JulY 29TH, 2009

RESUMPTION AT 5:42P.M.

MRS. AUDREY BARRETT: Ladies and gentlemen, we are about to begin. May I ask that we all take our seats and be ready for the start. Mr. Peter Knight, CEO of the National Environment and Planning Agency, Mr. Noel Hylton, President and CEO of the Port Authority of Jamaica and you must be wondering where these men are, they are in the audience. They have elected to remain among the members of the floor today.

Mr. Hugh Darley, President of the International Design and Entertainment Association, Associate, sorry.

Mr, Dr. David Smith and Mr. Graham Jarvis of Smith Warner International.

Mr. Peter Gayle from Technical and Environmental Management Network.

Ladies and gentlemen, distinguished people, all, a pleasant good

afternoon. Come November 2010, the Town of Falmouth will take on new definitions. There will be much difference in the way we describe the economic, social or literary perspectives. Matter of fact, come November 2010, Falmouth will be made new. It will be our thanks to the conceptualization of International Design and Entertainment Associates to the partnership and collaboration they have forged with the Port Authority of Jamaica to the facilitation of our Government and the synergistic force that these and all stakeholders will have engendered to drive the project along through its various phases. We are among the many stakeholders and each one of us can become a synergist because like those who have already enlisted their contribution of influence upon this force, we have our part to play. Be it contribution of mind power or muscle power. It is

undoubtedly with this in mind that the Port Authority of Jamaica and the National Environmental and Planning Agency have invited us here to present to us the Amendment to the Pier Development Plans. Many of us, I am sure, will recall that over a year ago we gathered here and we were presented with information concerning the Falmouth Port Development Plans and it's implications for our requirement. There have been Amendments to the plans and so I am sure as we would expect some differences in the implications. There are also very cognizant of the fact that an informed input, the way to ensure optimal results at all stages and from all angles. With that, absolutely no intention of undermining objective reasoning but maybe out of my own exuberance I feel compelled to remind us that that the general aim of creating this project is to create a

town rivaling that of Williamsburg, Virginia, USA, that is also expected to be the envy of the entire region. I am sure that Mr. Hugh Darley, from whom I have just borrowed that quote, he will tell you more about that for himself as he presents to us the Amendment to the Falmouth Cruise Ship Pier Development Plans. Of course, before Mr. Darley comes to us I had omitted to welcome our Mayor and our Member of Parliament Messers Gager and Harris, Dr. Harris. Welcome

(A P P L A U S E)

MR. HUGH DARLEY: **Mr. Darley, good afternoon, it's certainly a pleasure to be here today. More than a year ago I was in this very room. I am here to present our Amendments we have made working both with NEPA, the Port Authority of Jamaica and the stakeholders here, particularly the Mayor of Falmouth. I want to thank the Mayor for his support throughout the year so that we**

could address the issues. As a matter of fact in this very room we did our first presentation to the public a little over year ago. What we will do today is, we are going to make a comparison of the Finger Pier Design today which represents the wharf. Later after this meeting I would like you to take advantage, we have two diagrams at the front which you will see in the presentation, a model of the final design, spend some time walking around and ask questions. I will make myself available if you have any question following the presentation.

Let's begin with the first slide. If we begin to develop this project which we have marketed around the world through World Caribbean Cruise Line, working with developing primary stakeholders in the project, we are developing the rendering, walking down Falmouth Street, walking down from the

corner of Albert George Market as you walk into the project view, you would see on the left-hand-side, you will actually see Oasis dock in the port, Freedom Class Vessel enter the port facility, the size or magnitude, this has a lot of people wondering, a scope many people want to discuss, this nineteen-storey building or ship which will dock here. When it comes in the port you will see something very similar to this, so I didn't want you to see this in the media, we have talked about this project and marketed it through places like the World Travel Market in London.

Originally, for those of you who remembered, this is the Finger Pier Design, was originally eight different locations that we looked at as an opportunity to develop a Pier in Falmouth. Originally when we looked at this, the Pier is located here. It's a little to the east of old

Hampden Wharf, Water Square, there represents three large warehouse buildings, that is the Hampden Wharf, more reference is made to the courthouse here. This is the current Fisherman's Beach, allocated along these lots on the corner where the Shell Service Station is, Foundry Yard, so original location was just beyond the Hampden Wharf to the east. Further down Martha Brae entered underneath bridge, dragline currently appears here where blue line is, really creates the City of Falmouth, almost as an island and the location would be from the proposed Pier.
In this room several discussions were had, one was environmental issues concerning the amount of dredge on this old diagram, dotted line here, little over four million (4,000,000) cubic meters of dredge material, that was a concern. We went back and relooked at that.

The second concern that was expressed was about opening the reef, would it change the dynamic of wave event coming into the Harbour, would it come Downtown of Falmouth, that wave would have occurred about this position here, along the path, so those are two of the concerns.

Third concern voiced by the Jamaica National Heritage Trust Project, to build a pier east of the City and then integrate and become a fabric of the streets and line up with the context of the city.

The Port Authority and NEPA began a year ago, a programme to help address those issues as we went forward with financing on the project. This is the final design and this is what we are presenting to you known as the Amendment, as is shown as a wharf design, original Pier design was here to the east, we have now relocated the wharf, this is Falmouth Street, you

will see Water Square, you will see the courthouse. This is the existing Fisherman Beach, this is the taxi staging area, so Falmouth Street, once you turn off parade, you walk all the way out to the center of the wharf, this wharf Design.

