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Civil and Criminal Trials ▼ Intellectual Property ▼ Business Development ▼ Environment & Land Use

October 8, 2020

Michael Yee, Director
Hawai'i County Planning Department
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720

Re: pending Draft Environmental Assessment submitted by Royal Vistas Housing Project
Tax Map Key Nos. (3) 7-6-021:016, (3) 7-6-021:017, (3) 7-6-021:018, and (3) 7-6-021:019 North Kona District, Hawai'i Island, State of Hawai'i

Dear Mr. Yee:

I represent Kona Vistas Association, Inc., a non-profit corporation comprising an association of homeowners and residents of real properties located within the Kona Vistas subdivision adjacent to the proposed development project. Thank you for the opportunity to provide input regarding the draft Environmental Assessment. This submission addresses three main issues: traffic impacts, archaeological information and stormwater drainage. These issues must be addressed individually and cumulatively. For the reasons stated below, my client considers that draft Environmental Assessment is deficient in each of these areas. Accordingly, the Planning Department should not accept the draft Environmental Assessment in its present form. See, e.g., Kaleikina v. Yoshioka, 128 Hawaii 53, 283 P.2d 60 (2012) (in context of accepted EIS, a reviewing court uses the 'rule of reason' to determine whether an EIS is legally sufficient in adequately disclosing facts to enable a decision-making body to render an informed decision. Under the "rule of reason," an EIS need not be exhaustive to the point of discussing all possible details bearing on the proposed action but will be upheld as adequate if it has been compiled in good faith and sets forth sufficient information to enable the decision-maker to consider fully the environmental factors involved and to make a reasoned decision after balancing the risks of harm to the environment against the benefits to be derived from the proposed action, as well as to make a reasoned choice between alternatives. (Emphasis added.)

Traffic Impacts

The Traffic Impact Analysis Report by SSFM International, dated July 2020 and attached as Appendix 2 to the draft Environmental Assessment does not fully or accurately address traffic impacts likely to result from the proposed development both within and without the Kona Vistas subdivision. Traffic and the SSFM Traffic Impact Analysis Report are discussed in the body of the draft Environmental Assessment at pp. 48-56, 67 and 71.

First, the proposed project relies on the use of a substandard roadway, Kekuana'oa Place. Kekuana'oa Place is very steep, has limited sight distances due to extreme curves and is narrow with no sidewalks. The impact of increased traffic arising from Phase 1 and Phase 2 buildouts of the Royal Vistas Housing Project is inadequately addressed in the SSFM Traffic Impact Analysis Report, which focuses instead on impacts along Queen Kaahumanu Highway. Of particular concern are the resulting addition of numerous vehicle trips to and from the Royal Vistas Housing Project separate subdivision will present dangers and congestion to residents along Kekuana'oa Place. Kona Vistas Association, Inc. considers that the Planning Department should require the applicant to address these concerns.

Second, the draft Environmental Assessment requires evaluation of, among others, *adverse secondary impacts, such as population changes or effects on public facilities.* See Chapter 11-200.1-13, Hawaii Administrative Rules. Instead of squarely addressing these issues, however, the draft Environmental Assessment simply ignores them, claiming that "No adverse secondary effects are expected since the development would utilize existing infrastructure, provide infill housing, and is not expected to result in substantial demands to County services." It is a serious omission for the draft Environmental Assessment to fail to address the potential adverse impacts of the proposed project's increased use and reliance upon substandard existing infrastructure, like Kekuana'oa Place.

Third, the draft Environmental Assessment addresses adverse traffic impacts only in the context of whether the project would *Have a substantial adverse effect on public health.* The Applicant claims, "The Proposed Project would not affect public health in any way; stormwater would be appropriately disposed of in drainage structures. Traffic impacts have been taken into careful consideration in project design." Emphasis added. This bald conclusion does not address potential adverse impacts as required by Chapter 11-200.1-13, Hawaii Administrative Rules. The Planning Department should

require the applicant to specifically address adverse traffic impacts resulting from the proposed project in the context of *adverse secondary impacts, such as population changes or effects on public facilities* as required by Chapter 11-200.1-13, Hawaii Administrative Rules.

Fourth, the Planning Department should not accept the draft Environmental Assessment reliance on the SSFM Traffic Impact Analysis Report, which has the following deficiencies[1]:

a. failure to address adverse traffic impacts within the Kona Vistas subdivision arising from the project;

b. The SSFM Traffic Impact Analysis Report uses a growth rate of 1%, in contrast to the 2% growth rate employed by the 2018 Witcher Engineering Traffic Impact Analysis Report. Traffic congestion is very sensitive to growth rate in a non-linear, exponential relation;

c. The SSFM Traffic Impact Analysis Report does not recognize multi-generational housing characteristics common in Hawaii according to census data and likely underestimates daily vehicle trips attributable to buildout of the proposed project;

