LAND USE COMMISSION

STATE OF HAWAI'I

CONTINUED HEARING)
A10-787 Maui R&T Partners, LLC)
_____)

TRANSCRIPT OF PROCEEDINGS

The above-entitled matter came on for a Public Hearing at Maui Economic Development Board, De Alahele Donald G. Malcolm Center, 1305 North Holopono Street, Suite 1, Kihei, Maui, Hawai'i, commencing at 11:00 a.m. on July 26, 2013, pursuant to Notice.

REPORTED BY: HOLLY M. HACKETT, CSR #130, RPR
Certified Shorthand Reporter

A P P E A R A N C E S

COMMISSIONERS:
RONALD HELLER, CHAIRPERSON
CHAD McDONALD, VICE CHAIR
SHELDON R. BIGA
DENNIS ESAKI
LANCE M. INOUYE
ERNEST MATSUMURA
CAROL TORIGOE

EXECUTIVE OFFICER: DAN ORODENKER
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STAFF PLANNER: BERT SARUWATARI

DEPUTY ATTORNEY GENERAL: DIANE ERICKSON, ESQ.

AUDIO TECHNICIAN: WALTER MENCHING

DOCKET no. A10-787 Maui R&T Park

For the Petitioner:	BENJAMIN MATSUBARA, ESQ. WYETH MATSUBARA, ESQ. CURTIS TABATA, ESQ.
For the County:	JAMES GIROUX, Deputy Corporation Counsel WILL SPENCE, KURT WOLLENHAUPT PLANNING DEPARTMENT
For the State:	BRYAN YEE, ESQ. Deputy Attorney General RODNEY FUNAKOSHI Office of Planning

I N D E X

CHAIRPERSON HELLER: Okay. Let's call the meeting to order and get started. The first item on the agenda is agenda item VI, adoption of Order in docket No. A11-794. Before we get into that let me just briefly announce our schedule for today.

Because a number of Commissioners have flights to catch this afternoon, we're planning to go until approximately 1:30-1:45 and then break for the day. In view of that we're not planning to take a lunch recess. We're just planing to take short breaks for the benefit of the court reporter, and keep going until approximately 1:30-1:45. Okay.

Docket A11-794. This is an action meeting on the DOE Kihei High School matter to approve the form of the Order. Let me update the record.

On June 27, 2013 the Commission met in Kahului, Maui, Hawai'i and voted to grant Docket No. A11-794.

I understand no one has signed up for public testimony. Is there anyone present who wishes to provide public testimony? Seeing none, will the parties please identify themselves for the record. Do we have anyone for the Petitioner today? Okay. County?

MR. GIROUX: James Giroux with the

Department of Planning Maui County.

CHAIRPERSON HELLER: OP.

MR. YEE: Deputy Attorney General Bryan Yee on behalf of the Office of Planning. With me is Rodney Funakoshi from the Office of Planning.

CHAIRPERSON HELLER: Thank you. Commissioners, you have received the Form of the Order granting the Petition in Docket No. A11-794. Does anyone have any comments, questions or motions to make at this point? Is there a motion to approve the form of the Order?

COMMISSIONER BIGA: So moved.

CHAIRPERSON HELLER: Is there a second?

COMMISSIONER MATSUMURA: Second.

CHAIRPERSON HELLER: Any discussion? Hearing none, will you please call for the vote.

MR. ORODENKER: Thank you, Mr. Chair. The motion is to adopt the Order. Commissioner Biga.

COMMISSIONER BIGA: Yes.

MR. ORODENKER: Commissioner Matsumura?

COMMISSIONER MATSUMURA: Yes.

MR. ORODENKER: Commissioner McDonald?

COMMISSIONER McDONALD: Yes.

MR. ORODENKER: Commissioner Inouye?

COMMISSIONER INOUYE: Yes.

MR. ORODENKER: Commissioner Heller?

CHAIRPERSON HELLER: Yes.

MR. ORODENKER: Commissioners Esaki and Torigoe were not sitting at the time of the hearing so they're excused from this. The motion therefore passes with 5.

CHAIRPERSON HELLER: Thank you. Our next agenda item is item VII: Request for authorization to commence public hearings on proposed amendments to the LUC Administrative Rules. Dan, do you have any comments to make on that?

MR. ORODENKER: Thank you, Mr. Chair. What we're asking the Commission for right now is authorization to take the rules to the public and hold public hearings on each one of the islands so that the public has the opportunity to comment on the proposed amendments.

The amendments were, of course, approved by this Commission at a prior hearing. The governor's office has approved going out to hearing on the matter.

And the next step, of course, is to hold the hearings. Once those hearings are completed the Commission can then vote to adopt the post amendments. The hearings do not have to be by

Commissioners. They can be run and done by staff. We're asking for that authorization.

CHAIRPERSON HELLER: Okay. Commissioners, any questions, comments or discussion? Is there a motion to approve the request?

COMMISSIONER BIGA: So moved.

CHAIRPERSON HELLER: Is there a second?

COMMISSIONER MATSUMURA: Second.

CHAIRPERSON HELLER: Please call for the vote.

MR. ORODENKER: Mr. Chair, the motion is to authorize staff to proceed to public hearings on the proposed amendments to the rules. Commissioner Biga?

COMMISSIONER BIGA: Yes.

MR. ORODENKER: Commissioner Matsumura?

COMMISSIONER MATSUMURA: Yes.

MR. ORODENKER: Commissioner Torigoe?

COMMISSIONER TORIGOE: Yes.

MR. ORODENKER: Commissioner McDonald?

COMMISSIONER McDONALD: Yes.

MR. ORODENKER: Commissioner Esaki?

COMMISSIONER ESAKI: Yes.

MR. ORODENKER: Commissioner Inouye?

COMMISSIONER INOUYE: Yes.

MR. ORODENKER: Chair Heller?

CHAIRPERSON HELLER: Yes.

MR. ORODENKER: Thank you, Mr. Chair. And thank you for the Commission for their support. The motion passes unanimously.

CHAIRPERSON HELLER: Thank you. The agenda item No. VIII is the continued hearing on A10-787. I believe we're ready for the Petitioner to proceed with their next witness. For the record let's just have the parties identify themselves again.

MR. TABATA: Curtis Tabata, Wyeth Matsubara, and Benjamin Matsubara on behalf of Petitioner. Thank you.

CHAIRPERSON HELLER: Thank you. County?

MR. GIROUX: Good morning. James Giroux, deputy corporation counsel on behalf of the Department of Planning. With me is Will Spence and Kurt Wollenhaupt.

MR. YEE: Good morning. Deputy Attorney General Bryan Yee on behalf of the Office of Planning. With me is Rodney Funakoshi from the Office of Planning.

CHAIRPERSON HELLER: Is the Petitioner ready to proceed?

MR. TABATA: Mr. Chair, we've had discussions between the parties this morning. And we

understand that the county would like to put on Dave Taylor first and that's okay with us.

CHAIRPERSON HELLER: Is there any objection by OP?

MR. YEE: No objection.

CHAIRPERSON HELLER: Go ahead.

MR. GIROUX: Thank you, Chair. I'll be calling Dave Taylor.

DAVE TAYLOR

being first duly sworn to tell the truth, was examined and testified as follows:

THE WITNESS: Yes, I do.

CHAIRPERSON HELLER: Please proceed.

MR. GIROUX: Thank you, Chair. We were going to rest on Mr. Taylor's statement. It's Exhibit No. 9. We've already submitted his resumé. And we just want him qualified as an expert at this time. After that Mr. Yee would have some cross for him.

CHAIRPERSON HELLER: For the record would you please define the area of his expertise.

MR. GIROUX: Mr. Taylor is an expert in the matters of water for the county being the water director. We'd like to have his opinions entered in as expert opinions.

CHAIRPERSON HELLER: Is OP objecting to

designating him as an expert?

MR. YEE: No. No, no.

CHAIRPERSON HELLER: Okay. Is anyone objecting to that?

MR. TABATA: No, no objections.

CHAIRPERSON HELLER: Okay. Then he will be accepted as an expert witness. Mr. Yee, go ahead with your questions.

EXAMINATION

BY MR. YEE:

Q Mr. Taylor, thank you for coming. I appreciate your taking the time. I know you're really busy. The few questions I have dealt with the part of your testimony where you described the viability and risks of a private water supplier. Could you elaborate what those risks would be?

A I'm sorry. Could you read back exactly what you're referring to?

Q Sure. In county Exhibit 9, your written testimony, you say, "Private water resource development entails certain logistical and viability risks for which the private developer assumes sole responsibility." And then it goes on to say how you're not assuming that responsibility.

What are those logistical and viability

risks?

A My understanding of this Project and those risks would be they would have to drill their own well where the water quality and the actual operation of that well may or may not work as they intended.

The treatment of that water, the costs incurred, the energy utilization, all of that would be something that the Applicant would be responsible for. And there are uncertainties with the science and engineering implementation of those as there are when we develop those projects. But in this case if they are the developer/operator of such a system, those risks would be theirs.

Q Are you suggesting that there's no difference between the risks of private versus county water development and it's just simply a matter of assignment of that risk? Or is there some additional risk being proposed by this Project?

A My belief is the risks are relatively the same and it's just the assignment of the risk.

Q Then I also noticed in your testimony you said that the county water supply, DWS, cannot provide potable water for the entire Project without further source improvements. I guess my question is have there been discussions by the developer and the county, in

terms of the developer providing additional source development for the county and then connecting up to the county water supply?

A I don't know the entire scope of discussions between the developer and our staff over the years. Usually these projects happen over a long time period. I don't know who's talked to whom. I know that we have previously written a letter, I believe the deputy director signed, which said that we currently do not have the capacity.

When you say "have there been discussions with...the...county," unlike the Board of Water Supply in City and County of Honolulu, our department is under the council's authority and the mayor's authority. So only the county council by ordinance can accept improvements. So any such agreement for us to accept or partner with a third-party would require authorization by the council through a resolution, ordinance, et cetera.

So there may have been various discussions of looking into the feasibility of different options, but there has never been an item in front of the county council for approval of such an endeavor.

Q Okay. Do you know of some reason why -- well, let's backtrack. In order to provide this

private water utility they're going to need to develop their own water source, right?

A That's correct.

Q So the question, then, is why don't they just provide that water source to the county rather than creating a whole new water utility?

A Specifically that's a question that I think only the Applicant/developer can answer. Why are they choosing this rather than choosing something else? I can tell you we do not have the authority to force anyone to build a water system and give it to the county.

If they choose to build a system and have it private that is their decision. In order to partner with us, develop something and dedicate it to us, we would have to merge their timing with our timing and their budgets with our budgets.

Because of the methodology of the council-approved budgets approved year by year, these approvals would have to happen at a high level. I would speculate that the developer/applicant felt that their timeline was not capable of being merged with that process. But again why they chose this and didn't choose that is really a question I think only they can answer.

Q Is there any reason why the county would refuse to inspect -- let's backtrack. Are you aware this is a reverse osmosis proposal?

A Yes, I am.

Q Is there any reason why that source is unacceptable to the county?

A Again, *the* county in this case would be *the* County Council. Our department would recommend or not recommend certain things. But ultimately the County Council would either accept it or not.

And even if from a technical standpoint my department recommended against something, the council could still accept it and we would have to operate it. It is not a decision that myself or my department has.

That decision of taking ownership, my understanding, really rests with the county council. I just want to be clear about who has what authority that you're talking about.

Q Okay. Is there a reason why DWS would recommend against accepting a reverse osmosis source?

A Yes. If it was my technical recommendation, would not be to accept a small desalinization plant such as this. We have, already have six treatment plants, 45 well sites. We as a large provider of public water cannot afford to operate small, expensive

systems. We need to operate larger utility-sized systems. What's being proposed is really too small. And probably the cost per thousand gallons is probably much higher than our current operating costs. So it's probably not something that we would want to take over for both of those reasons.

Q So if the developer wanted to contribute to DWS's source, your recommendation would be to either find another source or contribute to the development of a larger well or source somewhere else.

A Either that or partner with other private entities that also want source, develop something somewhere else that's larger, more cost effective, and together dedicate that to the county for their shares.

Q What would DWS's response be if this operation, this water utility failed? Would you provide any type of assistance to -- or what type of assistance, if any, would you provide to the resulting community that now no longer has water?

A I can tell you a couple of examples of what has happened in the past. Kahakuloa had a failure in the past. And I know the department trucked water to them. There was a very small water utility, whose name escapes me, up Baldwin Avenue which had a failure and we allowed them to have an emergency hookup to our

system.

When Molokai Ranch water utility threatened to close the State Department of Health had ordered the county to be ready to operate their water and wastewater treatment systems. That went through a legal hearing with the Department of Health which ended with the fact that the Department of Health said that the county water and wastewater had to provide emergency water to those people, but not operate those systems is my summary of what their directive was.

So basically we would do our best to try to keep anyone alive, provide public health and safety water, but we would not voluntarily take over the system. And we would not be able to provide the full amount of water that they were using probably.

Q Meaning there's no ability to provide long-term service to this new development if their water utility failed.

A That's correct. For example, during the winter rainy months when demand on the rest of the system is lower, it may be that if the system failed for four months during that time, we might be able to supply that water for that time period. Then when also summer drier came we may say, "Look, we don't have enough anymore." We would, as we always do, do

our best to help people when we can. But there would be no guarantee that we would do that over a long-term commitment.

MR. YEE: Thank you. Nothing further.

CHAIRPERSON HELLER: Petitioner, any questions?

MR. TABATA: No questions.

CHAIRPERSON HELLER: Commissioners, any questions? Commissioner McDonald.

COMMISSIONER McDONALD: Morning, Mr. Taylor. Thank you for your testimony. Just a quick question. Currently what is the county water rates per thousand gallons? Between 2 and 4 bucks?

THE WITNESS: Roughly in that neighborhood. The water rates have several different tiers based on low usage to high usage. Residential has four tiers. Agriculture just has a single cost. And general has three tiers. So there are different categories and different tiers, but basically between $2 and $5 per thousand gallons. Agriculture actually is only a little over a dollar per thousand gallons.

COMMISSIONER McDONALD: I'm not sure if you know. What would your guestimate be for operating this type of reverse osmosis system that the Petitioner is proposing?

THE WITNESS: Operating those systems is *not* my expertise. I was just actually speaking to their engineer before the meeting, who when the Honoulu Project, Wailea 670, whatever that's called these days, was being proposed, the EIS had a reverse osmosis, desalinization system. And I recall reading from that, which I believe their same engineer did that work, was between $10 and $12 per thousand gallons.

So as a ballpark in my mind I'm just assuming that it would be relatively close to that, that same money. But that would be really something that I think you should ask their engineer for any more detail or that.

COMMISSIONER McDONALD: Thank you.

CHAIRPERSON HELLER: Yes.

COMMISSIONER BIGA: Good morning, Mr. Taylor. Thank you for coming to testify this morning. I have a question. What would be the timeline if the developer and the county would work together to get this system where you guys could be a partner in it?

THE WITNESS: I'm sorry. Could you define "this system".

COMMISSIONER BIGA: The system that we're

talking about for this development here. What would it take, what process and how long would it take to go through all the process, and as you said, it stops at the council. What would it take?

THE WITNESS: As far as this system we are not currently pursuing in the near term desalinization. So we would not be interested in partnering on the system they're proposing at all.

COMMISSIONER BIGA: Okay. I understand. If it was, what would be the timeline from ground zero to....

THE WITNESS: If you're talking about developing, let's say groundwater in another area, which is something we're working on. We have some long-term strategies, I should say medium-term strategies over the next several years to develop more water source for our system.

These timelines include multiple phases of raw science, preliminary engineering, design, construction, land acquisition, environmental impact statement, these kind of things most of which haven't been funded yet.

So again back to what I said about the County Council approving funding for each step year by year. I cannot guarantee that any future year

funding for anything will ever be granted. Assuming that those are funded we could have -- and assuming we don't run into any big legal roadblocks with EIS challenges and those kinds of things, we could have new source online, say, in five or six years, something like that.

So we would probably be in a five to six-year timeframe before we would know for certain that we could commit a million dollars -- a million gallons. I'm sorry.

COMMISSIONER BIGA: Thank you.

CHAIRPERSON HELLER: Commissioners, anything further? Thank you. Petitioner, you're ready to proceed?

MR. TABATA: Thank you.

CHAIRPERSON HELLER: Oh, I'm sorry. Dan, you wanted to add one update to the record.

MR. ORODENKER: Yes. I'd like to inform the Commission that yesterday in the afternoon we received a letter from the U.S. Department of the Interior Fish and Wildlife Service with regard to this matter.

And unfortunately I don't have the capabilities to print it so I'd like to, it's a short letter, I shall read it into the record and make the parties aware of what was said.