MEMBERS OF THE FLOOR: Can we turn off the overhead lights just to make it a little darker.

MR. HUGH DARLEY: So, here Falmouth Street leads straight to the center of the wharf. The idea of the dislocation to address these three issues, we move from the east to the west, we move further away from the luminous lagoon, we also move further away from the mouth of Martha Brae River. By creating the wharf we intersect any wave that would come through the opening in the reef so that wave no longer strikes the existing foreshore but now it strikes the end of our Wharf and dissipates here, before it ever reaches the

shallow foreshore and it also lines up with the context of the city, so now it's a part of the historic District of Falmouth. The created land there represents about 11 acres. Again you will see the existing Falmouth or the existing Hampden Wharves, those buildings remain. This is the Tharpe House, this is Foundry Yard, this right now is Fisherman's Beach, one of the nice by-products of this Design, the City of Falmouth Residents currently have only about five hundred (500) feet of beach that is not private on the waterfront, in this new design you have almost a mile. All of this property is now accessible to the public and provides over two thousand feet of waterfront frontage promenade which you can walk along into the city. So we have introduced the ocean more to the public lands within the city. So this is the Amendment Design which you will hear later in the

presentation, the science that also supports the reasoning that NEPA has approved this positioning versus the original Pier. And again those two illustrations are up here on large diagrams that you can look at and then we can discuss the final model in the background.

(A P P L A U S E)

The residential and retail. This is mixed-use community. This is also a 24/7 clock. There is not a gate around this, although what you have read in the papers, this is not a gated attraction. This is part of the inner part of the city. The idea is that it is open 24/7 and within some of our facilities here, we have condominiums, apartments and residential units that are a part of the city. It becomes a neighborhood adjacent to the historical District of Falmouth.

You might remember these drawings from

our proposals in 2007. These were the original plans that were designed with an elevation for the original buildings. These same buildings that we have in the pier plan we have reused them in the plans for the wharf. So the Jamaica National Heritage Trust originally approved the building designs that we have relocated these buildings in the new wharf design. This one is the terminal building; there will be two of these. One will be on the eastern berth and one will be on the western berth. So when guests arrive into the city, this is the building that they will come into and enter into the City of Falmouth.

These buildings were known as merchant's wharves. One of our original criteria expressed by not only the Parish Council but also Jamaica National Heritage Trust, any buildings that are built on the

waterfront should replicate, or look, or resemble 1850's warehouse construction. These buildings are in front of you, there are four of those. They make up the largest portion of the retail component out on the Wharf. These four buildings which you see will represent the model and also the diagrams up here, represents about thirty-eight (38, 000) thousand square feet of retail spaces out on the Wharf. Again these four buildings that look just like this, and as you will see, they resemble the original design of the wharfs that have been in Falmouth since the 1830's to 1850's. The next building is actually our services building. This building services the port; it also services the management offices and the bonded warehouse. This building is located right on the waterfront and then future opportunities concerns the homeport, so small vessel, say a

vessel with nine hundred (900) passengers or less could actually homeport from Falmouth. Guests could fly into Montego Bay, they will be able to load their luggage, walk through this building and board the ship just as they currently do in any Homeport in the Caribbean.

This is the Wharf Market Pavilion. Originally with the Parish Council, one of the ideas was to establish a formalized market that will allow locals. There is forty individual kiosks located in the middle of the wharf design. So, if you come down Falmouth Street from the existing parade, right at the end of Albert George Market, you can walk all the way down, to the first building you come to, in the center of the Wharf is the market buildings. Forty (40) stalls over six feet by six (6x6) feet in dimension. The Parish Council will be working with the Land or Royal

Caribbean in selecting the process by which we can rotate local vendors through those very prominent 40 stalls, giving all of the local residents an opportunity to participate in retail programme. The trolley station building: One of the first things we recognized was, we needed a transportation system which would be low impact but provide great transportation along the (26) twenty-six acres on the waterfront. The traditional trolleys which were originally used in the Caribbean have been introduced. They are electrically driven and it's a flush down the track system and will be a free trolley. There will be a hop-on, hop-off, just like in San Francisco. As the trolley moves along the waterfront you can hop-on and even when the trolley stop locations and travel it down the extent of the waterfront and out on to the wharf.

Shade structures: One of the issues with our own rain showers we have from time to time, I guess it's liquid sunshine on a good day. These shade structures actually resembles Georgian Architecture, we used a Devon House shade structures that are in the courtyard to design these shade structures and they will be throughout the entire part of the property. Again the Georgian are outdoor Design. The retail kiosks: These buildings are located also in the middle of the site. You will see two buildings located here. The first one is an open pavilion. Those will be used for retail spaces and the wall of configuration can allow different types of vendors to use that space. So, in its Georgian style, low roof lines with the column head to provide shade for whatever retail opportunities within that structure. The retail and the restroom structure:

There is a new public facility. There is actually sixteen (16) men's and sixteen (16) women's stalls within this building and again in the center of the site, along Falmouth Street, this building will be located, half of it will be retail, half of it will be public convenience.

