintain suitable periods of pool inundation, water quality, and soil moisture for Contra Costa goldfields, germination, growth and reproduction, and dispersal, but not necessarily every year.

As a vernal pool annual plant, seeds of Contra Costa goldfields would be expected to germinate in response to autumn rains, with the plants maturing in a single growing season, setting seed, and dying back during the summer. However, detailed research on the life cycle has not been

conducted. In the related species, Burke's goldfields, plants that establish in autumn under natural conditions may tolerate prolonged submergence but do not begin rapid stem growth until vernal pools and swales drain down during late winter or early spring (Ornduff 1969b, Patterson et al. 1994).

Contra Costa goldfields flowers from March through June (Ornduff 1966, Ornduff 1979, Skinner and Pavlik 1994) and is self-incompatible (Crawford and Ornduff 1989). Although Contra Costa goldfields has not been the subject of pollinator studies, observations suggest that the same insects visit all outcrossed species of *Lasthenia*, rather than concentrating on particular species (Thorp 1976). Insect visitors to flowers of *Lasthenia* belong to five orders: Coleoptera, Diptera, Hemiptera (true bugs), Hymenoptera, and Lepidoptera (Thorp and Leong 1998). Most of these insects are generalist pollinators. All of the specialist pollinators of *Lasthenia* are solitary bees (family Andrenidae). The extent to which its pollination depends on host-specific bees or more generalist pollinators is unknown.

Historically, Contra Costa goldfields was known from vernal pools in seven counties—Alameda, Contra Costa, Mendocino, Santa Barbara, Santa Clara, Napa, and Solano Counties, California. In 1998, additional occurrences were discovered in Monterey County. Of the 31 occurrences of Contra Costa goldfields documented between 1884 and 2002 that are catalogued in the California Natural Diversity Data Base (CNDDDB) (through November 2003), 20 are likely extant. Contra Costa goldfields presumably remains in all of the vernal pool regions where it occurred historically, except for the Santa Barbara Vernal Pool Region. By far the greatest concentration of this species is in the Solano-Colusa Vernal Pool Region; the specific area east of Fairfield in Solano County contains 11 occurrences that are presumed extant, plus 3 that may be extirpated. Four occurrences are extant in the Central Coast Vernal Pool Region, including those at Fort Ord in Monterey County, one at San Francisco Bay National Wildlife Refuge, and one near Fremont, both in Alameda County (California Natural Diversity Data Base 2003). One occurrence is presumed extant in each of the Mendocino and Santa Rosa vernal pool regions. Four occurrences (as grouped in CNDDDB) are on public lands: two at Fort Ord, and one each at San Francisco Bay National Wildlife Refuge, and Travis Air Force Base, which are administered by the U.S. Bureau of Land Management, the U.S. Fish and Wildlife Service, and the U.S. Air Force, respectively.

Many of the occurrences in Solano County, Napa County, and the Bay area are threatened by urbanization and conversion of vernal pool habitat to vineyards. Competition from non-native plants, particularly Italian ryegrass, threatens at least eight occurrences of Contra Costa goldfields, several of which are also targeted for development (CNDDDB 2003). In addition, the encroachment by non-native plants often follows surface-disturbing activities, such as disking, grading, filling, ditch construction, and off-Road vehicle use, which can alter hydrology and microhabitat conditions. Such surface disturbances are visually apparent at nine sites, four of which do not yet have reported problems with non-native species (CNDD 2003). The CNDDDB (2003) also cites adverse livestock grazing practices as a threat to seven occurrences of Contra Costa goldfields. Off-road vehicle use and other recreational activities associated with humans can lead to wheel ruts, soil compaction, increased siltation, destruction of native vegetation, introduction of non-native vegetation, and alteration of vernal pool hydrology. Changes in the amounts or durations of

inundation of the habitat can affect the reproductive success of vernal pool species. Erosion associated with construction can contaminate vernal pool habitat through the transport and deposition of sediments into these areas.

ENVIRONMENTAL BASELINE

California Tiger Salamander

The approximately 28,000-acre former Fort Ord supports approximately 60 wetlands that may function as breeding habitat for California tiger salamanders (Figure 4 revised 9/22/04 for Army 2004). These wetlands include vernal pools, ephemeral and relatively permanent ponds, ponded water in creeks, old quarry pits, and grassland swales. In years of high rainfall, some of these wetlands that appear distinct in dry years, may blend together into fewer larger wetlands (thus explaining some of the discrepancies in the number of potential breeding pools reported). These wetlands occur south of Intergarrison Road and east of the coastal developed portions of the base, and are surrounded by grassland, oak woodland, oak savannah, or maritime chaparral. Each is within at least 2 km of at least one other potential breeding site, so upland habitat is contiguous (Figure 2 Army 2004).

Intermittent aquatic surveys conducted during the past 12 years have identified 22 of the 60 locations as supporting breeding California tiger salamanders (Figure 4 revised 9/22/04 for Army 2004). The likelihood that the remaining 38 wetlands support breeding California tiger salamanders has not been fully assessed. Some may not have adequate water quality or quantity during the 8 to 12 weeks California tiger salamanders typically need aquatic habitat to successfully produce young. Others may fill with water only in particularly wet years. A few typically hold water throughout the year and have been occupied by nonnative fish for decades (e.g., Mudhen Lake).

In this biological opinion we are using a 2 km radius from breeding ponds as an estimate of California tiger salamander upland habitat. In Santa Barbara County, California tiger salamanders have been found as far as 1.3 miles, or just over 2 km, from breeding ponds (S. Sweet, *in litt.* 1998). In Contra Costa County, hundreds of California tiger salamanders have been trapped annually in upland habitat approximately 0.5 mi (2,640 ft) to 0.75 mi (3960 ft) from the nearest breeding ponds (Sue Orloff, biologist, IBIS Environmental, *in litt.* 2003). Therefore, we believe 2 km is a reasonable estimate of maximum upland habitat use around breeding ponds at former Fort Ord. Given that other amphibians, such as frogs, have been documented to traverse between sites 2.8 km apart in California's coastal counties (Bulger and Scott 1999) it is likely that some California tiger salamanders make forays beyond 2 km.

Using a 2 km radius around all potential breeding habitats to estimate potential upland habitat, the 28,000-acre former Fort Ord supports about 18,900 acres of potential upland habitat comprised primarily of maritime chaparral, grassland, oak savannah, and oak woodland (Army 2004). Due to its size, this area has not been assessed for barriers to dispersal or the absence of burrows, which may make some areas within it unsuitable for California tiger salamander use. However, there are no obvious barriers, such as housing developments or major roads, evident in aerial photographs.

The Army asserted in its biological evaluation that the Service should assume that California tiger salamanders disperse only 1 km in maritime chaparral on former Fort Ord, due to the dense nature of this vegetation type (Army 2004). There is little information available on use of maritime chaparral by California tiger salamanders on former Fort Ord or elsewhere. In inland drier areas of Santa Barbara County, scientists have hypothesized that chaparral-covered slopes and ridgelines with shallow soils may not support California tiger salamanders because the burrows would lack the depth and humidity needed by amphibians during hot summer months (S. Sweet, University of California at Santa Barbara, pers. comm., 2004) and thus the Service has excluded some of these areas from proposed recovery units. Former Fort Ord is influenced by the cooler coastal conditions and breeding is clearly occurring in pools entirely surrounded by chaparral. Small mammal burrows exist in maritime chaparral on former Fort Ord and chaparral density at the height that would inhibit California tiger salamander movement varies due to species composition and stand age (D. Steeck, Service, pers. obs., 2004). Therefore, we conclude it is reasonable to assume California tiger salamanders inhabit this vegetation type and we are addressing it the same as other vegetation types, such as grasslands and oak savannahs, where California tiger salamanders use has been better documented.

The Army still retains about 15,720 acres of the former base (Army 2004). This includes 6 known breeding pools and about 25 potential breeding pools (Figure 4 revised 9/22/04 for Army 2004). We have very little information on the status of California tiger salamander populations on former Fort Ord lands still owned by the Army because many of the wetlands on lands the Army still owns have not been resampled since initial discovery of breeding California tiger salamanders in 1992.

University of California researchers conducted aquatic surveys for California tiger salamanders on those lands that the Army has transferred to the BLM. In 2003, they located California tiger salamander larvae in about 11 of the 12 to 14 locations where they conducted surveys (Army 2004; Fitzpatrick 2004). During those surveys they made rough estimates of larval numbers in three pools based on mark and recapture techniques. The estimates for these pools in March ranged from about 156 to 324 larvae.

Genetic analyses of the California tiger salamanders at former Fort Ord have not been extensive, but larvae were sampled from 11 wetlands on BLM land in the southeast and north regions of the former base in 2003. One of the pools sampled was found to contain hybrid larvae (Fitzpatrick 2004). This pool is located in the grasslands in the southeastern region of the former base. Extensive levels of hybridization have been documented in the nearby Salinas Valley. Because it contains an extensive network of known and potential breeding sites and because almost all of its sampled California tiger salamanders have been found to be native, the former Fort Ord population of California tiger salamanders is particularly important to the status of the species in the central coast region.

Contra Costa Goldfields

Nine critical habitat units are designated for Contra Costa goldfields. The unit on former Fort Ord, Critical Habitat Unit 9, is the southernmost of the units and is the only one in Monterey County. The remaining 8 units are in Mendocino, Napa, Contra Costa, Alameda, and Santa Clara Counties. Unit 9, on former Fort Ord, encompasses 6,878 acres, of which about 84 percent (5,770 acres) is currently owned by the Army and about 16 percent (1,104 acres) has been transferred to BLM (about 4 acres apparently extend beyond the boundaries of Fort Ord (Service 2003) due to the coarseness of mapping boundary methods). Four known occurrences of Contra Costa goldfields, encompassing approximately 5 acres (Army 2004) occur within this unit in the north central region of former Fort Ord. This is the entire extent of Contra Costa goldfields known from Monterey County. This critical habitat unit encompasses the known occurrences, their watersheds, and other ephemeral wetlands and their watersheds, only some of which have been surveyed for Contra Costa goldfields. This unit functions to protect the southernmost known extant occurrences in the species range, their habitat, and other similar wetland habitat where establishing new populations of Contra Costa goldfields could be attempted if deemed important for recovery to ensure the persistence and resilience of this species in Monterey County.

The Army has been conducting pre-disposal remedial actions in Unit 9 for the past decade. Contra Costa goldfields was only discovered on the base in 1998. Two of the four occurrences are located within MR site 10B and have been monitored by the Army since 1999 to determine if munitions response actions have affected them. Although cleanup of ordnance occurred in this munitions response site in 1999, annual monitoring has recorded no decline in population size of the occurrences, although variations in monitoring intensity and method have occurred. The population sizes recorded at both sites have increased in 3 of 4 years since the baseline surveys were conducted prior to the MR actions. In 2003, approximately 1,400,000 individuals were estimated to occur at one site and 75,000 individuals at the second site (MACTEC 2004).

In 2004, the Army mapped the ephemeral wetlands and their watersheds which occur within the 6,878 acres designated in Unit 9, based on known locations of wetlands, a GIS analysis of topography and soils, and past field surveys which eliminated from consideration some depressions in the unit that were found to support only upland plant species and thus were unlikely to support saturated soils for any extended period (Collins and Tudor *in litt.* 2004, Army 2004). This assessment essentially defined, within Unit 9, those areas supporting the primary constituent elements of Contra Costa goldfields critical habitat, based on what we know of the habitat and wetlands at this time (and without field assessment of the GIS analysis). The Army's analysis determined that 31 wetlands occupying approximately 61 acres occur within the unit. The watersheds, or upland areas which may influence the filling and drying of these wetlands, encompass approximately 1,444 acres. Of this, approximately 767 acres of watershed for 24 wetlands, occur on lands still managed by the Army. The Army has identified pre-disposal actions that may occur on BLM lands (Army 2004) so the entire unit is the action area discussed in the biological opinion.

EFFECTS OF THE ACTION

This biological opinion does not rely on the regulatory definition of “destruction or adverse modification” of critical habitat in 50 C.F.R. 402.02. Instead, we have relied upon the statutory provisions of the Act to complete the following analysis with respect to critical habitat.

EFFECTS OF PRE-DISPOSAL ACTIONS

Overview

The Army has estimated that approximately 12 acres of known California tiger salamander breeding habitat (6 known breeding pools), approximately 14 acres of potential breeding habitat (10 potential breeding pools), and approximately 7,192 acres of potential California tiger salamanders upland habitat may be temporarily adversely affected as a result of Army pre-disposal actions (Army 2004, Collins *in litt.* 2004j). This is approximately 31 percent of the known breeding habitat acreage, 40 percent of the potential breeding habitat acreage, and approximately 38 percent of the potential upland habitat for California tiger salamanders on former Fort Ord lands (calculated from acreages provided in Army 2004). In all cases, the effects of any single specific pre-disposal action on California tiger salamanders may range from negligible, where the action occurs at the periphery of California tiger salamander upland habitat, California tiger salamanders are scarce, or the actions are small, to highly damaging, where they occur within or directly adjacent to occupied breeding habitat or upland habitat likely to support a high density of individuals or important portions of the local population. In this document, we analyze the range of effects that may occur, not necessarily what may occur in one specific area.

The Army has estimated that pre-disposal actions may occur within 543 acres of the Contra Costa goldfields critical habitat designation which contain vernal pools and associated watersheds, the two primary constituent elements of Contra Costa goldfields critical habitat (Army 2004). This includes 24 acres of wetlands (39 percent of the total in the unit) and 519 acres of watersheds (36 percent of the total in the unit).

Certain pre-disposal activities, such as staging of vehicles and equipment, and maintenance of existing roads, would occur in support of all pre-disposal remedial actions. California tiger salamanders may be killed or injured by vehicles or dug up, killed, or injured, during road regrading operations, but we expect these effects to be minimal due to their timing, location, and limited application. Other than patrols and emergency rescues, pre-disposal activities will typically occur during the day. California tiger salamanders move about primarily during night when precipitation is occurring. Road grading may damage some occupied burrows and injure their occupants where burrows occur in dirt roads or at road edges or where erosion control and drainage features (rolling dips) are installed adjacent to roads. The Army has proposed measures to minimize these effects, including using established roads whenever possible during pre-disposal actions; reusing access routes if that would be the least damaging environmental alternative; and placing staging areas, access routes and other necessary support facilities so as to avoid areas containing HMP species.

Remedial Actions – Munitions response

Munition response actions may affect California tiger salamanders and critical habitat for Contra Costa goldfields during vegetation clearance, MEC excavation and removal, and treatment of MEC special case areas.

California tiger salamanders

Prescribed fire is the primary method of vegetation removal proposed for chaparral vegetation. More than half the potential breeding habitat for California tiger salamanders at former Fort Ord is surrounded by chaparral, often with a narrow ring of grassland immediately around the wetland (maps from Army 2004). Prescribed fires would be limited to the period from July 1 to December 31, and would occur before substantial winter rains, while vegetation moisture content is still low. During the dry season, adult and juvenile California tiger salamanders are below ground, most frequently in the burrows of ground squirrels (Loredo, et al. 1996), Botta's pocket gophers (*Thomomys bottae*), and other small mammals where they have been found to reside up to a meter below the surface (Trenham 2001). Therefore, we believe adult California tiger salamanders will be killed or injured infrequently by dry season burns. Newly metamorphosed California tiger salamanders may be injured or killed by prescribed burning if the fire occurs adjacent to breeding areas in the summer or fall months when they are emerging from breeding ponds and taking refuge in shallow burrows or soil cracks. Upon metamorphosis, California tiger salamanders may be only 2 to 3 inches long (Trenham, et al, 2000) and have been documented to use the first soil crevices or burrows they encounter (Loredo, et al 1996). Prescribed fires will not be the chosen method to clear grassland vegetation surrounding wetlands, but these areas may burn when prescribed fire is used to clear surrounding maritime chaparral.

The deployment of foams or fire retardants at prescribed burn boundaries may injure or kill California tiger salamanders through direct contact or contamination of their breeding sites. Fire retardants contain water, fertilizer, and ingredients such as colorants, thickeners, and corrosion inhibitors. In aquatic studies, the ammonia in retardants has killed fish (Little and Calfee 2000). Foams are about 99 percent water, and 1 percent surfactant, foaming agents, corrosion inhibitors, and dispersants. Their minor ingredients can suffocate gill-breathing aquatic organisms when foams contaminate aquatic sites. Those products containing sodium ferrocyanide appear to have the greatest toxicity to fish and frog larvae and their toxicity increases following exposure to ultraviolet light (Little and Calfee 2000). Given the timing of prescribed burns and the nocturnal, fossorial habits of California tiger salamanders, it is unlikely they will contact foams and fire retardants in most upland habitats hundreds of meters from vernal pools. To reduce the likelihood of adverse effects on California tiger salamanders, the Army has proposed to not use any foams or fire retardants containing sodium ferrocyanide. To reduce the likelihood that foams and retardants will adversely affect breeding habitat through contamination of water and effects on larvae California tiger salamanders, the Army has proposed to deploy them no closer than 300 feet from any wetland and to monitor the aquatic sites for 5 years following their application (Collins *in litt.* 2004h).

Mechanical clearance of maritime chaparral may occur in areas of up to 50-acres in munitions response sites under specific conditions. Mechanical clearance of maritime chaparral may occasionally injure or kill California tiger salamanders by crushing burrows and crushing or burying their inhabitants when the machinery used for cutting gouges the soil, particularly as the machinery turns.

The effects of temporarily removing chaparral on California tiger salamanders, through all three means, are difficult to predict and would be influenced by the size of the area denuded, the thoroughness of vegetation removal, and the likelihood that California tiger salamanders occur in a given area. Entirely removing vegetation which shades the soil surface over large areas (hundreds of acres) may harm California tiger salamanders by reducing the humidity in burrow systems, altering insect food sources, and exposing California tiger salamanders to increased desiccation or predation once they begin to move above ground during the wet season. Removal of vegetation may benefit California tiger salamanders if it increases their ability to move more easily through areas where the vegetation was previously low-growing and dense, as in stands of sandmat manzanita (*Artctostaphylos pumila*) or hookers manzanita (*A. hookeri* ssp. *hookeri*), but this may be outweighed by the lowered humidity or changed food availability in the area.

Many of former Fort Ord's soils are highly erodible and loss of vegetation over large areas within the watersheds of aquatic sites could expose California tiger salamanders eggs and larvae to increased sediments in nearby breeding areas. We expect the effects of vegetation removal to be short-lived, because the Army proposes to continue its post-treatment monitoring and restoration program (ACOE 1997, Army 2004) to ensure that vegetation diversity returns to pretreatment levels and erosion problems are addressed. We do not anticipate conversion of maritime chaparral to another vegetation type (e.g. coyote bush scrub, nonnative grassland) because the 50-acre areas of cut maritime chaparral will occur infrequently due to specific conditions that must be met, and will most often be within a mosaic of burned maritime chaparral or will be burned eventually. In addition, to maintain a mosaic of different aged chaparral stands the Army proposes vegetation removal treatments on no more than 800 acres per year (ACOE 1997). Therefore, although there are uncertainties associated with the effects of vegetation removal activities on California tiger salamanders, these activities will occur within only a few potential and known breeding areas in a given year, rather than base-wide, and regrowth of vegetation should begin with the onset of winter rains.

The Army proposes to experiment with pre-crushing of maritime chaparral (with a tracked vehicle) prior to prescribed burning in up to 250 acres within two munitions response sites, one of which supports potential breeding habitat and both of which support potential upland habitat for California tiger salamanders. Use of large machinery in these areas may injure or kill California tiger salamanders by crushing or burying them in their burrows, particularly where the machinery turns and soils are disrupted. Crushing vegetation prior to burning may increase fire intensity locally, but it is unclear if it would be substantial enough to influence heat or humidity in burrows. Because pre-crushing of vegetation is proposed in a limited area and will be designed to inform future evaluation of this method, we do not believe the effects to California tiger salamander populations will be substantial.

Mechanical mowing of grasslands, oak savannah, dry ephemeral wetlands, and oak woodland understories could result in direct mortality of adult and juvenile California tiger salamanders. However, because it will occur during the day when adult California tiger salamanders are in subterranean burrows, we expect minimal mortality of these life stages. Adult California tiger salamanders typically travel above ground at night, most often during rainstorms (Storer 1925, Trenham et. al. 2000). Mechanical mowing machinery may result in some injury or mortality of adult and juvenile California tiger salamanders due to borrow collapse during the wet season. The Army will minimize this by using as few passes of a vehicle over the vegetation as possible to reduce turns that cause the majority of the soils disturbance. Newly metamorphosed California tiger salamanders could be killed or injured through crushing by mowing machines while they reside in burrows and shallow cracks after emerging from breeding areas. Observations of emerging metamorphs suggests they are less discriminating than adults in choosing subterranean burrows and are more likely to settle in soil crevices (Loredo, et al. 1996).

Manual clearance is less likely than mechanical clearing to result in mortality or injury of California tiger salamanders because it uses smaller hand-operated tools. Both vegetation methods would reduce the height and density of vegetation, which may increase the susceptibility of California tiger salamanders to desiccation or predation, particularly newly metamorphosed individuals, since they emerge from ponds in summer months when there is little or no precipitation (Trenham, et al. 2000). As with mechanical clearance, the Army proposes to conduct manual clearance in wetlands in the dry season after pools have dried.

Contra Costa goldfields critical habitat

Prescribed fire is not likely to have any long-term adverse effects on Contra Costa goldfields critical habitat. However, removal of vegetation could lead to erosion, sedimentation, and changes in the hydroperiod of vernal pools. We have little specific information on which to assess these effects. Consumption of vegetation may benefit Contra Costa goldfields critical habitat if it reduces thatch caused by nonnative grasses or limits the incursion of shrubs into wetland margins. Effects from associated activities, such as staging, fire suppression, and construction of fuelbreaks, are discussed elsewhere in this biological opinion.

The deployment of foams or fire retardants at prescribed burn boundaries may adversely affect Contra Costa goldfields critical habitat by injuring native vegetation and by adding nitrogen to the soil to the extent that nonnative invasive grasses increase. A three-year comparison of fuelbreaks where retardants were applied on former Fort Ord suggested that invasive annual grasses increased greatly following fire retardant applications, especially in the presence of annual mowing and where sources of nonnative grasses were present nearby (Parsons 2004). The addition of nitrogen could also increase the density of established native vegetation making germination sites for Contra Costa goldfields less available. We are unaware of further information indicating whether fire retardants or foams are likely to have other effects on soil chemistry in ways that would influence Contra Costa goldfields growth or reproduction.

Mechanical clearance and experimental pre-crushing of maritime chaparral would not directly affect the portions of critical habitat that support Contra Costa goldfields because this species occurs in margins of wetlands where maritime chaparral is absent. Mechanical clearance may indirectly affect adjacent wetlands if erosion, sedimentation or changes in pool hydrology occur. Experimental pre-crushing of maritime chaparral is not likely to affect Contra Costa goldfields critical habitat beyond that of a prescribed burn with no pre-treatment.

Mechanical mowing of grasslands, oak savannah, and oak woodland understories, including dry ephemeral wetlands, could adversely affect Contra Costa goldfields critical habitat by compacting soil and causing tire ruts or denuded areas if the mowing is conducted when soils are saturated. These could lead to erosion or changes in the hydrology of available microhabitats. Mechanical vegetation clearance could reduce the abundance of native species and favor nonnatives if the machinery used for clearance introduces seeds of invasive nonnative species or the timing of mowing favors growth and reproduction of nonnative species over natives. The Army will reduce some of these effects in wetlands by implementing conservation measures, such as evaluating vegetation density and undertaking mowing only where necessary to safely clear MEC, restricting mowing in wetlands to the dry season, avoiding mowing in Contra Costa goldfields occupied habitat, restricting equipment turning locations, conducting erosion control as needed in areas following MR actions, and continuing its pre- and post-action monitoring program. The Army has found that repeated mowings in chaparral vegetation can lead to increases in nonnative annual grass densities in fuel breaks (Parsons 2004). Because vegetation clearance in Contra Costa goldfields critical habitat would typically only occur once per location due to MR actions, it seems less likely that these adverse effects would be substantial.

MEC Excavation and Removal

California tiger salamanders

Excavations and *in situ* detonations to remove ordnance in upland habitat for California tiger salamanders may cause direct mortality or injury to California tiger salamanders, damage their burrows, or dislodge them from burrows, increasing their exposure to desiccation and predation. California tiger salamanders may become trapped in open excavations making them vulnerable to desiccation, starvation, and predation and may also be injured or killed if they fall into deep excavations. The degree of harm to the population would depend on excavation depth, surface area, and the density of California tiger salamanders in the area. Although excavations may extend 10 feet below the soil surface, deep excavations are uncommon. The Army reports that 97 percent of the MEC recovered thus far was found within 2 feet of the surface (Army 2004). The Army has also conducted over 3 million excavations without having found a California tiger salamander, although black legless lizards (*Anniella pulchra nigra*) are frequently reported (Army 2004, W. Collins pers. comm., 2004). It is unclear whether this is due to fewer California tiger salamanders being excavated, perhaps because they occur at deeper soil depths or are less abundant, or because legless lizards are more visible when excavated. Excavations in the watersheds of aquatic habitat could also cause erosion and increased sedimentation in pools, and changes in vegetation density, diversity, and small mammal activity, affecting subterranean shelter and food sources for

California tiger salamanders. The Army proposes to minimize these effects by restricting munitions response sites to the smallest area possible while still allowing for the safe and effective removal of explosives, and using existing roads whenever possible.

Excavations and *in situ* detonations in wetlands could cause direct loss of eggs, larvae, and adult breeding California tiger salamanders and indirect losses due to pond sedimentation, and altered water quality and quantity. These could influence population size and density, future reproductive capacity of the population, and recolonization of upland habitats disturbed by other pre-disposal actions. The Army proposes to reduce these effects by scheduling any necessary vegetation removal during the dry months, scheduling removal actions when the wetlands are dry or water levels at their lowest, minimizing excavation area and depth, and salvaging topsoil and soil layers during excavation and replacing them upon completion of the MEC removal action. Deep excavations and detonations could reduce or eliminate the water-holding capacity of a wetland if it disrupts the impermeable soil layer which promotes water ponding.

We do not anticipate the permanent loss of any wetlands due to the Army's pre-disposal actions because they have committed to the goal of no loss in acreage or function of any wetland in which they work. To meet this goal they implement a wetland plan which involves pre-remediation evaluation of wetland characteristics and biota, implementation of conservation measures during remediation actions, post-remediation monitoring, corrective actions as needed and, if necessary, enhancement or creation of additional wetlands. They have not had to drain a wetland to date (Army 2004) and have not identified any wetlands that supported California tiger salamanders prior to remediation actions and failed to support them after remediation actions, although few wetlands have been subjected to munitions response actions. At one munitions response site (pool 42), manual and mechanical vegetation clearance, prescribed burns, and removal of subsurface MEC actions were completed and larval California tiger salamanders were present in the year following the remediation actions (Army 2004).

Contra Costa goldfields critical habitat

As discussed above, excavation and *in situ* detonations in wetlands could adversely affect the water-holding capacity of vernal pools, as well as remove native vegetation, increase sediment in the pools, cause erosion, remove the seedbank of native species, introduce nonnative species to the pool environment, disrupt floral displays that attract pollinators, and change the microtopography of pool contours. In the upland watersheds of vernal pools, excavations could also result in erosion followed by increased sedimentation into pools and could provide establishment sites for nonnative species. The Army has estimated that MEC removal may occur in up to 39 percent of the wetlands and 36 percent of the upland acreage which supports the primary constituent elements of critical habitat. Although MEC removal could substantially affect Contra Costa goldfields critical habitat, the Army's conservation measures will reduce these effects. The Army's commitment to achieve no loss of function or acreage of vernal pools, including an assessment of pre-disturbance condition, the implementation of protective measures during the MR action, follow-up monitoring for a period of 5-years, and commitment to take corrective actions, when necessary, is very important.

Treatment of MEC Special Case Areas

The identification of “special-case” areas is ongoing as the Army proceeds with munitions response actions. Therefore, the number of wetlands that would be affected by treatment of these areas, and their location, is unknown. However, the Army has indicated they currently estimate no more than 75 acres would be affected by the combined actions of remediating MEC Special Case areas and contaminated soils.

California tiger salamanders

Excavations and soil-sifting to treat special-case areas is likely to result in many of the same adverse effects to California tiger salamanders as described above for other munitions response actions. However, special-case areas may be much larger, on the order of several acres or tens of acres in any one location. Therefore they are more likely to lead to population level changes if conducted in high quality habitat or where they could affect breeding pools. Large scale excavations could result in decreased population sizes, and thus reduced availability of mates at breeding pools, and temporary habitat fragmentation due to complete loss of subterranean burrows when soils are sifted.

Creation of vehicle access routes, fuel breaks, and staging areas associated with munitions response actions could lead to mortality or injury of California tiger salamanders through crushing or collapse of burrows. The level of loss would depend on the location of targets and MEC that need removal, the proximity of the activity to potential breeding areas and to high densities of California tiger salamanders, the size of the equipment needed to remove the MEC or targets, and the timing of the action. For instance, a one time in-and-out action using a 4-wheeled vehicle in the dry season off roads in oak savannah is unlikely to result in the crushing of burrows to the extent that they will injure or kill adult California tiger salamanders. On the other hand, if large machinery is needed to remove an armored personnel carrier target in the wet season within a few hundred feet of a pond, the operation is more likely to crush burrows and injure and kill California tiger salamanders which may be residing in temporary shelter around the pool. Actions the Army has proposed that will reduce impacts to California tiger salamanders include restricting vehicles to existing roads and trails when possible, reusing new access routes if that is the least environmentally damaging, and conducting erosion control, as needed, based on post-disturbance evaluations.

Contra Costa goldfields critical habitat

Excavations and soil-sifting to treat special-case areas is likely to result in many of the same adverse effects to Contra Costa goldfields as described above for other munitions response actions. However, special-case areas may be much larger, on the order of several acres or tens of acres in any one location. Therefore they are more likely to influence an entire pool system. The initial limitation the Army has proposed, of no more than 75 acres disturbed by the combined actions of MEC special case remediation and soil remediation, reduces the extent of this disturbance. The

Army's conservation measures, particularly the commitment discussed previously to achieve no loss of function or acreage of wetlands, will further reduce the harm from these actions.

Remedial Actions – Contaminated Soil Remediation

California tiger salamanders

The Army's preliminary mapping of contaminated soil remediation sites (Army 2004) identifies two wetlands that may be directly affected by contaminated soil remediation activities and two other wetland basins in which contaminated soil remediation may occur. Excavation of contaminated soils within wetland and upland habitat for California tiger salamanders and the associated need for access routes and staging areas is likely to have effects similar to those previously described for munitions response actions, so is not repeated here. The Army has indicated that no more than 75 acres of California tiger salamanders habitat will be affected by the combined effects of soil remediation and MEC Special-case area excavations. To reduce the effects of contaminated soil remediation, the Army has proposed conservation measures similar to those proposed for munitions response actions. The wetland characterization and restoration plan that the Army has committed to follow includes a more rigorous assessment by a wetland specialist for those situations with special circumstances, including when more than 5 percent of the total wetland will be disturbed or 10 square feet, whichever is larger (Jones and Stokes Associates, Inc. 1996). Contaminated soil remediation sites are more likely to require this level of assessment, due to their size. Although both direct and indirect effects of contaminated soil remediation are likely to adversely affect breeding habitat for California tiger salamanders, we do not anticipate any wetlands will be permanently adversely altered by the Army's action due to their commitment to ensure the function and size of the wetlands are not reduced, and their established framework for assessment, restoration, and remedial measures, as needed.

Contra Costa goldfields critical habitat

The effects of soil remediation on Contra Costa goldfields critical habitat are likely to be similar to those defined above for munitions response actions. Although both direct and indirect effects of contaminated soil remediation are likely to adversely affect Contra Costa goldfields critical habitat, we do not anticipate any wetlands will be permanently adversely altered by the Army's action due to the Army's commitment to ensure the function and size of the wetlands are not reduced. We also do not anticipate that any large expanses of Contra Costa goldfields critical habitat in upland areas will be permanently altered, due to the Army's commitment to reestablish healthy, high diversity native habitat with appropriate microhabitat for HMP annual species following the remediation of contaminated soils. The Army has in place a framework for pre- and post-disturbance monitoring, and a commitment to define success criteria and to implement corrective actions if success criteria are not met.

Remedial Actions – Base-wide Range Assessment***California tiger salamanders and critical habitat for Contra Costa goldfields***

Because an ecological risk assessment is underway for the inland ranges, the Army's biological evaluation did not include an assessment of residual contaminant effects, following remediation to a yet-to-be determined cleanup level, on the California tiger salamander or on critical habitat for Contra Costa goldfields. Therefore, in this analysis we include only those effects from cleanup actions that the Army has already proposed. We did not address any effects of a remaining contamination level. When the ecological risk assessment is available, the Army will contact the Service to determine whether reinitiation of consultation is required.

Remedial Actions – conclusion

In summary, the combined effects of removal of vegetation, MEC removal, soil remediation excavations, and associated activities on hundreds of acres of California tiger salamander habitat annually and up to 7,192 acres in the next 10 to 15 years, could have a substantial adverse effect on the California tiger salamander population on former Fort Ord. This is minimized by the fact that the vast majority of the MEC removal excavations are small and hand-dug, the Army is employing conservation measures to avoid and minimize effects to both upland and breeding habitat, and former Fort Ord supports a large complex of breeding pools and contiguous upland habitat of which approximately 60 percent will be outside of the remediation areas.

Caretaker Actions – Physical Security, Emergency Fire Suppression, and Fuel Break Maintenance***California tiger salamanders***

Vehicle patrols that occur on rainy nights may occasionally kill California tiger salamanders from vehicle strikes as California tiger salamanders cross roads to reach breeding ponds. Given the size of the patrol area we believe mortality due to this activity will be infrequent. The effects of emergency fire suppression activities will depend on the location and extent of the wildland fire and, therefore, cannot be predicted. If wildland fires do occur, the Army may use the emergency consultation procedures described in 50 CFR 402.05.

Fuel break creation and maintenance using either mechanical means or blacklining may have many of the same types of effects as vegetation clearance actions described earlier in this document under "Remedial Actions – Munitions Response." However, fuel breaks will be cut and maintained as narrow bands, 45 to 50 feet wide along road corridors, rather than expanses of hundreds of acres. Therefore, there may be cases where the cutting or blacklining of fuel breaks would occur in areas with low burrow density or at such distances from potential breeding habitat that the likelihood of crushing a burrow supporting a California tiger salamander would be low. In addition, we would not expect an alteration of food sources due to fuel breaks. The Army provided a map of their fuel breaks (Army 2004) indicating approximately 300 acres (50 miles at 50 feet wide) of upland California tiger salamander habitat will be maintained as fuel breaks and

roads and will be manually or mechanically cleared of vegetation annually (Army 2004), with the central 15 foot strip (the road) grubbed or graded to remove the roots and burls of chaparral shrubs (Collins *in litt.* 2004k). Approximately 18 acres (3 miles) of this occur within 175 meters of known and potential California tiger salamander breeding sites (Army 2004). Four wetlands have fuel breaks adjacent or partially through them. The Army proposes to minimize effects to vernal pools and their inhabitants from fuel break construction by mowing, rather than grading or grubbing in these areas. Mowing would have fewer impacts than grading or grubbing, however, we expect some newly metamorphosed California tiger salamanders that have recently emerged and have settled in soil cracks or other surface shelter may be crushed or buried by mowing machinery.

Contra Costa goldfields critical habitat

Vehicle patrols occur on existing roads, and are therefore unlikely to affect Contra Costa goldfields critical habitat. As described above for California tiger salamanders, the effects of emergency fire suppression cannot be defined. If a wildland fire occurs, the Army may use the emergency consultation procedures described in 50 CFR 402.05.

The Army provided a map of their fuel breaks (Army 2004) indicating approximately 280 acres of fuel breaks occur within the Contra Costa goldfields critical habitat designation. The Army has not further defined what proportion of fuel breaks occur in areas supporting the primary constituent elements of critical habitat, but from their maps, it appears that most fuel breaks are on ridgelines separating watersheds. Fuel breaks pass through only 3 or 4 watersheds, out of 18 or more that the Army still owns. Fuel break maintenance could directly affect Contra Costa goldfields critical habitat by soil compaction from repeated mowing and vehicle traffic and loss of vegetation due to vehicle traffic. The Army proposes to avoid or minimize these effects in occupied critical habitat by maintaining fuel breaks only in the dry season when soils are dry. Indirect effects of fuel break maintenance may include an increase in the abundance of invasive nonnative annual grasses. A qualitative assessment of existing fuel breaks conducted by the Army suggests that repeated mowing may increase density and/or extent of nonnative annual grasses in fuel breaks in maritime chaparral at former Fort Ord, particularly if an existing seed source is nearby (Parsons 2004). It is unclear whether a similar increase would be likely in wetland herbaceous habitats in fuelbreaks on former Fort Ord.

Caretaker Actions – Weed and Erosion Control

California tiger salamanders

The Army proposes to conduct weed control activities on approximately 175 acres of upland habitat for California tiger salamanders within future habitat reserve areas that are heavily infested with nonnative invasive plant species. These areas are scattered throughout the base and include several large infestations of nonnative species covering tens of acres. Parts of one known and one potential breeding area for California tiger salamanders are included in the weed control acreage

and at least two of the larger infestations occur in the watersheds of known and potential California tiger salamander breeding habitat.

Manual weed control activities could injure or kill California tiger salamanders or destroy burrows as personnel excavate nonnative plants using hand tools, although we expect this to be infrequent. The Army's proposed means of chemical control, Roundup Pro[®], is a broad spectrum postemergent herbicide. The active ingredient, Glyphosate, is pre-mixed with surfactants and other inert ingredients. We do not expect direct acute effects of this chemical on California tiger salamanders in most upland areas because it will be applied with a backpack sprayer to the target plant species during the day when California tiger salamanders are underground and we assume the herbicide will dry on foliage by nightfall. We are not aware of any information on whether or not contact with recently sprayed foliage could adversely affect amphibians. In general, glyphosate formulations tend to have low mobility in soils and are unlikely to leach through the soil column because they bind tightly to soil particles (Schuette 1998). In upland habitats around breeding locations, some injury to newly metamorphosed individuals could occur in the late spring or summer if applications to low-growing nonnative invasive species introduce the herbicide into soil cracks or other less substantial sheltering areas sometimes chosen by juvenile California tiger salamanders. In wetland habitats, Roundup[®] formulations and their surfactants have been tested on frog larvae and the surfactants were found to be major contributors to the toxicity of the products, while the active ingredient, glyphosate, was considerably less toxic (Mann and Bidwell 1998). Therefore, use of Roundup Pro[®] could contaminate known and potential breeding habitat through airborne drift into water bodies during application, adversely affecting California tiger salamander eggs, larvae, or adults. The potential toxicity of surfactants to aquatic species is why Rodeo[®], a glyphosate-based formulation that lacks surfactants, is recommended for use around wetlands. The Army's proposal to use only hand-operated sprayers and to abide by all label directions, including not applying Roundup Pro[®] where surface water is present, will reduce the potential for contamination of California tiger salamander breeding habitat.

Road maintenance and erosion control activities, such as the installation of water bars, will occur in support of all pre-disposal actions. California tiger salamanders may be killed or injured by vehicles or dug up, killed, or injured, during grading of existing roads. However, most pre-disposal activities will take place during the day (other than patrols and emergency rescues) and because a well-developed road system already exists and the Army has proposed several conservation measures to minimize off-road vehicle use, we expect these effects to be minimal. Both control and eradication of invasive species and control of erosion will also have beneficial effects on California tiger salamanders by enhancing native vegetation diversity and minimizing habitat loss due to erosion.

Contra Costa goldfields critical habitat

The Army has identified approximately 29 acres of Contra Costa goldfields critical habitat that support the primary constituent elements of critical habitat and that are heavily infested by nonnative invasive plant species. This includes 1 acre of wetland and 28 acres of uplands. We expect the effects of the Army's weed control activities to benefit Contra Costa goldfields critical

habitat by removing nonnative species. Spot applications of the herbicide Roundup Pro[®] may have temporary adverse effects on critical habitat if adjacent vegetation is killed by drift or overspray. We expect any adverse effects of this action to be negligible and the benefits to be substantial. We expect manual removal of weeds to result in beneficial effects to Contra Costa goldfields critical habitat by reducing competition from invasive non-native plant species.

The Army's erosion control efforts may have short-term adverse effects on Contra Costa goldfields critical habitat during the installation of water bars or other erosion control structures. Control of erosion will also have beneficial effects on Contra Costa goldfields critical habitat by enhancing habitat diversity and minimizing habitat loss due to erosion.

Caretaker Actions – Interim uses

Parker Flats Habitat Reserve

California tiger salamanders

Access to the future Parker Flats Habitat Reserve for prescribed burning is not likely to result in adverse effects to California tiger salamanders if no pre-burn vegetation treatments are applied, the prescribed burn is conducted prior to the onset of substantial winter rains, no erosion control actions are necessary, and no additional fuel breaks need to be created beyond those that already exist. To provide the flexibility that may be needed to successfully conduct a prescribed burn there in 2005 or later, we are analyzing a broader set of potentially necessary activities and conditions. The use of heavy machinery to carry out vegetation pre-burn treatments on an experimental basis and for maintenance or repair of fuel breaks, erosion control structures, or fire-fighting activities, could collapse or disrupt burrows or injure individuals. Many of the same effects analyzed generally under pre-disposal prescribed burning sections earlier in this biological opinion also apply to Parker Flats. Adverse effects would be minimized by establishing fuel breaks and access within existing roads, conducting road and fuel break maintenance during summer months, and limiting maintenance of fuel breaks to that necessary to support a prescribed burn or contain a potential wildfire to Army property.

Contra Costa goldfields critical habitat

Contra Costa goldfields critical habitat has not been designated in the Parker Flats Habitat Reserve.

Laguna Seca

California tiger salamanders

Use of 6 acres of Laguna Seca for part of the Mazda Raceway could kill California tiger salamanders by vehicle strike or if burrows are crushed during maintenance activities. Use of the Wolf Hill and Lookout Ridge parcels for parking during approximately 10 events annually could result in the crushing of burrows or injury of individuals by vehicle strike and during maintenance,

such as mowing. Although unauthorized vehicle use in areas beyond the parking areas and erosion and sedimentation problems in adjacent vernal pools could occur, we do not believe these will become problems because the Army includes several required conservation measures in its permit conditions. These conditions include inspections of potential breeding pools after raceway events, prohibition on unauthorized vehicle use, maintenance of vegetation in the parking areas, and the requirement to take corrective actions if problems are found.

Contra Costa goldfields critical habitat

Contra Costa goldfields critical habitat has not been designated in the Recreational Areas of Wolf Hill, Lookout Ridge, or Turn 11, used by Laguna Seca Raceway.

Youth Camp

California tiger salamanders

Use of the youth camp for recreational events such as scout camping, horseback riding, and bicycle racing could crush burrows and injure or kill individual California tiger salamanders from use by horses, vehicles, or bicycles in or adjacent to trails and roads, and result in harassment or capture by campers (e.g. at the fish pond). These events are temporary and occur on scattered weekends during the year. Extended scout camping typically occurs in the summer when most adults are found in their burrows. Therefore, we expect these potential adverse effects to occur infrequently.

Contra Costa goldfields critical habitat

No lands supporting the primary constituent elements of Contra Costa goldfields critical habitat occur in the Youth Camp parcel. Use of the Youth Camp parcel could indirectly affect Contra Costa goldfields critical habitat if campers trample vegetation off trails or if livestock introduce or spread the seeds of nonnative invasive plant species in their feces or through soil disturbance.

Marina Coast Water District Project

California tiger salamanders

Demolition of the existing tank, replacement with two tanks, and construction of a pump station would permanently eliminate up to 1.1 acres of habitat and those California tiger salamanders within it. Burial of the pipeline and its future maintenance may adversely affect California tiger salamanders through vehicle strike on the road, excavation of burrows which extend into the dirt road, or through crushing by heavy machinery to excavate the road during initial installation. Effects will be minimized by restoring the road to its current condition, with no widening or modification of the road other than placement of the pipeline and back-filling of the trench.

Contra Costa goldfields critical habitat

The water tank parcel does not occur in or directly adjacent to Contra Costa goldfields critical habitat, therefore we do not expect any adverse effects from its expansion.

MOUT

California tiger salamanders

Due to slope steepness (15 to 30 percent), the Army concluded the MOUT facility does not support suitable habitat for California tiger salamanders and its use would therefore not adversely affect them (Army 2004). Although California tiger salamanders may not be burrowing there, they may disperse across the landscape or across access routes and therefore may be infrequently struck by vehicles.

Contra Costa goldfields critical habitat

The MOUT does not support any critical habitat for Contra Costa goldfields and we do not expect activities within it to affect nearby critical habitat.

Infrastructure Improvements and Pre-development Uses on Development Parcels

California tiger salamanders

Future non-specific infrastructure development and improvement projects that may occur prior to land transfer would likely temporarily or permanently destroy up to 70 acres of California tiger salamander upland habitat on parcels designated in the HMP as Development. Infrastructure-related activities may kill or injure California tiger salamanders directly, from actions such as excavation or in vehicle staging areas, or indirectly, by permanently destroying suitable burrows or increasing barriers between upland and breeding habitat. The nature of infrastructure improvement projects is such that the disturbed acreage is likely to occur at scattered sites across the landscape, sometimes adjacent to existing roads or water towers, and at other times in a new linear progression across the landscape. Because all but one Development parcel (the MOUT) occur on the periphery of the largest future habitat reserve and the core of the wetland complexes on former Fort Ord, we conclude that these activities will not substantially affect the persistence of the California tiger salamander population throughout former Fort Ord. The Army has also identified 5 acres of upland habitat for California tiger salamanders that will be temporarily and permanently altered due to road construction or other infrastructure development in the Habitat Corridor parcel that has a development allowance. This road construction would occur adjacent to lands designated as Development and thus would not fragment California tiger salamander upland habitat beyond that anticipated in the section on Disposal Actions.

Contra Costa goldfields critical habitat

The infrastructure activities discussed above will occur only in parcels designated as Development or in the Habitat Corridor with the development allowance. These parcels are either not within the critical habitat designation boundaries or do not support the primary constituent elements of Contra Costa goldfields critical habitat.

Effects of Disposal

We evaluated the effects of disposal actions on California tiger salamanders and Contra Costa goldfields critical habitat based on the expected change in land use and management from Army caretaker and cleanup operations to post-disposal civilian uses. Although the Army has already transferred 12,108 acres of former Fort Ord, we considered those lands in our evaluation because: (1) the scope of the conservation strategy for California tiger salamanders developed in the HMP is base-wide, (2) disposal is a connected series of actions that are partially completed, (3) upland and breeding habitat for California tiger salamanders is contiguous across approximately 18,900 acres of former Fort Ord and California tiger salamanders at several pool complexes on former Fort Ord may function as metapopulations, and (4) Contra Costa goldfields critical habitat is a contiguous unit now partially owned by BLM.

Reuse of property at former Fort Ord, which is an action to be undertaken by land recipients and not the Army, is considered an indirect or secondary effect of implementing the proposed disposal action. In most cases, the details of specific reuse projects have not been developed. Therefore, the following analysis is general in nature. Specific reuse projects that may kill California tiger salamanders will be analyzed in the future, under either section 7 of the Act, where an independent Federal agency nexus exists, or under the incidental take permit process of Section 10(a)(1)(B) where no Federal nexus is present. The Fort Ord Reuse Authority and several local jurisdictions are currently developing a regional HCP covering former Fort Ord lands for submission to the Service in support of an application for a Section 10 incidental take permit (ITP) to authorize take of listed species incident to development on portions of the former military lands. Two sets of parcels, the East Garrison Specific Plan Property and the Del Rey Oaks Property are anticipated to be developed prior to issuance of the regional Fort Ord ITP. In the HMP and in the HCP under development, these sets of parcels are designated as Development or Development with Restrictions and specific conditions and restrictions on their development are included in those documents and in the MOAs submitted by the Army on behalf of FORA and the local jurisdictions. Development of these parcels is analyzed in this biological opinion to accommodate their accelerated development schedules.

Habitat Reserves and Habitat Corridors***California tiger salamanders and critical habitat for Contra Costa goldfields***

The majority of lands supporting California tiger salamanders and their habitat on former Fort Ord have been or would be transferred as conserved habitat areas (this includes Habitat Reserve,

Habitat Corridor, and the reserve portions of parcels designated as Development with Reserves or Restrictions). Present and future Habitat Reserves and Habitat Corridors areas contain approximately 39 acres of known breeding habitat, 35 acres of potential breeding habitat, and 14,886 acres of known and potential upland habitat for California tiger salamanders (78 percent of the total) (Army 2004; Collins *in litt.* 2004j). In addition to BLM's approximately 15,000 acre Habitat Reserve, there are 7 smaller reserve and Habitat Corridor areas that provide California tiger salamander habitat (Army 2004, Table 1); all but one of which are contiguous with one another and have similar management requirements.

Of the 1,505 acres containing the primary constituent elements of Contra Costa goldfields critical habitat, 1,439 acres, or 96 percent, are designated as habitat reserves in the HMP. The remaining 4 percent occur in the Caltrans State Route 68 transportation corridor, designated as Development with Reserve or Restrictions.

Activities that may adversely affect California tiger salamanders and critical habitat for Contra Costa goldfields in conserved habitat areas include restoration of old roadbeds and eroding sites, removal or control of nonnative species, prescribed burning, public access and recreation, patrols and access controls, research, and monitoring (ACOE 1997). Although these activities may result in death or injury of individual California tiger salamanders, they would be dispersed across the 14,886 acres of upland habitat and the overall management of these areas as habitat reserves will result in improved habitat conditions for California tiger salamanders and critical habitat for Contra Costa goldfields. The primary management goal of conserved habitat areas, as identified in the HMP, is the conservation of threatened and endangered species (ACOE 1997). Therefore, we expect the overall effect of transferring these lands as conserved habitat areas will be beneficial for these species and their habitat.

The Army's proposed action allows up to 2 percent (approximately 300 acres) of BLM's NRMA reserve to be converted to development for visitor access and management facilities. Although the HMP does not specify the location or configuration of the development, it must be designed to be consistent with primary goal of the habitat reserve designation to conserve and enhance threatened and endangered species. Because this development allotment is the maximum that will be available to provide administrative and visitor use facilities in perpetuity, we anticipate the development will occur over many decades and will be dispersed across the 15,000 acre NRMA in the form of trails, roads, parking areas, day use areas, and interpretive centers in a manner that meets the goal of species and habitat conservation. The BLM is currently coordinating with the Service and other entities to further define the boundaries of the 2 percent development allowance for inclusion into their management requirements to be incorporated into an HCP for former Fort Ord. Specific development projects resulting from the 2 percent allowance that may affect listed species will be addressed in future consultations between BLM and the Service.

*Development with Reserve or Restrictions****California tiger salamanders and critical habitat for Contra Costa goldfields***

Four areas designated as Development with Reserve Areas or Restrictions (Recreation Area Expansion #1, Landfill, Del Rey Oaks Office Park, and State Route 68 easement) and the development portion of the Youth Camp parcel support habitat for the California tiger. Only the State Route 68 easement supports the primary constituent elements of Contra Costa goldfields critical habitat. In their BE, the Army concluded that approximately 982 acres of known and potential upland habitat for California tiger salamanders occurs in parcels designated Development with Reserve Areas or Restriction. Because development plans for these parcels have not been developed, the Army analyzed complete loss of resources in their boundaries, but indicated that the HMP requirements would be implemented as a condition of transfer. Because the restrictions in the HMP are fairly explicit, we do not agree that upland habitat for California tiger salamanders in all of these parcels will be completely lost. We address them individually in the following paragraphs.

The two parcels in Recreation Area Expansion #1, to be maintained as overflow event parking for Laguna Seca Raceway, encompass 0.24 acre of potential breeding habitat (1 pool), 0.04 acre of known breeding habitat (1 pool), and 275 acres of upland habitat. California tiger salamanders could be injured or killed by vehicles during parking events and maintenance (mowing) of the parking areas in a shrubless grass-covered condition. The effects of these activities will be minimized by the requirements in the HMP to preserve the pools and their watersheds, minimize erosion, and prevent unauthorized vehicle access and trash accumulation (ACOE 1997).

The landfill parcel (28 acres of potential upland habitat) is not contiguous with other currently designated conserved habitat areas. Therefore, under the HMP designations, the 28 acres of potential upland habitat for California tiger salamanders in the landfill could be lost due to the severing of movement corridors between its uplands and potential breeding pools in Habitat Reserves as buildout occurs on intervening parcels designated as Development.

The Office Park parcel will likely be completely developed, but the HMP includes restrictions to reduce the effects of that development on the adjacent Natural Area Expansion (NAE) parcel. The NAE parcel supports a wetland identified as a potential breeding pool, although its ability to support breeding habitat for California tiger salamanders, now and in the future, is unknown because it has not been surveyed and because the parcels surrounding it are designated for Development. Development of the parcels surrounding the NAE is discussed in more detail in this document under the section on parcels designated as Development.

The likelihood that Caltrans will use the State Route (SR) 68 easement is undetermined at this time, and may remain so for several decades. Currently, the Army retains only part of this easement, the remainder having been transferred to BLM. In addition, we have no detail on where, within the 1000-foot-wide study corridor, the terrain would be appropriate for a major highway.

Therefore, we are providing a cursory, but reasonable worst-case evaluation, based on the information available at this time and the restrictions in the HMP.

The HMP directs Caltrans to avoid vernal pools and their watersheds in the placement of SR 68 and to minimize and mitigate impacts to vernal pools and their watersheds were it cannot avoid them. Based on the information on the Army's maps, 4 of the 6 pools that are on Army land and in or partially within the study corridor appear to be avoidable and two of them are located centrally or are large enough that they may not be able to be fully avoided. Both pools in the latter situation are known California tiger salamander breeding pools. These two represent the only known breeding pools in the southwest region of the base, although potential breeding pools in the vicinity have not been well surveyed. In addition, the construction of a major roadway would eliminate and could fragment upland habitat to the extent that 2 of the other 4 potential breeding pools may be isolated, leaving only 2 of the 6 pools accessible to California tiger salamanders. It is possible that highway construction would also alter the hydrology of these 2 pools, but their watersheds have not been delineated to the extent we could determine this. Use of the future roadway could result in ongoing road kill and act as a barrier to movement by California tiger salamanders. These effects will be localized to some extent because the easement that the Army retains occurs along the southernmost boundary of Habitat Reserve lands, reducing the amount of upland habitat that could be isolated or fragmented by it. The Army will also transfer this easement to Caltrans with requirements to minimize and mitigate the effects of the future SR68 on vernal pools and their watersheds. We conclude that construction and use of SR68 in this easement could substantially diminish the viability of California tiger salamander occurrences in this southern area of the base, but that it would be unlikely to reduce the viability of occurrences in the central and northern regions of the base. Therefore, it would not likely result in extirpation of California tiger salamanders from former Fort Ord, even given the effects of other proposed disposal and pre-disposal actions. Planning and construction of this alternative would also involve an action or funds by at least one Federal agency (e.g., Federal Highway Administration, BLM). If this alternative route is selected by Caltrans in the future, the effects of the specific proposed action, given the status of the species at that time, will be evaluated through consultation with the Federal action agency. If any adverse effects to California tiger salamanders are anticipated from the action, they would be addressed during future formal consultation.

The Army estimates that future development in the Youth Camp parcel could affect 52 of the parcel's 144 acres. Portions of this area have been degraded in the past by camping activities, but much of it still likely functions as upland habitat for California tiger salamanders. The expansion of camping, parking, and recreation areas could kill and injure California tiger salamanders directly and indirectly through the removal of burrows; however, the HMP indicates that vegetation will not be removed other than from small pockets of the existing camping area (ACOE 1997), so we do not anticipate complete loss of habitat within the 52 acres.

Contra Costa goldfields critical habitat

Approximately 66 acres of the Caltrans Highway 68 Study Corridor contain the primary constituent elements of Contra Costa goldfields critical habitat. Approximately 6 of these acres are

distributed among 3 wetlands, while the remaining 60 acres are within the associated watershed of these wetlands. As we discuss above, we have no information on where, within the corridor, the 300-foot wide SR68 would be placed. However, the HMP directs Caltrans to avoid vernal pools and their watersheds. Using the assumptions above, it may be impossible to avoid 2 of the three pools in the placement of the highway. The watershed of the third wetland extends across the entire corridor and thus would also be adversely affected. Therefore, we are analyzing the complete loss of all critical habitat in this corridor. Although this is substantial, in terms of acreage, this loss would occur in the southern region of the critical habitat unit, where Contra Costa goldfields has not been found. Therefore, although losses of critical habitat in this region of the unit would reduce the amount of habitat available for establishing future populations, it is not in the region where Contra Costa goldfields currently grows and it would not eliminate the functioning of the entire critical habitat unit.

Borderlands

California tiger salamanders and critical habitat for Contra Costa goldfields

If unrestricted, transfer and development of designated development parcels adjacent to habitat reserves could also adversely affect California tiger salamanders and critical habitat for Contra Costa goldfields within the reserve areas through unauthorized vehicle access, trash dumping, landscape waste dumping, and the spread of nonnative species. The HMP requires that development of parcels along the future BLM NRMA (habitat reserve) include barriers to unauthorized vehicle access, measures to prevent erosion, measures to prevent spread of invasive nonnative plant species, and fuel break construction on the development side of the boundary, reducing the potential for these effects. These borderland restrictions will be specifically defined in the draft HCP for former Fort Ord and will be fully analyzed during the formal consultation on issuance of a section 10(a)(1)(B) permit.

Development

California tiger salamanders and critical habitat for Contra Costa goldfields

For those parcels designated for development in the proposed action, we evaluated complete loss of biological resources, although in some cases open space areas may be preserved. Under the proposed action, up to 2,917 acres of known and potential upland habitat for California tiger salamanders and 2 acres of wetlands (2 wetlands) are in, or partially in, parcels designated as Development and could be permanently converted to development-oriented uses. For the most part, designated development parcels are on the periphery of California tiger salamander habitat at former Fort Ord.

One of the potential breeding pools located in a Development parcel is on the Del Rey Oaks Property and is discussed in more detail below. A second potential breeding pool will be isolated from all other breeding habitat, and lose much of the potential upland habitat around it as a result of development. It would remain in a small parcel (the Natural Area Expansion (NAE)) to be

managed by the Monterey Peninsula Regional Parks District and could lose its California tiger salamander population as a result of isolation and substantial reduction in surrounding upland habitat. This vernal wet depression has never been surveyed for California tiger salamanders (W. Collins, pers. comm., 2004). Future development in the southernmost East Garrison area at the current Army ammunition supply point would also act as a barrier to straight-line movements of California tiger salamanders between breeding habitat on its east and west sides, and could result in mortality or injury of California tiger salamanders as they try to pass through the developed area. In this latter case, breeding habitat would not be isolated, but the development would project into the Habitat Reserve region.

The proposed development of the East Garrison Specific Plan Property would remove approximately 136 acres of upland habitat for California tiger salamanders and result in a human population increase of approximately 4,337 persons on the 244-acre parcel (Michael Brandman Associates 2004). As with other parcels designated for development in the HMP, we are analyzing the loss of all potential upland habitat for California tiger salamanders on the East Garrison Specific Plan Property assuming full build-out, although we recognize that some open-space areas may be preserved. Although no conclusive evidence of California tiger salamander presence on the property exists, an adult California tiger salamander was found following an excavation that occurred less than one hundred meters from the property boundary, so it is highly likely they occur on the property.

The proposed development of East Garrison Specific Plan Property could kill, injure, or result in loss of habitat for California tiger salamanders through grading and excavation, placement of fill material, burial, vehicle strike within the East Garrison Specific Plan Property, trampling of metamorphs, removal of vegetation, destruction of burrows, and loss of burrowing mammals. Development of the site could also result in indirect effects to California tiger salamanders by affecting upland habitat in adjacent reserve lands in the habitat reserve portion of the youth camp parcel. These impacts could occur during construction and habitation of the development, through increased erosion from stormwater runoff, spread of invasive nonnative plant species, and unauthorized vehicle trespass from the East Garrison Specific Plan Property. In addition to the permanent loss of upland habitat for California tiger salamanders, development would eliminate that portion of the California tiger salamander population that may occur in the upland project area. This loss would be reduced by the MOA requirement to salvage adult California tiger salamanders using drift fences and pitfall traps prior to grading.

The proposed development would also result in a substantial human population increase in the East Garrison area. This population increase could degrade the adjacent habitat reserve and adversely affect the California tiger salamanders within it through excessive visitor use of the boundary areas, trash and yardwaste dumping, vandalism, and other unauthorized uses. The Army's proposed action includes MOA restrictions that will minimize these effects. The restrictions include measures to capture and control stormwater runoff; reduce construction impacts; control nonnative species; control vehicle and public access into boundary areas using fencing, signage, and patrols; construct and maintain barriers to prevent California tiger salamanders from entering

into developed areas; and erect signs and conduct patrols to reduce trash and waste dumping in conserved habitat areas.

The Del Rey Oaks Property is located in the southwest portion of former Fort Ord and comprises approximately 321 acres of land that is currently undeveloped and supports potential breeding and upland habitat for California tiger salamanders. One potential California tiger salamander breeding site of approximately 0.66 acre occurs in the southern portion of the largest parcel of the Del Rey Oaks Property. This wetland was described in 1992 as a heavily disturbed old quarry site, which supported clam shrimp, and tree frog and toad tadpoles (ACOE 1992). We are not aware that any California tiger salamander surveys have occurred there. We are assuming that proposed development would eliminate this wetland or it would no longer function as potential breeding habitat for California tiger salamanders and that all of the existing potential upland habitat in the Del Rey Oaks Property around the wetland would be eliminated in a manner similar to the East Garrison Specific Plan Property above. The development of the Del Rey Oaks property could also adversely affect California tiger salamanders by isolating the wetland in the adjacent small habitat reserve (the Natural Area Expansion (NAE)) from the other wetlands and potential California tiger salamander upland habitat to the east on former Fort Ord. The NAE is relatively contiguous with the Frog Pond Natural Area that is currently managed by the Monterey Peninsula Regional Parks District. General Jim Moore Boulevard, on the boundary of former Fort Ord, runs between the NAE and the Frog Pond parcel and would likely experience more traffic as a result of the development of the Del Rey Oaks parcels, resulting in potentially higher roadkill of California tiger salamanders if they occur there. The effects of increased human population would likely be similar to those discussed above for the East Garrison Specific Plan Property. The MOA restrictions to capture and control stormwater runoff; reduce construction impacts; control nonnative species; control vehicle and public access into boundary areas using fencing, signage, and patrols; construct and maintain barriers to prevent California tiger salamanders from entering into developed areas; and erect signs and conduct patrols to reduce trash and waste dumping in conserved habitat areas would reduce the adverse effects of this development and minimize loss of California tiger salamanders.

In summary, the disposal of lands by the Army is likely to eventually result in the loss of about 3,000 acres of known and potential upland habitat for California tiger salamanders. One potential breeding pool occurs in a Development parcel and six known and potential breeding sites occur in a potential future highway easement. Almost all of the losses of upland and breeding habitat will be on the outer periphery of a core area of California tiger salamander habitat of approximately 15,000 acres, which is to be transferred as Habitat Reserve and managed for the conservation of the California tiger salamander and other species. Therefore, we do not believe the disposal of lands by the Army will substantially reduce the ability of the California tiger salamanders to persist on former Fort Ord.

These properties are not within the Contra Costa goldfields critical habitat unit and no areas supporting its primary constituent elements are within 0.5 km of these properties, so their development is not likely to adversely affect Contra Costa goldfields critical habitat. Although the Contra Costa goldfields critical habitat unit on former Fort Ord extends onto lands designated for

development in the East Garrison area, the Army's analysis indicated that none of the primary constituent elements of critical habitat (e.g., pools or their watersheds) extend into lands designated as Development.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act. In the section of this biological opinion titled "Effects of the Action" we have generally analyzed the future development planned for former Fort Ord; therefore, we are not analyzing it here. We are not aware of any other non-federal actions that are reasonably certain to occur in the action area.

CONCLUSION

After reviewing the current status of the California tiger salamander and critical habitat for Contra Costa goldfields, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, it is the Service's biological opinion that the Army's actions are not likely to jeopardize the continued existence of the California tiger salamander and are not likely to destroy or adversely modify Contra Costa goldfields critical habitat.

We have reached this conclusion regarding the California tiger salamander for the following reasons:

1. The Army has proposed measures to avoid and minimize adverse effects to the California tiger salamander from its pre-disposal actions on former Fort Ord. Of particular importance is the commitment, through avoidance and minimization of adverse effects and through restoration, to ensure no loss of function and acreage of known and potential breeding pools.
2. Damage from Army pre-disposal remediation actions, such as munitions response and contaminated soil remediation will be: (a) dispersed across no more than 40 percent of the California tiger salamander habitat at former Fort Ord and unlikely to destroy any breeding site; (b) temporally dispersed, in that they would occur over a decade or more; (c) conducted within approximately 7,200 acres of the total 18,000-acre area of contiguous habitat containing about 60 known or potential breeding pools at former Fort Ord, which should allow recolonization of breeding pools if remediation actions in any one year adversely affect a breeding pool.
3. Through the HMP, the Army has proposed the long-term conservation of more than 15,000 acres supporting contiguous California tiger salamander upland and breeding habitat, some of which has already been transferred to land managing agencies.

Therefore, we conclude that the populations of California tiger salamanders at former Fort Ord are likely to persist and continue to be an important part of the range-wide distribution of California tiger salamanders on the central coast.

We have reached this conclusion regarding critical habitat for Contra Costa goldfields for the following reasons:

1. The Army has proposed measures to avoid and minimize adverse effects to Contra Costa goldfields critical habitat. Of particular importance is the commitment, through avoidance and minimization of adverse effects and through restoration, to ensure no loss of function and acreage of wetlands, a primary constituent element of Contra Costa goldfields critical habitat.
2. Through the HMP, the Army has proposed the long-term conservation of 2,400 acres supporting the primary constituent elements of Contra Costa goldfields critical habitat, some of which has already been transferred to land managing agencies.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulations promulgated pursuant to section 4(d) of the Act prohibit the take of endangered and threatened animal species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species by annoying to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this incidental take statement.

Note that section 9 of the Act does not address the incidental take of listed plant species or critical habitat. Consequently, we have not included an incidental take statement, reasonable and prudent measures, or terms and conditions for Contra Costa goldfields critical habitat.

For clarity, we have provided two incidental take statements for the California tiger salamander in this document. The first addresses the pre-disposal actions that the Army is undertaking or permitting. The second addresses the post-disposal development of the East Garrison Specific Plan Property and the Del Rey Oaks Property.

The process of the Army transferring lands will not result in take; therefore, none has been authorized. After disposal, the Army will have no continuing authority over transferred properties or their development. Therefore, with the exception of the East Garrison Specific Plan Property and the Del Rey Oaks property, post-disposal activities that will involve take must be addressed under a separate section 7 consultation if an independent Federal agency nexus exists, or under the section 10(a)(1)(B) process where no Federal agency nexus is present.

To address the unique circumstances surrounding the East Garrison Specific Plan Property and the Del Rey Oaks Property, FORA has prepared two MOAs that legally commit the local government agencies with jurisdiction over the development of the properties and the private parties who will carry out that development to implement and enforce restrictions on the development of these properties. When executed, these MOAs will require the Signatories to the East Garrison Specific Plan MOA (FORA, the County of Monterey, RACM, and East Garrison Partners) and the Signatories to the Del Rey Oaks MOA (FORA, the City of Del Rey Oaks, RACDRO, and Federal Development LLC) to implement restrictions to minimize take of the California tiger salamander and reduce the adverse effects of development on other listed and sensitive species on former Fort Ord. In consideration of: 1) the early development schedules of these parcels; 2) the existence of an independent Federal Agency nexus - the Army's disposal of the parcels - which triggered a duty to consult under Section 7 apart from future development of the parcels; 3) the existence of clearly defined restrictions and conditions of development applicable to the two parcels which are contained in the HMP, the regional Fort Ord HCP currently being developed, and the respective MOAs; 4) the legally binding commitments by local government agencies with regulatory jurisdiction over the development of the parcels to enforce those restrictions and conditions through the respective MOAs; and 5) the acknowledgment of the local government agencies and developers in the respective MOAs that this incidental take statement is intended as an interim measure that will terminate upon completion of the regional Fort Ord HCP and issuance of a Federal ITP covering former Fort Ord lands, including the two properties, and development of the properties will thereafter be governed by the regional HCP and ITP; we have included an incidental take statement for these specific properties.

Incidental Take Statement for Army Pre-disposal Actions

The measures described in this document are non-discretionary and must be undertaken by the Army or made binding conditions of any grant or permit issued by the Army, as appropriate, for the exemption in section 7(o)(2) to apply. The Army has a continuing duty to regulate the activities covered by this incidental take statement. If the Army fails to assume and implement the terms and conditions of the incidental take statement, the protective coverage of section 7(o)(2) may lapse. To monitor the impact of incidental take, the Army must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement [50 CFR §402.14(i)(3)].

We cannot accurately predict the level of incidental take of California tiger salamanders that may occur due to Army pre-disposal activities. California tiger salamanders are largely subterranean, nocturnal animals that are difficult to locate in upland habitat other than on rainy nights during the

breeding season when they migrate to and from breeding areas. Eggs and larvae can be found during the spring and early summer months in aquatic habitat. Pre-disposal activities in the project description, such as munitions response actions, may cause injury or death of individuals in upland habitat, but the number affected would depend on the proximity of the munitions response site to breeding areas, the presence of subterranean burrows that provide space and humid conditions for sheltering and feeding, and the size and extent of the action. During over a decade of munitions response actions, the Army has never found a California tiger salamander. Because of the difficulty in quantifying the number of California tiger salamanders that may be taken through Army actions, we have provided a table below identifying the acreage within which the Army's pre-disposal actions will occur. We anticipate the take will occur, as analyzed in the Effects of the Action section of this document, when Army actions described in the project description of this document coincide with the presence of California tiger salamanders.

Our evaluation of the effects of the proposed action includes consideration of the measures developed by the Army, and summarized in the Description of the Proposed Action portion of this biological opinion, to minimize the adverse effects of the proposed project on the listed species and critical habitat addressed in this biological opinion. Any subsequent changes in the minimization measures proposed by the Army may constitute a modification of the proposed action, as specified at 50 CFR 402.16. The Reasonable and Prudent Measures described later in this document, are intended to clarify or supplement the protective measures that were proposed by the Army in their biological evaluation and accompanying letter.