The letter was addressed to: Commissioner Kyle Chock, State of Hawai'i Land Use Commission. Subject was docket A10-787 Maui R&T Partners, LLC, Petition for District Boundary Amendment and exhibits TMK 2-2-2-002:084:

"Dear Mr. Chock: We have information to share regarding the TMK owned by Haleakala Ranch 2-2-2-002:084 for which rezoning from the Agricultural District to the Urban District is being petitioned through a public hearing on July 26, 2013.

"Approximately 200 acres in the southern portion of this TMK is being considered for designation as critical habitat for 17 plant species as published in our proposed rules for the Island of Maui Nui, 77 FR24464, June 11, 2012.

"In addition the endangered plant "*Canavalia pubescens*", I'm not good with Latin, thank you, "was last observed in the area in 1999 and may be present on the site. The primary regulatory effect of critical habitat is described in the Endangered Species Act Section 7A2 requirement that federal agencies refrain from taking any action that destroys or adversely modifies critical habitat.

"If there's a federal nexus involving an action authorized, funded or carried out by a federal agency, the agency implementing the action would enter into consultation with the Service to avoid and minimize any harmful effects from their actions or to the endangered or threatened species in this critical habitat.

"If you have any questions regarding the proposed designation please contact Cheryl Phillipson, Fish and Wildlife biologist." This is signed by Larry Murhau, field supervisor." Thank you.

CHAIRPERSON HELLER: We'll ask that copies of that be mailed out to the parties. Can we post the letter on the LUC web site?

MR. ORODENKER: Yes, Mr. Chair, as soon as this hearing is over and I can get back to the computer at our office we'll post it.

CHAIRPERSON HELLER: So that was just for informational purposes. If the parties have any response we can take that up later. Petitioner, you may proceed.

MR. TABATA: Thank you. Mr. Chair, our original witness schedule called for the next witnesses to be called in this order: Darren Unemori,

Hong Li, Tom Nance, Tom Holliday. Due to travel schedules we would ask to take certain witnesses out of order instead begin with Tom Nance, then proceed with Hong Li, Tom Holliday and Darren Unemori last if that's permitted.

CHAIRPERSON HELLER: Do the other parties have any objections?

MR. GIROUX: No objection.

MR. YEE: No objection.

CHAIRPERSON HELLER: That's fine. Go ahead.

MR. TABATA: Thank you. Petitioner calls Tom Nance.

TOM NANCE

being first duly sworn to tell the truth, was examined and testified as follows:

THE WITNESS: I do.

CHAIRPERSON HELLER: Go ahead.

DIRECT EXAMINATION

BY MR. TABATA:

Q Tom, would you please state your place Of employment and position please.

A I'm employed at the company called Tom Nance Water Resource Engineering, 530 North Nimitz Highway, Gentry Pacific Design Center.

Q Ask you're the president, correct?

A Yes.

Q Tom, pursuant to our request you did provide your written testimony and resumé which is identified as Exhibit 41, correct?

A Yes.

Q And your resumé contains all of your educational and work experience, correct?

A Most of it anyway.

Q Thanks. And in your resumé it describes your qualifications as a hydrologist which includes being a licensed professional civil engineer licensed in Hawai'i, correct?

A Yes.

Q And you have been a practicing hydrologist for, correct me if I'm wrong, 38 years?

A I think it's 41 now.

Q Forty one. (Laughter) Congratulations. Now, as a hydrologist does that also include professional experience in the field of water resource development?

A Yes.

Q And that also includes groundwater impacts?

A Yes.

Q Thank you.

MR. TABATA: Mr. Chair, the Petitioner would

like to request that Mr. Nance be admitted as an expert in the fields of hydrology, groundwater impacts and water resource development.

CHAIRPERSON HELLER: Any questions or objections?

MR. GIROUX: No objection.

MR. YEE: No objection.

CHAIRPERSON HELLER: So admitted.

MR. TABATA: Thank you.

Q Tom, did you also prepare what was called the Assessment of the Potential Impact on Groundwater Resources for this Project which was identified as Petitioner's Exhibit 11-I?

A Yes.

Q Thank you. Now, regarding your written testimony which is Petitioner's Exhibit 41, could you please summarize that for us?

A Okay. I was called in to do some work by MRTP. At that point in time they had had discussions with the Maui Department of Water Supply that Dave Taylor sort of summarized.

Essentially with their source capabilities today they can provide water for the unoccupied parcels of this first increment of development tier. But for any of the expansion beyond that they can't

make a commitment to source. Dave indicated maybe five or six years the quickest if they don't have some issues.

So I was asked to take a look at alternatives to using the Department of Water Supply system. And I analyzed two possibilities for well depth, one possibility being wells that would be above the Project site at about 580-foot elevation, a series of wells that would run north to south basically perpendicular to the direction of groundwater flow towards the shoreline.

The second alternative was a series of wells that would be within the development area itself. I want to emphasize that these are really plans B and C. Plan A, their preference, if it's timely, would continue to expand use of the Department of Water Supply water in the Project.

But if the timing doesn't work, and they are forced instead by the timing to develop their own, then they would do one or the other of these proposals: One on Haleakala Ranchland and the other within the Project site.

So I took a look at what it would take to develop such a system. Basically it would be a dual system, potable supply, non-potable supply. The

non-potable portion of supply would be served primarily wastewater treated to R.1 from the county. In talking to the Wastewater people they said they'll give you what they've got. But they know in summertime that's not going to be enough. So that the brackish wells, that are the feed water supply for the potable side, would also be the backup supplementary side for the non-potable use.

For the potable use what's being described here is what we call RO, reverse osmosis. It's actually a treatment process that uses a high pressure filtration to strip the salts out, producing a permeate stream which is the product water with the salts removed, and a concentrate stream with the salts being pulled out of the product and put in the concentrate.

In this case on either of the options we're talking about, the quality of the groundwater is actually pretty good. It's slightly brackish but it will be pretty good. So that the reverse osmosis in this case is more in the line of what I call polishing of the removal of many salts rather than starting with seawater, such as being done at NELHA or saline ground, or what we're going to be doin' on Lana'i, for example, with the Ellison project.

The wells up at 580-foot elevation above the Project site, it's likely that the product stream would be maybe around two-thirds, 67 percent of the feed water supply. One-third would be the concentrate. It wouldn't be hypersaline or even seawater salinity but it would be brackish, too salty for irrigation reuse.

So what we would do in that case, we would put that into disposal wells. It would be disposed into the groundwater strata where the receiving groundwater was of the same salinity as the concentrate being disposed of.

So it returns about a third of what you pumped out of the ground back into what we call a transition zone of the basal lens.

For the wells a little bit further makai on the Project site the recovery rate probably won't be one-third, two-thirds. It might be 60/40, something like that. But again the concentrate for disposal would be brackish to salty for reuse and returned into the transition zone below the basal lense where receiving groundwater was of similar or slightly greater salinity.

Either of these options you have to look at what impact it has on the basal lens. It will --

obviously we're pumping a certain amount out, returning only a fraction of that back down. So we are proposing reducing the total flow of groundwater through there on the order of 15 plus or minus percent of what is the natural groundwater through that mauka/makai corridor of the Project.

The realities are because of some of that return back into the transition zone, which I'll call the unusable portion of the groundwater flow, the impact is more like 20 odd percent of the total flow. That's well within the, let's say, the guidelines of what the Water Commission states is okay for using of the groundwater, the spacing and so forth.

In fact I space the wells with a little more conservative approach than the Water Commission's approach in sustainable yield because I think in a thin basal lens, which is the groundwater occurrence here, the Water Commission thinks you can develop 44 percent of the total flow as a developable supply without an adverse impact.

In this particular case I think that's way too aggressive. I'd reduce that to more like 30 percent or something like that being a safe way to develop groundwater. If the lens was more robust, meaning greater flow through it, or if we had

substantial deposits at the shoreline that functioned as a caprock to retard salinity intrusion, we might be able to develop a larger fraction of a flow-through.

But in this case that's not the case. It's a thin basal lense. We have no caprock. We need to be careful about how much we take, what we do for pump capacity, spacing of wells relative to the flow of groundwater. There are in this whole aquifer 134 wells of record with the Water Commission, of which the number that are operating today is a question mark because only, like, five are actually reporting their use to the Water Commission.

That's gonna be remedied when they go to the electronic thing. They can automatically find out who's not reporting. But right now the sustainable yield there is about 11 mgd. The current actual pumpage is probably 3+ mgd. It's a lower number now because the two golf courses at Makena are not in use at the moment.

When they are and when they will be done in the future that pumpage is probably going to be in the range of 4 to 5 mgd. And most of it down in Wailea/Makena, very little of it in this northern half of this aquifer.

In the downgradient are of this Project,

those 134 registered wells or known wells, about 24 of them would presumably have some sort of effect or impact measurable or not as a result of this Project. If I looked at -- most of them are within the decades of the '50s or '60s, probably never used and certainly aren't being used today. Maybe there's only four of those 24. Maybe their total use is less than a hundred thousand gallons a day.

If they're gonna be impacted, it would be by a very slight increase in salinity. They may not measure it, maybe 5 to 10 percent. Probably the accuracy of how they measure salinity is less accurate than that. But you can't say there's not any effect. It may not be obvious. But certainly there's a diminishing of flow that goes through the groundwater when you pull it out. It doesn't go to the shoreline. It gets used. That's pretty much a summary of my testimony.

Q Thank you. Tom, we've got some questions during our hearing regarding this reverse osmosis process. Would you consider that process to be one of first impression in Hawai'i?

A One of first impression?

Q The use of reverse osmosis. Excuse me.

A No. It's been used for a lot of years at

the Kona Village at a very small use rate at that time. But there are -- at the Hualalai Resort today they have an installed capacity of 3 mgd and they're treating water from seven wells of a salinity probably quite similar to what we would see here.

The problem with those wells is that they're also near the rift zone of Hualalai. And they've got a number of other constituents that pose problems. It's an operating system. It's been in operation for, I don't know, 10+ years maybe. Right next door Kukio is doing the very same thing. I don't know what their capacity is but it's probably somewhat less than Hualalai. It's not new.

Q Okay. We've also heard questions about the need for electricity and the high usage required for reverse osmosis. Are you aware of any cost saving methods that could be implemented for this Project?

A Let's back up a little bit. The desal -- the energy required to push the feed water through these fine filters of RO is proportional to the salinity of the feed water source and to some extent the temperature of that source.

If you went to NELHA today and took a look at some of these guys doing the bottled water thing, they're pushing about 750 PSI to get the water through

the filters to produce the product water. It's the equivalent of pumping a well that might be 1800 to 2000 feet deep. A bunch of those wells, which we have above Mamalahoa Highway in West Hawai'i.

We're looking at doing saline, groundwater, desal on Lanai, for example, a project that I'm working on right now. And the pressures to push that water through may be on the order of 750, maybe even 900.

We have to get the holes in the ground see what temperature we're dealing with. But it's that kind of range. That's a very high energy. It's equivalent of pumping water out of a well that's approaching 2,000 feet deep. It's not an inexpensive thing.

At Hualalai with similar feed water to what we're talking about here, possibly less problematic water we're talking about here, the pressure required to push it through the filters is about 200 PSI because the feedwater source itself is brackish, slightly brackish of much better quality than seawater or saline groundwater.

They use simply a drop from a tank to the desal plant to pressurize and run the system, just a gravity drop. They pump the water up to 1300, put it

in the tank. It drops down to a treatment plant at 800 which is run by the gravity pressure of the drop.

So 200 PSI is equivalent of pumping water about 460 to 500 feet which is typical for well development in some cases. Depending if you're on the Big Island it's actually a modest pumping. So it isn't the kind of huge electrical requirement that a much saltier feed water source would require.

The other thing is that -- something I didn't know until earlier this year, embarrassed, but these two product water streams that come out the throw away product, the concentrate retains about 90 percent of the pressure that was pushed on the feed water source. They now have pressure recovery systems that can take the pressure out of that concentrate's stream and assist in pressurizing the feed water source. That has brought the operating costs down tremendously.

The other aspect of the operation is something that, again, I'm just learning, Israeli Desal Company working on Lana'i. But they're now able to do the cleaning processes without chemicals and simply using evacuated pressures and the like. So operating abilities and costs and undesirable byproducts are all on the improvement.

Part of it is my own ignorance on a learning curve probably. But the reality is RO is a huge thing worldwide. And it's improving all the time.

Q Did you get a chance to look at the economic feasibility of reverse osmosis and how much it would cost to develop this plant?

A I did do cost estimates, but I gotta be honest, I did them a while back. I don't know what the numbers were. Dave talked about $10 is what I did for Honua'ula. That included capital recovery and did not include, because I didn't know about it at the time, the pressure recovery on the concentrate side. I think the operating cost here is likely to be in the range of $5 a thousand or something like that. That's not including capital recovery but as an operating cost.

Q Thanks. Do you have a cost estimate for the construction of the plant?

A Yeah. You should have warned me in advance. I would have brought it with me. I made it but I don't have it with me.

Q A round figure might suffice.

A I'll pull it out. I'll try to find it.

(pause)

Q Tom, we're showing you your report which is

Petitioner's Exhibit 11-I.

A Okay. The total cost of that, the construction was on the order of 6.5 million. When you add design/construction management and the like it came out to be around 7.2 million.

Q Thank you. Did you have a chance to talk to the Petitioner, find out if they are committed to paying these amounts to construct the plant?

A It's my understanding that they are.

Q Is it also your understanding that they're committed to operate the plant?

A That is always my understanding.

Q Thank you.

MR. TABATA: Mr. Nance is available for cross-examination.

CHAIRPERSON HELLER: County?

CROSS-EXAMINATION

BY MR. GIROUX:

Q I don't know if you can answer this, but a lot of times when we talk desal the question: What are we going to do with the salt? I think you mentioned that the plan is to put it back into the basal layer?

A Actually, a little bit below that. If you just made a hole right down through the groundwater

occurrence, what you see is what I refer to as sigmoid salinity curve. You're going to certain -- basically the salinity that's in the basal lens and a sharp slope break to what we call the transition zone and saltwater below.

And the salinity of this concentrate that will be disposed of will be saltier obviously than what's referred to in the basal lens, but of a similar salinity in the upper half of what I referred to as the transition zone. Halfway through the transition zone is basically half seawater salinity. It won't be that salty.

So we'll deliver it into the strata where the receiving groundwaters are similar or slightly greater salinity than the concentrate that we're disposing.

Q Do you know what are the agencies that would be either that you need permits for or that would be regulating that?

A The regulation of the construction and operation of those wells is the Department of Health Safe Drinking Water Branch Underground Injection Control Program.

Q Are they looking at the salinity? Or are they just looking at the quality as far as

contaminants?

A They look at all of those things. In the permit Application we indicate what we think the chemistry of the concentrate to be disposed of would be. They take a look at it, decide that it's not hazardous and so forth. By the manner of the design of the disposal wells it won't be a problem for the basal lens itself and presumably get the permit issued.

MR. GIROUX: Thank you. I have no further questions.

CHAIRPERSON HELLER: OP?

CROSS-EXAMINATION

BY MR. YEE:

Q What are the chloride concentrations for the Petition Area's brackish water?

A They're probably going to be in the range of 3- to 400 milligrams per liter.

Q What would be the drinking water chloride concentrate?

A You mean after the RO treatment?

Q Yes.

A Probably cut it down to around 50.

Q Is that the same as the average for the county water supply?

A The better of their wells, maybe not islandwide average, but the better of their wells would be.

Q Just to get a feel for the context, what would be the chloride concentration of ocean saltwater?

A Between 18 and 19,000.

Q You referred to Hualalai's 3 mgd reverse osmosis system. I assume this is for purposes of providing potable water.

A Yes, although in that case the concentrate instead of being thrown away is being mixed with brackish water for golf course irrigation. Otherwise it's pretty similar.

Q Do they have a failure rate at that facility?

A No. What they do you build in standby capacity. So units go down for various reasons. But they have standby capacity to meet the required demand.

Q Are there contingencies? What happens if the standby isn't adequate?

A Then you ask people to conserve water.

Q In this case I think there's a -- what is the standby capacity for this particular Project?

A Well, we're not that far along in design. But, for example, let's say that we project that we need three trains producing a hundred gallons a minute just to pick a number, not necessarily the number here.

We would always have at least a fourth train of similar capacity. So that one can either fail, as you say, or simply taken out of service for remediation. You always have at least one additional train.

Q The Hualalai Project, I forgot to ask, could they have had access to the county water system?

A No.

Q They're just too far away from the county water system to make that economically feasible?

A Yes. It's miles and there's also some source system issues at the county system at the northern end of their Kona system.