The taxi and bus station: We have been working with all of the taxi and bus providers within Jamaica to understand their dos and don'ts relating to the transportation. The City of Falmouth was originally designed in the 1730's, and at the time there were no automobiles and there certainly weren't buses. So at the time all of the Street Designs were cart wheel and with the advent of the automobile, we paved the streets, we made them wider, we took out all the trees and we lost that shade that made Falmouth such a nice shaded environment to be in.

In the new designs we have created bus shelters and a taxi drop-off and a taxi shelter so that we can make a better organized plan for taxi pick-up and delivery and buses not travelling through the city but travelling around the city so that we have don't have a transportation problem.

In each of these buildings which you see above the taxi building, half of it is the shade structure and half of it is the retail location and its located right at the taxi drop-off and pick-up. So it will allow you to be able to stand under the shade while you are waiting on a taxi. The same with the bus station. The bus station is half of it on one end and on the other end is a retail location.

The trolley services building: We talk about our trolleys. There will be eight trolley carts. They will actually be stored in the warehouse building which is right across the

street currently at the end of where the existing market is, so it will actually be out on Upper Habour Street to the east.

Trolley shade structures: If you are waiting on your trolleys, you will see twenty-four (24) of these shade structures along the trolley rail part so you will also have a place to be under the shade while you are waiting on the trolley. Plaza shade structures: Again, within the confines of the Development we have created parks, much like you would see in a Georgian Area Park. The shade structures again allows for shade structures within the facility.

Merchants' kiosks: There is actually twenty-five (25) kiosks. These are 10x10s and 20x20s and these will be used for all types of merchandize and retail, some food and beverage and some soft goods. They also are located in the entire circle area, so

you may even be in a retail location in a retail building or in a kiosk, so that you can get a wide variety of opportunities for retails. This is also put in place so that we can have a look at a lot of local Trelawny participation in the retail shops. We have two buildings located that we set up as residential. The first building here, One Hundred North Falmouth, it has retail on the bottom floor, condominiums and apartments on the top two floors. The idea is that people live, work and play within this facility and again, it's an open neighbourhood and part of the City of Falmouth. The second building, Building Three Hundred has a restaurant on the first floor, it has shops on the basement floor and it's a half basement and is in the original Georgian Designs. On this top floor are suites. There are actually five condominiums on the top floor of

Building Three Hundred.

Finally, at the lower end here, I just want to show you the rendering that we have used to demonstrate also the two ships being in berth at the same time. This might be an opportunity to see during the weeks when we want to illustrate it so you could see the village, the neighbourhood in the foreground and the two ships at berth. The two ships we show are the two largest ships currently. That will be a Genesis Class Ship which will always dock on the western berth and that's a Freedom Class Vessel which you are familiar with if you have been in Ocho Rios or Montego Bay, that will be a Freedom and Independence Of The Seas type vessel.

Local Heritage components: One of the things that was also raised at our meeting was how are we effectively working with the local and existing history to incorporate the fabric of

the city with the new project. Very quickly I will go through some of these. You will see the buildings that we are working on. Some of these buildings will take longer than the fourteen (14) months we have in front of us to get open. Some of these will be like in Williamsburg, where you got certain buildings that might be under construction for three (3) years, you will have a nice wall and a fence system around and as we are doing the restoration guests would actually be able to see some of that restoration taking place. Some of these will open on the first day, we hope, in December of 2010; others will open three months after, six months after, and as we develop them, some of these require a little bit more time, so we are going to be working on those even after opening. The first of the historic attraction is located in the center of Foundry Yard which everyone is very

familiar with the Foundry. Behind that is Tharpe House, Tharpe House which is the existing Wharf Tharpe House and a new Rum Tour component which is part of the historical legacy of Trelawny that we are going to recreate on the waterfront.
Next Slide. The Foundry Yard will be building woods, metals and glass for the home point restoration of Falmouth. We are going to have working shops. For anyone who has visited some of the historical attractions throughout the United States and North America, the opportunity to actually train Jamaican Craftsmen is somewhat involved to some extent. We want to create new glass, new metal, new woodworks, including our carriage works. We plan to build all the horse strong carriages here within our carriage works facility within the Foundry yard. Foundry Yard will have a woodworks building, a

carriage works, glass works and metal component and we will use the existing foundry as part of the glass works facility.

Tharpe House: Tharpe House, we have proposed, it will be a historical location and a museum representing the history of Trelawny. Within that building we will reconstruct and redevelop the home as it would have appeared in the Eighteen Hundreds (1800's) and then inside we have developed attractions that would help tell the story of Trelawny.

The Park House Grounds, which you will remember that we have maintained the garden setting in the front which was originally part of the original foreshore of the wharf. This is the existing building that's on the back so we have actually restored this whole facility as you see the drawing in these.

The Rum Tour Attraction: Part of the

attraction here is to tell the story of Jamaican Rum from Agriculture to when it is shipped on the ship. So many of the guests that would travel to the Great House and other historic tours throughout Trelawny and Jamaica would return and walk through the final Chapter or the rum part of the chapter that would take them back out to the Wharf. So, it's part of our story to tell in the history of Trelawny. The attractions laid down in this regard, you see those buildings again replicating the Georgian area wood structures in the town.