d. The SSFM Traffic Impact Analysis Report employs an unusually low vehicle volume of 853 vehicles for Northbound Queen Kaahumanu highway on the selected dates of April 30, 2019, a weekday and August 24, 2019, a Saturday, compared with the 2018 Witcher Engineering Traffic Impact Analysis Report, which reported 1057 vehicles for January 14 and 15, 2016, both weekdays. The unusually low reported vehicle volume of 853 is also at odds with Figure 4 of the SSFM Traffic Impact Analysis Report, which shows approximately 1050 vehicles per hour in 2016 for Northbound Queen Kaahumanu Highway at 7 a.m. The difference in volume is more than double the maximum 10% variation generally accepted in day-to-day measurements and thus unreliable;

e. The recommendation by SSFM Traffic Impact Analysis Report for a roundabout at Queen Kaahumanu Highway and Hualalai Road (North) is inconsistent with the traffic corridor. Intersections that pass warrants but remain unsignalized present traffic safety liability concerns for the government;

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[1] Please see attached Assessment of two TIAR for the Royal Vistas / Kona Village Development dated September 25, 2020 by Panos D. Prevedouros, Ph.D.

f. The recommendation by SSFM Traffic Impact Analysis Report for monitoring of the intersection of Queen Kaahumanu Highway and Kuakini Highway is inadequate. Where, as here, an intersection passes more than one warrant under all conditions, it should be prioritized for study and design of a signal for installation. This circumstance will be exacerbated by the proposed project.

In sum, the draft Environmental Assessment and SSFM Traffic Impact Analysis Report does not present sufficient, credible facts and analysis such that the adverse impacts on existing infrastructure and resulting from increased traffic can be fully understood and result in appropriate government planning and response.

2. Archaeological Information

The draft Environmental Assessment at pp. 42 - 43 recites that the applicant's experts sought consultation from, inter alia, J. Curtis Tyler III, cultural descendent, and from Kekoa Nazara, Kona Hawaiian Civic Club President. Supposedly, Mr. Tyler provided specific information that was not included with the draft Environmental Assessment. Kona Vistas Association, Inc., however, is informed that neither Mr. Tyler nor Kekoa Nazara were contacted. Kona Vistas Association, Inc. is presently investigating these discrepancies and will seek to supplement this input statement. In the interim, the Planning Department should require the applicant to verify the information presented in the draft Environmental Assessment and the June, 2020 Cultural Impact Assessment For A 78.122-Acre Property In Hōlualoa 1st Ahupua'a, North Kona District, Hawai'i Island, Hawai'i [TMK: (3) 7-6-021:016-019] attached to the draft. An open question exists whether the draft Environmental Assessment has been compiled in good faith and sets forth sufficient information to enable the decision-maker to consider fully the environmental factors involved.

Next, the draft Environmental Assessment only lightly touches on potentially important cultural Archaeological Resources at pp. 71-73. Chapter 11-200.1-13, HAR, however, requires agencies to consider irrevocable commitments of natural, cultural or historic resources when determining whether an Action has significant effects. Although the draft Environmental Assessment claims that "no valuable natural or cultural resources would be committed or lost as a result of the Proposed Project" and "No impacts to archaeological resources would occur with the planned preservation of the railroad berm and petroglyph.", Kona Vistas Association, Inc. is informed to the contrary According to an evaluation and analysis performed by Tom Pohaku Stone, substantial evidence exists that the land encompassed by the subject land parcels includes

features of the Holualoa Slide, including rock walls that are inadequately described as agricultural walls in the archaeological studies offered in support of the draft Environmental Assessment. The Holualoa Slide is an important Hawaiian cultural and archaeological feature from pre-Western contact times that cannot be replaced if damaged or destroyed. See correspondence and figures attached hereto.
It appears that the draft Environmental Assessment identifies the Holualoa slide parallel walls only as walls used for agricultural / ranching.

Kona Vistas Association, Inc. is presently seeking to verify the information attributed to Mr. Stone and will seek to supplement this input statement upon receipt of such verification. At a minimum, the Draft Environmental Assessment must be revised to address the location, data recovery and preservation of the Holualoa Slide components present on the subject parcels.

3. Drainage

The steep topography, historical rapid stormwater run-off and associated damage present hazards that are not adequately addressed in the draft Environmental Assessment. The draft Environmental Assessment does not discuss sufficient facts and analysis such that the necessary drainage improvements and diversions can be understood. A proper environmental assessment cannot leave meaningful details to be taken care of in the future, which would lead to unlawful project segmentation, among other errors.

A bare conclusion by the applicant or accepting authority that needed infrastructure will comply with government regulations is insufficient. At a minimum, the draft Environmental Assessment must be revised to show specifically what infrastructure improvements are required to tie into the County's drainage system and how those improvements will function.

4. Cumulative Effects

Once the three areas identified above are properly and fully addressed, the cumulative effects of adverse impacts in these areas and all others must also be addressed.

Thank you for your consideration of this input from Kona Vistas Association, Inc.