Q In this case geographically you can connect up to the county water system, right?

A That's what we're getting in this building today.

Q In terms of providing or looking for a source for the county water system, would you simply look at the county's proposed future sources? Or

would you potentially look for your own sources to provide to the county?

A If that was the way it was going you'd probably do both.

Q Have you been asked to look at, to look for other sources?

A For this job, no.

Q Have you been involved at all in discussions with the county in providing an alternative source?

A For this Project?

Q Yes.

A No.

Q You talked about the timeframe. From the time that you find a source that's acceptable to the county, to the time the county gives their final approval, is that different from the five years that Mr. Taylor was referring to?

A Well, the first thing is it's not a county d approval process. It's a state process, Department of Health. If the client said "go" we haven't drilled the wells, we haven't applied for the permits yet. Between that time, and assuming there are no funding issues, we would probably be in the range of two to three years before we could be on line.

Q You're referring it takes about two to three

years to actually develop a source with all the state approvals.

A Yes.

Q I was referring to the time in which it would take to get county council approval to accept a new source. How long from the time that, let's say, you find a source acceptable to DWS to the time you get county council approval? Do you know how long that would be?

A I mean it would be pure speculation. I'm not sure anybody's gotten there in a long, long time.

Q Have you been asked to look at other -- I assume this a lot obviously -- have you been asked to look at other projects, to look for other projects that could be teamed with this Project to provide, to provide a source for the county?

A No.

Q I think your estimate for the operational cost of the reverse osmosis system for this Project was approximately $5 per thousand gallons, is that right?

A With the pressure recovery that would be about right, yeah.

Q I'm just trying to get a sense. Did you actually kind of do a calculation for that number or

is that just sort of a ballpark figure?

A No. It's a calculation -- the biggest element is the power requirement. So you calculate that. Then you throw in some numbers for administration and operation per thousand gallons to come up with that kinda number.

MR. YEE: Okay. Thank you very much.

CHAIRPERSON HELLER: Commissioners, any questions?

COMMISSIONER McDONALD: Thank you, again, Mr. Nance. I'm actually kind of curious. DWS had mentioned that -- actually there's evidence on the record that identifies existing 18 lots have adequate water supply for the tech park. The previous Project had incremental redistricting Phase 1 and Phase 2, Increment 1 and Increment 2. I'm curious as far as what the previous plan was to provide water supply, the separate increment.

THE WITNESS: I'm sorry. I wouldn't be able to answer that. It predates my involvement. I'm just not aware of that.

COMMISSIONER McDONALD: Can the Petitioner respond to that?

MR. PERKINS: Commissioner McDonald, the county water, the development has always planned to

use county water. It was only during the update process that, you know, constraints were placed and the issue of limitation was brought up.

COMMISSIONER McDONALD: Okay. Thank you.

COMMISSIONER ESAKI: Hi, Tom.

THE WITNESS: Hello, Dennis.

COMMISSIONER ESAKI: Getting back to the reverse osmosis. If the DWS does not accept the system, is it your understanding that if the owner operates it and disburses it, it comes under PUC jurisdiction?

THE WITNESS: Well, there's two jurisdictions. One is the Department of Health. That's really the more rigorous approval process. The PUC -- I know you made a statement yesterday. I don't know much about that. You're right. I'm kinda dangerous. But some small systems in order to avoid PUC regulation have not charged for the water. They've put it in lease rent or so forth and that has avoided PUC regulation.

If it's run as a private water system selling water to its customers then it will be PUC-regulated. And they'll be looking at all the financials that the costs are covered so that this water system can continue to run, have sufficient

sinking fund to handle emergencies and maintenance and repair, and return a reasonable rate on the investment to the owner.

COMMISSIONER ESAKI: Thank you.

CHAIRPERSON HELLER: Anything else? Go ahead.

COMMISSIONER BIGA: Thank you, Mr. Nance, for your testimony this morning. I just have a few questions. Where does the water source come from to feed the aquifer that you're going to be using?

THE WITNESS: It's primary rainfall recharge on the lens above that area all the way to the top of Haleakala.

COMMISSIONER BIGA: So it's basically come from the east side generally.

THE WITNESS: East side. No, it's really just the rainfall on the slopes directly upgradient.

COMMISSIONER BIGA: So it doesn't come from the watersheds.

THE WITNESS: From the east side of the mountain?

COMMISSIONER BIGA: Yeah.

THE WITNESS: I wish it was. No. There's intrusive dike structures that would prevent movement basically through the mountain. It's just the

rainfall on the land directly upgradient of the wells.

COMMISSIONER BIGA: You mentioned 134 wells that might be registered or not registered.

THE WITNESS: No, there's a groundwater index, an electronic file kept by the Water Commission. It's in this Kamaole aquifer there's 134 wells. I'd say easily more than a hundred of those are ancient wells that have fallen out of use decades ago.

COMMISSIONER BIGA: Would you know how much in this aquifer that those wells are within this aquifer?

THE WITNESS: No. The 134 is in this aquifer alone, not islandwide, just this aquifer, 11 mile stretch.

COMMISSIONER BIGA: Hypothetically, if half of those wells came on line what kind of changes that would come to this system?

THE WITNESS: Well --

COMMISSIONER BIGA: Just hypothetically.

THE WITNESS: Okay. Most of those wells are shallow dug wells at the shoreline that are probably all filled with mud and not possible to use. But the realities are, let's say there are no wells directly upgradient of these wells that are proposed.

If we've got wells that are within the shoreline area and you pump like crazy, even though it's physically impossible to do it, but to go along with your hypothetical, to be perfectly candid it wouldn't have any effect on those wells.

Where you get an effect is when you get wells that are upgradient because you're taking the water that would otherwise get down to your wells or reasonably close across gradient that might have an interference effect.

But the wells, as I say, more than a hundred of these wells that are quote, unquote "registered" are just shallow little 4-inch drilled wells or dug wells that have fallen out of use 50, 60 years ago.

COMMISSIONER BIGA: Okay. Last question. I guess the aftermath that you were talking about that after you take out that water and it goes back down to the ground again, do you know or have you -- do you know if there's any effect on the shoreline or outside the vicinity?

THE WITNESS: The water that we inject -- and I'm just gonna speculate -- it will probably be between a hundred, maybe between 130 and 170 feet below sea level. That's where we're gonna inject it

which is below the basal lens in what I refer to as the transition zone. You wouldn't be able to see any effect anywhere offshore.

That water, because it's gonna be a similar salinity, similar density to the receiving groundwater, will tend to just migrate slowly in what we call this very slow saltwater circulation pattern beneath the basal lens. So I don't think there's going to be any impact at all.

COMMISSIONER BIGA: But there will be, there'll be leakage back into the ocean.

THE WITNESS: All groundwater, if not pumped out of the ground, ultimately is discharged into the ocean near the shoreline depending on the geology, offshore depending on the geology.

What that movement of this basal groundwater does, which is ripping along at 3 or 4 feet per day, streaming along in the rocks, it creates a friction that pulls the saltier water with it. It actually pulls it.

And when that saltwater gets pulled with the basal lens, seawater comes in at depth to replace the water that's being dragged out from this roaring, 3-feet per day flow of the basal groundwater.

So beneath the basal lens you have this saltwater circulation scheme going on very slow, moving .10ths of a foot per day maybe, maybe even slower than that. That's where that water would go.

COMMISSIONER BIGA: Thank you. And I applaud you for your 41 years.

THE WITNESS: I'm not finished. (general laughter)

CHAIRPERSON HELLER: Commissioners, anything else? (pause) I had a couple questions.

THE WITNESS: Okay.

CHAIRPERSON HELLER: Just to clarify. You said that the backup source for the irrigation water would be the brackish wells. Now, is what's pumped out of those wells usable for irrigation before the reverse osmosis treatment?

THE WITNESS: Absolutely. There will be a certain plant selection criteria that needs to go on, the colorful flowering ornamentals will die, but, you know, it has wide application. Turf grass will have no problem with it and reasonably salt-tolerant plantings will have no problem using it directly without the R/O treatment.

CHAIRPERSON HELLER: And you also mentioned the PUC potentially regulating the pricing. So in

terms of cost for homeowners versus commercial users and different tiers and so forth, that would all be up to the PUC?

THE WITNESS: Yeah. The Applicant would propose something. And the PUC with its various things, would make the judgment and alter, modify, ultimately approve I guess.

CHAIRPERSON HELLER: Okay. Just in terms of rough round numbers based on the cost figures you were talking about, we could be looking at individual homeowners having monthly water bills that were several hundred dollars a month. Right?

THE WITNESS: Well, depending on their use, if the operating cost is $5 a thousand, depending whether the PUC does allow or doesn't allow capital recovery, their water bills could be maybe doubled in what they would otherwise get from the Department of Water Supply.

CHAIRPERSON HELLER: Well, I think, based on the numbers you gave we're talking about costs per gallon or costs per thousand gallons that were three or four or five times as much as county water supplied?

THE WITNESS: I don't think so. I said operating costs of $5. They've surprised ---(check my

tape).

CHAIRPERSON HELLER: They're charging for the water. Okay. Thank you. Anything further, Commissioners? Any redirect?

MR. TABATA: No redirect.

CHAIRPERSON HELLER: I think this is a good time for about a 10-minute break.

(Recess was held 10:15-10:25)

CHAIRPERSON HELLER: Back on the record. Petitioner, are you ready to proceed?

MR. TABATA: Yes. Thank you. Petitioner calls Dr. Honglong Li.

DR. HONGLONG LI

being first duly sworn to tell the truth, was examined and testified as follows:

THE WITNESS: Yes, I do.

CHAIRPERSON HELLER: Go ahead.

DIRECT EXAMINATION

BY MR. TABATA:

Q Would you please state your place of employment.

A It's 1001 Bishop Street, suite 2400, Honolulu, Hawai'i.

Q Are you employed with Parsons Brinckerhoff, Incorporated?

A Yes.

Q And are you a senior supervising engineer with Parsons?

A Yes.

Q Did you at our request provide a resumé of your educational background and experience which is attached to Petitioner's Exhibit 40?

A Yes, I did.

Q Does that resumé indicate that you are a licensed professional civil engineer in the state of Hawai'i?

A Yes.

Q And that you earned your Ph.D. in Civil Engineering from the University of Hawai'i with the concentration in traffic engineering?

A Yes.

Q Is it also correct that you have 13 years of experience practicing as a traffic engineer in Hawai'i?

A Make that 15.

Q Thank you.

MR. TABATA: Mr. Chair, the Petitioner requests that Dr. Li be admitted as an expert in the field of traffic engineering.

CHAIRPERSON HELLER: Any questions or

objections?

MR. GIROUX: No objection.

MR. YEE: No objection.

CHAIRPERSON HELLER: So admitted.

Q (By Mr. Tabata): Hong, did you prepare the Traffic Impact Analysis Report for this Project which is identified as Petitioner's Exhibit 11G?

A Yes.

Q At our request did you also prepare your written testimony which is attached to Petitioner's Exhibit No. 40?

A Yes, I did.

Q Could you please summarize your written testimony for the Commission.

A Okay. We started a traffic study in 2010. The traffic data was collected in November of 2010 during AM and the PM peak hour. Traffic data we looking at including the intersection turning movement counts, lane configuration and single phasing and timing and so on. The original Traffic Impact Analysis Report was completed in February 2012. During the process we discussed and met with the DOT and the county with Mr. Hoffman many times.

Based on their comments additional counts and analysis was conducted in November 2012 and

January 2013. The report you're looking at is an updated TIAR in February 2013.

The counts we collected was used to analyze existing conditions. In addition, we also look at 2 horizon years. The first one is the phase 1 through 2024. The second one is phase 2 through 2034. Based on our consultation with DOT four scenarios was analyzed.

The first one is the so-called no-build scenario. Basically it provide future traffic condition looking at what if there's no Maui R&T development, there's no Maui R&T Project.

The second one we call the in-build scenario. Basically is build upon the first scenario. We're adding Maui Research and Technology Park in the mix but without any roadway improvements.

The third one is similar to scenario 2. The difference is we're adding in the roadway improvement committed by Maui R&T.

The last one is kind of based on the third one. We also adding in the other regional commitment, regional roadway in the County and State Plan. So the total scenarios you're looking at in the report is two horizon years times four scenarios which is eight. Then if you consider because we do these for the AM/PM

peak hours, you're looking at 16 size of levels of analysis.

Level of Service analysis, sometimes we call it LOS, as defined by Highway Capacity Manual, is a traffic engineer's measure of traffic condition similar to the school report card system. It's labeled from A through F. In general E and F is considered undesirable condition. And D or better is considered desirable condition.

So to look at the horizon year condition we also need to project traffic volume. There are two sources basically used to project traffic volume for Phase 1 year 2024. We look at so-called Maui travel demand forecasting model which is document -- which is the official documentation for the future land use and traffic condition.

Also we look at specific development traffic report, because a lot of times the model is not so up to date. You have to look at some, some individual project report. A good example is Pi'ilani Promenade is not well documented in the Maui travel forecasting model, but there's a separate traffic report available. So we talked to DOT. We include, you know, Pi'ilani Promenade project in our report.

In addition, you know, we also look at Kihei

High School, Kihei Downtown Project and so on. So Phase 1 Maui R&T Project we're looking at there's a mix of residential, mixed use commercial and employment and elementary school and a business hotel. We use a trip generation book to estimate number of trips that will be generated by the Project.

In summary, the planned Phase 1 Project will generate 1,285 trips during AM peak hour and 1,056 trips during PM peak hour.

Then we look at the roadway network in 2024. We recommend two accesses for the Project. One is -- this is the map, this is the proposed Project. This roadway in the center is Pi'ilani Highway.

MR. TABATA: For the record Dr. Li's referring to Petitioner's Exhibit 24.

THE WITNESS: And the very first circle is -- this road doesn't exist. This is a new access we proposed called Ho'okina Street. This is roughly located across east Waipuilani Road. Dry right now. This is a new access. The second access we propose is Lipoa Parkway which is an existing construction.

In addition to this access in scenario 4 we also assume they're going to be a so-called makai collector in place. The makai collector is called Liloa Drive on this map. The existing configuration

of Liloa Drive actually stopped at around Waipuilani Drive. On this side it's stop at the park. It doesn't pass through all the way.

In the County's fiscal year, CIP plan 2013, there's a project called Liloa Drive extension. That project will pass through this collector road all the way to Kauonoulu Street this way to Kanani Road.

So in summary, in our report we believe the makai collector will relieve congestion on Pi'ilani Highway. The reason for that is right now there's a lot of local trips using Pi'ilani Highway.

For example, if you're coming up from east Waikalahau Road, going to somewhere around either school or park, you have to -- you're forced to go up to Pi'ilani Highway, make a left turn first, then make a left turn later this way.

But with future makai collector road a lot of local trips will be diverted away from Pi'ilani Highway. So basically this makai collector will relieve congestion on Pi'ilani Highway.

We also believe the Project committed by Maui Research and Technology Park is essential to overall traffic condition. Those implements at Ho'okena Street we propose a lane configuration.

This is going to be 2-lane roadway. The access will be a right-turn in, right-turn out. We also propose that the developer build a deceleration lane and acceleration lane to and from Pi'ilani Highway.

And at Lipoa Parkway intersection we propose to build a new left-turning lane from Pi'ilani Highway going into the park. We also proposed to beef up Lipoa Parkway and Lipoa Street so that in the future while they're going to have east and westbound is a left-turning lane, a through lane and a right-turn lane.

In addition we looking to the pedestrian connectivity. We believe in the future the pedestrian and bike is going to be more important to provide more alternatives. We also provide -- we also propose adding a crosswalk north side of the intersection which is missing right now.

In addition, you notice in the middle this circle this is called Pi'ikea Avenue. We don't have direct access to this intersection, but because our traffic gonna go through Pi'ilani Highway, we propose we build additional left-turning lane from Pi'ikea Road to Pi'ilani Highway. So the total left-turn lane at this intersection gonna be 2. That pretty much summarize my Phase 1

recommendation.

For Phase 2 there are going to be additional employment, additional housing. We follow a similar approach. Based on our calculation the Phase 2 Project will generate 835 trips during AM peak hour, and 878 trips during PM peak hour. Additional transporters and implements committed by Research and Technology Park is now access to Pi'ilani Highway in the vicinity of Old Welakahao Road and Kalani Road.

And on this map we're referring to the last circle on this side, it's actually pointing to the Welakahao Road. This is a, for analysis purpose we assume access in the vicinity of this intersection.

We also assume in the future, not on this map, they're going to be a mauka collector that will be built. This is based on the documentation we see from the Maui Island Plan. There are going to be a 2-lane -- basically we assume there are going to be 2-lane collector road going through our -- going through mauka of our property, go all the way to the north.