This biological opinion does not exempt from the prohibitions against take contained in section 9 of the Act any form of take that is not incidental to the completion of the Army's actions described in this biological opinion.

Table 1. The Army actions we expect to result in take and the acreages over which these actions will occur. Actions overlap on the landscape, so acreages are not additive. Actions in known and potential breeding habitat could result in take of eggs, larval, and adult lifestages, depending on the season the actions take place and the conservation measures employed. Actions in known and potential upland habitat could result in take of juvenile and adult lifestages.

Acreage on which take will occur due to actions with temporary or intermittent effects, without permanent conversion of habitat					
General Action	Army Action	Breeding habitat affected: acres (# wetlands)	Affected life stage	Upland habitat affected:	Affected life stage
Remedial Action	Large Excavations for MEC Special Case Areas and Excavation for Contaminated Soil Remediation	1 acre (2 wetlands)	Larvae	74 acres	Juveniles Adults
	Other MR actions (non special-case) and support actions for MR and Soil Remediation	26 acres (unquantified number of wetlands)	Larvae	7,192 acres	Juveniles Adults
	Surveys	Unquantified acreage (Primarily capture)	Larvae	Unquantified acreage (Primarily capture)	Juveniles Adults
Caretaker Action	Patrols for physical security	0	none	on existing roads	Juveniles Adults
	Fuelbreak Maintenance	0 (< 1 acre to be disturbed, but action would occur when wetland is dry, so no eggs or larvae would be present)	none	300 acres	Juveniles Adults
	Weed and Erosion Control	<1 acre	Eggs, Larvae	175 acres	Juveniles Adults
Interim Use Action	Parker Flats Habitat Reserve Prescribed burn	0	none	147 acres	Juveniles Adults
	Laguna Seca parking and raceway use	0	none	on existing roads and parking areas	Juveniles Adults
	Youth Camp light recreational uses	0	none	52 acres	Juveniles Adults
	MOU training	0	none	on existing roads	Juveniles Adults

Acreeage on which take will occur due to actions that may permanently remove habitat					
General Action	Army Action	Breeding habitat affected: acres (# wetlands)	Affected life stage	Upland habitat affected:	Affected life stage
Interim Use Action	Marina Coast Water District Project	0	none	1.1 acres	Juveniles Adults
	Infrastructure Improvements on Development Parcels	0	none	70 acres	Juveniles Adults
	Infrastructure improvements on Habitat Corridor/Youth Camp parcel	0	none	5 acres	Juveniles Adults

These tables were compiled using the text, Tables, and Figures provided in the BE (Army 2004) and later Army clarifications.

Incidental Take Statement Addressing the Post-Disposal Activities on the East Garrison Specific Plan Property and the Del Rey Oaks Property

The measures described below and in the MOAs are non-discretionary and must be undertaken by the Signatories to the East Garrison Specific Plan MOA (FORA, County of Monterey, RDACM and East Garrison Partners) and the Signatories to the Del Rey Oaks MOA (FORA, the City of Del Rey Oaks, RDADRO, and Federal Development LLC), as specified, and made binding conditions of any grant, permit, ministerial permit, or any other action undertaken by the Signatories to the MOAs, for the exemption in section 7(o)(2) to apply. The exemptions below are valid only after the MOAs are fully signed, executed and recorded as specified in the MOAs and shall remain valid only so long as the measures are fully implemented by each Signatory and as otherwise provided in the MOAs. Any future amendment of either of the MOAs to alter any of the restrictions contained therein or in this incidental take statement, without the consent of the Service, shall automatically terminate the exemption from take provided through this incidental take statement. Further, the exemption from take provided by this incidental take statement applies solely to the Signatories to the MOA, provided that the exemption may be extended to any successor to East Garrison Partners or Federal Development LLC upon compliance with the remaining Signatories to the MOAs with Section III of the MOAs. To monitor the impact of incidental take, the Signatories to each MOA shall report the progress of the action and its impact on the species to the Service as specified in the MOAs.

We anticipate that all California tiger salamanders that occur on, and are not salvaged from, the development footprints of the 244-acre East Garrison Specific Plan Property and the approximately 321-acre Del Rey Oaks Property will eventually be killed or injured by the development of these properties. We cannot accurately predict the number of individuals that may

be taken by the developments because we have no estimates of California tiger salamander population sizes for these areas.

Salvage of California tiger salamanders using drift fences and pitfall traps and/or aquatic surveys in the case of Del Rey Oaks, would involve take of California tiger salamanders, primarily in the form of capture. Because the Service-authorized biologist retained by the Signatories to the MOAs must follow the Service's guidelines for capturing California tiger salamanders and may only move captured California tiger salamanders to nearby locations during salvage operations, we expect that very few captured animals will die or be injured as a result of capture and relocation.

Our evaluation of the effects of the proposed action includes consideration of the take minimization and other measures included in the MOAs, and summarized in the Description of the Proposed Action portion of this biological opinion, to minimize the adverse effects of the proposed project on the listed species and critical habitat addressed in this biological opinion. Any changes in the minimization measures proposed by the Signatories of the MOA may constitute a modification of the proposed action. In addition to the specific circumstances specified in the MOAs, the exemption from take provided in this incidental take statement may also terminate if any of the circumstances identified at 50 C.F.R. 402.16 that trigger a duty to reinitiate consultation occur.

REASONABLE AND PRUDENT MEASURES

We believe the following reasonable and prudent measures are necessary and appropriate to minimize take of California tiger salamanders during implementation of Army pre-disposal actions:

1. The Army must implement additional procedural and protective measures to reduce take associated with soil remediation and remediation of "special case" areas during munitions response actions.
2. The Army must implement additional procedural and protective measures within 1 km of known or potential breeding pools to reduce the take of California tiger salamanders associated with vegetation removal activities during munitions response actions.
3. The Army must implement additional procedural and protective measures to reduce take associated with the weed and erosion control activities.
4. The Army must revise, by October 1, 2006, its existing wetland restoration plan to ensure it can meet the goal of no loss of function or size of wetland habitat on former Fort Ord as it relates to the food, shelter, water quality, and reproductive needs of the California tiger salamander.
5. The Army must develop and include, in its interim use permits, additional protective measures to reduce the take of California tiger salamanders from interim uses.

6. The Army must ensure that only qualified personnel handle California tiger salamanders during survey and salvage operations.
7. The Army must develop standard measures to minimize take of California tiger salamanders when permitting infrastructure improvement and road construction actions by non-federal entities.
8. The Army must record and track the California tiger salamanders it encounters while implementing Army pre-disposal actions and must coordinate with the Service on methods to minimize take when injured and dead California tiger salamanders reach a specified threshold.

TERMS AND CONDITIONS

To be exempt from the prohibitions of section 9 of the Act, the Army must comply with or ensure that any contractors comply with the following terms and conditions, which implement the reasonable and prudent measures described above and the reporting and monitoring requirements. These terms and conditions are non-discretionary.

1. The following terms and conditions implement reasonable and prudent measure 1:
 - a. The Army shall track and report the location and size of “special case” and soil remediation areas that occur in Habitat Reserves, Development with Reserve Areas, and Habitat Corridors (including the Habitat Corridor with a development allowance) in its annual reports to the Service. This requirement does not apply to parcels designated as Development in the HMP.
 - b. If a munitions removal action or contaminated soil cleanup is needed in a wetland before the wetland is completely dry, then the Army must survey for, salvage, and relocate or hold any California tiger salamander larvae that occur there prior to the action. The Army must coordinate with the Service to determine if holding or relocating California tiger salamanders is the most appropriate strategy to minimize take of California tiger salamanders. Holding California tiger salamanders would likely only be needed due to the risk of moving hybridized individuals to new areas, since there is no information on the genetic purity of California tiger salamanders on Army lands. Holding would require maintaining the larvae in a lab or appropriate space until the cleanup action is completed and the wetland rewatered or the larvae have metamorphosed and can be released into the uplands. If relocation of larvae is determined the most appropriate strategy, then the Army must coordinate with the Service to identify appropriate relocation sites (likely to be the nearest wetland that would support the larvae to metamorphosis).

- c. For remedial actions that occur in upland habitat within 500 meters of a known or potential breeding pool and will result in excavation of greater than 10 percent (19 acres) of the upland habitat within the 500 meter radius of the pool, upland drift fence and pit fall trapping of California tiger salamanders must be conducted from November 30 to March 15 to salvage and exclude all encountered California tiger salamanders from the remediation area before excavation begins. A proposal for the fence installation and trapping must be submitted to the Service at least 30 days prior to the planned drift fence installation for our review and approval. Fences should enclose the entire excavation area (and staging areas, if work will take place prior to April 30). Pitfall traps must be located in the interior of the enclosure and should be opened and monitored as described in the Service's most recent survey protocol, unless the Army proposes other methods that would be equally or more effective in locating and removing California tiger salamanders from the excavation area. Captured California tiger salamanders must be released outside the excavation and work area. Although trapping may cease by March 15, providing no further California tiger salamanders are being discovered in the enclosed area, fences should remain up with traps closed through April to exclude any California tiger salamanders still returning to upland habitat from breeding ponds. If excavation work will not take place until the following wet season, when adult and juvenile California tiger salamanders would again be moving, the drift fences should be reinstalled by October 15, to exclude California tiger salamanders from the excavation and staging area.
- d. To reduce the likelihood that California tiger salamanders will die due to falls or entrapment in open excavations during wet season and post-metamorphosis movements (and where prior salvage has not occurred), the Army must conduct visual inspections of excavations that are 0.05 acre or greater, are greater than 6 inches deep, are within 1 km of a known or potential breeding pool, and are uncovered at night anytime when it may rain during the period October 15 through March 31. Because the Army indicated that they have never encountered a California tiger salamander during their munitions response excavations, the Army may use these visual inspections as an alternative to fencing or covering these excavations.
- e. Visual inspections are also required for open excavations that meet the size and depth measurements listed in 1d, above, are within 200 meters of a known or potential breeding pool, and are uncovered in the period from May 15 through August 15 to reduce the take of newly metamorphosed California tiger salamanders that are leaving natal pools. These dates may be adjusted through coordination with the Service, based on the status of California tiger salamanders in the pool adjacent to the work area. If aquatic surveys indicate California tiger salamander larvae do not occur in the adjacent pool, no escape routes, visual inspections, or cover boards are needed during May through August.
- f. To facilitate discovery of California tiger salamanders in excavations discussed in 1d and 1e, above, and to reduce dessication prior to discovery, the Army must place

cover boards or other adequate sheltering sites in the bottoms of those excavations that meet the size and location criteria above. Visual inspections of open excavations must be conducted by an authorized biologist or a lead field designee trained to identify California tiger salamanders (and newly metamorphosed California tiger salamanders for the May through August inspections).

- g. During October 15 through March 31, inspections must be conducted prior to the start of the day's further excavation work on mornings during rains, when rain is forecast within 24 hours, or when rain has fallen within the last 24 hours. For excavations within 200 meters of potential breeding habitat, inspections must occur daily from May 15 to August 15 when excavations are uncovered. Alternatively, the Army may fence or cover excavations to exclude California tiger salamanders and avoid daily inspections.
- h. Dead or injured California tiger salamanders must be recorded and reported as described in the 'Disposition of Dead or Injured Specimens' section of this document. Live California tiger salamanders encountered in the excavations must be recorded and relocated to the mouth of the nearest burrow or refugia by an authorized biologist, Mr. William Collins, or the trained lead field designee, as described in 6b, below.

2. The following terms and conditions implement reasonable and prudent measure 2:

- a. If the Army conducts experimental pre-burn vegetation crushing with the goal of testing the method for use on hundreds of upland acres in the future, then it must evaluate the effects of this activity on California tiger salamanders in the upland habitat where the crushing activity occurs to reduce the potential for future take of California tiger salamanders. The Army must coordinate with the Service on an appropriate form of evaluation, which may include pre- and post-vegetation removal assessments of habitat characteristics rather than assessments of California tiger salamander numbers.
- b. For prescribed burns occurring in 2006 or later that would encompass at least 50 percent of the watershed of a known or potential California tiger salamander breeding pool, the Army must conduct 2 years of pre-activity aquatic larval sampling for California tiger salamanders prior to the prescribed burn in order to monitor California tiger salamander larvae population trends following the vegetation clearance actions. No drift fence sampling is necessary.
- c. When the Army conducts a prescribed burn in the watershed of known or potential breeding habitat, the Army must evaluate, as part of its post-action monitoring, whether increases in ash and sedimentation are occurring in the breeding habitat.

- d. When foams or fire retardants are used during controlled burning in the watershed of a known or potential breeding pool, the Army must conduct a post-deployment evaluation to track what the actual application distance was from the aquatic site.
 - e. For the first three applications of foams and fire retardants within the watersheds of known or potential breeding habitat, the Army must assess water chemistry to determine if contamination is likely to have occurred, using pre- and post-activity sampling of the target pools. The Army must evaluate the results and coordinate with the Service to determine whether: (i) the distance between the pool and the application should be increased, and (ii) additional post-application evaluations are necessary.
3. The following terms and conditions implement reasonable and prudent measure 3:
- a. Sites where erosion control activities will be conducted between November 1 and March 31 that are within 1 km of a known or potential breeding site must be searched for California tiger salamanders immediately prior to heavy equipment work. Inspections must occur only if rain has occurred or is forecast within 48 hours.
 - b. Roundup[®] must not be used within 100 feet of open water. Rodeo[®], or an equivalent with no-to-low aquatic toxicity can be used in this zone. Glyphosate with the surfactant Agri-Dex is also permitted in this zone. No other surfactants or formulations must be used in this zone without the prior written approval of the Service.
4. The following term and condition implements reasonable and prudent measure 4:
- The wetland restoration plan and its implementation must be revised or amended, using the expertise of a herpetologist familiar with California tiger salamanders and a hydrologist, if needed, to ensure it meets the Army's goal of allowing no loss of acreage or function of California tiger salamander breeding habitat. At a minimum, it must incorporate:
- a. Surveying for California tiger salamanders as a target species, including increasing the frequency of surveys to improve the likelihood of detecting California tiger salamanders if they are present, using the Service's most current aquatic survey guidelines for California tiger salamanders (presently, the Service's October 2003 *Interim Guidance on Conducting Site Assessments and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander*). Drift fence and pitfall trapping is not required as a general survey technique on former Fort Ord. Demonstrating absence over the long-term is not possible for most potential breeding sites, since all ponds are within dispersal distance of at least one other potential breeding site and therefore have the potential to be colonized by California tiger salamanders even if they are absent in a given year.

- b. Describing what the functional attributes of a pool should be (e.g., length of time it holds water, depth, food source) to ensure that the target variables for California tiger salamanders (e.g., hydroperiod, invertebrate fauna) are measured during pre-activity assessments.
 - c. A sampling protocol (including the use of control sites, if necessary) with a monitoring strategy and length adequate to determine the likelihood that Army actions are responsible for changes in variables detected.
 - d. Measurable success criteria.
5. The following terms and conditions implement reasonable and prudent measure 5:
 - a. In coordination with the Service, the Army must define prohibited activities for recreational events in the Youth Camp parcel, such as excavations, driving off paved and dirt roads, capture of California tiger salamanders, etc.
 - b. Signs or information materials must be developed and distributed to Youth Camp event leaders and/or participants describing, at a minimum, the California tiger salamander, its protected status, and prohibited and permissible activities in the Youth Camp parcel.
 - c. When event parking occurs on nights with precipitation between November 1 and March 31 within the Recreation Area Expansion area, the Army (or County, through permit conditions) must expand its post-event inspection of wetlands to include an inspection of roads and parking areas that occur within 0.5 km of potential breeding habitat. The number and location of California tiger salamanders, and their approximate size and condition (alive, injured, or dead) must be recorded and reported to the Service in the annual report. The inspections must be conducted by an authorized biologist who has experience or training adequate to identify California tiger salamanders and collect the specified information. Live California tiger salamanders in the road should be moved to the road edge by the authorized biologist.
6. The following terms and conditions implement reasonable and prudent measure 6:
 - a. Only qualified personnel authorized under this biological opinion can handle California tiger salamanders. Bryan Mori and Tom Graham are hereby authorized to capture, handle, and relocate California tiger salamanders during aquatic surveys on former Fort Ord as analyzed in this biological opinion. Bryan Mori is also authorized to conduct drift fence and pitfall trapping to salvage or evaluate California tiger salamanders as analyzed in this biological opinion. If the Army wishes to use other biologists to capture, handle, and relocate California tiger salamanders, as described, they must submit the credentials of the biologists who will conduct these activities to us for review and approval at least 30 days prior to the onset of any such activities.

- b. In unforeseen circumstances, such as when live California tiger salamanders are encountered during a munitions response or soil remediation action, Mr. William Collins, Army biologist, may relocate California tiger salamanders out of the path of danger. When Mr. Collins is unavailable, a resident lead field designee who has received appropriate training by the service-authorized biologist, may handle California tiger salamanders for the sole purpose of removing them from the path of danger
- c. The authorized biologist or lead field designee must record all pertinent information when California tiger salamanders are relocated, including the number of individuals captured, site of capture, site of relocation, habitat at capture, and activity for which the relocation was implemented.
- d. Authorized biologists must use the standards for capturing California tiger salamanders, conducting aquatic larval sampling, drift fence and pitfall trapping, and disinfection of equipment and clothing contained in the Service's October 2003 *Interim Guidance on Conducting Site Assessments and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander*.
- e. In addition to the handling standards described in the Service's survey guidance, all handling of California tiger salamanders must adhere to the following measures:
 - i. Handling must be done in an expedient manner with minimal harm to the individuals being handled. The hands and arms of all workers handling tiger salamanders should be free of lotions, creams, sunscreen, oils, ointment, insect repellent, or any other material that may harm California tiger salamanders.
 - ii. Captured tiger salamanders must be released as near as possible to the point of capture, in a manner that maximizes their survival. California tiger salamanders should be released into the mouth of a small mammal burrow or other suitable refugia that reduces the likelihood of desiccation and predation.

7. The following term and condition implements reasonable and prudent measure 7:

Standards that the Army must develop and incorporate into infrastructure and road construction project approvals include:

- a. carrying out the project during the dry season or when it is least likely to adversely affect California tiger salamanders, to the extent practicable, depending on the project's proximity to known and potential breeding pools,
- b. ensuring that excavations in which California tiger salamanders may fall or become entrapped are fenced, covered, or otherwise made inaccessible to California tiger salamanders if the project occurs in the wet season (from the onset of first rains to

March 31) and excavations are greater than 6 inches deep. An alternative to fencing or covers for excavations less than 3 feet deep are daily inspections by a Service-authorized biological monitor able to identify, photograph, record, and relocate California tiger salamanders that may become entrapped,

- c. ensuring storm water detention basins or other water features created on the property do not attract breeding California tiger salamanders or become sources for nonnative invasive species, which could move into nearby Habitat Reserves and Habitat Corridors,
 - d. defining staging areas, equipment storage areas, and project boundaries with fencing,
 - e. avoiding wetlands and their watersheds, to the extent possible,
 - f. implementing erosion control measures to ensure that wetlands in adjacent Habitat Reserve, Habitat Corridor, or Development with Reserve or Restriction parcels are not adversely affected by project activities.
 - g. prohibiting pets from the project site,
 - h. ensuring all trash that may attract predators is properly contained and removed from the work site,
 - i. providing a training session for all construction personnel who may work on the project site. At a minimum, the training must include a description of the California tiger salamander and its habitat, the specific measures that are being implemented to conserve it, and the boundaries of the project site, and
 - j. recording, and reporting to the Army, all California tiger salamanders observed and relocating any that are found alive during infrastructure projects. Live California tiger salamanders must be relocated by a Service-approved biologist to an appropriate adjacent area outside the project boundaries.
8. The following terms and conditions implement reasonable and prudent measure 8:
- a. The Army must track (preferably using a geographic information system) survey results and other observations of California tiger salamanders on former Fort Ord lands that may be affected by Army actions, and use it to inform and improve the effectiveness of the conservation measures and wetland assessment and restoration activities associated with Army pre-disposal actions.
 - b. The Army must require field personnel to report observations of California tiger salamanders (alive or dead) to the Army's environmental office.

- c. The Army must contact the Service whenever the number of dead or injured California tiger salamanders found in a given year reaches three, and the cause of death or injury may be due to Army activities or is unknown. Once the cause of death or injury has been determined, the Service and Army must decide whether any additional protective measures are required to address the cause of the loss of California tiger salamanders.

DISPOSITION OF DEAD OR INJURED SPECIMENS

Upon locating a dead or injured California tiger salamander initial notification must be made in writing to the Service's Division of Law Enforcement in Torrance, California (370 Amapola Avenue, Suite 114, Torrance, California 90501) and by telephone and writing to the Ventura Fish and Wildlife Office (2493 Portola Road, Suite B, Ventura, California 93003, (805) 644-1766) within three working days of the finding. The report must include the date, time, location of the carcass, a photograph, cause of death, if known, and any other pertinent information. In the case of take or suspected take of listed species not exempted in this opinion, the Ventura Fish and Wildlife Office must be notified within 24 hours.

Care must be taken in handling dead specimens to preserve biological material in the best possible state for later analysis. Should any injured salamanders survive, the Service must be contacted regarding their final disposition. The remains of intact California tiger salamanders that are in a condition appropriate for museum specimens, must be placed with the California Academy of Sciences Herpetology Department (Contact: Jens Vindum, Collections Manager, California Academy of Sciences Herpetology Department, Golden Gate Park, San Francisco, California, 94118, (415) 750-7037).

REPORTING REQUIREMENT

By January 31 of each year this biological opinion is in effect, the Army must include in the annual report it submits for biological opinion 1-8-99-F/C-39R, information related to California tiger salamanders and critical habitat for Contra Costa goldfields addressed in this biological opinion, such as: a quantification of habitat disturbed by contaminated soil remediation and treatment of MEC special case areas; results of aquatic surveys; records of California tiger salamanders sighted; compliance with project terms and conditions, any problems encountered implementing project terms and conditions or conservation measures; and any other pertinent information, such as the post-use evaluations of wetlands at the Recreation Area Expansion parcels. A minimum of every five years, the Army must develop and provide a review of the effectiveness of its conservation measures and monitoring and assessment techniques over the past five years and have a coordination meeting with the Service to determine if the monitoring goals have been met and methods can be made more efficient. The annual report and 5-year review will assist the Ventura Fish and Wildlife Office and the Army in fine-tuning the effectiveness of monitoring and assessment techniques and evaluating future measures for the conservation of the species during your ongoing activities and for future projects.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to use their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. Implementation of the following recommendations would further the conservation of listed species in the project area.

1. Conduct aquatic surveys for California tiger salamanders in the next two years (if rainfall is sufficient) in all potential breeding habitat on former Fort Ord that the Army still owns or that may be affected by Army actions.
2. Conduct genetic analyses of California tiger salamanders larvae sampled from breeding pools in the south and southwest regions of the base, to determine if additional nonnative or hybrid populations exist on former Fort Ord, beyond the one identified on BLM land.
3. Include the California tiger salamander and any other listed species that occurs in the Impact Area in the site-wide ecological risk assessment being conducted for the Impact Area.
4. Remove nonnative fish and bullfrogs where they occur, using methods that will not adversely affect California tiger salamanders.
5. Study California tiger salamander use of upland habitats at former Fort Ord, particularly maritime chaparral habitats surrounding known breeding sites, to better inform conservation measures and future consultations.
6. Encourage the Youth Camp recipients to maintain the Fish Pond and its surroundings as an ephemeral wetland for its natural values, its potential to provide breeding habitat for California tiger salamanders, and the opportunity it provides to educate youth about native aquatic species.
7. Develop best management practices for emergency wildfire suppression to minimize adverse effects to listed species when wildfires occur.
8. Develop standard measures to minimize the adverse effects to listed and sensitive plant species of Army-permitted infrastructure improvement and road-widening actions by non-federal entities on former Fort Ord. These should include defining staging areas; avoiding wetlands; collecting and replacing topsoil; ensuring machinery is clean and free of plants seeds; conducting post-project weed control; ensuring that areas revegetate naturally or are restored with local, native species; and implementing erosion control measures.

9. Clean vegetation clearance equipment and vehicles to ensure they are not a source for the spread of weeds or the establishment of new invasive species from outside former Fort Ord or from one region or habitat type on the base to another.
10. Conduct a controlled, replicated study to evaluate the effectiveness of different management practices to control and reduce invasions of annual grasses, since they appear to be increasing in fuelbreaks due to the use of fire retardants and annual mowing.
11. To improve habitat for HMP plant species, revise the Wetland Restoration Plan to clearly define actions to reduce invasions by nonnative plant species and implement those actions during remediation activities.
12. Evaluate and revise the results of the chaparral vegetation management and monitoring strategy the Army is currently using. Combine this evaluation with a base-wide assessment of fire history using aerial photography, interviews, and other means to improve management of maritime chaparral on former Fort Ord.
13. Continue to fund the removal of nonnative plant species from Army lands.

We request notification of the implementation of any conservation recommendations so we may be kept informed of actions minimizing or avoiding adverse effects or benefiting listed species or their habitats.

REINITIATION NOTICE


This concludes formal consultation on the effects the cleanup and reuse of former Fort Ord will have on California tiger salamanders and critical habitat for Contra Costa goldfields. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

We also note that critical habitat has been proposed for California tiger salamanders on former Fort Ord. We anticipate that final critical habitat may be designated in August 2005. If the Army determines that their actions are likely to adversely modify proposed critical habitat or likely to adversely affect proposed critical habitat and those actions causing adverse effects are likely to continue beyond August 1, 2005, then we recommend you initiate formal consultation on those activities before our final designation. We are also aware that a new population of Yadon's piperia

may have been discovered on Army lands at former Fort Ord. If Army actions, including disposal actions, may affect Yadon's piperia, you should reinitiate consultation with us.

We look forward to continuing to work with you on the disposal, reuse, and conservation of listed and species of concern at former Fort Ord. If you have any questions regarding this biological opinion, please contact Diane Steeck of my staff at (805) 644-1766.

Sincerely,



Diane K. Noda
Field Supervisor

Enclosures

LITERATURE CITED AND *in litt.* REFERENCES

- Austin, C.C., and H.B. Shaffer. 1992. Short-, medium-, and long-term repeatability of locomotor performance in the tiger salamander *Ambystoma californiense*. *Functional Ecology* 6(2):145-153.
- Bulger, J.B., N.J. Scott, and R.B. Seymour. 2003. Terrestrial activity and conservation of adult California red-legged frogs *Rana aurora draytonii* in coastal forests and grasslands. *Biological conservation* 110 (2003) 85-95.
- California Natural Diversity Database. 2003. Occurrence data for Contra Costa goldfields. Department of Fish and Game, Sacramento, California.
- Collins, W. 2004a. Electronic mail communication to Diane Steeck, U.S. Fish and Wildlife Service, August 11, 2004.
- Collins, W. 2004b. Electronic mail communication to Diane Steeck, U.S. Fish and Wildlife Service, September 17, 2004.
- Collins, W. 2004c. Electronic mail communication to Diane Steeck, U.S. Fish and Wildlife Service, September 20, 2004.
- Collins, W. 2004d. Electronic mail communication to Diane Steeck, U.S. Fish and Wildlife Service, September 22, 2004.
- Collins, W. 2004e. Electronic mail communication to Diane Steeck, U.S. Fish and Wildlife Service, September 27, 2004, 1:08 PM.
- Collins, W. 2004f. Electronic mail communication to Diane Steeck, U.S. Fish and Wildlife Service, September 27, 2004, 6:06 PM.
- Collins, W. 2004g. Electronic mail communication to Diane Steeck, U.S. Fish and Wildlife Service, October 6, 2004.
- Collins, W. 2004j. Electronic mail communication to Diane Steeck, U.S. Fish and Wildlife Service, October 7, 2004.
- Collins, W. 2004k. Electronic mail communication to Diane Steeck, U.S. Fish and Wildlife Service, October 19, 2004.
- Collins, W. 2004n. Electronic mail communication to Diane Steeck, U.S. Fish and Wildlife Service, November 30, 2004.

- Collins, W. 2004a. Electronic mail communication to Diane Steeck, U.S. Fish and Wildlife Service, December 17, 2004.
- Collins, W. 2005a. Electronic mail communication to Diane Steeck, U.S. Fish and Wildlife Service, January 3, 2005.
- Collins, W. and Tudor, S. 2004. Electronic mail communication to Diane Steeck, U.S. Fish and Wildlife Service, September 27, 2004.
- Crawford, D.J., and R. Ornduff. 1989. Enzyme electrophoresis and evolutionary relationships among three species of *Lasthenia* (Asteraceae: Heliantheae). *American Journal of Botany* 76:289-296.
- Jennings, M. and M. Hayes. 1994. Amphibian and reptile species of special concern in California. Final report submitted to California Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, California, Control No. 8023.
- Fitzpatrick, B. 2003. California Native Species Field Survey Forms, note, and map for California tiger salamander locations on former Fort Ord. Received Nov. 24, 2003, by the Ventura Fish and Wildlife Office.
- Jones and Stokes Associates, Inc. 1997. Wetland restoration plan for unexploded ordnance removal activities at former Fort Ord. May. Prepared for U.S. Army Corps of Engineers, Sacramento District, Sacramento, California.
- Little, E. and Robin Calfee. 2000. The effects of UVB radiation on the toxicity of fire-fighting chemicals. Final report submitted to the USDA Forest Service Wildland Fire Chemical Systems, Missoula, Montana.
- Loredo, I., D. Van Vuren and M. L. Morrison. 1996. Habitat use and migration behavior of the California tiger salamander. *Journal of Herpetology* 30(2): 282-285.
- MACTEC. 2004. 2003 Annual monitoring report, biological baseline studies and follow-up monitoring, former Fort Ord, Monterey, California. January 22. Prepared for the U.S. Army Corps of Engineers, Sacramento District, Sacramento, California.
- Mann, R.M. and J.R. Bidwell. 1999. The toxicity of glyphosate and several glyphosate formulations to four species of southwestern Australian frogs. *Archives of Environmental Contamination and Toxicology*. 36:193-199.
- Mettee-McCutchon, I. 1997. Letter to Diane Noda, U.S. Fish and Wildlife Service, dated April 7, 1997, and enclosures; Ventura, California.

- Michael Brandman Associates. 2004. East Garrison Specific Plan Draft Subsequent Environmental Impact Report. Prepared for Monterey County Planning and Building Inspection Department, Marina, California.
- Orloff, S. 2003. Letter to Wayne White/Adam Zerrenner, U.S. Fish and Wildlife Service, dated October 15, 2003, Sacramento, California.
- Ornduff, R. 1966. A biosystematic survey of the goldfield genus *Lasthenia*. University of California Publications in Botany 40:1-92.
- Ornduff, R. 1969. The origin and relationships of *Lasthenia burkei* (Compositae). American Journal of Botany 56:1042-1047.
- Ornduff, R. 1979. Rare plant status report: *Lasthenia conjugens* Greene. California Native Plant Society, Sacramento, 3 pp.
- Parsons. 2004. Observed effects of fire retardant and fire foam on maritime chaparral in Ranges 43-48. October. Unpublished report prepared by Shirley Tudor, Parsons, for Department of the Army, Presidio of Monterey.
- Patterson, C.A., B. Guggolz, and M. Waaland. 1994. Seasonal wetland baseline report for the Santa Rosa Plain, Sonoma County. Unpublished report to the California Department of Fish and Game, Yountville, 65 pp. + 31 pp. appendices.
- Sawyer, J.O., and T. Keeler-Wolf. 1995. A manual of California vegetation. California Native Plant Society, Sacramento, California, 471 pp.
- Schuette, J. 1998 (revised). Environmental fate of glyphosate. Review document from Environmental Monitoring and Pest Management Division, Department of Pesticide Regulation, Sacramento, California.
- Skinner, M.W., and B.M. Pavlik. 1994. Inventory of rare and endangered vascular plants of California. Fifth edition. Special Publication No. 1, California Native Plant Society, Sacramento, California, 338 pp.
- Storer, T.I. 1925. A synopsis of the amphibia of California. University of California Publications in Zoology 27:1-342.
- Sweet, S. 1998. Vineyard development posing an imminent threat to *Ambystoma californiense* in Santa Barbara County, California. Letter Report submitted to Grace McLaughlin, U. S. Fish and Wildlife Service, Ventura, CA. 12 pp.

- Thorp, R.W. 1976. Insect pollination of vernal pool flowers. Pages 36-40 in Vernal pools: their ecology and conservation. S.K. Jain, editor. Institute of Ecology Publication No. 9, Davis, California, 93 pp.
- Thorp, R.W., and J.M. Leong. 1998. Specialist bee pollinators of showy vernal pool flowers. Pages 169-179 in Ecology, conservation, and management of vernal pool ecosystems, proceedings from a 1996 conference. C.W. Witham, E.T. Bauder, D. Belk, W.R. Ferren, Jr., and R. Ornduff, editors. California Native Plant Society, Sacramento, California, 285 pp.
- Trenham P. C., H. B. Shaffer, W. D. Koenig and M. R. Stromberg. 2000. Life history and demographic variation in the California tiger salamander. *Copeia* 2000(2):365-377.
- Trenham, Peter C. 2001. Terrestrial Habitat Use by Adult California tiger salamanders. *Journal of Herpetology* 35:343-346.
- U.S. Army Corps of Engineers. 1992. Flora and fauna baseline study of Fort Ord, California. December. With technical assistance by Jones and Stokes Associates
- U.S. Army Corp of Engineers. 1997. Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord, California. April. Sacramento District of Army Corps of Engineers, Sacramento, California.
- U.S. Army Corp of Engineers. 2002. Evaluation of vegetation clearance methods, Ordnance and Explosives Remedial Investigation/Feasibility Study, former Fort Ord, California. October 25. Draft Final Technical Memorandum, Prepared by the Sacramento District, Sacramento, California.
- U.S. Department of the Army. 2004. Biological evaluation of Army actions that may affect California tiger Salamander and Contra Costa goldfields critical habitat, former Fort Ord, Monterey County, California. July 19. Prepared by the Directorate of Environmental and Natural Resources Management, Environmental Management Division, Presidio of Monterey, California.
- U.S. Fish and Wildlife Service. 1999. Biological and conference opinion on the closure and reuse of Fort Ord, Monterey County, California (1-8-99-F/C-39R). Prepared by the Ventura Fish and Wildlife Office, Ventura, California.
- U.S. Fish and Wildlife Service. 2002. Biological Opinion on the Closure and Reuse of Fort Ord, Monterey County, California, as it affects Monterey Spineflower Critical Habitat, (1-8-01-F-70R). Prepared by the Ventura Fish and Wildlife Office, Ventura, California.
- Willison, J. 2001. Letter to Diane Noda, U.S. Fish and Wildlife Service, dated September 18, 2001, Ventura, California.

RECORDING REQUESTED BY:

FORT ORD REUSE AUTHORITY
100 12th Street, Building 2880
Marina, CA 93933
ATTN: MICHAEL A. HOULEMARD, JR.

(Space Above This Line For Recorder's Use Only)

**MEMORANDUM OF AGREEMENT
REGARDING ENDANGERED SPECIES ACT ENFORCEMENT OF
DEVELOPMENT RESTRICTIONS ON THE DEL REY OAKS PORTIONS
OF THE FORMER FORT ORD, CALIFORNIA**

This Memorandum of Agreement Regarding Endangered Species Act Enforcement of Development Restrictions on the Del Rey Oaks Portion of the Former Fort Ord, California ("Agreement") is made and entered into among the **FORT ORD REUSE AUTHORITY** ("FORA"), **CITY OF DEL REY OAKS, CALIFORNIA** ("City"), **REDEVELOPMENT AGENCY OF THE CITY OF DEL REY OAKS** ("Agency"), and **FEDERAL DEVELOPMENT LLC** ("Federal") (hereinafter referred to collectively as the "Parties").

WITNESSETH THAT:

WHEREAS, FORA, created under Title 7.85 of the California Government Code, Chapters 1 through 7, inclusive, commencing with Section 67650, *et seq.*, and selected provisions of the California Redevelopment Law, including Division 24 of the California Health and Safety Code, Part 1, Chapter 4.5, Article 1, commencing with Section 33492, *et seq.*, and Article 4, commencing with Section 33492.70, *et seq.*, is a regional agency established under Government Code Section 67650 to plan, facilitate, and manage the transfer of former Fort Ord property from the United States Army (hereinafter referred to as the "Army") to the governing local jurisdictions or their designee(s). FORA has been designated as the Local Redevelopment Authority for the former Fort Ord Military Installation located in Monterey, California ("Former Fort Ord"), by the Office of Economic Adjustment on behalf of the Secretary of Defense;

WHEREAS, FORA will acquire portions of the Former Fort Ord from the United States of America, through the Secretary of the Army ("Army"), under the *Memorandum of Agreement Between the United States of America Acting By and Through the Secretary of the Army, United States Department of the Army and the Fort Ord Reuse Authority For the Sale of Portions of the Former Fort Ord, California*, dated the 20th day of June 2000, and *Amendment No. 1*, dated the 23rd day of October 2001 (collectively "MOA"), which sets forth the specific terms and conditions of the sale of portions of the Former Fort Ord;

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WHEREAS, pursuant to the MOA the Army intends to convey to FORA by quitclaim deed a portion of the Former Fort Ord known as Parcels E29a, E29b.1, E36, E31a, E31b, and E31c, totaling approximately 321 acres, more or less, together with improvements thereon, as more particularly described and depicted in Exhibit "A" ("Developer Property");

WHEREAS, upon transfer of the Developer Property from the Army, FORA intends to execute a quitclaim deed transferring the Developer Property to the Agency, the City or directly to Federal as the City's designee. If FORA transfers the Developer Property to the Agency or the City, the Agency or the City then intends to transfer the Developer Property to Federal.

WHEREAS, the City, a political subdivision of the State of California, has jurisdiction over the Developer Property and the authority to approve and impose conditions on any development of the Developer Property, and the authority to enforce those conditions pursuant to its police powers;

WHEREAS, Federal is seeking an agreement with and approvals and related actions from the City to allow it to develop the Developer Property;

WHEREAS, closure, disposal and reuse of Former Fort Ord requires consultation between the Army and the U.S. Fish and Wildlife Service ("Service") under Section 7 of the federal Endangered Species Act ("ESA"), 16 U.S.C. § 1531 *et seq.*, because the Army's actions regarding closure, disposal and reuse of Former Fort Ord potentially affect several species listed as threatened or endangered or proposed for listing under the ESA. As a result of prior Section 7 consultations, the Service issued a biological opinion on October 19, 1993, and subsequent biological and conference opinions on January 31, 1997, April 11, 1997 and March 30, 1999 which concluded the Army's actions are not likely to jeopardize the continued existence of any listed species or species proposed for listing under the ESA. A key component of the Army's proposed action was the development and implementation of a habitat management plan to minimize incidental take of listed species and their habitats and to mitigate impacts to vegetation and wildlife resources resulting from the Army's actions. In the 1993 biological opinion, the Service recommended that the Army consider all proposed and candidate species for federal listing and other special-status species in the habitat management plan;

WHEREAS, the Army developed an Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord, California, dated December 1994, as revised and amended by the "*Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord, California*" dated April 1997 ("HMP"), attached as Exhibit "B," to assure that disposal and reuse of Former Fort Ord lands is in compliance with the ESA;

WHEREAS, the Army developed the HMP with input from federal, state, and local agencies and organizations concerned with the natural resources and reuse of Former Fort Ord. The Service, the Bureau of Land Management ("BLM"), California Department of Fish and Game ("CDFG"), the California Department of Parks and Recreation ("State Parks"), the

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University of California, FORA and other members of the local Monterey Bay area community were all active participants in the development of the HMP.

WHEREAS, the HMP establishes land use categories and habitat management requirements for all lands on the Former Fort Ord. Developable lands and habitat reserve areas are defined along with habitat corridors and restricted development areas. Resource conservation and management requirements are described and responsible parties for each designated habitat area on the Former Fort Ord are identified.

WHEREAS, on August 4, 2004, the Service listed the California Tiger Salamander ("CTS") as a threatened species under the ESA and, on August 10, 2004, proposed to designate as critical habitat portions of the Former Fort Ord. Pursuant to 50 C.F.R. 402.16(d) the Army was required to reinitiate consultation to insure that its actions with regard to the disposal and reuse of Former Fort Ord lands are not likely to jeopardize the continued existence of the CTS. At the conclusion of the reinitiated consultation the Service issued a biological opinion ("2004 CTS biological opinion") that concludes that the Army's proposed action will not result in jeopardy to the CTS. The Service also issued an incidental take statement ("CTS ITS") allowing take of CTS in accordance with the terms and conditions of the CTS ITS. The CTS ITS contemplates actions by the Parties to convey, permit the development of, and develop the Developer Property, and will provide the Parties an exemption from the "take" prohibitions of the ESA if they comply with the requirements of the CTS ITS, including the execution, recordation and implementation of this Agreement.

WHEREAS, FORA along with other state and local agencies is developing a Habitat Conservation Plan ("HCP") under Section 10(a)(1)(B) of the ESA. The HCP is intended to address conservation and development of Former Fort Ord lands transferred by the Army under the Former Fort Ord disposal and reuse process in a manner consistent with the HMP, including protection of the CTS. The HCP will, in the case of non-federal recipients of Former Fort Ord lands, support the issuance of incidental take permits from the Service under Section 10(a)(1)(B) of the ESA and from the CDFG under Section 2081 of the California Fish and Game Code in compliance with the California Endangered Species Act ("CESA").

WHEREAS, the Service has identified several Development Restrictions ("Restrictions") attached hereto as Exhibit "C" and incorporated herein by this reference that must be incorporated into any future development of the Developer Property to ensure that such development is carried out in a manner consistent with the HMP, CTS ITS, and the future HCP, and in accordance with the ESA. The Restrictions are intended to incorporate the terms and conditions of the HMP and CTS ITS and increase consistency with the future HCP.

WHEREAS, the Parties enter into this Agreement to ensure that the Restrictions are fully implemented as part of any future development of the Developer Property and requested the Army to submit the terms and conditions of this Agreement to the Service as part of the reinitiated consultation to demonstrate the Parties' commitment to condition, enforce and

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implement development of the Developer Property in a manner consistent with the HMP, the CTS ITS, and future HCP and in compliance with the ESA, and to provide the Parties assurance that their actions in accordance with the Restrictions will be exempt from the "take" prohibitions of the ESA.

WHEREAS, the Parties acknowledge the unique circumstances surrounding the Army's disposal of the Developer Property and, in particular, the need for expeditious transfer of the Developer Property to enable the City to meet its commitments to early redevelopment of the Developer Property in advance of completion of the Former Fort Ord HCP and issuance of incidental take permits to one or more of the Parties based thereon. The Parties further acknowledge the continuing authority and commitment of the United States to enforce the HMP, as refined by the Restrictions, with regard to the Developer Property, including the reservation of a right of reentry to ensure compliance. The Parties acknowledge that, as provided in the HMP, future disposals of land by the Army at the Former Fort Ord, including any future Section 7 consultations with the Army on such land disposals, will not include any authorization under the ESA of take of listed species incidental to post disposal reuse of the lands unless such authorization occurs through issuance of incidental take permits associated with an approved Former Fort Ord HCP or other approved HCP or through post disposal individual Section 7 consultations where an independent federal nexus is present.

WITH REFERENCE TO THE FACTS RECITED ABOVE, the Parties agree as follows:

I. OBLIGATIONS OF THE PARTIES

A. FORA

In order to render FORA exempt under the CTS ITS from the prohibitions against "take" of CTS under the ESA resulting from FORA's ownership and transfer of the Developer property, FORA must 1) incorporate the Restrictions identified in Exhibit "C" in any deed or other document conveying an interest in the Developer Property to the Agency, the City, Federal, or any third party; 2) record this Agreement, together with all referenced exhibits, in the Office of the County Recorder, County of Monterey within (10) days of FORA's receipt of a fully executed original and prior to any transfer of the Developer Property from FORA and; 3) fully implement each of the Restrictions, if any, assigned to it under this Agreement and/or under a future approved HCP ("HCP Requirements") applicable to the Developer Property.

B. City

In order to render the City exempt under the CTS ITS from the prohibitions against "take" of CTS under the ESA resulting from approval of development activities on the Developer Property, the City must include the Restrictions identified in Exhibit "C" as enforceable conditions of development in any development permit, agreement or other

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development approval issued by the City to Federal, its successors or assigns, or to any third party (hereafter collectively "Del Rey Oaks Developer") for development of the Developer Property. The City shall provide notice in any such development approval that upon approval by the Service of an HCP covering the Developer Property, the HCP Requirements, to the extent feasible and appropriate, as determined by the City and the Service in consultation with the Del Rey Oaks Developer, and the authorization for "take" provided by associated Incidental Take Permits ("ITP"), shall apply in lieu of the Restrictions and the CTS ITS. The City shall, in the exercise of its police power, fully enforce the Restrictions and/or HCP Requirements, as applicable, against the Del Rey Oaks Developer, its successors and assigns and fully implement each of the Restrictions, if any, assigned to it under this Agreement and/or HCP Requirements with regard to the Developer Property.

C. Federal

In order to render Federal exempt under the CTS ITS from the prohibitions against "take" of CTS under the ESA arising from its development of the Developer Property, should any interest in the Developer Property be transferred to Federal, Federal, its successors and assigns, must fully implement applicable Restrictions and/or HCP Requirements in connection with any future development of the Developer Property.

D. Agency

In order to render the Agency exempt under the CTS ITS from the prohibitions against "take" of CTS under the ESA resulting from the Agency's ownership and transfer of the Developer property, the Agency must 1) incorporate the Restrictions identified in Exhibit "C" in any deed or other document conveying an interest in the Developer Property to the City, Federal, or any third party and; 2) fully implement each of the Restrictions, if any, assigned to it under this Agreement and/or under a future approved HCP ("HCP Requirements") applicable to the Developer Property.

II. TAKE AUTHORIZATION

A. The Parties acknowledge that the exemption from the prohibition against "take" under Section 9 of the ESA provided pursuant to Section 7(o) of the ESA and 50 C.F.R. 402.14(i) through the CTS ITS accompanying the 2004 CTS biological opinion shall become effective as to the Parties upon recordation of this Agreement in the Office of the Recorder, County of Monterey, following its execution by all of the Parties.

B. The Parties further acknowledge that the exemption from the prohibition against "take" under Section 9 of the ESA provided to the Parties through the CTS ITS accompanying the 2004 CTS biological opinion shall remain in effect so long as the Restrictions are fully implemented as required by 50 C.F.R. 402.14(i)(5) and as set forth in this Agreement. The Parties further acknowledge that any future amendment of this Agreement to alter the

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Restrictions without the prior written consent of the Service shall automatically terminate the exemption from take provided through the CTS ITS accompanying the 2004 CTS biological opinion.

C. The Parties acknowledge and agree that upon approval of the HCP and issuance of associated ITPs to FORA and the City, the HCP Requirements shall, to the extent provided in Section I.B of this Agreement, apply to the Parties with regard to the Developer Property in lieu of the Restrictions, and the authorization for take provided in the ITPs shall apply to the Parties with regard to the Developer Property in lieu of the take exemption provided in the CTS ITS.

D. In addition to any liability under Section 9 of the ESA, the failure by any Party to comply with its specific obligations regarding the Restrictions, shall subject such Party to civil and criminal penalties under Section 11 of the ESA to the extent such failure constitutes a violation of the ESA.

III. FUTURE PARTIES AND SUCCESSORS AND ASSIGNS

A. Should the Developer Property be transferred by FORA, the City or the Agency to a third party other than Federal, the remaining Parties shall amend this Agreement to substitute such third party in place of Federal prior to such transfer of any interest in the Developer Property to such third party. FORA shall record the amended Agreement in the Office of the Recorder, County of Monterey, within ten (10) days of FORA's receipt of a fully executed original amended Agreement. The exemption from the prohibition against "take" provided to the Parties through the CTS ITS accompanying the 2004 CTS biological opinion shall not become effective as to any such third party until and unless this Agreement is amended to include such third party as a signatory and the amended Agreement is so recorded. The failure of the Parties to amend the Agreement to include any such third party and to execute and record the amended Agreement in accordance with this paragraph shall have the effect of automatically terminating the exemption from the prohibitions against take provided to each Party under the CTS ITS. FORA shall provide written notice to the Service of any amendment to this Agreement under this paragraph, along with a copy of the amended Agreement, within 30 days of its recordation.

B. This Agreement and each of its covenants and conditions shall be binding on, and inure to the benefit of the Parties and any of their respective successors and assigns involved in the development of the Developer Property, or any portion thereof, provided that the exemption from the prohibitions against "take" of CTS provided through the CTS ITS accompanying the 2004 CTS biological opinion, and/or ITPs associated with the HCP, shall remain effective as to the Parties and their successors or assigns subject to their compliance with the Restrictions and/or HCP requirements as provided in Section I.B of this Agreement and their compliance with the procedural requirements of Section III.A of this Agreement.

IV. NOTICE

ESA MOA - DEL REY OAKS PORTION OF THE FORMER FORT ORD

Formal notices, demands, and communications among the Parties shall not be deemed given unless sent by certified mail, return receipt requested, or express delivery service with a delivery receipt, or personal delivery with a delivery receipt or facsimile, to the principal office of the Parties as follows:

Fort Ord Reuse Authority:

ATTN: Michael A. Houlemard, Jr.,
Executive Officer
100 12th Street, Bldg. 2880
Marina, California 93933

City of Del Rey Oaks, California:

ATTN: City Manager
650 Canyon Del Rey
Del Rey Oaks, California 93940

Redevelopment Agency of the City of Del Rey Oaks

ATTN: Executive Director
650 Canyon Del Rey
Del Rey Oaks, California 93940

Federal Development LLC

ATTN: John Infantino
1300 Pennsylvania Ave. NW, Suite 700
Washington, D.C. 20004

Such written notices, demands, and communications may be sent in the same manner to such other addresses as the affected Party may from time to time designate as provided in this Section. Receipt shall be deemed to have occurred on the date marked on a written receipt as the date of delivery or refusal of delivery (or attempted delivery if undeliverable).

In addition, a copy of all notices under this Agreement shall be contemporaneously provided to the Service at the following address:

[insert address]

VIII. LIST OF EXHIBITS

The following listed Exhibits are made a part of this Agreement:

Exhibit A: Description of Developer Property

ESA MOA - DEL REY OAKS PORTION OF THE FORMER FORT ORD

Exhibit B: HMP
Exhibit C: Restrictions on Developer Property

[Signatures pages follow]

ESA MOA - DEL REY OAKS PORTION OF THE FORMER FORT ORD

In Testimony Whereof witness the signature of Parties this ____ day of _____, 2004 and hereby accepts and approves this Agreement for itself, its successors and assigns, and agrees to all the conditions and terms contained therein.

FORT ORD REUSE AUTHORITY

BY: _____
MICHAEL A. HOULEMARD, JR.
Executive Officer

CITY OF DEL REY OAKS

BY: _____

**REDEVELOPMENT AGENCY OF THE
CITY OF DEL REY OAKS**

BY: _____

FEDERAL DEVELOPMENT LLC

BY: _____

EXHIBIT C

Del Rey Oaks Development Restrictions:

Parcels E29a, E29b.1, E36, E31a, E31b, and E31c ("Developer Property")

The restrictions contained in this Exhibit C ("Restrictions") to the Memorandum of Agreement Regarding Endangered Species Act Enforcement of Development Restrictions on the Del Rey Oaks Portions of the Former Fort Ord ("Agreement") shall be fully funded, implemented, enforced, and managed as appropriate, by the party or parties designated as the Responsible Party ("RP") for the specific requirements herein.

A. DEFINITIONS

The following definitions apply to this Exhibit C:

1. **Borderland.** The parcels within the Developer Property, which border the Conserved Habitat Areas on the former Fort Ord (as delineated in Attachment 1 of this Exhibit C.)

2. **Conserved Habitat Areas.** The portion of the former Fort Ord designated for the conservation of Covered Species and their habitat as delineated in Attachment 1 to this Exhibit C.

3. **Natural Area Expansion.** The portion of the Conserved Habitat Areas known as Parcel L6 as delineated in Attachment 1 to this Exhibit C.

4. **Project Site.** The portion of the Developer Property on which project development activities are being conducted by the Developer, including surveying, grading, excavation, and construction.

5. **Service-Approved Biologist.** A person approved by the U.S. Fish and Wildlife Service ("Service") under a biological opinion covering activities on the Developer Property, or other written approval document, to perform the activities as required in this Exhibit C. To identify a Service-Approved Biologist, the Developer shall submit, to the Service, the credentials of the biologist who they wish to conduct the work. These should be provided for the Service's review and written approval at least 30 days prior to the planned onset of any such activities.

6. **Covered Species.** Those species addressed in the Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord, California, dated December 1994, as revised and amended by the "*Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord, California*" dated April 1997 ("HMP").

B. GENERAL PROJECT DEVELOPMENT REQUIREMENTS

1. **Site Assessment (RP: Del Rey Oaks Developer as defined in the Agreement and hereinafter referred to as "Developer").**

At least 1.5 years prior to proposed grading of a project site on any portion of the Developer Property, the Developer shall have a qualified biologist conduct a site assessment ("Site Assessment") for California tiger salamanders (*Ambystoma californiense*) on the project site. The Site Assessment shall include, at a minimum, the information in the Service's most current site assessment guidance for the California tiger salamander (currently, the Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander, October 2003) and a field evaluation of potential breeding habitat of the California tiger salamander on the former Fort Ord that is on and within 1 km of the project site. After completion of the Site Assessment, the Developer shall submit a report of its Site Assessment to the Service. Following review of the report, the Service shall direct the Developer on whether a salvage plan shall be developed and implemented to minimize take of California tiger salamanders.

2. Salvage Program (RP: Developer).

If after reviewing the Site Assessment reports submitted by the Developer, the Service determines that a salvage plan is required, the Developer shall have a Service-Approved Biologist develop, and shall implement, a plan to salvage adult and juvenile California tiger salamanders from Project Sites via drift fence and pitfall trap captures prior to grading. The purpose of the capture shall be to both minimize mortality of adult California tiger salamanders on Project Sites and to provide information on the level of upland habitat use in the area to promote more effective conservation of the species in adjacent Conserved Habitat Areas.

The salvage plan shall be approved in writing by the Service and shall include at least the following: (1) salvaging shall be via drift fence and pitfall trap captures along a sufficient amount of a Project Site boundary to intercept the majority of the adult population migrating to or from known and potential breeding ponds in the year the captures take place; (2) drift fence installation shall be timed to capture and repel individuals migrating to and from breeding areas; (3) identification of appropriate areas where captured California tiger salamanders shall be released.

Only a Service-Approved Biologist may capture and handle California tiger salamanders. Before project activities begin, a Service-Approved Biologist shall identify appropriate areas to receive relocated California tiger salamanders. These areas must be outside the Developer Property boundaries in a designated Conserved Habitat Area, in proximity to the capture site, and support suitable vegetation for the California tiger salamander. The Service-Approved Biologist must maintain detailed records of any California tiger salamanders that are moved (e.g., size, coloration, any distinguishing features, photographs [digital preferred]) to assist him or her in determining whether translocated animals are returning to the original point of capture.

3. Water Features (RP: Developer). Projects on the Developer Property shall be designed so that any storm water detention basins or other water features created on the property do not attract breeding California tiger salamanders. A Service-approved strategy shall be developed and implemented to ensure that water features do not become a source for nonnative species, such as bullfrogs, which could move into nearby Conserved Habitat Areas.

4. **Construction Personnel Training (RP: Developer)**. Before grading or construction work begins on a Project Site, a Service-Approved Biologist shall conduct a training session for all construction personnel who may be working on the Project Site. At a minimum, the training shall include a description of the California tiger salamander and its habitat, the specific measures that are being implemented to conserve it, and the boundaries of the project site.

5. **Demarcation of Project Site Boundary (RP: Developer)**. Project Site boundaries shall be clearly demarcated by construction fencing or other materials to ensure that grading and the staging of equipment or supplies do not exceed the Project Site boundaries.

6. **Trash and Pets (RP: Developer)**. During project construction activities, all trash that may attract predators shall be properly contained and removed from the work site. Pets shall not be permitted at the Project Site.

7. **Discovery During Construction (RP: Developer)**. During project construction activities, any California tiger salamanders that are discovered shall be recorded and measured by a Service-Approved Biologist. If alive, the California tiger salamander(s) shall be relocated to the appropriate pre-determined area outside the Developer Property boundaries.

8. **Reporting (RP: Developer)**. The Developer shall report the results of its salvage operations (e.g., number, size, condition, location, and dates of capture and release of individual California tiger salamanders; problems encountered during capture, handling, or release) to the Service upon completion of each salvage operation conducted on a Project Site. Developer shall report on Developer's compliance with these Restrictions within 90 days of the completion of all planned development on the Developer Property.

C. **BORDERLAND MANAGEMENT**

The designated RP(s), as set forth below, shall be responsible for funding and implementation of all long-term Borderland management requirements. Long-term Borderland management addresses construction and management of development to minimize impacts of Borderland development on adjacent Conserved Habitat Areas. Long-term management requirements for Borderland parcels are described below. Wherever Developer is referred to in this Section C, it shall include its successors and assigns, Community Service Districts, Homeowners Associations, and other responsible entities, created to carry out Developer responsibilities in this Section C.

1. **Borderland Management Plan (RP: Fort Ord Reuse Authority ("FORA"))**.

OBJECTIVE: To provide a greater level of detail about environmental conditions, project impacts, and site-specific management actions.

FORA shall develop a Borderland Management Plan, which shall include the following:

- a. Specific Action: Describe existing environmental conditions within the Borderland, including habitat types, hydrological resources, topography, and fuel loads.
- b. Specific Action: Describe procedures for controlling non-native invasive plants and exotic animals within the Borderland.
- c. Specific Action: Describe long-term development plans for the Borderland.
- d. Specific Action: Describe how firewise planning will be incorporated into development plans for the Borderland and encouraged within Borderland management activities.
- e. Specific Action: Describe how development plans will incorporate the long-term management activities discussed in Section C.2 of these Restriction consistent with the objectives and requirements of these Restrictions.

2. **Long Term Management Activities (RP: as designated).**

a. Access Control.

OBJECTIVE: To direct public access from the Borderland to Conserved Habitat Areas in a manner that promotes the enjoyment, appreciation, and conservation of the species and ecosystems of former Fort Ord.

- i. Specific Action: Coordinate with the adjacent Conserved Habitat Area manager to identify levels and locations of public and other access from the Borderland into Conserved Habitat Areas. **RP: Developer**
- ii. Specific Action: Except for roads that are managed for public access, secure any points of entry that could be used by motorized vehicles from the Borderland into Conserved Habitat Areas with either a gate or a vehicle barrier. **RP: Developer**
- iii. Specific Action: Where fencing is utilized along the perimeter of a Conserved Habitat Area, gates shall be installed at appropriate points in the barrier between the Conserved Habitat Area and the Borderland to allow for emergency access. The managing agency, the Developer, and other appropriate agencies shall be provided keys to the gates. **RP: Developer**
- iv. Specific Action: Trails extending from the boundary of the Borderland into the Conserved Habitat Areas that are officially closed to public use, as determined by the Service and/or the California Department of Fish & Game ("CDFG"), shall be made inaccessible through the use of "Trail Closed" signs, brush piles, or fencing at appropriate points along the boundary of the Borderland. **RP: Developer**

v. Specific Action: Maintain regular security patrols to help control pedestrian, pet, bicycle, and motorized vehicle trespass from the Borderland onto Conserved Habitat Areas. **RP: FORA**

vi. Where pedestrian access is permitted from the Borderland onto the Conserved Habitat Area, as determined by the RP in cooperation with the Service and the CDFG, install interpretive signs/displays that describe the importance of the Conserved Habitat Area and methods for maintaining values such as trash removal, limiting ground disturbance, restraining pets, discouraging capture or harassment of wildlife, and prohibiting the collection of Covered Species. **RP: Developer**

b. Non-native Species Control.

All invasive non-native plant species shall be managed within the Borderlands to prevent their spread into the adjacent Conserved Habitat Area.

OBJECTIVE: Control populations of non-native or feral animals and plants to prevent the spread of these populations into the adjacent Conserved Habitat Area.

i. Specific Action: Prohibit establishment of feeding stations for feral animals on the Borderland. **RP: Developer**

ii. Specific Action: Control invasive plants such as ice plant, scotch broom, and pampas grass that may be present on the Borderland to prevent their spread into the adjacent Conserved Habitat Areas. **RP: Developer**

c. Fuelbreaks.

Fuelbreaks are required in the Borderland to separate the Conserved Habitat Area from development. Potential fuelbreaks include greenbelts, fuel reduction zones, fire roads, paved roads, tilled firebreaks, and parking lots.

OBJECTIVE: Construct and maintain fuelbreaks to provide a defensible space between Conserved Habitat Areas habitat areas and structures within development parcels.

i. Specific Action: Design fuelbreaks to: 1) stop fire movement across the Borderland/Conserved Habitat Areas boundary, 2) provide adequate access for fire suppression and fire prevention equipment and personnel to conduct controlled burns, and 3) provide adequate access for fire suppression and fire prevention equipment and personnel to fight wildfires. The RP is responsible for defining an adequate fuelbreak width by incorporating, in the design stage, a process (e.g. working with fire-wise consultants, and/or informed local fire departments, and reserve managers) that considers topography, surrounding vegetation (fuels), type of development and configuration of the applicable

Project Site. Fuelbreak width is to be designed considering all of the above factors. **RP: Developer**

ii. Specific Action: All fuelbreaks shall be at the Borderland/Conserved Habitat Areas boundary, not necessarily at the parcel boundary, and shall be installed within the Borderland, not within the Conserved Habitat Area. Fuelbreaks on adjacent parcels shall be contiguous. **RP: Developer**

iii. Specific Action: Maintain fuelbreaks on the Borderland regularly, to ensure they continue to provide access for the proper management and utilization of prescribed fire and control of wildfire. In the case of an emergency the managing agency, Developer, and any other appropriate agency should have access to adjacent Conserved Habitat Areas and should, therefore, possess gate keys required to obtain access as stated in the section on Access Control. **RP: Developer and FORA**

iv. Specific Action: Project development activities on a Project Site boundary shall be restricted within 200 feet of the Borderland/Conserved Habitat Area boundary until the provisions of defensible space and fuelbreak access are ensured through a plan prepared in consultation with fire wise consultants, and/or informed local fire departments, and reserve managers for the Project Site. **RP: Developer**

d. Storm Water Control and Groundwater Recharge.

The conversion of the Borderlands from open space to urban and other uses would alter site runoff peaks and duration. This could reduce the volume of groundwater infiltration by increasing the area of impervious surfaces and causing runoff to move across areas suitable for infiltration at a faster rate, which could interfere with groundwater recharge, as well as lead to siltation of drainages and erosion.

OBJECTIVE: Protect the Conserved Habitat Area from hydrologic modifications and erosion problems resulting from altered stormwater runoff caused by development on the Borderland.

i. Specific Action: Implement a stormwater drainage plan ("Drainage Plan") for development adjacent to Conserved Habitat Areas. The Drainage Plan shall describe 1) how storm water will be captured and directed off Project Sites, 2) what measures will be employed to prevent degradation and siltation of ephemeral drainages from Borderland run-off, 3) what specific erosion control measures will be implemented, and 4) what measures will be taken to protect the Conserved Habitat Areas. All Borderland development must comply with the Drainage Plan as well as employ Best Management Practices during construction. **RP: Developer**

- ii. Specific Action: Take all measures to ensure that on-site drainage systems are designed to capture and filter out urban pollution, to the extent feasible. **RP: Developer**

OBJECTIVE: Protect the Conserved Habitat Area from hydrologic modifications resulting from interference with groundwater recharge.

- iii. Prior to beginning project development activities on a Project Site within the Borderland, demonstrate that all reasonable measures will be taken to ensure that runoff is minimized and infiltration maximized in groundwater recharge areas on the Project Site. **RP: Developer**

e. Firewise Planning.

OBJECTIVE: To prevent the spread of fire across the Borderland/Conserved Habitat Area boundary by applying principles of firewise planning in the design, construction, and maintenance of the Borderland.

- i. Specific Action: The Developer shall illustrate to the City how firewise planning principles are incorporated in the project design for development projects in the Borderland. **RP: Developer**

- ii. Specific Action: The Developer shall develop and implement an educational program to encourage ongoing maintenance and construction, such as landscaping, fencing, outbuildings, and housing additions, be done in a firewise manner. **RP: Developer**

f. Facilities Planning.

OBJECTIVE: To minimize indirect effects on the Conserved Habitat Area resulting from the placement or operation of facilities within the Borderland.

- i. Specific Action: To the extent feasible, all artificial night lighting within the Borderland shall be directed away from the Conserved Habitat Area. **RP: Developer**

- ii. Specific Action: Construct a low wall or other suitable barrier to migration along the Borderland/Conserved Habitat Area boundary where habitat in the Borderland will no longer exist and where this interface comes within 0.7 km of a known California tiger salamander breeding pool, unless California tiger salamander absence has been demonstrated using the survey protocol approved by the Service or the Service determines this barrier is unlikely to substantially minimize take of California tiger salamanders. **RP: Developer**

g. Facilities Maintenance.

OBJECTIVE: Maintain facilities within the Borderland/Conserved Habitat Area boundary to prevent degradation of habitat in the Conserved Habitat Area.

i. Specific Action: Install signs at the Borderland/Conserved Habitat Area boundary that prohibit the dumping of garbage and establish patrols to periodically remove garbage dumped into the Conserved Habitat Area from the Developer Property. **RP: Developer**

h. Construction Activities.

OBJECTIVE: To minimize direct and indirect effects of construction activities on vegetation and animals in the Conserved Habitat Area.

For construction activities on the Borderland, the designated RP shall comply with the following requirements in addition to Section B of these Restrictions.

i. Specific Action: Prepare and implement a hazardous substance control plan for all construction activities on the Borderland involving the handling, storing, transport, or disposal of hazardous waste materials. **RP: Developer**

ii. Specific Action: Determine the potential for construction projects within the Borderland to exceed the 82-pound inhalable particulate threshold established by the Monterey Bay Unified Air Pollution Control District (MBUAPCD 1995). A general rule of thumb to determine if a project may have a significant construction related impact is to determine if the project would disturb 2.2 acres of land on or adjacent to the Project Site per day through grading and/or excavation. Projects on the Borderland with the potential to exceed this threshold shall implement measures to substantially reduce the amount of airborne dust or particulate matter. **RP: Developer**

iii. Specific Action: Prepare a Storm Water Pollution Prevention Plan ("SWPPP") that describes the Best Management Practices to be implemented and monitored during construction on the Borderland. **RP: Developer**

i. Drainage Controls on Parcels 31a-c for Protection of Natural Area Expansion.

In addition to the requirements of Section C.2 for all Borderlands, the following shall apply to Borderland Parcels 31a-c:

OBJECTIVE: To maintain the quality, quantity, and seasonal pattern of water drainage from Borderland Parcels E31a-c to the adjacent Natural Area Expansion to avoid adversely affecting Covered Species or their habitat in the Natural Area Expansion or in drainages beyond the Natural Area Expansion (for example, the "frog pond").

i. The direct discharge of stormwater or other drainage from new impervious surfaces created by development on Parcels 31a-c into the ephemeral drainage in the Natural Area Expansion is prohibited. No increase in the rate of flow of stormwater runoff beyond predevelopment levels will be allowed. **RP: Developer**

ii. Specific Action: Stormwater runoff from Project Sites on Parcels 31a-c in excess of predevelopment quantities shall be managed through the use of basins, detention/retention ponds, percolation wells, pits, infiltration galleries, or any other technical or engineering methods that are appropriate to accomplish the objectives and requirements of this Section C.2.i. Indirect subsurface discharge is acceptable. **RP: Developer**

iii. Specific Action: As part of the project design process for development on Borderland Parcels 31a-c, a qualified hydrologist shall conduct a Hydrology and Drainage Assessment for Project Site(s) on Borderland Parcels 31a-c to determine baseline drainage conditions, including analyzing existing drainage patterns and calculating existing runoff rates into the ephemeral drainage in the Natural Area Expansion. The assessment shall include recommendations for maintaining pre-project development activity drainage and water quality conditions after completion of development on such Project Site(s). **RP: Developer**

iv. Specific Action: Drainage systems on Project Site(s) on Borderland Parcels 31a-c shall be designed to accomplish the objectives and requirements of this Section C.2.i and shall include installation and maintenance of oil/grease filters, fossil filters, or other pollution prevention devices to prevent non-point source pollutants in any drainage flowing to the Natural Area Expansion. The devices shall be maintained on a regular basis to remove pollutants, reduce high pollutant concentrations, prevent clogging of the downstream conveyance system, and maintain the sediment trapping capacity. Best Management Practices shall be implemented during project development activities on Project Site(s) on Borderland Parcels 31a-c to prevent sediments or other pollutants from entering stormwater discharge. **RP: Developer**

RECORDING REQUESTED BY:

FORT ORD REUSE AUTHORITY

100 12th Street, Building 2880

Marina, CA 93933

ATTN: MICHAEL A. HOULEMARD, JR.

(Space Above This Line For Recorder's Use Only)

**MEMORANDUM OF AGREEMENT
REGARDING ENDANGERED SPECIES ACT ENFORCEMENT OF
DEVELOPMENT RESTRICTIONS ON THE EAST GARRISON
PORTIONS OF THE FORMER FORT ORD, CALIFORNIA**

This Memorandum of Agreement Regarding Endangered Species Act Enforcement of Development Restrictions on the East Garrison Portion of the Former Fort Ord, California ("Agreement") is made and entered into among the **FORT ORD REUSE AUTHORITY** ("FORA"), **COUNTY OF MONTEREY, CALIFORNIA** ("County"), **REDEVELOPMENT AGENCY OF THE COUNTY OF MONTEREY** ("Agency"), and **EAST GARRISON PARTNERS I, LLC** ("East Garrison Partners") (hereinafter referred to collectively as the "Parties").