Kind regards,

Steven D. Strauss

Enclosures

pc: client

TRAFFIC IMPACTS

Assessment of two TIAR for the Royal Vistas / Kona Village Development

Panos D. Prevedouros, PhD, Professor of Transportation Engineering, Univ. of Hawaii at Manoa

Honolulu, September 25, 2020

Throughout this document I refer to the **Current TIAR** (by SSFM International, dated July 2020) and the **Old TIAR** (by Witcher Engineering, dated October 18, 2018.)

Both TIAR use the standard methodology in the Highway Capacity Manual (HCM) for assessing traffic impacts, which is generally accepted in Hawaii. I was a past contributor of specifications in the HCM and teach it routinely in my CEE 462—Traffic Engineering course at UH Manoa.

A critical component in a TIAR is the number of trips generated by the project during the AM and PM peak hours. Both TIAR used the standard ITE Trip Generation models and came to very similar results as shown below.

Table 9: Estimated Trips Generated - Phase 1

	AM		PM	
Land Use [ITE Code]	**Equation**		**Equation**	
Multi-family Housing (Low Rise) [220]	Ln (T) = 0.95 Ln (X) – 0.51		Ln (T) = 0.89*Ln (X) - 0.02	
Dwelling Units	258		258	
New Trips	117		137	
	In	**Out**	**In**	**Out**
	23%	77%	63%	37%
	27	90	86	51

T = Total number of trips generated, X = Dwelling Units

Trip Distribution old TIAR 22 92 86 48

Typically we expect measurable impacts when a project generates 100 or more trips along the peak direction. This project does not in Phase 1; in Phase 2 the right turn from Kona Villages onto Queen Kaahumanu Hwy. will be 108 vehicles per hour in the AM peak. It should be noted that some movements, left turns in particular, can become problematic with much lower volumes.

Another critical component is the "background growth" which specifies the annual growth of traffic due to general population growth, other developments in the region, etc. This number typically ranges between 0% and 5%, with 1% to 2% being most typical rates for areas experiencing growth, unless

detailed estimates are available from a regional planning model. The latter are preferred to an assumed growth rate.

Traffic congestion is very sensitive to growth rate; it increases the volume in the Volume-to Capacity ratio. When the V/C ratio exceeds 0.75, the existing capacity is 75% utilized. It is a non-linear (exponential) relation, therefore delays "skyrocket" when the V/C ratio exceeds 0.9.

A growth rate of 1% means that a road that carries 1,000 vehicles now will carry 1,150 vehicles in 15 years. A growth rate of 2% means that a road that carries 1,000 vehicles now will carry 1,300 vehicles in 15 years. If the capacity of the road is 1,500 vehicles per hour, then current conditions are good (the V/C ratio is 0.67), the future conditions with 1% growth rate we be concerning (the V/C ratio is 77%), and the future conditions with 2% growth rate will be poor (the V/C ratio is 87%).

If one were to add just 50 additional vehicles from a development, then future conditions with 1% growth rate will be concerning (the V/C ratio is 80%), and the future conditions with 2% growth rate will be poor (the V/C ratio is 90%), both of which will exacerbate lost time due to traffic congestion which in TIAR is represented by the delay per vehicle.

Interestingly, the Old TIAR used a growth rate of 2% and the Current TIAR used a growth rate of 1%, which, as I demonstrated in the paragraphs above, is a big difference. In the latter case, the estimated traffic impacts will be lower (e.g., lower delays) and better level of service (LOS). However, the justification given in the Current TIAR is credible.

Old TIAR: "There are several other developments in the general area in the planning stages. Nearly all have been in various stages of planning for some time (10 years). The reasons they have not proceeded vary from not obtaining proper zoning to requirements set by the Planning Department in the past. It cannot be projected when, or if, these projects will proceed. Therefore, the 2% rise per year in the traffic volume required by the County should suffice this development's coming on line."

Current TIAR: "The 2035 Federal Aid Highways Long Rage Transportation Plan Forecasts average daily traffic in Kona and Hawaii Belt Road to be 41,900 vehicles in 2020 and 48,000 vehicles in 2035. This equates to a 1% annual growth rate over 15 years in the Kona area. A background growth rate of 1% per year was assumed, to account for additional traffic at the study intersections."

Relying on a regional model for forecasts is preferred to making an assumption.

TIAR analysis depends on traffic volumes collected in the field to form the base conditions upon which the future scenarios with and without the project are analyzed. Both TIAR use pre-Covid data, therefore their base volumes are fairly representative of a normal economy, and normal travel activity conditions.