In summary, we assume the mauka collector will add more source availability because it will

provide much needed additional capacity and divert some regional trips away from Pi'ilani Highway. Maui R&T is willing to work with other landowners to coordinate the mauka collector and also pay the fair-share and dedicated landfall alignment if needed.

Along with mauka collector, the other improvements committed by Maui R&T is also important including the additional southern access to Pi'ilani Highway. We propose that access should be a 2-lane configuration. We propose to signalize that access if warranted.

We also propose, in addition to the access road, to build a left-turn lane from Pi'ilani Highway to Maui R&T. And that pretty much summarize our traffic report.

MR. TABATA: Thank you. Dr. Li is now available for cross-examination.

CHAIRPERSON HELLER: County?

MR. GIROUX: No questions.

CHAIRPERSON HELLER: OP?

CROSS-EXAMINATION

BY: MR. YEE:

Q Let me start with the mauka collector road. If I heard you correctly you said the mauka collector

road would be located outside the Petition Area; is that right?

A I have seen several different alternatives. This is fairly common for a roadway in its early planning stage has several different alignment alternatives. The one I saw in the Maui Island Plan is located further mauka.

Q One of the witnesses, the planner, testified that they were looking at using Ninau Street as the mauka collector road for a portion of the mauka collector road. Do you have any knowledge of that proposal?

A Well, I believe I have seen some discussion in terms of different alignment in terms of how many lanes supposed to be. There were discussion is supposed to be 4-lane capacity. But there are some also, someone else talking about we don't want to build another Pi'ilani Highway.

So it's preferable maybe we do 2-lane/2-lane configuration with a 2-way in the future. So I have seen different alternatives.

Q Would one of those alternatives include that mauka collector road through the Petition Area?

A I don't see that. I see -- the alignment I saw in Maui Island Plan is further mauka.

Q So in any of the alternatives, none of the alternatives you've heard of or discussed included a mauka collector road through the Petition Area.

A However, if you have, you do have these so-called in-track roadway, it kinda eliminate need you build a 4-lane mauka collector road. Because in location-wise they kinda parallel.

Q Well, okay. So are you proposing that there be -- let's backtrack. An in-tract road would be different than a collector road, right?

A I didn't say that.

Q Okay.

A The in-tract road can be a collector road.

Q Are you looking at any alternatives which is there is an in-track road which could be the collector road?

A That's definitely in one of the consideration.

Q Okay. So first I heard you say the Maui Island Plan does not include the mauka collector road within the Petition Area. But there are discussions to include, to put that collector road within the Petition Area. I'm not trying to trap you. I'm just trying to understand your testimony.

A What I'm saying is I have seen a lot of

discussions in terms of where to place this road. It's fairly common in early planning stage a roadway can have multiple different alternatives.

Q Who's taking the lead in coordinating the development of the mauka collector road?

A There are -- currently there are a lot of the landowner mauka side of Pi'ilani Highway. As far as I'm aware of we, we had several meetings with neighboring landowner. We have meetings with county. We have meetings with elected official. The general consensus is everybody's support for this collector road.

Q Is there anyone taking the lead?

A I'm not sure. By saying in "taking the lead" what do you mean? Can you rephrase your question?

Q Is there someone who's primarily involved in organizing these discussions?

A I believe we've being one of the party what I see is collective effort.

Q Is the current conceptual plan and the roadway that you propose consistent with having a collector road within the Petition Area?

A Can you specify which road you're talking about?

Q Would Ninau Street be consistent with being a collector road in its current configuration?

A Yes.

Q Would the fact that there are roundabouts within Ninau Street be inconsistent with the concept of a collector road?

A The collector road can be a major collector road which is the primary function is you transport people from point A to point B. There're another type of collector road called a minor collector road sometimes mostly provide accessibility.

So I believe, you know, this in track road can be designed in kind of a way not to impede its function, its function in the future.

Q And is the current design for Ninau Street consistent with the collector road with the round-abouts and the curving, and the curve in the current proposed curves?

A However we design it must meet the purpose and need. It really depends on the purpose and need of this road.

Q Right. So if the purpose and need of the Ninau Street is to be a collector road, does your current design satisfy that need?

A If it's a collector road it must meet the

curb collector road standard.

Q And does it meet the collector road standard as designed?

A I believe so. Because this is really very preliminary engineering. Things can be changed, things can be modified based on the feedback from the county approval process.

Q But then aren't you saying that the design needs to be changed to meet the needs for a collector road?

A In the future if there's a need to change the design, the design can be changed.

Q The makai collector road and I generally -- just to let you know -- I generally use the word either makai collector road or the Liloa Drive extension in my mind.

And then the mauka collector road has no name for it but I just call it the mauka collector road so just for your information.

I do not use the term north-south connector road because I've seen them used for both mauka and makai. So I will ask you to try not to use that term because it could mean either of the two roads. Okay? With respect to the makai collector road was that originally designed or originally planned for four

lanes?

A Initially I believe so.

Q And is it your understanding that's now proposed for two lanes?

A Yes.

Q And the money in the 2013 budget, if you know, it would fully construct from where to where?

A Can you rephrase your question again?

Q Sure. You referred to a CIP budget for 2013 for the Liloa Drive extension, right?

A I'm sorry. What I meant is in the 2013 fiscal year plan. But the actual design and construction is started in 2015 -- started 2015 and the construction will not complete until 2018.

Q But the monies have been appropriated?

A There's a price tag in that CIP plan which is $18.2 million.

Q And $18.28 million is enough to do what? The whole thing or just the planning?

A Including design, design construction.

Q It extends from -- is it from Ka'ono'ulu to where?

A Kanani.

Q Kanani. Is that the full length of the proposed makai collector road?

A Yes.

Q Okay. Now, with respect to mauka collector road fair to say it's in a very preliminary stage, correct?

A Yes.

Q We don't have an alignment yet?

A I have seen several alternatives but you know, you're right.

Q But there's been no selection of an alignment, though.

A Yes.

Q So I take it then you don't have an estimate of when the mauka collector road is likely to be fully constructed.

A I do not. But we assume it will be, will be built by year 2034.

Q Why do you make that assumption?

A Because number 1 it's 20 years later is really a long range. It is in the Maui Island Plan.

Q You refer to pedestrian activity in your testimony. Are you aware that there are no sidewalks planned for Pi'ilani Highway fronting Kihei High School?

A Yes.

Q So in terms of pedestrians walking from Maui

R&T to Kihei High School, do you have a proposed route that they should travel?

A I dot not have a proposed route, but I believe some kind of connection, internal connection, is desirable from traffic perspective. But at the same time I realize this involves several landowners. This involve the land we don't control.

My experience, based on past experience with DOE, is sometimes DOE has a lot of concerns if you propose an internal access. One of them is a safety concern, safety and security.

Q When you refer to a connection between Maui R&T and Kihei High School, I assume you mean a connection across Waipuilani Gulch?

A I don't believe the exact alignment has been worked out. I believe internal connection is desirable, but I don't know where the alignment gonna be. It's really depending on the future and engineer feasibility study.

Q I understand the exact alignment has not been chosen, but are you suggesting there's an alignment which does not include crossing Waipuilani Gulch for an internal connection?

A I said it's desirable. But in my traffic analysis I did not assume that internal connection

will be there.

Q And is that same analysis true for a roadway connection across Waipuilani Gulch?

A You mean a roadway carrying vehicular traffic?

Q Yes.

A I don't see -- I don't see any roadway carrying vehicular traffic in addition to so-called in-track roadway.

Q Would there be an in-track roadway that goes from Maui R&T across by Waipuilani Gulch?

A I believe in the future the in-track roadway we propose will connect to further north.

Q And who, in your assumption, would be responsible for crossing Waipuilani Gulch?

A Whoever own that land and propose develop the land in the future.

Q So not Maui R&T?

A Not Maui R&T.

Q The state Department of Transportation suggests that the Liloa Drive extension be completed and operational prior to final subdivision approval being granted for Phase 1. Do you agree or disagree with that statement?

A I disagree.

Q Why?

A I disagree based on -- I disagree based on two things. No. 1. This is a -- this makai collector is in the county's plan, in the county CIP plan. I believe it's county's responsibility to build that, to build that road.

All the indications we've been looking at the short-term plan, Long-range plan, the makai collector will be in place if not by year 20 -- if not in the next two or three years gonna be by year 2018.

We also disagree about the timing of that condition. I believe you cited prior to subdivision approval.

Q Final subdivision approval.

A The way we believe is only with the Project is mature enough for the subdivision approval stage we have the details and the specs to come up with a finalized traffic report.

Q Well, what would come after final subdivision approval?

A I'm sorry. You said prior to...?

Q Final subdivision approval.

A Prior to final subdivision. In that case, I'm sorry, I'm okay with the timing.

Q Okay. So basically the disagreement is

because the improvement is to be made by someone else, you're saying Maui R&T shouldn't be responsible for holding up someone else's work.

A Yes.

Q With respect to scenario 3 -- I'm sorry. With respect to scenario 4 the calculation of the impacts is dependent, though, upon makai and mauka connector roads being fully constructed, correct?

A Yes.

Q With respect to scenario 3, you assume that the makai and mauka collector roads are not yet constructed, correct?

A Yes.

Q When you look at the construction -- well, are there Levels of Service E or F under scenario 3?

A In scenario 3 there's Level of Service E and F.

Q Would that make a difference between the no-build scenario and the scenario 3 impacts?

A Can you specify when you say no-build which scenario you're talking about?

Q Scenario 1 is your no-build, correct?

A Yes.

Q So between scenario 1 and scenario 3 are there differences in the Level of Service?

A Yes, there are difference.

Q And does scenario 3 increase the traffic as compared to scenario 1?

A Yes.

Q So as compared to scenario 4 I take it scenario 4 there are reductions in the traffic impacts as compared in scenario 3, right?

A I don't agree with their reduction in traffic impact. I think is a traffic pattern change in scenario 4 because there are new connection in makai collector, in mauka collector, traffic pretty much was redistributed among the roadways.

Q I understand your concern with the term "impact". Let me rephrase that. Does the level of traffic get better under scenario 4 than under scenario 3?

A Yes.

Q But the level of traffic, the amount of traffic is increased between -- scenario 3 has a higher level of traffic than scenario 1.

A Yes.

Q Between scenario 1 and 4 is there a difference in the amount of traffic in the, you know, the Level of Service amount of traffic?

A In generally similar.

Q In your written testimony you recommend that a Memorandum of Agreement be reached no sooner than final subdivision approval, correct?

A Yes.

Q I take it -- but a Memorandum of Agreement should be reached before construction begins, shouldn't it?

A Yes.

Q At final subdivision approval isn't there often infrastructure that has been built?

A I don't believe so because, you know, after subdivision process you still have permitting process. Without county and DOT issue permit we basically couldn't do the connection to the Pi'ilani Highway.

Q Just so we're clear. You know there's a difference between tentative and final subdivision approval, right?

A Yes.

Q You're specifically saying you need to wait until final subdivision approval before the MOA.

A Mm-hmm.

Q Whenever it's done it should be done prior to construction beginning for the infrastructure or at least the roadways.

A Yes.

Q Thank you very much.

A Thank you.

CHAIRPERSON HELLER: Commissioners, any questions? Go ahead.

COMMISSIONER ESAKI: Being a transportation expert do you agree with the proposed plan to have on-street parking, narrow roadways shared with bicycles instead of bike lanes in the interior roadway?

THE WITNESS: I do have some opinion but I'm not in a position to share opinion. The reason is the report, you know, I'm doing, mostly addressed interaction with state -- state highway which in this case Pi'ilani Highway, and county roadway. We looking at impact to basically offsite roadway.

The study I'm doing is not, the focus is not the internal roadway. I assume you're asking those questions regarding to the internal roadway.

COMMISSIONER ESAKI: Yes. My question was regarding the interior roadway.

THE WITNESS: That's really not my report scope.

COMMISSIONER ESAKI: So you don't have -- so you're not willing to share your opinion on the question.

THE WITNESS: There are a lot of discussion about, you know, how people, how bike and pedestrian are shared roadway. I believe there are other consultant can better answer the question.

COMMISSIONER ESAKI: Okay.

CHAIRPERSON HELLER: Anything else, Commissioners? Yes.

COMMISSIONER BIGA: Just going along with Commissioner Dennis' question. Do you know of any experiences or stats that would, would justify something of that nature, having a smaller street to slow down the traffic?

In your experience as a traffic consultant, have you came upon stats having it, having it okay doing it that way or not? I know your scope is not to do that here in the interior roads. But in your experience.

THE WITNESS: Can you rephrase the question more specific? You're talking about narrow roadway, shared with bike?

COMMISSIONER BIGA: Yes.

THE WITNESS: There are pro and cons. I'm not talking about this Project. I have to speak based on other experience. When you have narrow roads the intent is when the driver look at the road become

narrower they can slow down. But there are always pro and cons.

No. 1. If the driver is not slowing down you pose a greater threat to the bicycle which can choke everybody up in the narrow right-of-way. But there are cases where the proposed narrow road work with a bike.

But there are cases it doesn't really based on the specific condition, based on the volume and how many cars travel along the roadway, based on the classification of the road. Sometime the road speed limit is 35-mile per hour. It's far dangerous to share everybody in the same narrow right-of-way.

So there are a lot of means of method could design a roadway to make it safer for everybody. But I have seen lot of cases where the road is not well designed to serve that purpose.

COMMISSIONER BIGA: Thank you. Thank you for your testimony.

COMMISSIONER ESAKI: One more question. One clarification on final subdivision approval before constructing the roadways. Can we get some clarification on that?

THE WITNESS: Am I supposed to --

COMMISSIONER ESAKI: It was your testimony

that you need final subdivision approval before doing the roadways, is that correct?

THE WITNESS: From my perspective, you know, I believe the way I look at it is full Project Land Use Commission Project which is why we are here. After that you have zoning process. After zoning you have subdivision process.

Even after subdivision you have permitting process which is you need to have the proper permit to make connection to the state and county roadway.

So I believe even after we got the final subdivision approval, we still need permitting process to design the roadway up to the state standard.

COMMISSIONER ESAKI: I believe that unless you have bonded the Project you usually will not get subdivision approval without the infrastructure. Can somebody clarify that?

CHAIRPERSON HELLER: That may be a question that the Petitioner can address through other witnesses.

MR. TABATA: Or on redirect.

CHAIRPERSON HELLER: Okay. All you can do right now is ask this witness. And if he doesn't know we'll have to ask somebody else later.

COMMISSIONER ESAKI: Okay. Thank you.

CHAIRPERSON HELLER: Commissioners, anything else? I had question. Regarding the Exhibit 24 and specifically the lower left corner, the proposed roadway in and out of the residential area there. That crosses over land which is not part of the Petition Area in order to reach Pi'ilani Highway, correct?

THE WITNESS: You're talking about this one?

CHAIRPERSON HELLER: Next one over, yes.

THE WITNESS: Can you rephrase your question?

CHAIRPERSON HELLER: Okay. That roadway that you're showing has a proposed access in and out of the residential area, would be a road that crosses land that's not part of the Petition Area, is that right?

THE WITNESS: (addressing Mr. Tabata) Go ahead.

MR. TABATA: Mr. Chair, Mr. Perkins can answer that question.

CHAIRPERSON HELLER: Okay.

MR. PERKINS: Mr. Chair, I'm inferring here that you're asking if it's over land that we don't control. I would offer that we do have an easement in

place across that land.

CHAIRPERSON HELLER: You've anticipated my next question. That's what I was getting to. There's an existing easement.

MR. PERKINS: Yes, sir.

CHAIRPERSON HELLER: For purposes of your traffic study what kind of assumptions did you make about the volume of traffic on that road in terms of how many people in the residential area are going to be going to work in the technology park itself versus people who are going to need to get out to Pi'ilani Highway to go somewhere else?

THE WITNESS: (Mr. Li continuing) This access we're talking about is a right-turn in right-turn out. It's not a full access intersection. So this gonna primarily serve -- if you look at the layout -- it's gonna primarily serve the residential area.

If you work in the park, let's say, this part of the park, you probably wouldn't use, choose to use that access. If you're coming from Kahului side, actually you cannot go in from there.

CHAIRPERSON HELLER: Okay. My question is of the homes that are going to be located in that residential area, presumably some portion of those

residents would work in the technology park and some portion would work outside elsewhere.

Did you make any assumptions as to what those proportions would be?

THE WITNESS: We did. I have to check my book to find out that number.

CHAIRPERSON HELLER: Okay. But the assumption you made is set forth in your report?

THE WITNESS: Yes.