WITNESSETH THAT:

WHEREAS, FORA, created under Title 7.85 of the California Government Code, Chapters 1 through 7, inclusive, commencing with Section 67650, *et seq.*, and selected provisions of the California Redevelopment Law, including Division 24 of the California Health and Safety Code, Part 1, Chapter 4.5, Article 1, commencing with Section 33492, *et seq.*, and Article 4, commencing with Section 33492.70, *et seq.*, is a regional agency established under Government Code Section 67650 to plan, facilitate, and manage the transfer of former Fort Ord property from the United States Army (hereinafter referred to as the "Army") to the governing local jurisdictions or their designee(s). FORA has been designated as the Local Redevelopment Authority for the former Fort Ord Military Installation located in Monterey, California ("Former Fort Ord"), by the Office of Economic Adjustment on behalf of the Secretary of Defense;

WHEREAS, FORA will acquire portions of the Former Fort Ord from the United States of America, through the Secretary of the Army ("Army"), under the *Memorandum of Agreement Between the United States of America Acting By and Through the Secretary of the Army, United*

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States Department of the Army and the Fort Ord Reuse Authority For the Sale of Portions of the Former Fort Ord, California, dated the 20th day of June 2000, and *Amendment No. 1*, dated the 23rd day of October 2001 (collectively "MOA"), which sets forth the specific terms and conditions of the sale of portions of the Former Fort Ord;

WHEREAS, pursuant to the MOA the Army intends to convey to FORA by quitclaim deed a portion of the Former Fort Ord along with improvements thereon ("FORA Property");

WHEREAS, upon transfer of the FORA Property from the Army, FORA intends to execute a quitclaim deed transferring the FORA Property to the Agency, which has entered into an option agreement with East Garrison Partners and intends to transfer to East Garrison Partners the following portions of the FORA Property, which are the subject of this Agreement: Parcels E11b.1, E11b.2, E11b.3, E11b.4, L20.10.1.2, L20.10.2, L20.14.1.2, L20.19.2, L20.20, L20.21.1, L20.21.2, L20.22, L23.3.1, L23.3.2.1, L35.3, L35.6, L35.7, L35.8, totaling approximately 244 acres, more or less, as more particularly described and depicted in Exhibit "A" ("Developer Property");

WHEREAS, the County, a political subdivision of the State of California, has jurisdiction over the Developer Property and the authority to approve and impose conditions on any development of the Developer Property, and the authority to enforce those conditions pursuant to its police powers;

WHEREAS, East Garrison Partners is seeking approvals and related actions from the County to allow it to develop the Developer Property;

WHEREAS, closure, disposal and reuse of Former Fort Ord requires consultation between the Army and the U.S. Fish and Wildlife Service ("Service") under Section 7 of the federal Endangered Species Act ("ESA"), 16 U.S.C. § 1531 *et seq.*, because the Army's actions regarding closure, disposal and reuse of Former Fort Ord potentially affect several species listed as threatened or endangered or proposed for listing under the ESA. As a result of prior Section 7 consultations, the Service issued a biological opinion on October 19, 1993, and subsequent biological and conference opinions on January 31, 1997, April 11, 1997 and March 30, 1999 which concluded the Army's actions are not likely to jeopardize the continued existence of any listed species or species proposed for listing under the ESA. A key component of the Army's proposed action was the development and implementation of a habitat management plan to minimize incidental take of listed species and their habitats and to mitigate impacts to vegetation and wildlife resources resulting from the Army's actions. In the 1993 biological opinion, the Service recommended that the Army consider all proposed and candidate species for federal listing and other special-status species in the habitat management plan;

WHEREAS, the Army developed an Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord, California, dated December 1994, as revised and amended by the *"Installation-Wide Multispecies Habitat Management Plan for Former Fort*

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Ord, California” dated April 1997 (“HMP”), attached as Exhibit “B,” to assure that disposal and reuse of Former Fort Ord lands is in compliance with the ESA;

WHEREAS, the Army developed the HMP with input from federal, state, and local agencies and organizations concerned with the natural resources and reuse of Former Fort Ord. The Service, the Bureau of Land Management (“BLM”), California Department of Fish and Game (“CDFG”), the California Department of Parks and Recreation (“State Parks”), the University of California, FORA and other members of the local Monterey Bay area community were all active participants in the development of the HMP.

WHEREAS, the HMP establishes land use categories and habitat management requirements for all lands on the Former Fort Ord. Developable lands and habitat reserve areas are defined along with habitat corridors and restricted development areas. Resource conservation and management requirements are described and responsible parties for each designated habitat area on the Former Fort Ord are identified.

WHEREAS, on August 4, 2004, the Service listed the California Tiger Salamander (“CTS”) as a threatened species under the ESA and, on August 10, 2004, proposed to designate as critical habitat portions of the Former Fort Ord. Pursuant to 50 C.F.R. 402.16(d) the Army was required to reinitiate consultation to insure that its actions with regard to the disposal and reuse of Former Fort Ord lands are not likely to jeopardize the continued existence of the CTS. At the conclusion of the reinitiated consultation the Service issued a biological opinion (“2004 CTS biological opinion”) that concludes that the Army’s proposed action will not result in jeopardy to the CTS. The Service also issued an incidental take statement (“CTS ITS”) allowing take of CTS in accordance with the terms and conditions of the CTS ITS. The CTS ITS contemplates actions by the Parties to convey, permit the development of, and develop the Developer Property, and will provide the Parties an exemption from the “take” prohibitions of the ESA if they comply with the requirements of the CTS ITS, including the execution, recordation and implementation of this Agreement.

WHEREAS, FORA along with other state and local agencies is developing a Habitat Conservation Plan (“HCP”) under Section 10(a)(1)(B) of the ESA. The HCP is intended to address conservation and development of Former Fort Ord lands transferred by the Army under the Former Fort Ord disposal and reuse process in a manner consistent with the HMP, including protection of the CTS. The HCP will, in the case of non-federal recipients of Former Fort Ord lands, support the issuance of incidental take permits from the Service under Section 10(a)(1)(B) of the ESA and from the CDFG under Section 2081 of the California Fish and Game Code in compliance with the California Endangered Species Act (“CESA”).

WHEREAS, the Service has identified several Development Restrictions (“Restrictions”) attached hereto as Exhibit “C” and incorporated herein by this reference that must be incorporated into any future development of the Developer Property to ensure that such development is carried out in a manner consistent with the HMP, CTS ITS, and the future HCP,

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and in accordance with the ESA. The Restrictions are intended to incorporate the terms and conditions of the HMP and CTS ITS and increase consistency with the future HCP.

WHEREAS, the Parties enter into this Agreement to ensure that the Restrictions are fully implemented as part of any future development of the Developer Property and requested the Army to submit the terms and conditions of this Agreement to the Service as part of the reinitiated consultation to demonstrate the Parties' commitment to condition, enforce and implement development of the Developer Property in a manner consistent with the HMP, the CTS ITS, and future HCP and in compliance with the ESA, and to provide the Parties assurance that their actions in accordance with the Restrictions will be exempt from the "take" prohibitions of the ESA.

WHEREAS, the Parties acknowledge the unique circumstances surrounding the Army's disposal of the Developer Property and, in particular, the need for expeditious transfer of the Developer Property to enable the County to meet its commitments to early redevelopment of the Developer Property in advance of completion of the Former Fort Ord HCP and issuance of incidental take permits to one or more of the Parties based thereon. The Parties further acknowledge the continuing authority and commitment of the United States to enforce the HMP, as refined by the Restrictions, with regard to the Developer Property. The Parties acknowledge that, as provided in the HMP, future disposals of land by the Army at the Former Fort Ord, including any future Section 7 consultations with the Army on such land disposals, will not include any authorization under the ESA of take of listed species incidental to post disposal reuse of the lands unless such authorization occurs through issuance of incidental take permits associated with an approved Former Fort Ord HCP or other approved HCP or through post disposal individual Section 7 consultations where an independent federal nexus is present.

WITH REFERENCE TO THE FACTS RECITED ABOVE, the Parties agree as follows:

I. OBLIGATIONS OF THE PARTIES

A. FORA

1. In order to render FORA exempt under the CTS ITS from the prohibitions against "take" of CTS under the ESA resulting from FORA's ownership and transfer of the Developer Property, FORA must 1) incorporate the Restrictions identified in Exhibit "C" in any deed or other document conveying an interest in the Developer Property to the Agency, the County, East Garrison Partners, or any third party; 2) record this Agreement, together with all referenced exhibits, in the Office of the County Recorder, County of Monterey within (10) days of FORA's receipt of a fully executed original and prior to any transfer of the Developer Property from FORA and; 3) fully implement each of the Restrictions, if any, assigned to it under this Agreement and/or under a future approved HCP ("HCP Requirements") applicable to the Developer Property.

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B. County

In order to render the County exempt under the CTS ITS from the prohibitions against “take” of CTS under the ESA resulting from approval of development activities on the Developer Property, the County must include the Restrictions identified in Exhibit “C” as enforceable conditions of development in any development permit, agreement or other development approval issued by the County to East Garrison Partners, its successors or assigns, or to any third party (hereafter collectively “East Garrison Developer”) for development of the Developer Property. The County shall provide notice in any such development approval that upon approval by the Service of an HCP covering the Developer Property, the HCP Requirements, to the extent feasible and appropriate, as determined by the County and the Service in consultation with the East Garrison Developer, and the authorization for “take” provided by associated Incidental Take Permits (“ITP”), shall apply in lieu of the Restrictions and the CTS ITS. The County shall, in the exercise of its police power, fully enforce the Restrictions and/or HCP Requirements, as applicable, against the East Garrison Developer, its successors and assigns and fully implement each of the Restrictions, if any, assigned to it under this Agreement and/or HCP Requirements with regard to the Developer Property.

C. East Garrison Partners

In order to render East Garrison Partners exempt under the CTS ITS from the prohibitions against “take” of CTS under the ESA arising from its development of the Developer Property, should any interest in the Developer Property be transferred to East Garrison Partners, East Garrison Partners, its successors and assigns, must fully implement applicable Restrictions and/or HCP Requirements in connection with any future development of the Developer Property.

D. Agency

1. In order to render the Agency exempt under the CTS ITS from the prohibitions against “take” of CTS under the ESA resulting from the Agency’s ownership and transfer of the Developer property, the Agency must 1) incorporate the Restrictions identified in Exhibit “C” in any deed or other document conveying an interest in the Developer Property to the County, East Garrison Partners, or any third party and; 2) fully implement each of the Restrictions, if any, assigned to it under this Agreement and/or under a future approved HCP (“HCP Requirements”) applicable to the Developer Property.

II. TAKE AUTHORIZATION

A. The Parties acknowledge that the exemption from the prohibition against “take” under Section 9 of the ESA provided pursuant to Section 7(o) of the ESA and 50 C.F.R. 402.14(i) through the CTS ITS accompanying the 2004 CTS biological opinion shall become effective as to the Parties upon recordation of this Agreement in the Office of the Recorder, County of Monterey, following its execution by all of the Parties.

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B. The Parties further acknowledge that the exemption from the prohibition against “take” under Section 9 of the ESA provided to the Parties through the CTS ITS accompanying the 2004 CTS biological opinion shall remain in effect so long as the Restrictions are fully implemented as required by 50 C.F.R. 402.14(i)(5) and as set forth in this Agreement. The Parties further acknowledge that any future amendment of this Agreement to alter the Restrictions without the prior written consent of the Service shall automatically terminate the exemption from take provided through the CTS ITS accompanying the 2004 CTS biological opinion.

C. The Parties acknowledge and agree that upon approval of the HCP and issuance of associated ITPs to FORA and the County, the HCP Requirements shall, to the extent provided in Section I.B of this Agreement, apply to the Parties with regard to the Developer Property in lieu of the Restrictions, and the authorization for take provided in the ITPs shall apply to the Parties with regard to the Developer Property in lieu of the take exemption provided in the CTS ITS.

D. In addition to any liability under Section 9 of the ESA, the failure by any Party to comply with its specific obligations regarding the Restrictions, shall subject such Party to civil and criminal penalties under Section 11 of the ESA to the extent such failure constitutes a violation of the ESA.

III. FUTURE PARTIES AND SUCCESSORS AND ASSIGNS

A. Should the Developer Property be transferred by FORA, the County or the Agency to a third party other than East Garrison Partners, the remaining Parties shall amend this Agreement to substitute such third party in place of East Garrison Partners prior to such transfer of any interest in the Developer Property to such third party. FORA shall record the amended Agreement in the Office of the Recorder, County of Monterey, within ten (10) days of FORA’s receipt of a fully executed original amended Agreement. The exemption from the prohibition against “take” provided to the Parties through the CTS ITS accompanying the 2004 CTS biological opinion shall not become effective as to any such third party until and unless this Agreement is amended to include such third party as a signatory and the amended Agreement is so recorded. The failure of the Parties to amend the Agreement to include any such third party and to execute and record the amended Agreement in accordance with this paragraph shall have the effect of automatically terminating the exemption from the prohibitions against take provided to each Party under the CTS ITS. FORA shall provide written notice to the Service of any amendment to this Agreement under this paragraph, along with a copy of the amended Agreement, within 30 days of its recordation.

B. This Agreement and each of its covenants and conditions shall be binding on, and inure to the benefit of the Parties and any of their respective successors and assigns involved in the development of the Developer Property, or any portion thereof, provided that the exemption from the prohibitions against “take” of CTS provided through the CTS ITS accompanying the

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2004 CTS biological opinion, and/or ITPs associated with the HCP, shall remain effective as to the Parties and such successors or assigns subject to their compliance with the Restrictions and/or HCP requirements as provided in Section I.B of this Agreement and their compliance with the procedural requirements of Section III.A of this Agreement.

IV. NOTICE

Formal notices, demands, and communications among the Parties shall not be deemed given unless sent by certified mail, return receipt requested, or express delivery service with a delivery receipt, or personal delivery with a delivery receipt or facsimile, to the principal office of the Parties as follows:

Fort Ord Reuse Authority:

ATTN: Michael A. Houlemard, Jr.,
Executive Officer
100 12th Street, Bldg. 2880
Marina, California 93933

County of Monterey, California:

ATTN: Chief Administrative Officer
230 Church Street, Bldg 3,
Salinas, CA 93901

Redevelopment Agency of the County of Monterey

ATTN: Chief Administrative Officer
230 Church Street, Bldg 3,
Salinas, CA 93901

East Garrison Partners I, LLC

c/o Woodman Development Company, LLC
24571 Silver Cloud Court, Suite 101
Monterey, California 93940

Such written notices, demands, and communications may be sent in the same manner to such other addresses as the affected Party may from time to time designate as provided in this Section. Receipt shall be deemed to have occurred on the date marked on a written receipt as the date of delivery or refusal of delivery (or attempted delivery if undeliverable).

In addition, a copy of all notices under this Agreement shall be contemporaneously provided to the Service at the following address:

[insert address]

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VIII. LIST OF EXHIBITS

The following listed Exhibits are made a part of this Agreement:

- Exhibit A: Description of Developer Property
- Exhibit B: HMP
- Exhibit C: Restrictions on Developer Property

[Signatures pages follow]

ESA MOA - EAST GARRISON PORTION OF THE FORMER FORT ORD

In Testimony Whereof witness the signature of Parties this ____ day of _____, 2004 and hereby accepts and approves this Agreement for itself, its successors and assigns, and agrees to all the conditions and terms contained therein.

FORT ORD REUSE AUTHORITY

BY: _____
MICHAEL A. HOULEMARD, JR.
Executive Officer

COUNTY OF MONTEREY

BY: _____

**REDEVELOPMENT AGENCY OF THE
COUNTY OF MONTEREY**

BY: _____

EAST GARRISON PARTNERS I, LLC

BY: _____

EXHIBIT C

East Garrison Development Restrictions:
Parcels E11b.1, E11b.2, E11b.3, E11b.4, L20.10.1.2,
L20.10.2, L20.14.1.2, L20.19.2, L20.20, L20.21.1, L20.21.2, L20.22,
L23.3.1, L23.3.2.1, L35.3, L35.6, L35.7, L35.8 (“Developer Property”)

The restrictions contained in this Exhibit C (“Restrictions”) to the Memorandum of Agreement Regarding Endangered Species Act Enforcement of Development Restrictions on the East Garrison Portions of the Former Fort Ord (“Agreement”) shall be fully funded, implemented, enforced, and managed as appropriate, by the party or parties designated as the Responsible Party (“RP”) for the specific requirements herein.

A. DEFINITIONS

The following definitions apply to this Exhibit C:

1. **Borderland.** Parcels within the Developer Property, which border the Conserved Habitat Areas on the former Fort Ord as delineated in Attachment 1 of this Exhibit C.
2. **Conserved Habitat Areas.** The portion of the former Fort Ord as delineated in Attachment 1 to this Exhibit C.
3. **Project Site.** The portion of the Developer Property on which project development activities are being conducted by the Developer including surveying, demolition, clearing, grading, excavation, and construction.
4. **Service-Approved Biologist.** A person approved by the U.S. Fish and Wildlife Service (“Service”) under a biological opinion covering activities on the Developer Property, or other written approval document, to perform the activities as required in this Exhibit C. To identify a Service-Approved Biologist, the Developer shall submit, to the Service, the credentials of the biologist who they wish to conduct the work. These should be provided for the Service's review and written approval at least 30 days prior to the planned onset of any such activities.
5. **Covered Species.** Those species addressed in the Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord, California, dated December 1994, as revised and amended by the “*Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord, California*” dated April 1997 (“HMP”).

B. GENERAL PROJECT DEVELOPMENT REQUIREMENTS

1. **Salvage Program (RP: East Garrison Developer as defined in the Agreement and hereinafter referred to as “Developer”).**

The Developer shall have a Service-Approved Biologist develop, and shall implement, a plan to salvage adult and juvenile California tiger salamanders from Project Sites via drift fence and pitfall trap captures prior to grading. The purpose of the capture shall be to both minimize mortality of adult California tiger salamanders on Project Sites and to provide information on the level of upland habitat use in the area to promote more effective conservation of the species in adjacent Conserved Habitat Areas.

The salvage plan shall be approved in writing by the Service and shall include at least the following: (1) salvaging shall be via drift fence and pitfall trap captures along a sufficient amount of a Project Site boundary to intercept the majority of the adult population migrating to or from known and potential breeding ponds in the year the captures take place; (2) drift fence installation shall be timed to capture individuals migrating to and from breeding areas, if possible; (3) identification of appropriate areas where captured California tiger salamanders shall be released. If grading and construction on a Project Site(s) within the Developer Property are expected in 2005, a plan shall be developed and drift fences installed by January 15, 2005, or as agreed to by the Service to capture and repel adults returning from breeding ponds.

Only a Service-Approved Biologist may capture and handle California tiger salamanders. Before project activities begin, a Service-Approved Biologist must identify appropriate areas to receive relocated California tiger salamanders. These areas must be outside the Developer Property boundaries in a designated Conserved Habitat Area, in proximity to the capture site, and support suitable vegetation for the California tiger salamander. The Service-Approved Biologist must maintain detailed records of any California tiger salamanders that are moved (e.g., size, coloration, any distinguishing features, photographs [digital preferred]) to assist him or her in determining whether translocated animals are returning to the original point of capture.

2. **Water Features (RP: Developer)**. Any storm water detention basins or other water features created on the property shall be designed to avoid attracting breeding California tiger salamanders (e.g. encircled with a low wall or curb). A Service-approved strategy shall be developed and implemented to ensure that water features do not become a source for nonnative species, such as bullfrogs, which could move into nearby Conserved Habitat Areas.

3. **Construction Personnel Training (RP: Developer)**. Before grading or construction work begins on a Project Site, a Service-Approved Biologist shall conduct a training session for all construction personnel who may be working on the Project Site. At a minimum, the training shall include a description of the California tiger salamander and its habitat, the specific measures that are being implemented to conserve it, and the boundaries of the project site.

4. **Demarcation of Project Site Boundary (RP: Developer)**. Project Site boundaries shall be clearly demarcated by construction fencing or other materials to ensure that grading and the staging of equipment or supplies do not exceed the Project Site boundaries.

5. **Trash and Pets (RP: Developer)**. During project construction activities, all trash that may attract predators shall be properly contained and removed from the work site. Pets shall not be permitted at the Project Site.

6. **Discovery During Construction (RP: Developer)**. During project construction activities, any California tiger salamanders that are discovered shall be recorded and measured by a Service-Approved Biologist. If alive, the California tiger salamander(s) shall be relocated to the appropriate pre-determined area outside the Developer Property boundaries.

7. **Reporting (RP: Developer)**. The Developer shall report the results of its salvage operations (e.g., number, size, condition, location, and dates of capture and release of individual California tiger salamanders; problems encountered during capture, handling, or release) to the Service upon completion of each salvage operation conducted on a Project Site. Developer shall report on Developer's compliance with these Restrictions within 90 days of the completion of all planned development on the Developer Property.

C. **BORDERLAND MANAGEMENT**

The designated RP(s), as set forth below, shall be responsible for funding and implementation of all long-term Borderland management requirements. Long-term Borderland management addresses construction and management of development to minimize impacts of Borderland development on adjacent Conserved Habitat Areas. Long-term management requirements for Borderland parcels are described below. Wherever Developer is referred to in this Section C, it shall include its successors and assigns, Community Service Districts, Homeowners Associations, and other responsible entities, created to carry out Developer responsibilities in this Section C.

1. **Borderland Management Plan (RP: Fort Ord Reuse Authority ("FORA"))**.

OBJECTIVE: To provide a greater level of detail about environmental conditions, project impacts, and site-specific management actions

FORA shall develop a Borderland Management Plan, which shall include the following:

- a. Specific Action: Describe existing environmental conditions within the Borderland, including habitat types, hydrological resources, topography, and fuel loads.
- b. Specific Action: Describe procedures for controlling non-native invasive plants and exotic animals within the Borderland.
- c. Specific Action: Describe long-term development plans for the Borderland.
- d. Specific Action: Describe how firewise planning is incorporated into development plans for the Borderland and encouraged within Borderland management activities.

e. **Specific Action:** Describe how development plans incorporate the long-term management activities discussed in Section C.2 of these Restriction consistent with the objectives and requirements of these Restrictions.

2. Long Term Management Activities (RP: as designated).

a. Access Control.

OBJECTIVE: To direct public access from the Borderland to Conserved Habitat Areas in a manner that promotes the enjoyment, appreciation, and conservation of the species and ecosystems of former Fort Ord.

i. **Specific Action:** Coordinate with the adjacent Conserved Habitat Area manager to identify levels and locations of public and other access from the Borderland into Conserved Habitat Areas. **RP: Developer.**

ii. **Specific Action:** Except for roads that are managed for public access, secure any points of entry that could be used by motorized vehicles from the Borderland into Conserved Habitat Areas with either a gate or a vehicle barrier. **RP: Developer**

iii. **Specific Action:** Where fencing is utilized along the perimeter of a Conserved Habitat Area, gates shall be installed at appropriate points in the barrier between the Conserved Habitat Area and the Borderland to allow for emergency access. The managing agency, the Developer, and other appropriate agencies shall be provided keys to the gates. **RP: Developer**

iv. **Specific Action:** Trails extending from the boundary of the Borderland into the Conserved Habitat Area that are officially closed to public use, as determined by the Service and/or the California Department of Fish & Game ("CDFG"), shall be made inaccessible through the use of "Trail Closed" signs, brush piles, or fencing at appropriate points along the boundary of the Borderland. **RP: Developer**

v. **Specific Action:** Maintain regular security patrols to help control pedestrian, pet, bicycle, and motorized vehicle trespass from the Borderland onto Conserved Habitat Area. **RP: FORA**

vi. Where pedestrian access is permitted from the Borderland onto the Conserved Habitat Area, as determined by the RP in cooperation with the Service and the CDFG, install interpretive signs/displays that describe the importance of the Conserved Habitat Area and methods for maintaining values such as trash removal, limiting ground disturbance, restraining pets, discouraging capture or harassment of wildlife, and prohibiting the collection of Covered Species. **RP: Developer**

b. Non-native Species Control.

All invasive non-native plant species shall be managed within the Borderlands to prevent their spread into the adjacent Conserved Habitat Area.

OBJECTIVE: Control populations of non-native or feral animals and plants to prevent the spread of these populations into the adjacent Conserved Habitat Area.

i. Specific Action: Prohibit establishment of feeding stations for feral animals on the Borderland. **RP: Developer**

ii. Specific Action: Control invasive plants such as ice plant, scotch broom, and pampas grass that may be present on the Borderland to prevent their spread into the adjacent Conserved Habitat Areas. **RP: Developer**

c. Fuelbreaks.

Fuelbreaks are required in the Borderland to separate the Conserved Habitat Area from development. Potential fuelbreaks include greenbelts, fuel reduction zones, fire roads, paved roads, tilled firebreaks, and parking lots.

OBJECTIVE: Construct and maintain fuelbreaks to provide a defensible space between Conserved Habitat Areas habitat areas and structures within development parcels.

i. Specific Action: Design fuelbreaks to 1) stop fire movement across the Borderland/Conserved Habitat Area boundary, 2) provide adequate access for fire suppression and fire prevention equipment and personnel to conduct controlled burns, 3) provide adequate access for fire suppression and fire prevention equipment and personnel to fight wildfires. The RP is responsible for defining an adequate fuelbreak width by incorporating, in the design stage, a process (e.g. working with fire-wise consultants, and/or informed local fire departments, and reserve managers) that considers topography, surrounding vegetation (fuels), type of development and configuration of the applicable Project Site. Fuelbreak width is to be designed considering all of the above factors. **RP: Developer**

ii. Specific Action: All fuelbreaks shall be at the Borderland/Conserved Habitat Area boundary, not necessarily at the parcel boundary, and shall be installed within the Borderland, not within the Conserved Habitat Area. Fuelbreaks on adjacent parcels shall be contiguous. **RP: Developer**

iii. Specific Action: Maintain fuelbreaks on the Borderland regularly, to ensure they continue to provide access for the proper management and utilization of prescribed fire and control of wildfire. In the case of an emergency the managing agency, Developer, and any other appropriate agency should have access to adjacent Conserved Habitat Areas and should, therefore, possess gate

keys required to obtain access as stated in the section on Access Control. **RP: Developer and FORA**

iv. **Specific Action:** Project development activities on a Project Site boundary shall be restricted within 200 feet of the Borderland/Conserved Habitat Area boundary until the provisions of defensible space and fuelbreak access are ensured through a plan prepared in consultation with fire wise consultants, and/or informed local fire departments, and reserve managers for the Project Site. **RP: Developer**

d. Storm Water Control and Groundwater Recharge.

The conversion of the Borderlands from open space to urban and other uses would alter site runoff peaks and duration. This could reduce the volume of groundwater infiltration by increasing the area of impervious surfaces and causing runoff to move across areas suitable for infiltration at a faster rate, which could interfere with groundwater recharge, as well as lead to siltation of drainages and erosion.

OBJECTIVE: Protect the Conserved Habitat Area from hydrologic modifications and erosion problems resulting from altered stormwater runoff caused by development on the Borderland.

i. **Specific Action:** Implement a stormwater drainage plan (“Drainage Plan”) for development adjacent to Conserved Habitat Areas. The Drainage Plan shall describe 1) how storm water will be captured and directed off Project Sites, 2) what measures will be employed to prevent degradation and siltation of ephemeral drainages from Borderland run-off, 3) what specific erosion control measures will be implemented, and 4) what measures will be taken to protect the Conserved Habitat Area. All Borderland development must comply with the Drainage Plan as well as employ Best Management Practices during construction. **RP: Developer**

ii. **Specific Action:** Take all measures to ensure that on-site drainage systems are designed to capture and filter out urban pollution, to the extent feasible. **RP: Developer**

OBJECTIVE: Protect the Conserved Habitat Area from hydrologic modifications resulting from interference with groundwater recharge.

iii. Prior to beginning project development activities on a Project Site within the Borderland, demonstrate that all reasonable measures will be taken to ensure that runoff is minimized and infiltration maximized in groundwater recharge areas on the Project Site. **RP: Developer**

e. Firewise Planning.

OBJECTIVE: To prevent the spread of fire across the Borderland/Conserved Habitat Area boundary by applying principles of firewise planning in the design, construction, and maintenance of the Borderland.

i. Specific Action: The Developer shall illustrate to the County how firewise planning principles are incorporated in the project design for development projects in the Borderland. **RP: Developer**

ii. Specific Action: The Developer shall develop and implement an educational program to encourage ongoing maintenance and construction, such as landscaping, fencing, outbuildings, and housing additions, be done in a firewise manner. **RP: Developer**

f. Facilities Planning.

OBJECTIVE: To minimize indirect effects on the Conserved Habitat Area resulting from the placement or operation of facilities within the Borderland.

i. Specific Action: To the extent feasible, all artificial night lighting within the Borderland shall be directed away from the Conserved Habitat Area. **RP: Developer**

ii. Specific Action: Construct a low wall or other suitable barrier to migration along the Borderland/Conserved Habitat Area boundary where habitat in the Borderland will no longer exist and where this interface comes within 0.7 km of a known California tiger salamander breeding pool, unless California tiger salamander absence has been demonstrated using the survey protocol approved by the Service or the Service determines this barrier is unlikely to substantially minimize take of California tiger salamanders. **RP: Developer**

g. Facilities Maintenance.

OBJECTIVE: Maintain facilities within the Borderland/Conserved Habitat Area boundary to prevent degradation of habitat in the Conserved Habitat Area.

i. Specific Action: Install signs at the Borderland/Conserved Habitat Area boundary that prohibit the dumping of garbage and establish patrols to periodically remove garbage dumped into the Conserved Habitat Area from the Developer Property. **RP: Developer**

h. Construction Activities.

OBJECTIVE: To minimize direct and indirect effects of construction activities on vegetation and animals in the Conserved Habitat Area.

For construction activities on the Borderland, the designated RP shall comply with the following requirements in addition to Section B of these Restrictions.

- i. Specific Action: Prepare and implement a hazardous substance control plan for all construction activities on the Borderland involving the handling, storing, transport, or disposal of hazardous waste materials. **RP: Developer**

- ii. Specific Action: Determine the potential for construction projects within the Borderland to exceed the 82 pound inhalable particulate threshold established by the Monterey Bay Unified Air Pollution Control District (MBUAPCD 1995). A general rule of thumb to determine if a project may have a significant construction related impact is to determine if the project would disturb 2.2 acres of land on or adjacent to the Project Site per day through grading and/or excavation. Projects on the Borderland with the potential to exceed this threshold shall implement measures to substantially reduce the amount of airborne dust or particulate matter. **RP: Developer**

- iii. Specific Action: Prepare a Storm Water Pollution Prevention Plan (“SWPPP”) that describes the Best Management Practices to be implemented and monitored during construction on the Borderland. **RP: Developer**

EAST GARRISON SPECIFIC PLAN RESPONSE TO COMMENTS ON THE DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

State Clearinghouse Number 2003081086
PLN030204



June 2005



Prepared for:

Monterey County
Planning and Building Inspection Department
168 West Alisal, 2nd Floor
Salinas, CA 93901



Prepared by:



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2633 Camino Ramon, Suite 460
San Ramon, CA 94583



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Appendix A: Transportation Attachments

- Attachment 1: East Garrison Trip Generation
- Attachment 2: The East Garrison Traffic And Modeling Study - Link Segment Analysis Using Five (5) Scenarios
- Attachment 3: Traffic Forecast Model For The East Garrison Study Area
- Attachment 4: East Garrison Specific Plan Trip Generation
- Attachment 5: Congested Facilities In The East Garrison Study Areas
- Attachment 6: East Garrison Traffic Comparison Analysis

Appendix B: Biological Opinion

1.0 INTRODUCTION

In accordance with § 15088 of the State of California Environmental Quality Act (CEQA) Guidelines, the County of Monterey, as the lead agency, has evaluated the comments received on the Draft Subsequent Environmental Impact Report (DSEIR) (State Clearinghouse No. 2003081086) for the East Garrison Specific Plan (EGSP) and has prepared written responses to the comments received. The responses to the comments and other documents, which are included in this volume of the SEIR, together with the Draft SEIR, comprise the Final SEIR (SEIR) for use by the County of Monterey Planning Commission and the Board of Supervisions in their review of the EGSP, as well as for use by Responsible and Trustee agencies for their actions.

This Response to Comments document has been organized into four sections:

- **Section 1 - Introduction**
- **Section 2 - List of Commentors:** Provides a list of the agencies, organizations, and individuals that commented on the Draft SEIR.
- **Section 3 - Responses to Comments:** Includes a copy of all of the letters received and provides responses to comments included in those letters. These explain the DSEIR analysis, support DSEIR conclusions, or provide information or corrections, as appropriate. For reading ease, this section is organized with the responses to each letter immediately following the letter.
- **Section 4 - Errata and Refinements to the Draft SEIR:** Includes an addendum listing refinements and clarifications, which have been incorporated into the text of the SEIR.

2.0 LIST OF COMMENTORS

COMMENTORS

AUTHOR CODE

Federal Agencies

Department of the Army ARMY

State Agencies

State of California, Department of Transportation, Division of Aeronautics AERO

State of California, Department of Transportation..... CALTRANS

State of California, Department of Health Services DHS

State of California, Governor's Office of Planning and Research OPR

City Agencies

City of Marina..... MARINA

Regional Agencies

Monterey Bay Unified Air Pollution Control District MBUAPCD

Association of Monterey Bay Area Governments AMBAG

Monterey County Airport Land Use Commission ALUC

Transportation Agency for Monterey County..... TAMC

Monterey-Salinas Transit..... MST

Organizations

League of Women Voters LWV

Sierra Club SC

LandWatch Monterey County..... LWMC

Individuals

East Garrison Partners..... EGP

Suzanne Worcester..... SW

David Smith DS

Mike Weaver..... MW

3.0 RESPONSE TO COMMENTS

3.1 INTRODUCTION

In accordance with § 15088 of the State of California Environmental Quality Act (CEQA) Guidelines, the County of Monterey as the lead agency evaluated the comments received on the Draft Subsequent EIR (State Clearinghouse No. 2003081086) for the East Garrison Specific Plan and has prepared the following responses to the comments received. This Response to Comments document becomes part of the Final SEIR for the project in accordance with § 15132 of the State CEQA Guidelines.

The DSEIR was distributed for a 45-day public review period by the County of Monterey on September 16, 2004. The County used several methods to disseminate the Draft Subsequent EIR. The County sent a Notice of Availability of the DSEIR to interested parties and agencies. Copies of the Draft SEIR document were distributed to state, regional, and local agencies, local libraries, and were available at the County Planning and Building Inspection Counter. The DSEIR was also available in electronic form on the County's website.

3.2 COMMENT LETTERS AND RESPONSES

The comment letters and responses are provided on the following pages. Text additions are shown as **bolded and underlined** and text deletions are shown in ~~strike through~~. All corrections, clarifications, and refinements are incorporated by reference into the DSEIR text.

3.3 MASTER RESPONSES

Several of the comment letters contain comments on the same topic. To address these similar comments more efficiently, master responses to these comments are provided. These master responses are located below. Master Responses are coded as MR-1, MR-2, etc. and numbered consecutively to follow the order of the letters that raise the issue, e.g., MR-1 responds to a comment in the City of Marina letter and all subsequent letters containing similar comments refer the reader to that response.

MR-1: Cumulative Impact Analysis

A number of comments were received regarding the environmental issues addressed in the cumulative impact analysis for the proposed project, the validity of development projections utilized in developing the analysis, and the accurate identification of impacts that would occur from developing the project.

The DSEIR contains a cumulative impact analysis that evaluates impacts resulting from the implementation of the EGSP project when considered in conjunction with development forecasts based on the buildout of the Monterey County General Plan. This analysis also considers the cumulative impacts as described in the FORA Reuse Plan Final EIR (FORA FEIR) prepared to evaluate the impacts of the Reuse Plan. The cumulative impacts described in the FORA FEIR considered full buildout of that plan, which includes the entire former Fort Ord area. The FORA FEIR identified cumulative impacts to public services, utilities, and water supply; public health and safety; traffic and circulation; and visual resources. The EGSP project is a smaller component of the Reuse Plan and contains project-specific details and mitigation measures; therefore, cumulative impacts for the EGSP project may differ from those described in the FORA FEIR.

Additionally, in identifying projects that may contribute to cumulative impacts, the CEQA Guidelines allow the use of a list of past, present, and reasonably anticipated future projects, producing related or

cumulative impacts, including those that are outside of the control of the lead agency. The CEQA Guidelines also allow the use of a summary of projections contained in an adopted General Plan or related planning document, which described or evaluated regional or area-wide conditions contributing to a cumulative impact.

The cumulative analysis contained within the DSEIR considers all the pending projects listed on the County's website and noted in the comment. The cumulative analysis in the DSEIR considers all information contained within the 1982 Monterey County General Plan (MCGP), as amended. The MCGP has been amended several times since 1982, including the adoption of the 2001 General Plan Amendment including the EGSP project area and updates to the Housing Element in 2003 (specifically designating East Garrison as a residential area). To account for changes in traffic conditions (and thereby air quality and the noise environment) and updated projections of regional growth since the time of adoption of the 1982 MCGP (and in preparation for the proposed Monterey County 21st Century General Plan Update), the County prepared an updated traffic model for use in the EGSP analysis. The updated model contains the most accurate estimates of future growth conditions available based on the most recent projections, all foreseeable projects, completed studies, and adopted plans (including the Fort Ord Reuse Authority's Reuse Plan [Reuse Plan]). The air quality and noise analyses contained within the DSEIR are based on the updated traffic model.

The cumulative analyses for all other environmental topics include consideration of all projects pending and reasonably foreseeable. This SEIR appropriately considers cumulative impacts described in the Reuse Plan EIR and incorporates projections contained in the amended MCGP for all environmental issues. Therefore, the analysis adequately considers all cumulative impacts.

MR-2: Alternatives Analysis

A series of comments were received regarding the types of alternatives analyzed in the EIR. Other comments raised questions as to whether these alternatives adequately examine the project's effects in comparison to these alternatives for various environmental topics such as loss of oak trees and water supply.

Under CEQA and its implementing guidelines, an EIR need only consider a reasonable range of alternatives that would feasibly attain most of the basic project objectives and would avoid or substantially reduce the level of significance of one or more significant impacts of the project. The SEIR analyzed two No Project Alternatives (No Development, Development Under the Existing General Plan), an Offsite Alternative, an Avoidance of Historic Structures Alternative, and a Reduced Density Alternative. The County chose these alternatives in an attempt to reduce or avoid significant and unavoidable project-related impacts to historic resources, traffic, and air quality. The alternatives analysis in the DSEIR provides the County with sufficient information with which to extrapolate the impacts of hypothetical alternatives with development scenarios (unit counts, housing types, commercial square footage) falling within the range of the identified alternatives.

Of the analyzed alternatives, the DSEIR analyzed two alternatives of greater and lesser intensity than the EGSP project: the No Project/Development Under the Existing General Plan Alternative and the Reduced Density Alternative. The No Project/Development Under the Existing General Plan Alternative would allow more intense development than the proposed project and would result in increased impacts to geology and soils and to hydrology and water quality due to increases in earthmoving and construction activities. Impacts to transportation and circulation, air quality, and noise would increase due to additional vehicle trips. Additionally, impacts to cultural resources; public services and utilities; and hazardous materials would increase under this alternative due to increased development and population residing on

the project site. It would result in similar impacts to land use and related planning programs, biological resources, aesthetics, as well as population, housing, and employment.

The Reduced Density Alternative proposed a 50 percent reduction in development on the project site. As described above, alternatives are chosen for their ability to attain project objectives while reducing or avoiding impacts. This amount of reduction in development was selected to reduce impacts to air quality. When compared to the proposed project, the Reduced Density Alternative would have lesser impacts to geology and soils, hydrology and water quality, air quality, noise, aesthetics, public service and utilities, and hazardous materials; similar impacts to land use, biological resources, transportation and circulation, and cultural resources; and greater impacts to population, housing, and employment. Furthermore, although the Reduced Density Alternative would reduce air quality impacts and eliminate project-related significant and unavoidable air quality impacts, it would not eliminate significant and unavoidable traffic and cultural resource impacts.

Therefore, the EGSP project itself represents a medium density alternative when compared to the No Project/Development Under the Existing General Plan Alternative and the Reduced Density Alternative. Under CEQA, the discussion of alternatives need not be exhaustive and the requirement as to the discussion is subject to a standard of reasonableness. An EIR need not consider every conceivable alternative to a project, and CEQA does not demand what is not realistically possible given the limitations of time, energy, and funds. Other than the “rule of reason” there is no ironclad rule governing the nature or scope of alternatives.

An additional alternative was considered and dropped from further consideration. The County evaluated the Parker Flats area to determine the suitability of locating a mixed-use urban village development on the site. Under the Reuse Plan (June 1997), Parker Flats was planned for development as a Residential District in an area encompassing 946 acres southwest of the EGSP project site. However, other land use and resource considerations will ultimately guide development at Parker Flats, including the Habitat Management Plan (HMP) for Fort Ord. The HMP for the Former Fort Ord (FFO) establishes a habitat conservation area, corridor system, and parcel-specific land use categories, in addition to outlining management requirements for all lands within the FFO. Implementation of the Parker Flats Alternative would conflict with the approved modifications to the HMP. In addition to being inconsistent with relevant plans and policies, such as the current HMP, development of the proposed project at the Parker Flats site would result in some project-related significant and unavoidable impacts. Also, see MR-7: Land Use Planning Policy for a discussion of leapfrog development.

MR-3: Subsequent EIR and Tiering

A series of comments were received that directly or indirectly relate to the project’s interrelationship to other FFO Plans (e.g., Fort Ord Reuse Plan). The commenters were concerned that the use of previous environmental documentation prepared for earlier Plans did not adequately address the project’s impacts and identification of mitigation measures for some of the environmental topics (i.e., traffic, biological resources, agricultural resources, etc.).

The purpose of the SEIR is to provide project-level subsequent environmental impact analysis that accurately analyzes the EGSP project in light of current conditions and circumstances, and new information that was not available and not analyzed in previously certified environmental documentation. The SEIR contains a description of the project, description of the environmental setting, identification of the project impacts and cumulative impacts, and mitigation measures to reduce project impacts, as well as an analysis of alternatives to the project. The project-level SEIR, where applicable, tiers off or incorporates by reference information, analysis, and mitigation measures contained within the *Fort Ord*

Disposal and Reuse Final Environmental Impact Statement certified by the U.S. Army in 1993 (Army FEIS) and the FORA FEIR.

The FORA FEIR is a program-level document for the *Fort Ord Reuse Plan* (Reuse Plan), a long-term, regionally-focused, and comprehensive base reuse plan functioning at a general plan level. The FORA FEIR analyzed policies and programs necessary to implement a land use concept supporting a project that would result in the development of approximately 22,232 dwelling units, creation of 45,457 jobs, and a buildout population of 51,773. However, the FORA FEIR recognized that additional CEQA analysis may be required at the project level to give decision-makers more information about project-specific issues which were not addressed in the program-level FORA FEIR.

While the EGSP project implements the Reuse Plan and is recognized under CEQA as part of the project analyzed in the FORA FEIR, a subsequent EIR is warranted. California Public Resources Code (PRC) § 21083.8.1 defines and describes “reuse plans” for military bases and states that all public and private activities taken pursuant to, or in furtherance of, a reuse plan shall be deemed to be a single project. Section 21083.8.1(b)(2) provides that further environmental review shall be performed if any of the events specified in PRC § 21166 for subsequent or supplemental environmental review have occurred. In addition, under CEQA, activities undertaken in furtherance of a redevelopment plan that was the subject of a Project EIR constitute a single project, and further environmental review is required only if a subsequent or supplemental EIR is required (PRC §21090, CEQA Guidelines §15180). CEQA Guidelines § 15162 provides that a subsequent EIR is warranted if the lead agency determines, among other things, that substantial changes have occurred with respect to the project or with respect to the circumstances under which the project is undertaken which will require major revisions to the previous EIR due to new significant environmental effects or an increase in the severity of a previously identified effect. Additionally, a subsequent EIR is warranted if new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, becomes available, and shows the currently proposed project will have one or more significant effects not discussed in the previous EIR.

The SEIR is appropriate under PRC § 21090 and 21166 and Guidelines §15162, and is the environmental document anticipated by the FORA FEIR for project-level environmental review. In particular, the SEIR provides substantial new information related to the implementation of a mixed-use development plan accommodating approximately 1,470 residential units, 75,000 sq ft of commercial use, 11,000 sq ft of public use, 100,000 sq ft of cultural/educational space and approximately 50 acres of open space/parks.

The need to prepare this SEIR is triggered not only by the emergence of project-level details stated above and other new information regarding potential project impacts, but also by substantial changes in the circumstances under which the project will be undertaken that may affect the previous analysis of environmental effects. These changes in circumstances are due to the amount of time that has passed since the preparation of the FORA FEIR, particularly the regional growth, including changes to background levels of traffic, air quality, and other resources, which have occurred throughout Monterey County over time. The SEIR uses new technical reports for traffic, air quality, noise, biology, geology and soils, and hydrology. The new information presented by these new technical reports reflects changes in circumstances or contains information that was not known and could not have been known with the exercise of reasonable diligence at the time the FORA FEIR was certified.

Where appropriate, the SEIR tiers off the analysis contained within the FORA FEIR. Under CEQA Guidelines Section 15152, “tiering” refers to using the analysis of general matters contained in a broader EIR (such as one prepared for a general plan or policy statement) with later EIRs on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR

solely on issues specific to the later project. Under Section 15152 of the State CEQA Guidelines, tiering is appropriate when the sequence of analysis follows from an EIR prepared for a general plan, policy, or program to an EIR of lesser scope, or to a site-specific EIR. The FORA FEIR identified impacts and mitigation measures resulting from implementation of the Reuse Plan. Thus, where applicable and where potential impacts associated with the proposed EGSP project were adequately analyzed in the FORA FEIR, the SEIR relies on and tiers off the analysis and findings presented in the previously certified FORA EIR.

MR-4: Regional Traffic Forecast Model

A number of comments were received regarding the traffic modeling program used for the traffic impact analysis for the proposed project. The comments questioned the methodology, the model used, and assumption in the modeling analysis.

Regional Traffic Forecast Model for the East Garrison Study Area

The version of the regional traffic forecast model was developed on the MINUTP software platform (the MINUTP model). This model has been used for many years by Caltrans, the Cities of Salinas, Monterey, and Seaside, and Monterey County for corridor and general plan updates. For this project, the MINUTP model was updated with year 2000 land use and network information in these jurisdictions to better represent the existing conditions and more accurately estimate traffic forecasts. The MINUTP model's geographic study area spans three counties, Monterey, Santa Cruz and San Benito, and their respective cities.

The MINUTP model uses state of the art enhancements including cross-classification trip generation that uses persons per dwelling unit and income per dwelling unit as independent predictors of trip generation. In the mode choice component, person trips choose between nine modes of travel based on economic criteria. An iterative, capacity constrained traffic assignment is used for AM, PM and off-peak periods. The MINUTP model has been used for traffic and land use studies since 1998 including three air quality conformity analyses and four major corridor studies.

AMBAG staff developed the MINUTP model used by the East Garrison study in 1997-1998 for regional purposes. The calibration and validation of the model is documented in the Higgins Associates Model Documentation Report dated May 27, 2004; it was provided to AMBAG staff for review on June 3, 2004, and was intended to be supplementary documentation for all the general plans, project study reports, and specific plans for the county and the cities. In addition, year 2000 (base) model network, land use files, traffic analysis zone maps (GIS), and job stream were provided to AMBAG staff in August 2003 for their review. Subsequent to the August submittal, files were resent again to ensure delivery was made to AMBAG.

In the Model Documentation Report, the model's parameters are described in detail along with changes that have been made to the job stream, the network, and the land use inputs. Since 1998, the MINUTP model was updated for use on projects by Caltrans, the cities, and the counties to reflect existing and planned data consistent with FHWA standards and professional model practice. At the time of the study, land use information, was not available from AMBAG for use in traffic modeling. Therefore, the regional model was updated with year 2000 regional land use assumptions for housing and population received from the US Census and job data from the Employment Development Department in 2000. Land use inventories created by the cities were also applied in the model program. The changes made to the MINUTP model were made for the benefit of AMBAG and their modeling efforts and the regional jurisdictions that use the MINUTP model to estimate existing and planned land use and traffic patterns.

AMBAG staff has not yet approved the improvements made to the MINUTP model. However, the reader should note the following points:

- A model use agreement was entered into between Higgins Associates, Monterey County and AMBAG. Therefore, the model is being used with AMBAG's permission.
- All of the MINUTP model files and documentation for the model modifications, which were done to improve the model, have been sent to AMBAG as required by the model use agreement.
- Preliminary feedback from AMBAG indicates that they consider that the MINUTP model generally produces reasonable results. Changes in Traffic Analysis Zones and existing land use data throughout the county that was input into the model provided overall volumes within about 2 percent of those predicted using AMBAG's land use data based on the 2000 census.
- AMBAG has concern with respect to several roads such as Highway 156, Espinosa Road, Highway 183 and Imjin Parkway where adjustments in assured free flow travel speeds are likely too high or too low compared to actual speeds. In response, it was necessary to model volumes for existing conditions that match the actual counts on the street system. Qualitatively, changing the assumed speeds to actual speeds would not substantially change the results of the analysis. The MINUTP model speed adjustments used are generally the appropriate method of accounting for actual traffic routing. Motorist route choice is based on perceived as well as actual travel times compared to alternate routes, which may explain why more (or fewer) motorists use certain routes rather than others.
- Practically speaking, the MINUTP model is an excellent, powerful tool for providing the traffic forecasts for the analysis. The model is based on street network improvement assumptions, and land use assumptions in the year 2020. This is a conservative analysis because while land uses such as the UCMBEST employment center is assumed to be in operation by 2020; in reality, the employment center may take longer to develop. There is a range that could occur that would result in correspondingly higher or lower traffic volumes on the surrounding street network.
- A traffic-forecasting tool such as the MINUTP model used for the East Garrison SEIR provides traffic estimates for existing conditions within several percent of actual volumes counted and several percent of similar forecasts using AMBAG land use data. This is well within an acceptable tolerance for forecasting purposes.

A valid version of the TransCAD model was not available at the time the NOP for the East Garrison Specific Plan was distributed (August 12, 2003) and, therefore, was unavailable for use in preparing the SEIR. The current model was released for general application on November 18, 2004. CEQA states that impacts of a project are limited in its examination to physical conditions, as they exist at the time the notice of preparation is prepared.¹

To evaluate the physical conditions at the time, the MINUTP model, which was valid at the time the NOP was published, was utilized to evaluate project impacts on transportation. Therefore, use of the MINUTP model is considered a valid tool for analyzing traffic impacts associated with the proposed project.

¹ The Significant Environmental Effects of the Proposed Project. An EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. (CEQA Section 15126.2[a]).

Forecast Model Comparison Analysis

Subsequent to the publication of the Draft EIR, Monterey County staff met on several occasions with Caltrans, MBUACPD, TAMC, FORA, and AMBAG to discuss the model use for the East Garrison project as it compares to the current adopted AMBAG traffic model. It was agreed that additional analysis would be done for eight regional intersections to compare the results between the two forecast models.

This comparison exercise does not replace nor negate the original traffic impact analysis prepared for the DSEIR. Rather, it was completed as a comparison exercise, particularly in light of several traffic improvements that have been completed subsequent to NOP publication. Most significant of these improvements is the opening of Imjin Parkway and 2nd Avenue, which has had an affect on regional traffic patterns.

The eight intersections that were analyzed were:

1. Highway 1 Southbound Ramps/Del Monte Boulevard
2. Highway 1 Northbound Ramps/Del Monte Boulevard
3. Highway 1 Southbound Ramps/Reservation Road
4. Highway 1 Northbound Ramps/Reservation Road
5. Highway 1 Southbound Ramps/Imjin Parkway
6. Highway 1 Northbound Ramps/Imjin Parkway
7. SR 68 Westbound Ramps/Reservation Road
8. SR 68 Eastbound Ramps/Reservation Road

The analysis provided a comparison of forecast level of service results at the study intersections utilizing traffic volumes produced by TJKM for the Draft EIR (utilizing the now former AMBAG regional forecast model) and traffic volumes produced by Bernardin-Lockmueller and Associates (BLA) (utilizing the current AMBAG regional forecast model). A copy of this report is shown in Appendix A, Attachment 3..

The BLA report states that existing conditions and forecast existing plus project conditions average daily trip (ADT) volumes are approximately 4.5 times higher on Imjin Parkway in the vicinity of Highway 1, and approximately 1.5 times higher on Reservation Road in the vicinity of SR 68, as compared to the corresponding TJKM volumes. As a result, three study intersection deficiencies are forecast to occur utilizing BLA-provided volumes as compared to one study intersection deficiency utilizing the TJKM-provided volumes. These three intersections and their respective recommended improvements are as follows:

- Highway 1 Southbound Ramps/Reservation Road (deficient for both models, AM peak hour) - Signalize intersection;
- Highway 1 Southbound Ramps/Imjin Parkway (AM and PM peak hours) - Signalize intersection; and
- SR 68 Westbound Ramps/Reservation Road (AM peak hour) - Modify eastbound approach from one shared through right-turn lane to one through lane and one right-turn lane.

The differences at these intersections during existing conditions and project-related trips are almost negligible, accounting for from 0.14 percent to 3.33 percent of the peak hour traffic volumes for any given study intersection.

In accordance with the *Guide for the Preparation of Traffic Impact Studies (Monterey County Public Works Department, October 2003)*, the table below identifies the equitable share calculations at these four study intersections.

Study Intersection	Project Equitable Share Percent	
	AM Peak Hour	PM Peak Hour
Highway 1 SB Ramps/Reservation Road	0.75%	N/A
Highway 1 SB Ramps/Imjin Parkway	1.31%	0.14%
SR 68 WB Ramps/Reservation Road	3.33%	1.71%
SR 68 EB Ramps/Reservation Road	N/A	1.61%
Source: RBF Consulting, June 2005.		

While not required as part of mitigation for the EIR, the project will contribute an equitable fair share contribution for these four intersections. This condition will be coordinated with Caltrans and the City of Marina..

MR-5: Schools

A number of comments were received regarding the project’s impacts on existing school facilities in the project area, in conjunction with other FFO development (i.e., Marina Heights and University Village). Commenters were also concerned with the need for additional local funding, and the provision of project-related information to the appropriate school district to facilitate informed decisions about the need for future school sites and facilities to serve the EGSP site.

The Monterey Peninsula Unified School District (MPUSD) is in the process of identifying future school sites to accommodate growth projected throughout the MPUSD area. The MPUSD is conducting a one to three year analysis that includes inventorying existing facilities and future needs, identifying schools that have excess capacity, and identifying facilities that are underused. The County has met with MPUSD to discuss the impact of the EGSP project. According to the MPUSD, there is excess capacity district-wide; however, students are distributed unevenly throughout the district, resulting in full enrollment at some schools and underuse of other schools. If the MPUSD identifies a site on County lands to serve the East Garrison project, the County intends, on request from the MPUSD and conditioned upon appropriate environmental review, to provide the identified site to the MPUSD for the purpose of constructing the new school.

MR-6: Biological Resources

Various comments were received addressing the topic of oak tree removal and the adequacy of the LSA as mitigation that meets CEQA requirements. In addition, the adequacy of the DSEIR analysis in addressing alternatives concerning loss of habitat and vegetation was questioned. The DSEIR’s analysis for conservation of plant communities and oak habitat was raised in regard to consistency with the Monterey County General Plan.

The DSEIR recognizes that biological impacts of development at East Garrison were considered in the basewide planning process and in the FORA FEIR. This basewide process, resulting in the 1997 Habitat

Management Plan (HMP) prepared by the Army and in supplemental documents including modifications, such as the Land Swap Agreement (LSA), established habitat conservation areas and a corridor system, parcel-specific land use categories, and management requirements for all lands on former Fort Ord. The HMP and subsequent modifications designate approximately 16,000 acres of the 28,000-acre installation as conservation areas. These large, contiguous, and biologically diverse habitat parcels are being transferred to agencies such as Bureau of Land Management (BLM), State Parks, and University of California/Natural Reserve System (UC/NRS) for resource management conservation and enhancement of the habitat. Pursuant to the HMP, an additional 400 acres will be transferred to Monterey County and will be managed as a habitat corridor and another 2,200 acres are designated and will be managed as Development with Reserve Areas or Development with Restrictions. The set-aside and management of these habitat areas and corridors mitigates for habitat losses as identified in the FORA FEIR, within the approximately 9,000 acres designated for development under the FORA Reuse Plan. The EGSP area is included within the designated development areas; therefore habitat and species losses resulting from development are mitigated through implementation of the basewide planning strategy.

The HMP and modifications, such as the LSA, have been approved by the USFWS and have been signed by the Army, other participating agencies, organizations, and jurisdictions, including Monterey County. The approvals have established that the modifications were consistent with the resource protection goals of the original HMP and concluded that the level of effects on HMP species would not exceed those already addressed in biological opinion 1-8-99-F/C-39R (USFWS 2002), addressing the impacts of transfer of Fort Ord from the Army. The consultation between the Army and the US Fish and Wildlife Service under the ESA, and the resulting Biological Opinion, were based on consideration of the HMP, as modified by the LSA.

The FORA FEIR found that the loss of oak woodlands resulting from the Reuse Plan would be less than significant due to the establishment of an oak woodland conservation area under the HMP. To further the protection of oak woodlands, the California Legislature passed Senate Bill (SB) 1334 in September 2004 (effective January 2005), which contains provisions specifically related to mitigation pursuant to CEQA for the conversion of oak woodlands.. SB 1334 provides for a range of mitigation options that would reduce impacts resulting from the loss of oak woodland. These options range from monetary contribution to an Oak Woodlands Conservation Fund to off-site mitigation which requires the procurement of oak woodland habitat of equivalent biological value to be set aside in a conservation easement or conserved in perpetuity. The oak woodland conservation area established in perpetuity under the HMP is consistent with the assumptions in the FORA FEIR, which determined that impacts to oak woodland habitat would be less than significant. The FORA EIR anticipated the loss of oak woodland and savannah in the Parker Flats area, with larger lot residential uses and other uses. This type of development would have preserved some oak trees and allowed room to replace oak trees, but, biologically, the habitat would have been fragmented by residential development intermingled with saved trees. Saving individual trees does not preserve habitat.

In accordance with the approved modifications to the HMP (i.e., LSA), implementation of the EGSP would be consistent with the less than significant impact findings of the FORA FEIR as it relates to the loss of oak woodlands. The LSA allows for oak habitat to be preserved, rather than individual trees in a fragmented, disturbed habitat. Moreover, the proposed project would satisfy the intent of SB 1334 through the provision of on-site planting in the open space areas and off-site mitigation at Parker Flats and in other areas of the FFO, as implemented under the LSA. The habitat areas will be actively managed to ensure that viable habitat is preserved. The East Garrison developers will be financially contributing to the preservation of habitat, including the oak woodlands at Parker Flats, through payment of a FORA fee of approximately \$37,000 per residential unit. A significant portion of the fee is set aside to manage the habitat areas. In addition to the preservation of oak woodland habitat within Parker Flats, landscaping as

part of the EGSP would include the planting of oaks in parks and open space areas. The Specific Plan also calls for planting of oak trees and native plants as part of the plant palette utilized for landscaping public and private areas of the project.

The SEIR acknowledges the basewide strategy in planning for the preservation of biological resources on former Fort Ord and finds the EGSP to be consistent with this strategy. In other words, the habitat and species losses within the EGSP are mitigated through the set-aside and management of 18,000 acres of habitat that supports the full range of habitats and special status species found within the EGSP boundary. The recommendations for pre-construction surveys are provided to protect individual animals from harm, and it is expected that species displaced by the project will move into adjacent habitats that will be protected in perpetuity.

MR-7: Land Use Planning Policy

Numerous comments were presented that questioned the DSEIR's consistency with the Monterey County General Plan and the FORA Reuse Plan relating to site development. In addition, questions were raised about the adequacy of a future General Plan Amendment to address current conditions at East Garrison. Several comments addressed the subject of EGSP as a "leapfrog" development outside the existing urban area. In connection with the leapfrog development comments were comments that the project be delayed or scaled back in size. In addition, comments addressed waiting for the Monterey County General Plan to be updated before moving forward with the EGSP project.

Leapfrog development is generally considered as development on undeveloped land not adjacent to developed areas or whose development is unforeseen in planning documents. This type of development results in the need for the inefficient extension, or lack, of public services into previously undeveloped areas, or small scale planning that results in a patchwork of uncoordinated development which is underfunded for needed improvements. Fort Ord was previously used as a military base and contains a network of roadways, infrastructure, and various areas developed with buildings and housing. The EGSP area is located in the East Garrison Planning Area, an area with some existing infrastructure.

Additionally, the EGSP area is identified in the FORA Reuse Plan as one of the major development sites on the FFO and is designated for development in the FORA Reuse Plan, the County's General Plan, the Redevelopment Plan, 2001 General Plan Amendment, and 2003 General Plan Housing Element. Therefore, development at the project site is both planned and accounted for in all County planning documents, including land use and Capital Improvement Plans, traffic models, and infrastructure planning documents. The EGSP would fulfill County land use plans, by implementing several Reuse Plan East Garrison concepts including the Arts District, live/work, and mixed-use development.

The Reuse Plan described the creation of villages located within the FFO, linked by transit routes and open space corridors. The design of these villages would include compact, walkable communities each developed with its own identity and character. The Reuse Plan envisioned mixed-use areas located near commercial and employment centers and the EGSP project site is located within walking and biking distance of the UCMBEST and CSUMB—significant areas of employment within the County.

The EGSP area is a previously developed area containing existing infrastructure, and the project would include infill development within and around the East Garrison Historic District. As FFO builds out, development will occur on areas surrounding the project site as designated in the Reuse Plan. It is uncertain when these areas will be developed, as development is subject to market demand. However, as established in the Development and Resource Management Plan (prepared to manage buildout of the FFO), development will be allowed on the FFO on a first-come, first-served.

MR-8: Inclusionary Housing

A number of comments were received regarding the amount of affordable housing proposed. Questions were raised regarding the balance of jobs to housing. Numerous inquiries were made for clarification of the number of low-income units and the possible loss of such units.

The EGSP project proposes the construction of 6 percent very-low-, 8 percent low-, and 6 percent moderate-income housing, and the inclusion of 10 percent “Workforce II” income-restricted housing. The “Workforce II” housing is a new component of the project resulting from negotiations over the Disposition and Development Agreement. The EGSP includes an affordable housing program and is consistent with, and exceeds the requirements of, the Monterey County Inclusionary Housing Ordinance (which requires construction of 6 percent very-low-, 6 percent low-, and 8 percent moderate-income housing), constructing more affordable housing than required by the Ordinance. Affordable housing would be constructed in all phases of the EGSP, with each phase containing 20 percent inclusionary housing units. The “Workforce II” units will be constructed in Phase 3. The timing and terms of the affordable units will be dictated by the terms of the Development Agreement (DA), Disposition and Development Agreement (DDA), and Community Redevelopment Law.

Although the County’s Housing Element encourages the addition of affordable houses and offers incentives, FORA reached the conclusion that it is unreasonable to expect that projects located on FFO could support 40 percent affordable housing units. In light of present market conditions, 30 percent affordable units appear optimal. Although the County can implement policies encouraging affordable housing, it cannot unduly influence forces at work in the housing market in the region.

MR-9: Monterey County General Plan

A series of comments addressed the adequacy of the DSEIR in terms of inconsistencies with the existing Monterey County General Plan and that the project should be delayed until an updated General Plan is approved.

Two General Plan Amendments are proposed as part of the project. The General Plan would be amended to incorporate changes to Commercial Land Use Policy A-1, recognizing changes associated with the move of residential units from Parker Flats to the EGSP area. The General Plan would also be amended to allow areas planned under Specific Plans to possibly allow ridgeline development if the Specific Plan addresses the issue through design, setbacks, height limits, or other measures.

Adopted in 1982, the MCGP did not consider or foresee deactivation of Fort Ord. However, the MCGP has been amended several times to include updated planning policies and other changes. In November 2001, the Monterey County Board of Supervisors amended the 1982 MCGP to allow the uses outlined in the Reuse Plan. This amendment applied to the areas in the FFO located east of SR 1 under the jurisdiction of Monterey County. In 2003, the County adopted an updated Housing Element for the MCGP. The County’s strategy for accommodating the 2003-2008 Regional Housing Needs Allocation for Monterey County includes adoption of a Specific Plan for the East Garrison area. The County is planning an update of the MCGP that will update and include all previously adopted policies.

The cumulative analysis contained within the DSEIR relies on the information contained within the 1982 Monterey County General Plan, as amended over time. The CEQA Guidelines allow the use of a list of past, present, and reasonably anticipated future projects, producing related or cumulative impacts, including those that are outside of the control of the lead agency. The CEQA Guidelines also allow the use of a summary of projections contained in an adopted General Plan or related planning document that is designed to evaluate regional or area-wide conditions. To provide the most current assessment of existing

conditions within the County and to conservatively address cumulative impacts, the DSEIR used updated traffic counts for the traffic, air, and noise analyses, updated projections of regional growth, and a list of past, present, and anticipated future projects; therefore, the analysis contained within the DSEIR is based on the most current information available. The Monterey County General Plan is sound and is not internally inconsistent. Failure to update the Monterey County General Plan does not make the SEIR, its environmental analysis, and conclusions inadequate.



DEPARTMENT OF THE ARMY
Fort Ord Office, Army Base Realignment and Closure
Bldg 4463 Gigling Rd - P.O. Box 5004
Monterey, California 93944-5004

REPLY TO
ATTENTION OF:

OCT 29 2004

Fort Ord BRAC Office

Monterey County
Planning and Building Inspection Department
Mike Novo, AICP
2620 First Avenue
Marina, CA 93933

Dear Mr. Novo:

The U.S. Department of the Army (Army) has reviewed the Draft Subsequent Environmental Impact Report (DSEIR) for the East Garrison Specific Plan, which was prepared by Michael Brandon Associates for Monterey County. The Army has the following comments on the DSEIR:

1. General: This DSEIR is one of the better California Environmental Quality Act (CEQA) documents prepared in recent years for property within the former Fort Ord (FFO). The document is well organized, easy to read and fairly comprehensive, within limitations of the analysis. However, sections of the report are either flawed or do not extend far enough to provide a complete environmental impact analysis of the proposed project.

ARMY-1

2. "1.6 DSEIR FOCUS," page 1-7. The potentially significant impacts listed in the second paragraph address the major of environmental issues associated with this project. However, one important category is missing, Socio-economics. Without a socio-economic impact analysis as part of this EIR the environmental impacts of the project cannot be fully assessed.

ARMY-2

3. "2.3 SIGNIFICANT UNAVOIDABLE ADVERSE ENVIRONMENTAL EFFECTS," page 2-3. The second subsection entitled "SIGNIFICANT UNAVOIDABLE IMPACTS OF THE PROPOSED PROJECT" lists four appropriate areas of environmental concern: Air Quality; Cultural Resources; Public Services and Utilities; and Transportation and Circulation. The list needs to include six additional areas of concern: Aesthetics; Biological/Natural Resources; Land Use; Population, Housing and Employment; Socio-economics; and Water Quality. A development project of this magnitude has potentially adverse and/or significant environmental impacts on all the areas of concern indicated above.

ARMY-3

4. "2.4 CUMULATIVE IMPACTS," page 2-4. In continuation with the previous comment the potential cumulative impacts of this project are not limited to air quality and traffic and circulation as indicated in the DSEIR. Considering potentially significant and unavoidable impacts occur in ten separate areas of environmental concern, additional cumulative impacts are certain to result.

ARMY-4

5. The range of alternatives should be expanded to include several medium density or mid-sized developments and the associated potential environmental impacts. The existing alternatives essentially deal with only one high density development versus reduced, medium or low density developments. There is no compromise level or "happy medium" being considered. When only a single "Reduced Density Alternative" is considered in a cursory manner and eliminated because it "...would not fully attain the objectives of the EGSP project..." an "all or nothing" proposal exists. This condition does not meet the goals of the CEQA by providing an acceptable or reasonable range of alternatives.

ARMY-5

6. There are several acronyms in Table 2-1 that do not appear to be referenced in previous text (e.g. CSD, FMP). Please ensure all abbreviations and acronyms are explained accordingly.

ARMY-6

7. The mitigation measures shown throughout the DSEIR are fairly extensive and cover a wide range of potentially significant environmental impacts. However, indicating "no mitigation measures are necessary" for several potential environmental impacts is questionable or highly speculative at best. For example, the EIR states over 90 acres of oak woodlands/ savannah or habitat will be removed. This amount of vegetation covers over 25% of the total project area. Under "LAND USE AND RELATED PLANNING PROGRAMS," the EIR states removal of this vegetation "...will not conflict with any applicable habitat conservation plan or natural community conservation plan." This statement seems contradictory with regard to the obvious loss of natural resources. No mitigation measures are recommended to off-set this loss. Likewise, under "GEOLOGY AND SOILS," the proposed mitigation measures of grading, setbacks and soil compaction sound reasonable. However, the significant increase in impervious ground cover, combined with the loss of natural vegetation, means less water absorbed and filtered by the sandy soils. Resultant environmental impacts are increased stormwater runoff, contamination, debris and siltation in the Monterey Bay. The text addressing "HYDROLOGY AND WATER QUALITY" acknowledges this increase in impervious ground cover alters the existing drainage pattern and amount of surface runoff, but indicates no mitigation measures necessary. This is another seemingly contradictory statement.

ARMY-7

8. The potential environmental impacts and mitigation measures addressed under "TRANSPORTATION AND CIRCULATION" need to be reassessed. Future mitigation measures and/or traffic improvements undertaken by the County of Monterey, the Fort Ord Reuse Authority (FORA) and the Transportation Agency of Monterey County should help maintain accepted level of service (LOS) along Reservation Road. However, mitigation in the EIR does not fully address vehicular access/egress and traffic safety impacts from convergence of four roads at the East Garrison Gate. Hence, this analysis is incomplete.

ARMY-8

9. Under "BIOLOGICAL RESOURCES" mitigation measure 4.7-B-1 states "To maximize tree retention and protection..." This statement also appears contradictory considering over 90 acres of oak woodland/habitat are being lost as a result of the project. The loss of sand gilia is shown as a "less than significant" environmental impact under the pretext of the CDFG granting an incidental "take" permit. Other environmental mitigations and impacts should be identified as a contingency for disapproval of this permit.

ARMY-9

10. "3.2.3 The EGSP's Relationship to Other Plans" indicates appropriate interrelationships between and among the various existing local plans for FFO properties. In the event Monterey County and/or the EGSP project proponent plan to utilize data (e.g. biological resources baselines or assessments) from documents previously prepared by the U.S. Army (i.e. "EIS Fort Ord Disposal and Reuse" and/or the "Installation-Wide Multispecies Habitat Management Plan for FFO, CA") references must be made in the EIR.

ARMY-10

11. "4.7 BIOLOGICAL RESOURCES, Exhibit 4.7-2, Plant Communities Map." The Oak Woodland Habitat Reserve boundary needs to be consistent with the revised Habitat Management Plan (HMP) Map. The Interface between the development parcels and Habitat Reserves should also be depicted as a "Borderlands Interface" consistent with the revised HMP.