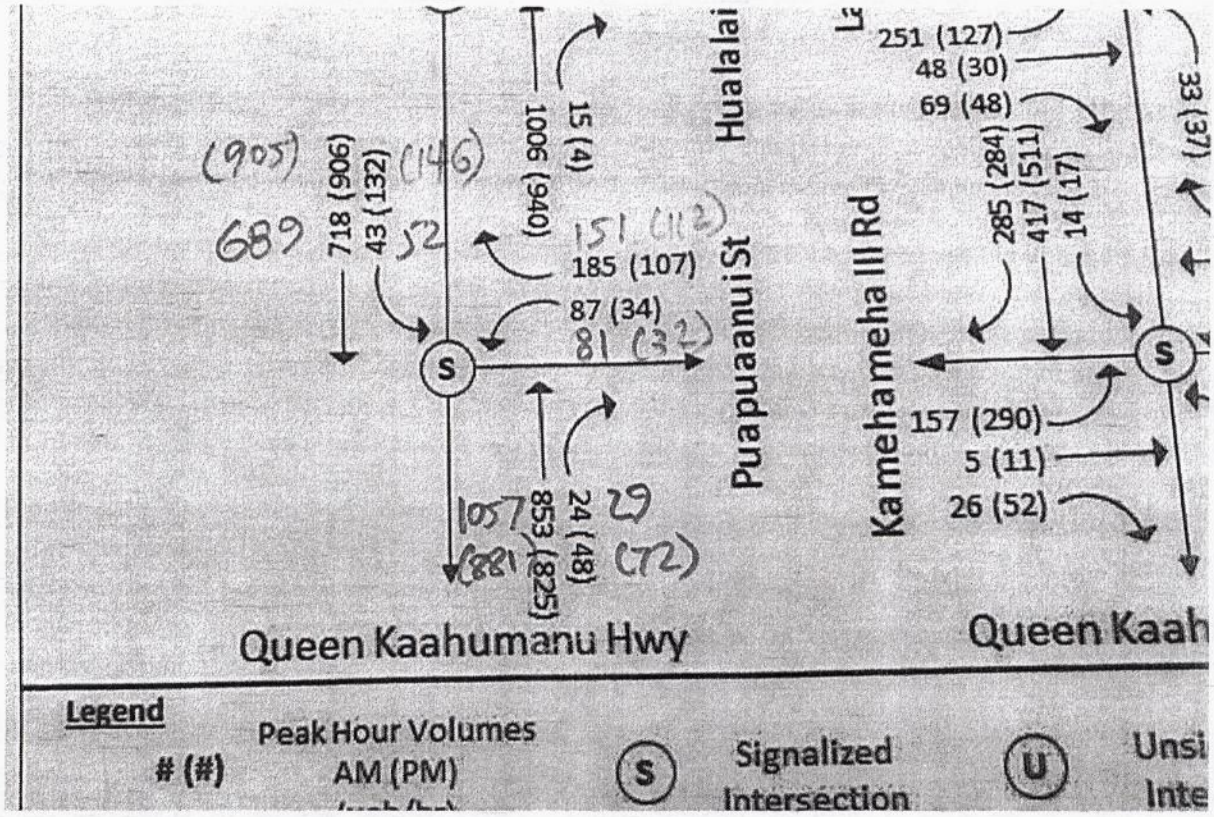
The two TIAR chose to analyze different intersections and have only one intersection in common: Puapuaanui St. with Queen Kaahumanu Hwy. The volumes reported are shown in a screen capture for the Current TIAR, and in my handwriting for the Old TIAR (see page 3.) Due to day-to-day variation, a close match in the volume of each movement is not realistic; small deviations are normal. However, one large deviation is worrisome: the volume on Northbound Queen Kaahumanu Hwy.

Old TIAR: 1057 (taken on January 14 and 15, 2016)

Current TIAR: 853 (taken on April 30 and August 24, 2019)

The 2019 level of volume in the Old TIAR assuming 1% growth over three years would update to 1,057x1.03=1,089. It is concerning that this critical volume on the Current TIAR is lower by 236 vehicles or 22%. A difference in volume over 10% is not generally accepted as normal day-to-day variation, particularly for critical movements such as this heavy through movement on Queen Kaahumanu Hwy. This lower level of volume on Northbound Queen Kaahumanu Hwy. likely affects all prior intersection between Puapuaanui St. and Kam. III Rd. including the access point for Kona Villages. Low volumes result in lower impacts and less conservative estimates in general.

Unfortunately, due to prevailing conditions (with Covid), a quick verification of this volume is not possible. However, Figure 4 in the Current TIAR clearly shows that Northbound Queen Kaahumanu Hwy. carried approximately 1,050 vehicles at 7 AM in 2016 which puts in question the accuracy of the 850 vehicles per hour volume used in the Current TIAR.



Both TIAR show Level of Service (LOS) results for the traffic movements at the intersections. The A to F scale is easy to comprehend. In rural locations, LOS of B and C should dominate compared to LOS D and E which are common in busy cities. However, in both TIAR several movements show a LOS of D or worse.

To improve my understanding of how conditions are likely to evolve, I prefer to use the Volume-to-Capacity ratio reported as the v/c number in the Current TIAR. As I mentioned earlier, this decimal number represents the portion of roadway capacity (in vehicles per hour) that is utilized. Typically traffic impacts and delays are becoming substantial when this ratio exceeds 0.75. I counted those instances and summarized below. I also noticed that quite a few other movements had a v/c ratio of 0.73 or 0.74, so I included those as well, in a separate and in a combined column.