CHAIRPERSON HELLER: Okay. Thank you. Commissioners, anything else? Okay. Thank you.

THE WITNESS: Thank you.

CHAIRPERSON HELLER: Petitioner, what's your time estimate for your next witness?

MR. TABATA: If I may, Chair, do redirect of this witness?

CHAIRPERSON HELLER: Okay. Go ahead.

REDIRECT EXAMINATION

BY MR. TABATA:

Q Hong, I want to go back to that DOT recommendation that Mr. Yee talked about regarding the makai collector and it being in place by, I believe, his question posed to you was at final subdivision approval.

Now, I just want to clarify something. Your

scenario 4 for Phase 1, okay, that includes the regional improvement, the makai collector, correct? The scenario 4 for Phase 1.

A Yes, it did.

Q Okay. In that scenario 4 for Phase 1 the makai collector is assumed to be in place by 2024, correct?

A Yes.

Q And all of your LOS ratings and recommendations are based upon that scenario and that timing?

A Yes.

Q So if I represent to you the final subdivision approval is planned to be obtained in 2014 or 2015, assuming the Commission grants our request, that scenario that the DOT sets forth would not be consistent with your scenario 4 for Phase 1, correct?

A Yes.

Q Because in effect what they're asking for is for the makai collector to be in place ten years before your scenario.

A Yes.

Q Thank you. Now, I want to turn to the subdivision approval timeframe. Let me represent to you that the county has what is called a large lot

subdivision. And what large lot subdivision is is larger lots that are intended to be further re-subdivided.

So given that possibility of large lot subdivision, would it be appropriate to have the MOU executed after -- in the event there is a large lot subdivision -- for that MOU to be executed after that stage to the point where there is final subdivision approval for a subdivision that is intended for vertical construction, to the point where *then* we would know what the plans are, what the design specs will be as far as the actual use of the property?

A It makes sense.

Q Okay. So, of course, it may be possible at large lot subdivision, assuming at that stage there is infrastructure work done, that nevertheless at that point at large lot subdivision we would not know what the exact design criteria is yet.

A Yes.

Q That would then support the MOU?

A Yes.

Q Is that your understanding?

A Yes.

Q Now regarding street widths and on-street parking, is it your understanding that those

specifications and requirements are governed by the county and the county regulations?

A I believe it was covered by the county's ordinance.

Q Is it your understanding that the Petitioner will comply with whatever county requirements are and their ordinances regarding street widths and any requirement for on-street parking?

A That is my understanding.

Q Thank you. No more questions.

CHAIRPERSON HELLER: Commissioners, any follow-up based on that? Yes.

COMMISSIONER McDONALD. So the plan is the roads that are built out are going to be dedicated to the county?

MR. TABATA: It's not determined yet. Wouldn't it be desirable?

MR. PERKINS: They're going to be built to county standards. The plan, and we want to allow for the eventuality that they will be dedicated to the county at some future date, but the plan now is actually to maintain them as private roadways. All the current roads in the development now are all private roadways. They're not county roadways.

COMMISSIONER McDONALD: So if they're

private they don't necessarily need to be designed and built to county standards if they're private?

MR. PERKINS: But we will commit to build them to county standards.

COMMISSIONER McDONALD: Are the existing roads to county standards?

MR. PERKINS: As far as I know, yes.

COMMISSIONER McDONALD: Thanks.

CHAIRPERSON HELLER: Commissioners, anything else? Go ahead.

COMMISSIONER ESAKI: One more follow up on that. Do you know if the county inspects private roads?

MR. PERKINS: I'll defer to our engineering witness expert who will be on this morning.

CHAIRPERSON HELLER: Okay. Petitioner, let's proceed with your next witness.

MR. WYETH MATSUBARA: We have our market study witness, Tom Holliday. I have about ten minutes with Tom. I don't know about cross.

TOM HOLLIDAY

being first duly sworn to tell the truth, was examined and testified as follows:

THE WITNESS: Yes.

CHAIRPERSON HELLER: Go ahead.

DIRECT EXAMINATION

BY MR. WYETH MATSUBARA:

Q Good morning, Mr. Holliday.

A Good morning.

Q You've prepared a market study, economic impact analysis and public fiscal assessment as well as an affordable housing assessment for the Maui Research & Technology Park Master Plan update which is Petitioner's Exhibits 11H and 11S respectively?

A Yes.

Q Mr. Holliday, you also prepared, at our request, written testimony and your CV which is attached as Petitioner's Exhibit 42, is that correct?

A Yes.

Q Now, your CV describes your qualifications and experience in market study, economic impact analysis, public fiscal assessment, as well as affordable housing assessments, is that correct?

A Yes.

Q You've also been qualified before the Land Use Commission as an expert in economic impact analysis, public fiscal assessment, and affordable housing assessments before, is that correct?

A On many occasions.

Q Thank you.

MR. WYETH MATSUBARA: At this time Petitioner requests that Mr. Holliday be admitted as an expert witness in the field of market study, economic impact analysis and public fiscal assessment.

CHAIRPERSON HELLER: Any objections or questions?

MR. GIROUX: No objection.

MR. YEE: No objection.

CHAIRPERSON HELLER: So admitted.

MR. WYETH MATSUBARA: Thank you, Chair.

Q Mr. Holliday, please summarize your testimony.

A Hi. I'm Tom Holliday. I'm chief economist and senior analyst with the Hallstrom Group, a Honolulu-based real estate consulting firm. I'm one of the original members of the Group. We were formed 33 years ago. I specialize in hotel appraisals, market research analysis and economic impact assessment.

Our firm was retained to do a series of studies for the Maui Research and Tech Park proposed Master Plan revision in which the main goals were to determine if there's markets for the proposed plan, what are the economic impacts associated with this development, how will it affect the public purse of

the state and county? And how will the plan meet affordable housing requirements of the government?

The original incarnation of Maui Research and Tech Park did not prove highly successful. There were just too many use limitations, site limitations, building envelope restrictions and building design requirements.

Further, the number of uses that were allowed were specific to an industry and type which was still in its infancy and was not growing as proposed. Also Kihei was a town that during our lifetimes, and I'm older than most of you, has changed quite a bit and become a suburban community and a new powerhouse within the context of Maui communities.

As presently proposed the Maui Research Tech Park Master Plan update will provide for a comprehensive environment that will meet through allowing more uses and less restrictive development guidelines and a growing Kihei community, that will allow the absorption of significant amount of light industrial, residential and commercial space.

So in that context we did a population-based series of studies, assuming that as the population grows the demand for all of these uses will increase in the region as well.

We based our studies on projections made by the county of Maui and the state of Hawai'i Planning Department's population forecast.

Among our findings that on an islandwide basis Maui will require about 7 million square feet of additional, what is called light industrial space, on the island. And that although the Maui Research and Tech Park will have limitations on what can be used and, therefore, lose a potential to compete for some of that market demand, we still project a demand over the coming 20 years within the park of about one to one and-a-half million square feet of these type of still allowable uses.

It could be a faster absorption if the whole spectrum of uses were provided for. But the proposed guidelines, 1933A, says some uses have to be excluded that would otherwise speed up absorption. They will have to be put elsewhere in the region.

We also looked at the housing demand for the 1250 subject housing product units. Kihei is expected to grow tremendously over the next 20 years. And even with all the proposed/approved development within the urban area there will still be a shortfall of a midpoint of about 3,200 units without the development of the subject units.

So there's significant available demand that still must be met. And the Maui Research and Tech Park supply is available to service the community needs in that regard.

We project that the housing component will require about 14 years to absorb, 14 for the single-family and 13 for the multi-family.

Commercial use within the Project is not anticipated to be a driving force. However, the community of residents and community of workers within the tech park will require commercial services on a neighborhood and workday basis. We estimate that demand to be about 175,000 square feet of space.

Also over the 20 years it's being developed, we would anticipate that selected other specific retailers and retail uses would come into the area even though it is not the best location from a frontage or accessibility or exposure standpoint for retail development. We estimate that at about 300,000 square feet or so.

So over the course of 20 years some 1 and-a-half million square feet of commercial and light industrial would be expected to be absorbed by the park.

Additionally, the Master Plan includes a

unique economic opportunity or campus pod of available land. Now, it's not that we can identify a specific use for that property today. But there are large space users such as institutions, educational, colleges, medical campuses, specific research and development, and computing corporations that may seek out such a large available piece.

And it needs to be made available in the community if Maui is expected to attract such users. They're not gonna want to go through an extended process of approvals and infrastructure. They would just take their business elsewhere.

So we view that as being a component that could work to the long-term success of both the Project and the community.

Based on those conclusions that the Project will be market supported, we built economic impact models detailing the development of the Project, how long it would take to move forward, and what the outcomes would be.

We estimate that there will be about $1.4 billion in direct capital investment into the Maui community as a result of building out the Project.

That upon buildout it will have about 7,300

fulltime equivalent worker positions within the park with wages, annual wages approaching $300,000,000.

That at buildout it will have about 2700 population, mostly residents, their guests and perhaps some hotel guests. And that those residents will have annual household incomes of about $75 million.

The annual business activity that will take place in the park would approach about $600 million a year which when spread and moved throughout Maui County would be over $900 million a year in total both direct and primary indirect economic impacts.

And if you use the state input/output economic model the results would even be far greater because they look at other forms of indirect and induced economic impacts.

(Impromptu SIRIUS computer speaking: "I didn't understand that")

(general laughter)

The county of Maui -- after buildout the county of Maui would expect to receive annual tax receipts mostly from real property tax but secondary sources about $28 million a year. The state of Hawai'i about $80 million dollars a year.

After paying for all anticipated costs on a per capita basis the Maui County should expect a net

profit of about $21 million dollars a year, and the state about $57 million a year in revenues over cost providing services.

The last aspect of our study was in regards to affordable housing. We looked at the product that was to be available. We looked at the potential for in-migration of workers into the business park and whether or not the subject as proposed could meet state and county affordable housing guidelines.

It is our determination, based on the prices in the marketplace and the product being proposed at the time of our study, that about 500 of the subject units or about 40 percent would be priced at market and achieve affordable housing guidelines.

And that as proposed we believe the Project should be sufficient to meet state and county affordable housing requirements and absorb any demand created through in-migration associated with the Park that pretty much summarize the studies.

Q Thanks, Tom. Despite what SIRIUS said (audience laughing) about not understanding your request, I appreciate your comments. And Mr. Holliday is open for cross-exam.

CHAIRPERSON HELLER: County?

MR. GIROUX: County has no questions.

CHAIRPERSON HELLER: OP?

MR. YEE: We have no questions.

CHAIRPERSON HELLER: Commissioners, any questions for this witness? Go ahead.

COMMISSIONER MATSUMURA: One question. Do you foresee changing the name from the Maui High Tech Industrial Park to Maui Industrial Park?

THE WITNESS: Well, that would not be up to me, but as somebody involved in the marketplace I would say you could probably find a better name. But I think that's up to the developer.

COMMISSIONER MATSUMURA: Thank you.

CHAIRPERSON HELLER: Just following up on the absorption of the residential units. In looking at the potential for the market there, did you in any way take into account the fact that the residential units, in particular, may have higher than average occupancy costs due to the private water system and some of the other features of the development?

THE WITNESS: No, I did not. At the time it wasn't brought up to us. But in general the cost of the units have an affordability and within housing guidelines they set up based on household incomes there's some allowance for some fluctuation. I was surprised with the water costs.

CHAIRPERSON HELLER: Thank you. Anything further?

COMMISSIONER INOUYE: Just a follow up to that. In your projections did you come up with any kinds of estimates of how much those housing units would be for people that work in the park.

THE WITNESS: Yes, we did have some assumptions in that regard. We tested to see, well, what about in-migration associated with the Project? Every time there's a new good job on Maui that's created you have the pressure of in-migration.

So one of the concerns always with this type of Project is are we providing enough potential housing to house those people for the jobs that are being created there to attract. And the answer in this case is yes.

It's difficult to say, the Commissioner asked earlier, what percentage of the people who live in the park are going to work in the park?

You hope there's going to be a lot. You think there's motivation for people who want to live here and work near their home. And this provides a true opportunity to do that. But it's not something that's either/or, although Maui does have a really high number of self-employed people with small

businesses, and this type of environment would be perfect for them.

COMMISSIONER INOUYE: So you didn't come up with any kind of percentage or rough guess.

THE WITNESS: No. We are trying to make sure that affordable housing and housing components would meet the needs of the workers that were going to be there.

COMMISSIONER INOUYE: Thank you.

CHAIRPERSON HELLER: Commissioners, anything else? Then I think it's about time for another 10-minute break.

(Recess was held. 3:15)

CHAIRPERSON HELLER: Back on the record. Petitioner, ready?

MR. TABATA: Yes. Petitioner calls Darren Unemori.

DARREN UNEMORI

being first duly sworn to tell the truth, was examined and testified as follows:

THE WITNESS: Yes.

CHAIRPERSON HELLER: Go ahead.

DIRECT EXAMINATION

BY MR. TABATA:

Q Darren, where are you employed?

A I'm employed at Warren S. Unemori Engineering, in Wailuku.

Q What is your position there?

A I'm a senior civil engineer.

Q Thank you. You did provide us with your summary of qualifications which is attached to Petitioner's Exhibit 39, correct?

A Yes, I did.

Q Within those summary of qualifications it states that you are a licensed Hawai'i Professional Civil Engineer and a licensed Professional Surveyor in Hawai'i, correct?

A That's correct.

Q And how many years have you been practicing?

A I've been in practice about 25 years.

Q Thank you. Is it also correct that you have been qualified as an expert witness before the Land Use Commission?

A Yes, some years ago.

Q That was in the filed of civil engineering.

A Yes.

Q Thank you.

MR. TABATA: Mr. Chairman, the Petitioner requests that Mr. Unemori be qualified as an expert in the fields of civil engineering and land surveying.

CHAIRPERSON HELLER: Are there any questions or objections?

MR. GIROUX: No objections.

MR. YEE: No objections.

CHAIRPERSON HELLER: Okay. We'll find him qualified.

MR. TABATA: Thank you.

Q Darren, did you prepare the preliminary engineering report for this Project?

A Yes, I did.

Q Which was identified as Petitioner's Exhibit 11F. Did you also prepare your written testimony for this Project which is attached to Petitioner's Exhibit 39?

A Yes, I did.

Q Thanks. Could you please summarize your written testimony for us.

A Would you like me to summarize the drainage and wastewater portions or the entire thing?

Q Why don't you focus on wastewater and drainage, thank you.

A All right. So the proposed storm drainage plan for the technology park reflects several considerations. First, the 400-acre Project Area is located only about a mile from the shoreline.

Second, the Project Area lies above, about a 1 and quarter mile segment of urban Kihei which is known to experience shallow flooding along its coastal ledge during heavy rains.

And third, the Project lies downhill of about 700 acres of pasture land which drains through about six minor gullies and it is flanked on both sides by two major drainageways. This would be Waipuilani Gulch to the north and Keokea Gulch to the south. And there's several pathways for runoff to flow directly into the ocean.

The drainage plan, therefore, after we incorporate solutions to address two types of drainage issues: First we have to deal with flood control, making sure that urbanizing the technology park did not aggravate the existing coastal flooding.

Second, water pollution control. We needed to provide some means to prevent urban pollutants from reaching coastal waters. So to deal with flood control -- well, in dealing with flood control we found that development of the technology park would be expected to more than double the peak storm flows if it were not mitigated. So mitigation we proposed to be accomplished by applying 2 separate strategies.

First, the use of retention facilities.

Retention facilities would be constructed to regulate downstream discharges --

CHAIRPERSON HELLER: Excuse me. Please speak a little more slower for the benefit of our reporter.

THE WITNESS: Okay. The mitigation will be accomplished by applying two strategies. The first will be the use of detention facilities. Detention facilities will be constructed to regulate downstream discharges to predevelopment levels. Depending on the type of land use we would employ different approaches.

Runoff from roads and residential areas would be directed to larger shared basins that were sited around the technology park.

Commercial lots, on the other hand, would be required to provide their own onsite detention facilities like they do now in the current technology park.

The second approach or second strategy would be to design for infiltration at the source of the runoff. This is something a little bit different or a little beyond what we've done in the past. The historic practice has always been to -- or has for many years -- been to take the water off rooftops and pavements and send them into the storm

drains as quickly as possible accumulated in the drains and then send it out to the ocean with as little delay as possible.

Now, this traditional approach, if you want to call it that, offered very little opportunity for infiltration along the way. It was collected and sent out to the ocean as quickly as possible.

So the concept here that we are proposing is to take the runoff from the roads, the parking lots, and the roof buildings, and send them first into planted areas for infiltration ponds or vegetated swales first. This would both slow the runoff down and afford it more time to infiltrate into the ground.