The Barrett House: We currently are trying to work to secure that lease and put into place in the Barrett House, a literary bookshop and map shop and restore the gardens. So that's a literary place that we would like to actually tell the stories of Jamaica as part of the tour product

that we offered to the cruise guests as well as landside guests and one of the important aspects of all these historical attractions, it provides a great opportunity along the north coast for many of the hotel guests between Ocho Rios and Montego Bay to actually travel to Falmouth and spend time there. We will have, we call them landside guests.

The Barrett House grounds, as you will see from the original Georgian Architecture and the grounds in the back we have include a Butterfly Garden and Herb Garden.

Water Square: We have been working with the Parish Council and have been working with Mayor Gager to look at pedestrians in relation to Water Square, particularly during the daytime so that becomes a very high energy place for guests to experience a walking environment versus the transportation environment. We are

starting to work with organizations like TEDF and the Minister of Tourism, to create a nice Tourism Court that will include the Water Square, Parade Street out to the Wharf. You will see the drawings and the sections through this showing a pedestrianized Water Square where it will be bordered off so during the daytime you have pedestrian traffic only in the center of the town. The Technical diagrams: I would like to go through these and let you know we are going to have a technical demonstration and speaker to actually address in particular any technical aspect. I am going to take you through what we call the layman's version. It is going to be a little self-Georgian but it will be as close as I can get to explaining some of the technical aspects of the project. The First one we had many conversations about, where does the

drainage go? Where does the existing rainfall go? Because we currently have some problems with some of the local streets along the waterfront. In simple terms, everything that falls on the new 26 acres goes into our settle system, into our strong water and goes back out to sea. It's a little hard to see over here but you will see a green area. We capture all of the water on the new land, the new 11 acres. It goes into catch basins and then it returns to the ocean, once any solids or trash or materials settle out, it runs right back into the lagoon.

The city water system is collected along the streets in the city, does the same thing, goes to settlement ponds, it will take up the solids, bringing the materials and the water and then it goes back to the sea. Also just to address this really quickly. We are creating at the lower

part of the side area, a back up house area which will be all of our water treatment. So, any of the restroom facilities and any of our food and beverage facility will go into a treatment system that is located at the bottom of the side which is treated in a mini plant and then that clean water returns to the environment. So, we will actually have a water treatment plant as part of this facility.

Waves storms: For those of you that were within our last meeting you no doubt got a lengthy discussion on a wave scenario. It's very easily to really look at from a simple term. When here is the pre-development of what naturally occurs in the Harbour in Falmouth and this has occurred as long as recorded time. The opening in the reef that you see here, you see the lighter blue, that's where the power of the waves come through the

opening in the reef. That is an undeveloped, unchanged situation.
In the diagram here, post-development, you will see we have actually widened some of that.
Now, you will notice that some of the waves actually come closer in shore where the shoreline is and that's why we have located the reef there, that reef and also our wharf. Our wharf now acts as a national barrier to protect the foreshore of the city.
In the lower diagram you will actually see here, wave height difference. We have now created an opportunity so whether those large waves actually coming all the way into the unprotected shore where we have the original Pier located here, we have now prepared in the Wharf so that you have a dissipation of that so large waves won't ever come in as they do even today. If you go to existing Hampden Wharf and stand on the water's

edge you will see where those reflecting waves come right up against the edge. We have created the Wharf to dissipate that wave action. This shows you a more high density model so you can see the wave pattern and again you see how the wharf acts as a buffer against the City of Falmouth.

This is a little hard to understand but let me see if I can explain it to you. The wharf design that's here, you will see it, A, B, C, D, E and F. The red lines show the safe zone of where wave action occurs. Prior to development, historically, along a wave, that wave can come in there and be that high. This is the wave that could come in after development. So, it shows you, we are not doing anything now that will change the existing wave pattern. But we are looking at these two, these are the key ones. In the center of the city this is where it is now if we didn't

do anything. This is where it will be if we create the Wharf, and this is where it will be in a white in fifty years. So, this is to illustrate to you that the wharf design improves the existing conditions and even up to fifty (50) years provide for more protection to the City of Falmouth. So, that's an illustration just to show you where it is currently in blue, where it will be after the Development and in fifty (50) years with continued rise in sea level where it would be in fifty (50) years. This is the overtopping: Overtopping is any time a wave hits the wall and splashes up, it's the same illustration that we have just looked at and again you will see with the Wharf design in the centre we have actually maximized the amount of prevention so we get very little overtopping. Someone asked me right before this meeting, will the waves

ever come in and go over the top. They may occur in storm events but today they would occur at this level but after development they occur at this level. So, again the Wharf design allows us to give added protection to the city. Okay, that's it. Thank you very much.

(A P P L A U S E)

MRS. AUDREY BARRETT: Thank you very much, Mr. Hugh Darley. I am sure you listened the whole thing with a sense of awe as much as I did -- I had experienced. At this time Dr. David Smith of Smith Warner International will be doing the presentation of the hydrodynamics study.

(A P P L A U S E)

DR. DAVID SMITH: Ladies and gentlemen, our company which was retained to look at the hydrodynamics, in other words, the movement of currents in the bay.

MEMBERS OF THE FLOOR: Not hearing.