Looking at the column in boldface, in 2019, 27% of the movements analyzed were substantially busy, that is, utilized at 73% of capacity or more. The busy movements are expected to more than double in 2029 without the project, and nearly triple by 2039. On the other hand, the incremental effect of the traffic added by the project is small, as the resultant 2%, 5% and 2% estimates indicate (at the bottom of the last column.)

	Volume to capacity ratios							% of movements with high V/c		
	AM			PM				with V/c >=0.73	with V/c >=0.75	diff. with and without
Tables of Current TIAR	>=0.75	0.73, 0.74	Sum	>=0.75	0.73, 0.74	Sum	Total			
Table 6: Existing 2019 Intersection Level of Service	5	1	6	6	0	6	12	**27%**	25%	
Table 12: Future 2024 Without Project Intersection Level of	6	4	10	8	2	10	20	**45%**	32%	
Table 19: Future 2029 Without Project Intersection Level of	11	3	14	11	2	13	27	**61%**	50%	
Table 25: Future 2039 Without Project Intersection Level of	15	1	16	18	2	20	36	**82%**	75%	
Table 14: Future 2024 With Project Intersection Level of Service	7	6	13	8	2	10	23	**48%**	31%	2%
Table 21: Future 2029 With Project Intersection Level of Service	16	1	17	11	4	15	32	**67%**	56%	5%
Table 26: Future 2039 With Project Intersection Level of Service	17	0	17	22	1	23	40	**83%**	81%	2%

This outcome is in agreement with the following concluding quote from the Old TIAR: "It can be seen from this discussion that the impact on existing traffic by this development is minimal. However, with other developments factored in using the 2% per annum growth rate there can be significant impact of the traffic if no mitigating measures are introduced."

The Current TIAR provides arterial speed estimates for Southbound and Northbound Queen Kaahumanu Hwy.; see Table 30 on page 55. The Northbound direction is expected to operate substantially slower than current conditions. The estimated 15.6 mph for the AM period is comparable to busy arterials in

Honolulu (pre-Covid.) Average speeds over 20 mph along signalized arterials are considered good, i.e., LOS C or better.

Finally, I reviewed the recommendations for the mitigation of traffic impacts for intersections or movements with a poor LOS. A major weakness of the Old TIAR is that it did not offer any specific mitigations to improve the estimated future LOS=E or F to more acceptable LOS=C and D. The Current TIAR includes specific suggestions for every intersection but is lacking of specific assessments on whether the proposed improvements will actually work and improve LOS. The Current TIAR recommendations are copied below with my comments added in boldface.

1. Queen Kaahumanu Highway and Palani Road

Signal timing should be monitored and updated to ensure that left turn queues clear every cycle.

This is an appropriate recommendation.

2. Queen Kaahumanu Highway and Henry Street

Signal timing should be monitored and updated to ensure that left turn queues clear every cycle.

Henry Street approaches currently operate in split phases. Changing the split phasing to protected left turn phases on Henry Street will allow more green time on the major through movements, lowering the overall delay of the intersection.

This is an appropriate recommendation. Quantitative assessment of the improvement of the proposed phasing change is needed.

3. Queen Kaahumanu Highway and Hualalai Road (North)

Based on the 2019 traffic volumes, this intersection passes the Four-Hour warrant. This intersection passed the Peak-Hour warrant in the 2019 AM peak hour and for all peak hours in all future scenarios. Future traffic should be monitored, and a traffic signal or roundabout should be installed if needed, but priority should be given to keeping Queen Kaahumanu Highway traffic moving and not installing a traffic signal if not warranted by 4- or 8-hour warrants. The overall delay at this intersection is 41.0 and 50.6 seconds per vehicle in the 2039 AM peak hour, without and with the project, respectively. When the delay experienced by drivers reaches this level, the eastbound drivers are likely to find alternative routes.

The suggestion for a roundabout is odd and will be inconsistent along this corridor. This intersection requires close monitoring and study for signalization possibly within 5 years, depending on economic

and tourism conditions. Intersections that pass warrants but remain unsignalized are a traffic safety liability for the agency in charge.

4. Queen Kaahumanu Highway and Hualalai Road (South)

As the westbound left turn delay gets worse, drivers may decide to use Puapuaanui Street to access Queen Kaahumanu Highway in the southbound direction. Based on the existing volumes, this intersection did not pass the Four-Hour warrant or the Peak-Hour warrant. This intersection did pass the Peak-Hour warrant for all future AM peak hour scenarios. Future traffic should be monitored.

This is an appropriate recommendation. Recall that Northbound Queen Kaahumanu Highway volume may be low in this TIAR which would conceal a potentially bigger problem.

5. Queen Kaahumanu Highway and Puapuaanui Street

Signal timing should be monitored and adjusted as needed to increase the probability that queues on Queen Kaahumanu Highway can clear the intersection in 1 cycle.

This is an appropriate recommendation. However, it is not clear whether there is enough space to accommodate the waiting queue of vehicles turning left.