ARMY-11

12. "4.7 BIOLOGICAL RESOURCES, Mitigation Measures 4.7-A-1," second paragraph, page 4.7-21. The compliance status needs to be updated to reflect that the Memorandum of Understanding (MOU) signed by Monterey County, the Fort Ord Reuse Authority (FORA), the Bureau of Land Management (BLM) and Monterey Peninsula College (MPC) has been modified based on changes made by the Department of the Army (Army). The Army signed the revised MOU in August 2004 and the revised MOU is being re-circulated for signature by the remaining agencies. Also, another paragraph should be added to this section that describes the recent developments regarding the Memorandum of Agreement between FORA, Monterey County, the City of Del Rey Oaks (DRO), developers, and the U.S. Fish and Wildlife Service (USFWS) for the proposed development of East Garrison and DRO using the Army's incidental take limits prior to completion of the Habitat Conservation Plan (HCP).

ARMY-12

13. "4.7 BIOLOGICAL RESOURCES, Impact 4.7-D," fourth paragraph, page 4.7-28. The paragraph should be updated to reflect that the California tiger salamander (CTS) has been listed as a threatened species and the USFWS has also proposed designation of critical habitat for CTS. In addition, the section should recognize that the Army has submitted a final biological evaluation for formal consultation on impacts that may occur during Army predisposal and transfer actions. The acreages of known and potential CTS breeding habitat have changed to 39 acres of known CTS breeding habitat and 35 acres of potential CTS breeding habitat that will be protected and managed through the establishment of HMP Habitat Reserves and Corridors.

ARMY-13

14. "4.8 CULTURAL RESOURCES, 4.8.1 Environmental Setting, REGULATIONS AND CRITERIA OF EVALUATION, National Register of Historic Places," first paragraph, first sentence, page 4.8-1. Replace "historic" with "cultural." NRHP includes archaeological sites, which are a cultural resource.

ARMY-14

15. "4.8 CULTURAL RESOURCES, Exhibit 4.8-4, Historic Map – December 13, 1959." The map does not indicate which of the 34 historic concrete building are to be renovated and which are to be destroyed, as is suggested in the text on page 4.8-17 (third paragraph under "East Garrison Specific Plan").

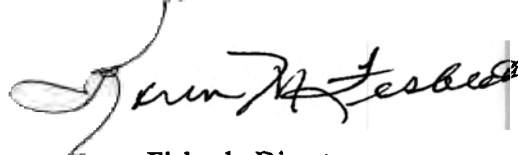
ARMY-15

16. The proposed project maximizes land use resulting in significantly higher density of development than other subdivisions throughout unincorporated Monterey County. Plus, the DSEIR indicates most of the potential environmental impacts are readily dismissed as "less than significant" with an unspecified mitigation monitoring plan (the DSEIR states a mitigation monitoring plan will be adopted **after** it is certified). Therefore, the environmental impact analysis comes up short in addressing the comprehensive effects, particularly with regard to Aesthetics; Biological/Natural Resources, primarily losses of native vegetation; Population, Housing and Employment; Socio-economics; Transportation and Circulation; and Water Quality. Consequently, "5.1 CUMULATIVE IMPACTS" requires additional analysis.

ARMY-16

Thank you for the opportunity to provide comments to the DSEIR. If you have questions, please contact Derek Lieberman at Derek.Lieberman@monterey.army.mil or (831) 242-4873.

Sincerely,

A handwritten signature in black ink, appearing to read "Karen M. Fisbeck". The signature is written in a cursive style with a large initial "K".

Karen Fisbeck, Director
Army BRAC, Fort Ord Office

Copy Furnished:

James M. Willison, Director
Environmental and Natural Resources

3.3.1 Federal Agencies

DEPARTMENT OF THE ARMY

Response to ARMY-1

The comment relates to the overall quality of the DSEIR. Individual comments are addressed below.

Response to ARMY-2

The comment requests that the DSEIR contain a socio-economic analysis. The project-level DSEIR, where applicable, incorporates by reference information, analysis, and mitigation measures contained in the Fort Ord Disposal and Reuse Final Environmental Impact Statement certified by the U.S. Army in 1993 (Army FEIS) and the Fort Ord Reuse Authority Final Environmental Impact Report (FORA FEIR). The needs of economic growth are recognized under the National Environmental Protection Act (NEPA), which describes content requirements differing from projects subject to CEQA. As required by NEPA, the socio-economic impacts of the Reuse Plan, including development of East Garrison, were analyzed pursuant to NEPA in the Army's EIS.

In the mid-1970s, the Court of Appeals concluded that CEQA differed from NEPA in that, among other things, the State statute placed a relatively higher value on environmental protection, compared with economic growth. CEQA imposes a greater obligation to protect the environment than is found in NEPA. Under CEQA, economic or social change cannot be considered a significant effect on the environment, though a social or economic change related to a physical change **may** be considered in determining whether the physical change is significant. Therefore, socio-economic analysis is not required under CEQA and was not included in the analyses in the DSEIR.

Response to ARMY-3

The comment requests that Page 2-3, Significant Unavoidable Adverse Environmental Effects, be amended to include six additional environmental areas of concern. However, the section describes only those environmental areas where project related impacts cannot be feasibly mitigated to a level considered less than significant, and which would be considered significant and unavoidable adverse impacts. These areas include traffic and circulation, air quality, public services, and cultural resources. All other project related impacts to the environment can be mitigated to less than significant levels and appropriately are not included in this section. The other impacts cited in the comment are addressed in DSEIR Section 4.0.

Response to ARMY-4

The comment states that based on the previous comment, these six additional areas of concern should be listed as cumulatively significant. As noted above, impacts described in these areas of concern can be mitigated to less than significant and would not be significant and unavoidable or cumulatively significant. Cumulative impacts for all environmental areas were analyzed in consideration of past, present, and foreseeable future projects. See Section 3.3, MR-1: Cumulative Impact Analysis, for a full discussion of the cumulative impact analysis contained within the DSEIR.

Response to ARMY-5

See Section 3.3, MR-2: Alternatives Analysis, for an expanded discussion of alternatives analysis comments.

Response to ARMY-6

See Section 10.0, List of Acronyms and Abbreviations, for a list of acronyms used in the summary table.

Response to ARMY-7

The comment relates to the need for and adequacy of mitigation measures provided in the DSEIR. As permitted by § 15150 of the State CEQA Guidelines, the DSEIR referenced several technical studies, analyses, and previously certified environmental documents. The documents and other sources used in the preparation of the DSEIR include a number of environmental planning documents that were prepared for military base closures, establishment of land use concepts, and in anticipation of subsequent development projects. The County or other lead agencies previously certified these documents and adopted the mitigation measures in these documents. Information from the documents, including mitigation measures, has been incorporated into the DSEIR by reference and is considered as part of the analyses and mitigation measures for the EGSP. Therefore, the DSEIR analysis considered mitigation measures previously adopted and only recommended additional mitigation measures that were necessary based on the currently proposed “subsequent” project. These documents include, but are not limited to:

- *Final Environmental Impact Statement Fort Ord Disposal and Reuse* (June 1993)
- *Record of Decision (ROD) for Fort Ord, California, Disposal and Reuse Final Environmental Impact Statement (FEIS)* (December 1993)
- *Supplemental Environmental Impact Statement Fort Ord Disposal and Reuse* (June 1996)
- *Record of Decision (ROD) for Fort Ord, California, Disposal and Reuse Final Supplemental Environmental Impact Statement (SFEIS)* (July 14, 1997)
- *Fort Ord Reuse Plan Environmental Impact Report* (June 13, 1997)

Please see Section 3.3, MR-3: Subsequent DEIR and Tiering, for additional discussion of the relationship of the DSEIR and the FORA FEIR. See Section 3.3, MR-6, Biological Resources, for a discussion on the oak woodlands removal issue. With regard to the drainage issue, the detention and retention ponds will infiltrate run-off water into the ground, alleviating the concerns of the commentor. Because the project design proposes infiltration to the aquifer, no mitigation measure is necessary.

Response to ARMY-8

Traffic safety issues were taken into consideration in the project design/location of access points. However, specific issues related to the three project access points on Reservation Road will be addressed during the detailed design stage. Issues such as sight distance and need for a deceleration lane will then be assessed at the west project access, East Garrison Main Gate, and Watkins Gate. It should be noted that each of these intersections would be signalized. In general, signals assign right of way to conflicting movements, and thus minimize the potential for collisions between vehicles, pedestrians, and bicyclists. Level of Service was analyzed and mitigation measures were identified for the three project access points on Reservation Road as provided in the DSEIR Tables 4.4-7, 4.4-8, and 5-2. Furthermore, these intersections will be designed so that there will be proper visibility of the signal heads and proper signal timing for the walk, flashing don't walk, solid don't walk, green, yellow and all-red intervals. With appropriate signal design and timing, the access points along Reservation Road can operate with minimal safety issues. Typically, there is only one collision for every million vehicles that enter a signalized intersection.

Response to ARMY-9

The first sentence of Page 4.7-25, first bullet under Mitigation Measure 4.7-B-1 and Table 2-1 shall be revised as follows:

To ~~maximize tree retention and protection,~~ **facilitate protection of trees that occur either at project or grading margins,** a forester, arborist, or other tree care professional shall be involved in the review and development of final grading and construction plans where trees occur either at project or grading margins.

The mitigation measure referenced in this comment provides an option to obtain authorization for the removal of these sand gilia plants prior to HCP/IA approval. Should CDFG deny issuance of an incidental “take” permit, then the plants could not be removed until the HCP/IA are approved.

Response to ARMY-10

The comment requests that where the DSEIR uses data from any previous environmental or planning documents prepared for the project area, such data and the studies containing the data be referenced in the DSEIR. Appropriate references to previously prepared data are included in the environmental analysis contained within the DSEIR, see DSEIR Sections 1.3, 1.8, 3.2.3, and in the introduction of each environmental topic contained within Section 4.0, Environmental Impact Analysis. Also, see Section 3.3, MR-3: Subsequent DEIR and Tiering for further discussion of the subsequent EIR process.

Response to ARMY-11

Exhibit 4.7-2 has been revised and is included in Section 4.0: Errata and Other Refinements to the Draft Subsequent EIR. The final Parker Flats Development Concept as represented in the Land Swap Assessment (May 2002) and the “Borderlands Interface” are depicted on the graphic.

Response to ARMY-12

Page 4.7-21, paragraph 6, Mitigation Measure 4.7-A-1 and Table 2-1 is revised as follows:

*Compliance status: On September 23, 2003, the Board of Supervisors of the County of Monterey approved and authorized the Chair to sign a Memorandum of Understanding on behalf of the County with FORA, BLM, MPC and the Army. ~~All parties, with the exception of the Army, have signed the MOU. The MOU is currently under review for signature by the Army.~~ **The Army signed the MOU in August 2004 and the revised MOU is currently being recirculated for signatures by the other agencies.***

Since the Memorandum of Agreement (MOA) between FORA, Monterey County, and the developers regarding ESA enforcement specifically addresses incidental take of California tiger salamander on portions of East Garrison to be transferred to the County (Track Zero), language describing the MOA is included in Mitigation Measure 4.7-D-5, and Table 2-1, which is revised as follows:

Mitigation Measure 4.7-D-5

~~This mitigation measure could be achieved through completion of the HCP/IA for former Fort Ord, issuance of incidental take authorization specific to the project, or other activities demonstrated to comply with the ESA. Because of the potential for the project area to provide upland habitat for CTS, compliance with the ESA will be required. Alternatively, protocol level surveys for CTS could be conducted to demonstrate that CTS are not present in the project area. Assuming that the surveys show no CTS using the project area, take authorization may not be required.~~

The County shall ensure compliance with the restrictions contained in Exhibit “C” of the recorded Memorandum of Agreement Regarding Endangered Species Act Enforcement of

Development Restrictions on the East Garrison Portions of The Former Fort Ord. Compliance with these restrictions will render the County, East Garrison Partners, and the Redevelopment Agency of the County of Monterey exempt from the prohibitions against “take” of California tiger salamander under the ESA arising from development within the portions of East Garrison to be transferred to the County for the project prior to approval of the HCP/IA (Track Zero).

In addition, Paragraph 4 on Page 4.7-28 is revised as follows:

The project would not substantially reduce the amount of aestivation habitat available on former Fort Ord for CTS. In its draft assessment of CTS habitat on former Fort Ord, the Army estimates that approximately ~~37~~ **39** acres of known CTS breeding habitat, approximately ~~37~~ **35** acres of potential CTS breeding habitat, and approximately 14,866 acres of potential upland habitat within 2 kilometers of breeding ponds will be protected and managed through the establishment of HMP Habitat Reserves and Corridors. The project would not disrupt travel corridors between breeding sites because there are no pools on or within a reasonable distance north of the project area that are used by CTS. Nevertheless, the Service may considers the project area potential upland habitat for CTS based on proximity to the known breeding pond to the south **and therefore will require take authorization. Such take authorization will be provided through completion of the basewide HCP/IA. However, in order to facilitate expeditious transfer of Track Zero to allow the County to meet its commitments to early redevelopment in advance of completion of the HCP/IA, the Army submitted a Memorandum of Agreement (MOA) signed by the County, East Garrison Partners, and the Redevelopment Agency of the County of Monterey as part of the reinitiated consultation required to address its disposal and reuse actions on former Fort Ord with respect to the California tiger salamander. The Service issued the Army a Biological Opinion for the CTS in March 2005 (Appendix B.). The Biological Opinion includes a requirement to implement the MOA and comply with its restrictions. As long as the signatories of the MOA comply with the requirements of the incidental take statement, they will be exempt from the “take” prohibitions of the federal Endangered Species Act (ESA) with regard to their activities on the project site. The Service issued the Army a Biological Opinion for the CTS in March 2005. If CTS is listed as threatened, the Service will likely assume that CTS are present in the project area in the absence of protocol-level surveys demonstrating the opposite. Assuming presence of CTS, development within the project area could require take authorization from the Service.**

Response to ARMY-13

See response to comment ARMY-12.

Response to ARMY-14

A Mitigation Monitoring and Reporting Program will be prepared and approved as part of the EGSP project's Condition of Approval. Page 4.8-1, Section 4.8.1, Environmental Setting of the SEIR is revised as follows:

The requirements of the National Environmental Protection Act (NEPA) and the California Environmental Quality Act (CEQA) provide the regulatory frameworks and criteria used here to identify the impacts of the proposed project on ~~historie~~ **cultural** resources.

Response to ARMY-15

Exhibit 4.8-4 has been revised to show which buildings would be demolished and which renovated and is included in Section 4.0, Errata and Other Refinements to the Draft Subsequent EIR.

Response to ARMY-16

The comment on the density of the development relates to the merits of the project and not the adequacy of the environmental analysis. The mitigation monitoring and reporting plan cited in the comment is simply a summary listing of mitigation measures and their implementing actions that are already described in the DSEIR and which may be modified at public hearings and does not contain information outside the public process.

DEPARTMENT OF TRANSPORTATION
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*Flux your power!
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September 29, 2004

Mr. Mike Novo
Monterey County Planning and Building Inspection Department
2620 First Avenue
Marina, CA 93933

Dear Mr. Novo:

Re: Monterey County's Draft Subsequent Environmental Impact Report (EIR) for East Garrison Specific Plan; SCH# 2003081086

The California Department of Transportation (Department), Division of Aeronautics (Division), reviewed the above-referenced document with respect to airport-related noise and safety impacts and regional aviation land use planning issues pursuant to the California Environmental Quality Act (CEQA). The Division has technical expertise in the areas of airport operations safety and airport land use compatibility. The Division is a funding agency for airport projects and has permit authority for public use airports and heliports. We offer the following comments for your consideration.

1. The proposal is for the development of a new mixed-use community on 244 acres approximately a mile and a half southeast of the Marina Municipal Airport. The proposal will include 1,400 residential units plus up to 70 accessory (carriage house) units, 75,000 square feet of commercial space, 11,000 square feet of institutional uses, and 100,000 square feet of artist studio space.
2. In accordance with Government Code Section 25302.3 (a) general plans, specific plans and amendments shall be consistent with the adopted airport land use plans. The proposal should, therefore, be consistent with the Marina Municipal Airport Comprehensive Land Use Plan (CLUP) developed by the Monterey County Airport Land Use Commission (ALUC). Figure 4-1 of the CLUP depicts the Marina Municipal Airport Planning Area. A portion of the project site is within the airport planning area. According to Section 2.4.1 under Overflight Policies on page 21 of the CLUP, all "new uses within the airport planning area shall provide an aviation easement to the City of Marina or the current owner of the airport." We advise coordinating the proposal with the ALUC.
3. For future reference, CEQA, Public Resources Code 21096, requires the Department's Airport Land Use Planning Handbook (Handbook) be utilized as a resource in the preparation of environmental documents for projects within an airport land use compatibility plan boundaries or if such a plan has not been adopted, within two nautical miles of an airport. The Handbook is a resource that should be applied to all public use airports. The Handbook is published on-line at <http://www.dot.ca.gov/hq/planning/aeronaut/htmlfile/landuse.php>.
4. Although no school sites are proposed at this time, the EIR mentions the possible need for new schools in the vicinity at "some point in the future." Education Code, Section 17215

AERO-1

AERO-2

AERO-3

AERO-4

Mr. Mike Novo
September 29, 2004
Page 2

requires a school site investigation by the Division prior to acquisition of land for a proposed school site located within two miles of an airport runway. The Division's recommendations are submitted to the State Department of Education for use in determining acceptability of the site. This should be a consideration prior to designating residential uses in the vicinity of an airport.

AERO-4

5. Public Utilities Code, Section 21659, "Hazards Near Airports Prohibited" prohibits structural hazards near airports. To ensure compliance with Federal Aviation Regulation, Part 77, "Objects Affecting Navigable Airspace," submission of a Notice of Proposed Construction or Alteration (Form 7460-1) to the Federal Aviation Administration (FAA) may be required. For further technical information, please refer to the FAA's web site at <http://www.faa.gov/ats/ata/ATA400/ocaaa.html>.

AERO-5

6. Another consideration is the recently enacted legislation AB 2776 amending Section 11010 of the Business and Professions Code and Sections 1102.6, 1103.4, and 1353 of the Civil Code. This bill changed buyer notification requirements for lands around airports. According to the new law, any person who intends to offer land for sale or lease within an *airport influence area* is required to disclose that fact to the person buying the property.

AERO-6

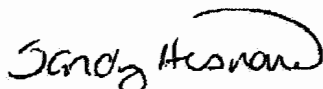
7. Marina Municipal Airport is an economic asset that should be protected through effective airport land use compatibility planning and awareness. Although the need for compatible and safe land uses near airports in California is both a local and a state issue, airport staff, airport land use commissions and airport land use compatibility plans are key to protecting an airport and the people residing and working in the vicinity of an airport. Consideration given to the issue of compatible land uses in the vicinity of an airport should help to relieve future conflicts between airports and their neighbors.

AERO-7

These comments reflect the areas of concern to the Department's Division of Aeronautics with respect to airport-related noise and safety impacts and regional airport land use planning issues. We advise you to contact our district office concerning surface transportation issues.

Thank you for the opportunity to review and comment on this proposal. If you have any questions, please call me at (916) 654-5314.

Sincerely,



SANDY HESNARD
Aviation Environmental Planner

c: State Clearinghouse, Marina Municipal Airport, Monterey County ALUC

3.3.2 State Agencies

STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, DIVISION OF AERONAUTICS

Response to AERO-1

The comment states the location and summary details of the proposed project. No further response is required.

Response to AERO-2

The County and the Monterey County Airport Land Use Commission (ALUC) have determined the portion of the EGSP site that would fall within the Marina Municipal Airport Comprehensive Land Use Plan area. The ALUC received copies of the Draft Subsequent EIR for review and viewed a presentation on the Draft Specific Plan at their regularly scheduled meeting on October 25, 2004. As stated in the Department of Aeronautics Airport Land Use Planning Handbook, the ALUC should carefully review not only the Specific Plan itself, but also any associated ordinances and regulations that set forth implementation measures in greater detail. Specific comments on the project from the ALUC are addressed in the ALUC comment letter on the project and responded to in this document. The project, with recommended conditions of approval, is consistent with the Marina Municipal Airport Comprehensive Land Use Plan.

Response to AERO-3

The comment references the appropriate document for future use in the preparation of environmental documents for projects located within an airport land use planning area or within two miles of all public use airports. This comment is noted and no further response is required.

Response to AERO-4

A new school or potential school site is not proposed as part of the project at this time. The portion of the project site within the Marina Municipal Airport Comprehensive Land Use Plan area is located along the northern edge of the EGSP site and is too small and too steep to accommodate a school site. It is likely that any proposed school sites would be located to the south of this area and would not be within the Marina Municipal Airport Comprehensive Land Use Plan area. However, construction of a school would require further environmental analysis, including review by the ALUC, if necessary. This analysis will be undertaken at that point in the future when it is determined whether and where a new school would be required. See Master Response 5 (MR-5).

Response to AERO-5

The project would consist of buildings primarily one- to three-stories in height, with a maximum height of four-stories allowed for buildings in the Residential High 2 land use designation. The height limitation for a four-story building within this designation is 50 feet, including special features, parapet walls, and mechanical equipment. Federal Aviation Regulation, Part 77, requires notification of the Federal Aviation Administration (FAA) of the construction of any structure greater than 200 feet from ground level within an area covered by an airport land use plan. Therefore, due to proposed building heights, the project does not propose any uses that would require the submission of a Notice of Proposed Construction or Alteration (Form 7460-1) to the FAA. In addition, the highest ground level at East Garrison (within the Airport Planning Area) is 145 feet mean sea level, approximately the same as the Marina Airport runways. With the Part 77 slopes and distance between the airport and project, no intrusion would occur.

Response to AERO-6

As stated above, only a small portion of the project site is located within the Marina Municipal Airport Comprehensive Land Use Plan area. The project applicant would comply with all requirements of AB 2776 and Section 11010 of the Business and Professions Code and Sections 1102.6, 1103.4, and 1353 of the Civil Code for areas of the project site subject to these codes.

Response to AERO-7

The comment states the economic importance of the Marina Municipal Airport and asks for future consideration of compatible land uses in the airport's vicinity. No further response is required.

DEPARTMENT OF TRANSPORTATION

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October 28, 2004

SCH# 2003081086

Mike Novo
 Monterey County
 Planning and Development Inspection Department
 2620 First Avenue
 Marina, CA 93933

SUBJECT: Draft Subsequent Environmental Impact Report on the East Garrison project

Dear Mr. Novo:

The California Department of Transportation (Department) District 5 has reviewed Draft Subsequent Environmental Impact Report (DSEIR) for the East Garrison project. The project site is in Monterey County on the former Fort Ord site at the intersection of Reservation Road and Intergarrison Road. In reviewing the proposed traffic study, the District 5 staff offers the following comments for your consideration:

1. The minimum acceptable level of service for all facilities within the State Right of Way is the cusp "C/D", not LOS "D" as reported in the document. Please make the appropriate changes.
2. CEQA requires full disclosure of regional and statewide significance. The DSEIR failed to provide figures depicting the "project-only trips," and the subsequent distribution of those trips. The Traffic Study has also failed to provide an analysis of Highway 1, Highway 68, Highway 156, Highway 183, Highway 218, and Highway 101.
3. Since the "project-only" trips were not disclosed, the Department staff compared Figures 4, 5, 6, 7, & 8 of Volume II - Appendix E to ascertain this information. After review, it is the opinion of the Department that the Traffic & Circulation element of the DSEIR is fundamentally flawed and without merit. The Department has drawn this conclusion because the traffic study shows the addition homes, 1470 and 2887 respectively, will result in a decrease of volume on the State Highway System under the cumulative analysis. Under the "existing + project" conditions (1470 homes), the traffic study shows approximately 50% (PM peak hour - 52.9%, AM peak hour - 42.1%) of the "project-generated trips" enter/exit the project site and roughly 30% (PM peak hour - 23.4%, AM peak hour - 29.0%) enter/exit via the State Highway System.
 - A. The Department compared the major intersections leading in/out of the project site (nodes 12, 17, and 22) with each alternative to see the actual number of project trips leaving/entering the project site. The complete analysis is included. A summary of the analysis is as follows:
 - 1) Under the AM peak hour "existing + project" conditions, this project is adding 85 trips to the intersection of Blanco Road & Reservation Road, 356 trips to the intersection of S. Davis Road & Reservation Road, and 241 trips to the intersection of Inter Garrison Road & General Jim Moore Blvd. The net of the three intersections is 682 AM peak hour trips. This represents 52.9% of the 1,290

CALTRANS-1

CALTRANS-2

CALTRANS-3

AM peak hour trips that will be generated by this project. The 1,290 AM peak hour trips can be found in Table 4.4-6 on page 4.4-18 of volume 1 and Table II on page 17 of Appendix E of Volume II.

- 2) Under the AM peak hour “cumulative + project” (1,470 Homes) conditions, this project is adding -706 (negative 706) trips to the intersection of Blanco Road & Reservation Road, 246 trips to the intersection of S. Davis Road & Reservation Road, and 285 trips to the intersection of Inter Garrison Road & General Jim Moore Blvd. The net of the three intersections is -175 (negative 175) AM peak hour trips. This represents a reduction by 13.6% of the 1,290 AM peak hour trips generated by this project. The 1,290 AM peak hour trips can be found in Table 4.4-6 on page 4.4-18 of volume 1 and Table II on page 17 of Appendix E of Volume II.
- 3) Under the AM peak hour “cumulative + Full Buildout” (2,887 Homes) conditions, this project is adding -763 (negative 763) trips to the intersection of Blanco Road & Reservation Road, 346 trips to the intersection of S. Davis Road & Reservation Road, and 379 trips to the intersection of Inter Garrison Road & General Jim Moore Blvd. The net of the three intersections is -38 (negative 38) AM peak hour trips. This represents reduction of 1.6% of the 2,322 AM peak hour trips that will be generated by this project. The 2,322 AM peak hour trips can be found in Table II on page 17 of Appendix E of Volume II.
- 4) Under the PM peak hour “existing + project” conditions, this project is adding -72 (negative 72) trips to the intersection of Blanco Road & Reservation Road, 413 trips to the intersection of S. Davis Road & Reservation Road, and 239 trips to the intersection of Inter Garrison Road & General Jim Moore Blvd. The net of the three intersections is 580 PM peak hour trips. This represents 42.1% of the 1,379 PM peak hour trips that will be generated by this project. The 1,379 PM peak hour trips can be found in Table 4.4-6 on page 4.4-18 of volume 1 and Table II on page 17 of Appendix E of Volume II.
- 5) Under the PM peak hour “cumulative + project” (1,470 Homes) conditions, this project is adding -845 (negative 845) trips to the intersection of Blanco Road & Reservation Road, 283 trips to the intersection of S. Davis Road & Reservation Road, and 327 trips to the intersection of Inter Garrison Road & General Jim Moore Blvd. The net of the three intersections is -235 (negative 235) PM peak hour trips. This represents a reduction of 17.0% of the 1,379 PM peak hour trips that will be generated by this project. The 1,379 PM peak hour trips can be found in Table 4.4-6 on page 4.4-18 of volume 1 and Table II on page 17 of Appendix E of Volume II.
- 6) Under the PM peak hour “cumulative + Full Buildout” (2,887 Homes) conditions, this project is adding -727 (negative 727) trips to the intersection of Blanco Road & Reservation Road, 421 trips to the intersection of S. Davis Road & Reservation Road, and 388 trips to the intersection of Inter Garrison Road & General Jim Moore Blvd. The net of the three intersections is 82 PM peak hour trips. This represents 3.3% of the 2,467 PM peak hour trips that will be generated by this

project. The 2,467 PM peak hour trips can be found in Table II on page 17 of Appendix E of Volume II.

- B. The Department compared the major intersections leading to/from the State Highway System (nodes 2, 5, 18, 21, 23, 27, and 28) with each alternative to see the actual number of project trips leaving/entering via the State Highway System. The complete analysis is attached. A summary of the analysis is as follows:
- 1) Under the AM peak hour “existing + project” conditions, this project is adding 374 AM peak hour trips to the State Highway System. This represents 29.0% of the 1,290 AM peak hour trips that will be generated by this project. The 1,290 AM peak hour trips can be found in Table 4.4-6 on page 4.4-18 of volume 1 and Table II on page 17 of Appendix E of Volume II.
 - 2) Under the AM peak hour “cumulative + project” (1,470 Homes) conditions, this project is adding 762 am peak hour trips to the State Highway System. This represents 59.1% of the 1,290 AM peak hour trips that will be generated by this project. The 1,290 AM peak hour trips can be found in Table 4.4-6 on page 4.4-18 of volume 1 and Table II on page 17 of Appendix E of Volume II.
 - 3) Under the AM peak hour “cumulative + Full Buildout” (2,887 Homes) conditions, this project is adding 818 AM peak hour trips to the State Highway System. This represents 35.2% of the 2,322 AM peak hour trips that will be generated by this project. The 2,322 AM peak hour trips can be found in Table II on page 17 of Appendix E of Volume II.
 - 4) Under the PM peak hour “existing + project” conditions, this project is adding 332 PM peak hour trips to the State Highway System. This represents 23.4% of the 1,379 PM peak hour trips that will be generated by this project. The 1,379 PM peak hour trips can be found in Table 4.4-6 on page 4.4-18 of volume 1 and Table II on page 17 of Appendix E of Volume II.
 - 5) Under the PM peak hour “cumulative + project” (1,470 Homes) conditions, this project is adding -210 (negative 210) trips to the State Highway System. This represents a reduction of 15.2% of the 1,379 PM peak hour trips that will be generated by this project. The 1,379 PM peak hour trips can be found in Table 4.4-6 on page 4.4-18 of volume 1 and Table II on page 17 of Appendix E of Volume II.
 - 6) Under the PM peak hour “cumulative + Full Buildout” (2,887 Homes) conditions, this project is adding -235 (negative 235) trips to the State Highway System. This represents a reduction of 9.5% of the 2,467 PM peak hour trips that will be generated by this project. The 2,467 PM peak hour trips can be found in Table II on page 17 of Appendix E of Volume II.
- C. The Department compared the major intersections leading in/out of the project site (nodes 12, 17, and 22) with the major intersections leading to/from the State Highway System (intersections 2, 5, 18, 21, 23, 27, and 28) to see if their was consistency within the Traffic Study. A summary of the analysis is as follows:

- 1) Under the AM peak hour "existing + project" conditions, this project is adding 682 trips to the intersections encompassing the project site and 374 trips to the State Highway System.
- 2) Under the AM peak hour "cumulative + project" (1,470 Homes) conditions, this project is adding -175 (negative 175) trips to the intersections encompassing the project site and 762 trips to the State Highway System.
- 3) Under the AM peak hour "cumulative + Full Buildout" (2,887 Homes) conditions, this project is adding -38 (negative 38) trips to the intersections encompassing the project site and 818 trips to the State Highway System.
- 4) Under the PM peak hour "existing + project" conditions, this project is adding 580 trips to the intersections encompassing the project site and 322 trips to the State Highway System.
- 5) Under the PM peak hour "cumulative + project" (1,470 Homes) conditions, this project is adding -235 (negative 235) trips to the intersections encompassing the project site and -210 (negative 210) trips to the State Highway System.
- 6) Under the PM peak hour "cumulative + Full Buildout" (2887 Homes) conditions, this project is adding 82 trips to the intersections encompassing the project site and -235 (negative 235) trips to the State Highway System.

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4. The County of Monterey and Higgins & Associates have entered into a Model Use Agreement with AMBAG. As of today, the County and Higgins & Associates have not fulfilled their obligation under the Model Use Agreement. The modeling work for the East Garrison traffic study is not a valid tool until the County and Higgins & Associates have fulfilled their obligation as specified in the Model Use Agreement. Modeling assumptions and outputs set the conditions that provide the results upon which a project's traffic contributions and impacts to the transportation infrastructure are based. Unsubstantiated and/or inconsistent assumptions and their subsequent application will skew or invalidate the subsequent project analysis and resulting impacts and mitigation. The Department feels that these unresolved issues constitute a major deficiency in the project approval process and fails to meet the burden of "full disclosure" as required under CEQA.

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5. **"Existing + Project" (1,470 Homes):** Mitigation measures for intersection numbers 4, 26, & 28 listed on page 4-4-19 and Table 4.4-9 (page 4.4-25) of volume 1 of the Draft SEIR will require approval of the Department. A signal warrant analysis based upon 12-hour count data will be required before the Department evaluates the need to install a signal. A Roundabout Fact Sheet will be required before the Department considers the construction of a Roundabout at the SR 1 SB Ramps/ Canyon Del Rey Boulevard intersection. It is likely the Department will ask that a project study report (PSR) be prepared to determine the appropriate solution at the SR 1 SB Ramps/Canyon Del Rey Boulevard intersection. Any work within the State Right of Way will require an encroachment permit and be completed to State Standards and Specifications. For the intersection of General Jim Moore Boulevard & Canyon Del Rey Boulevard (SR 218), the Department will not support the removal of the protected left turn phase. The

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protected left turn phase assigns the Right of Way to an exclusive movement while a permitted phase requires vehicles to yield the Right of Way to oncoming traffic.

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6. **Cumulative Conditions:** Mitigation measures for intersection numbers 4, 18, 19, 20, 21, 26, 27, & 28 listed in Table 5-1 on pages 5-4 through 5-6 of Volume 1 of the Draft SEIR will require approval by the Department. Signal warrant analysis based upon 12-hour count data will be required before the Department evaluates the need to install a signal. A Roundabout Fact Sheet will be required before the Department considers the construction of a roundabout at the SR 1 SB Ramps/ Canyon Del Rey Boulevard intersection. It is likely the Department will ask that a project study report (PSR) be prepared to determine the appropriate solution at the SR 1 SB Ramps/Canyon Del Rey Boulevard intersection. Any work within the State Right of Way will require an encroachment permit and be completed to State Standards and Specification. Mitigations # 18 & #19 are not appropriate as the mitigation measures degrade the SR 68 EB Ramps/Reservation Road intersection LOS from that of "C" (delay = 34.5 sec/veh) to that of LOS "D" (delay = 44.6 sec/veh) during the AM Peak Hour. A degradation in LOS or delay to an intersection within the State Right of Way cannot be considered a mitigation measure. For the intersection of General Jim Moore Boulevard and Canyon Del Rey Boulevard (SR 218), the Department will not support the removal of the protected left turn phase. The protected left turn phase assigns the Right of Way to an exclusive movement while a permitted phase requires vehicles to yield the Right of Way to oncoming traffic.

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7. **Cumulative + Project (1,470 Homes):** Mitigation measures for intersection numbers 4, 18, 19, 20, 21, 26, 27, & 28 listed in Table 5-2 on pages 5-9 through 5-12 of Volume 1 of the Draft SEIR will require approval of the Department. A signal warrant analysis based upon 12-hour count data will be required before the Department evaluates the need to install a signal. A Roundabout Fact Sheet will be required before the Department considers the construction of a Roundabout at the SR 1 SB Ramps/Canyon Del Rey Boulevard intersection. Again, it is likely the Department will ask that a project study report (PSR) be prepared to determine the appropriate solution at the SR 1 SB Ramps/Canyon Del Rey Boulevard intersection. Any work within the State Right of Way will require an encroachment permit and be completed to State Standards and Specification. Mitigations # 18 & 19 are not appropriate as the mitigation measures degrade the SR 68 EB Ramps/Reservation Road intersection LOS from that of "C" (delay = 28.7 sec/veh) to that of LOS "D" (delay = 42.3 sec/veh) during the AM Peak Hour. A degradation in LOS or Delay to an intersection within the State Right of Way cannot be considered a mitigation measure. And again, for the intersection of General Jim Moore Boulevard & Canyon Del Rey Boulevard (SR 218), the Department will not support the removal of the protected left turn phase. The protected left turn phase assigns the Right of Way to an exclusive movement while a permitted phase requires vehicles to yield the Right Of Way to oncoming traffic.

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8. **Cumulative + Full Buildup (2,887 Homes):** Mitigation measures for intersection numbers 4, 18, 19, 20, 21, 26, 27, & 28 listed in Table 5-5 on pages 5-20 through 5-24 of volume 1 of the Draft SEIR will require approval of the Department. A signal warrant analysis based upon 12-hour count data will be required before the Department evaluates the need to install a signal. A Roundabout Fact Sheet will be required before the Department considers the construction of a Roundabout at the SR 1 SB Ramps/ Canyon Del Rey Boulevard intersection. It is likely the Department will ask that a project study

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report (PSR) be prepared to determine the appropriate solution at the SR 1 SB Ramps/Canyon Del Rey Boulevard intersection. Any work within the State Right of Way will require an encroachment permit and be completed to State Standards and Specification. Mitigations # 18 & 19 are not appropriate as the mitigation measures degrade the SR 68 EB Ramps/Reservation Road intersection LOS from that of "C" (delay = 29.3 sec/veh) to that of LOS "D" (delay = 43.0 sec/veh) during the AM Peak Hour. A degradation in LOS or Delay to an intersection with the State Right of Way cannot be considered a mitigation measure. For the intersection of General Jim Moore Boulevard & Canyon Del Rey Boulevard (SR 218), the Department will not support the removal of the protected left turn phase. The protected left turn phase assigns the Right Of Way to an exclusive movement while a permitted phase requires vehicles to yield the Right Of Way to oncoming traffic.

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Therefore, and because of the numerous unresolved issues identified within the study, the Department requests traffic study be redone to address these issues. Thank you for your consideration and action upon these issues. If you have questions regarding our comments please contact me at (805) 549-3099.

Sincerely,



for - Keith Hinrichsen
Development Review
Caltrans Planning, District 5
keith_hinrichsen@dot.ca.gov

Cc: D. Murray – Branch Chief - Dev Rev; R. Barnes – Traf Ops; A. Cook – TAMC; J. Brennan - MBUAPCD

**PM PEAK HOUR INTERSECTION VOLUMES
PROJECT TRIPS ARRIVING/LEAVING PROJECT AREA**

Intersection:	INT # 12 - Blanco Road & Reservation Road												
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total
Movement:	0	0	0	8	0	1118	0	444	25	1343	576	0	3514
Existing PM Peak Hour	0	0	0	47	0	1118	0	278	44	1343	612	0	3442
Existing+ Project (1470 Homes) PM Peak Hour	0	0	0	39	0	0	0	-166	19	0	36	0	-72
Net Project Added Trips													
Percent Change													-2.1%
Intersection:	INT # 12 - Blanco Road & Reservation Road												
Movement:	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total
Year 2020 Baseline PM Peak Hour	0	0	0	35	0	1118	0	697	25	1353	2046	0	5274
Year 2020 + Project (1470 Homes) PM Peak Hour	0	0	0	64	0	1118	0	684	35	1344	1184	0	4429
Net Project Added Trips	0	0	0	29	0	0	0	-13	10	-9	-862	0	-845
Percent Change													-19.1%
Intersection:	INT # 12 - Blanco Road & Reservation Road												
Movement:	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total
Year 2020 Baseline PM Peak Hour	0	0	0	35	0	1118	0	697	25	1353	2046	0	5274
Year 2020 + Full Buildout (2887 Homes) PM Peak Hour	0	0	0	77	0	1118	0	699	40	1359	1254	0	4547
Net Project Added Trips	0	0	0	42	0	0	0	2	15	6	-792	0	-727
Percent Change													-16.0%
Intersection:	INT # 17 - S. Davis Road & Reservation Road												
Movement:	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total
Existing PM Peak Hour	2	5	3	241	5	84	7	303	112	232	323	1	1318
Existing+ Project (1470 Homes) PM Peak Hour	5	5	3	241	5	285	7	364	112	378	323	3	1731
Net Project Added Trips	3	0	0	0	0	201	0	61	0	146	0	2	413
Percent Change													23.9%
Intersection:	INT # 17 - S. Davis Road & Reservation Road												
Movement:	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total
Year 2020 Baseline PM Peak Hour	9	5	7	310	5	315	7	398	131	1256	787	17	3247
Year 2020 + Project (1470 Homes) PM Peak Hour	11	5	7	269	5	517	7	528	114	1183	869	15	3530
Net Project Added Trips	2	0	0	-41	0	202	0	130	-17	-73	82	-2	283
Percent Change													8.0%
Intersection:	INT # 17 - S. Davis Road & Reservation Road												
Movement:	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total
Year 2020 Baseline PM Peak Hour	9	5	7	310	5	315	7	398	131	1256	787	17	3247
Year 2020 + Full Buildout (2887 Homes) PM Peak Hour	14	5	6	268	5	604	7	593	112	1160	876	18	3668
Net Project Added Trips	5	0	-1	-42	0	289	0	195	-19	-96	89	1	421
Percent Change													11.5%

**PM PEAK HOUR INTERSECTION VOLUMES
PROJECT TRIPS ARRIVING/LEAVING PROJECT AREA**

Intersection: Movement:	INT # 22 - Inter Garrison Road & General Jim Moore Blvd.																												
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total																
Existing PM Peak Hour	35	196	119	15	137	8	51	44	1	11	68	20	705																
Existing+ Project (1470 Homes) PM Peak Hour	35	196	264	15	137	8	128	51	1	11	78	20	944																
Net Project Added Trips	0	0	145	0	0	0	77	7	0	0	10	0	239																
Percent Change														25.3%															
Intersection: Movement:	INT # 22 - Inter Garrison Road & General Jim Moore Blvd.																												
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total																
Year 2020 Baseline PM Peak Hour	35	196	167	15	137	23	68	45	1	14	108	20	829																
Year 2020 + Project (1470 Homes) PM Peak Hour	35	196	383	15	137	23	173	48	1	14	111	20	1156																
Net Project Added Trips	0	0	216	0	0	0	105	3	0	0	3	0	327																
Percent Change														28.3%															
Intersection: Movement:	INT # 22 - Inter Garrison Road & General Jim Moore Blvd.																												
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total																
Year 2020 Baseline PM Peak Hour	35	196	167	15	137	23	68	45	1	14	108	20	829																
Year 2020 + Full Buildout (2887 Homes) PM Peak Hour	35	196	429	15	137	22	190	46	1	14	112	20	1217																
Net Project Added Trips	0	0	262	0	0	-1	122	1	0	0	4	0	388																
Percent Change														31.9%															
<table border="1"> <tr> <td>Exist. + 1,470 Units</td> <td>2020 + 1,470 Units</td> <td>2020 + 1,470 Units</td> <td>2020 + 2,887 Units</td> </tr> <tr> <td>Net PM Peak Hour Trips:</td> <td>580</td> <td>-235</td> <td>82</td> </tr> <tr> <td>Model Trip Generation</td> <td>1379</td> <td>1379</td> <td>2467</td> </tr> <tr> <td>% Trips Leaving Project</td> <td>42.1%</td> <td>-17.0%</td> <td>3.3%</td> </tr> </table>														Exist. + 1,470 Units	2020 + 1,470 Units	2020 + 1,470 Units	2020 + 2,887 Units	Net PM Peak Hour Trips:	580	-235	82	Model Trip Generation	1379	1379	2467	% Trips Leaving Project	42.1%	-17.0%	3.3%
Exist. + 1,470 Units	2020 + 1,470 Units	2020 + 1,470 Units	2020 + 2,887 Units																										
Net PM Peak Hour Trips:	580	-235	82																										
Model Trip Generation	1379	1379	2467																										
% Trips Leaving Project	42.1%	-17.0%	3.3%																										

**PM PEAK HOUR INTERSECTION VOLUMES
PROJECT TRIPS ARRIVING/LEAVING VIA STATE HIGHWAY SYSTEM**

Intersection: Movement:	INT # 2 - Hwy 1 NB Ramps & Del Monte North												
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total
Existing PM Peak Hour	8	11	26	28	26	6	139	35	47	19	82	8	435
Existing+ Project (1470 Homes) PM Peak Hour	9	11	26	28	26	6	139	35	51	19	92	8	450
Net Project Added Trips	1	0	0	0	0	0	0	0	4	0	10	0	15
Percent Change	3.3%												
Intersection: Movement:	INT # 2 - Hwy 1 NB Ramps & Del Monte North												
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total
Year 2020 Baseline PM Peak Hour	8	11	46	28	26	6	139	35	67	19	82	8	475
Year 2020 + Project (1470 Homes) PM Peak Hour	8	11	57	28	26	6	139	35	67	19	82	8	486
Net Project Added Trips	0	0	11	0	0	0	0	0	0	0	0	0	11
Percent Change	2.3%												
Intersection: Movement:	INT # 2 - Hwy 1 NB Ramps & Del Monte North												
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total
Year 2020 Baseline PM Peak Hour	8	11	46	28	26	6	139	35	67	19	82	8	475
Year 2020 + Full Buildout (2887 Homes) PM Peak Hour	8	11	59	28	26	6	139	35	64	19	82	8	485
Net Project Added Trips	0	0	13	0	0	0	0	0	-3	0	0	0	10
Percent Change	2.1%												
Intersection: Movement:	INT # 5 - Hwy 1 NB Ramps & Reservation Road												
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total
Existing PM Peak Hour	3	1	276	0	0	0	212	192	12	251	0	947	
Existing+ Project (1470 Homes) PM Peak Hour	3	1	297	0	0	0	212	193	13	256	0	975	
Net Project Added Trips	0	0	21	0	0	0	0	1	1	5	0	28	
Percent Change	2.9%												
Intersection: Movement:	INT # 5 - Hwy 1 NB Ramps & Reservation Road												
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total
Year 2020 Baseline PM Peak Hour	28	1	291	0	0	0	262	339	23	388	0	1332	
Year 2020 + Project (1470 Homes) PM Peak Hour	26	1	290	0	0	0	264	339	24	391	0	1335	
Net Project Added Trips	-2	0	-1	0	0	0	2	0	1	3	0	3	
Percent Change	0.2%												
Intersection: Movement:	INT # 5 - Hwy 1 NB Ramps & Reservation Road												
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total
Year 2020 Baseline PM Peak Hour	28	1	291	0	0	0	262	339	23	388	0	1332	
Year 2020 + Full Buildout (2887 Homes) PM Peak Hour	25	1	288	0	0	0	261	344	19	396	0	1334	
Net Project Added Trips	-3	0	-3	0	0	0	-1	5	-4	8	0	2	
Percent Change	0.1%												

**PM PEAK HOUR INTERSECTION VOLUMES
PROJECT TRIPS ARRIVING/LEAVING VIA STATE HIGHWAY SYSTEM**

Intersection: Movement:	INT # 18 - Hwy 68 WB Ramps & Reservation Road												Total
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	
Existing PM Peak Hour	0	0	0	499	0	192	110	202	0	0	484	167	1654
Existing+ Project (1470 Homes) PM Peak Hour	0	0	0	499	0	258	110	202	0	0	484	167	1720
Net Project Added Trips	0	0	0	0	0	66	0	0	0	0	0	0	66
Percent Change													3.8%
Intersection: Movement:	INT # 18 - Hwy 68 WB Ramps & Reservation Road												Total
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	
Year 2020 Baseline PM Peak Hour	0	0	0	821	0	241	134	257	0	0	873	246	2572
Year 2020 + Project (1470 Homes) PM Peak Hour	0	0	0	523	0	311	131	294	0	0	941	216	2416
Net Project Added Trips	0	0	0	-298	0	70	-3	37	0	0	68	-30	-156
Percent Change													-6.5%
Intersection: Movement:	INT # 18 - Hwy 68 WB Ramps & Reservation Road												Total
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	
Year 2020 Baseline PM Peak Hour	0	0	0	821	0	241	134	257	0	0	873	246	2572
Year 2020 + Full Buildout (2887 Homes) PM Peak Hour	0	0	0	526	0	344	132	310	0	0	934	216	2462
Net Project Added Trips	0	0	0	-295	0	103	-2	53	0	0	61	-30	-110
Percent Change													-4.5%
Intersection: Movement:	INT # 21 - Hwy 101 NB Ramps & Imjin Parkway												Total
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	
Existing PM Peak Hour	4	0	160	0	0	0	111	106	14	42	0	0	437
Existing+ Project (1470 Homes) PM Peak Hour	4	0	160	0	0	0	113	106	14	42	0	0	439
Net Project Added Trips	0	0	0	0	0	0	2	0	0	0	0	0	2
Percent Change													0.5%
Intersection: Movement:	INT # 21 - Hwy 101 NB Ramps & Imjin Parkway												Total
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	
Year 2020 Baseline PM Peak Hour	4	0	1059	0	0	0	841	555	14	421	0	0	2894
Year 2020 + Project (1470 Homes) PM Peak Hour	4	0	1119	0	0	0	822	478	14	414	0	0	2851
Net Project Added Trips	0	0	60	0	0	0	-19	-77	0	-7	0	0	-43
Percent Change													-1.5%
Intersection: Movement:	INT # 21 - Hwy 101 NB Ramps & Imjin Parkway												Total
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	
Year 2020 Baseline PM Peak Hour	4	0	1059	0	0	0	841	555	14	421	0	0	2894
Year 2020 + Full Buildout (2887 Homes) PM Peak Hour	4	0	1133	0	0	0	811	476	14	410	0	0	2848
Net Project Added Trips	0	0	74	0	0	0	-30	-79	0	-11	0	0	-46
Percent Change													-1.6%

**PM PEAK HOUR INTERSECTION VOLUMES
PROJECT TRIPS ARRIVING/LEAVING VIA STATE HIGHWAY SYSTEM**

Intersection: Movement:	INT # 23 - Light Fighter & First												Total
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	
Existing PM Peak Hour	160	0	26	2	1	78	7	565	0	0	638	163	1640
Existing+ Project (1470 Homes) PM Peak Hour	160	0	33	2	1	78	7	619	0	0	742	163	1805
Net Project Added Trips	0	0	7	0	0	0	0	54	0	0	104	0	165
Percent Change													9.1%
Intersection: Movement:	INT # 23 - Light Fighter & First												Total
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	
Year 2020 Baseline PM Peak Hour	619	0	271	2	1	78	324	922	0	0	922	701	3840
Year 2020 + Project (1470 Homes) PM Peak Hour	575	0	298	2	1	78	331	1050	0	0	1042	729	4106
Net Project Added Trips	-44	0	27	0	0	0	7	128	0	0	120	28	266
Percent Change													6.5%
Intersection: Movement:	INT # 23 - Light Fighter & First												Total
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	
Year 2020 Baseline PM Peak Hour	619	0	271	2	1	78	324	922	0	0	922	701	3840
Year 2020 + Full Buildout (2887 Homes) PM Peak Hour	579	0	297	2	1	78	332	1057	0	0	1028	725	4099
Net Project Added Trips	-40	0	26	0	0	0	8	135	0	0	106	24	259
Percent Change													6.3%
Intersection: Movement:	INT # 27 - Hwy 1 NB Ramps & Canyon Del Rey												Total
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	
Existing PM Peak Hour	101	0	444	0	0	0	0	499	631	15	362	5	2057
Existing+ Project (1470 Homes) PM Peak Hour	101	0	444	0	0	0	0	499	647	17	363	5	2076
Net Project Added Trips	0	0	0	0	0	0	0	0	16	2	1	0	19
Percent Change													0.9%
Intersection: Movement:	INT # 27 - Hwy 1 NB Ramps & Canyon Del Rey												Total
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	
Year 2020 Baseline PM Peak Hour	101	0	599	0	0	0	0	499	676	15	491	5	2386
Year 2020 + Project (1470 Homes) PM Peak Hour	101	0	522	0	0	0	0	499	631	15	494	5	2267
Net Project Added Trips	0	0	-77	0	0	0	0	0	-45	0	3	0	-119
Percent Change													-5.2%
Intersection: Movement:	INT # 27 - Hwy 1 NB Ramps & Canyon Del Rey												Total
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	
Year 2020 Baseline PM Peak Hour	101	0	599	0	0	0	0	499	676	15	491	5	2386
Year 2020 + Full Buildout (2887 Homes) PM Peak Hour	101	0	478	0	0	0	0	499	631	15	492	5	2221
Net Project Added Trips	0	0	-121	0	0	0	0	0	-45	0	1	0	-165
Percent Change													-7.4%

**PM PEAK HOUR INTERSECTION VOLUMES
PROJECT TRIPS ARRIVING/LEAVING VIA STATE HIGHWAY SYSTEM**

Intersection: Movement:	INT # 28 - Gen. Jim Moore & Canyon Del Rey													
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Existing PM Peak Hour	0	0	0	92	0	36	0	846	305	74	281	0	1634	
Existing+ Project (1470 Homes) PM Peak Hour	0	0	0	99	0	36	0	846	319	75	286	0	1661	
Net Project Added Trips	0	0	0	7	0	0	0	0	14	1	5	0	27	
Percent Change														1.6%
Intersection: Movement:	INT # 28 - Gen. Jim Moore & Canyon Del Rey													
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Year 2020 Baseline PM Peak Hour	0	0	0	347	0	64	0	968	560	89	465	0	2493	
Year 2020 + Project (1470 Homes) PM Peak Hour	0	0	0	189	0	46	0	974	576	92	444	0	2321	
Net Project Added Trips	0	0	0	-158	0	-18	0	6	16	3	-21	0	-172	
Percent Change														-7.4%
Intersection: Movement:	INT # 28 - Gen. Jim Moore & Canyon Del Rey													
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Year 2020 Baseline PM Peak Hour	0	0	0	347	0	64	0	968	560	89	465	0	2493	
Year 2020 + Full Buildout (2887 Homes) PM Peak Hour	0	0	0	196	0	46	0	979	558	92	437	0	2308	
Net Project Added Trips	0	0	0	-151	0	-18	0	11	-2	3	-28	0	-185	
Percent Change														-8.0%
Exist. + 1,470 Units 2020 + 1,470 Units 2020 + 2,887 Units														
Net PM Peak Hour Trips:	322													-235
Model Trip Generation	1379													2467
% Trips Leaving Project	23.4%													-9.5%

**AM PEAK HOUR INTERSECTION VOLUMES
PROJECT TRIPS ARRIVING/LEAVING PROJECT AREA**

Intersection: Movement:	INT # 12 - Blanco Road & Reservation Road													Total
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Existing AM Peak Hour				11		1278		394	0	916	316		2915	
Existing+ Project (1470 Homes) AM Peak Hour				27		1278		398	37	916	344		3000	
Net Project Added Trips	0	0	0	16	0	0	0	4	37	0	28	0	85	
Percent Change													2.8%	
Intersection: Movement:	INT # 12 - Blanco Road & Reservation Road													Total
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Year 2020 Baseline AM Peak Hour				11		1278		1948	0	916	846		4999	
Year 2020 + Project (1470 Homes) AM Peak Hour				21		1278		1351	25	916	702		4293	
Net Project Added Trips	0	0	0	10	0	0	0	-597	25	0	-144	0	-706	
Percent Change													-16.4%	
Intersection: Movement:	INT # 12 - Blanco Road & Reservation Road													Total
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Year 2020 Baseline AM Peak Hour				11		1278		1948	0	916	846		4999	
Year 2020 + Full Buildout (2887 Homes) AM Peak Hour				11		1278		1301	32	916	698		4236	
Net Project Added Trips	0	0	0	0	0	0	0	-647	32	0	-148	0	-763	
Percent Change													-18.0%	
Intersection: Movement:	INT # 17 - S. Davis Road & Reservation Road													Total
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Existing AM Peak Hour	0	5	3	209	7	144	2	297	153	198	229	1	1248	
Existing+ Project (1470 Homes) AM Peak Hour	2	5	3	209	7	237	2	305	153	447	229	5	1604	
Net Project Added Trips	2	0	0	0	0	93	0	8	0	249	0	4	356	
Percent Change													22.2%	
Intersection: Movement:	INT # 17 - S. Davis Road & Reservation Road													Total
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Year 2020 Baseline AM Peak Hour	21	14	14	209	7	1212	2	741	200	595	262	1	3278	
Year 2020 + Project (1470 Homes) AM Peak Hour	12	5	3	209	7	1322	2	832	210	579	336	7	3524	
Net Project Added Trips	-9	-9	-11	0	0	110	0	91	10	-16	74	6	246	
Percent Change													7.0%	
Intersection: Movement:	INT # 17 - S. Davis Road & Reservation Road													Total
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Year 2020 Baseline AM Peak Hour	21	14	14	209	7	1212	2	741	200	595	262	1	3278	
Year 2020 + Full Buildout (2887 Homes) AM Peak Hour	15	5	3	209	7	1329	2	782	209	679	372	12	3624	
Net Project Added Trips	-6	-9	-11	0	0	117	0	41	9	84	110	11	346	
Percent Change													9.5%	

**AM PEAK HOUR INTERSECTION VOLUMES
PROJECT TRIPS ARRIVING/LEAVING PROJECT AREA**

Intersection: Movement:	INT # 22 - Inter Garrison Road & General Jim Moore Blvd.														
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total		
Existing AM Peak Hour	35	81	51	5	88	6	66	62	7	10	26	61	498		
Existing+ Project (1470 Homes) AM Peak Hour	35	81	98	5	88	6	247	72	7	10	29	61	739		
Net Project Added Trips	0	0	47	0	0	0	181	10	0	0	3	0	241		
Percent Change														32.6%	
Intersection: Movement:	INT # 22 - Inter Garrison Road & General Jim Moore Blvd.														
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total		
Year 2020 Baseline AM Peak Hour	35	81	51	5	161	20	170	67	7	10	26	61	694		
Year 2020 + Project (1470 Homes) AM Peak Hour	35	81	132	5	146	32	344	65	7	10	61	61	979		
Net Project Added Trips	0	0	81	0	-15	12	174	-2	0	0	35	0	285		
Percent Change														29.1%	
Intersection: Movement:	INT # 22 - Inter Garrison Road & General Jim Moore Blvd.														
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total		
Year 2020 Baseline AM Peak Hour	35	81	51	5	161	20	170	67	7	10	26	61	694		
Year 2020 + Full Buildout (2887 Homes) AM Peak Hour	35	81	146	5	163	31	410	65	7	10	59	61	1073		
Net Project Added Trips	0	0	95	0	2	11	240	-2	0	0	33	0	379		
Percent Change														35.3%	
Exist. + 1,470 Units														2020 + 1,470 Units	2020 + 2,887 Units
Net AM Peak Hour Trips:														-175	-38
Model Trip Generation														1290	2322
% Trips Leaving Project														52.9%	-13.6%

**AM PEAK HOUR INTERSECTION VOLUMES
PROJECT TRIPS ARRIVING/LEAVING VIA STATE HIGHWAY SYSTEM**

Intersection:		INT # 2 - Hwy 1 NB Ramps & Del Monte North												Total
Movement:	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Existing AM Peak Hour	2	7	29	34	14	6	91	39	21	4	94	4	345	
Existing+ Project (1470 Homes) AM Peak Hour	2	7	29	34	14	6	91	39	25	4	102	4	357	
Net Project Added Trips	0	0	0	0	0	0	0	0	4	0	8	0	12	
Percent Change													3.4%	
Intersection:		INT # 2 - Hwy 1 NB Ramps & Del Monte North												Total
Movement:	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Year 2020 Baseline AM Peak Hour	2	7	29	34	14	6	91	39	41	4	94	4	365	
Year 2020 + Project (1470 Homes) AM Peak Hour	2	7	30	34	14	6	91	39	85	4	94	4	410	
Net Project Added Trips	0	0	1	0	0	0	0	0	44	0	0	0	45	
Percent Change													11.0%	
Intersection:		INT # 2 - Hwy 1 NB Ramps & Del Monte North												Total
Movement:	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Year 2020 Baseline AM Peak Hour	2	7	29	34	14	6	91	39	41	4	94	4	365	
Year 2020 + Full Buildout (2887 Homes) AM Peak Hour	2	7	29	34	14	6	91	39	86	4	94	4	410	
Net Project Added Trips	0	0	0	0	0	0	0	0	45	0	0	0	45	
Percent Change													11.0%	
Intersection:		INT # 5 - Hwy 1 NB Ramps & Reservation Road												Total
Movement:	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Existing AM Peak Hour	9	0	108	0	0	0	0	573	183	7	188	0	1068	
Existing+ Project (1470 Homes) AM Peak Hour	10	0	108	0	0	0	0	575	183	8	204	0	1088	
Net Project Added Trips	1	0	0	0	0	0	0	2	0	1	16	0	20	
Percent Change													1.8%	
Intersection:		INT # 5 - Hwy 1 NB Ramps & Reservation Road												Total
Movement:	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Year 2020 Baseline AM Peak Hour	27	0	108	0	0	0	0	682	302	7	188	0	1314	
Year 2020 + Project (1470 Homes) AM Peak Hour	30	0	141	0	0	0	0	607	223	8	270	0	1279	
Net Project Added Trips	3	0	33	0	0	0	0	-75	-79	1	82	0	-35	
Percent Change													-2.7%	
Intersection:		INT # 5 - Hwy 1 NB Ramps & Reservation Road												Total
Movement:	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Year 2020 Baseline AM Peak Hour	27	0	108	0	0	0	0	682	302	7	188	0	1314	
Year 2020 + Full Buildout (2887 Homes) AM Peak Hour	30	0	137	0	0	0	0	608	223	8	270	0	1276	
Net Project Added Trips	3	0	29	0	0	0	0	-74	-79	1	82	0	-38	
Percent Change													-3.0%	

AM PEAK HOUR INTERSECTION VOLUMES
PROJECT TRIPS ARRIVING/LEAVING VIA STATE HIGHWAY SYSTEM

Intersection: Movement:	INT # 18 - Hwy 68 WB Ramps & Reservation Road													
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Existing AM Peak Hour	0	0	0	207	0	153	193	289	0	0	313	139	1294	
Existing+ Project (1470 Homes) AM Peak Hour	0	0	0	207	0	171	197	289	0	0	313	144	1321	
Net Project Added Trips	0	0	0	0	0	18	4	0	0	0	0	5	27	
Percent Change														2.0%
Intersection: Movement:	INT # 18 - Hwy 68 WB Ramps & Reservation Road													
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Year 2020 Baseline AM Peak Hour	0	0	0	207	0	228	238	663	0	0	318	139	1793	
Year 2020 + Project (1470 Homes) AM Peak Hour	0	0	0	240	0	342	229	630	0	0	407	139	1987	
Net Project Added Trips	0	0	0	33	0	114	-9	-33	0	0	89	0	194	
Percent Change														9.8%
Intersection: Movement:	INT # 18 - Hwy 68 WB Ramps & Reservation Road													
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Year 2020 Baseline AM Peak Hour	0	0	0	207	0	228	238	663	0	0	318	139	1793	
Year 2020 + Full Buildout (2887 Homes) AM Peak Hour	0	0	0	236	0	355	225	636	0	0	420	139	2011	
Net Project Added Trips	0	0	0	29	0	127	-13	-27	0	0	102	0	218	
Percent Change														10.8%
Intersection: Movement:	INT # 21 - Hwy 101 NB Ramps & Imjin Parkway													
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Existing AM Peak Hour	3	0	85	0	0	0	153	22	6	126	0	395		
Existing+ Project (1470 Homes) AM Peak Hour	3	0	85	0	0	0	153	22	6	126	0	395		
Net Project Added Trips	0	0	0	0	0	0	0	0	0	0	0	0		
Percent Change														0.0%
Intersection: Movement:	INT # 21 - Hwy 101 NB Ramps & Imjin Parkway													
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Year 2020 Baseline AM Peak Hour	3	0	657	0	0	0	1130	231	6	573	0	2600		
Year 2020 + Project (1470 Homes) AM Peak Hour	3	0	757	0	0	0	1052	251	6	571	0	2640		
Net Project Added Trips	0	0	100	0	0	0	-78	20	0	-2	0	40		
Percent Change														1.5%
Intersection: Movement:	INT # 21 - Hwy 101 NB Ramps & Imjin Parkway													
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Year 2020 Baseline AM Peak Hour	3	0	657	0	0	0	1130	231	6	573	0	2600		
Year 2020 + Full Buildout (2887 Homes) AM Peak Hour	3	0	755	0	0	0	1022	252	6	556	0	2594		
Net Project Added Trips	0	0	98	0	0	0	-108	21	0	-17	0	-6		
Percent Change														-0.2%

**AM PEAK HOUR INTERSECTION VOLUMES
PROJECT TRIPS ARRIVING/LEAVING VIA STATE HIGHWAY SYSTEM**

Intersection: Movement:	INT # 23 - Light Fighter & First													
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Existing AM Peak Hour	57	0	14	10	2	36	15	544	0	0	558	63	1299	
Existing+ Project (1470 Homes) AM Peak Hour	57	0	17	10	2	36	14	689	0	0	588	63	1476	
Net Project Added Trips	0	0	3	0	0	0	-1	145	0	0	30	0	177	
Percent Change														12.0%
Intersection: Movement:	INT # 23 - Light Fighter & First													
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Year 2020 Baseline AM Peak Hour	448	0	177	10	2	36	276	703	0	0	698	451	2801	
Year 2020 + Project (1470 Homes) AM Peak Hour	551	0	213	10	2	36	291	907	0	0	912	437	3359	
Net Project Added Trips	103	0	36	0	0	0	15	204	0	0	214	-14	558	
Percent Change														16.6%
Intersection: Movement:	INT # 23 - Light Fighter & First													
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Year 2020 Baseline AM Peak Hour	448	0	177	10	2	36	276	703	0	0	698	451	2801	
Year 2020 + Full Buildout (2887 Homes) AM Peak Hour	561	0	213	10	2	36	293	949	0	0	945	437	3446	
Net Project Added Trips	113	0	36	0	0	0	17	246	0	0	247	-14	645	
Percent Change														18.7%
Intersection: Movement:	INT # 27 - Hwy 1 NB Ramps & Canyon Del Rey													
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Existing AM Peak Hour	38	0	227	0	0	0	0	480	225	21	343	0	1334	
Existing+ Project (1470 Homes) AM Peak Hour	38	0	227	0	0	0	0	481	225	21	462	0	1454	
Net Project Added Trips	0	0	0	0	0	0	0	1	0	0	119	0	120	
Percent Change														8.3%
Intersection: Movement:	INT # 27 - Hwy 1 NB Ramps & Canyon Del Rey													
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Year 2020 Baseline AM Peak Hour	38	0	390	0	0	0	0	486	225	33	609	0	1781	
Year 2020 + Project (1470 Homes) AM Peak Hour	39	0	333	0	0	0	0	615	399	21	526	0	1933	
Net Project Added Trips	1	0	-57	0	0	0	0	129	174	-12	-83	0	152	
Percent Change														7.9%
Intersection: Movement:	INT # 27 - Hwy 1 NB Ramps & Canyon Del Rey													
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Year 2020 Baseline AM Peak Hour	38	0	390	0	0	0	0	486	225	33	609	0	1781	
Year 2020 + Full Buildout (2887 Homes) AM Peak Hour	38	0	342	0	0	0	0	617	403	21	501	0	1922	
Net Project Added Trips	0	0	-48	0	0	0	0	131	178	-12	-108	0	141	
Percent Change														7.3%

**AM PEAK HOUR INTERSECTION VOLUMES
PROJECT TRIPS ARRIVING/LEAVING VIA STATE HIGHWAY SYSTEM**

Intersection: Movement:	INT # 28 - Gen. Jim Moore & Canyon Del Rey (SR 218)													
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Existing AM Peak Hour	0	0	0	550	0	58	0	550	55	52	645	0	1910	
Existing+ Project (1470 Homes) AM Peak Hour	0	0	0	562	0	59	0	550	60	52	645	0	1928	
Net Project Added Trips	0	0	0	12	0	1	0	0	5	0	0	0	18	
Percent Change														0.9%
Intersection: Movement:	INT # 28 - Gen. Jim Moore & Canyon Del Rey (SR 218)													
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Year 2020 Baseline AM Peak Hour	0	0	0	1012	0	93	0	550	55	58	874	0	2642	
Year 2020 + Project (1470 Homes) AM Peak Hour	0	0	0	777	0	74	0	688	127	61	723	0	2450	
Net Project Added Trips	0	0	0	-235	0	-19	0	138	72	3	-151	0	-192	
Percent Change														-7.8%
Intersection: Movement:	INT # 28 - Gen. Jim Moore & Canyon Del Rey (SR 218)													
	NBL	NBT	NBR	SBL	SBT	SBR	WBL	WBT	WBR	EBL	EBT	EBR	Total	
Year 2020 Baseline AM Peak Hour	0	0	0	1012	0	93	0	550	55	58	874	0	2642	
Year 2020 + Full Buildout (2887 Homes) AM Peak Hour	0	0	0	821	0	74	0	681	126	60	693	0	2455	
Net Project Added Trips	0	0	0	-191	0	-19	0	131	71	2	-181	0	-187	
Percent Change														-7.6%
Exist. + 1,470 Units 2020 + 1,470 Units 2020 + 2,887 Units														
Net AM Peak Hour Trips:														818
Model Trip Generation														2322
% Added to State Highway														35.2%

STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION

Response to CALTRANS-1

The County has confirmed that cusp “C/D” is the Caltrans level of service (LOS) standard for state highways. Originally, the County had requested that LOS D be used as LOS standard based on Transportation Agency for Monterey County (TAMC) guidelines. The tables and text were reviewed using cusp C/D as the LOS standard for state highways and there is no change in the severity of impacts to any state highway that would require new mitigation measures; therefore, the original analysis is still valid and the tables in Section 4.4 can be considered revised.

Response to CALTRANS-2

Project traffic assignments to SR 1, SR 68, and SR 183 are tabulated and shown in Appendix A, Attachment 1. Attachment 2 shows traffic volumes under all studied development scenarios for SR 1, SR 68, Highway 101, and SR 183. Some information regarding LOS is also provided. As part of the DSEIR, the intersections of SR 1 at Del Monte Boulevard, Reservation Road, Imjin Pkwy, and Canyon Del Rey Boulevard and Hwy 68 at Reservation Road were studied. In general, project only trips at a particular intersection can be determined by subtracting Existing Turning Movement Volumes (Exhibit 4.4-3) from Existing + Project (1,470 Homes) Peak Hour Turning Movement Volumes (Exhibit 4.4-5). Also, the roadway segments: Hwy 1 between Canyon Del Rey and Del Monte, Hwy 68 between Portola and River Road, Hwy 101 between Laurel and Boronda, SR 1 between Light Fighter and Fremont, SR 68 between River Road and Spreckels, and SR 183 between Cooper and Espinosa were studied as part of the DSEIR. Intersections and the roadway segments were chosen based on direction from County staff, in consultation with local and regional transportation agencies, and the likelihood of the East Garrison project adding a sufficient number of trips at the location to be considered for analysis.