Runoff from very large storms, on the other hand, of course you could see what the infiltration facilities could handle. These would in turn just overflow into the normal storm drainage system so that we can have both infiltration and still not create a flooding hazard.

This second approach to design for infiltration at the source of runoff, has two benefits. First, it reduces the peak flow by reducing the flow velocity, the velocity of the

storm runoff. And second, of course, it reduces the quantity of water that we actually send downstream. So in two ways we benefit.

As far as water pollution control, again, there's a two-pronged plan. The same facilities that we use to infiltrate at the source can also be used or also serve the function to remove pollutants at the source of the runoff.

Runoff passes through vegetation through the grass swales, into vegetative landscape strips, infiltration ponds and so forth, slow the runoff down. In doing so allow sediment and heavy pollutants to settle out.

The vegetation in turn also absorbs and digests any water-born nutrients like fertilizer that might be in the soil. So this way that the first implementation serves double duty.

The second strategy is to adopt site management practices which remove the opportunities for pollutants to get into the stormwater. This is less about engineering, actually more about making people conscious about how to, how to manage their lives.

What this type of thing is, and I'll give you a couple of examples, more extensive lesson in

the preliminary engineering report, but it can be as simple as making sure that the trash receptacles are covered, not left out in the weather.

Another example might be to routinely inspect subsurface drain sumps, basin floors, drain inlets and drain pipes and take out all the accumulated sediment trash and debris to minimize the volume of pollutants that would be washed in the storm drain when it rains.

So basically you take the trash out of the drainage system so that it doesn't end up in the ocean. Very straight forward.

So this second approach, of course, is something that the park management and residents of the park would manage on a regular basis.

Going on to wastewater. The development of the technology park under its new Master Plan is expected to generate about half a million gallons of wastewater every day.

Now, the existing sewer system consists essentially of a branching system of gravity collection mains that collect the wastewater from developed areas and bring it to central pumping stations which then pumps the wastewater through a force main to the south, to the Kihei wastewater

treatment facility for treatment and disposal.

To serve the larger park merely requires just an expansion of the same type of system. Again gravity collection mains sent to a pump station. Pump station sends it to the Kihei Wastewater Treatment Plant.

The only difference is that at some point the existing pump station will likely run out of pumping capacity. At that point the pump station and the force main may need to be upgraded.

And the wastewater system will generally be constructed to the county of Maui's Department of Environmental Management Wastewater Division standards, as well as meet all the criteria for the State Department of Health. So this concludes my presentation. I'd be happy to answer any questions.

Q Thank you. Darren, I'll refer you now to our incremental plan which is identified as Petitioner's Exhibit 11P. Did you contribute to the incremental plan in respect to the infrastructure analysis?

A Yes, I did.

Q Now, I refer you to figure 1 of the incremental plan which is the Gantt chart. For the record Gantt is capital G-a-n-t-t. Now, do you have

that in front of you?

A Yes, I do.

Q Based on this GANTT chart can you tell us approximately how long it will take to complete the backbone infrastructure for the entire Project which would include both increments?

A Okay. On the assumed plant start of 2014 and the assumed finish of 2026 that will be 13 years.

Q Thank you. Moving onto the acreage of the Petition Area that we're talking about here. I refer you to the metes and bounds description and maps which are identified as Petitioner's Exhibit No. 13.

I just want to confirm that the acreage for our existing urban area of our Project is 150.032 acres, is that correct?

A That is correct.

Q And that the acreage for the areas where we are seeking reclassification for are 253.05 acres, is that correct?

A 253.05?

Q Yes.

A Yes, that is correct.

Q Thank you. These acreages are based upon the metes and bounds descriptions and maps, is that correct?

A That is correct.

Q I'm sorry. Let me back up a little bit. With respect to the metes and bounds description and maps, is it correct that you either prepared them or supervised the preparation of those documents?

A Yes, that's correct.

Q Thank you. Now, I've been informed that the Final EIS for our Project, which is identified as Petitioner's Exhibit 11, may have some acreages that are different from the ones that we just discussed.

Is it correct that those acreages are correct except that they may include certain roadways which would give them an acreage figure approximately 7 acres greater than what we have here right now?

A Yes, that's correct.

Q Okay. Thank you.

MR. TABATA: Mr. Unemori is available for cross. I'm sorry one more question. I'm sorry.

Q Mr. Unemori, are you familiar with the roadway system here, the existing roadway system within the tech park?

A Yes, I am.

Q Are you familiar with the county roadway requirements?

A Yes, I am.

Q Can you tell us whether or not the existing roadways within the tech park and the proposed roadways for the tech park, can you tell us if they are in compliance with the county's roadway requirements?

A Yes, they are.

MR. TABATA: Thank you. Mr. Unemori is now available for cross.

CHAIRPERSON HELLER: County?

MR. GIROUX: County has no questions.

CHAIRPERSON HELLER: OP?

CROSS-EXAMINATION

BY MR. YEE:

Q Mr. Unemori, for a typical development can you explain what happens at tentative subdivision approval? I'm going to ask you to first assume that there is not a large lot subdivision; then assume that there *is* a large lot subdivision.

So assuming there's not a large lot subdivision, in my mind a simplest example. What happens at the tentative subdivision approval and then what happens at the final subdivision approval?

A Just to clarify. This is a preliminary or tentative subdivision approval on a large lot subdivision?

Q Well, just for simplicity's sake assuming that you've got these parcels, you're going to a tentative subdivision approval and then a final subdivision approval for the whole thing.

A This is a small lot type subdivision where the...?

Q Assuming you don't need a large lot subdivision.

A Okay. So you're going directly to lots that can be sold to the general public.

Q Yes.

A Okay.

Q So in terms of construction schedule and what's happening at prior to each time and then after.

A Okay. At the preliminary subdivision approval stage or tentative subdivision approval stage, essentially what happens there is that all the general requirements for final subdivision approval are defined.

So at that point, the point where you receive preliminary subdivision approval, you do not have to have any construction documents prepared because the approval itself will define the conditions necessary for final subdivision approval including which are the improvements that are needed for final

subdivision approval.

So at the point of final subdivision approval, if improvements are required, then the construction of those improvements must either be completed or bonded. And then at that point you get a final subdivision approval which legally creates divided lots, small lots which you can then sell to the public.

Q So then in this simple example, in a tentative subdivision approval you need to know what you have to do. Then at final subdivision approval you either have to have done it or are bonded to do it.

A In terms of the improvements, yes.

Q In terms of the infrastructure improvements?

A Infrastructure improvements, yes.

Q And then subsequent to final subdivision approval you typically would then do the vertical construction. Or when does vertical construction come into play?

A Well, typically it occurs after you have final subdivision approval.

Q Now, let's go to a more complicated scenario where you're going to do both a large lot subdivision as well as the final subdivision, that you'll need to

sell the lots. What happens then?

A The process is essentially the same. The requirements for a large lot subdivision, there are some items that can be deferred until the final development or the small lot subdivision occurs.

But the process is pretty much still a preliminary approval which defines any requirements that are necessary for the large lot subdivision, a final approval for the large lot subdivision.

Following the final approval of the large lot subdivision you can get a preliminary approval for the small lot subdivision, and then final approval for the small lot subdivision.

Q So what do you need to note at the first tentative subdivision approval for the large lots?

A The large lot -- an Application for a large lot subdivision will essentially require identification of how you want your parcel configured and if you are proposing any infrastructure improvements, what they are.

Q Then for the final subdivision approval what would you need of the large lots?

A The final subdivision approval for the large lots would be essentially meeting any conditions that have been attached to the Application at preliminary

approval, and any improvements are required associated with the large lot, completion of those improvements or bonding of those improvements.

Q What is the difference in knowledge regarding the infrastructure between the large lot and the small lot subdivision?

A Well, it varies considerably between the types of developments that are being proposed. However, in many cases large lot subdivisions do not require major improvements outright. Oftentimes they can be deferred. Normally most of the infrastructure improvements are done at the final small lot stage. In other words, at the point of final development.

Q So at the time that you do the tentative subdivision approval for the large lots you don't need to know how the infrastructure is to be built or what infrastructure will be built for the large project, for the entire project?

A It is helpful to know that. But strictly for the purposes of subdivision application the phasing of the larger land parcels you don't have to know it precisely.

Q Okay. I want to make sure I understand. It would be recommended that you have a general idea of the infrastructure requirements at the time of the

tentative subdivision approval for the large lots. It's needed at the time of the tentative subdivision approval for the small lots.

A Yes. If I can make one clarification.

Q Sure.

A Normally large lots are an intermediate step towards final development. Normally large lots -- the configuration of large lots are based on some final plans, final objective. Oftentimes they're not done independently of each other. You have some overall plan or overall goal that you want to reach.

So you use that large lot/small lot step to go through the necessary process to purchase parcels, transfer title, do all the things that are necessary to meet the requirements of the final development.

Q Do you have any information that this Project -- or do you have any information how this Project is going to proceed?

A I do not have any specific information, no.

Q Do you have any reason to think that there's anything different about this Project in terms of how a typical project would work?

A Well, aside from -- its unique planning and the type of built environment it seeks to construct, in terms of the subdivision process it should be

essentially the same.

Q I had a question with respect to the water system in your written testimony.

A Certainly.

Q If there's not a private water system developed -- I won't go into why -- but if there isn't a private water system developed, would you still recommend the development of a brackish well for purposes of non-potable water?

A I think if it was determined that there was an adequate potable water supply to cover all forcing uses and the R1 system operated by the county of Maui would create regular shortfalls, then a brackish system or irrigation water, essentially, might still be a good idea.

Q With respect to the drainage, I know you spoke of both the stormwater flooding issue as well as the stormwater quality issue.

A Yes.

Q Would your proposal with respect to the stormwater quality, would that then fully comply with the county of Maui's stormwater quality rules? Or is there additional work to be done?

A The intent would be to fully comply with the stormwater quality rules, Maui County stormwater

quality rules.

Q I was just wondering if the mitigation you described would adequately solve or adequately address all the county of Maui stormwater quality requirements? Or whether there's additional work to be done on the specifics or whether any additional mitigations that would be required to comply.

A Perhaps this might help. The examples I mentioned, which would help stormwater quality, aside from the things that you might find in the CC&R's for covering your trash containers and that kind of thing, the structural part of it where you use vegetated swales, infiltration ponds, those are allowed options under the Maui County stormwater quality rules.

There are other options that are allowed. I think the two are similar. You might say the R&T Park's proposed water quality approach is a subset of what is allowed under the Maui County water quality rules.

MR. YEE: All right. Thank you very much. No further questions.

CHAIRPERSON HELLER: Commissioners, any questions?

COMMISSIONER ESAKI: Notice he's looking at me now. (laughter) Hi, Mr. Unemori. Would you say

that pervious concrete would be a good option to alleviate stormwater?

THE WITNESS: Or to help infiltration.

COMMISSIONER ESAKI: Yeah.

THE WITNESS: Pervious concrete I believe has its place. It could be a option that may be considered. In some locations, particularly where the subgrade is erodable and the terrain is steep, you run the risk of having the water that goes through the grade wash out the subgrade, but there are ways to design around that. As long as -- where there's an opportunity to apply it I think it should not be ruled out.

COMMISSIONER ESAKI: Okay, thanks. On non-potable water what are your plans for fire protection?

THE WITNESS: The fire protection would actually come from -- be part of the potable water system. The non-potable water would be strictly for irrigation.

COMMISSIONER ESAKI: Couldn't that be used for fire protection if you have a separate line?

THE WITNESS: Actually there would be two separate sets of mains, one for potable water, one for non-potable water. The preference to use it -- I've

seen it done both ways. Usually the preference really goes to how the system is operated.

And when you have fire protection on your non-potable water system, your tanks normally have to be larger, your pipelines have to be larger. And so it may make economic sense to put the fire protection on the non-potable system.

In R&T Park's case because there is an existing portion that is already on the potable water system, it's a little bit easier to maintain the fire protection on the non-potable water system because we're going to have large tanks on -- the potable water system -- sorry -- I'm sorry -- it appeared to me that it made more sense to continue to use, put in fire protection on the potable water system.

COMMISSIONER ESAKI: Thank you. One more regarding subdivision. You're familiar with your doing the subdivision, you're familiar with the subdivision ordinance, right?

THE WITNESS: For the county of Maui, yes.

COMMISSIONER ESAKI: Yes. What -- under present zoning how many lots and units could be built within the Ag designated area without rezoning?

THE WITNESS: Ag lots?

COMMISSIONER ESAKI: Yeah.

THE WITNESS: You know, I don't know that number. Maui County for Ag subdivision uses a sliding scale. And I have not studied what that would be. Used to be you can just take the area divide by 3 acres. Now it's a little bit more complicated. So unfortunately I can't answer your question.

COMMISSIONER ESAKI: Okay. Thank you.

CHAIRPERSON HELLER: Commissioner McDonald.

COMMISSIONER McDONALD: Thank you for your testimony regarding the non-potable system. The existing tech park is on R1, is that correct?

THE WITNESS: It uses R1 for irrigation.

COMMISSIONER McDONALD: From the wastewater treatment plant.

THE WITNESS: Yes.

COMMISSIONER McDONALD: And the proposal is to continue to use that for the future phases.

THE WITNESS: For the expanded park, yes.

COMMISSIONER McDONALD: You know, we just went through a petition with Maui High School. I think they're proposing to install wells in order to provide non-potable irrigation.

Has there been a discussion with the state with regards to tapping into that non-potable

source, R-1 source, from the tech park? 'Cause I'm not sure exactly how that non-potable line is running. If it's Pi'ilani or kind of cutting cross country?

THE WITNESS: I see. When you're referring to the school, you're talking about the Kihei High School?

COMMISSIONER McDONALD: That's correct.

THE WITNESS: I'm not aware of any discussion between either RT, Maui R&T Partners and the school or the county and state with regard to extending the R1 system to the school. The MR&T does lie between the treatment plant and the school.

And we had looked at the possibility of extending a non-potable water main through the top of the Project along the roadways to get to lands further to the north. But specifically for the school I don't know of any discussion that's taken place.

COMMISSIONER McDONALD: So that R-1 system would run to those residential lots to the south.

THE WITNESS: If I can explain. The R-1 system actually stops just about where the pole parkway is in this vicinity. So it would really require that it be carried to the balance of the park

to the north, across Waipuilani Gulch and into the school. It could certainly be done. It's just that I know of no specific discussion that's taken place to do that.

COMMISSIONER McDONALD: Okay. Thank you.

CHAIRPERSON HELLER: Commissioners, anything else? I had a question on the water usage and the wastewater treatment. Again, going back to the costs to occupants and residents.

If there's a private water system so people are not getting a bill from the county for their water usage, would they get a separate bill from the county for wastewater usage, wastewater services?

THE WITNESS: Hmm. You know, that's a good question. I don't know the answer to that, how the county would bill the residents. Because as you say we're using county treatment but not getting a county water bill. I don't know the answer.

CHAIRPERSON HELLER: Normally the wastewater sewer charges are based on how many gallons of water you're using through the system.

THE WITNESS: That's part of the water bill. You're correct. That's the way I get my water bill.

CHAIRPERSON HELLER: Okay. Presumably there

would be some charge from the county for using their wastewater system.

THE WITNESS: I would have to imagine they'd want to charge you. Want the opportunity to charge someone, but I don't know the opportunity.

CHAIRPERSON HELLER: Does the Petitioner know how that's going to work?

MR. PERKINS: We haven't determined that at this point. I don't know as that's been contemplated other than we would also assume that they would want to recover that cost.

CHAIRPERSON HELLER: Okay. Thank you. Anything further? Let's move to your next witness.

MR. TABATA: Mr. Unemori is our last witness for today. We apologize. But Mr. Dega, our archaeologist, is out of the state. We would request the opportunity to bring him in August if possible and also have an opportunity to address the Fish and Wildlife letter at that time. It's my understanding that the county's ready to proceed.

CHAIRPERSON HELLER: Okay. County, let's go ahead use the time that we have available.

MR. YEE: Can I ask one clarification?

CHAIRPERSON HELLER: Sure.

MR. YEE: With respect to the continuation

of the Petitioner's case, are you anticipating the possibility of another witness? Or are you ruling that out?

MR. TABATA: There is the possibility of another witness to address the Fish and Wildlife letter if it is permitted by the Commission.

MR. YEE: Okay. We have no objection with that.

CHAIRPERSON HELLER: Okay. County, go ahead.

MR. GIROUX: Thank you, Chair. We will be calling William Spence. Mr. Spence is the planning director.

WILLIAM SPENCE

being first duly sworn to tell the truth, was examined and testified as follows:

THE WITNESS: I do.