6. Queen Kaahumanu Highway and Royal Vistas Roadway

This intersection will function acceptably through the full Phase 1 buildout. Before any Phase 2 residences are occupied, it is recommended that the connection to Kekuanao'a Place is completed so that Royal Vistas Phase 2 'left out' traffic can access the Lako Street traffic signal.

This is an appropriate recommendation.

7. Queen Kaahumanu Highway and Kuakini Highway

This intersection passes the Four-Hour warrant and Peak-Hour warrants during all peak hours for all scenarios. Future traffic should be monitored, and a traffic signal or roundabout should be installed if needed. The northbound left turn movement is very heavy (300-600 veh/hour by 2039 with project), which will be nearly at capacity. The westbound left turn, while small, is already over capacity in 2019 and will be far over capacity by 2039. Royal Vistas traffic has very little effect on this intersection.

This is a weak recommendation. An intersection that passes more than one warrant under all conditions should be on a priority list for study and design of a signal for installation. It can take over 3

years to install a new signalized intersection. Monitoring is not adequate. A detailed study and plan by Hawaii County is needed, regardless of the Kona Vistas development.

8. Queen Kaahumanu Highway and Lako Street

The Lako Street intersection operates at LOS E/D (AM/PM) with or without the Royal Vistas project in the 2039 scenario. Lako Street currently has split phasing (sequential rather than concurrent) on the Lako Street approaches. Changing the phasing from split to protected left turns would help lower the delay. This intersection would also improve significantly if Queen Kaahumanu Highway is widened to 4 lanes as in the 2035 Transportation Plan.

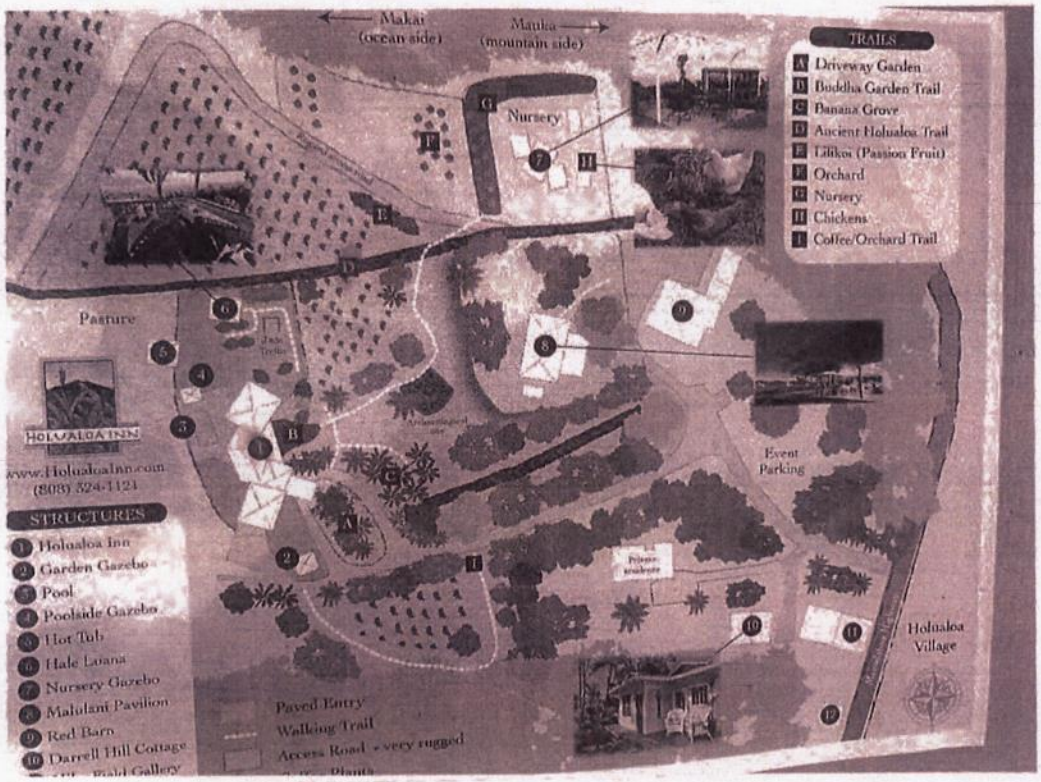
Quantitative assessment of the improvement of the proposed phasing change is needed. Recommendation 6 on this list may add more volume to this intersection.