DR. DAVID SMITH: I am sorry. So, the project

description from all perspective was to look at the impact. This is even better. All right. So, our project brief, was to look at the impact of the land reclamation and it's been demonstrated this new design which is a Wharf with vessels, large vessels at berth from time to time, and we were also asked to look at the impact of the dredging and the cruise ship. We used a computer model in our office that we used quite frequently to predict what happens to currents in proximity to water bodies and land, and we set up the model with first of all with the existing lay out of Falmouth Harbour and inner bay where Glistening Waters is and that was our concern in our review process. Then we put in this wharf and then the third simulation had us look at the ships at berth, the two large ships, the Genesis and, what was the other one, The Freedom of the Seas. So,

those were the three sort of arrangements. What you are seeing here, just to sort of make it a little bit easier to understand. The colour represents water depths, so the red is very shallow, as you get out there it gets deeper, the yellow indicates deeper and blue is even deeper. So, you can see in the proposed layout where the dredging is to go you have deeper water coming in. Okay. Specifically, our scope of work had us look, as I said, at the impacts of the current and circulation patterns in this estuary area. Bearing in mind that we have a very special resource at Glistening Waters, my understanding is that it's one of two similar things in the Caribbean, one is in Puerto Rico, I stand to be corrected, one is in Puerto Rico and the other one is here and it's caused by a microscopic green organism called the dinoflagellates, and it gives off

light when they are disturbed, right, so hence the Glistening Waters Attraction. So, we were -- really, one of the things we were retained to look at was, what's the impact of this work going to be on these little organisms?

Okay. Sorry, Bryan, could you go back one slide, please. So, we used our computer model and this third point I just want to raise this. We had to make sure that the predictions produced by the computer makes sense in a physical way. So, it meant that we had to go out there and do some amount of measurement of currents, speeds and directions and compared it with what the model was predicting and get a sense of how accurate the model predictions were.

Okay. We collected current information, we moor the current meter out into the sea. Initially we measured current for 45 days and we

came back and we measured for a 15 day period. Is that correct?

MR. BRYAN JARVIS: Thirty days.

DR. DAVID SMITH: Thirty days at first and then fifteen days. Sorry. We did what was called drogue tracking, so we put floats down in the water with sails underwater to just get a sense of how the whole water mass in the inner and outer bays, what it does, how it moves on a day-to-day condition, with winds and tides and, inflow and thing and the movements and also the outflow from the Martha Brae River.

We measured water temperatures and salinity from the surface to the seabed to get a sense of the stratification of difference in the salinity found in the saltiness of the water at the surface and down at the seabed because these are the things that we were told by the Biologist and after I speak, Peter is going to, he is the Marine Biologist and he is

going to present the Marine Biological perspective but our understanding is that those were some of the things that really could have an impact on the dinoflagellates. So those were some of the primary things we were tracking.

We also collected sediment samples and looked at the contents of the sand and the silt that's at the opening and we obtained some river flow measurement from the Water Resources Authority. So, this is what the current meter looks like. It's like a long cylinder. It's about two-and-a half 2 1/2 feet long and we put it in an aluminum base, we put it out there under water, we weigh it down, weighed it down with concrete blocks and installed, the pointer isn't working, but you can see the diamond which shows here, where it was deployed. So, we did that for fifteen days. So, this is -- when we analyze the current

information that came out from the meter, it tells us, this is what it called a polar chart, really, all this is showing is that from a directional sense most of the currents at that particular location we mentioned are moving either to the east or to the west and that's driven by tides mostly. There is a bit of movement in the north and south, which is quite restricted and then on the right you can see, we are also measuring winds at the same time. So most of the winds not surprising because of the trade winds of the day is coming from the northeast as expected and a little bit from the southeast.

We also measured tides. Tidal fluctuation over a period from the 13th of May up to the 29th of May. So, that was the period we measured and you can see how the tides vary everyday, they get small some days and we get large, so we go through what is

called a neat tide and a spring tide where it is large and we also can superimpose on the outflow from the Martha Brae River which is in green. So, you can see it is pretty low for a while and there must have been rainfall events in terms of it jumping up, the river flow jumped up and it was high for quite a while.

So, the model that we used was one that we have some confidence in and we have used it for many years. The thing is that you know, there is a caution that computer models really ought to be taken, be used very careful in terms of the information or data that you put into them and when you get the results the interpretation that you pull out of them really makes a big difference of how useful they can be. Because they tend to produce pretty pictures and you can't assume that it's right because the pictures are good so you have to get a really

good understanding of what's going in and out of that computer, but we have been happy with the model. It's been used in many situations before. We used it to look at variations, in terms of its sediments, we have been using if for almost fifteen (15) years and its developed by a University Professor actually in Australia and he has been working with us over the years to upgrade our understanding of the model and to assist us in the use of the model. He has been to our office in Kingston and worked with us in the use of the model. So, we are quite happy with it.

So, when we started the calibration process to solve the usability and the accuracy of the model in this location, first thing we did was to superimpose the measurements which are in blue which we saw before, and we put on top of that in red now, this is the red boxes what the model predicted

for the same period of time. So, what we see was that the model predictions sort of lie on top of the measurements very well, it doesn't pick up some of these outward points here but it really represents very well what happens in the main body of the water flow at that point, so we are quite happy with it.