Response to CALTRANS-3

As shown in Appendix A, Attachments 1 and 2, a reasonable distribution of project traffic was analyzed. Additional information on the modeling process is provided in Master Response 4 (MR-4). Attachment 3 provides additional text regarding the modeling process. In addition, Attachment 4 provides a trip generation table for the project using standard Institute of Transportation Engineers trip rates, which shows that the net project traffic generation studied in the DSEIR could be conservatively high. For example, the model forecast used in the DEIR includes 13,692 daily, 1,290 AM peak and 1,379 PM peak hour trips for the buildout of the 1470 dwelling unit project. This compares with 13,590 daily, 978 AM peak hour and 1,322 PM peak hour trips using less than a 20 percent internal trip reduction assumption. The net external traffic predicted by the traffic model is therefore reasonable and perhaps high in determining potential impacts. Attachment 1 provides the traffic distribution and summarized assignment for the Specific Plan. Attachment 2 provides segment volumes for Average Daily Traffic (ADT), AM peak hour and PM peak hour for the major street segments in the study area.

Inter-Garrison Road is expected to carry about 14,700 ADT in 2020 with the potential buildout of 2,800 units at East Garrison. The East Garrison traffic contribution to this segment is less than 3,000 ADT. 11,700 ADT is diverted from Blanco Road as well as generated by future development. The total ADT for Reservation Road west of Blanco plus Inter-Garrison is tabulated at the bottom of Attachment 2. The existing ADT on Reservation Road is about 27,000. No traffic is currently carried on Inter-Garrison. In 2020 without East Garrison, the combined ADT is forecasted to climb to nearly 54,000. With East Garrison at 2,800, dwelling units the volume increases to nearly 60,000. These volumes are two or more times the existing ADT, although Reservation Road is anticipated to have a reduction in traffic due to the diversion of trips to Inter-Garrison Road. Diversions affecting the net increase also will occur with the construction of Eastside Road and the future internal street network of University of California Monterey

Bay Education, Science, and Technology Center (UCMBEST). There is no overall negative traffic forecasted for the street network. A more detailed discussion of the effects of the congested network on traffic redistribution is included as Attachment 3.

In addition, as indicated on Attachment 1, a major portion of project traffic will be oriented to and from attractions closer to East Garrison than the study intersections. These include California State University Monterey Bay, which is closer than the General Jim Moore intersection (Intersection No. 22). This component will represent 26.3 percent of total project traffic. The easterly portion of UCMBEST has a large project assignment, and is located closer than the Reservation/Blanco intersection (Intersection No. 12). This component will represent 18.2 percent of total project traffic. Abrams Drive provides access to future educational facilities at Marina Heights (this component will represent 16.4 percent of total project traffic). These attractions external to the project represent a substantial amount of project traffic that does not show up as turning volumes at study intersections, such as Inter-Garrison/General Jim Moore intersection (Intersection No. 22).

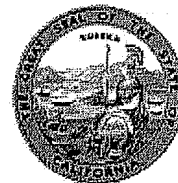
Response to CALTRANS-4

See Master Response 4 (MR-4)

Response to CALTRANS-5, 6, 7, and 8

As part of the process for obtaining encroachment permit(s), the appropriate agency will provide the plans and analysis (e.g., signal warrant analysis based on 12-hour count data, Roundabout Fact Sheet, etc.) needed by the Caltrans to approve specific mitigation measures. Since removing left-turn phasing is not a possibility, Caltrans should consider “Protected-Permissive” phasing for the eastbound left-turn movement. Regarding the increase in delay at SR 68 eastbound ramps/Reservation Road, to receive traffic from the proposed additional left turn lane on the SR 68 westbound off ramp approach at Reservation Road, the left turn lane on the eastbound Reservation Road approach to the SR 68 eastbound ramps should be restriped to a shared left-through lane. Converting this eastbound left-turn lane to a shared left-through lane would require the implementation of split phasing on Reservation Road at SR 68 eastbound ramps. Split phasing would increase the average delay at the intersection.

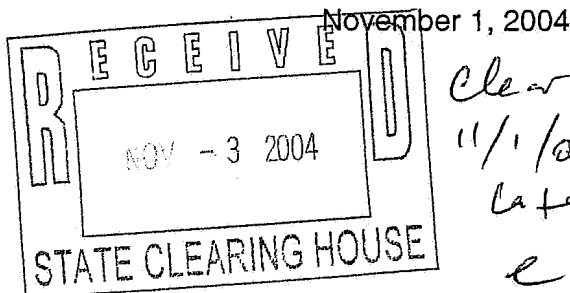
State of California—Health and Human Services Agency
Department of Health Services
Northern California Drinking Water Field Operations Branch
Monterey District



ARNOLD SCHWARZENEGGER
Governor

California
Department of
Health Services

SANDRA SHEWRY
Director



State Clearinghouse (SCH)
Office of Planning and Research
P.O. Box 3044
Sacramento, CA 95812-3044

Schedule No. 2003081086

**Title: East Garrison Specific Plan Draft Subsequent Environmental Impact Report
(September 2004)**

The Department of Health Services, Drinking Water Field Operations Branch (Department), Monterey District office, has received and reviewed the above-cited document and provides the following comments:

1. The Department has the responsibility of ensuring that public water systems comply with the Safe Drinking Water Act and other regulations, including the California Waterworks Standards. These statutes and regulations require that water utilities provide an adequate quantity and quality of water to customers. The California Waterworks Standards also specify criteria for the water supply infrastructure design. The University Villages water supply system and sources must comply with all aspects of the Safe Drinking Water Act and the California Waterworks Standards. The Department has the following specific comments related to the water supply:

DHS-1

- The existing source of water supply for the Ord Community Water System includes Well 29, which has confirmed concentrations of trichloroethylene (TCE) and coliform bacteria. As such, the Department does not find Well 29 to be a viable long-term source of water supply to support growth within the Ord Community. The rehabilitation of Well 29, identified in the Water Supply Assessment Report, should target eradication of the coliform and sealing off of the strata that produce water contaminated with TCE.

2. The Department has the responsibility for reviewing all new proposals for the use of recycled water to ensure compliance with California Code of Regulations, Title 22, Water Recycling Criteria. The Water Recycling Criteria require the submission of an engineering report to the Regional Water Quality Control Board (RWQCB) and the Department of Health Services before recycled water projects are implemented. If the project is intended to use recycled water for public areas or irrigation of the residential landscaping via a dual plumbed project, the DEIR should evaluate the effectiveness of the water utility's Cross Connection Control Program and improvements or mitigations needed to ensure there will be adequate

DHS-2

public health protection to domestic water users once the recycled water distribution system is in place.

DHS-2

Thank you for the opportunity to comment on the East Garrison DSEIR. If you have any questions regarding these comments, please contact me at (831) 655-6933.

Sincerely,



Betsy S. Lichti, P.E.
District Engineer, Monterey District
DRINKING WATER FIELD OPERATIONS BRANCH

BSL/bl

cc: CDHS-DWP Environmental Coordinator
Monterey County Environmental Health
Mike Novo, Monterey Co. Planning & Bldg Inspection Dept, 2620 First Ave., Marina, CA 93933
Marina Coast Water District

STATE OF CALIFORNIA, DEPARTMENT OF HEALTH SERVICES

Response to DHS-1

Although the comment letter refers to University Villages, the Marina Coast Water District (MCWD) also serves East Garrison; therefore, the comment is considered applicable. As described on Page 4.3-17 of the SEIR, the amount of trichloroethylene found in Well 24 was just above the detection limits at 0.53 parts per billion (ppb). State and federal safe drinking water standards allow a Maximum Contaminant Level for TCE of 5.0 ppb, or approximately one full magnitude higher than detected. Both the Marina Coast Water District (MCWD) and Army continue to monitor the well for TCE. Fluctuations in the readings have ranged from undetectable to substantially below the health standard of 5.0 ppb.

In January 2002, the MCWD detected total coliform in one of its wells. Since that time, MCWD has been in contact with the California Department of Health Services, who provided direction on MCWD's monitoring activities and well use. Currently, MCWD is performing additional monitoring and laboratory tests of this one well to assure that potable water entering the distribution system meets the standards regarding total coliform. To date, water quality of the system complies with state and federal standards. As such, this well remains a reliable source of water for MCWD and its customers. MCWD will continue to target eradication of the coliform and seal off the strata that produces TCE if necessary.

Response to DHS-2

It is uncertain at this time if MCWD would provide a limited supply of recycled water to the project site, it is expected that infrastructure for recycled water will be focused on the west side of the FFO. If required by MCWD, new recycled water distribution pipelines and appurtenances to tie into the regional system would be constructed. However, as described on page 3-40, Potable Water Augmentation, augmentation of the water supply by the use of recycled water or a desalination plant is not proposed in the EGSP and therefore, is not considered a part of the project and would be the subject of future CEQA consideration by MCWD. Existing water supplies are sufficient to serve the project and the use of recycled water is speculative; therefore, no analysis of recycled water facilities is required.



Arnold
Schwarzenegger
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Jan Boel
Acting Director

November 2, 2004

Mike Novo
Monterey County Planning & Building Inspection
2620 First Avenue
Marina, CA 93933

Subject: East Garrison Specific Plan
SCH#: 2003081086

Dear Mike Novo:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on November 1, 2004, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

OPR-1

Document Details Report
State Clearinghouse Data Base

OPR-ATT-1

SCH# 2003081086
Project Title East Garrison Specific Plan
Lead Agency Monterey County Planning & Building Inspection

Type EIR Draft EIR
Description Specific Plan to accommodate up to 1470 housing units, 75,000 square feet of commercial space, 100,000 square feet for studio space for artist community / public uses.

Lead Agency Contact

Name Mike Novo
Agency Monterey County Planning & Building Inspection
Phone 831-883.7518 **Fax**
email
Address 2620 First Avenue
City Marina **State** CA **Zip** 93933

Project Location

County Monterey
City Marina
Region
Cross Streets Reservation Road
Parcel No. 031-011-030, 031
Township **Range** **Section** **Base** MDBM

Proximity to:

Highways
Airports Marina
Railways
Waterways Salinas River
Schools CSU Monterey Bay
Land Use Former Military Base-Vacant Buildings/Public-Quasi Public/Mixed Use Development

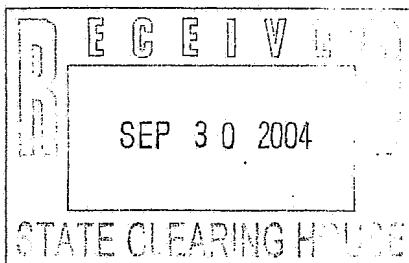
Project Issues Air Quality; Archaeologic-Historic; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wildlife; Landuse; Cumulative Effects; Agricultural Land; Growth Inducing

Reviewing Agencies Resources Agency; Department of Fish and Game, Region 3; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; Caltrans, District 5; Department of Toxic Substances Control; Native American Heritage Commission; State Lands Commission

Date Received 09/16/2004 **Start of Review** 09/16/2004 **End of Review** 11/01/2004

DEPARTMENT OF TRANSPORTATION

DIVISION OF AERONAUTICS – M.S.#40
1120 N STREET
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
PHONE (916) 654-4959
FAX (916) 653-9531
TTY (916) 651-6827



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*Flex your power!
Be energy efficient!*

OPR-ATT-2

September 29, 2004

Mr. Mike Novo
Monterey County Planning and Building Inspection Department
2620 First Avenue
Marina, CA 93933

Dear Mr. Novo:

Re: Monterey County's Draft Subsequent Environmental Impact Report (EIR) for East Garrison Specific Plan; SCH# 2003081086

The California Department of Transportation (Department), Division of Aeronautics (Division), reviewed the above-referenced document with respect to airport-related noise and safety impacts and regional aviation land use planning issues pursuant to the California Environmental Quality Act (CEQA). The Division has technical expertise in the areas of airport operations safety and airport land use compatibility. The Division is a funding agency for airport projects and has permit authority for public use airports and heliports. We offer the following comments for your consideration.

1. The proposal is for the development of a new mixed-use community on 244 acres approximately a mile and a half southeast of the Marina Municipal Airport. The proposal will include 1,400 residential units plus up to 70 accessory (carriage house) units, 75,000 square feet of commercial space, 11,000 square feet of institutional uses, and 100,000 square feet of artist studio space.
2. In accordance with Government Code Section 25302.3 (a) general plans, specific plans and amendments shall be consistent with the adopted airport land use plans. The proposal should, therefore, be consistent with the Marina Municipal Airport Comprehensive Land Use Plan (CLUP) developed by the Monterey County Airport Land Use Commission (ALUC). Figure 4-1 of the CLUP depicts the Marina Municipal Airport Planning Area. A portion of the project site is within the airport planning area. According to Section 2.4.1 under Overflight Policies on page 21 of the CLUP, all "new uses within the airport planning area shall provide an avigation easement to the City of Marina or the current owner of the airport." We advise coordinating the proposal with the ALUC.
3. For future reference, CEQA, Public Resources Code 21096, requires the Department's Airport Land Use Planning Handbook (Handbook) be utilized as a resource in the preparation of environmental documents for projects within an airport land use compatibility plan boundaries or if such a plan has not been adopted, within two nautical miles of an airport. The Handbook is a resource that should be applied to all public use airports. The Handbook is published on-line at <http://www.dot.ca.gov/hq/planning/aeronaut/htmlfile/landuse.php>.
4. Although no school sites are proposed at this time, the EIR mentions the possible need for new schools in the vicinity at "some point in the future." Education Code, Section 17215

Mr. Mike Novo
September 29, 2004
Page 2

OPR-ATT-2

requires a school site investigation by the Division prior to acquisition of land for a proposed school site located within two miles of an airport runway. The Division's recommendations are submitted to the State Department of Education for use in determining acceptability of the site. This should be a consideration prior to designating residential uses in the vicinity of an airport.

5. Public Utilities Code, Section 21659, "Hazards Near Airports Prohibited" prohibits structural hazards near airports. To ensure compliance with Federal Aviation Regulation, Part 77, "Objects Affecting Navigable Airspace," submission of a Notice of Proposed Construction or Alteration (Form 7460-1) to the Federal Aviation Administration (FAA) may be required. For further technical information, please refer to the FAA's web site at <http://www.faa.gov/ats/ata/ATA400/oeaaa.html>.
6. Another consideration is the recently enacted legislation AB 2776 amending Section 11010 of the Business and Professions Code and Sections 1102.6, 1103.4, and 1353 of the Civil Code. This bill changed buyer notification requirements for lands around airports. According to the new law, any person who intends to offer land for sale or lease within an *airport influence area* is required to disclose that fact to the person buying the property.
7. Marina Municipal Airport is an economic asset that should be protected through effective airport land use compatibility planning and awareness. Although the need for compatible and safe land uses near airports in California is both a local and a state issue, airport staff, airport land use commissions and airport land use compatibility plans are key to protecting an airport and the people residing and working in the vicinity of an airport. Consideration given to the issue of compatible land uses in the vicinity of an airport should help to relieve future conflicts between airports and their neighbors.

These comments reflect the areas of concern to the Department's Division of Aeronautics with respect to airport-related noise and safety impacts and regional airport land use planning issues. We advise you to contact our district office concerning surface transportation issues.

Thank you for the opportunity to review and comment on this proposal. If you have any questions, please call me at (916) 654-5314.

Sincerely,

Original Signed by

SANDY HESNARD
Aviation Environmental Planner

c: State Clearinghouse, Marina Municipal Airport, Monterey County ALUC



Arnold
Schwarzenegger
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Jan Boel
Acting Director

November 3, 2004

Mike Novo
Monterey County Planning & Building Inspection
2620 First Avenue
Marina, CA 93933

Subject: East Garrison Specific Plan
SCH#: 2003081086

Dear Mike Novo:

The enclosed comment (s) on your Draft EIR was (were) received by the State Clearinghouse after the end of the state review period, which closed on November 1, 2004. We are forwarding these comments to you because they provide information or raise issues that should be addressed in your final environmental document.

The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please contact the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question regarding the above-named project, please refer to the ten-digit State Clearinghouse number (2003081086) when contacting this office.

Sincerely,

Terry Roberts
Senior Planner, State Clearinghouse

Enclosures
cc: Resources Agency

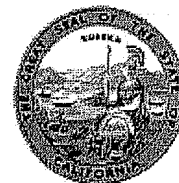
OPR2-1

RECEIVED

MONTEREY COUNTY
PLANNING & BUILDING
INSPECTION DEPT.

Department of Health Services

Northern California Drinking Water Field Operations Branch
Monterey District



California
Department of
Health Services

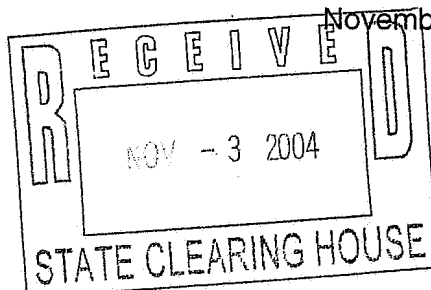
SANDRA SHEWRY
Director

ARNOLD SCHWARZENEGGER
Governor

OPR2-ATT-1

November 1, 2004

State Clearinghouse (SCH)
Office of Planning and Research
P.O. Box 3044
Sacramento, CA 95812-3044



Clear
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late
e

Schedule No. 2003081086

**Title: East Garrison Specific Plan Draft Subsequent Environmental Impact Report
(September 2004)**

The Department of Health Services, Drinking Water Field Operations Branch (Department), Monterey District office, has received and reviewed the above-cited document and provides the following comments:

1. The Department has the responsibility of ensuring that public water systems comply with the Safe Drinking Water Act and other regulations, including the California Waterworks Standards. These statutes and regulations require that water utilities provide an adequate quantity and quality of water to customers. The California Waterworks Standards also specify criteria for the water supply infrastructure design. The University Villages water supply system and sources must comply with all aspects of the Safe Drinking Water Act and the California Waterworks Standards. The Department has the following specific comments related to the water supply:
 - The existing source of water supply for the Ord Community Water System includes Well 29, which has confirmed concentrations of trichloroethylene (TCE) and coliform bacteria. As such, the Department does not find Well 29 to be a viable long-term source of water supply to support growth within the Ord Community. The rehabilitation of Well 29, identified in the Water Supply Assessment Report, should target eradication of the coliform and sealing off of the strata that produce water contaminated with TCE.
2. The Department has the responsibility for reviewing all new proposals for the use of recycled water to ensure compliance with California Code of Regulations, Title 22, Water Recycling Criteria. The Water Recycling Criteria require the submission of an engineering report to the Regional Water Quality Control Board (RWQCB) and the Department of Health Services before recycled water projects are implemented. If the project is intended to use recycled water for public areas or irrigation of the residential landscaping via a dual plumbed project, the DEIR should evaluate the effectiveness of the water utility's Cross Connection Control Program and improvements or mitigations needed to ensure there will be adequate

public health protection to domestic water users once the recycled water distribution system is in place.

Thank you for the opportunity to comment on the East Garrison DSEIR. If you have any questions regarding these comments, please contact me at (831) 655-6933.

Sincerely,



Betsy S. Lichti, P.E.
District Engineer, Monterey District
DRINKING WATER FIELD OPERATIONS BRANCH

BSL/bl

cc: CDHS-DWP Environmental Coordinator
Monterey County Environmental Health
Mike Novo, Monterey Co. Planning & Bldg Inspection Dept, 2620 First Ave., Marina, CA 93933
Marina Coast Water District

STATE OF CALIFORNIA, GOVERNOR'S OFFICE OF PLANNING AND RESEARCH

Response to OPR-1

This letter acknowledges receipt of the Draft SEIR by the State Clearinghouse for distribution to selected state agencies. OPR-ATT-1 and OPR-ATT-2 include a copy of the Document Details Report, State Clearinghouse Data Base and a comment letter from the Department of Transportation, Division of Aeronautics. This comment letter is responded to in this document separately.

Response to OPR2-1

This letter transmits a copy of the State of California, Department of Health Services letter (OPR2-ATT-1), which is responded to in this document separately.

City of Marina

211 HILLCREST AVENUE
MARINA, CA 93933
TELEPHONE (831) 884-1278
FAX (831) 384-9148



October 28, 2004

Mr. Mike Novo
Monterey County Planning and Building Inspection Department
2620 First Avenue
Marina, CA 93933

SUBJECT: COMMENTS ON DRAFT EAST GARRISON SPECIFIC PLAN AND DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT ON THE PLAN

Dear Mr. Novo:

The City of Marina appreciates the opportunity to provide the below comments on the Draft East Garrison Specific Plan and Draft Subsequent Environmental Impact Report (EIR) on the Draft Plan. We also appreciate the cooperation shown by County Staff and the East Garrison Partners during the City's consideration of possible comments on the Draft Plan and EIR. In the comments below, reference will be made to an October 14, 2004, meeting of City staff, County staff, and the East Garrison Partners, as well as understandings arrived at during that meeting. In most cases, Marina's remaining comments are just requesting the type of follow up arrived at during that meeting. Also attached is an exhibit to a Marina City Council staff report on the Draft Plan and EIR considered at their October 19, 2004, meeting. The exhibit includes City concerns from the City's most recent previous comment letter regarding the project, a City staff analysis of how the Draft Plan and EIR responded to the prior list of concerns, and how each item was addressed at the October 14, 2004, meeting of City staff, County staff, and the East Garrison Partners.

MARINA-1

1. Relative to demands for fire and public safety services, please clarify within the Specific Plan and EIR and then implement the formation of a Community Services District and Mello-Roos District to provide funding mechanisms for full fire and public safety services to be provided for the development from the County Sheriff and the Salinas Rural Fire District. Please also indicate that the City and the Salinas Rural Fire District, with assistance from the County as necessary, will work together towards a specific fire department mutual aid agreement in lieu of or in addition to the normal blanket automatic aid agreement. Given the typical wind conditions in the area, we also have concerns that although a fire station will be located near this development the local fire departments may be significantly stressed in their response should a fire occur in a non developed area nearby the project.

MARINA-2

2. It is proposed that a K-8 school (approx. 20 acres) site will be located between phase I and phase II developments (South of Watkins Gate Road and east or west side of Barlow Canyon Road.) Please include in the final Specific Plan or EIR a mitigation, requirement, or other provision to ensure that this facility is constructed concurrent with residential development.

MARINA-3

Otherwise, Marina K-8 schools would likely be impacted for one or more years until the East Garrison K-8 school is completed. Also, as understood at the October 14, 2004, meeting, please add language to the Specific Plan and Final EIR providing that that local impact fees collected on construction are to be kept locally, thus providing additional revenues for school facility funding.

MARINA-3

3. As understood at the October 14, 2004, meeting, please insert additional language in the Specific plan and EIR to have a Memorandum Of Understanding (MOU) mechanism in place between the City and County that will allow the City and County to jointly deal with fiscal impacts when the nexus is shown. In addition, if not already addressed in both the Specific Plan and draft EIR, add the language about a Community Services District that will provide various levels of community services associated with the East Garrison development, including ongoing maintenance.

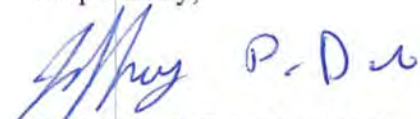
MARINA-4

4. The Draft East Garrison Specific Plan project proposes to develop 1,400 units, increasing the county population by approximately 4,337 persons. It would create approximately 380 employment opportunities based on the proposed commercial square footage. The job-housing ratio associated with this project is 0.27 (380 jobs divided by 1,400 units). It was understood at the October 14, 2004, meeting that the project meets both the County and Base Reuse Plan consistency in this regards, particularly given employment which the County anticipates adding within the East Campus of the UC MBEST Center. However, please add some discussion to the Specific Plan, EIR or another document about how the project may or may not exacerbate the current job-housing imbalance with the City of Marina nearby.

MARINA-5

Thank you for the opportunity to provide these comments. Please feel free to contact me at 884-1215 should you have any questions while responding to these requests.

Respectfully,



JEFFREY P. DACK, AICP
DIRECTOR FOR PLANNING

CC: Mayor and City Council
City Manager

EXHIBIT C

**Comments and Concerns related to the East Garrison Specific Plan & Draft Subsequent
Environmental Impact Report
October 13, 2004**

Note that the original questions in bold type font were derived from the Planning Director's response to Mr. Mike Novo, Monterey County Planning and Building Inspection Department, September 12, 2003, regarding the Notice of Preparation of the Proposed East Garrison Specific Plan. Planning staff reviewed the recent East Garrison Specific Plan (EGSP) and Draft Supplemental Environmental Impact Report (DSEIR) to determine if the City's original questions and concerns had been addressed by this current Specific Plan and DSEIR.

- 1. Please address the proposed Specific Plan project provisions regarding affordable housing and indicate if it is consistent with various applicable housing plans, including AMBAG's Regional Housing Allocation Plan and the anticipated final version of the County's new General Plan Housing Element.**

The DSEIR consistency analysis indicates that the EGSP will provide 20% of the total 1400 homes dedicated to affordable "Inclusionary" Housing (70 additional units are second carriage units- water dependent.) $1400 \text{ units} \times 20\% = 280 \text{ units} + 70 \text{ carriage units} = 350 \text{ potential affordable units. (25\%)}$

AMBAG's Regional Housing Allocation Plan 2000-2007: 3,925 total units in the unincorporated area. 25% very low income = 963 units. 21% low income = 813 units. 26% moderate income = 1,028 units. 29% above moderate income = 1,121 units.

Monterey County General Plan Housing Element: 2,511 lower income and moderate income units in the unincorporated area. 10% very low income = 251 units. 20% low income = 502 units. 40% moderate income = 1,004 units.

10/14/04 Joint Agency and Developer meeting: Conclusion on question was that the proposed development is consistent with FORA Reuse Plan and latest Monterey County General Plan adopted policies.

- 2. Please analyze demands for fire and public safety services and assess a possible mitigation to add a fire station within or adjoining the project site.**

Fire Service: Figure 3.4 of the East Garrison Specific Plan indicates a new fire station located near the southeast corner of the intersection of Inter-Garrison and West Camp Roads. The Salinas Rural Fire District (SRFD) will be located within the new building. The EGSP states that staffing for the new station will consist of a minimum of two firefighters on duty at all times by the end of Phase II of the EGSP and a minimum of three firefighters at all times by the end of Phase III of the EGSP. The apparatus serving the EGSP area will be a fully equipped 75-foot Quint fire apparatus. The funding mechanism for the fire station and fire apparatus is to be a requirement of the Development Agreement between the County, the project proponent and the SRFD.

In addition, the City of Marina's Fire Chief indicates that a Monterey County mutual aid agreement is in place with the Salinas Rural Fire District in regards to this project. |

Police Protection: The East Garrison Specific Plan notes that "The Monterey County Sheriff's Department provides police protection in the unincorporated areas of the county, including the project area." "According to the Sheriff's Department, the proximity of existing stations precludes the need for a full station at East Garrison." "The project proposes to provide a community field office for deputies to work on reports and have an address in the community." "The field office, if needed, will be located in a library or fire substation."

DSEIR: \$3.5 million is to be used for the construction of public facilities.

10/14/04 Joint Agency and Developer meeting: Consensus of joint meeting indicated further clarification was needed and would be added to the Specific Plan and/or DSEIR. The added information included the formation of a Community Services District and Mello-Roos District funding mechanisms. City Staff raised a question related to the fire department mutual aid agreement versus a blanket automatic aid agreement and that this needs to be addressed and resolved at some point between the City and the Salinas Rural Fire Department.

3. **Please address what will be the anticipated water demand rates for the various uses proposed in the project as well as the total gross demand numbers. Please then also compare these to the overall water allocation from the Fort Ord Reuse Authority (FORA) for all County jurisdiction land, and the portion of this land which is still available given other County projects and uses to which some of the overall allocation may have already been targeted. Finally, please list the projects/uses and the water associated with each of them.**

East Garrison Specific Plan Response: 470 acre-feet per year is anticipated for the EGSP development Track Zero. Residential water demand is based upon water use factors ranging from 0.20 afy/unit for mixed use residential (small apartments) and second dwelling units to 0.30 for single-family detached units.

Fort Ord Reuse Authority Table 3.11-2 Existing Water Allocation by Jurisdiction (FORA's April 12, 1996 Resolution) - Monterey County has been allocated 560 Acre Feet per Year.

10/14/04 Joint Agency and Developer meeting: Consensus reached and determined that the water allocations were consistent with the Base Reuse Plan. However, this only applies to the proposed Zero Track boundary of development and not the second phase of East Garrison or any future School site. |

4. **Please address project impacts upon public schools, both in and nearby Marina, including a possible mitigation to build an elementary school within or adjacent to the project site.** |

East Garrison Specific Plan Response: Proposed K-8 school (approx. 20 acres) site to be located between phase I and phase II developments. (South of Watkins Gate Road and east or west side of Barloy Canyon Road.) To staff's knowledge, there is no mitigation or requirement, however, to ensure that this facility is constructed concurrent with residential development. As a result,

FORA Reuse Plan and County of Monterey Subdivision Ordinance park standards require 3 acres per 1,000 people. $4,337 \text{ approximate population} \times 3 \text{ acres} = 13 \text{ acres} +/-$.

Planning staff's observations on park acreage ratio formulas for the EGSP. Based upon the different population assumptions for the East Garrison development and park acreage ratio formulas, the total required park acreage varies from 10 plus acres to approximately 13.5 acres. Therefore, the proposed parks and open space acreages are slightly under the 3 acres per 1,000 residence park standards per the Monterey County Subdivision Ordinance with the assumption of 4,337 people living within the 1,400 unit development. However, the difference is probably insignificant given the additional improved facilities included in designated open space that is not included in the total improved park acreage count.

10/14/04 Joint Agency and Developer meeting: The County Planning staff representative indicated that the number of persons per dwelling unit in the County is normally 3.16. Thus, based upon this ratio, it is anticipated that the population at East Garrison within the Track Zero boundary will be 4,424 people. Using the County's ratio would indicate a requirement for approximately 13.272 acres of improved park acres. The EGSP indicates 12.65 acres of improved park areas and 50 acres of open space with improved amenities. The consensus from the joint meeting was that the proposed parks and open space is consistent with the base reuse plan and county standards.

7. **Plases address project traffic impacts upon current and planned roads, both in and nearby Marina. Similarly, please address project impacts upon other current and planned circulation facilities, both in and nearby Marina, including bike routes/facilities, public transit facilities, and trails. Please look particularly closely at the impacts upon Reservation and Inter-Garrison Roads, both inside and adjoining Marina.**

Traffic Circulation: The project would generate approximately 13,690 daily vehicle trips with 1,290 trips occurring during the AM peak hour and 1,379 trips during the PM peak hour. With an additional 1,417 homes proposed (in a future second phase) for a total of 2,887 homes, total development, including the EGSP project, is expected to generate a total of approximately 24,480 daily trips, with 2,322 trips occurring during the a.m. peak hour and 2,467 trips occurring during the p.m. peak hour.

The Level Of Service (LOS) will be reduced and incrementally worsen to unacceptable levels at some project area intersections and roadway segments. Since it is uncertain at this time that the Reservation/Davis Road intersection improvements will be approved and funded by FORA, CIP and County, this impact to roadways and intersections will remain significant and unavoidable.

The project proponent will be paying a fair share and make payments over the course of the construction of different phases of the project, except for the improvements at Reservation Road and Davis Road.

Pedestrian and bicycle connections, links and trails are planned to be designed and integrated into the proposed development. Bike paths from East Garrison will connect to existing surface streets and tie into the regional bike routes, including Marina's portion of Fort Ord developments.

Public transportation and CSUMB buses will be provided with bus stops within a five-minute walking distance of residential units served.

10/14/04 Joint Agency and Developer meeting: The County Department of Transportation representative indicated that the proposed East Garrison circulation pattern of using existing street systems and a new road alignment that traverses Parker Flats and connects to Lightfighter Drive and Highway 1 will basically route East Garrison traffic around the City of Marina, even though it is anticipated that some vehicles from East Garrison will be using portions of Imjin Parkway to access services in the University Villages area. The developer representative indicated that approximately \$50 million would be collected through FORA fees to be utilized for regional road improvements.

- 8. In reference to the Base Reuse Plan and Proposed County Policies, “The focus of the community planning process is to create a vibrant, mixed-use urban village that balances jobs and housing.” Please analyze the project’s consistency with this focus, which is supportable by the City of Marina. Please particularly address impacts upon jobs-housing balance, within the Community Area alone, within the Community Area plus the City of Marina, within the former Fort Ord, and within the overall Monterey Peninsula area.**

East Garrison Specific Plan Response: The proposed project will consist of the following land use development types on the 244 gross acres (125 net acres) of Track Zero. Housing density is approximately 5.7 units/acre or 11 units per net developed acre.

- a. 1,400 residential units plus up to 70 accessory (carriage house) units (water permitting.)
- b. Single family detached: 780 units (1,300 to 3,200 sq. ft.) Carriage house units (450 to 850 sq. ft.)
- c. 2-3 story Townhouses: 227 units (1,300 to 2,000 sq. ft.)
- d. Condominiums/Loft/Apartments: 280 units (500 to 1,200 sq. ft.)
- e. Live/work units – approximately 49 located adjacent to the Town Center. An additional 65 inclusionary live/work units to be developed at the center of Phase 3 Arts District. (1,100 to 1,975 sq. ft.)
- f. 20% inclusionary housing
- g. Mixed Use – located in the center of the community and phase 3 Arts District.
- h. Three neighborhoods separated and connected to a central commercial area.
- i. 75,000 square feet of commercial use.
- j. 11,000 square feet of artist/cultural/educational space in new construction and renovated existing structures.
- k. Cultural Land Use – approximately 100,000 square feet of affordable studio space provided by the renovation of the WPA buildings.
- l. 50 acres approximately of open space.
- m. 12 acres approximately of improved parks and trails.

Monterey County Draft January 2004 General Plan Appendix E, Fort Ord General Plan Amendment (adopted 11/20/01):

“The Regional Housing Needs Allocation for Monterey County includes adoption of a Specific Plan for the East Garrison area that would allow for approximately 1,390 housing units.” “The EGSP includes a proposed amendment to the MCGP to ensure its consistency with the MCGP.” (DSEIR pg. 3-9)

The proposed development indicates all the residential units are planned at a medium to high density (between 5 and 36 units per acre.) This is consistent with the Monterey County Draft January 2004 General Plan Appendix E, Fort Ord General Plan Amendment 11/20/01 Base Land Use Designations.

Jobs-Housing Balance: The EGSP project proposed to develop 1,400 units, increasing the county population by approximately 4,337 persons. It would create approximately 380 employment opportunities based on the proposed commercial square footage. The jobshousing ratio associated with this project is 0.27 (380 jobs divided by 1,400 units). Although this project does not begin to achieve a jobs-housing balance, the County may justify such a jobs-deficient project by noting its location in the jobs-rich Monterey Peninsula region.

Public Services and Utilities: The project will require the replacement and expansion of public services and utilities. New water facilities must be constructed within and outside the project site in order to provide potable water service and fire protection. MCWD plans to construct a new 4 million gallon storage reservoir and booster pump station adjacent to existing Storage Reservoir “F”. However, specific plans for the new storage reservoir do not exist at this time, therefore, this impact is significant and unavoidable.

The construction activities could potentially unearth or release hazardous materials, such as asbestos or lead through earth moving or demolition activities.

10/14/04 Joint Agency and Developer meeting: Consensus reached and agreed that the East Garrison project meets both the County and Base Reuse Plan consistency.

3.3.3 City Agencies

CITY OF MARINA

Response to MARINA-1

The comment states appreciation for the County and applicant's cooperation with the City of Marina. The comment also explains the purpose of an attachment to the letter, which contains an analysis of prior concerns related to the project that were addressed at an October 14, 2004, meeting of City of Marina staff, Monterey County staff, and East Garrison Partners. Therefore, no further response is required.

Response to MARINA-2

The project conditions of approval and Development Agreement require the creation and approval of a Community Services District (CSD). This project site would also be required to apply for a Sphere of Influence Amendment and annex the project area into the Salinas Rural Fire Protection District (SRFPD). Additionally, as identified on Page 4.11-3 of the DSEIR, funding will be provided through a Mello-Roos or Fire Suppression Assessment, which will supplement property tax and capital provided by the developer. As described on Page 4.11-5 of the DSEIR, the Monterey County Sheriff's Office is signatory to a mutual aid agreement with the SRFPD, California Highway Patrol, Marina Department of Public Safety, California State University Monterey Bay Police Department, Federal Bureau of Investigation, Presidio of Monterey Police Department, and the Bureau of Land Management. The County will work with the City of Marina and SRFPD to prepare a fire department-specific mutual aid agreement in addition to automatic aid agreement. The CSD will fund the sheriff operations.

Response to MARINA-3

See Section 3.3, MR-5: Schools, for a discussion of a school site. In addition, Page 4.11-7 of the DSEIR has been revised as follows:

According to the MPUSD, costs for staff will be provided by State funding that is based upon average daily attendance counts. Costs to build needed school facilities will be provided by developer fees **and other sources, which could be earmarked for local development by the School District, thereby providing additional revenues for school facility funding.** ~~Statutory~~ These fees are assessed at a rate of \$2.24 per square foot of residential development and \$0.36 per square foot for commercial development. Pursuant to Section 65996 (3)(h) of the California Government Code, payment of these fees "is deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization." Any environmental impacts resulting from construction of new schools will be analyzed by the MPUSD prior to construction, **during the site selection process.** **The Disposition and Development Agreement currently provides that school fees will be paid at the statutory fee per square foot of residential construction to ensure the district has adequate funding to build any needed school facilities. The district is reviewing the ability to charge Level 2 fees.**

Response to MARINA-4

The County concurs with the comment and will work collaboratively with the City of Marina on preparation of a Memorandum of Understanding (MOU). An MOU is not required for the project; however, the County agrees to the formalization of an MOU in the spirit of cooperation. As described on Pages 3-30 and 3-46, the project would include the creation and approval of a Community Services District (CSD), which would provide for operations and maintenance for public services and parks and open space areas. The CSD is a requirement of the Disposition and Development Agreement that will be

considered by the Redevelopment Agency and is a requirement of the Combined Development Permit to be considered by the Board of Supervisors. The majority of infrastructure will be constructed by the developer as described in Section 5 of the *East Garrison Specific Plan*.

Response to MARINA-5

The comment states that the City of Marina currently has a job/housing imbalance and asks how the project may or may not exacerbate the City's imbalance. According to the analysis presented in the DSEIR using the most current state and federal data, the City of Marina has a 0.77 jobs/housing ratio and is considered balanced with regard to the jobs/housing ratio.

DSEIR Section 4.10, Population, Housing, and Employment, provides a jobs/housing analysis comparison for the County of Monterey, City of Marina, and City of Salinas. As discussed in the DSEIR, the County and the surrounding cities currently have more housing than jobs, and employees of local companies must commute to outlying areas. This trend is expected to worsen within the County. However, according to AMBAG forecasts, the jobs/housing balance in the cities of Marina and Salinas will improve due to increases in housing.

To assist in offsetting the impact of jobs lost as a result of the base closure, the Reuse Plan emphasized job creation and established a policy to maintain a local jobs-to-housing balance in the former Fort Ord area. The Reuse Plan also proposed the construction of housing before the development of employment to act as an incentive to future employers. As the comment points out, the overall balance of job creation to new dwelling units is low within the EGSP area. However, two large job centers—California State University Monterey Bay (CSUMB) and University California Monterey Bay Education, Science, and Technology Center (UCMBEST) exist within the area. The EGSP project would assist in improving the jobs/housing balance by providing housing in areas within Monterey County and within commuting distance to employment centers such as UCMBEST, CSUMB, and the Cities of Monterey and Salinas.

Response to MARINA-ATT-1

This attachment to the City of Marina's comments documents the comments and concerns raised during the Notice of Preparation (NOP) comment period, City of Marina conclusions on whether the DSEIR responded to the NOP comments, and conclusions of a Joint Agency and Developer Meeting held on the EGSP project on October 14, 2004. No further response is required.



MONTEREY BAY

Unified Air Pollution Control District
serving Monterey, San Benito, and Santa Cruz counties

AIR POLLUTION CONTROL OFFICER
Douglas Quetin

24580 Silver Cloud Court • Monterey, California 93940 • 831/647-9411 • FAX 831/647-9501

October 8, 2004

Mike Novo
Monterey County Planning and Building
2620 1st Avenue
Marina, CA 93933

SUBJECT: DSEIR FOR EAST GARRISON SPECIFIC PLAN

Dear Mr. Novo:

Staff has reviewed the referenced document and has the following comments:

Air Quality

- | | | |
|----|--|--------------|
| 1. | <u>Page 4.5-2, para 4.</u> The District monitors air quality in the NCCAB, not ARB. | MBUAPCD
1 |
| 2. | <u>Page 4.5-8, para. 4.</u> Reference should be made to the 2004 AQMP adopted by the District Board on September 15, 2004. | MBUAPCD
2 |
| 3. | The discussion of air quality should note that while air quality in Monterey County is generally good, emissions generated in the county affect downwind air quality. | MBUAPCD
3 |
| 4. | <u>Page 4.5-8 and page 4.5-9.</u> Consistency with the AQMP addresses a <u>project's cumulative impact</u> on ozone levels. <u>Project level</u> impacts are addressed by comparing a project's emissions to the thresholds of significance for ozone precursor emissions. | MBUAPCD
4 |
| 5. | <u>Page 4.5-9, bullet 3.</u> The document suggests that impacts of pollutants for which thresholds of significance are established are not quantifiable. The impacts of direct PM ₁₀ , CO, and SOx can all be modeled and thus quantified. The statement applies only to ozone precursor emissions and aerosols. | MBUAPCD
5 |
| 6. | <u>Page 4.5-9, bullet 3.</u> The document states that the thresholds of significance are considered individually and cumulatively significant. Please see item 4 above for ozone. The PM ₁₀ and CO thresholds are primarily screening level thresholds, i.e., at the threshold level modeling can be undertaken to determine a project's impact in relationship to ambient air quality standards. | MBUAPCD
6 |
| 7. | <u>Page 4.5-11.</u> The District's Guidelines indicate that up to 2.2 acres per day of excavation and grading and <u>8.1 acres per day</u> of grading can be undertaken without a significant impact on PM ₁₀ levels. The document references <u>8.1 acres per month</u> . The project's air quality impact assessment should be revised using the District's recommended guidelines. | MBUAPCD
7 |

DISTRICT BOARD MEMBERS

CHAIR: Jack Barlich Del Rey Oaks

VICE CHAIR: Bob Cruz San Benito County

Anna Caballero Salinas

Lou Calcagno Monterey County

Tony Campos Santa Cruz County

Tony Gualtieri Capitola

Edith Johnson Monterey County

Butch Lindsey Monterey County

Arturo Medina San Juan Bautista

John Myers King City

Ellen Rice Santa Cruz County

- | | |
|--|-----------------------|
| <p>8. <u>Page 4.5-12.</u> The discussion of project level emissions from natural gas combustion indicates that emissions are both directly and indirectly emitted (i.e., power plant emissions). Since energy is provided from the Western grid, it is not possible to quantify project related emissions generated within the air basin.</p> | <p>MBUAPCD
8</p> |
| <p>9. <u>Page 4.5-13.</u> Reference is made to the threshold of 550 lbs/day of CO. This threshold only applies to stationary sources (See District's CEQA Air Quality Guidelines, p. 5). The CO threshold for indirect sources relates to traffic congestion and LOS.</p> | <p>MBUAPCD
9</p> |
| <p>10. <u>Page 4.5-13, Mitigation Measures.</u> The project would generate 127 lbs/day of ROG and 73 lbs/day of NO_x emissions in excess of the District's threshold of significance. The document states that there are no mitigation measures that will create sufficient emission reductions to achieve a less-than-significant impact. Off-site mitigation as recommended in the District's CEQA Air Quality Guidelines is feasible and should be addressed. District staff should be contacted for suggestions regarding retrofitting off-site sources or other potential off-sets.</p> | <p>MBUAPCD
10</p> |
| <p>11. <u>Page 4.5-14.</u> The document states that CO is the one criteria pollutant that allows for direct calculation of ambient exposure. This is incorrect; see comment 5. above.</p> | <p>MBUAPCD
11</p> |
| <p>12. The DSEIR should address the impact of future prescribed burns on project residents. Prescribed burning could bring the project population into contact with unhealthy levels of PM₁₀ and acrolein (see District Smoke Management Plan FEIR, May 2002).</p> | <p>MBUAPCD
12</p> |
| <p>13. <u>Page 5-25.</u> The DSEIR states that the project exceeds the threshold of significance for CO and that daily operational impacts would be cumulatively significant. As pointed out earlier, the 550 lbs/day applies only to stationary sources. The CO analysis for indirect sources (i.e., the Caline modeling), shows that indirect CO emissions would not be cumulatively significant.</p> | <p>MBUAPCD
13</p> |
| <p>14. <u>Page 5-27.</u> The District's threshold of significance for PM₁₀ applies only to direct sources, not indirect sources. The District does not have a threshold for indirect sources of PM₁₀, which is emitted over time and distance and not possible to model. The discussion regarding the cumulative impact of PM₁₀ emissions should be modified to address the applicability of the threshold to the proposed project.</p> | <p>MBUAPCD
14</p> |
| <p>15. <u>Appendix F: Urbemis2002 Model.</u> Based on the information provided in the Appendix, the model was run for residential use only and did not include the other uses, e.g., commercial, institutional, etc. The input data for the residential uses assumed all single family units rather than the proposed mix of single family, multiple family, condos, etc. which results in an overestimation of emissions for the residential units. The Vehicle Fleet Mix and Operational Emissions do not reflect those for the NCCAB (See District CEQA Air Quality Guidelines, Tables 7-1 and 7-2). Also see comments below regarding the underestimation of trips for the project. The model should be rerun for all land uses using the applicable input data. Emissions should be calculated for the date of occupancy.</p> | <p>MBUAPCD
15</p> |

Traffic

16. DSEIR p. 4.4-17. "The EGSP modeling and traffic study is based on the regional traffic model that has been used by Caltrans; the cities of Salinas, Monterey, and Seaside; and Monterey county". The DSEIR should further state that this EGSP traffic study uses the AMBAG regional traffic forecast model developed by AMBAG staff for regional purposes. Use by others for a detailed site specific traffic study is subject to conditions agreed to in a user agreement with AMBAG. To date, those conditions have not been met by any of the consultants preparing the EGSP traffic study. The DSEIR also should note that AMBAG has specifically not yet approved the modifications made to this model by the traffic consultants or sub-consultants whose work is presented in this DSEIR.

MBUAPCD
16

17. DSEIR p.4.4-17. "In the mode choice component, person trips choose between nine modes of travel based on economic criteria". The DSEIR should note that no choices between transit, auto, or other travel modes were modeled for this DSEIR. In fact, the model's mode choice component was turned off and not used to forecast the traffic impacts shown in this DSEIR. As a consequence, any potential to reduce or mitigate the project's traffic impacts due to the choice of alternative travel modes was neither assumed nor assessed by the study.

MBUAPCD
17

18. DSEIR p. 4.4-17. Which of the two project descriptions is correct: "land use assumptions [include]...the creation of 380 jobs, or " the project will...[have] a total of 164 jobs" (Traffic Impact Study p. 17).

MBUAPCD
18

19. Traffic Study, p. 15. The following statement should be revised: "The traffic model has been used for traffic and land use studies since 1998, including three air quality conformity analyses and four major corridor studies" to read as follows: "The traffic model has been modified from the authorized version developed by AMBAG for this study, but is not currently approved for this traffic impact study use by AMBAG. Other versions of this model were used for traffic and land use studies (etc)..." The original statement in the DSEIR incorrectly identifies the traffic model used for the DSEIR as the same as the other versions noted.

MBUAPCD
19

20. DSEIR p. 4.4-17 and table 4.4-6 state the project will generate 13,692 daily trips, of which 1,379 occur during the PM peak hour, 814 of those inbound. Since the project land use characteristics were also detailed in the DSEIR, the number of daily (ADT), PM peak hour and PM peak hour inbound vehicle trips can be calculated using standard Institute of Transportation Engineers trip generation rates. Explain why the DSEIR trips are no more than 77% of the ADT, PM Peak Hour, and PM Peak Hour inbound trips that would occur if generated using standard ITE rates. (The attached tables compare vehicle trip generation used in this DSEIR with trips which would be generated using standard ITE rates. See Table 1. DSEIR Estimates, 2. Estimates Using ITE rates, and 3. Comparison of DSEIR With ITE Rate Estimates).

MBUAPCD
20

21. DSEIR, p. 4.4-17 et seq. Explain why the DSEIR Transportation and circulation "Methodology" section and the attached Traffic Study (p.15) do not describe or document choice of travel mode, nor do they describe or document the actual directional distribution of trips by trip purpose to and from the project site. (See related comment on mode choice component of the model).

MBUAPCD
21

22. Provide a table showing the directional distribution in percent by trip purpose for total ADT and Peak hour trips generated by the project. This distribution should be presented for all roadways serving the site, namely: to Reservation Rd. west, Blanco Rd., S. Davis Rd., Highway 68 (North and South), River Rd. and Inter Garrison. Although directional distribution can be laboriously extracted from DSEIR intersection turning movements, a summary of the directional distribution of project trips is not in the DSEIR. Without directional distribution, the reader lacks the information needed to determine whether reported intersection traffic or LOS are reasonable or based on undocumented modifications to the regional traffic forecast model.

MBUAPCD
22

23. Explain why just one percent of project PM Peak hour traffic is assigned to Highway 68 toward Monterey and only five percent of project PM Peak hour traffic is assigned to Highway 68 toward Salinas. (See attached Figure: PM Peak Hour Project Traffic Distribution).

MBUAPCD
23

24. Explain why more than one quarter of all project PM Peak hour traffic (27%) is assigned to River Road toward Spreckles. (See attached Figure: PM Peak Hour Project Traffic Distribution).

MBUAPCD
24

25. Explain why growth in cumulative PM Peak hour traffic, *without* the project, is forecast for 2020 at 1,497 trips just to the west of the project site on Reservation Road, *six* times the forecast of 253 trips forecast here in the eastbound direction. (See attached Figure: PM Peak Hour Traffic Growth Forecast (Cumulative less Existing). This means 2020 PM Peak hour directional splits for the growth in cumulative traffic at this location is 14/86. Peak hour directional splits forecast for buildout conditions which are less balanced than 40/60 on major roadways are highly improbable and unrealistic, indicating some underlying error in the forecast method.

MBUAPCD
25

26. Traffic study, p. 23. "These lists [of 2020 roadway improvements used in the cumulative traffic impact assessment] were developed in consultation with AMBAG and TAMC. They are commonly thought to have funding and subsequently a probability of being built." Identify the specific improvements and state whether each improvement is or is not adopted in AMBAG's current financially constrained metropolitan transportation plan. If any of the listed improvements are not in that plan, explain why they are "commonly thought to have funding" and estimate the probability of their being built.

MBUAPCD
26

Thank you for your consideration. If you have any questions, please do not hesitate to call me.

Sincerely,



Janet Brennan
Supervising Planner
Planning and Air Monitoring Division

c: Nicolas Papadakis, AMBAG

East Garrison DSEIR Traffic Generation

Table 1 DSEIR Estimates

Land Use	Quantity	Units	trip rates per unit			trips					
			ADT	AMPK	PMPK	PMPK IN	ADT	AMPK	PMPK IN		
Phase 1											
Dwelling Units*	1470	DU	7,610	0.735	0.768	0.478	11,187	1,081	1,129	703	
Jobs **	380	jobs	6,591	0.550	0.659	0.291	2,505	209	250	111	
					Total Trips		13,692	1,290	1,379	814	
Phase 2											
Dwelling Units	1417	DU	7,610	0.735	0.768	0.478	10,784	1,042	1,088	678	
Jobs ***	0										
					Total Trips		10,784	1,042	1,088	678	
Both Phases											
Dwelling Units	2887	DU					21,971	2,123	2,217	1,381	
Jobs	380	jobs					2,505	209	250	111	
					Total Trips		24,476	2,332	2,467	1,492	

Notes

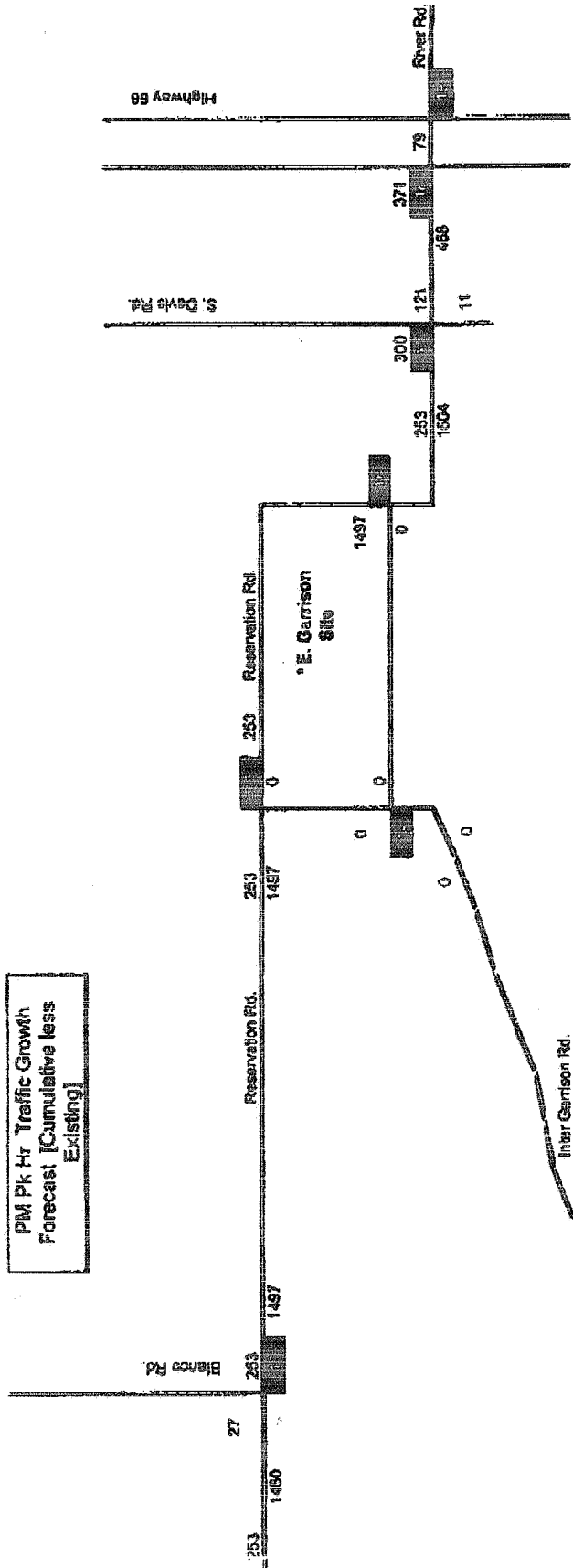
- * Trip generation assumes 4491 residents in 1470 DU, or: residents/ DU
- ** DSEIR does not state whether there are any jobs in phase 2.
- *** Density of residential development (used to define ITE LU code) is

DU/111 Net Residential Acres =
 Approximate parcel size per unit, Sq. Ft. =

use this

Phase 1	Both
13.2	26.0
3,020	1,538

MBUAPCD-ATT-1



MBUAPCD-ATT-1

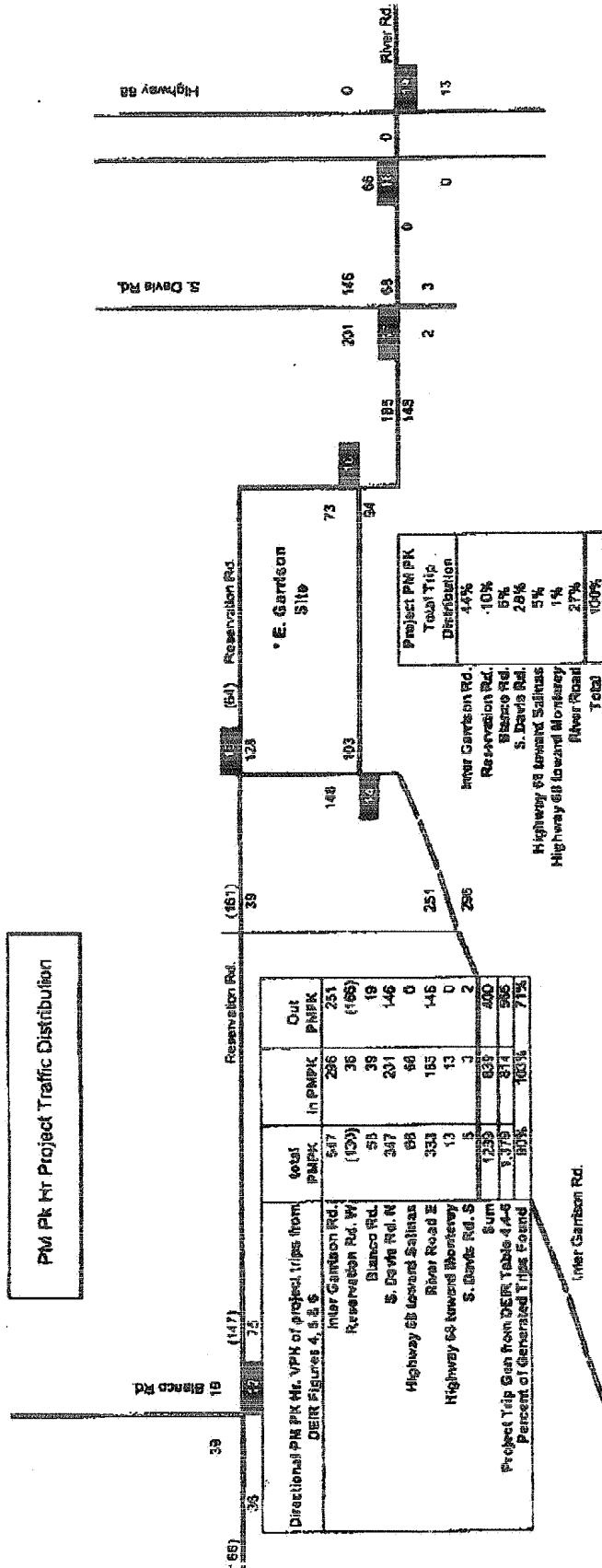


Table 2 Estimates Using ITE rates

Phase 1	Land Use	Quantity	Units	ITE	trip rates				trips			
					ADT	AMPK	PMPK	PMPK IN	ADT	AMPK	PMPK	PMPK IN
ITE RATES	Dwelling Units*	1470	DU	230	6.739	0.506	0.633	0.417	9,906	744	930	614
	Commercial**	75	KSF	814	40.670	6.410	4.930	2.810	3,050	481	370	211
	Public**	11	KSF	733	25.000	2.250	2.860	0.887	275	25	31	10
	Art/Cult/Educ**	100	KSF	590	45.500	0.990	4.740	2.275	4,550	99	474	228
	Subtotal Commercial	186	KSF					7,875	605	875	448	
					Total Trips				17,762	1,348	1,805	1,052

Notes

ITE Trip Generation, 5th Ed.

Rate 230, Residential Condos/Townhouses

ADT trip rate adjusted per ITE for >3 persons/ hr using =

Commercial: ITE Land Use Code 814 Speciality Retail Center

Public: ITE Code 733 Government Office Complex

Art/ Cult./ Educ.: ITE Code 590 Library

1.15 ITE Adjustment for over 3.00 persons/HH

Table 3 Comparison of DSEIR with ITE rate Estimates

Phase 1	Land Use	Quantity	Units	DSEIR Trips				DSEIR Pct. of			
				ADT	AMPK	PMPK	PMPK IN	ADT	AMPK	PMPK	PMPK IN
COMPARE	Dwelling Units*	1470	DU	1,261	337	199	90	113%	145%	121%	115%
	Commercial	186	KSF	(5,371)	(395)	(625)	(337)	32%	35%	29%	25%
				Totals	(58)	(426)	(248)	77%	86%	76%	77%

Discussion: The DSEIR uses an estimate of trip generation which results in over 4,000 less daily vehicle trips, 426 lower in the critical PM Peak hour. Overall, the DSEIR estimate is approximately 77% of the ITE estimate for daily, PM Peak Hour and PM Peak Hour In. The size of the underestimate imputes the validity of the traffic impacts assessed in this report.

With jobs as stated to be:
 The implicit ADT/ job trip rate is:
 With Commercial/ Institutional Acres in:
 The implicit jobs Net Acre are:
 The implicit jobs Gross Acre are:

390	164
6.591	15.272
18	18
21.1	9.1
16.4	7.1

Exclude: Acreage for streets and misc. of
 70 streets & misc. * 18 comm. & ind. / 244 total =

5.164

3.3.4 Regional Agencies

MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT

Response to MBUAPCD-1

Page 4.5-2, paragraph 4 has been revised as follows:

Control of mobile sources of air pollution is exercised at the state and federal levels. Vehicular emissions standards are established by the California Air Resources Board (ARB) for vehicles sold in California. ARB establishes statewide ambient air quality standards, monitors air pollutants, designates air basins, and if necessary, exercises control of stationary air pollutant sources. **Air quality in the NCCAB is monitored by the MBUAPCD.**

Response to MBUAPCD-2

The 2004 AQMP has no major changes from the 2000 AQMP except to update the baseline and to add some stationary source measures not relevant to general development. The proposed project is consistent with the 2004 AQMP because it was consistent with the 2000 AQMP, with consideration to the changes to the baseline and stationary source measures. The comment requests the addition of updated information. Paragraph 4 is revised as follows:

Planning for attainment of state standards is embodied in the MBUAPCD's *1991 Air Quality Management Plan (AQMP)*. The 1997 update demonstrates that the 20 percent reduction target in ozone precursor emissions from the 1987 baseline has been met and that no new control measures (contingency measures) are needed beyond those already in the plan. The 2000 AQMP update for state standards concluded that the NCCAB would remain on the borderline between attainment and nonattainment of the state 1-hour ozone standard. A combination of meteorological variability, pollution transport from outside the air basin and local sources will all contribute to a continuing small number of violations. **An updated AQMP was adopted by the MBUAPCD Board of Directors on September 15, 2004. The updated plan generally continues the previous level of air pollution control, but updates the baseline assumptions within the plan.**

Response to MBUAPCD-3

The comment asks for clarification of information provided on air quality and emissions. Page 4.5-7 is revised as follows:

In the last five years, only one state measurement and no federal measurements exceeded ambient air quality standards at the Salinas monitoring station (Table 4.5-2). The only recorded violation was the state standard for PM₁₀ in 1999, which was likely associated with the wildfires in the Los Padres National Forest. The wildfires are not considered representative of normal ambient conditions. Therefore, since the air quality in the project area is generally good, the goal is to maintain the air quality status rather than implementing control programs to achieve attainment. **However, because Monterey County is a source area for ambient air quality farther downwind, emissions control continues to be an important part of air quality planning even if local air quality meets standards.**

Response to MBUAPCD-4, MPUAPCD-5, MPUAPCD-6

Comments noted. The list of "requiring additional analysis" (see text changes below, in this response) apply to "direct emissions" only. Direct emissions would generally be non-mobile sources. Construction activity PM₁₀ is also considered a "direct" source. If project-vicinity intersections operate at substantially degraded LOS, a significant micro-scale air quality impact could occur that would warrant a "hot spot"

analysis. The threshold discussion has been revised in the DSEIR to distinguish between the ROG and NO_x as project-specific impacts versus CO and PM₁₀ as indicators that additional analysis is required. Page 4.5-9, third bullet point is revised as follows:

- ~~Many air pollutants require additional chemical transformations to reach their most unhealthful form. Emissions from any single project are diluted to immeasurably small levels by the time this process is completed. The MBUAPCD has therefore developed emissions based threshold guidelines as defining “substantial” even if the actual resulting ambient air quality is typically not directly quantifiable. The following daily project related emissions are considered individually and cumulatively significant.~~

Particulate Matter (PM ₁₀).....	82 lb
Reactive Organic Gases (ROG)	137 lb
Nitrogen Oxides (NO _x)	137 lb
Sulfur Oxides (SO _x).....	150 lb
Carbon Monoxide (CO).....	550 lb

- **The analysis matrix shown below contains impacts that result from emissions that are already released in their most unhealthful forms (called “primary” pollutants), as well as those created by chemical conversion in the atmosphere (“secondary” pollutants). CO is a primary pollutant. PM₁₀ and SO_x can be either primary or secondary. Ozone is a classic secondary pollutant (formed by ROG, NO_x and sunlight). The impacts of secondary pollutants cannot be evaluated on a project-specific basis. Emission levels of the ozone precursors ROG and NO_x in excess of 137 pounds per day of either pollutant is considered individually significant by the MBUAPCD thresholds. The emissions levels of other pollutants shown below are considered screening levels requiring a more detailed analysis of impact potential. The significance thresholds should thus be interpreted as follows (lb/day):**

Significant

<u>Reactive Organic Gases (ROG) .</u>	<u>137 lb</u>
<u>Nitrogen Oxides (NO_x).....</u>	<u>137 lb</u>

Requiring Additional Analysis (Direct Emissions)

<u>Particulate Matter (PM₁₀)</u>	<u>82 lb</u>
<u>Sulfur Oxides (SO_x)</u>	<u>150 lb</u>
<u>Carbon Monoxide (CO).....</u>	<u>550 lb</u>

Consistency (or lack thereof) with the growth projections in the AQMP is generally considered a cumulative regional ozone impact issue. The project is consistent with their growth projections. The 137 lb/day of ROG or NO_x are considered an individual or project-level impact. The proposed project will cause ROG emissions to exceed the 137 lb/day threshold at anticipated build-out. PM₁₀ emissions from on-road travel would also exceed the 82 lb/day level, but PM₁₀ impacts are only considered significant for direct sources such as quarries, or for off-road (dirt) travel. PM₁₀ emissions may exceed 82 pounds/day during construction grading, but the size of the simultaneous daily grading area is not known with adequate precision. Mitigation of the “excess” ROG emissions is considered a reasonable project objective.

Also, see discussion in Response to MBUAPCD-10.

Response to MBUAPCD-7

The comment states that the MBUAPCD guidelines allow for grading of up to 8.1 acres per day, not 8.1 acres per month as stated in the DSEIR. However, the EGSP would still result in an aggregate total of grading in excess of 8.1 acres a day and the air quality analysis does not need to be revised.

Page 4.5-11, paragraph 2 is revised as follows:

The ~~Monterey County Planning and Building Inspection Department (MCPBID)~~ MBUAPCD requires that the ~~monthly~~ **daily** maximum grading disturbance area of a project shall be maintained at 8.1 acres or less. This limited acreage is feasible for smaller projects, but would not be feasible for construction of the EGSP. **Verification of the maximum daily grading area at an active major grading project is almost impossible because the grading dynamics change in very short times. Observer safety is also an issue because of the large size of the equipment and the visibility limitations experienced by the equipment operator. Because a restriction of the grading area to 8.1 acres, or 2.2 acres of excavation, is not always logistically possible in a project of this size and cannot be reliably enforced, it is recommended that maximum daily PM₁₀ emissions be considered a temporary significant impact. However, because it is infeasible to establish the magnitude or the location of the variable PM₁₀ emissions, there is no reliable mechanism to translate these emissions into an actual air quality impact relative to ambient air quality standards. Because such emissions are transitory and undefined as to location or magnitude, it is also impossible to develop mitigation measures that would guarantee that significance thresholds would not be exceeded. However, mitigation measures identified in the SEIR reduce air quality construction impacts to the extent feasible.**

Response to MBUAPCD-8

The response is correct in stating that since energy for the EGSP would be provided from throughout the Western Grid, it is not possible to quantify project-related power plant emissions generated within the air basin. Page 4.5-12 has been revised as follows:

Stationary source emissions would be generated due to an increased demand for electrical energy and natural gas consumption with the operation of the proposed project. This assumption is based on the supposition that those power plants supplying electricity to the site continue to use fossil fuels. Electric power generating plants are found in the NCCAB and western United States and their emissions contribute to the total regional pollutant burden. **However, it is not possible to quantify project-related power plant emissions generated within the air basin since the project would use energy generated throughout the Western Grid.** The primary use of natural gas by the proposed land uses would be for combustion space heating and water heating. As shown on Table 4.5-3, stationary source emissions generated directly from the natural gas consumption ~~or indirectly from the power plant~~ would not exceed MBUAPCD “criteria pollutant” thresholds. Area sources also include a variety of miscellaneous residential sources from household products, paints and solvents, herbicides/pesticides, landscape maintenance equipment and recreational fires for cooking, warmth, or ambiance.

Response to MBUAPCD-9

The threshold has been clarified in MBUAPCD-6 to indicate that 550 pounds per day applies only to direct sources of CO emissions. The trigger level for a detailed CO analysis for comparison with standards is the possible degradation of any intersection or roadway segment to LOS E or F. A micro-scale screening analysis was performed on the EGSP vicinity roadway grid, and no “hot spot” potential was found.

Response to MBUAPCD-10

The EGSP would generate levels of ROG and NO_x in excess of the MBUAPCD significance threshold if all development were to occur instantaneously. With phased development with a build-out around 2012, NO_x levels would be below the District threshold, but ROG would exceed the 137 pound per day limit until around 2020.

MBUAPCD staff was contacted to determine the feasibility and reasonableness of offsite mitigation because of the lack of available on-site reductions. District staff performed an independent calculation for the Year 2012, and determined that annual ROG emissions would exceed the annualized combined “area” source and off-site mobile source emissions by 5.9 tons per year. If build-out occurs after 2012, the degree of excess would be gradually reduced. Staff also calculates that PM₁₀ emissions would exceed the annual emissions budget for a less-than-significant source by 12 tons per year. However, PM₁₀ emissions from operational activities are only considered significant if they derive from on-site sources or from unpaved road travel. Although District staff (Fairbanks, 2005) has provided an analysis of PM₁₀ mitigation potential, there is no clear-cut nexus between impact significance and mitigation for PM₁₀.

Offsite mitigation in the form of an in-lieu pollution fee earmarked for development of paved bike trails around the campus, research facilities, and the City of Marina is seen as the most cost-effective method to effect meaningful ROG reductions. District staff calculates that a contribution of 2.6 million dollars to the regional bikeway program would provide ROG emissions reductions that would reduce the project impact to a less-than-significant level. This represents a per-unit pollution off-set fee of \$1,740. As noted above, the PM₁₀ offset calculated by District staff from improvement to diesel-powered farm engines is not a CEQA issue because project PM₁₀ emissions are mainly from indirect (mobile) sources.