CHAIRPERSON HELLER: Go ahead.

MR. SPENCE: Good morning, Mr. Chairman and Commissioners. My name is William Spence. I'm the planning director for Maui County. Just let me buzz through a number of things here.

xx

xx

DIRECT EXAMINATION

BY MR. GIROUX:

Q Will, I'm just going to introduce a couple of things. You've submitted your written testimony and that's Exhibit 7. You have turned in your resumé and that's Exhibit 3.

And I'd just like to have the Chair qualify Mr. Spence as an expert in planning based on his resumé and his experience.

CHAIRPERSON HELLER: Any questions or objections?

MR. YEE: No objection.

CHAIRPERSON HELLER: Okay. We'll find you qualified.

MR. GIROUX: And I'll turn him loose. (Laughter).

THE WITNESS: Thank you. I'll just say that the Maui Planning Department supports this Project. We think it's good for the county as a whole and in the furtherance of the mission of the bringing diversification to Maui County's economy. I'll also speak for the mayor's administration. He also supports this Project.

With regards to the County's planning documents, certainly the 1998 Kihei-Makena Community Plan supports this Project. It identifies it as a

Project District as the R&T park to bring technology to the kind of industry to Maui.

More recently the Maui Island Plan adopted at the end of 2012 also identifies this Project in its more refined form as the Applicants are proposing here. That document identifies the Project and supports it as well.

Maybe this will come up a little bit more later in cross, but there's been a lot of questions about what does the Maui Island Plan say about the mauka roadway and all that? I'll just say I think the Petitioners have this as an exhibit. It's Petitioner's No. 26.

There's a general disclaimer on this diagram that's part of this plan that says, "This diagram is intended to provide general guidance and is subject to change based on future research and findings. This diagram shows the general area, not fixed locations of improvements."

So the intent of this is to show the need for additional connectivity between North Kihei and South Kihei, to provide an alternative to the Pi'ilani Highway. But it's not specific to -- is it mauka of the projects, the other projects? Or is it makai? Or is it running through the middle?

This is something, it recognizes the need, but it's something that should be decided as these projects go forward with discussions with the county and between the landowners. So the language is specific in the plan to allow this kind of flexibility, but also to ensure that there is -- there are these other roadways.

The description of the Project within the plan: I won't read the whole thing, but just as to the connectivity. This is out of the plan and it's part of the purpose of this Project.

It says, "Buildout of the MRTP should be coordinated with the development of neighboring Kihei Mauka Plan Growth Area to ensure efficient intra and inter-regional transportation."

So, again, it's not specific of whether it goes through the Project, whether goes mauka of the Project, or whether there's one 4-lane road or two, 2-lane roads. That's something that I think should be a county decision based on the coordination with the county and with the property owners.

So that pretty much -- I think that then I should say that the need for an additional mauka roadway is also identified in the 1998 Community Plan. I'll say one thing, kind of alluded to but

maybe perhaps not directly addressed, is one of the reasons why we support this Project is because of the diversification to Maui's economy. Everybody's very aware that we're tourist driven.

We have other industries where, like, agriculture but we're not so much like O'ahu where there's a big military presence or big federal presence.

So the concept of the high tech park back in the '80s was to attract something like a Silicone Valley where you would get the big high-tech firms coming in. That's why the big lot sized in the R&T park right now in that particular zoning.

Just the Silicon Valley at that time was much more hardware driven. That's when Intel and where all the silicon chips were made, and those kind of things.

But now things have so much shifted to information, it's much more about start-up companies. It's much more about the entrepreneurial shift. That's something that the R&T park in its current configuration and under its current zoning could not readily accommodate. So it's been said but I thought I would say it another way.

So the concept behind what they're trying

to do now with changing the zoning, getting a larger Petition Area, but then ultimately changing the zoning, is to accommodate the new industries that are coming forward in information.

I do see all of the components as being necessary. We talked a little bit about incrementally changing the Petition Area. I think with the concept of form-based zoning it really needs all the components together for it to work. You need the housing.

You need the different kinds of use areas that they're talking about, with small lots, larger lots, the variety of housing. It's sort of like a painting that you need all the pieces together to make the complete picture.

So I would encourage that it not be incrementalize, but that it be adopted completely together.

And what they're trying to do with this in creating this environment for, you know, liveable, walkable community kind of become buzzwords in the planning world. But you think about it. Really we're trying to do is codify an idea.

We think about our old towns and what makes those attractive. Think about Makawao, Paia

or Hilo. I must say I've only been to Chinatown once or twice. And I wasn't really paying attention. But there's a certain attraction with the human activity and all the different shops and all the different things that are going on, you want to be there. You want to go hang out. You want to relate to people and do new things and see new things.

As opposed to, say, some of our malls like Maui Marketplace where there's a big sea of parking. I will drive from one end of the mall to the other to get to another store because it's so spread out. It's not conducive to a human experience.

So this is something -- this concept is something we're really looking forward to in Maui County. I would say I think I'll add one last thing. I know the Applicant is committed to building the roadways to county standards. I briefly talked with them at the break.

The county would support, when we're going through the design process and further refining the concept as we get down to zoning, the county would support narrower roadways to accommodate this design concept. We've seen it in other instances like Pualehua. I think you're going to see it in other

places like Wai'ale when they come in for their zoning, a big Project the Commission saw just over a year ago.

Somehow the roadway standards will have to be approved by the county anyway. So whether it's our regular title 18 standards or whether it's something to accommodate this Project, we would like that left to the county. Commissioners?

Q Just a couple more. Will, the Department's asked for about 15 conditions on this Project.

A That's correct.

Q Do you see these conditions as being reasonable and meeting the tests necessary under Nolan and Dolan and recently Coombs?

A Yes, I do. I would say that most of those conditions are just asking the Applicant to comply with county regulations that are already in place.

MR. GIROUX: Mr. Spence is available for cross.

CHAIRPERSON HELLER: Petitioner?

CROSS-EXAMINATION

BY MR. WYETH MATSUBARA:

Q Director Spence, good afternoon. My name is Wyeth Matsubara. We met. I'm one of the attorneys representing the Maui R&T park. I just wanted to say

we appreciate your support on behalf of the Petitioner. We thank you very much. We know it's not all approvals going forward, but we know we can work together and look forward to continue to work together with the county. And greatly appreciate you and your department's support. Thank you.

THE WITNESS: Very well.

CHAIRPERSON HELLER: OP?

CROSS-EXAMINATION

BY MR. YEE:

Q Mr. Spence, who's responsible for planning the alignment and development of the mauka collector road?

A I don't think there's any -- somehow I knew Bryan would have questions. (Laughter). There's no one body that's responsible for that. I suspect, I know that between this Project, Kihei Mauka and there's going to be coordinating between the landowners and the county.

Q Do you know if anyone's taken the lead on these discussions?

A Not that I'm aware of.

Q So not like County DOT.

A No. And our -- I would just note that our DOT is more involved with our transit service, our bus

transit than it is with roadway design and construction.

Q Than not County Planning.

A It would be more -- it would be a joint effort. Both Public Works is involved with design of roadways. It's gonna be a joint effort between all the different parties.

Q In the discussion on form-based zoning and the restriction on uses, have you had an opportunity to look at those proposed ordinances?

A Yes, I have. Not hugely in depth, but, yes, I have reviewed them.

Q At this time is it too preliminary for you to give us an opinion about the sufficiency of those proposals with respect to the Land Use Commission's decision on amending the prior D&O's use restriction?

A I'm not sure I understand the question.

Q I guess my question is: There have been different representations. I think Mr. Holliday suggested the current technology park concept is just not going to work on an economic basis. But I've also heard other witnesses testify that, no, this will continued to be a technology park.

I guess my question is: Have you looked at these form-based -- or the proposed ordinances to

determine whether this is intended to be -- or this is likely to be a continued technology park versus likely to be more of a new town or new development?

A I'm satisfied that it's going to be technology or information oriented. That will be the thrust of it. But is there a new town really associated? Pretty much.

When you read the planning literature -- like when I went to the national APA conference, really the emphasis is on incorporating all these uses together. Because more and more the job market is not looking to have a house here.

And you know, I should say the workers are not looking to have a house in one place and commute a long distance. We sort of see that quite a bit.

But the trend is much more to go live close to where you work. And people are, they're finding trends across the country where people are looking for their living environment first and their profession as a part of or more closely related to that.

So they're looking for a place that's great to hang out, a lifestyle. Then their profession is going to support that. So if we want to attract -- if we want to attract highly skilled workers, if we want to build an industry, those pieces go together.

Q Wouldn't those concerns, though, be or wouldn't the benefits of having residential close to work apply regardless of the industry?

A Yes.

Q Is there something about the residential location being next to this area that would encourage technology in particular?

A No. That would be the zoning code itself.

MR. YEE: Thank you. I have nothing further.

CHAIRPERSON HELLER: Commissioners?

COMMISSIONER INOUYE: Thank you, Mr. Spence. This form-based zoning concept is the first time in the state?

THE WITNESS: Actually it's not. I understand part of Kona has a form-based code. And whether you call it form-based or not we're seeing more and more projects come forward lake Pu'ulehua that are looking to emulate that kind of thing. But Kona has the one that I'm aware of.

COMMISSIONER INOUYE: None in Maui that you folks have tried.

THE WITNESS: No. We have not tried that yet.

COMMISSIONER INOUYE: The one you're

familiar with in Kona, has that been ripened to the extent of checking if it works well or not?

THE WITNESS: No. And I'll qualify my statement by saying I know that the zoning is there. I'm not familiar with how well it is working or all the different places that is has been applied to. I understand it's been applied in Kona generally not on just a specific project.

COMMISSIONER INOUYE: What about across the States?

THE WITNESS: This is a growing trend across the United States sort of like I was trying to describe with old Hilo or some of our small towns. People love these places. They're human scale. People want to live nearby, experience them, have that a part of their lifestyle.

So what form-based zoning basically does is codify that. It's a return to that kind of design. That kind of design predates the heavy use of automobiles.

If you think about the towns in the Midwest where everything's all clustered together, it's because there were no or very few automobiles when those towns were built. The weather kind of forces everything together. But people love that

kind of environment now. So how far do we codify that? How do we make our zoning say: Okay, developer, you're going to build this way so that people have this kind of environment, have this kind of human scale development around them?

So that's basically what form-based code is. You're codifying what we previously experienced and appreciate about some of our older towns.

COMMISSIONER INOUYE: I appreciate that. Thank you. But I guess what I'm trying to see is is there some city or some place where this type of concept has been applied successfully or unsuccessfully?

THE WITNESS: I'd have to look at a number of examples. Some of the smaller towns in California. I know Denver just adopted a form-based code, I mean, like over their city. It is quite the moving trend across the country. Success stories: I would have to do a little research and bring you examples.

COMMISSIONER INOUYE: I've heard anecdotally of successes in Denver. Have you looked at the proposed form-based code to see how it compares to what Denver did?

THE WITNESS: I have not compared it.

COMMISSIONER INOUYE: Do you plan to do

that?

THE WITNESS: Yes. Well, I plan to compare it to other codes across the country so...

COMMISSIONER INOUYE: Okay. I guess-- I apologize from yesterday. It takes too long to download the exhibit. I believe it was mentioned 11Q is the exhibit. Is that the form-based code proposal? 11-O. So you've reviewed that then.

THE WITNESS: Yes. Not with a fine toothed comb, but yes I've reviewed it.

COMMISSIONER INOUYE: For the Commissioners' decision-making process how much can we rely on that as being the way to implement what's being proposed here?

THE WITNESS: I think it's pretty close. I noticed a couple things. I don't think the form part of it or the uses, the list of uses are going to change very much. Some things like their proposed code assigns a whole lot of responsibilities to the planning director, which I don't particularly care to take on. (laughter)

And some of that was from the current R&T park zoning where the director has certain responsibilities. So we'll discuss that with the Applicant.

But by and large I look at the forms that they're proposing as well as the list of uses. And it looks like a pretty good, pretty good standard to work with.

COMMISSIONER INOUYE: And aside from that exhibit you indicate that you'll be looking at other jurisdictions and making comparisons. So I presume the Commissioners' decision will be based on some latitude of changing that.

THE WITNESS: Yes. I think what the Commission would be approving, you're seeing, you're seeing, like, 90 percent of what is going to 95 percent or what's going to go to our Planning Commission, then to the county council for approval.

COMMISSIONER INOUYE: Thank you very much. Appreciate it.

CHAIRPERSON HELLER: Commissioners, anything else? Any redirect?

RE-DIRECT EXAMINATION

BY MR. GIROUX

Q I guess on that note as far as what you see as possible changes within the code or any representations for any changes, have that been worked out at this point?

A No, they have not. The emphasis has been

more to get to the Land Use Commission. And we'll discuss certain changes to the code before we get to our planning recommendation.

Q Okay. I guess right now it's kind of a moving target because ultimately the Council can direct what are the changes that can be made to that code before it's implemented.

A Yes. Ultimately the process will be -- this code will go to our Planning Commission along with some of the maps and exhibits that this Commission has already seen. They will make recommendations. They will ask a lot of similar questions that this Commission has asked.

They'll make recommendations to that code. Then they will go to the County Council and there also will make some changes to the code and then finally adopt something.

I expect what they will adopt is, like I said, about 90, 95 percent of what this Commission has seen.

CHAIRPERSON HELLER: Anything else? Who is your next witness?

MR. GIROUX: I have Mr. Nolly Yagin from our Department of Public Works.

CHAIRPERSON HELLER: Any time estimate?

MR. GIROUX: I'm looking at 5 minutes.

CHAIRPERSON HELLER: Okay. Let's go ahead.

NOLLY YAGIN

being first duly sworn to tell the truth, was examined and testified as follows:

THE WITNESS: Yes.

DIRECT EXAMINATION

BY MR. GIROUX:

Q Mr. Yagin, you turned in a testimony, that's County's Exhibit 8 also your resumé which is County's Exhibit 11.

A Yes.

Q As far as your background you're an engineer with the Department of Public Works. How long have you been with them?

A Since 2002.

Q What are your responsibilities at the Public Works?

A I'm the head of the traffic section, so basically roadway designs, plan reviews, general public complaints.

MR. GIROUX: Chair, I'd just like to have him qualified as an expert in that area.

CHAIRPERSON HELLER: Any questions or objections?

MR. TABATA: No objection.

MR. YEE: No objection.

CHAIRPERSON HELLER: Okay. He's deemed qualified.

MR. GIROUX: Thank you, Chair. We're going to rest on his written statement. I believe Mr. Yee had a cross for Mr. Yagan.

CHAIRPERSON HELLER: Petitioner first, any questions?

MR. TABATA: No questions.

CHAIRPERSON HELLER: Mr. Yee, go ahead.

MR. YEE: Shocking as it is I do have a couple issues.

CROSS-EXAMINATION

BY MR. YEE:

Q First, I noticed in your testimony you talked about how it's important not to assume projects that have not yet been committed to. Can you describe for me what the status is of both the makai collector road and the mauka collector road?

A I can give you the mauka collector. As far as the mauka collector, it's been discussed that it is a roadway that should be looked at in the future. As far as we haven't set down the number of lanes or alignment.

What we will be doing is doing a study. This study would identify the laneage requirements, things like -- it will look at things like alignment, even a south terminus at this point it's not decided how far south this road would go.

As far as the makai collector in our -- I know there's reference to the 2013 budget. But in our 2014 budget we actually propose requesting design funds in 2016 in the amount of about 1.8 million. And construction to follow in 2018. But, again, those years are based on the findings of regional long-range land transportation plan that's currently still in development.

Q So when, I guess Mr. Li was referring to placement in 2013 CIP budget, that was not an amount of money that was approved in 2013, is that right?

A It's-- it wasn't -- it's basically like a planned amount. The funds were not approved. It's just for program.

Q So based on that you anticipate that you'll be asking for and hopefully getting the design funds in 2016.

A Yes.

Q Is 1.8 enough for the design and construction or just for the design?

A Just for the design.

Q What was the amount? Do you know what the amount was for construction?

A We were looking in the range of 12 to $15 million.

Q And then you're planning or hoping to get approval of that in 2018?

A Yes.

Q When would construction then be completed, just for planning purposes?

A For a road of that length possibly 2 years.

Q When you refer to the mauka collector road then, you said you were doing a study. Could you give me some more information about what is this study that you're referring to?

A This study would be to study just south Maui in general. There's a long-range land transportation plan that studies the entire island. What it does is it identifies roadways, potential projects, things like pedestrian projects, bike projects.

What this next study does is once that general study is done we go ahead, study South Kihei more in depth. And what that does is we identify areas of concern like, say, South Kihei Road. We look at the north-south collector again; north-south

regional traffic circulation.