In order to get a better sense of how the model predicts, not just at the one point where we had the current meter, more would thing of somewhere about here but spatially through the whole bay we deployed these droves we talked about and if you look for instance on a morning, when we set the thing off in morning about 9:36 in the morning, we can see the droves, this is an actual plot of what we have superimposed on a blue drove image here, so you can see the droves are arching out towards the entrance of the bay. The model gives a pretty

good prediction that there is movements and that part of the Bay are where you can see droves patterns quite well. Later on in the day, close to, this is an hour pass midday roughly we picked up droves moving outside, out of the Harbour now and here the model gives us again a pretty good correlation of that general movement of droves; And then in the afternoon after 4 o'clock we still see flow along the southern part of the inner bay and it's reasonably well predicted by the model. So, what that meant then, was that we had, we had pretty good correlation with the measuring current meter and the model at one specific location and we also had good correlation from the model with speeds and directions of currents at different locations in the inner and outer bay. So, it gave us in terms of currents, speeds and directions, we were reasonably

confident and happy with the model results.

Then we used the model to predict salinity and how salinity would change from the surface water down to the seabed and we compared it actually with some measurements that have been made last year. So, it's not really a head-to-head comparison but it gave us an idea that, the blue diamonds in this case represents what was measured, and so you can see down here at Site One, what with we call Site One, that the salinity of the water surface is about five (5), this is parts of a thousand (1000), is that correct Graham?

GRAHAM JARVIS: **Yes.**

DR. DAVID SMITH: **About five (5) parts per thousand. As you get down to the seabed it's about thirty-five (35) parts per thousand (1000), thirty-four (34), thirty-five (35) parts per thousand (1000), which is closer to what you**

would find in open sea conditions, right. It's right by the river mouth so that's why the surface water salinity is so low.

Out here in Site 2, where the influence from the Martha Brae is not as marked, you can see the variations, so the measurement is about thirty-one (31) parts per thousand (1000) at the water surface dropping to about thirty-four point something and the model predicts thirty-one (31) at the surface dropping to about thirty-four, point nine (34.9), thirty-four point eight (34.8). So, what the model showed was that it is capable of predicting this sort of variation in salinity from the surface to the seabed. At least two sites which we were dependent on are characterized, one is right by the mouth of Martha Brae River, the other one is in the middle of Oyster Bay.

So, you know, we summarize, we showed

that the model has been reasonably robust. We think that it can be used to accurately predict the currents in inner and outer Harbours and that it predicts the spacial movement of the water mass. The reason why the model in this case was so important was because, because we are working the model in our office we have the capability of using it to simulate a whole bunch of different scenarios that could happen. Not having the chance perhaps to measure these scenarios over an extended period of time, right, so that's why the calibration is so important because if we find that it can be calibrated and work well for a particular range of circumstances we have confidence in extrapolating these predictions in other circumstances. So, that's the key thing. We also then did another sort of test with the model and in this case, what we are doing is, we

have a tide signal, so in this case, the tides were running in, which is not varying up and down as you saw it before, it's pretty constant. It's running over a period for ten (10) days basically, and the thing that we really wanted to test was what happens if you have the Martha Brae coming along on a regular basis and you have like a heavy heavy rainfall and then you have a burst of fresh water coming out and then going back down over a period of two days, what happens then to your system? So, we decided to simulate that and we looked at the results in three different locations. What we call northern location, central and eastern, all is within the Oyster Bay area. Because here now our focus is on dinoflagellates. So, what we find is that, in the northern location, when we look at current speeds for the existing situation, for the wharf in place and for the wharf

with the vessels, there is really no difference between the response of the currents in the Bay at this northern location. When the Martha Brae really brings that water down then you see a bit of difference down here and the recovery is actually quite well, it's within a day, comes back, the two models and the system match up again. If we look at the resistance level, is that the second one, what does it say, I think this is central, is that correct Graham?

GRAHAM JARVIS: **No.**

DR. DAVID SMITH: **The second one, it's kind of a cut off. So this is northern as well. So, we are looking here at the impacts and salinity and you can see that for the pre-flood condition all three are the same basically there is not much difference. Then you have this flood coming down the Martha Brae and it's -- the model actually seems to predict a little bit higher salinities**

at this location than the measurements would indicate but the recovery time for all systems to get back to what it was is very short, and again, so the indication is that, both the model and the measurements in this case give us pretty good idea for the recovery time to a normal system after you have had some sort of flood event. And these results are for the surface, upper surface, where you can see for instance here where the Martha Brae flood comes down, the salinity drops to below, well approximately ten (10) parts per thousand (1000) and also near the seabed where the drop-off is not as much. And the indication seems to me that in the natural system and at times like these, dinoflagellates, apparently they sink to the seabed, right, they seem to be seeking higher salinity water.

This is the central location up here. So the central shows similar results,

and what does the eastern show? This is the eastern. Results pattern is the same. It's pretty good agreement. So, it's indicating very minimal change between the existing situation. All right. So, now we look at the impact on suspended sediments.

MEMBERS OF THE FLOOR: Volume.

DR. DAVID SMITH: Sorry. Okay. Now, we look at the impact of the, this Martha Brae flood on suspended sediments and we characterized the suspended sediments by concentration of weight of sediment in a particular volume of water, that's how it is characterized. So, this is the eastern location. And so what we find is that under normal conditions there is a bit of difference between the predictions, between the existing and the proposed. It seems that with the proposed situation, there is a little bit less sedimentation that would ordinarily exist. I don't know what the impact of

that would be on the dinoflagellates but our Marine Biologist will give his interpretation after us.