Page 4.5-13, paragraph 2 is revised as follows:

As shown on Table 4.5-3, mobile source emissions for 4 of the 5 “criteria pollutants” analyzed are above the MBUAPCD CEQA-significance threshold. Project-related mobile emissions plus area sources range from less than 2 percent of the threshold for SO_x to a maximum of 364 percent of the CO threshold. However, buildout will not occur by 2005, rather it will be phased over a number of years, with buildout estimated to be in 2012. Thus, buildout will occur with a “cleaner” vehicle fleet than in 2005. In 2012, emissions will be lower, but still not fully reduced to less-than-significant, as identified in Table 4.5-4. **There is limited on site potential to reduce ozone precursor emissions to less than significant for these two development alternatives (pre-2020 build out or maximum unit count). The impact derives from a combination of consumer products and from vehicle travel. Developers have little influence on product selection or on travel choices. The most promising possibility would be for off site mitigation. The mitigation strategy suggested by the MBUAPCD was that the ROG and NO_x emissions could be reduced through the Carl Moyer heavy engine retrofit programs, and that PM₁₀ reductions could be achieved by bicycle program improvements. It is important to note that the MBUAPCD does not recommend on single strategy for these pollutants that exceed the MBUAPCD thresholds.**

Response to MBUAPCD-11

The first sentence of Page 4.5-14, paragraph 4 has been revised as follows:

Although CO emissions will be well in excess of MBUAPCD thresholds, CO is ~~the~~ one of **several** criteria pollutants that allows for a direct calculation of ambient exposures.

Response to MBUAPCD-12

Residents of the proposed project will not be exposed to different levels of PM₁₀ or PM-2.5 than any other residents, particularly from high levels during wildfires, controlled burns or agricultural operations. With prevailing on-shore winds across the site as noted in the DEIR, the project area may be somewhat better protected from adverse health effects associated with particulate exposure exceeding clean air standards. The range of health effects from such exposure includes:

- Reduced lung function
- Aggravation of the effects from gaseous pollutants (synergism)
- Inflammation of pre-existing respiratory damage, increased asthma events
- Increased cough and chest discomfort among young children and senior citizens
- Soling nuisance to cars, foliage or outdoor furniture
- Reduced regional visibility
- Cancer from carcinogenic compounds such as diesel particulate matter

As noted above, the project location is such that these health effects are slightly less severe than if the project were developed farther inland. There is nothing unique about the project location that would magnify these health effects in comparison to many other areas of Monterey County or the air basin as a whole.

Response to MBUAPCD-13 and MBUAPCD-14

CO impacts are not individually or cumulatively significant based upon the micro-scale screening analysis and the anticipated implementation of traffic mitigation measures to eliminate LOS E or F intersections or roadway segments. See mitigation measures in DSEIR Section 4.4, as modified by the FSEIR.

Response to MBUAPCD-15

All trip-generation was considered. Fleet mix data required by MBUAPCD analysis guidelines was used as required. The analysis was revised to reflect non-residential trips. Non-residential trips were assumed to be a small component with many trips to and from EGSP residences. However, a conservative approach was used in the analysis and no internal trip credits were taken. Therefore, all internal trips were treated as independent, new trips. The model was rerun with the non-residential trips added to the total. However, the conclusions of the analysis have not changed, and impacts are still significant for ozone precursors (ROG and NO_x).

Tables 4.5-3 and 4.5-4 have been revised as follows:

Table 4.5-3: Project Operational Source Emissions (2005)

Source	Emissions (pounds per day)				
	ROG	NO _x	CO	PM ₁₀	SO _x
Mobile	188.6 <u>233.2</u>	191.1 <u>256.9</u>	1,976.7 <u>2548.8</u>	148.3 <u>205.8</u>	1.6 <u>2.1</u>
Area Sources	75.4 <u>74.6</u>	18.7 <u>15.6</u>	25.8 <u>18.7</u>	0.1 <u>—</u>	0.5 <u>0.3</u>
TOTAL	264.0 <u>307.8</u>	209.8 <u>272.5</u>	2,002.5 <u>2567.5</u>	148.4 <u>205.8</u>	2.1 <u>2.4</u>
MBUAPCD Threshold	137.0	137.0	550.0	82.0	150.0
Source: Giroux & Associates, December September 2004, URBEMIS2002 Computer Model, 1470 dwelling units.					

Table 4.5-4: Project Operational Source Emissions (2012)

Source	Emissions (pounds per day)				
	ROG	NO _x	CO	PM ₁₀	SO _x
Mobile	94.0 <u>60.6</u>	109.0 <u>65.8</u>	1,020.7 <u>733.5</u>	148.1 <u>204.0</u>	1.1 <u>1.3</u>
Area Sources	75.4 <u>74.6</u>	18.7 <u>15.6</u>	25.8 <u>18.7</u>	0.1 <u>0.1</u>	0.6 <u>0.3</u>
TOTAL	169.4 <u>135.2</u>	127.7 <u>81.4</u>	1,046.5 <u>752.2</u>	148.2 <u>204.1</u>	1.7 <u>1.6</u>
MBUAPCD Threshold	137.0	137.0	550.0	82.0	150.0

Source: Giroux & Associates, ~~December~~ September 2004, URBEMIS2002. Average of 2010 and 2015 build out.

Response to MBUAPCD-16

See Master Response 4 (MR-4).

Response to MBUAPCD-17

The mode choice program maintains the same assumptions about mode share in the forecast model as in the existing model. The mode choice program allocates trips to the following modes: walk/bicycle, transit/walk, transit/walk/premium, drive alone, (2) person auto, (3) person auto, transit drive park-n-ride, transit drive kiss-n-ride. The share of people trips allocated to each of the above modes remains constant in the existing model years and into the forecast model years. However, the number of trips by mode increases relative to changes in demographic information in the region. Thus, the mode choice component of the model accounts for increased transit ridership, as do the other modes, because the population is greater in the forecast years. However, the model does not preclude any assumptions about whether or not people will shift from one mode to another mode. Mode choice is fixed. Transit ridership is maintained at less than two percent.

Assumptions about mode choice were not changed in the model because no additional information is available about alternative transportation availability (supply) that may suggest changes in alternative modes including transit paths, headways, additional busses, park-n-ride lots or bike lanes, parking costs or light rail. This analysis assumed that mode share in any given year in the future in Monterey County will be similar to the 2 percent mode share in 2000. It is possible that increasing congestion and/or expanded transit service could cause some mode shift to occur. A greater usage of transit will result in a correspondingly lower amount of vehicular traffic, making the traffic analysis correspondingly more conservative. Again, only 2 percent of person trips are assumed to use modes other than automobiles. It is highly unlikely that an increase or decrease in transit service will occur that would affect the proposed mitigation program.

Response to MBUAPCD-18

The number of jobs is anticipated to be 380, some of which will be part time and some off hours.

Response to MBUAPCD-19

See Master Response 4 (MR-4).

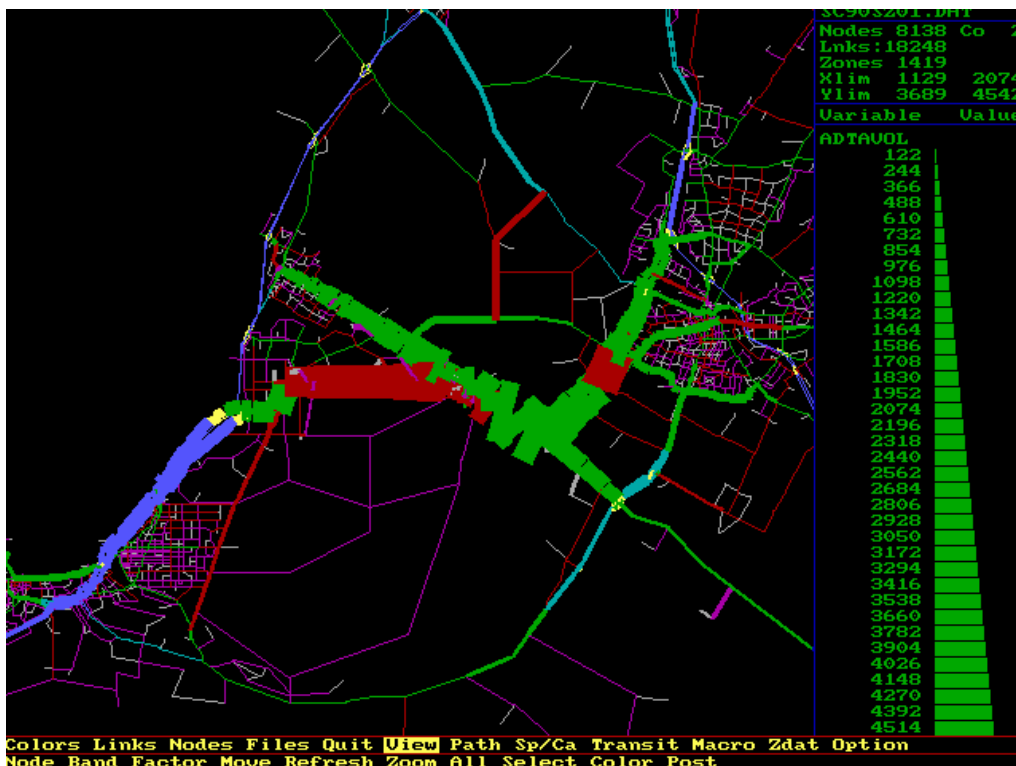
Response to MBUAPCD-20

Institute of Transportation Engineers (ITE) trip generation is based upon an average of trip generation data collected at similar land uses throughout the United States. The ITE cross sectional samples may not, on average, reflect the unique trip generation found in a region or in a project. The regional traffic model's trip generation rates for homes and people are based on a household survey conducted in the Monterey Bay Region in the mid 1990s by AMBAG staff, Caltrans, and some local jurisdictions. Household size and income data were collected and compiled by an AMBAG consultant by household size and by income. Survey trip generation rates were correlated with household size relative to household income (See Model Documentation Report, *Trip Generation Rates*, May 27, 2004). This method of trip generation, is called cross-classification trip generation. The trip generation rates, based upon a regional survey, provide a more representative relationship between households and trips for local conditions as compared to the nationwide average relationship found in ITE. The relative mix of town houses, carriage houses, apartments, and single-family residences explains, in part, the difference between ITE trip rates and trip rates based on survey data used in the cross classification trip generation factors.

Response to MBUAPCD-21

Trips by mode, mode choice, and mode share as they are assumed in the traffic model are addressed in Response to MBUAPCD-17 above.

Trip distribution to and from the project is illustrated below. The select zone analysis below shows the routing of daily trips to and from the EGSP site under existing network conditions with Inter-Garrison Road assumed to be open. The larger bandwidths on the next page show larger daily volumes generated by the project. The approximate volume of project traffic can be determined for any street segment by comparing the bandwidth with scale along the right side of the graphic. Actual project traffic volumes on selected road segments are tabulated on the next page. These are in addition to the segment volumes included herein as Attachment 2.



Response to MBUAPCD-22

Trip distribution percentages were calculated from the select zone analysis similar to the one illustrated above utilizing 2020 network and county and specific plan land use assumptions. Project ADT and PM trips with their percentage of total net project trip generation are tabulated below. These are in addition to the trip distribution table included as Attachment 1 and segment traffic volumes tabulated on Attachment 2. As an example, 1199 ADT trips West Bound on Reservation Road, west of MBEST Center, are 22 percent of the outbound trips generated by the East Garrison project.

Segments	Dir	Vehicle Trips Demanded to and from the East Garrison Project			
		ADT Trips	PM Trips	Percent of Generated Trips	
Reservation Road West of 1st MBEST Driveway	WB	1199	98	22	22
	EB	1263	151	22	22
Blanco Road at the Salinas River Bridge	WB	212	27	4	6
	EB	202	16	4	2
South Davis Road North of Reservation Road	NB	1406	123	26	28
	SB	1209	134	21	19
Highway 68 East of Reservation Road	WB	308	43	6	10
	EB	63	4	1	1
Highway 68 West of Reservation Road	WB	78	8	1	2
	EB	77	8	1	1
Inter-Garrison Road West of West Camp	WB	1436	106	26	24
	EB	1520	199	27	29
River Road South of Highway 68	WB	187	19	3	4
	EB	191	19	3	3

Source: TJKM Transportation Consultants, 2005.

Response to MBUAPCD-23

Trips to and from East Garrison are attracted to destinations in Salinas and select locations between Seaside and Marina and the Monterey Peninsula. The shortest distance for East Garrison trips to and from Salinas is Davis Road rather than Highway 68. The shortest path to and from the Monterey Peninsula is Inter-Garrison Road.

Response to MBUAPCD-24

Please refer to the table above, in response to MBUAPCD-22. No more than 4 percent of the project-generated trips are using River Road. River Road does not go to Spreckles.

Response to MBUAPCD-25

The relative imbalance on the four-lane segment of Reservation Road west of the project site in the 2020 “No East Garrison” scenario is caused by highly congested segments in the study area, which include Blanco Road, Davis Road, and Reservation Road (between Davis Road and the 4-lane segment of

Reservation Road). Volume capacity ratios on these segments are at 1 or greater than 1 which exceeds the theoretical capacity. This phenomenon is causing trips to take alternative, circuitous paths to their destinations. The anticipated severe congestion on these links force some trips to use one path on the outgoing trip and then use another path on the return trip dependent upon diurnal congestion. In the build scenario, when the Inter-Garrison gate is open, some of the directional imbalance is eliminated.

Response to MBUAPCD-26

In the summer of 2003, Monterey County staff consulted TAMC staff about the possibility of funding for projects listed in the Regional Transportation Plan. TAMC staff suggested that some projects, even though they were listed as having dedicated funding in the RTP, would most likely not be included in the funded portion of the next RTP. The following lists show projects that have been constructed, projects with funding and a high probability of being constructed (as identified in a CIP or other construction program), and projects of uncertain funding with a low probability of being constructed as determined by County staff.

List I: Road and Highway Projects Recently Constructed and Included in the 2002-2003 Traffic Model Network for the East Garrison Specific Plan (Included in the Model)

- A.) The San Miguel Canyon Road interchange at Highway 101 in Prunedale.
- B.) The Imjin Parkway and 12th Street improvements between Highway 1 and Reservation Road.
- C.) Blanco Road Widening and Reservation Road Widening between MBEST Driveways and Imjin Parkway, respectively.
- D.) California Avenue, construct California Avenue between Imjin Parkway and Reindollar Avenue in Marina.
- E.) Boronda Road, extend two-lane arterial between Constitution and Williams.
- F.) The collector street network in North and East Salinas.
- G.) Del Monte Avenue Improvements and widening (1998-2002 time frame) between Washington and SR 1 in Monterey City.
- H.) Lighthouse Avenue, include left turn prohibitions.
- I.) Presidio of Monterey, exclude through-trips in the Presidio of Monterey caused by gate closures.
- J.) SR 1 Climbing Lane, north of Carmel Valley Road.
- K.) Bernal Road widening at Sherwood and North Main Street.

List II: Projects with Funding and a High Probability of Being Built by 2020 and Included in the 2022 Traffic Model Network for the East Garrison Specific Plan (Included in the Model)

- A.) The Prunedale Improvement Project (the PIP) between Crazy Horse Canyon Road and Russell/Espinosa.

- B.) The Salinas Road Interchange at SR 1 and improvements to SR 1 between the county line and 0.25 mile south of Salinas Road.
- C.) Airport Road Interchange reconstruction at Highway 101.
- D.) SR 1, add one northbound lane between Rio Road and Carmel Valley Road.
- E.) California Avenue, upgrade California Avenue between Reindollar and Carmel Avenue.
- F.) Crescent Court, construct collector street to Abrams.
- G.) River Road, widen to four lanes between Highway 68 and Las Palmas Ranch. (Completed June 2005.)
- H.) Highway 68, widen to four lanes between Ragsdale Drive and Highway 218.
- I.) Davis Road, widen to four lanes between Blanco Road and Salinas City Limit (FORA) south of SR 183.
- J.) Del Monte Boulevard widening at select location in the City of Monterey: six lanes west of El Estero; six lanes between El Estero and Aguajito; five lanes between Aguajito and Sloat.
- K.) City of Monterey Operational Improvements including additional lanes at the following intersections: Del Monte and Washington, Fremont and Camino Aguajito, Del Monte and Figueroa.
- L.) Del Monte Extension, construct two-lane collector between 2nd Avenue and Reindollar Avenue in Marina (FORA).
- M.) 2nd Avenue, upgrade to four-lane arterial between Light Fighter Drive and Imjin Parkway. (Pavement completed 2005, but not striped for four lanes as of June 2005.)
- N.) Imjin Parkway, widen to four lanes between California Avenue and Reservation Road (FORA).
- O.) 8th Street, construct two-lane arterial from Highway 1 overpass to Inter-Garrison (FORA).
- P.) Inter-Garrison Road, upgrade to a two-lane arterial between 8th Street and Reservation Road. (FORA).
- Q.) Gigling Road, construct four-lane arterial between General Jim Moore Boulevard and Eastside Road (FORA).
- R.) 2nd Avenue, construct four-lane arterial from Light Fighter Drive to Del Monte Boulevard (FORA).
- S.) General Jim Moore Boulevard, widen to four-lanes between Normandy Road and Coe Avenue. Update General Jim Moore Boulevard to arterial status between Highway 218 and Coe Avenue (FORA).
- T.) Salinas Avenue, construct a two-lane arterial from Salinas Avenue to Abrams Drive near Barth Court (FORA).

- U.) Eucalyptus Road, upgrade two-lane collector from General Jim Moore Boulevard to Parker Flats (FORA).
- V.) Eastside Road, construct two-lane arterial from intersection with Gigling Road northeasterly to intersection with Inter-Garrison Road and Imjin Road (FORA).
- W.) The Highway 101 and Highway 156 Interchange Improvements including Prunedale North and Prunedale South Connection and Highway 156 on ramp. (Completed.)
- X.) OPTIONAL (Not Used for East Garrison): Open York Road between Highway 68 and South Boundary Road; open South Boundary Road to General Jim Moore Boulevard, construct a collector street between Upper Ragsdale and South Boundary Road.
- Y.) OPTIONAL (Not Used for East Garrison): Holman Highway (68), widen Holman Highway to four lanes between Highway 1 and 0.75 miles past CHOMP driveway.

List III: Projects of Uncertain Funding with a Low Probability of Being Built by 2020 and Included in the “Build out” 2020-22 Traffic Model Network for the City of Monterey General Plan Update (Not Included in the Model)

- A.) SR 1, add third southbound lane between Fremont Interchange and Del Monte Interchange.
- B.) Highway 156, widen to four lanes from Highway 101 to Highway 183.
- C.) Blanco Road, widen to four lanes from MBEST to Davis Road.
- D.) Highway 218, widen to four lanes between General Jim Moore Boulevard and Highway 68.
- E.) SR 1 in Carmel, construct additional lanes and turn lanes consistent with the Highway PSR.
- F.) Dunbarton Road and San Juan Road interchange at Highway 101.
- G.) Highway 68 Bypass, construct four lane highway through Fort Ord between Toro and the intersection of Highway 218 and existing Highway 68.
- H.) Blanco-Imjin Connector, extend Blanco Road to Imjin Parkway (4) lanes.
- I.) Reservation Road, widen to six lanes between Del Monte and Crescent and Salinas Avenue and Reservation; also construct four lane arterial between UC MBEST and Watkin’s Gate.
- J.) The Highway 101 Prunedale Bypass between Crazy Horse Canyon Road and Russell/Espinosa.
- K.) Highway 1 between Castroville and the Santa Cruz County Line, widen to (4) lanes.
- L.) The Westside Bypass, construct four lane bypass between Boronda Road interchange and Blanco Road west of the Boronda Community.
- M.) The Rossi Street Extension, construct four lane arterial west of intersection of Rossi Street and Davis Road.

- N.) The Russell Road extension, construct a four lane arterial between Highway 101 and Old Stage Road.
- O.) The Salinas General Plan Capital Improvements including: primarily associated with the future growth area north and east of Boronda Road in northeast Salinas (See the Salinas General Plan) capacity enhancements include an Alvin Drive over crossing, Boronda Road widening to six lanes, Williams Road extension, Kern Street Extension and others.
- P.) The Eastside Bypass, construct new four lane Parkway from the midpoint of the Prunedale Bypass to a proposed interchange close to Harris Road and Highway 101.
- Q.) LaSalle and Hilby Gates, provide access to Seaside at General Jim Moore.
- R.) The Fremont Interchange modification at SR 1, construct alternative access and egress to Del Monte and Fremont and Coe.
- S.) Interchange at Highway 156 and Castroville Boulevard.



ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS

October 14, 2004

Mr. Mike Novo
County of Monterey
Planning and Building Inspection
2620 First Avenue
Marina, CA 93933

RE: MCH# 100418 – Notice of Availability for East Garrison Specific Plan and Vesting Tentative Map

Dear Mr. Novo:

AMBAG's Regional Clearinghouse circulated a summary of notice of your environmental document to our member agencies and interested parties for review and comment.

The AMBAG Board of Directors considered the project on October 13, 2004 and has no comments at this time. However, we are forwarding comments received from other agencies.

Thank you for complying with the Clearinghouse process.

Sincerely,

Nicolas Papadakis
Executive Director

AMBAG-1

ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS

Response to AMBAG-1

AMBAG's Board of Directors considered the East Garrison Specific Plan Draft Subsequent EIR on October 13, 2004 and had no comments at that time. Attached to the AMBAG letter was a copy of the Monterey Bay Unified Air Pollution Control District letter, which is responded to in this document separately.

COUNTY OF MONTEREY**Airport Land Use Commission**

November 19, 2004

Mike Novo, AICP
Planning and Building Services Manager
Monterey County Planning and Building Inspection Department
2620 First Avenue
Marina, CA 93933

Dear Mr. Novo,

On behalf of the Monterey County Airport Land Use Commission (ALUC), I would like to thank you for your informative presentation at our regularly scheduled meeting on October 25, 2004. We certainly appreciated learning about the East Garrison Specific Plan (EGSP) and having the opportunity to comment on the Draft Subsequent Environmental Impact Report (DSEIR).

The Marina Municipal Airport is located north of Reservation Road within the eastern boundary of Marina City limits, south of the Salinas River, and west of Blanco Road. At the meeting, it was clearly determined that a northeastern portion of the EGSP site is within the airport planning area as identified on Figure 4-1 of the Marina Municipal Airport Comprehensive Land Use Plan (CLUP). The portion of the EGSP site within the airport planning area is at approximately the same elevation as the airport. It will be developed with a clay-lined detention basin, approximately six live-work units, and the potential for development of studio space or assembly space. Other uses will include parking areas and open space/park locales. Building elevations could reach a height of 45 feet.

ALUC-1

Several issues were raised during the discussion period. These include: the specific area of the project within the airport planning area, the potential for the detention basin to attract birds and increase the potential for bird strikes, and the potential to occupy assembly space with "sensitive receptors" (generally defined as the young, infirm or elderly people).

While the Commission in general has no objection to the project, it's proximity to the Marina Municipal Airport renders it subject to Section 2.4 Overflight Policies within the CLUP (page 21). Specifically, CLUP policies 2.4.1 through 2.4.3 require that project owners within the airport planning area provide an aviation easement to the airport owner (which is currently the City of Marina) and that local jurisdictions establish a method of notifying new property owners within the planning area of potential airport impacts and provide similar noticing to existing property owners.

As was discussed at the October 25, 2004 meeting, we will require that an aviation easement for the entire East Garrison Specific Plan site be depicted on the final map. We also require that a note identifying the site as being within an aviation easement be shown on the final map. This will satisfy the policy requirement of notifying new owners as the notes would be identified through subsequent title searches. Because the property is owned by the Army and not currently inhabitable, the ALUC is not concerned with the policy for notification to existing owners. As

ALUC-2

COUNTY OF MONTEREY

Airport Land Use Commission

required by Policy 2.4.1, the easement shall be mutually agreeable to the ALUC, airport owner, and land owner at the time the final map is recorded.

ALUC-2

With regard to the potential for bird strikes, it is our understanding that the detention basin will not hold water for an extended period of time. It will detain storm water during events for continual metering to the EGSP drainage system rather than direct percolation into the sandy soil. This is to preserve the integrity of the bluff on which the detention basin is to be located. We therefore have no further concerns regarding potential bird strikes.

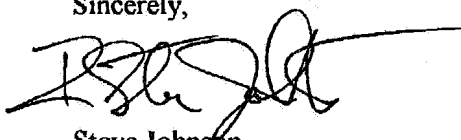
ALUC-3

With regard to the proposed land use designation that could attract sensitive receptors, the ALUC recommends that a condition of approval prohibit parcels within the airport planning area be used for assembly. This was mutually acceptable with the County, the ALUC, and the project proponent. We understand that assembly space is only one of many uses that are allowed under the proposed land use designation in question and that other sites within the EGSP site are so designated. Therefore, this proposed land use designation will not prevent adequate assembly space from being developed onsite. The condition specifying which parcels cannot be used for assembly must also be shown on the final map and in the map notes.

ALUC-4

The ALUC has agreed to provide sample easement language to East Garrison Partners, LLC as the project proponent and anticipates that negotiations on the easement language will commence in early 2005. With these recommendations incorporated into the project, we have no objections, and in fact support the EGSP project. Please feel free to contact ALUC staff at 831-262-1731 with questions or concerns.

Sincerely,



Steve Johnson
Vice-Chairman
Monterey County Airport Land Use Commission

MICHAEL BRANDMAN ASSOCIATES

2000 Crow Canyon Road Suite 415
San Ramon, CA 94583

(831) 262-1731
FAX (925) 830-2715

MONTEREY COUNTY AIRPORT LAND USE COMMISSION

Response to ALUC-1

The County held a presentation on the project for the Monterey County Airport Land Use Commission (ALUC). The comment states that a portion of the project site is located within the ALUC Marina Municipal Airport Comprehensive Land Use Plan (CLUP) area and describes the type of development that the project proposes within the CLUP area. Additionally, the comments state concerns of the ALUC related to the project including the potential for project detention basins to attract birds; thereby increasing the potential for bird strikes and the potential for assembly of sensitive receptors in project site buildings. Responses to these issues are given below.

Response to ALUC-2

As requested by the ALUC, the project applicant will provide an aviation easement to the City of Marina, which will be shown on the final map.

Response to ALUC-3

The comment is correct in stating that the basins are intended for storm event detention and will not hold water for extended periods. The basins will not hold water long enough to attract wildlife that would be hazardous to aviation; therefore, no further response is required.

Response to ALUC-4

As requested by the ALUC, the County will require that the Conditions of Approval include a limitation regarding assembly of persons within the CLUP area as well as an aviation easement.



Regional Transportation Planning Agency • Congestion Management Planning
Local Transportation Commission • Monterey County Service Authority for Freeways & Expressways

November 1, 2004

Mike Novo
Monterey County Planning and Building Inspection Department
2620 1st Avenue
Marina, CA 93933

Via fax and mail

SUBJECT: Comments on the Draft Subsequent Environmental Impact Report for the East Garrison Specific Plan and Vesting Tentative Map

Dear Mr. Novo:

Transportation Agency for Monterey County (TAMC) staff has reviewed the Draft Subsequent Environmental Impact Report (DSEIR) prepared for the proposed East Garrison Specific Plan and Vesting Tentative Map. The project will govern construction of 1470 residential units, 11,000 square feet of civic buildings, 75,000 square feet of commercial development, and up to 100,000 square feet of artist studio space. TAMC supports the pedestrian, bicycle, and transit orientation of this plan, which is generally consistent with the "Transportation-Related Principles for Community Development" adopted by the TAMC Board of Directors in February of this year.

As the Regional Transportation Planning Agency and Congestion Management Agency for Monterey County, Transportation Agency for Monterey County (TAMC) staff offers the following comments for your consideration:

East Garrison Traffic Model

- 1 Section 4.4.2 on page 4.4-17 of the DEIR describes the methodology followed to analyze the traffic impacts associated with implementation of the East Garrison Specific Plan. This discussion notes that the regional travel demand model, administered by the Association of Monterey Bay Area Governments (AMBAG), was used to prepare the traffic impact analysis presented in Section 4.4 of the DEIR. TAMC would like to note that changes made to, and analysis produced from the regional travel demand model have not been provided to AMBAG for review and validation pursuant to the model use agreement between the County of Monterey and AMBAG. This point was also noted in the October 8th comment letter on this project submitted by the Monterey Bay Unified Air Pollution Control District (the Air District), and in the comments submitted by Caltrans District 5. The comments provided by both the Air District and Caltrans also highlight significant flaws in the East Garrison Specific Plan's model analysis and subsequent results which TAMC requests responses to in the Final Subsequent EIR.

TAMC-1

TAMC agrees with Caltrans District 5 staff that the traffic impacts of the East Garrison development, and the mitigation measures identified to address those impacts, cannot be confirmed or accepted pending model validation by AMBAG, and responses to the comments provided by the Air District and Caltrans District 5 that either explain or correct the specific model analysis deficiencies noted in those comments.

TAMC-1

2. With respect to comment #20 regarding project trip generation in the MBUAPCD letter, TAMC would also add that there appears to be a discrepancy between the project trip generation shown in Table 4.4-6 (page 4.4-17) and the actual trip assignment/distribution derived from the turning movement numbers shown in the DEIR amounting to a loss of 33% of the total project trip generation (Caltrans District 5 also identified specific discrepancies). This loss is in addition to the reduction in trip generation between standard ITE trip generation rates and the trip generation listed in Table 4.4-6. This discrepancy between project trip generation and assignment should be explained.

TAMC-2

Impacts to Regional Transportation Infrastructure

3. TAMC policy is to request that development projects contribute financially toward mitigations for their proportional transportation impacts and recognizes the Fort Ord Reuse Authority (FORA) infrastructure development fee program as the mechanism for addressing the cumulative traffic impacts of FORA area development. Model analysis issues aside, as the East Garrison project will contribute its fair share of FORA infrastructure fees for traffic impacts both within, and outside of the former Fort Ord, TAMC accepts that the project's cumulative regional traffic impacts will be adequately mitigated through payment of the FORA fee.

TAMC is in the process of working with FORA and affected FORA-area stakeholders to analyze the FORA transportation project obligations toward which infrastructure fees are allocated. This process aims to provide an updated list of transportation projects to meet the needs of development in the former Fort Ord. The County of Monterey has actively participated in this process to date. TAMC expects to continue to work with FORA area stakeholders, including the County, over the next several months to complete the FORA Fee reallocation analysis, which will allow the FORA Capital Improvement Program to be updated.

TAMC-3

As part of this work, TAMC will specifically be analyzing the share of new traffic on the Reservation/Davis Road corridor between Blanco Road and the Salinas City Limits that can be attributed to new development within the FORA area. This analysis will be used in the final process to assign FORA's fee obligations.

4. In addition to the project's FORA fee contribution, TAMC supports the assessment of contributions to off-site improvements requested by County of Monterey staff, which are

TAMC-4

TAMC East Garrison Specific Plan DSEIR Comments -- E0485

Page 3

necessary to address project-specific impacts on regional roads, particularly on Reservation Road between Blanco Road and Davis Road.

TAMC-4

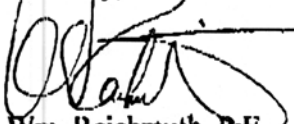
Public Transportation

5. TAMC staff is pleased that the vast majority of East Garrison Development, as proposed in the Specific Plan and presented in Exhibit 3-11 of the DEIR, is within a reasonable ¼ mile walking distance of a proposed transit stop. TAMC requests that the project developer, in coordination with Monterey-Salinas transit, provide the transit facilities proposed within the East Garrison development.

TAMC-5

TAMC staff appreciates the opportunity to review this document. We would also like to request that any subsequent documentation on this project be forwarded to our agency for review. If you have any questions, please contact Andrew Cook of my staff at (831) 775-0903.

Sincerely,



Wm. Reichmuth, P.E.
Executive Director

cc: Dave Murray, Caltrans District 5
Michael Houlemard, Fort Ord Reuse Authority
Lew Bauman, Monterey County Department of Public Works
Nick Chiulos, Monterey County Environmental Resource Policy
Diana Ingersol, City of Seaside Department of Public Works
Charles Johnson, City of Marina Department of Public Works
Nicolas Papadakis, Association of Monterey Bay Area Governments (AMBAG)
Douglas Quetin, Monterey Bay Unified Air Pollution Control District (MBUAPCD)
Frank Lichtanski, Monterey-Salinas Transit (MST)
Nick Nichols, County of Monterey Redevelopment Agency

TRANSPORTATION AGENCY OF MONTEREY COUNTY

Response to TAMC-1

See Master Response 4 (MR-4) and Appendix A, Attachments 3 and 4.

The Caltrans and Air District letters do not address the change in traffic patterns by the opening of Inter-Garrison Road. This issue was revealed in a November 29, 2004 meeting between County staff, Caltrans staff, and Higgins' Associates staff. In short, Inter-Garrison Road is open in the "build" scenario and causes a significant decrease in traffic in other parts of the study area, despite the additional trips generated by the project. Traffic declines are not anticipated in the "no-build" and are not shown to decline in the analysis because Inter-Garrison would remain closed. Additional regional trips in the forecast will continue to impact the existing network.

Response to TAMC-2

See response to Caltrans 3.

Response to TAMC-3

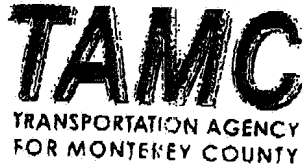
These comments are understood by county staff. The modeling and traffic analysis is an objective and thorough evaluation of the project's impacts and could have been used as part of the FORA Capital Improvement Plan. AMBAG staff has been provided with model documentation since August 2003; however, AMBAG staff has not reached a conclusion about whether or not they will accept the analysis. With regard to the modifications being considered for the FORA impact fee, this will not change the amount of the dollar contribution but will affect the prioritization of the transportation related capital improvement program.

Response to TAMC-4

The County appreciates TAMC's support.

Response to TAMC-5

Monterey County staff and the developer have met with TAMC and FORA staff and other transportation agencies to address transit opportunities in and around the East Garrison site. The proposed traffic facilities will be constructed as described in the Specific Plan application materials to encourage the use of alternative modes of transportation other than the automobile.



November 10, 2004

Mike Novo
 Monterey County Planning and Building Inspection Department
 2620 1st Avenue
 Marina, CA 93933

SUBJECT: Supplemental Comments on the Draft Subsequent Environmental Impact Report for the East Garrison Specific Plan and Vesting Tentative Map

Dear Mr. Novo:

TAMC submitted comments on the Draft Subsequent Environmental Impact Report prepared for the proposed East Garrison Specific Plan on November 2. Following submittal of those comments, TAMC staff hosted a meeting of FORA's Coordinated Resource Management and Planning Team (CRMP), a group composed of staff from FORA member jurisdictions and Fort Ord stakeholder agencies, to discuss placement of a planned multi-modal transit corridor designed to ultimately serve intercity Salinas-Monterey Peninsula ridership through the former Fort Ord. TAMC staff would like to offer the following supplementary comments with respect to the East Garrison Specific Plan as it relates to the planning for this multi-modal facility:

1. The East Garrison Specific Plan (the "Specific Plan") should not preclude siting of a multi-modal transportation corridor along Intergarrison Road. Although this multi-modal corridor is still in the early planning stages, such a facility is recognized in the plans prepared by the City of Marina, CSU Monterey Bay, the Fort Ord Base Reuse Plan (BRP), and TAMC's 2002 Regional Transportation Plan for Monterey County. The specific alignment considered by the CRMP group would be routed along Eighth Street and Intergarrison Roads; a route that would efficiently serve TAMC's proposed multi-modal regional rail facility adjacent to Eighth Street, the proposed University Villages development, CSUMB, City of Marina development, and the proposed East Garrison project at the eastern end of Intergarrison Road. This facility would likely incorporate sidewalks, bike lanes and automobile/ bus travel lanes in either direction, with a dedicated transit travel-way sited along the center. TAMC also envisions this corridor eventually extending to the City of Salinas, most likely along the Watkins Gate Road alignment should the 8th Street/Intergarrison route be selected for the multi-modal corridor.
2. The Watkins Gate Road connection from Intergarrison Road to Reservation Road proposed in the Specific Plan appears to be inconsistent with the Fort Ord BRP, which calls for a more substantial upgrading of this facility to increase its capacity and mitigate the traffic impacts of the total Fort Ord plan. The Watson's Gate Road facility identified in the Specific Plan is designed to discourage its use a through route. This discrepancy will likely be raised when the Fort Ord Reuse Authority evaluates the Specific Plan and makes a consistency determination

TAMC2-1

TAMC2-2

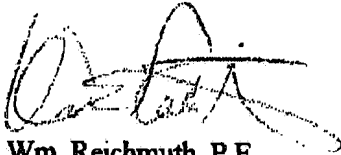
TAMC East Garrison Specific Plan/Intergarrison Corridor Comments - E0485-2
Page 2

with the BRP. The Specific Plan should be revisited to achieve consistency with the Fort Ord BRP by providing a connection to Reservation Road for through trips.

Thank you for your additional consideration of Fort Ord multi-modal corridor and transportation planning as it relates to East Garrison Development Plans. TAMC will be working closely with County staff as the Fort Ord multi-modal corridor project is further developed. If you have any questions, please contact Andrew Cook of my staff at (831) 775-0903.

TAMC2-2

Sincerely,



Wm. Reichmuth, P.E.
Executive Director

cc: Michael Houlemard, Fort Ord Reuse Authority
Lew Bauman, Monterey County Department of Public Works
Nick Chiulos, Monterey County Environmental Resource Policy
Diana Ingersol, City of Seaside Department of Public Works
Charles Johnson, City of Marina Department of Public Works
Nicolas Papadakis, Association of Monterey Bay Area Governments (AMBAG)
Douglas Quetin, Monterey Bay Unified Air Pollution Control District (MBUAPCD)
Frank Lichtanski, Monterey-Salinas Transit (MST)
Nick Nichols, County of Monterey Redevelopment Agency

TRANSPORTATION AGENCY OF MONTEREY COUNTY-2

Response to TAMC2-1

Staff from TAMC and FORA has had several meetings with County staff to address this issue. The objectives of the meetings were to address issues raised by TAMC including accommodating a multi-modal corridor along Inter-Garrison Road and movement of regional traffic between the Monterey Bay and the Salinas Valley. These parties agreed that the proposed project would not preclude the siting of a multi-modal transportation corridor along Inter-Garrison Road. The dedication of right-of-way along Inter-Garrison Road to support a future multi-modal transit corridor is being planned by TAMC in coordination with FORA. Actions to create a multi-modal corridor will be subject to appropriate environmental review. Additionally, the EGSP would accommodate bus, pedestrian and bike traffic throughout the site, as described in the EGSP. Transit bus stops are proposed along arterial roads and in the Town Center.

Regional vehicular traffic (i.e., between Monterey and Salinas) would be accommodated via two arterial roads adjacent to East Garrison. The Inter-Garrison Road Connector is a proposed two-lane arterial that extends from the proposed Inter-Garrison Road roundabout north to Reservation Road. Reservation Road between the Inter-Garrison Road Connector and Watkins Gate and between Watkins Gate Road and Davis Road is proposed to be widened to four lanes. This widening will accommodate a majority of the regional traffic. Modeling analysis conducted by TAMC as part of the FORA Fee Reallocation Study (2/1/05) demonstrates that these improvements sufficiently accommodate future regional traffic volumes within acceptable level of service requirements. In addition, West Camp Street and Watkins Gate Road would provide an alternative to through traffic along the southern border of East Garrison.

Response to TAMC2-2

As described in response TAMC2-1, it was determined that widening Reservation Road to four lanes would sufficiently accommodate regional traffic requirements. This alternative was determined to be more favorable than an arterial couplet extending through the southern portion of the EGSP development as illustrated in the FORA Base Reuse Plan.

The FORA Board of Directors (the Board), according to Chapter 8 of the FORA Master Resolution and state law, is required to review jurisdictional planning level documents for consistency with the FORA Base Reuse Plan (Reuse Plan). This review culminates with a determination of consistency if the Board determines that there is “substantial accord” between the Reuse Plan and the submittal documents. The proposed couplet, as described in the Reuse Plan, was a preliminary concept based on a generalized land use map. The proposed widening of Reservation Road is in substantial conformance with the Base Reuse Plan in that it accommodates regional transportation requirements within an acceptable level of service while minimizing environmental impacts and is fiscally viable.

MST

MONTEREY-SALINAS TRANSIT

JOINT POWERS AGENCY MEMBERS:

City of Carmel-by-the-Sea • City of Del Rey Oaks • City of Marina • City of Monterey • City of Pacific Grove
City of Salinas • City of Seaside • County of Monterey

November 1, 2004

Mr. Mike Novo, AICP
Monterey County
Planning & Building Inspection Dept.
2620 First Avenue
Marina, CA 93933

RE: East Garrison Specific Plan Draft SEIR

Dear Mr. Novo:

Thank you for the opportunity to comment on the Subsequent Environmental Impact Report for the East Garrison Specific Plan. We are pleased at the transit-friendly nature of the project in general and appreciate the opportunity to have met with the project developers and county staff earlier this year. There is one area of concern that should be highlighted as this project moves forward through the environmental clearance process

In the vicinity of the East Garrison development, MST currently operates its major east/west trunk route – Line 20 Monterey-Salinas – along Reservation Road and Blanco Road, as well as Line 17 Edgewater-Marina, which travels as far east as the corner of Imjin Parkway and Reservation Road. As none of these routes directly serve the property today, MST will have to either add a new bus line, extend an existing line or reroute an existing line. In looking at the possible solutions to this situation, it appears that the replacement of the Davis Road bridge would be pivotal to enabling MST to successfully serve the East Garrison development. As you know, this bridge floods in the rainy season and is therefore inappropriate for an MST bus route. In that regard, we urge all project and county staff work with the Transportation Agency for Monterey County (TAMC) to ensure that this project is completed before the development is available for occupancy. The lack of a year-round bridge at the Davis Road crossing of the Salinas River may hinder MST's ability to adequately serve the development.

Consultations with TAMC staff revealed that the Davis Road bridge replacement is fully funded and includes money from state and federal programs. The project development and construction schedule also appears to be on track to meet the East Garrison timeline. However, any substantial delay due to environmental, funding, or other such issues that would jeopardize to this community.

MST-1

Mr. Mike Novo, AICP
November 1, 2004
Page 2 of 2

Overall, MST supports this project and believes it would provide a transit-friendly environment for residents and commercial users of the development. We strongly hope that all of the tools – including the Davis Road replacement bridge – are in place by the time it is completed for MST to play its part in successfully meeting the transportation needs of the future inhabitants of East Garrison. If you have any questions regarding this matter, please contact me at (831) 393-8129.

MST-1

Sincerely,



B. Hunter Harvath, AICP
Planning Manager

- c: Fernando Armenta, *Chairman – MST Board of Directors*
William Reichmuth, *Transportation Agency for Monterey County*
Michael Houlemard, *Fort Ord Redevelopment Authority*
Dave Murray, *California Department of Transportation (Caltrans) District 5*
Lew Bauman, *Monterey County Department of Public Works*
Nicolas Papadakis, *Association of Monterey Bay Area Governments (AMBAG)*
Douglas Quetin, *Monterey Bay Unified Air Pollution Control District (MBUAPCD)*

MONTEREY-SALINAS TRANSIT

Response to MST-1

The comment states that Monterey-Salinas Transit will need to either add a new line, or extend or reroute an existing line to serve the project site. The Davis Road Bridge will need to be replaced to better ensure year-round access. Construction of the bridge is projected for 2009. This project is identified in the Monterey County Department of Public Works Capital Improvement Plan (CIP), FORA CIP, and TAMC CIP and will undergo environmental review for construction impacts.



THE LEAGUE
OF WOMEN VOTERS
OF THE MONTEREY PENINSULA

October 18, 2004

Mike Novo
Monterey County Planning and Building Inspection Dept.
2620 1st Avenue
Marina, CA 93933

Re: East Garrison Specific Plan and Draft Subsequent EIR

Dear Mr. Novo,

The League of Women Voters of the Monterey Peninsula appreciates the opportunity to comment on the above two documents. Our specific comments follow:

Draft Subsequent EIR

1. The project would have a water demand of 470 acre-feet per year. According to the DSEIR (p.4.11-16), "New facilities must be constructed within and outside the project site in order to provide potable water service and water for fire protection...if MCWD proceeds with implementation of its Water Master Plan within the time frame identified in their Capital Improvement Program..., there would be sufficient water storage capacity to meet both residential and commercial fire flow/fire suppression requirements for project buildout...". This finding is inconsistent with the finding in the Water Supply Assessment prepared by the Marina Coast Water District that there is sufficient water to meet project demand. This inconsistency should be addressed. LWV-1
2. A proposed mitigation measure (p.4.11-19) would require "...Prior to issuance of the first building permit for commercial development..., the project applicant shall be required to obtain written verification from MCWD that sufficient excess storage in Zone C...is available to accommodate the commercial fire flow suppression requirements associated with commercial development...". Under this measure, residential development could be constructed without the accompanying commercial development and other mixed uses which are central to the project's objectives, resulting in unaccounted for environmental impacts. LWV-2
3. The 470 AF of water for this project would use a major portion of the County's allocation of 560 AF from the water currently available for the Base Reuse Plan. An additional 52.5 AF is being reserved for the proposed Public Safety Training facility, leaving only 37.5 for other purposes within the County's allocation. LWV-3

The Public Services and Utilities section of the DSEIR (4.11.3 Educational Services) notes that the Monterey Peninsula Unified School District has no schools near the project with available classrooms or expandable space, and the East Garrison community will require new school facilities (Impact 4.11.3-A). The payment of developer impact fees to the School District is considered to be full mitigation of this significant impact. Depending on the site to be provided, however, the MPUSD will need to conduct a separate environmental assessment and obtain plans, permits and financing for new construction, a process that may take a number of years. At a minimum, the mitigation should include provision of a specific site and reservation of sufficient water from the present Base Reuse supply allocation to serve a school of at least 500 students.

- 4. The DSEIR states (p.2-2) that the development would remove 53 acres of oak woodland and 38 acres of oak savanna. On p.4.7-23 it states the project would result in removal of about 44 acres of oak woodland, 41 acres of oak savanna, 40 acres of grassland, 2 acres of coastal scrub, in addition to 5,100 oak trees in varying sizes spread throughout the habitat. These discrepancies should be addressed.

The DSEIR finds that removal of these resources is insignificant because it would be offset by equivalent or better gains in kind at Parker Flats - preservation of about 249 acres of oak woodland, 196 acres of maritime chaparral and 18 acres of grassland habitat that were previously slated for development in the HMP (Habitat Management Plan), i.e., "Implementation of all of the conditions in the LSA (Land Swap Assessment), including designation of habitat reserve areas at Parker Flats, effectively mitigates for habitat losses that will occur with development at East Garrison" (p. 4.7-24).

LWV-4

CEQA requires that the impact be compared to the existing environment, not to something that might or could have happened. Meeting requirements of the HMP or LSA does not meet CEQA requirements. By any measure, removal of 5,100 oak trees and the other identified resources is a significant impact, and all feasible mitigation measures must be addressed.

- 5. As identified in the DSEIR, the project would have a significant impact on regional air quality. However, all feasible mitigation measures have not been addressed, such as mitigating off-site sources and purchasing clean school buses.

LWV-5

- 6. The project would generate approximately 14,000 daily vehicle trips which will create or add to existing unacceptable levels of service at some intersections (i.e., Reservation Road/Davis Road) and roadways (i.e., Portola Drive and SR 68, and SR 183 between Cooper Road and Espinosa Road). The Cumulative Traffic Impacts analysis (p. 5-17) shows the roadway segments listed below are expected to continue to operate at unacceptable levels of service and that the impacts are significant and unavoidable.

- Blanco Road between Salinas River Bridge and Reservation Road
- Blanco Road between Salinas River Bridge and Davis Road
- Davis Road between Ambrose Drive and Central Avenue
- Davis Road between Reservation Road and Salinas River Bridge
- Reservation road between Main Project access and Watkins Gate
- SR 1 between Lightfighter Interchange and Fremont Interchange
- Inter-Garrison Road between Abrams and 7th Avenue
- Inter-Garrison Road between West Camp Road and Abrams

LWV-6

The impact of project traffic on local highways seems to be underestimated. For example, the DSEIR does not show an impact on Highway 68; yet, the proposed project would provide direct access to this major connection to Salinas.

- 7. The impacts identified in the DSEIR support the need for consideration of a Higher Density Alternative that is adjacent to and integrated into an existing urban area where urban services are more readily available, travel can be reduced, air quality mitigated, affordable housing needs more effectively addressed, and biological resources protected.


LWV-7

Specific Plan

8. In its study of the reuse of Fort Ord in 1992, the League of Women Voters supported, among other policies, development adjacent to existing urban areas. This project would not be adjacent to an existing urban area and would result in leap-frog development, thereby exacerbating urban sprawl, traffic congestion, and air pollution. While many of the proposed land uses are consistent with "smart growth" and sustainable communities, (e.g., all residences would be located within a quarter-mile of a bus stop and mixed uses would encourage use of alternative forms of transportation), these benefits are substantially negated by the project's location outside an existing urban area. LWV-8
9. Twenty percent of the residential units are to be dedicated to inclusionary housing, the minimum required by the Monterey County Housing Ordinance. Of this percentage, the Ordinance requires that 6% must be for very low-income, 6% for low-income, and 8% for moderate-income households as defined by federal standards. The Option Agreement between the County and the developer of this project requires 6% of the units to be for very low income, and 14% for moderate income households. The discrepancy between the Ordinance and the Agreement represents a potential loss of some 80 low-income units and should be explained. The Specific Plan's Land Use section includes general descriptions as to how "affordable housing" will be incorporated in the project, either by design, variations in types of units, or medium to high-densities in the three phases of development. LWV-9
- Fort Ord is among the Community Areas proposed in the County Housing Element (adopted in 2003) for new residential development. The County's "Housing Program Strategy 2002-2008," encourages projects with 40% or even 100% affordable units, and would offer developer incentives to reach these goals. Studies conducted for the Fort Ord Reuse Authority regarding the feasibility of constructing more than 20% affordable residential units indicated that with incentives and financing, 40% is achievable. County Housing Element Policy H-4.2 sets specific densities to provide diversification and affordability within new Community Areas. The Specific Plan should explain whether there is an intent to conform to these policies.
10. The Specific Plan should include the proposed site for a new school, which may also become a center for recreational and cultural events. The community concept, and environmental goals of the project, with the emphasis on alternative forms of transportation, should include planning for safe and convenient routes to the school. LWV-10
11. The project includes proposed revisions to the County's Title 21-Standards for Ridgeline Development. It is proposed that the following wording be added to Ridgeline development criteria: "This policy shall not apply in areas governed by Specific Plans. Each Specific Plan shall address viewshed issues as part of the plan's regulations." (p. 3-29). This project should not be allowed to violate a long established policy that has helped protect the County's viewshed over the years. LWV-11

Thank you for your consideration of these comments.

Sincerely,


Nancy W. Green
Copresident

3.3.5 Organizations

LEAGUE OF WOMEN VOTERS

Response to LWV-1

The comment is correct in stating that the Water Supply Assessment (WSA) for the project found that the Marina Coast Water District (MCWD) has sufficient supplies to meet project demand. This project is consistent with the WSA. The project would require new reservoir capacity to meet fire suppression requirements of the commercial portion of the proposed project. Fire flow requirements are set by the Salinas Rural Fire District and MCWD. Fire flow requirements for the project are estimated to be less than 40 percent of the total storage volume planned for construction. Additional fire flow and fire suppression need would be required for the commercial portion of the project. There would be sufficient fire flow for residential uses, which have different fire flow requirements than commercial uses. Should improvements identified within the MCWD's *Water Distribution System Master Plan*, Capital Improvement Program be constructed in a timely manner, construction of commercial land uses would be allowed. However, to avoid insufficient fire flow and fire suppression water needs, and therefore environmental impacts, the applicant would be required to receive final approval of water available for fire flow from MCWD, prior to construction of substantial commercial land uses. Page 3-39, paragraph 7 and page 3-40, paragraph 1 of the DSEIR have been revised as follows:

~~An additional 4 million gallon reservoir and its booster station are planned to be constructed by Marina Coast Water District (MCWD) adjacent to the existing off-site reservoir.~~ According to MCWD's recently adopted *Water Supply Master Plan, Capital Improvement Program* (June 2004), this a 4-million gallon (mg) reservoir is required to meet water storage requirements throughout the Fort Ord community in Year 2004 (refer to Table 7-1, *Water Supply Master Plan*). A portion of the new storage capacity is estimated for use to meet the commercial fire flow and fire suppression requirements of the EGSP project with the remaining storage capacity used to accommodate water storage requirements of future development on the remaining portion of the Ord Community (as addressed in the Reuse Plan). The volume required to accommodate the water storage requirements of the EGSP project has been estimated to be approximately 20 percent of the total storage volume planned for construction pursuant to the description of the planned development. Subsequent to the adoption of the Water Supply Master Plan, MCWD conducted further preliminary analyses and refined its water storage requirements to one 3.2 mg or two 1.6-mg storage tanks to be sited on a parcel outside of East Garrison, in the future Youth Camp parcel. This parcel will be requested to be transferred to MCWD from FORA. The concrete storage tank(s) will supply Pressure Zone "B" that has a service elevation of 130 to 220 feet. Approximately 2.2 mg of Zone "B" storage is required to meet the projected 2020 maximum day demand of the East Ord community, while 1.0 mg of Zone "B" is required to meet commercial fire flow demands. This refinement is intended to expedite MCWD's ability to design and construct the required facilities in a time frame consistent with proposed development and thus, water storage needs within the Fort Ord community. In addition, the MCWD plans to construct ~~a large an~~ approximate 2,000 linear foot water transmission line from the new Zone "B" storage tanks(s) to Inter-Garrison Road where it will connect into an existing pipeline. ~~as part of any roadway construction project from Reservation Road to and along West Camp Street to Watkins Gate. This pipeline would serve planned development identified in the Reuse Plan and analyzed in the Reuse Plan FEIR.~~

Response to LWV-2

The comment is correct in stating that residential uses could be constructed prior to commercial development. However, construction of the Town Center (which will include commercial uses) may begin

during Phase 1 of the project and continue through all phases. The Disposition and Development Agreement requires that at least 34,000 square feet are constructed or bonded for construction by the end of Phase 3, with some interim milestone steps. The project proposes 75,000 sq ft of commercial development. Commercial uses allowed under the EGSP include various types of stores, galleries, and markets. Markets and variety stores, however, would be limited to a maximum size of 10,000 sq ft, much smaller than an average supermarket. Therefore, commercial uses would be limited. The near-term (existing plus Project) traffic analysis in the DSEIR conservatively assumed very few commercial uses on the EGSP project site. Therefore, the analysis contained in the DSEIR is based on conservative assumptions and fully accounts for all project-related impacts, including vehicle trips generated by the EGSP residents for shopping, etc. prior to those uses being located on the EGSP site. Additionally, MCWD is currently planning construction of the tanks and will undertake environmental analysis of the water tanks as part of the design and approval process. However, it is likely that environmental impacts would be less than significant and limited to short-term impacts to traffic, air quality, and noise during construction, and , potentially, limited impacts to biological resources, cultural resources, geology and soils, and hydrology and water quality. Therefore, the DSEIR accounts for all potential environmental impacts and the project would not create any unaccounted for environmental impacts.

Response to LWV-3

The comment restates the facts of the Water Supply Assessment. The comment also requests the provision of a school site and adequate water supply for the school. As described in Section 3.3, MR-5: Schools, the Monterey Peninsula Unified School District is in the process of identifying needed school facilities district-wide. County staff met with MPUSD staff and was informed that the MPUSD is unable to determine placement of a school site at this time. At earlier meetings, MPUSD staff stated that no new schools were needed for buildout of the EGSP. A separate water allocation for schools is provided in the Fort Ord Reuse Plan's Development and Resource Management Plan (DRMP) and an adequate water supply would be available for a school. All local agencies are currently working with MPUSD staff to identify potential school sites, financing ideas, and water allocation sources. This process has been proceeding for the last several months, but plans and locations have not been finalized.

Response to LWV-4

The comment is correct in stating that the project would affect approximately 44 acres of oak woodland, 41 acres of oak savanna, 40 acres of grassland, 2 acres of coastal scrub, and approximately 5,100 oak trees. Page 2.2, bullet point six of the SEIR will be revised as follows:

- Development of the project will remove ~~53~~ **44** acres of oak woodland, ~~and 38~~ **41** acres of oak savannah, **40 acres of grassland, and 2 acres of coastal scrub, resulting in the removal of approximately 5,100 oak trees in varying size classes spread throughout these habitats** ~~thereby impacting other vegetation communities, including grassland, coastal scrub, and ruderal communities~~ (see Section 4.7, Biological Resources).

Habitat and vegetation losses at the project site were analyzed and addressed as part of the FORA FEIR, which included the preparation of a Habitat Management Plan (HMP) to mitigate impacts to biological resources. The analysis contained within the DSEIR considered the existing conditions on the EGSP project site and concluded that the project would not result in impacts greater than previously described in the FORA FEIR. Since the FORA EIR and HMP were prepared, a Land Swap Assessment (LSA) was approved. The result is that more oak habitat is preserved than in the initial HMP. Mitigation measures for this impact exclusive of the HMP and LSA include replacement of removed trees to the extent feasible on the project site, planting of trees in the bluff open space and throughout the community as part of the landscape palette found in the Pattern Book, and the incorporation of retention and protection measures of

project site trees and trees near the project margins, where feasible. Impacts to biological resources have been previously considered in the FORA FEIR and no additional mitigation measures are required as part of this Subsequent DEIR and in accordance with CEQA Guidelines §15162. Please see Section 3.3, MR-6: Biological Resources, for further discussion.

Response to LWV-5

See responses to Monterey Bay Unified Air Pollution Control District comments regarding impacts to regional air quality.

Response to LWV-6

The majority of the project traffic traveling to and from Salinas is expected to use the Reservation Road-Davis Road-Blanco Road route based on the traffic patterns forecasted by the traffic model. Therefore, the project is expected to impact the studied roadway segments on Davis Road and Blanco Road, rather than on SR 68. Trips to the Monterey Peninsula would use roads through the former Fort Ord (FFO), not Highway 68.

Response to LWV-7

The comment states that impacts from the project could be avoided by construction of a Higher Density Alternative adjacent to existing urban areas. The project area is a part of the Fort Ord Reuse Plan (Reuse Plan) area and represents a portion of development as proposed under the Reuse Plan. The Reuse Plan proposes a variety of land uses for the Former Fort Ord (FFO) including Low-, Medium-, and High-Density Residential, Planned Development Mixed Use District, Business Park/Light Industrial/Office/R & D, Neighborhood Retail, Visitor Serving, Open Space/Recreation, Habitat Management, School/University, and Public Facility/Institutional. Land uses proposed by the Reuse Plan were previously analyzed in the Reuse Plan EIR.

The land use concept as described in the Reuse Plan includes creating identifiable centers to add focus to the larger area, creating diversity and choice of land uses, incorporating alternative transportation, creating a diversity of housing types, density, and location, and the linking together of natural and preserved areas. The goal of the general Reuse Plan concept is to quickly integrate the FFO into the local economy, maintain a housing/retail/jobs balance, and make full use of existing infrastructure and infill opportunities.

The East Garrison area is an area of the FFO that was previously disturbed and contains existing infrastructure. Additionally, the project site is located in an area identified as a County redevelopment area. The Reuse Plan originally proposed more intense land uses for the project area. The County amended the General Plan in 2001 to include the Reuse Plan land uses for the project area. These more intense land uses, which would qualify as a Higher Density Alternative, are analyzed in Section 6.3, No Project/Development under the Existing General Plan. Under this alternative, impacts to geology and soils, hydrology and water quality, transportation and circulation, air quality, noise, cultural resources, public services and utilities, and hazardous materials would be greater than under the proposed project. Impacts to land use, biological resources, aesthetics, and population, housing, and employment would be similar to the proposed project. Impacts associated with this alternative would be greater than the proposed project; therefore, this alternative was removed from further consideration.

Response to LWV-8

The Reuse Plan originally proposed residential development of the Parker Flats area, which is adjacent to existing urban areas. The Reuse Plan also proposed a greater number of housing units on the FFO, the development of which was the subject of a legal challenge. Housing development on the FFO is limited to 6,160 units at this time. Additionally, development at Parker Flats would have resulted in development of

450 acres of oak woodland, maritime chaparral, and grassland communities. The FORA and the County submitted modifications (LSA) to the original HMP to the Army and USFWS. These modifications allow the development on 210 acres in the East Garrison area; thereby preserving 240 acres of oak woodland, maritime chaparral, and grassland communities originally proposed for development. See Section 3.3, MR-7: Land Use Planning Policy, for a discussion of land use planning.

Response to LWV-9

The provisions of the Option Agreement that the comment references have been superseded by the proposed Disposition and Development Agreement (DDA) and Development Agreement (DA). The County Board of Supervisors will review and consider these documents concurrent with other project components. See Section 3.3, MR-8: Inclusionary Housing, for a discussion of affordable housing. The EGSP will provide the following percentages of affordable housing: 6 percent for very low-income, 8 percent for low-income, 6 percent for moderate-income residents, and 10 percent “Workforce II” housing. These percentages are in excess of the percentages as outlined in the County’s Inclusionary Housing requirements.

Response to LWV-10

The project will include a Town Square located within the 16-acre Town Center. The Town Square will provide public space and serve as the primary gathering place for residents and visitors, providing a venue for hosting community events, festivals, and concerts. At this time, it is uncertain when a new school would be needed to serve the project. The Monterey Peninsula Unified School District is currently in the process of identifying future school sites. However, the school site would be outside the project site. This comment relates to the merits of the project and not to the adequacy of the SEIR analysis; therefore, no further response is required.

Response to LWV-11

Ridgeline development and project impacts to viewsheds are analyzed in the SEIR. Upon adoption of the amendment to the County’s General Plan (not to Title 21), all ridgeline development proposed by Specific Plans will be analyzed for environmental impacts prior to adoption of the plan and appropriate project features and mitigation measures identified. This comment does not relate to the adequacy of the analysis contained within the SEIR and no further response is required.

FROM : CLARK & GUDRUN BECK

PHONE NO. : 831 655 8586

OCT. 27 2004 09:01AM P1

5 pages: incl.

SIERRA CLUB



VENTANA CHAPTER

P.O. Box 5667 Carmel, California 93921 408 • 624 • 8032

October 27, 2004

By FAX 384-3261

Mike Novo, AICP
Monterey County Planning Department
2620 1st Avenue
Marina, CA 93933

RE: East Garrison Draft Subsequent Environmental Impact Report

Dear Mr. Novo:

The Sierra Club Ventana Chapter has the following comments and concerns regarding the East Garrison Draft Subsequent Environmental Report.

Page 1-3. Introduction. It is stated that the FORA FEIR analyzed a plan to develop 22,232 dwelling units. This is incorrect. The FORA settlement of Sierra Club's litigation on the EIR resulted in "A Resolution of the Fort Ord Reuse Authority, Amending Section 1.01.050 and Adding Chapter 8 to the Fort Ord Reuse Authority Master Resolution, Relating to Base Reuse Planning and Consistency Determinations." This document (on page 4) clearly notes that no more than 6,000 new dwelling units shall be permitted on the Fort Ord territory "unless and until the water supplies, wastewater disposal, road capacity, and the infrastructure to supply these resources to serve such development have been identified, evaluated, assessed, and a plan for mitigation has been adopted as required by CEQA, the Authority Act, the Master Resolution, and all applicable environmental laws."

SC-1

This has not been done. Please correct this statement.

Page 3-2.6. Phase 1 will include deed restricted affordable units. Will this be 20 % of Phase 1 housing? What is the ratio of affordable units in each Phase?

SC-2

Page 3-14. Table 3-1 shows 70 (from 1400 to 1470) units will be built only if water is available. Please explain.

SC-3

Page 3-26. The Public Use designation will allow police and fire stations and government offices. Other than a library and the proposed office for the sheriff's department, what government offices are anticipated? Will these be rentals for County agencies, for example?

SC-4



The DSEIR (4.11.4-A) states that the East Garrison Specific Plan will add 1470 dwelling units and that a full service 7,000 square foot library facility needs 2,400 to 2,500 single family homes for a population of at least 7,500 residents to support a full service library. What is the projected population of EG considering that there will be live/work units, apartments, condominiums, etc., in the housing mix? Where will the projected 7,500 residents needed for a full service library come from? Please be specific.

SC-5

Please include alternatives that would include 1) a school site with community room and adjacent library facility and 2) developer assistance for the Marina Branch of the County Public Libraries to be built at Locke Paddon Park. EG residents will clearly have to use the already over-used storefront Marina Branch Library.

SC-6

A school site is not provided for Public Use. The proposed development will have school children who will be bused to Marina and Seaside. How is this compatible with the "walking community" concept of the Plan? Please clarify the statement on page 4.11-7 that "The County will provide a school site outside of the EGSP area." According to the DSEIR (4.11-6), the Monterey Peninsula Unified School District "does not have enough information at this point to consider the number or type of schools needed and potential school sites." It is short-sighted for the County to allow this development without a proposed school site provided at developer expense. (The Mountain Home development in Salinas was required to include a school site; EG should be required to do the same.) Please clarify.

SC-7

Page 3-2-8. The DSEIR states that "to the extent practicable," invasive plant species in the park and open space areas will be replaced with native plant materials. Since invasive plant species are a serious problem on the former Fort Ord properties, a plan must be prepared to require an ongoing program to eradicate invasive non-native species. Please comment. Please also show how this plan is in agreement with the Habitat Management Plan for the Base Reuse Plan.

SC-8

Page 3-30. The planned regional hiking trail will extend through the community along sidewalks and walking paths. Please explain why a continuous hiking TRAIL cannot be accommodated alongside or through this large tract.

SC-9

Page 3-32. The Project Objectives (3-43) state that new development will pay for 100 percent of infrastructure and services needed to support the new community. Will the East Garrison developers pay a proportionate share for the additional 4 million gallon reservoir planned to be constructed by the Marina Coast Water District?

SC-10

Page 3-43. Fifty-three acres of oak woodland and 38 acres of oak savannah will be removed. Proposed mitigation for this is preservation of oak woodland, maritime chaparral and grassland at Parker Flats. Project Objectives (3-44) say that development areas will be targeted where impacts on the environment will be avoided or minimized. The DSEIR states that the on-site removal of this oak habitat is insignificant since it is offset by preservation of an even greater number of acres of oak woodland and maritime chaparral at Parker Flats. Please explain explicitly how this trade-off meets CEQA

SC-11

requirements. This is clearly a significant impact and on-site mitigations must be analyzed, regardless of the Land Swap Assessment (East Garrison for Parker Flats) agreement and the HMP modifications (4.7-2).

SC-11

Page 4.1-8. The DSEIR recognizes that "No established communities exist near the project site." Therefore the proposed project will not divide an established community. However, this is a clear case of leapfrog development. EG is an isolated community, removed from any nearby community, particularly from Marina, which will feel the impacts of this development. Please explain the justification for building an isolated, stand-alone community which will apparently market a "town center," where there is no "town."

SC-12

The only possible justification for such leapfrog development would be to increase the inclusionary housing from 20% to 40% or 50%. Furthermore, this development will intrude on the night skies in a rural area affecting two Monterey Institute for Research Astronomy observatories. This impact has not been addressed and must be. Such a large development is only appropriate in a city's adjacent sphere of influence.

Page 4.1-9. The DSEIR states that the County will have to approve a General Plan Amendment to Policy 26.1.9 which governs ridgeline development. This amendment would read, "This policy shall not apply in areas governed by Specific Plans. Each Specific Plan shall address viewshed issues as part of the plan's design and regulations." Exhibit 4.9-8, Sight Line Photograph, shows an egregious violation of established County policy regarding ridgeline development. Should such an amendment be approved, it would open the door to future Specific Plans permitting such ridgeline violation. This has the potential of serious future consequences. This is also a major back-door amendment to the existing General Plan and long-established county ordinances. As such, it would require environmental review of the consequences county-wide for opening up ridgelines to development. Please comment.

SC-13

Interestingly, the DSEIR shows that the line of sight for this violation is only a short driving distance along Reservation Road. However, the photograph shows two busloads of fieldworkers on the fields below. Please justify this ridgeline violation in light of the fieldworkers whose viewshed is violated for most of the day, not just a quick drive-by.

How many units will violate the ridgeline? Planting trees as shown in Photograph 4.9-8 is not a mitigation. Please clarify.

Page 4.1-12. The DSEIR states that the proposed development would include 20% affordable housing as required by the County. Please specify what the percentages will be: very low income, low income, moderate. Will this 20% also include "workforce" housing or will there be additional workforce housing? The Sierra Club recommends that EG adopt 40% inclusionary housing. This percentage was shown to be attainable by the Bay Area Economics Report prepared for FORA.

SC-14

What will the developers pay Monterey County for the land? How is this determined? And when?

SC-14

Page 4.4-2. The DSEIR states that the east side of General Jim Moore Boulevard is fronted mostly by open space. What are the FORA Seaside and Del Rey Oaks development plans for the east side of this boulevard and what will the cumulative traffic impacts be?

SC-15

Page 4.4-11-12, Tables 4.4-3 and 4.4.3 (Cont). Where is the Existing LOS Intersection Analysis for Highway 68 at 218? Gen. Jim Moore at Canyon Del Rey is listed. That is only two long blocks from Highway 68. Please include an analysis for intersection 218/68, both Existing and Plus Project.

SC-16

Page 4.4-13, Table 4.4-4 (Cont). Is the existing Segment LOS for General Moore between Broadway and Boundary referring to South Boundary Road?

SR 68 between River Road and Spreckels Interchanges and River Road and Portola Interchanges are shown. At that distance SR 68 is a four-lane freeway. Please include existing LOS for SR 68 when it becomes a two-lane road west of Portola. Furthermore existing Segments for SR 68 both east and west of SR 218 should be included. Please include both Existing and Plus Project. The DSEIR (5-16) states that the proposed road network in EG includes three connections to Reservation Road which connects directly to Highway 68. Please explain why the traffic analysis neglects to include the traffic impacts on all of Highway 68 instead of just the intersections and Highway 68 freeway lengths.

SC-17

Page 4.4-19. Please be more specific describing the proposed traffic roundabout at Southbound Ramps/Canyon Del Rey. Would traffic turning left from Canyon Del Rey onto Southbound SR 1 turn before the roundabout or would that traffic have to circle the roundabout to get on the ramp to SR 1?

SC-18

Page 4.11-16. What are the estimated water needs for the revised development at Parker Flats? After 470 acre feet are allocated to EG, there are only 37.5 acre feet remaining for County development at the former Fort Ord. How will using 470 acre feet impact other possible development?

SC-19

Page 4.11-24. The DSEIR states that Laguna Seca Recreation Area is located approximately 5 miles from the proposed project? By what route?

SC-20

FROM : CLARK & GUDRUN BECK

PHONE NO. : 831 655 8586

OCT. 27 2004 09:04AM P5

Please notify the Sierra Club at the address below when the FEIR is out.

Thank you for the opportunity to respond to the East Garrison DSEIR.