So these will identify in more detail what is needed within the town.

Q Is that a study you get an outside consultant to do or is that done in-house?

A We will be getting a consultant.

Q So have you already retained a consultant to do that study?

A Not yet.

Q Do you have an expectation of when that study would be completed?

A I have an idea that -- no, not at this point. It's hard to say just how long these studies take. An example would be in 1995, I believe, there was a regional plan and then a sub-area study that studied Kihei. That was, I think, in 1997. So based on that maybe 2 to 3 years to complete a study like this.

Q When you finish the study do you anticipate -- does the study tell you, then, what the alignment is or is that you finish the study and then you do the determination of the alignment?

A It will probably set a better idea of what the alignment should be. Once you proceed with the design that's when we start to finalize things like

the actual alignment.

Q What are the number of lanes? Would that be part of this study or part of the next step after the study?

A Part of the next.

Q The next step?

A Yes.

Q There's also consideration, if I understand correctly, of building two roads two lanes each, is that right?

A I believe so. This is for.....

Q The mauka collector -- instead of building one, 4-lane road for the mauka collector road, are you also looking at the possibility of having 2 roads? Each road would have 2 lanes.

A That's an idea that came up in one of the discussions. It's something that we can consider.

Q Is that also part of the next step or part of the study?

A This would be part of the next study.

Q Okay. I think I know the answer. Do you have an estimate of when you think the mauka collector road will be completed?

A No.

Q Do you have an estimate of when the mauka

collector road would be begun?

A No idea at this point.

Q Do you have an opinion as to whether it is likely that the mauka collector road would be completed as assumed by the Mr. Li in his TIAR scenario 4?

A That would be 2024?

Q I think this is 2030.

A 2034? It's really hard to say. Yes, some of these roads can take quite a long time.

Q Are you in discussions with the Petitioner with respect to putting the mauka collector road within the Petition Area?

A At the time the Application came in we did, I believe, one of the comments that came from our department was that we should at least have that discussion to possibly accommodate it within the Project limits.

Q Given the timing of this Project and the timing of your study and next steps, are you still looking at placing the mauka collector road within the Petition Area?

A It's really hard to determine at this time.

Q It's perfectly okay. I understand the difficulties in these things. If you don't know

that's perfectly understandable. When you looked -- have you seen the conceptual plan for this Project?

A Yes.

Q Are you aware of what the planner had described as being the collector road within in the projected?

A Yes. Ninau Street?

Q Yes.

A Yes.

Q Does that street, Ninau Street, with the roundabouts and curves, would that be the kind of street you would be looking for as a collector road?

A It can perform as a collector road. It can. It can be designed that way.

Q Wouldn't the roundabouts and the various ways in which traffic is slowed, lead people to prefer Pi'ilani?

A You know it's really hard to say just because the way people choose their roads is kind of behavior driven. Some people like a nice scenic route. Some people like just a straight line, quick route. So it's hard to say.

Q So if you were going to design the mauka collector road it might look something like Ninau Street?

A It could.

Q Do you think it's likely?

A You know, from the -- in the past the county has always done collector roads basically as straight as possible getting as many cars as possible. But there's examples of collector roads like Waialae, for instance. kind of curvy. Curves kind of attenuate the speeds. It still functions as a collector road.

Q With roundabouts as well?

A This one doesn't have roundabout but signal, signalized intersections.

MR. YEE: Thank you very much.

CHAIRPERSON HELLER: Commissioners, any questions? Okay. Any redirect?

MR. GIROUX: No redirect.

CHAIRPERSON HELLER: Who's your next witness.

MR. GIROUX: We're pretty much done. I have Kyle Ginoza but we're going to just submit on his written testimony. Both parties, other parties have waived cross. If the Commission doesn't have a cross then I'll be done with my witnesses. The only thing I would ask is that Kyle Ginoza be submitted as an expert based on his resumé and his experience.

CHAIRPERSON HELLER: Are there any

objections to that?

MR. WYETH MATSUBARA: No objections.

MR. YEE: No objection.

CHAIRPERSON HELLER: Okay. Then we'll accept him as an expert. OP, do you have witnesses ready today?

MR. YEE: We have Charlene Shibuya, our traffic witness.

CHAIRPERSON HELLER: Do you have a time estimate?

MR. YEE: Fifteen minutes for direct.

CHAIRPERSON HELLER: Holly, are you okay for another 15?

THE REPORTER: I'll just stretch, yes.

CHAIRPERSON HELLER: We'll go about another 10, 15 minutes and then we do have an agenda item for an executive session so we will end at that point and then go into our executive session.

CHARLENE SHIBUYA

being first duly sworn to tell the truth, was examined and testified as follows:

THE WITNESS: Yes, I do.

xx

xx

DIRECT EXAMINATION

BY MR. YEE:

Q Could you give me your name and position?

A My name is Charlene Shibuya. My position is with State Department of Transportation Highways Division in the Maui district office.

Q How long have you been with the state?

A So far ten years -- actually eleven years.

MR. YEE: And actually we submitted, I believe, Ms. Shibuya's resumé as OP Exhibit 8. We'd submit Ms. Shibuya as an expert in the field of traffic.

CHAIRPERSON HELLER: Any questions or objections?

MR. GIROUX: No objections.

MR. TABATA: No objections.

CHAIRPERSON HELLER: Okay. She's admitted as an expert.

Q (By Mr. Yee): Thank you. Ms. Shibuya, the Department of Transportation submitted written testimony as OP Exhibit 5. So you don't need to read the testimony, but could you summarize the Department of Transportation's position in this case?

A Fine. Before I summarize it I would kind of like to give just a brief background as to how we sort of look at this Project in this Kihei area. If you

can kind of look at this map. The Project is somewhere in here. Our facility is Pi'ilani Highway.

MR. YEE: For the record she's pointing at the Petitioner's Exhibit 26.

CHAIRPERSON HELLER: Thank you.

THE WITNESS: Excuse me. Basically we also own Mokulele Highway which was mentioned. Then this alignment here is the future Kihei Upcountry Highway. Just to give you further background Kihei is sort of like a really long dead end road. Basically everybody from the west side, east side, Upcountry has to come through Mokulele Highway, come down Pi'ilani Highway.

So basically the capacity on Pi'ilani Highway right now we have four lanes but South Kihei Road is only two. We don't have a fully connected Liloa Drive or what Bryan calls the makai collector. Of course the mauka collector is not in there also.

So what we're kind of looking at is back in 1989 the Master Plan, that there was a Kihei Traffic Master Plan done at that time. At that time for the projected land uses it was projected to need four lanes in South Kihei Road, four lanes on the makai collector and 4 lanes on Pi'ilani Highway.

We are in 2013 and so far only the state has widened their Pi'ilani Highway to four lanes.

And South Kihei Road still remains two.

North/South is -- I shouldn't say north-south. The makai collector is still, is continuous and not fully two lanes.

So our concern here would be basically on the phase 1 scenario, scenario 3, the Applicant's traffic study is showing some of the movements for Pi'ilani through, and some of the terrain movements it's showing Levels of Service not even matching what the scenarios would be without the Project.

So that's why we have concerns that, you know, if some of these regional improvements like, for example, the Upcountry, if the Upcountry is not in, the Niloa Drive is not in, then you're not gonna have the additional parallel capacity to carry all the traffic from north to south as well as internal circulation, which is why, if you look at our written testimony, we have concerns, you know, that certain things -- we would want certain things in before scenario 3 happens, 2024. And obviously in the long range.

So I guess that's why we're kind of making some of the -- if you look at the written testimony because of some of these regional improvements that may not be in, we're okay with all the local and

direct improvements that you're proposing, which is at their three accesses which is off of Pi'ilani Highway, they actually made a commitment to do all those improvements.

But the regional improvements, their representation is that some point the county or state will do it. As Bryan pointed out some of it is a little iffy.

So our concern would be if it doesn't happen and some of these other phases go in, that we need to, you know, perhaps address it or at least have some assurance it's going to go in, which is then we talk about the Memorandum of Agreement to have some of these things happen as well as having the Petitioner, you know, actually -- we actually have some of these improved before we proceed with Phase 1 or Phase 2.

Also, we also have in our recommended conditions, we talk about fair share contribution for, like, regional improvements. As you can see the regional improvements are not -- it's like it's not only the developer themselves is contributing to these -- well, the need for these improvements. So we feel like a fair share is good. And of course, the local and direct impacts they have already

committed to doing those.

We also asked that -- some of their existing main access is going to be off of Lipoa. So that is already -- we have such a thing as an access opening over there.

When DOT bought the right-of-way they actually buy access rights. So that's why we have one condition also that talks about if we're going go up that right on the Honokeana intersection and the Welakahao, then we're gonna expect to get some market value cost for that to access also.

And the other thing is right now the TIAR, you know, we have -- it gives us the general idea but we would want the TIAR updated at the point that you get closer to the change in zoning prior to the subdivision approval.

So we talk about that condition. That we would want that condition to be in there so we can assure ourselves that we have a TIAR that reflects what's going to happen at that point and properly assess all their improvements in case there's more improvements that's needed on top, above and beyond what's already represented in the current traffic study.

And the other thing is I guess we had some

other concerns which are more technical. We talk about the internal capture rates that the traffic engineer uses, which we would want it to be validated because it looks a little high.

But we can do that at the time that the traffic study gets updated later on. But want to go on record to make sure that all these things get addressed when the traffic study gets updated later on.

Let's see. I think basically, Bryan, correct me if I kinda caught most of the main points. I mighta just kinda went through kinda fast on all these conditions and concerns.

Q I have a couple follow up if I can. What is the basis for requesting the access rights, fair market value for access rights?

A It's like what happens when we initially did the new highway. We bought this right-of-way. It's funded by Federal Highway Administration funds. And part of the regulations require that we purchase all these access openings, according to engineering standards, because obviously we don't want them to have access all over the place. 'Cause otherwise you make the integrity of the highway, you lose the integrity of the highway.

So initially we go by certain access points based on engineering requirements. The Federal Highways allows us to -- once we give up these rights, that we actually charge the developer for new access points. Because there's, like, an assessed value associated with having an access.

Q Is the federal regulation something that allows you to do it, recommends that you do it or requires that you do it?

A Actually it's almost, like, requires you to do it 'cause since we purchased the right for no access when we bought the right-of-way with federal monies then they would expect us to get the monies, back for whatever we essentially give up. We're giving up that access right at these two points.

Q Then do you have an opinion regarding the timing in which the TIAR should be reviewed and accepted by DOT?

A We feel this updated TIAR should be done at the zone change stage simply because the zone change stage usually precedes the subdivision stage. And what happens is during the subdivision process you start to outline the layout for the roads, where the access points are gonna occur.

We feel that we need to have all this

information available, the technical information available so that -- because it's gonna affect the subdivision layouts. We want that upfront before we go through the subdivision approval process.

Q When you say the subzone occurs after subdivision do you mean the tentative subdivision approval?

A Can you ask the question again?

Q Sure. When you said the zone -- did you say the zone change occurs after subdivision?

A No. Typically it occurs either a little before or concurrently.

Q Okay. The Memorandum of Approval you've recommended to be executed prior to the tentative subdivision approval. Did you hear the discussion between large lot and sort of the smaller lot subdivision?

A Yes.

Q Did you have an opinion as to what this reference to subdivision approval is for?

A As far as the point at which we want the Memorandum of Agreement?

Q Yes.

A We would probably still want it early on 'cause even during a large lot I believe the, the

civil designer mentioned that you tend to know layouts of where the access to the roads might be, because that helps you during your change zone process.

You wanna know -- you wanna full disclosure of what's gonna ultimately happen on the impacts, all the impacts outlined. And that traffic study helps us to understand what those impacts are gonna be versus just looking at, you know, like a large lot subdivision not knowing how many lots, what the impact is gonna be, where the roadway should be.

You know, it just makes sense for us to have all this stuff upfront. We don't want it too late in the stage where all of a sudden we're looking at a subdivision, tentative subdivision approval and everything is not quite matching up.

Q So in your opinion there is enough information at the tentative subdivision approval even for large lots for the MOA?

A Yes. We feel we would be able to get it, with the traffic study that outlines what is ultimately planned for this large lot.

MR. YEE: Thank you. I have no further questions.

CHAIRPERSON HELLER: Petitioner?

MR. TABATA: Yes, thank you.

CROSS-EXAMINATION

BY MR. TABATA:

Q Ms. Shibuya, regarding the access rights in the fair market values, do you have a price as far as what that value would be?

A Actually it's similar to assessing land values. We actually have an appraiser do it. So I cannot really give you -- it's not like a standard value.

Q I see.

A And our rights-of-way branch would handle that. So I wouldn't even be able to give you a guideline. I would have to bring in our rights-of-way branch manager too. He would be more of an expert in that area.

Q I understand. Thank you. Regarding the TIAR and the acceptance of that. You mentioned you wanted a zone change approval?

A We want it -- we don't want it at the point where you're gaining final subdivision approval. We want it early on so we know what the subdivision layout is gonna look like. And the traffic study will kind of tell us whether these roadways will work or the number of lots gonna work.

Q Okay. In order to have sufficient

information for the acceptance of a TIAR then you would need to know the location of the roadways, is that correct?

A At least in concept, yeah.

Q Okay. Would you need to know how many lanes are involved?

A Well, if you know, typically if you're doing, going into development you do the steps. Large lot, then go into the individual lots. But at some point you do know when you're going to the large lot and then the individual lots, you'll know how many lots you looking -- what kind density you're looking at. That would typically go into your traffic study, right?

Q Okay. So in that traffic study in order for it to be acceptable by the DOT it would contain the number of lanes?

A Well, you would wanna know what the lanes are so that you know what width you have to cut the right-of-way out for the roads.

Q So you would need to know in addition to the number of lanes how wide the lanes will be?

A Well, the lane widths are pretty fixed. But at least how many lanes to know what you need to accommodate lanes, sidewalk, shoulder, also at the

intersections if you need additional turn lanes. Sometimes the approach lanes might require a wider road.

Q These lane capacities, would they be dependent upon the intended use of the property?

A Yes, definitely. Whether it's residential or commercial because you have different trip rates.

Q And if it's residential would you need to know how many units are involved?

A Yes.

Q Would you need to know whether or not it's single-family or multi-family?

A Yes.

Q If it's a commercial would you need to know what kind of commercial uses?

A Yes. Usually the change in zoning application would identify that.

Q Right. And the particular use, would that make a difference?

A Yes, it does.

Q Would the square footage of your commercial use factor into the necessary roadway dimensions?

A It depends on the traffic study because, you know, say if you're doing a traffic study. You might have X number of commercial or X number of

residential. You know, it might not kick over to another lane depending upon how much that total development generates.

Q Right.

A It would go into -- it would go into the traffic study to determine what you need. But you're not -- I guess what you're saying is, like, whether, how specific the information gotta be? Because usually normally the traffic engineers will kinda get the representation from, you know, how many square foot you wanna do this, this commercial, how many units. Then he'll tend to do, you know, like probably the worst case scenario or at least a range of something.

Q The reason why --

CHAIRPERSON HELLER: Excuse me. We're kind of running out of time in terms of the Commission's schedule. So I think we're going to have to stop for today. Obviously we'll continue it at our next hearing. But we're going to get in our executive session. Then that will be the recess for the day.

MR. TABATA: Thank you. (1:20).

CHAIRPERSON HELLER: So we're going to move into executive session right now. Then we'll be done for the day afterward. I'm sorry. Somebody needs to

move for executive session.

COMMISSIONER BIGA: Moved.

COMMISSIONER McDONALD: Second.

CHAIRPERSON HELLER: All favor? (aye)

(executive session held.)

CHAIRPERSON HELLER: We're just going back on the record to close the meeting. We've concluded our executive session. And I guess Chad and I will communicate the results of that discussion to Dan. So is there a motion to adjourn?

COMMISSIONER BIGA: So moved.

COMMISSIONER MATSUMURA: Second.

CHAIRPERSON HELLER: All in favor?

COMMISSIONERS: Aye.

CHAIRPERSON HELLER: We're adjourned.

(The proceedings were adjourned at 1:30 p.m.)

--oo00oo--

C E R T I F I C A T E

I, HOLLY HACKETT, CSR, RPR, in and for the State of Hawai'i, do hereby certify;

That I was acting as court reporter in the foregoing LUC matter on the 26th day of July 2013;

That the proceedings were taken down in computerized machine shorthand by me and were thereafter reduced to print by me;

That the foregoing represents, to the best of my ability, a true and correct transcript of the proceedings had in the foregoing matters.

DATED: This_____ day of_____2013

_____

HOLLY M. HACKETT, HI CSR #130, RPR #5910
Certified Shorthand Reporter