9. Queen Kaahumanu Highway and Kamehameha III Road

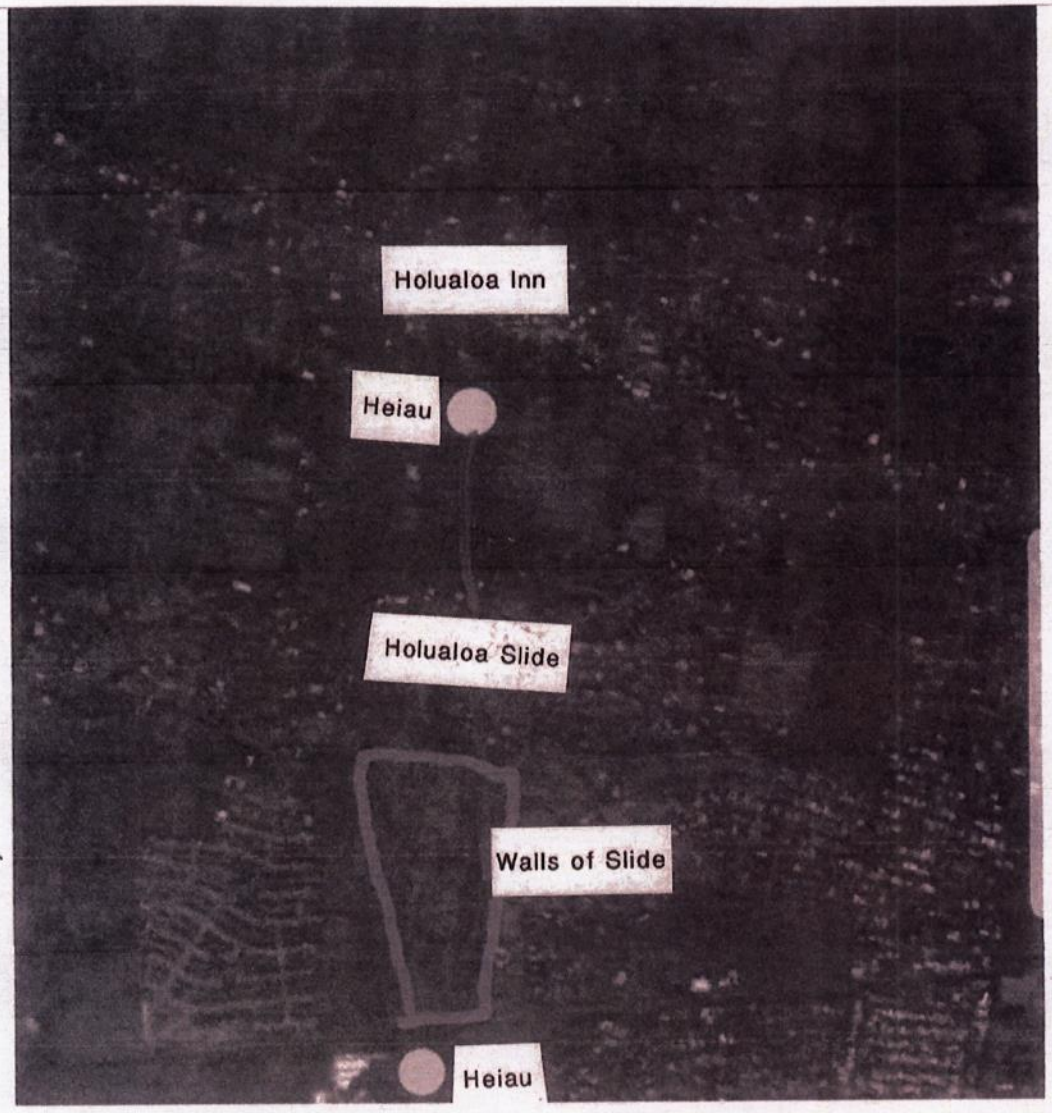
Signal timing should be monitored and updated as needed.

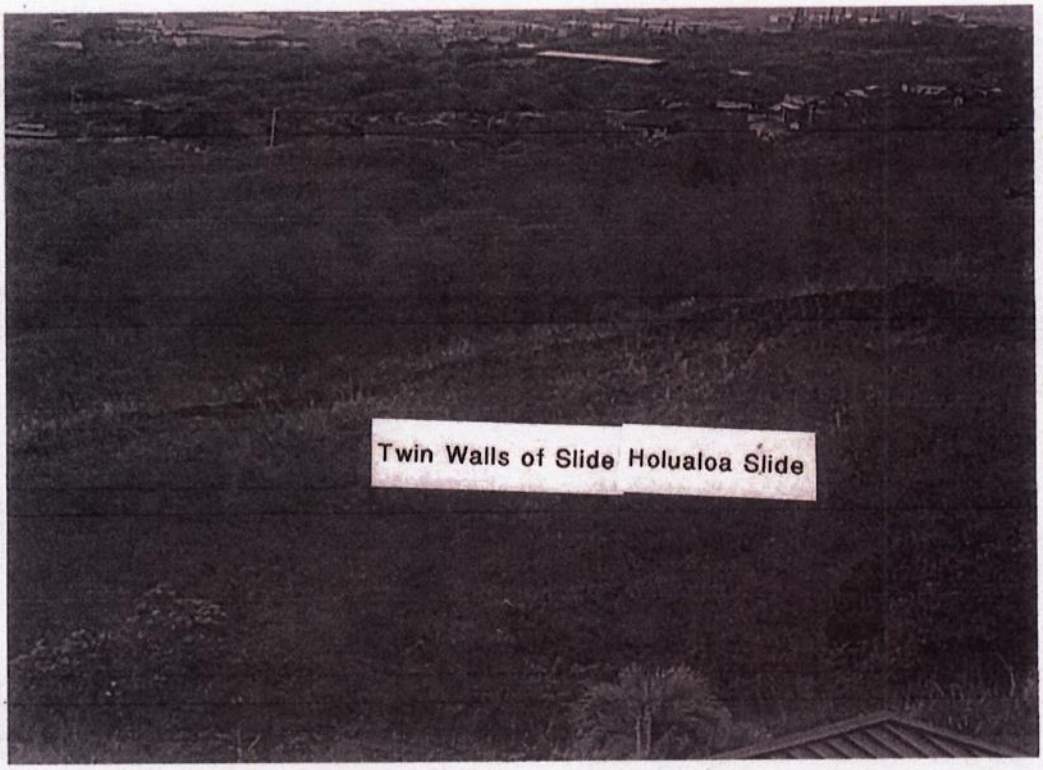
This is an appropriate recommendation.