Gudrun Beck
Gudrun Beck, Conservation Co-Chair
23765 Spectacular Bid Lane
Monterey, CA 93940
655-8586
clarkbeck@redshift.com

GB/GT

SIERRA CLUB

Response to SC-1

The comment states that the DSEIR is incorrect in stating that the FORA FEIR analyzed a plan to develop 22,232 housing units. The Reuse Plan, which was analyzed in the FORA FEIR, did indeed propose the construction of that number of housing units. However, the Sierra Club settlement, as a result of a lawsuit with FORA, limited the number of housing units to no more than 6,160 units until the time that water supplies, wastewater disposal, roadway capacity, and infrastructure are proven adequate for a larger number of housing units. At this time, the number of housing units proposed on the FFO includes 1,050 units for the Marina Heights Specific Plan, 380 units for the Seaside Heights project, and 1,237 units for the proposed University Villages project. The project, in conjunction with other projects proposed on the FFO and under the Reuse Plan, would result in the construction of 4,137 units and would not exceed the interim limit of 6,160 housing units. Therefore, the project is consistent with the Sierra Club settlement and no further response is required.

Response to SC-2

Please see Section 3.3, MR-8: Inclusionary Housing, for a discussion of affordable housing. Each phase of the EGSP will include the construction of 20 percent Inclusionary housing units. Ten percent "Workforce II" housing will be constructed in Phase 3.

Response to SC-3

The Option Agreement allows for a maximum of 1,470 housing units. The application presented a conservative approach until the Water Supply Assessment (WSA) is completed. As determined by the MCWD WSA, water is available for 1,470 units, including the 70 carriage units. See Section 4.0 of this document for a revised Table 3-1.

Response to SC-4

The comment is correct in stating that the Public Use designation will allow police, fire, and other government uses. However, no other government offices are planned at this time other than the fire station, Sheriff's Field Service Office, CSD office, library, and perhaps a post office.

Response to SC-5

The project would result in a population of approximately 4,337 residents (based on the assumption of 2.95 persons per household) within the project area, using the proposed maximum of 1,470 units. Cumulative growth projected by the Monterey County General Plan (including the Reuse Plan) in the vicinity of the project area would result in construction of up to 2,887 housing units. This number of housing units would result in a population of approximately 8,674 residents. However, it is uncertain at this time when those additional housing units would be constructed. In addition, the EGSP project would be constructed in phases. Until the time that the area population reaches 7,500 people, a scaled-down library would likely be provided for the area. The library could be expanded in size as the EGSP project phases were constructed, and upon subsequent housing construction in the vicinity.

Response to SC-6

According to CEQA, an EIR need only consider a reasonable range of alternatives that eliminates or reduces the level of significance of one or more impacts of the project. An EIR must also analyze a No Project Alternative. The EGSP SEIR analyzes two No Project Alternatives (No Development and Development Under the Existing General Plan), an Offsite Alternative, Avoidance of Historic Structures Alternative, and a Reduced Density Alternative. These alternatives are identified in an attempt to reduce

significant and unavoidable impacts to historic resources, traffic, and air quality. A school site was not included in the proposed project as the MPUSD stated that a school was not yet needed. The residents will not need to use the County's library located in Marina. The Specific Plan includes a Library. It is also conceivable that residents of other areas might use the library located at East Garrison rather than travel to Marina to use the County facility there.

Response to SC-7

Please see Section 3.3, MR-5: Schools, for a discussion of the need for a new school and school siting.

Response to SC-8

No such page exists in the document; however, information related to the replacement of invasive plants is discussed in DSEIR Section 3.2.7, Page 3-25. The landscape palette for the EGSP was developed in consultation with a landscape architect and biologist familiar with the local flora and fauna. Maintenance programs developed for the open space areas would address the control of non-native invasive species. Because the EGSP area borders designated conserved habitat land along portions of its boundary, activities in those areas will be required to comply with the Borderlands measures identified in the HMP. These measures include the control of non-native invasive plants and recognize the need to keep non-native species from colonizing the conserved habitat areas. This is implemented through an MOA between the **Fort** Ord Reuse Authority, County of Monterey, Redevelopment Agency, and East Garrison Partners, LLC and approved by the USFWS.

Response to SC-9

The regional trail is in the planning stages and specific details are not known at this time. The EGSP proposes connections with the planned regional trail. Once plans for the regional trail are solidified, the design of the EGSP connecting trail can be finalized. Opportunities exist along Reservation Road, West Camp Road, and the bluff open space to provide trails away from the streets.

Response to SC-10

The majority of infrastructure improvements would be constructed using funds provided by a Community Facilities District and capital provided by the developer, as described in the Disposition and Development Agreement. As shown in Table 5-2 of the *East Garrison Specific Plan*, the EGSP will contribute approximately \$3.22 million towards offsite water system improvements, including construction of a reservoir proposed by the Marina Coast Water District.

Response to SC-11

Please see Section 3.3, MR-6: Biological Resources, for a discussion on biological resources and LWV-4.

Response to SC-12

Development of Fort Ord was planned for and analyzed previously in the FORA FEIR and the EGSP is not the only development project that will occur on Fort Ord. Please see Response to Comment LWV-8, Section 3.3, MR-7: Land Use Planning Policy and MR-8: Inclusionary Housing, for discussions on planned development and affordable housing.

Impacts to the night skies and the two Monterey Institute for Research Astronomy observatories was discussed in Aesthetics Impact 4.9-3, as were impacts to Fremont Peak State Park's Observatory and MIRA's Chews Ridge Observatory (DSEIR page 4.9-27). The project would incrementally contribute to the degradation of atmospheric "night sky" conditions, but the design of outdoor lighting would

substantially limit the light emitted from the project, which would primarily be visible to those directly adjacent to the site due to the proposed cut-off optics on community light fixtures.

Response to SC-13

The aesthetic impacts of the project were analyzed in the DSEIR using sight-line visual simulations to show visual changes resulting from the project. These sight-lines were chosen following review of the site plan for viewpoints of interest and verification of those viewpoints by site visits. Under the General Plan Amendment, any future developments of ridgelines proposed in Specific Plans will be required to undergo environmental review for impacts to ridgelines on a project-by-project basis. This policy will only apply to ridgeline areas where development is proposed under a Specific Plan and will not affect areas governed under the existing Monterey County General Plan. The text requires that the issue be addressed as part of the Specific Plan, not exempted.

As described on Page 4.9-15 of the DSEIR, views of the project site from Reservation Road will be altered due to removal of existing structures and construction of new buildings resulting in nominal encroachment into the skyline. However, approximately 23 of the existing structures within the bluff area of EGSP site will be preserved; therefore, visual alteration along the eastern most edge of the bluff area will be minimized, and will primarily consist of an intensification (infilling) of existing development with residential, cultural, and live/work uses. Although rooftops will be visible along the eastern boundary of the EGSP site, project design features, such as the retention of open space (e.g., oak woodlands) and incorporation of the Bluff Greenway pushes new development away from the bluff edge and will, to a large extent, screen views of the proposed development.

The retention of oak woodland habitat and existing features such as the Works Progress Administration rock wall along the eastern portion of the site and removal of existing aboveground features including telephone poles, vacated military buildings, water tanks, etc., will serve to lessen the overall alteration of views from surrounding uses into the project site. The County's ridgeline policy only applies to public viewing areas, which do not include private land.

Response to SC-14

The EGSP will include 10 percent "Workforce II" housing, and will include 6 percent very-low-, 8 percent low-, and 6 percent moderate-income housing, which would be priced lower than workforce housing. For a discussion of the EGSP consistency with the County's Inclusionary Housing Ordinance, please see Section 3.3, MR-8: Inclusionary Housing.

The Army will transfer the EGSP project site, which is located in a Monterey County Redevelopment area, to FORA. The FORA will transfer the land to the Redevelopment Agency, who will transfer the land to the project developer. The Redevelopment Agency is currently negotiating a Disposition and Development Agreement (DDA) with the developers to determine the financial and transactional terms for the buildout of the project and the terms of that agreement are unknown at this time. Monterey County will not receive payment for the land. Payment will go to FORA and the Redevelopment Agency (a separate agency from Monterey County). The financial terms do not result in any environmental impacts.

Response to SC-15

In Seaside, the First Tee Children's Golf Course is planned for the northeast corner of the existing General Jim Moore (GJM) Boulevard/Eucalyptus intersection. As many as 800 homes could be built along the east side of GJM Boulevard south of Eucalyptus under the Reuse Plan. The City of Seaside does not expect this site to develop for at least 20 years. Del Rey Oaks is planning a 350 room hotel resort, golf course,

and several hundred unit housing project at the northeast corner of GJM Boulevard/South Boundary Road. This development is included in the 2020 traffic forecasts in the DSEIR.

Response to SC-16

The study intersections were chosen in consultation with the County based on the likelihood of the project adding enough traffic to an intersection to increase delay for critical movements. For example, Canyon Del Rey Boulevard/General Jim Moore Boulevard was chosen as a study intersection even though the project is expected to increase traffic at this intersection by only approximately one percent of the existing traffic during the peak hours. However, the number of projected project trips at this intersection indicates that the project is expected to minimally increase the volume at the intersection of SR 218 (Canyon Del Rey)/ SR 68. Based on forecasted Existing plus Project volumes for General Jim Moore/Canyon Del Rey (Intersection #28), the project is expected to generate only 12 trips onto southbound Canyon Del Rey Road (between General Jim Moore and SR 68) during the AM peak hour, and seven trips during the PM peak. Similarly, the project is expected to generate only five trips on northbound Canyon Del Rey Road during the AM peak and 14 during the PM peak. This is a small amount of project trips (average of less than one trip every four minutes) for the SR 218/SR 68 intersection. In addition, the FORA EIR anticipated impacts in this area and the FORA fee include improvements for SR 68.

Response to SC-17

Yes, South Boundary Road is the roadway referenced.

Projected project trips on SR 68 east of Portola Interchange show that the project is only expected to slightly increase the volume on State Route 68 west of the Portola Interchange. Based on forecasted Existing plus Project volumes for SR 68 east of the Portola Interchange, the project is expected to generate approximately nine trips onto eastbound SR 68 and 11 trips on westbound SR 68 during the PM peak hour in the vicinity of the Portola Interchange. This small amount of project trips (average of less than one trip every five minutes per direction) is not expected to have a significant impact on SR 68 west of the Portola Interchange.

Response to SC-18

Based on the field conditions and discussion with the County Staff, a roundabout was proposed instead of a signal at the intersection of Highway 1 Southbound Ramps/Canyon Del Rey Boulevard. A roundabout may work better than a signal because there is frontage road that runs parallel to the Highway 1 Southbound Ramps which essentially forms the fifth-leg of the intersection. Traffic entering the roundabout would merge to the right and have to complete a 270-degree turn to make the equivalent of a left turn. However, a roundabout does not have the stop delay caused by the red signal indication. The specifics of the roundabout (or signal) will be determined through the final design process. As part of the process for obtaining encroachment permit(s), Caltrans will be provided with the appropriate plans and analysis (e.g., signal warrants based on 12-hour count data, Roundabout Fact Sheet, etc.). Caltrans encroachment permit is needed before improvements can be constructed at an intersection within their right-of-way.

Response to SC-19

The project would have a water demand of 470 acre-feet per year (AFY) according to the Water Supply Assessment prepared and approved by the MCWD. FORA has allocated the County of Monterey 560 AFY of water to serve lands within the FFO that are under the jurisdiction of the County of Monterey. The County of Monterey may approve development in the Ord Community only within the water use allocation provided to the County by FORA. The MCWD will approve connections in the Ord Community Service Area up to the point at which the FORA allocations are expected to be exhausted,

unless other water resources can be secured. Of the County's 560 AFY allocation, the County has already allocated 52.5 AFY to the Monterey Peninsula College. The County also reserved up to 470 AFY for the East Garrison project, pending processing and environmental review of the EGSP project.

The comment is correct in stating that following approval of the EGSP only 37.5 AFY of water will be left from the County's existing allocation. The EGSP project will be limited to the 470-AFY allocation and review has shown that that amount of water is sufficient to meet project needs. After allocation of water to EGSP, the County would have 37.5 AFY remaining to be allocated to future uses on the Monterey County lands within FFO. The Reuse Plan developed a Development and Resource Management Plan (DRMP) as a tool to manage buildout of the Reuse Plan. The purpose of the DRMP is to maintain growth in line with resources and services. The DRMP established Level of Service standards for transportation, water, public services, and capital planning. As stated in the DRMP, development is allowed on a first-come, first-serve basis; therefore, development does not need to be proposed in any preset order, and subsequent development will need to be accommodated within the remaining allocation. As more water supply may become available in the future, other portions of FFO may develop as outlined in the Reuse Plan.

Response to SC-20

The Laguna Seca Recreation Area is located approximately 5 miles by air from the proposed project. The Laguna Seca Recreation Area is approximately 9 miles by vehicle if the route follows Reservation Road and Highway 68 from the site. Barloy Canyon Road, from East Garrison to Laguna Seca is opened on occasion for larger events at Laguna Seca.



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November 1, 2004

Mike Novo, Planner [Sent by Email - novom@co.monterey.ca.us - and Hand Delivered]
 Planning and Building Inspection Department
 County of Monterey
 2620 First Avenue
 Marina, CA 93933



RE: Comments on Subsequent DEIR for Proposed East Garrison Specific Plan

Dear Mr. Novo:

LandWatch Monterey County has the following comments on the Draft Subsequent Environmental Impact Report (DSEIR) prepared to evaluate the proposed East Garrison Specific Plan:

- 1 The DSEIR is said to be “subsequent” to the Environmental Impact Report prepared for the Fort Ord Reuse Plan. LandWatch believes that the environmental analysis undertaken for the proposed East Garrison Specific Plan must satisfy the requirements of the California Environmental Quality Act (CEQA) on a “stand alone” basis, and that it is not permissible to rely on environmental documentation prepared for the Fort Ord Reuse Plan, in view of the significant passage of time and the significant change in conditions that have occurred since certification of the Fort Ord Reuse Plan EIR. It is inappropriate to consider the proposed East Garrison Specific Plan with a “subsequent” EIR.
2. A Specific Plan for a proposed development within the unincorporated areas of Monterey County must be consistent with the underlying County General Plan. As noted in the DSEIR, the proposed project is in fact inconsistent with the current County General Plan, and cannot be approved without that General Plan being amended. The DSEIR fails adequately to explore or to take into account the multiple and significant internal inconsistencies found in the current County General Plan, and its current overall inadequacy. To be adequate, a General Plan must accurately account for current conditions, and it must be internally consistent. In this case, the amendment proposed to allow the East Garrison Specific Plan to go forward does not adequately address or remedy the multiple inadequacies and inconsistencies of the existing Monterey County General Plan, and because it fails to analyze these issues the DSEIR for the East Garrison Specific Plan is itself inadequate.
3. Related to its failure adequately to explore and analyze the basic inadequacy of the Monterey County General Plan is the failure of the DSEIR adequately to analyze the cumulative impacts of the proposed project. The proposed East Garrison Specific Plan is

LWMC-1

LWMC-2

LWMC-3

not proceeding alone. At the same time that the County is speeding the approval of this proposed project, it is speeding towards approval of the massive Rancho San Juan project. In fact, a draft schedule circulated by County planners has the Board of Supervisors holding a hearing on the proposed Rancho San Juan Specific Plan at the exact same time that the Planning Commission is meeting to consider the proposed East Garrison Specific Plan. The County is also entertaining many new subdivisions in Carmel Valley, in North Monterey County, and along the Highway 68-River Road corridor. The County and the MBEST Center are also proposing a conversion to residential use of land located immediately adjacent to the East Garrison area, currently used for agriculture, and designated for ultimate industrial development. A Redevelopment Plan for the Boronda Area that would put more traffic onto Davis Road is also moving rapidly through the County's process. All these proposals, being considered by the County of Monterey, would add traffic and other impacts that would be cumulative to the impacts of the proposed East Garrison Specific Plan. A listing of all pending projects is available on the County website, at http://www.co.monterey.ca.us/pbi/projects/project_main.htm. In addition, the nearby City of Marina has either approved, or is in the process of approving, three large subdivision proposals within its city limits, (Marina Heights, University Villages, and Marina Station). The City of Salinas is proposing to annex and develop 3,000 acres of farmland adjacent to its current city limits, and all other cities in the Salinas Valley are similarly poised to undertake major new annexations, coupled with subdivision approvals. All of these projects, too, would have traffic and other impacts that would be cumulative to the impacts from the East Garrison Specific Plan. The DSEIR simply does not adequately address the contributions that the East Garrison Specific Plan would make to the mammoth scale of proposed growth now under consideration by the County and other jurisdictions, and because it fails to do so, it is inadequate in its environmental analysis of the East Garrison project.

LWMC-3

4. The "alternatives" analysis contained in the DSEIR is also inadequate. The DSEIR should consider alternatives that incorporate a redesign of the development proposed for the Former Fort Ord that significantly reduce the impact on important natural areas. There may be an alternative to the massive sacrifice of oak trees, for instance, called for by the current draft of the East Garrison Specific Plan. The DSEIR should analyze and illuminate those alternative choices. It does not.

LWMC-4

5. In addition, the DSEIR should consider an alternative that proposes a different "timing" for the development of the East Garrison area. This area is the most "far flung" part of the former Fort Ord, and thus is a kind of "skip out" development, as efforts are made to implement the Fort Ord Reuse Plan. The DSEIR should analyze an alternative that would phase any development at the East Garrison site until after development has proceeded in those portions of Fort Ord (mostly within the City of Marina) that are close by existing communities, and that can better utilize existing infrastructure.

LWMC-5

6. The DSEIR does not adequately examine the "trade offs" that will occur if scarce water supplies are utilized by the proposed East Garrison development, instead of using this water for alternative uses (in areas more closely located to existing communities, for instance) that could have environmental advantages. It may be that approval of the East Garrison Specific Plan, at this time, would actually undermine other development proposals that would have a lesser impact on the environment. The DSEIR does not illuminate these choices, as it must to comply with CEQA.

LWMC-6

7. As both CALTRANS and the Monterey Bay Unified Air Pollution Control District have noted in their separate comments on the DSEIR, the traffic analysis contained in the DSEIR is totally inadequate, in that it is based on an unsubstantiated and inadequate "model" that has not been approved for use by the relevant state and local agencies. Traffic impacts of the proposed project on Intergarrison Road (on and off the CSUMB campus), on Reservation Road, on Blanco Road, on Highway 68, and even on Highway One will be extremely significant. A competent, complete, and adequate traffic analysis is vital. The DSEIR is inadequate because it does not contain one. This failure alone is enough to require that the DSEIR be rewritten, and recirculated for further comment.

LWMC-7

8. Because of the traffic generated by the proposed East Garrison Specific Plan, there will be new pressures to widen Blanco Road and/or Davis Road, as these roadways go through prime agricultural land. The DSEIR does not adequately examine the impacts of the proposed project on agricultural land, and does not propose appropriate mitigation measures.

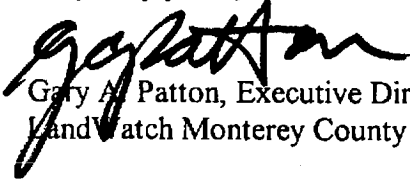
LWMC-8

9. The DSEIR does not properly take account of the impacts on local schools that would be caused by the proposed project, and there is no analysis of the impact of failing to provide for appropriate school sites in the East Garrison area.

LWMC-9

In conclusion, LandWatch Monterey County believes that the DSEIR for the proposed East Garrison Specific Plan is inadequate. We believe that it must be rewritten and recirculated. We know that the County's current plan is to speed this proposed development through the County's process (as it speeds through other mammoth development projects at the same time). We urge the County not to do that, and to comply with the requirements of the California Environmental Quality Act, which require a much more thorough and thoughtful analysis of the potential environmental impacts of a project of this scale and importance.

LWMC-10

Very truly yours,

Gary A. Patton, Executive Director
LandWatch Monterey County

LANDWATCH MONTEREY COUNTY

Response to LWMC-1

The FORA Reuse EIR provided program-level analyses of the impacts of the Reuse Plan. The EGSP DSEIR was prepared using project-level details that were not previously known at the time of the Reuse Plan. These project-level details included the provision of a site plan and detailed project description. The DSEIR considered changes in existing conditions, such as the change in project location, traffic levels of service, regional air quality, etc. consistent with CEQA Guidelines Section 15162. See Section 3.3, MR-3: Subsequent DEIR and Tiering, for further discussion of the use of a subsequent EIR for this project.

Response to LWMC-2

See Section 3.3, MR-7: Land Use Planning Policy and MR-9: Monterey County General Plan, for a discussion of the EGSP's relationship to the MCGP and other land use policies.

Response to LWMC-3

The draft schedule for County hearings was revised and the EGSP project hearing was not held at the same time as the Rancho San Juan hearing. See Section 3.3, MR-1: Cumulative Impact Analysis, for a discussion of the cumulative impact analysis.

Response to LWMC-4

See Section 3.3, MR-2: Alternatives Analysis and MR-6: Biological Resources, for discussions of alternatives and biological resources.

Response to LWMC-5

See Section 3.3, MR-7: Land Use Planning Policy, for a discussion of land use planning. The commentor requests that Marina development be allowed to proceed prior to buildout of East Garrison. The County has an obligation to provide its "fair share" of the Regional Housing Allocation, which is in part fulfilled by development at East Garrison. However, the City of Marina has already approved construction of 2,287 units of its Fort Ord growth, even with East Garrison's water use.

Response to LWMC-6

The comment states that the DSEIR does not adequately examine alternatives to the EGSP, including using water for other projects. Please see Response to SC-19. This project has been requested, is being considered by the Board, and is in conformance with the Monterey County General Plan, including its 2003 Housing Element, the Redevelopment Plan, and the Fort Ord Reuse Plan. Please also see Section 3.3, MR-2: Alternatives, for further discussion of the formulation of alternatives and the alternatives analysis. Buildout of Fort Ord is governed by the Fort Ord Reuse Authority, which prepared the DRMP as a tool to manage buildout of the Reuse Plan. The purpose of the DRMP is to maintain growth in line with resources and services. The DRMP established Level of Service standards for transportation, water, public services, and capital planning. As stated in the DRMP, development of the FFO is allowed on a first-come, first-serve basis. See also Response to SC-1 regarding residential development limits pursuant to the DRMP.

Response to LWMC-7

See Appendix A, Attachments 3 and 4 for a discussion of traffic methodology.

Response to LWMC-8

The widening of Blanco Road and Davis Road are projects included in the analysis in the FORA FEIR. Environmental impacts due to the potential widening of Blanco Road and/or Davis Road were previously analyzed and mitigated in the FORA FEIR. Please see Section 3.3, MR-3: Subsequent DEIR and Tiering, for a discussion of subsequent EIRs.

Response to LWMC-9

Please see Section 3.3, MR-5: Schools, for a discussion of school impacts.

Response to LWMC-10

The comment states that based on the comments above, the DSEIR is inadequate. Please see the above responses for an explanation of the adequacy of the DSEIR analyses.

November 1, 2004

November 1, 2004

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**MONTEREY COUNTY
PLANNING & BUILDING
INSPECTION DEPT.**

Mr. Mike Novo, ACIP
Monterey County
Planning and Building
Inspection Department
2620 First Avenue
Marina, CA 93933

Re: Draft Subsequent Environmental Impact Report: East Garrison Specific Plan (State Clearinghouse Number 2003081086 PLN 030204)

Dear Mr. Novo:

East Garrison Partners I, LLC, the project applicant and designated developer, is pleased to submit the following comments for your consideration with reference to the Draft Supplemental Environmental report ("DSEIR") for the East Garrison Specific Plan ("EGSP").

A. GENERAL COMMENTS: INTRODUCTION (PART 1.0 of DSEIR)

1. We generally concur with the determination made pursuant to CEQA that the purpose of the DSEIR is to provide a project-level subsequent environmental impact analysis that accurately analyzes the EGSP project in light of current conditions, circumstances, and new information that was not available and not analyzed in the previously certified environmental documentation including the Army EIS and the FORA FEIR (DSEIR, pp. 1-2, 1-3). However, we believe the reference to "current conditions" is a somewhat conservative approach, broader than the legal required circumstances for a subsequent EIR set forth in Public Resources Code (PRC) § 21166. CEQA Guidelines, § 15162 (implementing PRC § 21166) requires a subsequent EIR if there are:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:
 - (a) The project will have one or more significant effects not discussed in the previous EIR;

EGP-1

(b) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(d) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

EGP-1

(CEQA Guidelines § 15162; note, also CEQA Guidelines, § 15229, establishing "baseline physical conditions" for closed military bases, discussed in Comment A.3, below).

We do not object to the reference to "current conditions" or to the scope of this DSEIR, but we do suggest that the term be clarified as to whether it is intended to be same as "change circumstances" in PRC § 21166 and CEQA Guidelines §15162, or whether this DSEIR is taking a more conservative approach and broader analysis than is legally required under CEQA.

2. The DSEIR correctly notes (at page 1-3) that the FORA FEIR was prepared under the authority of Public Resources Code (PRC) § 21083.8.1 dealing with reuse plans for closed military bases. In addition to the reference in that section that all public and private activities taken pursuant to, or in furtherance of, a reuse plan shall be deemed to be a single project, we would also note the language in that section that "the determination of whether the reuse plan may have a significant effect on the environment may be made in the context of the physical conditions which were present at the time that the federal decision became final for the closure or realignment of the base or reservation" (called "baseline physical conditions" under CEQA Guidelines, § 15229).

EGP-2

3. The FORA FEIR recites that it was a program-level EIR prepared pursuant to the above referenced sections and that any subsequent project-level EIRs by Fort Ord jurisdictions should tier off the FORA FEIR as specified in PRC § 21166 (FORA FEIR, pp. 1-3,1-4). The same principles should apply with respect to mitigation measures adopted by FORA pursuant to the FORA FEIR and analysis and consideration of alternatives contained in the FORA FEIR, as well as environmental documentation relied upon therein.

EGP-3

4. We suggest that when and if appropriate to respond to comments received by the County on this DSEIR and in preparing the Final SEIR, these legal principles be referred to and relied upon, particularly with respect to analysis and suggested mitigation measures of traffic, air quality and other adverse environmental impacts which cannot be feasibly mitigated to a less than significant level. The DSEIR purports to do this (DSEIR, p. 1-2) but it is not always clear in the DSEIR how the baseline physical conditions and FORA FEIR were taken into account with respect to the "current conditions, circumstances and new information not analyzed in previously certified environmental documentation." (DSEIR, p. 1-2). The FSEIR should clarify this wherever it is appropriate to do so.

EGP-4

5. You may also reference, if and when appropriate, in order to respond to any comments received on the DSEIR and in considering feasible mitigation measures, the decision in Save Our NTC, Inc. v. City of San Diego, (2003) 105 Cal. App. 4th 285, Op. modified in 105 Cal. App. 4th 1381c, where the California Court of Appeal concluded: "Pursuant to the federal and statutory schemes governing reuse planning and transfer of military base properties, the federal government's transfer of the surplus... property to the City did not trigger the application of all existing zoning ordinances to the property, but instead only those that were consistent with the reuse plan approved by the Defense Department and HUD." The Court held that a height limitation adopted by the City's electorate was not consistent with the reuse plan, and accordingly did not apply to the base property, regardless of whether the voters would have intended it to apply to property acquired by the City after its adoption (105 App. 4th at pages 294-295, as modified by 105 Cal. App. 4th at pages 1381 c.-1381 d.).

EGP-5

B. EXECUTIVE SUMMARY (PART 2.0 of DSEIR)

1. The third paragraph of Section 2.1 (DSEIR, p. 2-1) lists approvals from agencies other than the County or its redevelopment agency. It is not clear from this reference whether the DSEIR is intended to serve as the CEQA analysis for these approvals (see the last sentence of the first paragraph of Section 1.2, DSEIR, p. 1-2). Later in the DSEIR, Section 3.4.2 (DSEIR, p. 3-45) suggests that these Responsible and Trustee Agencies may rely on the DSEIR in consideration of the issuance of their respective permits although it is not entirely clear. Please clarify.

EGP-6

2. In the first line of Section 2.2 (DSEIR, p. 2-1), we would suggest adding, after "to be resolved through the EIR process" the words ", to the extent not previously analyzed in the FORA FEIR and prior environmental documentation,"

EGP-7

3. In the Final SEIR, please check for consistency throughout with the Project description in the 9th and 10th bullets of Section 2.2 (DSEIR, p.2-2).

EGP-8

4. In Section 2.3 (DSEIR, pp. 2-3, 2-4), consistent with our prior comments, and because this is in the part of the DSEIR – the Executive Summary – that most casual readers will focus on, we suggest clarifying, with respect to each of the major impacts identified as significant and unavoidable, the extent to which these impacts were analyzed under the FORA FEIR and other environmental documentation, including the "baseline physical conditions" and those assumed in the Reuse Plan. The same comment refers to the Executive Summary Table 2.1 (commencing DSEIR, p. 2-7).

EGP-9

C. PROJECT DESCRIPTION (PART 3.0 of DSEIR)

1. It would be helpful in Section 3.2.3 (DSEIR, pp. 3-9, 3-10). to emphasize that the Project, for purposes of the DSEIR, is a more detailed local implementation of the Reuse Plan and that this DSEIR is tiering off the FORA FEIR and prior environmental document in light of additional project-level analysis required under PRC § 21166 for the proposed Project.

EGP-10

2. In Section 3.2.12 (DSEIR, p. 3-43), regarding the Historic District, please delete the reference to covenants in the deed and refer instead to covenants to be included in a Memorandum of Understanding between SHPO and FORA to be recorded at the time of conveyance of the East Garrison Property.

EGP-11

D. ENVIRONMENTAL IMPACT ANALYSIS (PART 4.0)

1. In Section 4.4 (commencing DSEIR, p. 4.4-1), Transportation and Circulation, please refer to our general Comments in A., above, comments in B.4, above. We believe it would be helpful to generally clarify and summarize and compare the "baseline physical conditions" and the FORA FEIR analysis and mitigation measures in the FORA FEIR and other environmental documentation, in order to provide context for the analysis and proposed mitigation and conclusions in Section 4.4.

EGP-12

2. We have additional technical comments to Section 4.4 which have been prepared by our traffic consultant, Hexagon Transportation Consultants, Inc. Their letter comments are attached to this letter and incorporated by reference for your consideration and response. Please also note where their comments (and your responses) will affect the Executive Summary, Table 2.1.

EGP-13

3. In Section 4.5 (commencing DSEIR, p. 4.5-1), Air Quality, please refer to our General Comments in A., above, and our comments in B.4, above. We believe it would be helpful to generally clarify, and summarize and compare the "baseline physical conditions" and the analysis and mitigation measures in the FORA FEIR and other environmental documentation, in order to provide context for the analysis, proposed mitigations and conclusions in Section 4.5.

EGP-14

4. In Mitigation Measure 4.7-B-1 (DSEIR, pp. 4.7-24, 4.7-25), please delete the 9th bullet paragraph in order to preclude inconsistent application of the requirements of the Specific Plan conditions of approval and other DSEIR mitigation measures pertaining to tree removal, retention and protection. Please make the same deletion in Table 2.1, Mitigation Measure 4.7-B-1, 9th bullet paragraph (DSEIR, p. 2-24).

EGP-15

5. In Mitigation Measure 4.8.1-G (DSEIR, p. 4.8-24), please delete the words "and implemented" in the second line, as implementation will not be feasible or appropriate during construction. Please make the same deletion in Table 2.1, Mitigation Measure 4.8.1-G (DSEIR p. 2-31).

EGP-16

6. With respect to archeological matters, we question the feasibility and relevancy of Mitigation Measures 4.8.2-B and 4.8.2-C (DSEIR, pp. 4.8-25, 4.8-26), in that they appear unnecessary in light of Mitigation Measure 4.8.2-A (the retention of a qualified archeologist to monitor the site), and the remaining Mitigation Measures in Section 4.8.2 to govern excavations. Mitigation Measures 4.8.2-B and 4.8.2-C would make project activities subject to actions and agreements of third parties which are not controlled by the County or the applicant and the failure to satisfy those requirements could delay or prevent the Project from moving forward. We request that these Mitigation Measures be deleted. The same deletions would occur in Table 2.1, Mitigation Measures 4.8.2-B and 4.8.2-C (DSEIR, pp. 2-32, 2-33).

EGP-17

Mike Novo
November 1, 2004
Page 5

Thank you for your considering our comments.

East Garrison Partners I, LLC

A handwritten signature in black ink, appearing to read "I.C. Gillis". The signature is stylized with a large, sweeping initial "I" and "G".

By

Ian C. Gillis

ATTACHMENT: Letter from Hexagon Transportation Consultants, Inc.



November 1, 2004

Mr. Keith McCoy
East Garrison Partners
24571 Silver cloud Court, Suite 101
Monterey, CA 93940

Re: Traffic Comments on East Garrison Specific Plan DEIR

Dear Mr. McCoy:

At your request Hexagon has reviewed the traffic section of the above-referenced DEIR, and we have the following comments.

Thresholds of Significance (p.4.4-18). The significance thresholds are very unclear. They seem to read that the project would have a significant impact if it causes an intersection or road segment to exceed either LOS C (Monterey County and Seaside) or LOS D (Marina, Salinas, and Caltrans). However, clearly the thresholds are not being applied in this fashion. For example, the intersection of Davis Road and Blanco Road is shown to operate at LOS F under existing conditions (Table 4.4-7), yet the project is said to have an impact there (Impact 4.4-1). The project would not “cause” the intersection to operate worse than LOS C because already it operates at LOS F. The FEIR should clarify the actual significance thresholds that were used.

EGP
ATT-1

Roadway Segment Methodology (p. 4.4-12). It is Hexagon’s professional opinion that Chapter 20 of the *Highway Capacity Manual* is not the appropriate methodology to analyze two-lane highways in this part of Monterey County. That methodology is designed to analyze rural highways where the important issue is travel speed and the ability to pass slower traffic. As parts of Monterey County become more urbanized, which they will with the East Garrison Specific Plan and other pieces of the FORA plan, free-flow travel speed and ability to pass become irrelevant to traffic operations. The key measure becomes roadway capacity, which is dictated by intersection capacity. Rather than analyzing every intersection along all the roadways, which is impractical, Hexagon suggests the expedient of determining a daily traffic capacity and comparing the existing and forecast volumes to that. Level of service would be determined based on the standard volume-to-capacity ratio ranges in the HCM: LOS A up to $v/c=0.60$, LOS B $v/c=0.61-0.70$, LOS C $v/c=0.71-0.80$, LOS D $v/c=0.81-0.90$, LOS E $v/c=0.91-1.00$, LOS F over 1.00. Hexagon recommends the use of 25,000 vehicles as the daily capacity of a two-lane roadway.

EGP
ATT-2

Roadway Segment Impacts (p. 4.4-26). Hexagon has prepared the attached table based on the methodology described above. The volumes in the table come from a table labeled “Link Segment Analysis” in the DEIR Appendix E. It is our professional opinion that the project would have an impact on three roadway segments, not seven segments as identified in the DEIR: Blanco Road from Reservation Road to the Salinas River Bridge, Blanco Road from the Salinas River Bridge to Davis Road, and Davis Road between Ambrose and Central. In our opinion the other four roadway segments would be operating at LOS C or better.

EGP
ATT-3

Roadway Improvements Included in FORA CIP (p. 4.4-26). The DEIR is unclear about which improvements to roadways are included in the FORA CIP. The text says “Improvements previously approved and funded for the following roadway segments are included in the FORA CIP,” but there is no list following that sentence. Also, the next sentence references Table 4.4-9 as listing improvements to five roadway segments, but Table 4.4-9 lists intersection improvements, not roadways.

EGP
ATT-4

Mitigation for Roadway Impacts (p. 4.4-26). The mitigation discussion for roadway impacts consists of a single sentence that reads “Construction of an additional roadway lane will mitigate impacts to these roadways.” It is our professional opinion that this mitigation statement is too general. Each roadway should be studied and discussed. Perhaps additional lanes may be needed in only certain areas, or perhaps only spot intersection improvements are necessary, or perhaps intermittent passing lanes would suffice. Planners should bear in mind that the wholesale addition of lanes to long stretches of roadway is very expensive and may not be the best use of scarce transportation improvement funding.

**EGP
ATT-5**

Project Fair Share Analysis (p. 4.4-28). To our knowledge there is not a standardized method to calculate project fair shares within the traffic engineering industry. The FEIR should acknowledge that there are many ways to calculate fair share and should state that the numbers included in the DEIR are just an example of how fair share might be presented. Also, the FEIR should describe the fair share calculation method that was used and should demonstrate how it results in the numbers that are presented.

**EGP
ATT-6**

Improvement Cost Estimates (p. 4.4-31). The FEIR should describe the source for the project cost estimates. If the estimates were done specifically for this DEIR, then the FEIR should include calculation sheets showing how the costs were derived. Also, the FEIR should describe the degree of accuracy that should be attributed to the estimates.

**EGP
ATT-7**

Cumulative Roadway Impacts (p. 5-17). The same comments as described above apply to the cumulative analysis. Specifically, the FEIR should clarify which roadway segments would be significantly impacted by the project, which segments already are planned for improvement as part of the FORA CIP, for segments not already planned for improvement discuss improvement options, describe and show the methodology used to calculate project fair share, and describe and show the methodology used to calculate the improvement cost estimates. Also, as shown on our attached table, the project would result in a decrease in traffic on Blanco Road between Reservation Road and Davis Road, and on SR 183 between Cooper Road and Espinosa Road. The FEIR should describe how the project could be said to impact those segments when the volume is projected to decrease, or the FEIR should acknowledge that the project would not have an impact on those segments.

**EGP
ATT-8**

Thank you for providing us the opportunity to review the East Garrison DEIR. Please contact us if you have any questions about our review.

Sincerely,

Hexagon Transportation Consultants, Inc.

Gary K. Black
President

Roadway Segment Impact:

Segment	Capacity	Jurisdiction	LOS Standard	Existing		Existing w/Project		2020		2020 w/ Project			
				Volume	v/c	Volume	v/c	Volume	v/c	Volume	v/c	LOS	LOS
Blanco Rd/Salinas River Bridge/Reservation Rd	25,000	County	C	22,355	0.89	24,460	0.98	37,177	1.49	35,398	1.42	F	F
Blanco Rd/Salinas River Bridge/Davis Rd	25,000	County	C	22,088	0.88	23,449	0.94	34,721	1.39	32,874	1.31	F	F
Davis Rd/Reservation Rd/Salinas River Bridge	25,000	County	C	5,050	0.20	9,526	0.38	16,177	0.65	20,112	0.80	B	C
Davis Rd/Ambrose/Central Ave	25,000	County	C	27,430	1.10	29,946	1.20	44,412	1.78	47,017	1.88	F	F
Reservation Rd/Walkin's Gate/Davis Rd	25,000	County	C	5,000	0.20	9,068	0.36	17,852	0.71	23,688	0.95	C	E
Reservation Rd/Portola Dr/Hwy 68	25,000	County	C	8,036	0.32	10,178	0.41	15,358	0.61	16,910	0.68	B	B
Hwy 183/Cooper Rd/Espinoso Rd	25,000	Caltrans	D	13,000	0.52	18,024	0.72	22,420	0.90	21,812	0.87	D	D

Note: Shading shows significant project impact.

Source: East Garrison Specific Plan DEIR, Appendix E

3.3.6 Individuals

EAST GARRISON PARTNERS (APPLICANT)

Response to EGP-1

Please see Section 3.3, MR-3: Subsequent DEIR and Tiering, for a discussion of subsequent EIRs and tiering.

Response to EGP-2

Please see Section 3.3, MR-3: Subsequent DEIR and Tiering, for a discussion of baseline conditions.

Response to EGP-3

The comment is correct in stating that mitigation measures should be incorporated in the DSEIR as adopted by the FORA from its FEIR. As permitted by § 15150 of the State CEQA Guidelines, the DSEIR referenced several technical studies, analyses, and previously certified environmental documentation including the FORA FEIR. Information from the documents, including mitigation measures, is incorporated into the DSEIR by reference and is considered in the analyses and during the crafting of mitigation measures for the EGSP. Therefore, the analysis considered mitigation measures previously adopted and only recommended additional mitigation measures if they were necessary. All applicable FORA FEIR measures will be included in the conditions of approval for the EGSP. These documents included all technical reports prepared for the EGSP and the *Final Environmental Impact Statement Fort Ord Disposal and Reuse* (June 1993); *Record of Decision (ROD) for Fort Ord, California; Disposal and Reuse Final Environmental Impact Statement (EIS)* (December 1993); *Supplemental Environmental Impact Statement Fort Ord Disposal and Reuse* (June 1996); *Record of Decision (ROD) for Fort Ord, California, Disposal and Reuse Final Supplemental Environmental Impact Statement (SEIS)* (July 14, 1997); and *Fort Ord Reuse Plan Environmental Impact Report* (June 13, 1997).

Response to EGP-4

A summary of the changes that trigger the need for additional analysis is included in the introduction to each topical analysis contained in Section 4.0, Environmental Impact Analysis. Examples of these changes include revisions to the originally proposed project description such as the change in project location from Parker Flats to East Garrison, preparation of a site plan for the project site, or changes to baseline conditions, such as changes in background traffic levels on roadways, changes in jobs and housing, etc.

Response to EGP-5

The comment cites a legal case that the County may rely on in the event that comments raise issues relating to a conflict with the approved Reuse Plan and local regulations governing the use of the East Garrison area. No such conflict is identified and no further response is required.

Response to EGP-6

The SEIR will be used to provide information to these agencies about the project, but will not be the only documentation considered in the approval of these discretionary actions. These approvals include a take permit from the California Department of Fish and Game (CDFG), a discharge permit from the Central Coast Regional Water Quality Board (CCRWQB), and eventual annexation of the project site into the Marina Coast Water District (MCWD) and the Salinas Rural Fire Protection District (SFPD) by LAFCO of Monterey County. These actions are all discretionary actions by various agencies, requiring further applications and documentation in accordance with the above agencies requirements. The listed agencies

can use this FEIR for their CEQA analysis of discretionary actions pursuant to CEQA Guidelines Section 15357.

Response to EGP-7

The SEIR is a subsequent DEIR containing analyses that supplements the Fort Ord Reuse Authority (FORA) EIR for the reuse of the FFO. Therefore, Page 2-1, paragraph 4 is revised as follows:

The potential areas of controversy and issues to be resolved through the EIR process are derived through analysis conducted during preparation of the Notice of Preparation (NOP) (Appendix A) and consideration of responses received from public agencies and the public during scoping meetings and circulation of the NOP. **The areas of controversy and issues addressed in this DSEIR do not extend to matters that are the subject of previous analysis in the FORA EIR that remain valid under current conditions.** These areas are summarized as follows:

Response to EGP-8

The comment asks for consistency between the ninth and tenth bullet points describing the project under Section 2.2, Areas of Controversy/Issues to be Resolved. This section describes potential issues for each environmental topic and the project description is relevant to the potential impact. Page 2-2, paragraph 10 is revised as follows:

- The proposed project will result in the construction of up to 1,470 residential units, **75,000 sq ft of commercial uses, 11,000 sq ft of public and institutional uses, and 100,000 sq ft of artist/cultural/educational space resulting in** an increase in population of approximately 4,337 persons in the project area, and the creation of approximately 380 employment opportunities on the project site (see Section 4.10, Population, Housing, and Employment).

Response to EGP-9

The EGSP project is a smaller component of the Reuse Plan and contains project-specific details and mitigation measures; therefore, impacts for the EGSP project may differ from those described in the FORA FEIR. The FORA FEIR identified significant and unavoidable impacts to law enforcement and fire protection/emergency response services, transportation, and transit operations. The FORA FEIR also identified cumulatively significant and unavoidable impacts to water supply, visual resources, transportation, law enforcement and fire protection/emergency response services, and transit services. The Executive Summary is meant to summarize information related to the project description, areas of controversy, impacts, and alternatives of this project. Readers can refer to Section 4.0, Environmental Impact Analysis for further details of the project.

Response to EGP-10

The comment requests that Section 3.2.3 be revised to clarify the relationship between the EGSP, the Reuse Plan, and FORA FEIR. A detailed discussion of the relationship between the EGSP DSEIR and the FORA FEIR is contained in Section 1.3, Tiering and Basis for Subsequent EIR, and Section 1.8 Incorporation By Reference. Page 3-10, paragraph 2 has been revised as follows:

The Reuse Plan provides program-level policies for the redevelopment of the entire FFO. The EGSP is a project-level specific plan that implements the Reuse Plan for redevelopment of the East Garrison area. The EGSP is required to be consistent with the Reuse Plan. The EGSP project will implement the Reuse Plan by:

- Accommodating the proposed 2015 Transportation Network by improving Reservation Road and creating a connection between Inter-Garrison Road and Watkins Gate Road.
- Creating a mixed-use village.
- Implementing the HMP, as amended.
- Limiting water use/demand to 470 acre-feet/year.
- Providing park space in accordance with the Quimby Act.
- Providing trail heads connecting the East Garrison to the regional trail system.
- Providing a Pedestrian and Bicycle Systems Plan.
- Assuring a broad multimodal transit network is accommodated.
- Providing housing near jobs.

Response to EGP-11

Page 3-43, Paragraph 2 of the DSEIR is revised as follows:

A programmatic agreement exists between the Department of the Army Advisory Council on Historic Preservation and the California State Historic Preservation Officer regarding existing areas and buildings in East Garrison. ~~The Army has agreed to attach covenants to the deed of those~~ **Covenants between the State Historic Preservation Officer (SHPO) and FORA were signed in August 2004 and recorded regarding** East Garrison buildings ~~that have been~~ determined to be contributors to the National Register Historic District. ~~The agreed-upon covenants provide~~ **dictates** that buildings be maintained in accordance with the guidelines of *The Secretary of the Interior's Standards for Rehabilitation Guidelines for Rehabilitating Historic Structures* **and that all All construction, alteration, demolition or other modification be approved by the SHPO.** ~~in the Historic District will comply with the *Guidelines for Rehabilitating Buildings at the East Garrison*.~~

Response to EGP-12

Please see Section 3.3, MR-3: Subsequent DEIR and Tiering, for a discussion of subsequent EIRs. Additionally, please see response to comment EGP-3.

Response to EGP-13

Comments related to the Hexagon Transportation Consultants letter are addressed below in EGP-ATT-1 through 8. Any changes to the Executive Summary will be noted within the response to each specific comment.

Response to EGP-14

Please see Section 3.3, MR-3: Subsequent DEIR and Tiering, for a discussion of subsequent EIRs. Additionally, please see response to comment EGP-3.

Response to EGP-15

The measure referred to is required by the County Agricultural Commissioner as needed to control the spread of oak diseases; therefore, the mitigation measure will not be revised. The conditions of approval will be consistent with the mitigation measures identified in the FSEIR.

Response to EGP-16

The comment is correct in stating that implementation of an East Garrison History Walk Plan is not feasible during construction. The correct timing of implementation is following construction. Page 4.8-24, paragraph 4 and Table 2.1, page 2-31 shall be revised as follows:

- 4.8.1-G** ~~Prior to demolition,~~ An East Garrison History Walk Plan interpreting the development of site and the role of WPA and Army shall be created and implemented by the project applicant. The walk shall include signs that are self-guided and durable. Said Plan shall be reviewed and approved by the MCPBID in conjunction with the Parks and Public Works Department. Said Plan shall include a phasing schedule for development of the walk in conjunction with project specific development of the Specific Plan to ensure public health, welfare, and safety, during construction.

Response to EGP-17

Until excavation occurs on the project site, it is not clear as to the extent of Native American involvement that will be required under the implementation of the EGSP. The comment by the applicant is correct in stating that implementation of Mitigation Measures 4.8.2-B and 4.8.2-C could be infeasible due to the fact they would be subject to actions and agreements of third parties, not in theirs or the County's control. The retention of a qualified archaeologist and the provisions of mitigation measures that provide oversight during excavation activities at the EGSP site are deemed sufficient to reduce potential impacts on archaeological resources to less than significant levels. Moreover, other pertinent mitigation measures were provided in the DSEIR to ensure the protection of Native American resources during excavation of the project site. Therefore, Mitigation Measures 4.8.2-B and 4.8.2-C can be deleted without reducing the protection of these resources.

Page 4.8-25 and 4.8-26 have been revised as follows:

Mitigation Measures

- 4.8.2-A** A qualified archaeologist shall monitor the site during all potential ground disturbance activities. The archaeologist shall prepare a monitoring plan that details the procedures that shall occur in the event that cultural resources are uncovered. At a minimum, all excavation shall cease within 5 meters of the discovery until it is evaluated by a qualified cultural resource specialist and/or County coroner, as applicable.
- ~~**4.8.2-B** Prior to the issuance of grading permits, the applicant shall obtain current status of Letters of Intent to Petition from the Bureau of Indian Affairs, for federal recognition by the following entities: Costanoan Band of Carmel Mission Indians, Ohlone/Costanoan Muwekma Tribe, Indian Canyon Band of Costanoan/Mutsun Indians, Salinan Nation, Amah Band of Ohlone/Costanoan Indians, Esselen Tribe of Monterey County, Ohlone/Costanoan Esselen Nation, the Ensen Tribe, Salinan Tribe of Monterey County, Costanoan-Rumsen Carmel Tribe, and Costanoan Ohlone Rumsen Mutsun Tribe.~~
- ~~**4.8.2-C** A Memorandum of Agreement shall be prepared between the County, recognized local Native American descendants, the State Historic Preservation Officer, and the Advisory~~

~~Council on Historic Preservation regarding the presence/absence of Traditional Cultural Properties (TCP) at East Garrison. If TCPs are found to exist therein, ensure that the protection covenants, discussed under Program A 2.2 of the FORA EIR, are in place prior to project commencement.~~

- 4.8.2-D-B** If, during the course of construction, cultural, archaeological, historical or paleontological resources are uncovered at the site (surface or subsurface resources) work shall be halted immediately within 50 meters (165 feet) of the find until a qualified professional archaeologist can evaluate it. The MCPBID and a qualified archaeologist (i.e., an archaeologist registered with the Society of Professional Archaeologists) shall be immediately contacted by the responsible individual present on-site. When contacted, the project planner and the archaeologist shall immediately visit the site to determine the extent of the resources and to develop proper mitigation measures required for the discovery.
- 4.8.2-E-C** Prior to the commencement of project excavations, all construction personnel shall read and sign an agreement that describes and protects Native American remains and any/all potential, subsurface cultural resources.
- 4.8.2-F-D** An archaeological sensitivity map of East Garrison shall be prepared. The map shall incorporate former, current, and future theoretical information regarding potential prehistoric deposits. Existing conditions (i.e. buildings, roads) and future plans (i.e. trenching for residential projects) and potential impacts to archaeological resources shall be taken into consideration when developing the map.
- 4.8.2-G E** The expertise of local archaeological specialists shall be utilized for the preparation of subsequent cultural resources reports at East Garrison.
- 4.8.2-H-F** All future Army documents and related material regarding cultural resources at Fort Ord shall be provided to the California Historical Resources Information System, Northwest Information Center at 1303 Maurice Avenue in Rohnert Park, California 94928-3609.
- 4.8.2-I G** If archaeological resources or human remains are accidentally discovered during construction, the following steps will be taken:
- There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
 - The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and
 - If the coroner determines the remains to be Native American:
 - The coroner shall contact the Native American Heritage Commission and MCPBID within 24 hours.
 - The Native American Heritage Commission shall identify the person or persons it believes to be most likely descended from the deceased Native American.

- The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or
- Where the following conditions occur, the landowner or his authorized representatives shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.
 - The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.
 - The descendent identified fails to make a recommendation; or
 - The landowner or his authorized representative rejects the recommendation of the descendent, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

Response to EGP-ATT-1

Impact 4.4-1 specifically states that the proposed project will result in an incremental increase in delay at five project study intersections that are currently operating unacceptably. The FEIR clarifies the actual significance thresholds that were used, especially for Caltrans intersections and roadway segments.

Response to EGP-ATT-2

Since it is impractical to study every intersection along a roadway segment, the East Garrison Traffic Study included level-of-service analysis of 28 study intersections for AM and PM peak hour conditions. The intersection analysis provides a fair estimate of how a proposed project may increase average delay on the approaches to study intersections, but it doesn't provide much information regarding the possible impacts on roadway segments. Therefore, the East Garrison Traffic Study also included the level of service analysis of 30 roadway segments. This roadway segment analysis is based on peak hour directional volume, while the methodology recommended in the 11/1/04 letter from Hexagon is based on daily capacity.

Chapter 20 of the 2000 Highway Capacity Manual (HCM) presents "operational analysis for two-way and directional segments of two-lane highways," with the objective "to determine the level of service (LOS) for an existing or proposed facility operating under current or projected demand." Appendix D-2 of the County's Guide for the Preparation of Traffic Impact Studies (dated October 2003), states that for roadway segments:

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

Use the latest edition of the Highway Capacity Manual to determine levels of service.

The 2000 HCM is the latest edition, and it provides a LOS for peak hour conditions (the time frame stated above).

The methodology recommended in the 11/4/04 letter is more expedient than the operational analysis presented in Chapter 20 of the 2000 HCM. Part of the reason why it is a faster method is that vehicles per day (vpd) is essentially the only variable in the proposed method, while vpd is not even a variable for the LOS calculations presented in Chapter 20 of the 2000 HCM. With this in mind, perhaps the question is whether the County wants to know the expected impact of project traffic on roadway segments specifically during the peak hours (rather than more general “daily” conditions). There is no question that, for the study intersections, the County is interested in the LOS during the a.m. and p.m. peak hours.

Although vpd is not used in Chapter 20 of the 2000 HCM, it is used in Table 8-10 (Maximum Annual Average Daily Traffic vs. Level of Service and Type of Terrain for Two-Lane Rural Highways) of the 1994 HCM. The range for level terrain is 1,600 vehicles per day (LOS A with a 0.15 K-Factor) to 22,900 vpd (LOS E with a 0.10 K-Factor). Therefore, a 25,000-vpd capacity would exceed the LOS E threshold presented in this Table. As a reminder, K-Factor is the design hour factor, i.e., the proportion of AADT expected to occur in the design hour.

Response to EGP-ATT-3

Based on the methodology provided in the Chapter 2000 of HCM and the corresponding LOS calculations during the peak hours, the impacted segments identified in the DEIR seem to be correct.

Response to EGP-ATT-4

The comment is correct in stating that Table 4.4-9 lists intersection improvements. The bulleted list on Page 4.4-26 identifies seven roadway segments including five funded and two un-funded segments. Mitigation Measure 4.4-2-A on Page 4.4-27 correctly states that the County will work with FORA to include the Reservation Road (between Portola Drive and SR 68) and SR 183 (between Cooper Road and Espinosa Road) segments in the CIP. The other five segments are currently on the FORA CIP.

Response to EGP-ATT-5

Unlike intersections, there are not many options available for mitigating a roadway segment other than adding lanes. As part of the DEIR, specific sections as well as the direction on a particular roadway were identified as candidates for mitigation (lane addition) as opposed to the entire roadway in general. Specific roadway segments are being studied in greater detail to determine the cost effectiveness of roadway widening.

Response to EGP-ATT-6

The project fair share analysis was based on the methodology presented in the County Public Works Department’s *Guide for the Preparation of Traffic Impact Studies* dated October 2003. The fair share calculation methods are summarized as following:

- Existing Fair Share = (Project traffic)/(Existing + Project traffic);
- Cumulative Fair Share = (Project Traffic)/(Cumulative Traffic), if there is an existing deficiency;
- Cumulative Fair Share = (Project Traffic)/(Cumulative-Existing Traffic), if there is a cumulative deficiency.

Response to EGP-ATT-7

The County provided the project cost estimates used in the fair share calculations.

Response to EGP-ATT-8

Please see responses to comments EGP ATT-2, EGP ATT-6, EGP ATT-7. The traffic on Blanco Road between Reservation Road and Davis Road, and on SR 183 between Cooper Road and Espinosa Road is expected to decrease from Cumulative (Year 2020) scenario to Cumulative (Year 2020) plus Project scenario because of possible rerouting of traffic under future conditions due to the opening of internal roadways and connections to Reservation Road and Inter-Garrison Road when the East Garrison project is built.

Comments on East Garrison Specific Plan Draft Subsequent EIR
State Clearing House No. 2003081086 PLN030204
Dated Sept 2004

October 29, 2004

Monterey County
Planning and Building Inspection Department
Mike Novo, AICP
2620 First Ave.
Marina, CA 93933

Dear Mr. Novo,

The East Garrison Specific Plan includes many innovative ideas. For instance, the project includes preservation and restoration of many historic buildings, the additions of a town center with a library, a fire station, open space that provides spectacular views of the Salinas Valley, and other amenities. In addition the mixed-use and varied sizes of homes in the design of the project is laudable. Overall the project is visionary and represents the future of development in California. With these positive aspects said, there are several areas of the project that need attention prior to approval. I have put the most significant impacts in bold below and also commented on other impacts.

SW-1

Biological Impacts

I am a biologist at CSUMB who lives in the nearby CSUMB housing. I am familiar with the property due to its nearby location. I am also the local expert on vernal pools on Fort Ord and thus have provided information based on my many years of studies near the property.

Impact 4.7-B. Although there is much discussion on how to protect trees near existing buildings, there is no mention that the intention of the project is to preserve all or nearly all heritage coast live oak trees. In particular trees that are in the undeveloped areas appear to not be protected, even though large heritage oak trees are protected by Monterey County law. Indeed the arborist for the project describes more than 177 trees greater than 24" on the site. Given there is a county ordinance against cutting such heritage trees additional plans need to be included to protect heritage trees throughout the project site.

SW-2

Besides the inherent value of such magnificent trees, the added property value for houses that would have such trees already on the property is significant. This added value more than covers the cost to protect them during construction. Also, replanting trees from seed is not a mitigation as it will take hundreds if not thousands of years for planted to trees to reach the same size and majesty and those on the project site.

One particularly magnificent heritage tree is either on the property or immediately west of the property where Monterey Co. intends to build the new Intergarrison/Reservation connector (NW corner of project). This particular tree is a magnificent tree with a circumference near the base of 168" and is actually much wider at breast height (the traditional measurement height) because of 2 massive branches arising at that site. The GPS coordinates of this tree are N 36° 39.407 and W 121° 44.618 based

on WGS84 map datum system. I've included a figure from the DSEIR that indicates which tree it is on an aerial photo. Due to the majesty of this likely 1000 year old tree, it is important that the county design its road to not disturb it. (During the process of getting the GPS coordinates I found out that my neighbor also cherishes exactly the same tree, so I am not alone in finding it to be spectacular.)

SW-2

Impact 4.7-D. Breeding populations of CTS occur ~500-1000 m to the southwest of the project site. They are in 2 vernal pools that are southwest of catfish pond on BLM property immediately north of the southern BLM property line. Studies of CTS movements at the vernal pool on Machine Gun Flat on Fort Ord BLM land by students and faculty at UC Davis have found Fort Ord populations of CTS moving at least 700 m away from breeding habitat. Studies of CTS in Carmel Valley have found they move even farther. I provide this information to further help delineate the habitat of CTS with respect to the project.

SW-3

Impact 4.9-2. Given the significant biological resources of the former Fort Ord and in particular the adjacent county and BLM lands, it will be important that the project site does not become a significant site for introduction of exotic species (in particular plants). Landscaping should use natives as much as is possible and a specific requirement that no invasive species be used in plantings. The project will lead to the removal of significant exotics that have become established among the old buildings that have languished at East Garrison. This exotic removal will be a significant benefit of the project. (Examples of invasive exotics currently in the parking areas in the developed areas of the projects include fennel, jubata or pampas grass, ice plant, poison hemlock and others.). I appreciate that the plan mentions planting natives and drought-tolerant plants. However a picture supplied as a landscaping plant looks like ice plant, which is an invasive. All individuals who will be involved in landscaping need to be educated on what plants are locally native. The California Native Plant Society would be happy to help.

SW-4

Impact 4.7-A. I applaud that the plan does not include development in the sensitive maritime chaparral areas in the southern part of the land swap property. *(and to protect oak woodland in Parker Flats).*

SW-5

Traffic Impacts

Impact 4.4-2. There is no mention of impacts on Intergarrison Rd (Blvd.). There is likely to be huge increase in the number of vehicle trips on Intergarrison next to CSUMB campus housing. At the 8 am peak traffic time this road is already congested. In addition this project will put additional traffic pressure on the CSUMB campus as many if not most drivers will go to Monterey via Intergarrison and the CSUMB campus. The current models only discuss traffic on Intergarrison from Abrams to the west, however traffic begins at Schoonover Drive.

SW-6

Impact 4.5-C. To reduce vehicle traffic a bike lane should be extended west of Intergarrison to connect with the existing CSUMB bike path that begins at Schoonover Dr. This will allow a greater variety of travel options from the project site and would

SW-7

show the commit of the developer and the county to reducing vehicular traffic. This should be an important project added on county land to increase the number of bike commuters. (Such a bike path would connect with CSUMB bike paths both to campus and ultimately to the SR 1 bike path and also down Abrams to Imjin Road, ultimately connecting to the Reservation Rd. to Marina bike path.)

SW-7

Population, Affordable Housing, Jobs-Housing Balance

Impact 4.10-A. Although I support redevelopment of the developed portion of East Garrison at some time in the future, I don't support developing it as one of the early projects on Fort Ord. My reasoning is that it represents leapfrog development rather than growing Fort Ord development from the more urban areas first. For instance, Seaside Highlands and University Villages are both more immediately adjacent to current urban areas or SR 1. The locations of these developments makes more sense in terms of expanding away from existing urban areas. Leap frog development of a new urban area on the east side of Fort Ord such as the current timing of the East Garrison development leads to greater impacts on traffic and wildlife than would occur if the development at the proposed EGSP site were postponed for another 5-10 years.

SW-8

Impact 4.10-D. The current plan does not ensure there will be any workforce housing. Given the regional critical shortage of affordable and workforce housing, this is a significant impact that is relatively easy to mitigate for. Although many homes are supposed to be "affordable by design" (which I applaud in principal), local real estate market forces are likely to make even the smallest houses have starting prices in the \$400 to \$500,000 range. This is not adequate for supplying workforce housing. Most importantly, this land was given as a public benefit by the federal government. East Garrison Partners have a responsibility to give back to the community through workforce housing. Representative Sam Farr proposed that all new projects on Fort Ord include 40% affordable and workforce housing. This project should comply with his request as Representative Farr was able to help procure this land for public benefit (and the developer's profit).

SW-9

In addition, under *Impact 4.10-C*, the plan of the project is to provide local housing to offset the jobs-housing imbalance in the region. The two local employers provided are CSUMB and UCMBEST. The vast majority of those employees fall into the category of "workforce housing". Without an inclusionary housing element that provides for sustained workforce housing, none of the units in EGSP will be affordable to employees at CSUMB and UCMBEST. In the scenario outlined in the DSEIR this would lead to a significant impact to the local jobs housing balance. However with the inclusion of workforce housing the plan could be a significant benefit to local employees and substantially improve the jobs-housing balance.

Impact 4.11.3-A. The need for additional educational services as a result of the project is a significant impact and needs to be mitigated. I understand that at K-8 school is in the plans for the southern part of the property. It is important to include the time frame for such a development in the DSEIR even if it is not part of the current environmental impacts.

SW-10

Water

Impact 4.11.6-A. In order to meet the development needs of all of Fort Ord, each project needs to fit within its water allotment through the county and FORA. With sufficient conservation measures put in place including recycling on-site water, using non-potable water for irrigating, state of the art fixtures and water saving means, EGSP could fit within its official allotment. In addition, Marina Heights has asked for additional water beyond what it was allocated. If every project on Fort Ord gets additional water beyond its allocation and now EGSP is proposing the same. If each project gets extra water, the planned build out of Fort Ord will not be able to occur. All projects must share this precious resource.

If the project redesigns some of the larger homes to be smaller, having no more than 2 bathrooms, this will both help with affordability and it will reduce the water required for the project.

SW-11

Thank you for addressing my concerns.

Sincerely,



Suzanne E. Worcester, Ph.D.

1604 Hodges Ct
Marina, CA 93933

Location of heritage oak tree with
GPS coordinates N 36° 39.407' + W 121° 44.618'



LEGEND

- Hooker's manzanita
- sand gilia
- Monterey spineflower low density
- Monterey spineflower medium density
- Monterey spineflower high density
- Potential sand gilia habitat
- Tick Zero boundary
- Study area boundary

Exhibit 4.7-4
Zarbee + Associates Inc 04
Special Status Plants

SUZANNE WORCESTER

Response to SW-1

The comment restates some facts of the project description and serves as an introduction to the comments responded to below.

Response to SW-2

The County's Zoning Ordinance (Section 21.64.260) seeks to preserve as many trees as possible or, if removed, to replace them, typically on a 1:1 basis. The ordinance does not prohibit the removal of protected trees, but requires a permit to remove protected trees. The replacement requirement may be varied if there will be a special hardship in the use of the site. The DSEIR states that the 5,100 oak trees to be removed cannot be replaced by planting on a 1:1 basis because there is not enough undeveloped area remaining within the EGSP boundary and it is not feasible to plant additional trees at Parker Flats without compromising the existing habitats in that area. With the proposed density of the project, and the extensive grading needed to accommodate infrastructure, it is not possible to preserve individual landmark trees except in the future open space areas. Please see Section 3.3, MR-6: Biological Resources, for a discussion on the oak tree removal issue and its relationship to site biological resources.

The tree described by the latitude and longitude coordinates is outside the development area of the new connector road (Heritage Oak Tree Exhibit, East Garrison, dated December 6, 2004, found in project file) and will be protected pursuant to mitigation measure 4.7-B-1.

Response to SW-3

Since the text of the DSEIR was prepared, the U.S. Fish and Wildlife Service has confirmed that it considers the EGSP area to be within upland habitat for California Tiger Salamander (CTS) and has prepared a Biological Opinion for the Army based on the Biological Evaluation of Army Actions that May Affect California Tiger Salamander and Contra Costa Goldfields Critical Habitat submitted July 19, 2004. The Biological Opinion was issued by USFWS on March 14, 2005 and includes measures to address and protect CTS.

Response to SW-4

The EGSP includes a landscape palette for all development within the community. The palette was developed in consultation with a landscape architect and biologist familiar with the local flora and fauna. Although ice plant is listed as a recommended Highly Fire Retardant Succulent in Section 4, Infrastructure of the Specific Plan, it is not included in the East Garrison Pattern Book, which provides the landscaping guidelines for development of the project. Exotic, invasive species are prohibited.

Response to SW-5

The comment notes the lack of development in sensitive maritime chaparral areas. No further response is required.

Response to SW-6

The DSEIR includes analysis for two roadway segments on Inter-Garrison Road, one between 7th Avenue and Abrams Drive and another between Abrams Drive and West Camp Road. These two roadway segments cover a major portion of Inter-Garrison Road in the vicinity of the project site extending from 7th Avenue to the west to West Camp Road (near Schoonover Drive) to the east. Project impacts were identified on both of these roadway segments on Inter-Garrison Road, which is currently a two-lane roadway. Mitigation measures in the DSEIR include an additional westbound lane on Inter-Garrison Road

between 7th Avenue and Abrams Drive, as well as an additional lane in each direction between Abrams Drive and West Camp Road.

Response to SW-7

The EGSP will facilitate the commuter and recreational cycling routes as planned for in the Monterey County General Plan and the FORA Reuse Plan. Existing Class 2 bikeways along Inter-Garrison Road will extend both through the project area (to the Town Center) and around the community (on West Camp Road and Watkins Gate Road). These facilities will accommodate commuters and visitors destined for the Town Center as well as recreational bicyclists for the Fort Ord trail system. In addition, bicycle facilities within the Track Zero boundary will connect to existing roadways and bicycle facilities at Inter-Garrison Road, Watkins Gate Road, Barloy Canyon Road, and Reservation Road. Neighborhood streets without dedicated bicycle lanes will be designed for low vehicular speed and volume and should be relatively safe for bicyclists. Specific details on bicycle facilities within the project can be found in the East Garrison Specific Plan.

Response to SW-8

Other projects planned as part of the redevelopment of Fort Ord include Seaside Highlands, Marina Heights, and University Villages. Buildout of these projects is subject to market conditions and construction of those projects will occur as dictated by developer interest and demand. Residents will begin occupying houses constructed as part of the EGSP in 2007, with completion of buildout anticipated by 2012-13. Please see Section 3.3, MR-7: Land Use Planning Policy, for a discussion of land use planning.

Response to SW-9

The EGSP will include 10 percent “Workforce II” housing, and will include 20 percent of the units for very-low-, low-, and moderate-income housing, which would be priced lower than workforce housing. For a discussion of the EGSP consistency with the County’s Inclusionary Housing Ordinance, please see Section 3.3, MR-8: Inclusionary Housing.

Response to SW-10

See Section 3.3, MR-5: Schools, for a discussion on schools.

Response to SW-11

See Responses to SC-19 and LWMC-6.

Response to SW-ATT-1

Attachment SW-ATT-1 includes a hand drawn map noting the location of an oak tree as scouted by the letter author. Please see response to SW-2 and Section 3.3, MR-6: Biological Resources, for a discussion of biological resources.

**David Smith
3230 Gettysburg Court
Marina, CA 93933**

November 1, 2004

Monterey County
Planning and Building Inspection Department
Mike Novo, AICP
2620 First Avenue
Marina, CA 93933

Re: Comments Regarding the East Garrison Specific Plan and Subsequent DEIR
[Submitted via email and hand delivered]

Dear Mike Novo:

I have the following comments on the East Garrison Specific Plan and Draft Subsequent Environmental Impact Report.

I have outlined in various subsections my specific comments to the impacts of East Garrison at Fort Ord. However, in general the DSEIR for the East Garrison Specific Plan is flawed because:

- 1) Consideration of East Garrison is premature because Monterey County's General Plan is outdated and therefore inadequate. The County should not consider East Garrison prior to the adoption of an updated County General Plan. East Garrison, which is not only inconsistent with the current General Plan, but also might very well be inconsistent with an updated General Plan. The most prudent and fair decision for the public is for Monterey County to wait for an adopted updated General Plan prior to considering East Garrison. DS-1

- 2) Impacts and Mitigation Measures for biological resources, population housing and employment, traffic and public services are inadequate and do not actually mitigate adverse impacts while taking for granted many of the potential outcomes associated with the impacts. In other words, the mitigation measures assume the outcome rather than provide evidence for the possible results of the mitigation. Simply saying that the mitigations will reduce significant environmental impacts to less than significant does not actually make it so. DS-2

The Final Environmental Impact Report should address both the general and specific comments made in this letter and should be re-circulated to the public in order to ensure that mitigation measures adequately address the significant impacts East Garrison will have on Fort Ord and surrounding communities. This is only fair for current and future residents of Monterey County who will have to live with and bear the burden of the environmental and social impacts of East Garrison. DS-3

General Plan Inadequacy

Currently, land use decisions in Monterey County are measured against an outdated and inadequate General Plan. Therefore, consideration of East Garrison is premature and should be delayed until an adequate General Plan is adopted by Monterey County. It is not reasonable or fair to the public to adopt a project that *should* be tested against an updated General Plan instead of being pushed under the aegis of an outdated General Plan.