For the flood conditions you can see that difference quite clearly. Whereas here, in the existing scenario, we have a fair bit of sediment concentration, this is in the water column not on the seabed, as a peak responding to the flood flow from the Martha Brae. With the new wharf and vessels you don't get as much sedimentation and current. And that pattern I think is pretty much the same for all of the eastern, central and northern. Okay. So, it's the same general pattern, where under flood conditions your peek and sedimentation is quite a bit higher than the structures in place. And under normal conditions it's, again, you see there is a little bit less sedimentation in the Oyster Bay area.

So conclusion is that proposed and

with vessel scenarios: There really is no significant change in the salinity characteristics of the area where the dinoflagellates are living.

Secondly, we showed that during the normal conditions the sediment suspension, sediment concentration, those scenarios are reasonably similar. However, during the flood conditions we see a decrease in suspended sediments concentration for the proposed and with vessel scenarios in the eastern and central sections of the Bays specifically. And it sho ws that within about two days after this type of flood events you tend to get a return to normalcy, some sort of normal system.

So, that's basically our summary of our presentation, and I guess we will have a question and answer at the end. Thank you.

(A P P L A U S E)

MRS. AUDREY BARRETT: Thank you very much, Doctor

Smith. Having listened to the presentation on the hydrodynamics study, Mr. Peter Gayle will now take us through the impact on the Glistening Waters.

(A P P L A U S E)

MR. PETER GAYLE: Good evening everybody. My task this evening is to talk to you a little bit about our thoughts with respect to the impact, the possible impact of this Development on the marine ecosystem, in particular, as it relates to the animals that are living in the inner Harbour of Falmouth, what we call Oyster Bay or Glistening Waters and these are the dinoflagellates that are bioluminous, putting out little pulses of lights, particularly at night which is then visible.

This is the very brief recap. At the eastern corner of Falmouth Bay we find the densest populations of these dinoflagellates, that area known as Glistening Waters, a few places in the

world, I think one of four (4) worldwide, one of two (2)on this side of the world, that have this persistent bioluminescence and it' a very important tourist attraction feature.

This bioluminescence or phosphorous use, if you will also, is a attributed to the activity of a little animal that is called pyrodinium bahamens and the picture there, how to explain it, if you took a ping-pong ball and sort of armour plated it because they have a pretty tough shell on them and shrunk it to the size of a less than a pin head, that's the animal you are talking about and on this side of the world they tend to occur singly or coupled together in twos for some reason we don't know why. But the unique water floor characteristics of this particular area allow them to accumulate in the bay without being pushed out to see by water currents

and yet it allows the water to be flowing enough so that it doesn't become stagnant and these animals can live quite well in the conditions that are there.

Potential impacts: We brainstormed and we then we thought that, well it it's possible if you deepened the channel, you changed the characteristics of the bottom, the bathymetry, the depths and you put them all to current patterns. If you alter or even change current speed, direction, patterns of flow, change flushing rates of water chemistry, change the temperature, change the salinity, change the nutrients, then you could in theory alter the solutions necessary to maintain this distinctive community or phytoplasm.

Based on data, that we have, historical data, we determined that you get significant phosphorous and bioluminescence. Okay. Let’s try.

You get significant levels of bioluminescence when you have concentration of these animals that are in range of say two hundred and seventy-five (275), in excess of two hundred thousand (200,000) individuals per litre in the water.

Data that we have from this side, from this particular site, back in ninety-eight ('98) indicates that levels as low as forty-four (44,000) thousand animals, individuals per liter have been recorded in the water there.

The most recent data set that we have taken in March of this year, shows a wide range of concentrations of these animals range going from anywhere from ten (10) of them to more than three hundred thousand (300,000) individuals per liter of water throughout the sampling area. And if you look over here, excuse me, you will see the sampling sites that we went to, there

should a three (3) here, I don't know why it refuses to come out on the diagram there as our third site, but typically stations two (2), three (3), seven (7), eight (8) and nine (9) were, which were influenced by outflows from the Martha Brae River are the stations that have the highest concentrations of dinoflagellates. The other stations further out have much lower concentrations. And this is just an example of the actual data showing the sample taken point five (0.5) meters taken from the surface at the various locations ranging between thirty (30) and one hundred and fifteen thousand (115,000) individuals and (0.5) meters from the bottom at the same spot ranging from ten (10) to three hundred and thirty-one thousand five hundred and sixty thousand (333, 560) individuals at that spot, site nine (9)

MEMBER OF THE FLOOR: What time of day was that sample

taken?

MR. PETER GAYLE: Sorry.

MEMBER OF THE FLOOR: What time of the day was that sample taken?

MR. PETER GAYLE: That was mid-morning approaching noon and at that time day they would have tended to sink, that's why we took them at the surface and at the bottom as well.

The monitoring programme that we are proposing has already started. We do have some data, you have just seen but it will include and not be restricted to water quality, sedimentation rates, and if we get adverse weather conditions, heavy rains, storm events, we anticipate that we will be monitoring much more frequently than every two weeks.

In terms of the actual limitations of these animals, it is important to note that they appear to like water that's warmer than 20 degrees centigrade, below 20 degrees centigrade they don't

seem to do too well but the temperatures that we have here normally are well above that and certainly even in flood events it is not even anticipated to even approach near to that level.

In terms of salinity, they tolerate anything from ten (10) to forty-five (45) parts per thousand (1000) and both are existing data and the modelling is well within those limits.