ARCHAEOLOGICAL INFORMATION



Holualoa Inn Slide Information


Holualoa Inn
Heiau
Holualoa Slide
Walls of Slide
Heiau


Twin Walls of Slide Holualoa Slide

Below are communications with
Mr. Tom Pohaku Stone about the twin walls and the slide with a Kona Vista Board members

Below are communications with Mr. Tom Pohaku Stone about the twin walls and the slide with a Kona Vista Board members

On Mon, Jul 1, 2019, 8:55 AM Tom Pohaku Stone <> wrote:
To answer the question regarding the walls -YES. Not all hōlua slides had walls but nearly all those on Hawai'i Island do. The purpose was to hold the rock in the slide in some sections and in areas that needed to be raised. When you mention moving of logs from mauka-makai that is an important point because the koa forest line was at a lower elevation when we were gathering the great trees for our wa'a, papahe'enalu, etc. This was the main purpose of the slides thousands of years ago, which overtime changed to reflect an association to the gods of the wao kele (upland forest) and the spirituality we connected with then and now. The physical cultural landscape found of the hōlua slides is the telling of the story what made these specific areas important to our cultural practices especially since this massive complex is connected to Pa'ao, his lineage, and the great Ali'i Nui of this mokupuni (island). There were several significant complexes along this coastline but none as grandeur. Kaneakā in Keauhou/Kahalu'u is another. Waha'ula, Mo'okini, and Kahikinui (Maui) were the earlier complexes established for migration purposes and the change in religion. The Hōlualoa complex solidifies the complete adaptation to the established religion of Pa'ao.

On Mon, Jul 1, 2019 at 8:15 AM john

Tom,
Thank you for taking the time to educate me. It is greatly appreciated. The history of Holualoa is truly remarkable, and I know I have only scratched the surface.
One question I have, the intact portion of the holua at the Holualoa inn has a rock wall on both sides. Would these walls have been built at the same time? Perhaps to keep the logs contained as they traveled down. I have found, in the proposed development area a section, of parallel rock walls. Do any of the other Holuas have walls?
I again thank you for all your help. Very respectful and grateful, John

On Mon, Jul 1, 2019, 6:35 AM Tom wrote:
Aloha John,

I know I have not been in contact for some time but I have been going through all my records and info for this area. You are not going to find much in any library about that slide because I'm the person who did the study of that area. A lot of development has changed the cultural landscape in the area over the years (past 200 yrs.) and with it my native cultural and architectural landscape so it's a puzzle. Hōlua has been part of my 'ohana and it has been my academic focus archaeologically and culturally. I have spent years providing cultural education to our community regarding the significane of the remaining architectural landscape. The effort is to integrate the cultural landscape into the development process if it will save the physical cultural landscape. With that said, there is a direct correlation between the "Hōlualoa slide, Keolonāhihi, Keākealaniwahine, Kamalumalu, Kealakowa'a, and Kamoa (Lyman)". The development of Kona over the years has separated (destroyed) the physical connection of the slide to

the greater complex that had existed. The coastal area of this complex has now been protected but not the mauka sections that are still undeveloped. It's at this point the emphasize should be on protecting what is left of this great complex. We do know that Kamehameha I was trained in this complex which included learning to hōlua slide and surf. I would advise you to look at the greater picture and focus on what is left of the entire complex and how this would benefit the cultural history of Kona. Sorry I'm not on island to assist, but at this point I believe the development will destroy more. If you need someone with Hawaiian cultural/traditional architectural/archaeological background let me know. I can assist but if you need someone to do in-depth research, prepare presentations, or provide community education we can discuss this. Henry Kekahuna provided the most detailed archaeological record of this area. Knowledge, interpretation, and understanding of these cultural sites and how it's all intertwined is significant.

Me ka ha'aha'a
Tom Pōhaku Stone

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Kanalu (K38) is a 501 c 3 non profit organization dedicated to cultural & ocean education based on traditions of our kupuna.