Even if it were appropriate for the county to consider East Garrison, it is inconsistent with Monterey County's 1982 General Plan. The following two policies are just examples of how East Garrison is inconsistent with the current General Plan. These policies below are just samples of policies contained in the current but outdated General Plan that illustrate East Garrison's inconsistency with the current General Plan.

Policy 7.1.1 Development shall be carefully planned in, or adjacent to, areas containing limited or threatened plant communities, and shall provide for the conservation and maintenance of the plant communities. The East Garrison Specific Plan is NOT located in an area "containing *limited* [emphasis added] or threatened plant communities". Furthermore, to remove 1.5 acres of spineflower and 5100 acres of oak trees is hardly a way provide for the "conservation and maintenance of plant communities".

9.1.1 Development shall be carefully planned in areas known to have particular value for wildlife and, where allowed, shall be located so that the reasonable value of the habitat for wildlife is maintained. East Garrison is also inconsistent with this policy, as the massive amount of habitat that is lost does not illustrate a "carefully planned" development that maintain habitat for wildlife. In fact, East Garrison is the complete antipode to this policy.

My point: even if the county were to consider East Garrison prior to the adoption of an updated General Plan, East Garrison would prove inconsistent with the current General Plan by which Monterey County currently directs growth.

Population, Housing, and Employment

Comment to Impact 4.10-C and Subsequent Mitigation Measure:

The analysis of this impact and its following mitigation is flawed because it assumes that simply providing housing that EGSP will contribute to the county's and surrounding cities' job/housing balance. With the exception of Monterey County's inclusionary housing ordinance, there is nothing that *assures* that homes built at East Garrison will be affordable or those who live and work in Monterey County and surrounding communities. In fact, given the strength of Monterey County's housing market to set housing prices extremely high, most of the homes, arguably 80 percent of the homes, built at East Garrison will be unaffordable to below average and average income residents of Monterey County.

Most residents, then, will not be able to afford housing at East Garrison. According to a recent study completed by Applied Development Economics for Monterey County's General Plan Update, 85 percent of the residents of Monterey County cannot afford homes priced at \$76,000

DS-4

DS-5

or more¹. There are few ways to assure that homes built at a new development will meet the needs of the community in terms of housing prices. Simply building homes is not a viable solution. Absent any additional policy or regulation like Monterey County's Inclusionary Housing Ordinance, 80 percent of the homes built at East Garrison will be set by the market, which currently sets housing prices extremely high. If 85 percent of Monterey County's residents cannot afford housing priced \$376,000 and above, market rate homes at East Garrison will not meet the housing needs of the surrounding community unless the developer were *required* to build a more substantial amount of affordable housing. A recent study commissioned by FORA and completed by Bay Area Economics said that building 40 percent of the new homes as affordable is profitable and therefore achievable for developers². Again, I would like to stress that without a more ambitious policy, homes built at East Garrison will not provide any such jobs-housing balance because the vast majority of those homes will not be affordable to residents who live and work in the incorporated and unincorporated areas of Monterey County.

DS-5

Another flaw with the analysis of this impact is the claim that workers in the some 380 jobs that will be created at East Garrison will actually live on-site and therefore will help establish a jobs housing balance. There is no mention of what the income categories for these jobs might be so there is not a sufficient guarantee that people employed in the East Garrison Specific Plan Area will actually be able to afford to live where they work. This is especially true if most of the jobs that are created are retail jobs. Furthermore, even if East Garrison project provided homes for workers in those 380 jobs, then there would still be a significant job-housing imbalance because most of the homes will be unaffordable to residents who live and work in Monterey County (see explanation in the paragraph above)

Yet another flaw is the claim that East Garrison will help provide a jobs housing balance for surrounding communities. More likely than not, homes built at East Garrison will not serve the need of folks working in the surrounding community or those who work at East Garrison. In the next draft of the EIR, include an analysis that provides evidence that assures that the East Garrison Specific Plan will actually establish a jobs-housing balance in the surrounding communities. I personally believe that the conclusion that there is a less than significant impact of East Garrison on the region's jobs housing balance is incredibly disingenuous. With such a massive project, the public should receive some benefit from its completion. Unless the EIR provides evidence that East Garrison will meet such a goal, the project is guilty until proven innocent. The public deserves more than broad, unconvincing claims about East Garrison's contribution to the area's jobs-housing balance, especially in the presence of an urgent housing crisis.

DS-6

For the same reasons mentioned above, I am not convinced that the East Garrison Specific Plan will provide affordable housing through its "affordable by design" strategy. Market forces set the price of the home, not the cost of constructing the home. There needs to be a more

¹ Applied Development Economics. Monterey County General Plan Update: Economic Impact Analysis February 2004: Available via internet: www.co.monterey.ca.us

² Bay Area Economics. Economic Analysis of Below Market Rate Housing. Prepared for the Fort Ord Ruse Authority

substantial guarantee than the “word” of the developer that a significant amount of homes built at East Garrison will be affordable to average and below average income households.

DS-6

Biological Resources

Comments to Impact 4.7-B and Subsequent Mitigations Measures:

The mitigation measures dealing with the impact of lost wildlife habitat are flawed and do not adequately address the loss of valuable and unique habitat through the construction of East Garrison. First, to say that removal of 5100 oak trees at the project site is a mitigation because it's a trade off for the removal of oak trees at the former East Garrison Project site at Parker Flats is wrong. Simply reducing the amount of trees to be removed is not an adequate mitigation measure, especially since 5100 oak trees will be removed as the end result. Ultimately, the public is the one to deal with the costs and benefits of a project and thus decides on what is an appropriate trade off, not the developer or EIR consultant. Mitigation measure should not force unwarranted trade offs on to the public, especially since so much is at stake with respect to Fort Ord's unique environment.

In addition to the unwarranted trade-offs forced upon the public, it is simply not possible to reduce this impact of the substantial loss of habitat to less than significant because the East Garrison removes less trees (but still a massive proportion of oak trees) than it would have otherwise under a different project site. The impact after mitigation should be significant and unavoidable. The whole point of CEQA and EIR process is to allow decision-makers and the public to make informed choices about a proposed project. Informed decision-making is not possible when a DEIR is significantly flawed because it misrepresents the impact that the project will have on the environment. The EIR should face the fact that unique and valuable habitat, particularly oak woodland, will be removed and that such removal is a significant and unavoidable impact if the project is ultimately approved.

DS-7

The DEIR also mentions the environmental tradeoff between the Parker Flats and current location with respect to special status species as a possible mitigation. East Garrison, as proposed, will have significant and unavoidable negative environmental impacts irrespective of project location and regardless if the amount of oak trees that are removed are less at one project location than another. East Garrison, as proposed, will have significant and unavoidable negative environmental impacts irrespective of project location. Offering this “tradeoff” of Parker Flats habitat to the project's current location as a mitigation measure throughout the DEIR must be removed. Again, there is no reason to force such a tradeoff on to the public. It does not matter if the impact in the current project location is not as bad as what would have occurred if East Garrison were proposed at Parker Flats. Comments to this draft EIR are not directed at the Parker Flats project site, they are directed at the current site and the impacts are still significant. For example, even if the project removes 5100 oak trees as opposed to 10000 oak trees, or kills 1.5 acres of spine flower as opposed to 2 acres, the project still significantly impacts the environment regardless.

County Regulations require tree replacement at a 1:1 ratio, but the Draft EIR fails to acknowledge the historical/biological impact of removing trees that have grown at Fort Ord for

hundreds of years. These trees should be protected. Replacement through the planting of new trees, particularly only a few in comparison to what is being removed, does not make up for impact of lost old growth oak trees that have stood for hundreds of years. The DEIR must address the removal of old growth oaks at the project location.

In addition to the above flawed proposed mitigation measures, simply using protective fencing to protect oaks does not offer a proper alleviation for the loss of valuable oak woodland habitat. In fact, the DEIR does not propose any criteria for which "experts" should use to fence off species to be protected. The DEIR just says that the guidance of a biologist or landscape expert will be used to evaluate the protection of certain trees within the project sight. If the DEIR were to properly mitigate the negative impact of massive tree removal, the report would offer guidance in terms of standards or goals by which habitat experts would follow in order to protect species of high habitat value. This mitigation measure, like many proposed in this section of the EIR, does little, if anything, to reduce the significant impact that the removal of 5100 oak trees will have on the unique environment of Fort Ord because it does nothing substantial to alleviate the negative environmental impacts associated with the massive development of East Garrison.

DS-7

With respect to species management, in general, the biological resources section of the DEIR is inadequate in reducing the negative impact on special status species, species of special concern, and state or federally protected species. The DEIR takes a myopic view at how to mitigate impacts on local wildlife by offering mitigation measures such as: a biologist will advise construction staff on how to best avoid negative impacts on protected bat species. Such a species by species approach fails to recognize that in order for a species to be protected it must have habitat in which to inhabit. This concept does not require epistemological expertise in biology or forestry, rather it's a simple concept that habitat must exist for species to live. In other words, it is not possible to properly mitigate the negative impact of a massive project such as East Garrison when so much habitat for protected species is removed. The DEIR should be explicit and genuine about the negative impacts East Garrison will have on the Fort Ord's biological resources especially with respect to the protection of threatened, protected or endangered species.

Public Services and Utilities

Comment to Impact 4.11.3-A and Subsequent Mitigation:

As described in the DEIR, I believe that the impact of East Garrison on local schools is inadequately reported and does not take into account the impact of other development on Fort Ord including Marina Heights and University Villages. The DEIR should reevaluate the impact East Garrison will have on local public schools given the overall impact of East Garrison coupled with other major Fort Ord projects.

DS-8

First, It is entirely unlikely that 1,470 new homes will produce only 500 or so students from the project area. In fact, MPUSD's figure of 0.34 students per household seems unreasonably low. That is because little growth has occurred in the Monterey Peninsula Unified School District over the last several years. Massive developments like East Garrison will likely attract more students per household than what is normally experienced in the Monterey Peninsula Unified School District. Also, the population at East Garrison will probably be a lot younger than that

contained in the Monterey Peninsula Unified School District. It is more appropriate to use statistics compiled for Monterey County's General Plan Update regarding the amount of students per household. That table is below (I've included an extra column for projected East Garrison student per household)³:

Grade	Student Generation Per Household	Projected East Garrison Impact
7 th – 12 th Grade	.33	485.1
K – 6 th Grade	.37	543.9
Total:		1029

Table 1: Likely Number of New Students East Garrison Will Generate at Local Schools in Marina and Seaside

The chart above, according to county student generation rates, would more than double the current figure estimated by the DEIR for student generation of East Garrison. The next draft of the DEIR should reevaluate the impacts of student generation that East Garrison will have on local schools, especially given the fact that East Garrison does not include plans to build any sort of school.

Besides the fact that the DEIR does not properly address student generation impacts of East Garrison, Marina and Seaside high schools will struggle to pay for the additional costs of 1029 new students in the area, especially since neither Marina nor Seaside will receive any of the property tax revenue from residential development at East Garrison. Marina and Seaside will bear the burden of the students generated from growth in the unincorporated county. This burden will be tremendous: Currently the Monterey Peninsula Unified School District spends about \$6,959 per student, where about \$2,741 (approximately 40 percent of the total revenue needed to spend per student) of that per student expenditure is generated by local property tax revenue⁴. East Garrison, by not providing property taxes to local governments like Marina and Seaside, will result in a \$2,820,489 (\$2741 multiplied by 1029 new students) annual deficit to local schools, while adding a significant number of students to schools already on the brink of becoming overcrowded.

Besides the costs per student that East Garrison will cost the public in the former Fort Ord area, the Specific Plan or the DEIR does not offer a solution to help pay for new schools. According to the Monterey County General Plan Update Fact Sheet on school costs, it would cost \$35,000,000 for a high school, \$8,690,000 for an elementary school and \$17,000,000 (a total of \$60,690,000)⁵. There currently is not a provision that states how the county would pay for such a cost, much less on-going expenditures to serve the community. In addition, development fees, which do not completely cover the cost of facilities (if developer fees did cover the complete cost of building infrastructure building would be prohibitive for developers because the cost would be too high), are allocated for paying for new roads, new sewage systems, a possible water augmentation system to provide potable water to residents, expansion of police and fire services and parks and open space. With all these needed expenditures, it would cost a significant amount

³ Monterey County General Plan Update, County Facts. Available via internet: <http://www.co.monterey.ca.us/gpu/countyfacts/schools.html>

⁴ Financial Statement for Monterey Peninsula Unified School District. 2002-2003 School Year. Available via internet: <http://www.ed-data.k12.ca.us/welcome.asp>

⁵

of money to pay for such facilities. In short , East Garrison is too much too soon. The project must be delayed until adequate facilities and services are available for residents who live at East Garrison.

DS-8

Again: It's more appropriate for the county to forgo consideration of East Garrison to a later date when infrastructure is in place prior to development. Otherwise, tax payers in Monterey County will be seeing more tax measures like the city of Salinas' current tax increase measures A, B, and C.

Conclusion

In summary, before Monterey County considers East Garrison, there ought to be an updated General Plan by which make sure that East Garrison meets public goals and policies as sated and mandated by the General Plan. It is not appropriate to consider East Garrison at thistime especially under a General Plan that is significantly outdated. Also, East Garrison needsto be scaled back and delayed until services can adequately be provided and so that devastation of unique wildlife habitat can be avoided.

DS-9

East Garrison, though being a model of New Urban Design, is simply too much, too soon for Monterey County residents. Such a project with so much potential must be urban in nature and must not contribute to unbridled growth, which undermines our economy and devastates our environment. In the future East Garrison must avoid the tremendous impact it will have on wildlife and wildlife habitat on Fort Ord. Fort Ord is a jewel and a gift to Monterey County citizens. Projects like East Garrison, in its current form will devastate the beautiful FortOrd environment which all Monterey County citizens are privileged to enjoy.

DS-10

Thank you for taking these comments into consideration.

Sincerely,



David Smith
Resident of Fort Ord

Bcc: Interested Persons

DAVID SMITH

Response to DS-1

See Section 3.3, MR-7: Land Use Planning Policy and MR-9: Monterey County General Plan for discussions of the relationship of the EGSP to the MCGP and land use planning policy.

Response to DS-2

The comment states that mitigation measures proposed for biological resources, population, housing, and employment, traffic, and public services are inadequate and do not mitigate adverse impacts. No specifics are presented in the letter. The DSEIR identified significant and unavoidable impacts to air quality, traffic, public services and utilities, and cultural resources. As described in CEQA Guidelines §15126.4(1)(A), an EIR is required to identify mitigation measures for each significant environmental effect that could minimize that effect. The mitigation measures proposed in the DSEIR are subject to a lead agency determination that they could reasonably be expected to reduce adverse impacts if required as conditions of approval. If a mitigation measure would cause one or more significant effects in addition to those caused by the project, those effects must be discussed. Mitigation measures must be enforceable through permit conditions, agreements, or other legally binding instruments.

Mitigation measures should be capable of: 1) avoiding the impact altogether, 2) minimizing or reducing the magnitude of impacts, 3) rectifying the impact by repairing, rehabilitating, or restoring the impacted environment, or 4) reducing or eliminating the impact over time by preservation and maintenance operations during the lifetime of the action. In formulating mitigation measures, the lead agency is subject to the “rule of reason.”

The EGSP SEIR proposes mitigation measures that are enforceable through permit conditions, agreements, or actions proposed in other planning documents or Capital Improvement Plans and that, at a minimum, can reasonably be expected to reduce adverse project impacts. A Mitigation Monitoring and Reporting Plan will be adopted by the Board of Supervisors, in compliance with CEQA Guidelines section 15097. The SEIR does not list any significant impacts for population, housing, and employment; therefore, no mitigation measures are required.

Response to DS-3

A DEIR only requires recirculation if the lead agency adds significant new information such as substantial changes in the project, environmental setting, or additional data. Under CEQA Guidelines 15088.5(a), new information added to an EIR is not significant unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect. Revisions to the DSEIR are not significant. All comments are responded to in this document, and recirculation of the DSEIR is not required.

Response to DS-4

See Section 3.3, MR-6: Biological Resources, MR-7: Land Use Planning Policy, and MR-9: Monterey County General Plan for discussions on biological resources and MCGP adequacy.

Response to DS-5

See Section 3.3, MR-8: Inclusionary Housing for a discussion of inclusionary housing. The DSEIR analyzed the effects of implementation of the EGSP on the County’s jobs to housing balance, housing needs, and affordable housing. In compliance with the County’s Inclusionary Housing Ordinance, the EGSP would reserve 20 percent of the units as deed-restricted affordable units. No County policies are in place that would allow the County to require a larger percentage of affordable units. However, the

developer has agreed to provide 10 percent “Workforce II” housing in addition to the inclusionary housing requirements. This comment relates to the merits of the project and not the adequacy of the environmental analysis; therefore, no further response is required.

Response to DS-6

The County and the surrounding cities currently have more jobs than housing. Therefore, employees of local companies must commute from outlying areas. This trend is expected to worsen within the County. However, improvement is expected in the cities of Marina and Salinas according to AMBAG forecasts. To assist in offsetting the impact of jobs lost as a result of the base closure, the Reuse Plan established a policy to maintain a local jobs-to-housing balance at FFO and has planned for such a balance. See the discussion in DSEIR Section 4.10.1.

New housing at FFO is intended to first serve new jobs created by the implementation of the Reuse Plan. The greatest new employment concentration at FFO is related to the California State University-Monterey Bay Campus (CSUMB) and the University of California-Monterey Bay Education, Science, and Technology Center (UCMBEST) mixed-use district. The EGSP site is adjacent to the UCMBEST area and only two miles from the CSUMB campus. The new EGSP community has been designed to meet the needs of those job centers. The commentor is correct in asserting that people may not live near their work. All that can be done is to supply a sufficient number of housing units so that a shortage does not artificially increase housing prices. In addition, providing housing near job centers provides the opportunity for a balance, but does not guarantee one.

Response to DS-7

Page 4.7-24 of the DSEIR states that the loss of 5,100 oak trees cannot be mitigated through replacement planting on a 1:1 basis because there is not enough undeveloped area remaining within the EGSP boundary and it is not feasible to plant additional trees at Parker Flats without compromising the existing habitats in that area. The DSEIR does not claim that there are less trees being lost at East Garrison than would have been lost at Parker Flats had the Land Swap Assessment not been approved, as the commentor suggests. However, the FORA FEIR identified tree removal as a less than significant impact due to implementation of the HMP as part of the Reuse Plan. Please see Section 3.3, MR-6: Biological Resources, MR-3: Subsequent DEIR and Tiering, and MR-2: Alternatives Analysis, for further response to this comment.

Response to DS-8

See Section 3.3, MR-5: Schools, for a discussion on schools. The analysis in the DSEIR uses student generation factors as established by Monterey Peninsula Unified School District (MPUSD) and which are used by the MPUSD in their facilities planning process. The analysis must use generation rates adopted or certified for use by each agency or service districts and cannot use unofficial generation rates from the unadopted Monterey County General Plan. The EGSP would be located in an area served by utilities, roadways, and existing development and is considered as infill development. The cities of Marina and Seaside do not pay for schools with their property tax share. The MPUSD provides schools for their communities and East Garrison. Property taxes are the same for incorporated and unincorporated areas.

Response to DS-9

See Section 3.3, MR-7: Land Use Planning Policy, for a discussion of the relationship of the EGSP to the MCGP and land use planning policy.

Response to DS-10

The comment relates to the merits of the project and not to the adequacy of the environmental analysis. Therefore, no further response is required.

REC'D DEC 03 2004

Mike Novo
Monterey County Planning Department, Lead Agency
2620 First Avenue
Marina, CA 93933
Phone: 831-883-7518
Fax: 831-384-3261

November 29, 2004

For the Administrative Record:
Response to East Garrison Specific Plan – Draft Subsequent EIR, Transportation and
Circulation
Location: Former Fort Ord in unincorporated Monterey County, California

Dear Mr. Novo,

I have had the opportunity to review the referenced document (downloaded off Monterey County's internet site), specifically pages 4.4-1 to 4.4-31, inclusive. I am writing to comment on the information contained in this and its flawed analysis.

To begin, the document author correctly states that the Fort Ord Reuse Authority's Final Environmental Impact Report was done on a program level. The document then goes on to ostensibly address specifics regarding the traffic impacts of this East Garrison proposed project. I believe the author fails in this report because he misses the forest for the trees.

The document fails to recognize, or perhaps the author did not know, that the Programmed FEIR for the FOR A Reuse Plan estimated that about \$857,000,000 (\$857 Million dollars) would be needed for both on-site and off-site roads and improvements to roads to handle the traffic generated by the FOR A plan. In 1994 dollars, this \$857 million dollar amount can roughly be broken down to include:

- \$74 Million of on-site improvements
- \$19 Million of intermodal
- \$59 Million offsite arterial
- \$705 Million regional highway projects. Of this \$705 Million, \$117 Million would be coming from Fort Ord Developers, dedicated.

So, the first issue I'd like to raise is "Where is the money?" Specifically, how much for each of the above from East Garrison and how soon? Also, calculations should be done for the amounts in 2005 dollars, or whenever the estimated date of actual construction is. Might I suggest the author call the Transportation Agency for Monterey County, the Monterey County Public Works Department and the California State Department of Transportation, District 5, and ask how much money is currently available?

These dollar figures should then be published in a new report.

MW-1

Might I also suggest the author ask these three respective agencies their opinion, or best guess, as to the likelihood of the populace of Monterey County's willingness to tolerate increased taxes to help pay for some, or any, of this \$857 Million Dollars.

MW-1

Secondly, the Fort Ord Reuse Plan's traffic scenario hinged on the construction of what is called the South-West Alternative. This was to be a brand new throughway from roughly Toro Park in the East to Canyon Del Rey in the West. Please note that official Plan Lines have been drawn on maps of former Fort Ord for this.

This South-West Alternative was to be a MAJOR MITIGATION for the traffic that would be generated by the build out of the FOR A Plan, of which East Garrison is a large component. CalTrans, District 5, has been involved in the negotiations for these Plan Lines. In the report prepared by Michael Brandman Associates for transportation and circulation of the East Garrison Project... this major mitigation is simply ERASED! It is not even mentioned! For that matter, traffic conditions on State Highway 68, currently at Level of Service (LOS) F are ignored in this transportation and circulation analysis. As the Plan Line area is currently part of the clean-up of unexploded ordnance at former Fort Ord. It is unknown, as of this date, as to whether this mitigation will be a viable one. The author of this report and the lead agency for the project should contact the California Department of Toxic Substance Control for further information. However, the point is, mitigations cannot simply be erased. Other mitigations need to be created, with cost analysis to replace this, if need be.

MW-2

The third issue I would like to raise is the question, "Where is the listing of the cumulative impacts?" In addition to this East Garrison Project, the County of Monterey is also working on a big project north of Salinas called Rancho San Juan, a big project in Pebble Beach, as well as a number of smaller projects, some relatively nearby in San Benancio. The City of Marina is also processing a large housing development. Also, the small City of Del Rey Oaks has plans for a hotel with more rooms than the local Embassy Suites Hotel in Seaside, plus a golf course, plus retail, commercial, and time-shares. Cumulative traffic data really needs to be made available for consideration.

MW-3

A fourth issue is the Traffic and Circulation author mixes up various current levels of service, gets them wrong, or ignores them. The author's charts miss State Highway 68 for example. And, while the poor level of service is addressed at the intersection of General Jim Moore Blvd. and Canyon Del Rey, the even worse level of service at nearby Canyon Del Rey at State Highway 68 is completely ignored. Traffic turning left at General Jim Moore Blvd. onto Canyon Del Rey currently approaches gridlock during peak hours at Canyon Del Rey and Highway 68. (This is adjacent to the Stone Creek Shopping Center). Reminder to the author, when a Level of Service has deteriorated to Level of Service F, even ONE MORE VEHICLE TRIP IS A SIGNIFICANT IMPACT.

MW-4

The report's language needs correction in that the State Department of Transportation does NOT have a threshold Level of Service "D" for their highways in Monterey County. The acceptable Level of Service is the range of Level of Service "C".

MW-5

The reporting of the Environmental Setting, Existing Roadway System, needs more description than the current one or two sentences per area.

MW-6

It is difficult to imagine any author concluding, "Currently, all the study intersections operate at acceptable LOS during both the AM and PM peak hours with the exception of the following five study intersections:"....

MW-7

The author really is missing the forest for the trees.

Exhibit 4.4-4, titled "Roadway Segments with Unacceptable Levels of Service-Existing Conditions" is both incomplete and wrong.

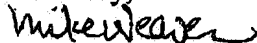
MW-8

There are many other errors in this report. However, to make this letter brief, I would like to conclude with one final observation that I see full of potential problems. That occurs on page 4.4-28, where it is stated that, "The project sponsor (in consultation with the MCPWD) is expected to make payments over the course of the construction of different phases of the project..." In essence, this invites piecemeal payments coming in that historically, in Monterey County, have never been enough to take care of the proposed mitigations in a timely fashion. The developer is going to be asked to pay for improvements to Reservation Road/Davis Road as part of his Phase I construction, then get an unknown chunk of his money back as future developments make their fair share payments. This scenario recalls the failure of the development of Las Palmas on River Road in regard to the planned and resulting traffic mitigations, and the funding rearrangement.

MW-9

Thank you for your consideration of my comments regarding the East Garrison Specific Plan - Draft Subsequent EIR.

Sincerely,



Mike Weaver

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Phone: 831-484-2243

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MIKE WEAVER

Response to MW-1

The FORA Capital Improvements Program (CIP) is responsive to the capital improvement obligations defined under the Fort Ord Base Reuse Plan (BRP) as adopted by the FORA Board in June 1997. The BRP carries a series of mitigative project obligations defined in Appendix B of that plan as the Public Facilities Implementation Plan (PFIP). The PFIP, which serves as the baseline CIP for the Reuse Plan, is re-visited annually by the FORA Board to assure that required projects are implemented in a timely way to meet development needs. The PFIP was developed as a four-phase program spanning a twenty-year development horizon (1996-2015) and was based upon the best at-the-time forecasts of development patterns anticipated in concert with market absorption schedules for the area. As such, it also anticipated that property transfers (Army to FORA to land use jurisdictions) would be completed in a timely fashion at the onset of the twenty-year horizon.

The costs assigned to the various elements of the CIP were originally estimated in May 1995 and published in the draft 1996 BRP. This current CIP has inflated costs to January 2003, and will continue to be routinely updated each year. The primary sources of revenue anticipated to cover the costs of obligatory CIP projects are Development Fees and Land Sale (and lease) proceeds. These primary sources can be augmented by Tax Increment Revenue. The current FORA Development Fee policy has been structured to accommodate CIP costs of Transportation/Transit Projects, Habitat Management obligations, Potable Water Augmentation, Storm Drainage System Improvements and Public Facility (Fire Fighting Enhancement) Improvements. The Development Fee policy adopted by the Board in 1999 was implemented by the formation of the FORA Basewide CFD, which is structured to allow annual inflation adjustments to account for cost escalation. Land Sale (and lease) proceeds are expected to cover costs associated with the Building Removal Program.

As stated above, the primary funding sources for the CIP obligations are land sale (and lease) revenues and special taxes paid through a CFD. However, another essential element in funding CIP projects is tax increment revenue (or a jurisdiction's substitute, as per the Implementation Agreements) from the adoption of redevelopment at the former Fort Ord. Note that this revenue source is relatively small compared to the other two main sources, does not accrue in any significant amount for several years, and is subject to a 12-18 month lag behind project completion and revenue receipt by FORA. Therefore, tax increment revenue serves as a back up to the primary sources of capital.

The FORA Board has approved the indexing of development fees to inflation. Capital improvement costs have increased approximately 21 percent since first compiled in 1995. Additionally, as FORA performs its reviews of development timing and patterns, the opportunity to vary the timing of projects based on need can occur.

Response to MW-2

Please see response to comment SC-16.

Response to MW-3

Cumulative impacts are listed in Section 2.4, Cumulative Impacts and described in Section 5, Other CEQA Considerations of the DSEIR. The cumulative analysis considered all reasonably foreseeable projects planned in the County over the cumulative planning horizon of 2020.

Response to MW-4

Please see response to comment SC-16.

The study intersections were chosen in consultation with the County based on the likelihood of the project adding enough traffic to an intersection to increase delay for critical movements. For example, Canyon Del Rey Boulevard/General Jim Moore Boulevard was chosen as a study intersection even though the project is expected to increase traffic at this intersection by only approximately one percent of the existing traffic during the peak hours (which barely met the criteria for studying an intersection for project impacts). However, expected project trips at this intersection indicate that the project is expected to only slightly increase the volume at the intersection of SR 218 (Canyon Del Rey)/SR 68. Based on forecasted Existing plus Project volumes for General Jim Moore/Canyon Del Rey (Intersection #28), the project is expected to generate only 12 trips onto southbound Canyon Del Rey Road (between General Jim Moore and SR 68) during the AM peak hour, and 7 trips during the PM peak. Similarly, the project is expected to generate only five trips on northbound Canyon Del Rey Road during the AM peak, and 14 during the PM peak.

Response to MW-5

The County has confirmed that cusp “C/D” is the Caltrans level of service standard for state highways. See the discussion in Response to Caltrans-1.

Response to MW-6

The *Fort Ord Reuse Plan, Volume 1: Context and Framework* provides additional information on area roadways and acts as the existing conditions description for the FORA EIR. Information from the FORA EIR is incorporated into the DSEIR by reference (see Section 1.3, Tiering and Basis for Subsequent EIR).

Response to MW-7

Traffic conditions on the roadway segments were evaluated using the methodologies provided in the 2000 *Highway Capacity Manual* (HCM). LOS criteria for the multi-lane roadway segments (with more than two lanes) were based on the typical speed-flow and density-flow relationships provided in Chapter 20 in the HCM. The EGSP modeling and traffic study is based on the regional traffic model that has been used by Caltrans, the cities of Salinas, Monterey, and Seaside, and Monterey County for corridor studies and General Plan updates. The model has been updated with year 2000 land use and network information in these jurisdictions to better represent the existing conditions and more accurately estimate traffic forecasts. The model’s geographic study area spans three counties: Monterey, Santa Cruz, and San Benito.

The traffic model is a set of custom-made tools that operates in MINUTP software. The model uses state-of-the-art enhancements including cross-classification trip generation that uses persons per dwelling unit and income per dwelling unit as independent predictors of trip generation. In the mode choice component, person trips choose between nine modes of travel based on economic criteria. An iterative, capacity constrained traffic assignment is used for AM, PM, and off-peak periods. Various land uses were assumed during the traffic modeling process. This scenario estimates traffic conditions as if the project would be fully occupied in the very near future, while in reality, full occupancy would probably not occur until 2012. As such, the model conservatively estimates traffic impacts.

Response to MW-8

The bullet points on Page 4.4-13 do not list the General Jim Moore Boulevard roadway segment, which is operating at LOS D. Page 4.4-13 is revised as follows:

The study evaluated conditions for roadway segments in the project area that could be potentially impacted by the proposed project. Table 4.4-4 lists the roadway segments analyzed under existing conditions. As shown on Exhibit 4.4-4 and Table 4.4-4, the following roadway segments currently operate at unacceptable LOS under existing conditions:

- Blanco Road between Reservation Road and Salinas River Bridge (segment 2):
LOS E during the AM and PM peak hours.
- Blanco Road between Salinas River Bridge and Davis Road (segment 3):
LOS E during the AM and PM peak hours.
- Davis Road between Ambrose Avenue and Central Avenue (segment 21):
LOS E during the AM and PM peak hours.
- Reservation Road between Portola Drive and SR 68 (segment 24):
LOS D during the PM peak hours.
- SR 183 between Cooper Road and Espinosa Road (segment 26):
LOS E during the PM peak hours.
- **General Jim Moore Boulevard between Broadway and South Boundary Road (segment 27)**
LOS D during the AM and PM peak hours.

Response to MW-9

As stated above in MW-1, the PFIP was developed as a four-phase program spanning a twenty-year development horizon (1996-2015) and was based upon the best at-the-time forecasts of development patterns anticipated in concert with market absorption schedules for the area. The PFIP, which serves as the baseline CIP for the reuse plan, is re-visited annually by the FORA Board to assure that required road improvement projects are implemented in a timely way to meet development needs. Improvements required for all projects associated with redevelopment of Fort Ord are also planned and implemented through the Fort Ord Reuse Authority Development and Resource Management Plan (DRMP). The County is committed to working with FORA for the timely implementation of needed improvements.

4.0 ERRATA AND REFINEMENTS TO THE DRAFT SUBSEQUENT EIR

4.1 INTRODUCTION

The following section includes revisions to the text of the DSEIR. These revisions are listed by page number. Text additions are **bolded** and underlined and text deletions are shown in ~~strikeout text~~. The original analysis contained within the DSEIR is adequate. The following text revisions are required for clarity purposes only.

4.1.1 Revisions to the Text of the Draft Subsequent EIR

PAGE 2-1

Paragraph 4 is revised as follows:

The potential areas of controversy and issues to be resolved through the EIR process are derived through analysis conducted during preparation of the Notice of Preparation (NOP) (Appendix A) and consideration of responses received from public agencies and the public during scoping meetings and circulation of the NOP. **The areas of controversy and issues addressed in this DSEIR do not extend to matters that are the subject of previous analysis in the FORA EIR that remain valid under current conditions.** These areas are summarized as follows:

PAGE 2-2

Bullet point 6 is revised as follows:

- Development of the project will remove ~~53~~ 44 acres of oak woodland, ~~and 38~~ 41 acres of oak savannah, 40 acres of grassland, **and 2 acres of coastal scrub, resulting in the removal of approximately 5,100 oak trees in varying size classes spread throughout these habitats** ~~thereby impacting other vegetation communities, including grassland, coastal scrub, and ruderal communities~~ (see Section 4.7, Biological Resources).

PAGE 2-2

Bullet point 10 is revised as follows:

- The proposed project will result in the construction of up to 1,470 residential units, **75,000 sq ft of commercial uses, 11,000 sq ft of public and institutional uses, and 100,000 sq ft of artist/cultural/educational space resulting in** an increase in population of approximately 4,337 persons in the project area, and the creation of approximately 380 employment opportunities on the project site (see Section 4.10, Population, Housing, and Employment).

PAGE 3-10

Paragraph 2 is revised as follows:

The Reuse Plan provides program-level policies for the redevelopment of the entire FFO. The EGSP is a project-level specific plan under the Reuse Plan for redevelopment of the East Garrison area. The EGSP is required to be consistent with the Reuse Plan. The EGSP project will implement the Reuse Plan by:

- Accommodating the proposed 2015 Transportation Network by improving Reservation Road and creating a connection between Inter-Garrison Road and Watkins Gate Road.
- Creating a mixed-use village.
- Implementing the HMP, as amended.
- Limiting water use/demand to 470 acre-feet/year.
- Providing park space in accordance with the Quimby Act.
- Providing trail heads connecting the East Garrison to the regional trail system.
- Providing a Pedestrian and Bicycle Systems Plan.
- Assuring a broad multimodal transit network is accommodated.
- Providing housing near jobs.

TABLE 3-1

Table 3-1 is revised as follows:

Table 3-1: Proposed Housing Types

Dwelling Size (SF)	Approximate Percentage	Number of Dwelling Units	Housing Type
1,300 to 3,410	56	780	Single Family Detached
1,300 to 2,200	16	227	Town houses
500 to 1,485	20	280	Condo/Loft/Apartments
1,100 to 2,310	8	113	Live/Work
450 to 850	n/a	70 [±]	Accessory (Carriage House)
Total	100%	1470	
The Option Agreement allows for a maximum of 1470 units. * Water Permitting Source: Urban Design Associates, July 2004.			

PAGE 3-39

Page 3-39, paragraph 7 and page 3-40, paragraph 1 of the DSEIR have been revised as follows:

~~An additional 4 million gallon reservoir and its booster station are planned to be constructed by Marina Coast Water District (MCWD) adjacent to the existing off-site reservoir.~~ According to MCWD's recently adopted *Water Supply Master Plan, Capital Improvement Program* (June 2004), **this a 4-million gallon (mg) reservoir is required to meet water storage requirements throughout the Fort Ord community in**

Year 2004 (refer to Table 7-1, *Water Supply Master Plan*). A portion of the new storage capacity is estimated for use to meet the commercial fire flow and fire suppression requirements of the EGSP project with the remaining storage capacity used to accommodate water storage requirements of future development on the remaining portion of the Ord Community (as addressed in the Reuse Plan). The volume required to accommodate the water storage requirements of the EGSP project has been estimated to be approximately 20 percent of the total storage volume planned for construction pursuant to the description of the planned development. **Subsequent to the adoption of the Water Supply Master Plan, MCWD conducted further preliminary analyses and refined its water storage requirements to one 3.2 mg or two 1.6-mg storage tanks to be sited on a parcel outside of East Garrison, in the future Youth Camp parcel. This parcel will be requested to be transferred to MCWD from FORA. The concrete storage tank(s) will supply Pressure Zone “B” that has a service elevation of 130 to 220 feet. Approximately 2.2 mg of Zone “B” storage is required to meet the projected 2020 maximum day demand of the East Ord community, while 1.0 mg of Zone “B” is required to meet commercial fire flow demands. This refinement is intended to expedite MCWD’s ability to design and construct the required facilities in a time frame consistent with proposed development and thus, water storage needs within the Fort Ord community.** In addition, the MCWD plans to construct a large an **approximate 2,000 linear foot** water transmission line **from the new Zone “B” storage tanks(s) to Inter-Garrison Road where it will connect into an existing pipeline.** ~~as part of any roadway construction project from Reservation Road to and along West Camp Street to Watkins Gate.~~ This pipeline would serve planned development identified in the Reuse Plan and analyzed in the Reuse Plan FEIR.

PAGE 3-43

Paragraph 2 of the DSEIR is revised as follows:

A programmatic agreement exists between the Department of the Army Advisory Council on Historic Preservation and the California State Historic Preservation Officer regarding existing areas and buildings in East Garrison. ~~The Army has agreed to attach covenants to the deed of those~~ **Covenants between the State Historic Preservation Officer (SHPO) and FORA were signed in August 2004 and recorded regarding** East Garrison buildings ~~that have been~~ determined to be contributors to the National Register Historic District. ~~The agreed-upon covenants provide~~ ~~dictates~~ that buildings be maintained in accordance with the guidelines of *The Secretary of the Interior’s Standards for Rehabilitation Guidelines for Rehabilitating Historic Structures* **and that all** ~~All~~ construction, **alteration, demolition or other modification be approved by the SHPO.** ~~in the Historic District will comply with the~~ *Guidelines for Rehabilitating Buildings at the East Garrison.*

PAGE 4.4-13

Paragraph 2 is revised as follows:

The study evaluated conditions for roadway segments in the project area that could be potentially impacted by the proposed project. Table 4.4-4 lists the roadway segments analyzed under existing conditions. As shown on Exhibit 4.4-4 and Table 4.4-4, the following roadway segments currently operate at unacceptable LOS under existing conditions:

- Blanco Road between Reservation Road and Salinas River Bridge (segment 2):
LOS E during the AM and PM peak hours.
- Blanco Road between Salinas River Bridge and Davis Road (segment 3):
LOS E during the AM and PM peak hours.

- Davis Road between Ambrose Avenue and Central Avenue (segment 21):
LOS E during the AM and PM peak hours.
- Reservation Road between Portola Drive and SR 68 (segment 24):
LOS D during the PM peak hours.
- SR 183 between Cooper Road and Espinosa Road (segment 26):
LOS E during the PM peak hours.
- **General Jim Moore Boulevard between Broadway and South Boundary Road (segment 27)**
LOS D during the AM and PM peak hours.

PAGE 4.5-2

Paragraph 4 is revised as follows:

Control of mobile sources of air pollution is exercised at the state and federal levels. Vehicular emissions standards are established by the California Air Resources Board (ARB) for vehicles sold in California. ARB establishes statewide ambient air quality standards, monitors air pollutants, designates air basins, and if necessary exercises control of stationary air pollutant sources. **Air quality in the NCCAB is monitored by the MBUAPCD.**

PAGE 4.5-7

Paragraph 2 is revised as follows:

In the last five years, only one state measurement and no federal measurements exceeded ambient air quality standards at the Salinas monitoring station (see Table 4.5-2). The only recorded violation was the state standard for PM₁₀ in 1999, which was likely associated with the wildfires in the Los Padres National Forest. The wildfires are not considered representative of normal ambient conditions. Therefore, since the air quality in the project area is generally good, the goal is to maintain the air quality status rather than implementing control programs to achieve attainment. **However, because Monterey County is a source area for ambient air quality farther downwind, emissions control continues to be an important part of air quality planning even if local air quality is much better than in many areas of California.**

PAGE 4.5-8

Paragraph 4 is revised as follows:

Planning for attainment of state standards is embodied in the MBUAPCD's 1991 *Air Quality Management Plan* (AQMP). The 1997 update demonstrates that the 20 percent reduction target in ozone precursor emissions from the 1987 baseline has been met and that no new control measures (contingency measures) are needed beyond those already in the plan. The 2000 AQMP update for state standards concluded that the NCCAB will remain on the borderline between attainment and nonattainment of the state 1-hour ozone standard. A combination of meteorological variability, pollution transport from outside the air basin and local sources will all contribute to a continuing small number of violations. **An updated AQMP was adopted by the MBUAPCD Board of Directors on September 15, 2004. The updated plan generally continues the previous level of air pollution control, but updates the baseline assumptions within the plan.**

PAGE 4.5-9

Third bullet point is revised as follows:

- Many air pollutants require additional chemical transformations to reach their most unhealthful form. Emissions from any single project are diluted to immeasurably small levels by the time this process is completed. The MBUAPCD has therefore developed emissions based threshold guidelines as defining “substantial” even if the actual resulting ambient air quality is typically not directly quantifiable. The following daily project related emissions are considered individually and cumulatively significant.

Particulate Matter (PM ₁₀).....	82 lb
Reactive Organic Gases (ROG)	137 lb
Nitrogen Oxides (NO _x)	137 lb
Sulfur Oxides (SO _x).....	150 lb
Carbon Monoxide (CO).....	550 lb

- **The analysis matrix shown below contains impacts that result from emissions that are already released in their most unhealthful forms (called “primary” pollutants), as well as those created by chemical conversion in the atmosphere (“secondary” pollutants). CO is a primary pollutant. PM₁₀ and SO_x can be either primary or secondary. Ozone is a classic secondary pollutant (formed by ROG, NO_x and sunlight). The impacts of secondary pollutants cannot be evaluated on a project-specific basis. Emission levels of the ozone precursors ROG and NO_x in excess of 137 pounds per day of either pollutant is considered individually and cumulatively significant by the MBUAPCD. The emissions levels of other pollutants shown below are considered screening levels requiring a more detailed analysis of impact potential. The significance thresholds should thus be interpreted as follows (lb/day):**

Significant

<u>Reactive Organic Gases (ROG) .</u>	<u>137 lb</u>
<u>Nitrogen Oxides (NO_x).....</u>	<u>137 lb</u>

Requiring Additional Analysis (Direct Emissions)

<u>Particulate Matter (PM₁₀)</u>	<u>82 lb</u>
<u>Sulfur Oxides (SO_x).....</u>	<u>150 lb</u>
<u>Carbon Monoxide (CO).....</u>	<u>550 lb</u>

Consistency (or lack thereof) with the growth projections in the AQMP is generally considered a cumulative regional ozone impact issue. The project is consistent with their growth projections. The 137 lb/day of ROG or NO_x are considered an individual or project-level impact. The proposed project will cause ROG emissions to exceed the 137 lb/day threshold at anticipated build-out. PM₁₀ emissions from on-road travel would also exceed the 82 lb/day level, but PM₁₀ impacts are only considered significant for direct sources such as quarries, or for off-road (dirt) travel. PM₁₀ emissions may exceed 82 pounds/day during construction grading, but the size of the simultaneous daily grading area is not known with adequate precision. Mitigation of the “excess” ROG emissions is considered a reasonable project objective.

PAGE 4.5-11

Paragraph 2 is revised as follows:

The Monterey County Planning and Building Inspection Department (MCPBID)-MBUAPCD requires that the ~~monthly~~ **daily** maximum grading disturbance area of a project shall be maintained at 8.1 acres or less. This limited acreage is feasible for smaller projects, but would not be feasible for construction of the EGSP. **Verification of the maximum daily grading area at an active major grading project is almost impossible because the grading dynamics change in very short times. Observer safety is also an**

issue because of the large size of the equipment and the visibility limitations experienced by the equipment operator. Because a restriction of the grading area to 8.1 acres, or 2.2 acres of excavation, is not always logistically possible in a project of this size and cannot be reliably enforced, it is recommended that maximum daily PM₁₀ emissions be considered a temporary significant impact. However, because it is infeasible to establish the magnitude or the location of the variable PM₁₀ emissions, there is no reliable mechanism to translate these emissions into an actual air quality impact relative to ambient air quality standards. Because such emissions are transitory and undefined as to location or magnitude, it is also impossible to develop mitigation measures that would guarantee that significance thresholds would not be exceeded. However, mitigation measures identified in the SEIR reduce air quality construction impacts to the extent feasible.

PAGE 4.5-12

Paragraph 10 has been revised as follows:

Stationary source emissions would be generated due to an increased demand for electrical energy and natural gas consumption with the operation of the proposed project. This assumption is based on the supposition that those power plants supplying electricity to the site continue to use fossil fuels. Electric power generating plants are found in the NCCAB and western United States and their emissions contribute to the total regional pollutant burden. However, it is not possible to quantify project-related power plant emissions generated within the air basin since the project would use energy generated throughout the Western Grid. The primary use of natural gas by the proposed land uses would be for combustion space heating and water heating. As shown on Table 4.5-3, stationary source emissions generated directly from the natural gas consumption or indirectly from the power plant would not exceed MBUAPCD “criteria pollutant” thresholds. Area sources also include a variety of miscellaneous residential sources from household products, paints and solvents, herbicides/pesticides, landscape maintenance equipment and recreational fires for cooking, warmth, or ambiance.

PAGE 4.5-13

Paragraph 2 is revised as follows:

Table 4.5-3: Project Operational Source Emissions (2005)

Source	Emissions (pounds per day)				
	ROG	NO _x	CO	PM ₁₀	SO _x
Mobile	188.6 <u>233.2</u>	191.1 <u>256.9</u>	1,976.7 <u>2548.8</u>	148.3 <u>205.8</u>	1.6 <u>2.1</u>
Area Sources	75.4 <u>74.6</u>	18.7 <u>15.6</u>	25.8 <u>18.7</u>	0.1 <u>=</u>	0.5 <u>0.3</u>
TOTAL	264.0 <u>307.8</u>	209.8 <u>272.5</u>	2,002.5 <u>2567.5</u>	148.4 <u>205.8</u>	2.1 <u>2.4</u>
MBUAPCD Threshold	137.0	137.0	550.0	82.0	150.0

Source: Giroux & Associates, ~~December~~ September 2004, URBEMIS2002 Computer Model, 1470 dwelling units.

As shown on Table 4.5-3, mobile source emissions for 4 of the 5 “criteria pollutants” analyzed are above the MBUAPCD CEQA-significance threshold. Project-related mobile emissions plus area sources range from less than 2 percent of the threshold for SO_x to a maximum of 364 percent of the CO threshold. However, buildout will not occur by 2005, rather it will be phased over a number of years, with buildout

estimated to be completed in 2012. Thus, buildout will occur with a “cleaner” vehicle fleet than in 2005. In 2012, emissions will be lower, but still not fully reduced to less-than-significant, as identified in Table 4.5-4. **There is limited on-site potential to reduce ozone precursor emissions to less-than-significant for these two development alternatives (pre-2020 build-out or maximum unit count). The impact derives from a combination of consumer products and from vehicle travel. Developers have little influence on product selection or on travel choices. The most promising possibility would be for off-site mitigation. A fair share contribution to off-site programs to convert heavy equipment to less polluting engines or to retire older (“gross polluters”) cars could generate measurable ROG and NO_x reductions from the project that could have ROG and NO_x levels exceeding the MBUAPCD thresholds.**

Table 4.5-4: Project Operational Source Emissions (2012)

Source	Emissions (pounds per day)				
	ROG	NO _x	CO	PM ₁₀	SO _x
Mobile	94.0 <u>60.6</u>	109.0 <u>65.8</u>	1,020.7 <u>733.5</u>	148.1 <u>204.0</u>	1.1 <u>1.3</u>
Area Sources	75.4 <u>74.6</u>	18.7 <u>15.6</u>	25.8 <u>18.7</u>	0.1 <u>0.1</u>	0.6 <u>0.3</u>
TOTAL	169.4 <u>135.2</u>	127.7 <u>81.4</u>	1,046.5 <u>752.2</u>	148.2 <u>204.1</u>	1.7 <u>1.6</u>
MBUAPCD Threshold	137.0	137.0	550.0	82.0	150.0

Source: Giroux & Associates, ~~December~~ September 2004, URBEMIS2002. Average of 2010 and 2015 buildout.

PAGE 4.5-14

The first sentence of Paragraph 4 has been revised as follows:

Although CO emissions will be well in excess of MBUAPCD thresholds, CO is ~~the~~ one of several criteria pollutants that allows for a direct calculation of ambient exposures.

PAGE 4.7-2

Paragraph 5 is revised as follows:

The proposed modifications were described in the LSA document prepared by Zander Associates and were submitted to the Army for review and consideration. The Army determined that the goals and objectives of the HMP would be met through implementation of the modifications and requested concurrence from the USFWS on that finding (USDOA 2002). The USFWS agreed that the proposed modifications were consistent with the resource protection goals of the HMP and concluded that the level of effects on HMP species would not exceed those already addressed in biological opinion 1-8-99-F/C-39R (USFWS 2002). **In addition, the Army has submitted a final biological evaluation for formal consultation on impacts that may occur during Army predisposal and transfer actions. The Fort Ord Reuse Authority, County of Monterey, Redevelopment Agency, and East Garrison Partners, LLC have agreed to enter into a Memorandum of Agreement (MOA) regarding Endangered Species Act (ESA) enforcement of development restrictions on the East Garrison portion of former Fort Ord to allow the proposed development of East Garrison to proceed prior to completion of the Habitat Conservation Plan (HCP). The MOA will allow development in East Garrison to be exempt from the “take” prohibitions under the California Tiger Salamander (CTS) Incidental Take Statement**

that the U.S. Fish and Wildlife Service issued in its Biological Opinion addressing the effects of the Army's actions regarding closure, disposal, and reuse of former Fort Ord as long as the parties comply with restrictions set out as part of the MOA.

PAGE 4.7-21

Paragraph 6, Mitigation Measure 4.7-A-1 is revised as follows:

*Compliance status: On September 23, 2003, the Board of Supervisors of the County of Monterey approved and authorized the Chair to sign a Memorandum of Understanding on behalf of the County with FORA, BLM, MPC and the Army. ~~All parties, with the exception of the Army, have signed the MOU. The MOU is currently under review for signature by the Army.~~ **The Army signed the MOU in August 2004 and the revised MOU is currently being recirculated for signature by the other agencies.***

PAGE 4.7-25

The first sentence of the first bullet under Mitigation Measure 4.7-B-1 shall be revised as follows:

To ~~maximize tree retention and protection,~~ **facilitate protection of trees that occur either at project or grading margins,** a forester, arborist or other tree care professional shall be involved in the review and development of final grading and construction plans where trees occur either at project or grading margins.

PAGE 4.7-30

Mitigation Measure 4.7-D-5 is revised as follows:

Mitigation Measure 4.7-D-5

~~This mitigation measure could be achieved through completion of the HCP/IA for former Fort Ord, issuance of incidental take authorization specific to the project, or other activities demonstrated to comply with the ESA. Because of the potential for the project area to provide upland habitat for CTS, compliance with the ESA will be required. Alternatively, protocol level surveys for CTS could be conducted to demonstrate that CTS are not present in the project area. Assuming that the surveys show no CTS using the project area, take authorization may not be required.~~

The County shall ensure compliance with the restrictions contained in Exhibit "C" of the recorded Memorandum of Agreement Regarding Endangered Species Act Enforcement of Development Restrictions on the East Garrison Portions of The Former Fort Ord. Compliance with these restrictions will render the County, East Garrison Partners, and the Redevelopment Agency of the County of Monterey exempt from the prohibitions against "take" of California tiger salamander under the ESA arising from development within the portions of East Garrison to be transferred to the County prior to approval of the HCP/IA (Track Zero).

PAGE 4.7-28

Paragraph 4 is revised as follows:

The project would not substantially reduce the amount of aestivation habitat available on former Fort Ord for CTS. In its draft assessment of CTS habitat on former Fort Ord, the Army estimates that approximately ~~37~~ **39** acres of known CTS breeding habitat, approximately ~~37~~ **35** acres of potential CTS

breeding habitat, and approximately 14,866 acres of potential upland habitat within 2 kilometers of breeding ponds will be protected and managed through the establishment of HMP Habitat Reserves and Corridors. The project would not disrupt travel corridors between breeding sites because there are no pools on or within a reasonable distance north of the project area that are used by CTS. Nevertheless, the Service may considers the project area potential upland habitat for CTS based on proximity to the known breeding pond to the south and therefore will require take authorization. Such take authorization will be provided through completion of the basewide HCP/IA. However, in order to facilitate expeditious transfer of Track Zero to allow the County to meet its commitments to early redevelopment in advance of completion of the HCP/IA, the Army submitted a Memorandum of Agreement (MOA) signed by the County, East Garrison Partners, and the Redevelopment Agency of the County of Monterey as part of the reinitiated consultation required to address its disposal and reuse actions on former Fort Ord with respect to the California tiger salamander. The Service issued the Army a Biological Opinion for the CTS in March 2005 (Appendix B). The Biological Opinion includes a requirement to implement the MOA and comply with its restrictions. As long as the signatories of the MOA comply with the requirements of the incidental take statement, they will be exempt from the “take” prohibitions of the federal Endangered Species Act (ESA). The Service issued the Army a Biological Opinion for the CTS in March 2005. If CTS is listed as threatened, the Service will likely assume that CTS are present in the project area in the absence of protocol-level surveys demonstrating the opposite. Assuming presence of CTS, development within the project area could require take authorization from the Service.

PAGE 4.7-29 AND PAGE 4.7-30

Page 4.7-29 and 4.7-30 contain redundant language related to mitigation measures for birds. Mitigation measure 4.7-3 has been deleted and the other mitigation measures revised as follows:

~~4.7-D-3~~ Within 30 days of building demolition or tree removal, a qualified biologist shall conduct pre-construction surveys for active bird nests and survey the buildings and trees for presence of roosting bats. If special status bat species are present, the following measures should be implemented:

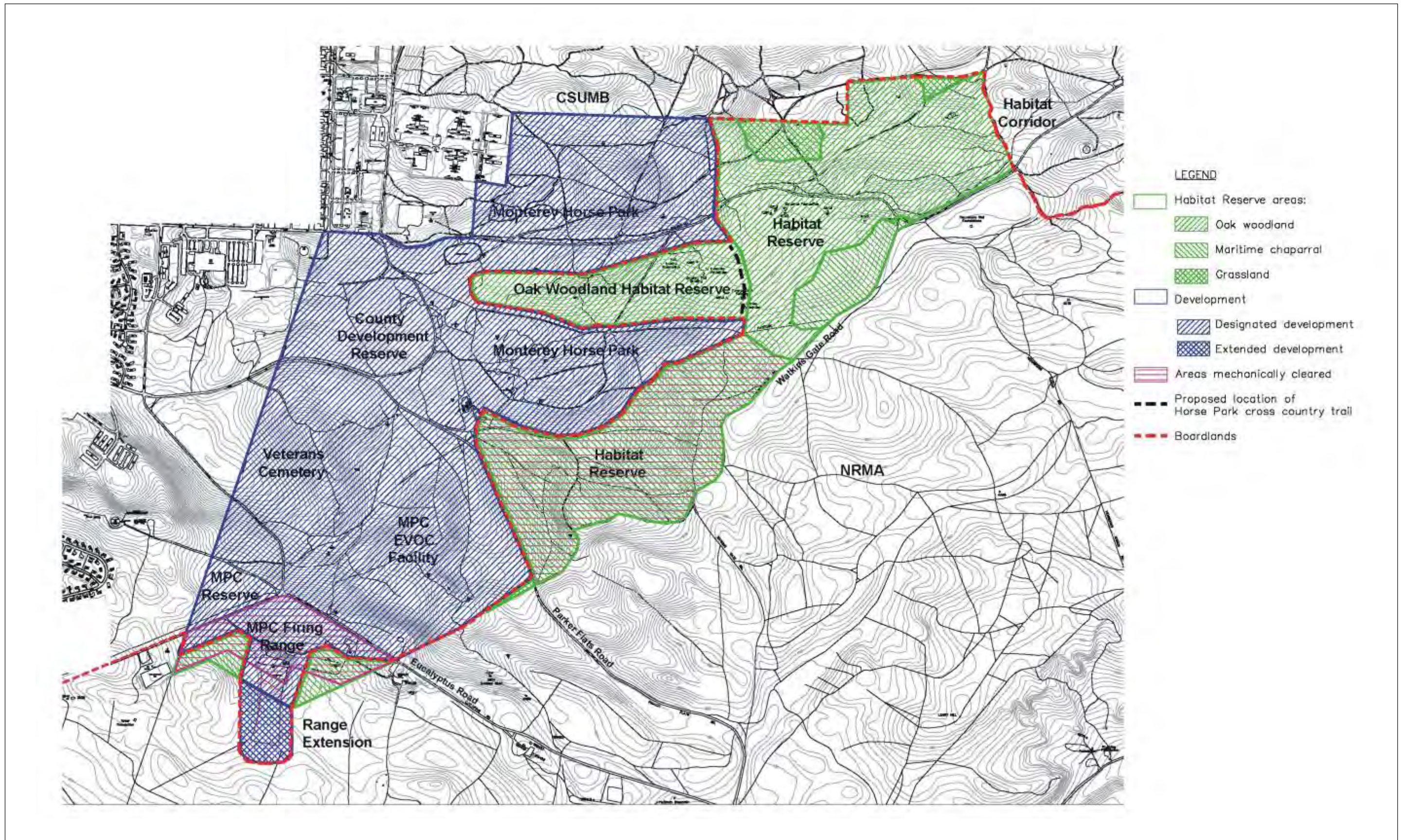
- ~~• Building removal and/or tree removal shall not occur if maternity bat roosts are present (between April 15 and August 1) in the building or tree.~~
- ~~• No building or tree removal shall occur within 300 feet of the maternity roost until all young bats have fledged as determined by a qualified biologist.~~
- ~~• If special status bats are present but there is not an active maternity roost, a Memorandum of Understanding (MOU) with the California Department of Fish and Game (CDFG) shall be obtained in order to remove the animals prior to building demolition and/or tree removal. Alternate habitat in adjacent open space land managed by Monterey County shall be provided if bats are to be excluded from maternity roosts. A roost with comparable spatial and thermal characteristics shall be constructed as directed by a qualified biologist. In the event that adult bats need to be handled and relocated, a qualified biologist shall prepare and implement a relocation plan subject to approval by CDFG that includes relocating all bats found on site to an alternate suitable habitat. A Mitigation and Monitoring Plan that mitigates for loss of bat roosting habitat shall be prepared by a qualified biologist and approved by CDFG prior to building/tree removal.~~

4.7-D-43 Prior to initiation of construction, a qualified biologist shall be designated to monitor construction activities and advise construction personnel of the potential biological issues associated with development of the site. The biological monitor shall attend weekly construction meeting and provide onsite direction for addressing habitat- or species-specific issues as they are encountered during construction. If as a result of pre-construction surveys the biologist establishes exclusion zones around trees or buildings to protect nesting birds or roosting bats, the biological monitor should advise the construction crews of those areas and of the importance of respecting and maintaining those zones.

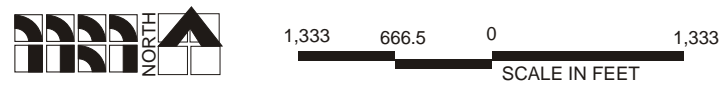
4.7-D-54 This mitigation measure could be achieved through completion of the HCP/IA for former Fort Ord, issuance of incidental take authorization specific to the project, or other activities demonstrated to comply with the ESA. Because of the potential for the project area to provide upland habitat for CTS, compliance with the ESA will be required. Alternatively, protocol-level surveys for CTS could be conducted to demonstrate that CTS are not present in the project area. Assuming that the surveys show no CTS using the project area, take authorization may not be required.

EXHIBIT 4.7-2

Exhibit 4.7-2 has been revised. The final Parker Flats Development Concept as represented in the Land Swap Assessment (May 2002) and the “Borderlands Interface” are depicted on the graphic.



Source: Zander Associates, September 2003.



Michael Brandman Associates

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Exhibit 4.7-2
Parker Flats Development Concept

EAST GARRISON SPECIFIC PLAN • DSEIR

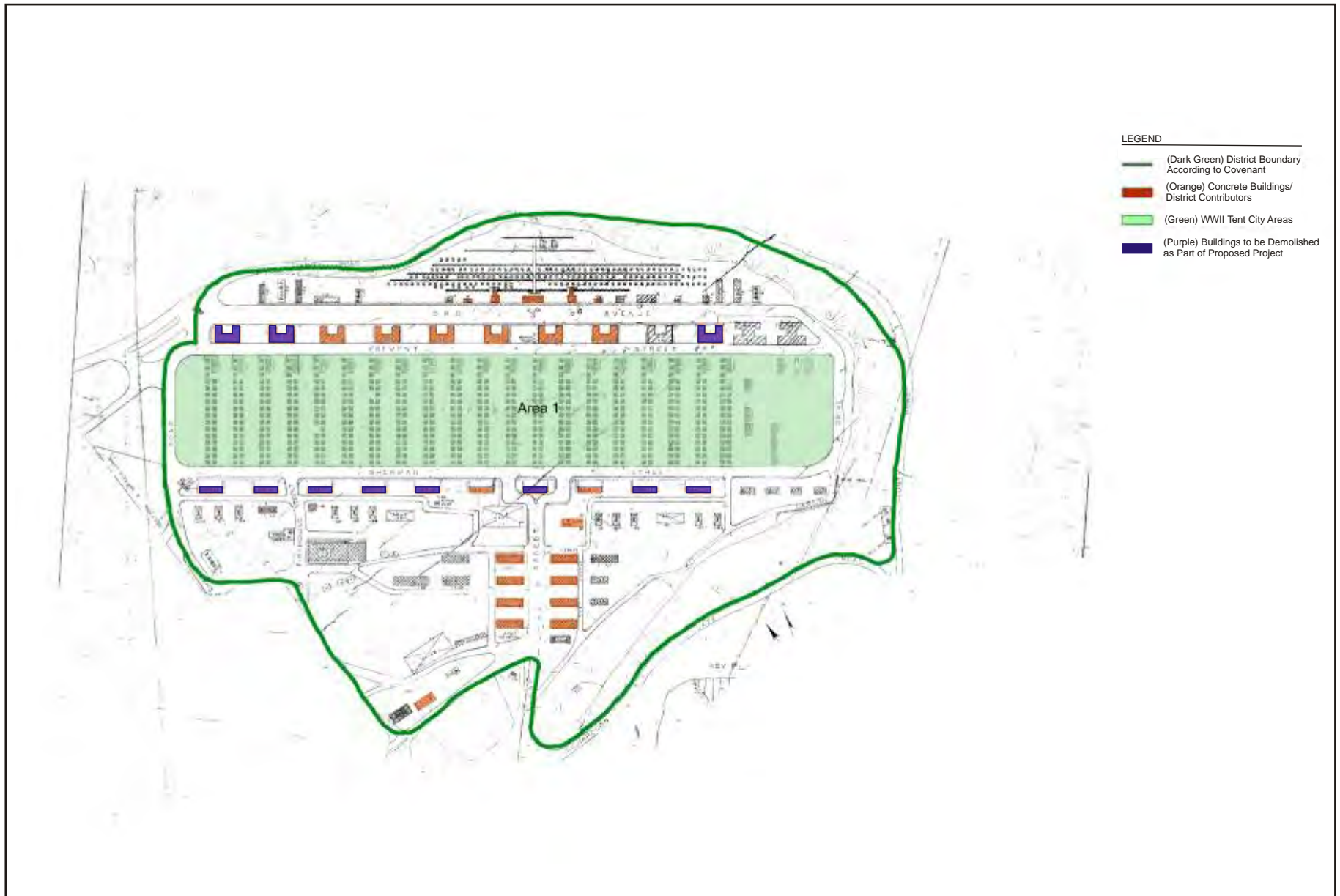
PAGE 4.8-1

Section 4.8.1, Environmental Setting of the SEIR is revised as follows:

The requirements of the National Environmental Protection Act (NEPA) and the California Environmental Quality Act (CEQA) provide the regulatory frameworks and criteria used here to identify the impacts of the proposed project on ~~historic~~ **cultural** resources.

EXHIBIT 4.8-4

Exhibit 4.8-4 has been revised.



- LEGEND**
- (Dark Green) District Boundary According to Covenant
 - (Orange) Concrete Buildings/District Contributors
 - (Green) WWII Tent City Areas
 - (Purple) Buildings to be Demolished as Part of Proposed Project

Source: Archaeological Resources Group, January 2004.



NOT TO SCALE

Exhibit 4.8-4
 Historic Map - December 13, 1959

PAGE 4.8-24

Paragraph 4 and Table 2.1, page 2-31 is revised as follows:

- 4.8.1-G** ~~Prior to demolition,~~ An East Garrison History Walk Plan interpreting the development of site and the role of WPA and Army shall be created and implemented by the project applicant. The walk shall include signs that are self-guided and durable. Said Plan shall be reviewed and approved by the MCPBID in conjunction with the Parks and Public Works Department. Said Plan shall include a phasing schedule for development of the walk in conjunction with project specific development of the Specific Plan to ensure public health, welfare, and safety, during construction.

Page 4.8-25 and 4.8-26 have been revised as follows:

Mitigation Measures

- 4.8.2-A** A qualified archaeologist shall monitor the site during all potential ground disturbance activities. The archaeologist shall prepare a monitoring plan that details the procedures that shall occur in the event that cultural resources are uncovered. At a minimum, all excavation shall cease within 5 meters of the discovery until it is evaluated by a qualified cultural resource specialist and/or County coroner, as applicable.
- ~~**4.8.2-B** Prior to the issuance of grading permits, the applicant shall obtain current status of Letters of Intent to Petition from the Bureau of Indian Affairs, for federal recognition by the following entities: Costanoan Band of Carmel Mission Indians, Ohlone/Costanoan Muwekma Tribe, Indian Canyon Band of Costanoan/Mutsun Indians, Salinan Nation, Amah Band of Ohlone/Costanoan Indians, Esselen Tribe of Monterey County, Ohlone/Costanoan-Esselen Nation, the Ensen Tribe, Salinan Tribe of Monterey County, Costanoan-Rumsen Carmel Tribe, and Costanoan-Ohlone-Rumsen-Mutsun Tribe.~~
- ~~**4.8.2-C** A Memorandum of Agreement shall be prepared between the County, recognized local Native American descendants, the State Historic Preservation Officer, and the Advisory Council on Historic Preservation regarding the presence/absence of Traditional Cultural Properties (TCP) at East Garrison. If TCPs are found to exist therein, ensure that the protection covenants, discussed under Program A 2.2 of the FORA EIR, are in place prior to project commencement.~~
- ~~**4.8.2-D-B**~~ If, during the course of construction, cultural, archaeological, historical or paleontological resources are uncovered at the site (surface or subsurface resources) work shall be halted immediately within 50 meters (165 feet) of the find until a qualified professional archaeologist can evaluate it. The MCPBID and a qualified archaeologist (i.e., an archaeologist registered with the Society of Professional Archaeologists) shall be immediately contacted by the responsible individual present on-site. When contacted, the project planner and the archaeologist shall immediately visit the site to determine the extent of the resources and to develop proper mitigation measures required for the discovery.
- 4.8.2-E-C** Prior to the commencement of project excavations, all construction personnel shall read and sign an agreement that describes and protects Native American remains and any/all potential, subsurface cultural resources.

- 4.8.2-F-D** An archaeological sensitivity map of East Garrison shall be prepared. The map shall incorporate former, current, and future theoretical information regarding potential prehistoric deposits. Existing conditions (i.e. buildings, roads) and future plans (i.e. trenching for residential projects) and potential impacts to archaeological resources shall be taken into consideration when developing the map.
- 4.8.2-G E** The expertise of local archaeological specialists shall be utilized for the preparation of subsequent cultural resources reports at East Garrison.
- 4.8.2-H-F** All future Army documents and related material regarding cultural resources at Fort Ord shall be provided to the California Historical Resources Information System, Northwest Information Center at 1303 Maurice Avenue in Rohnert Park, California 94928-3609.
- 4.8.2-I G** If archaeological resources or human remains are accidentally discovered during construction, the following steps will be taken:
- There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
 - The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and
 - If the coroner determines the remains to be Native American:
 - The coroner shall contact the Native American Heritage Commission and MCPBID within 24 hours.
 - The Native American Heritage Commission shall identify the person or persons it believes to be most likely descended from the deceased Native American.
 - The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or
 - Where the following conditions occur, the landowner or his authorized representatives shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.
 - The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.
 - The descendent identified fails to make a recommendation; or
 - The landowner or his authorized representative rejects the recommendation of the descendent, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

PAGE 4.11-7

Page 4.11-7 of the DSEIR has been revised as follows:

According to the MPUSD, costs for staff will be provided by State funding that is based upon average daily attendance counts. Costs to build needed school facilities will be provided by developer fees, **and other sources, which could be earmarked for local development by the School District, thereby providing additional revenues for school facility funding.** ~~Statutory~~ These fees are assessed at a rate of \$2.24 per square foot of residential development and \$0.36 per square foot for commercial development. Pursuant to Section 65996 (3)(h) of the California Government Code, payment of these fees “is deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization.” Any environmental impacts resulting from construction of new schools will be analyzed by the MPUSD prior to construction, **during the site selection process.** **The Disposition and Development Agreement currently provides that school fees will be paid at \$5.00 per square foot of residential construction to ensure the district has adequate funding to build any needed school facilities.**