The basic message from all of this, is that the results of the modelling do not suggests that the parameters for salinity, temperature, can't spell, can I, or resident type of water in the Bay will be changed beyond tolerance limits for this animal. In other words, even if things change they should still be happy with the changes.

Mitigation: It's important to think about the what if scenarios, however it's worth pointing out that much of

the what ifs that we anticipate coming out that would occur is actually not directly related to this particular development. There is development already going on in the area which can have its own impact in term of salinities and temperatures and nutrients levels. In particular sediments coming out of the hills around when it rains and in particular what would really nail these animals is agricultural chemicals, pesticides which could really destroy their inner heartbeat and that's not something that is associated with this project. There is also, as development occurs increase in light pollution from the surrounding hillside which makes it more difficult to see the bioluminescence at night. So, here the message is simply that we have, we anticipate, we expect that there are other things to worry about for this population of animals rather than what

is coming out of this particular Development, and I think that's it for me. Thank you.

(A P P L A U S E)

MRS. AUDREY BARRETT: Thank you very much, Mr. Gayle. I am sure Senator Meadow, Superintendent Williams-Martin, Mr. Seivewright, Mr. Dear, and all you very wonderful people, will feel a heightened sense of security when I tell you that no information given here today will be lost as all is being recorded, high-court style by Miss Rebecca Broderick, our very efficient Stenographer.

We are now at the point where our presenters will entertain our questions. You will notice that there are two microphones in the isle; I'll only ask that you go to these microphones, any one of these, the one nearest to you, say your name and ask your question. We would also like for us to understand that we want to keep

this section orderly. We want to flow in an orderly way and we also want to be as brief as we possibly can. Thank you very much.

MR. RAYON HALL: Good evening, my name is Rayon Hall. For the work that has been done by the Port, is it a night and day thing for the fourteen (14) months or something like that?

MR. HUGH DARLEY: I'll try to address some of that. We actually have representatives here from PIHL and from Port Authority but it will be a reasonable construction schedule. We do have a project that will take some time, so I am sure we are going to work within the established parameters that NEPA gives us and those of who will be working with the Mayor here to determine what those operating hours are.

To answer a bigger question as it relates to the ongoing operation of the Port, it is part of your city, so it won't open and close. In other

words, it won't open when the cruise ships come in and close when the cruise ship leaves, it will be a 24-hour clock neighborhood.

MISS OSBOURNE: **Good evening everyone. I am Agatha Osbourne of Granville, Trelawny; I am 66 years of age. I am feeling proud to know that something progressive coming to Trelawny again. Trelawny is on the map but I have a little concern that I would like to be clear up in my mind and when somebody ask me I can say. For instance, we use to hear they talk about tidal waves, they talk about tidal waves and they always say Falmouth prone to tidal waves because it is dumpland. So, we notice sometime when the tides come in you can't walk on the rock road, around that way the tide come out there. So, with my foolish thinking, I am saying that if something would happen to the sea, would it be protected that we don't have more of the tide coming out**

on the road to us or we don't have it coming any at all, because we don't want to walk and watch it...

(A P P L A U S E)

MR. HUGH DARLEY: **I will address that from a layman perspective. The scientist that deals with it can certainly answer the technical part of this question. If you saw these waves' models, actually when I was doing my demonstration, we have actually raised the Pier height three meters above what is called MSL or Means Sea Level. Currently the City of Falmouth, if you are standing in Water Square and you are standing on Upper Parade you are about three (3) meters, you are actually about three point two (3.2) meters roughly higher than sea level. So what we have done is establish a wharf that's about the same height so that it would protect the city as much as possible in a wave event. As you know, we have got history going back a long time.**

We are very fortunate to be on the north coast of Jamaica where waves are also broken by the reef and you would see in that model I showed you with those bars before development and after development and fifty (50) years from now you have a safer condition with the new development than you currently have in the unprotected shoreline.

MR. DESMOND LEVY: **Desmond Levy. Mr. Smith may have answered this question already but on and off of the mike, I didn't hear. The tide in Falmouth moves east to west and west to east; the Pier is right in the center of that, you have the land at the other end, how far from the end of this Pier to the land in the eastern side, what is the circulation like because as I said the tide goes east and west and this is right in it, will it break the movement east, west.**

DR. DAVID SMITH: **It will deflect it to an extent. You**

are talking about the area west of the proposed wharf?

MR. DESMOND LEVY: **East of the wharf because it doesn't show it on your map.**

DR. DAVID SMITH: **The current model shows it. And what we see is as the tide stage raise from rising to falling tide, the inflow, the water flows in south along the north and then comes out on the southern part and exits out back to sea, sort of almost being funneled by the proposed Wharf, that's the pattern that we are seeing.**

MR. DESMOND LEVY: **What happens to the western side? what happens to the western side of the wharf?**

DR. DAVID SMITH: **Our investigations focus primarily on the area east of the wharf because we were interested primarily in looking at impacts on the dinoflagellates. I just want to see more of the slides which may give us an indication to an answer to your question.**

MR. HUGH DARLEY: **Very quickly. If you look at the**

green areas here. The water flow is going to create the same on this counter clockwise motion on the western side as it so does the eastern side. You will notice the location of the wharves in the middle of the opening, there is actually no currents both ways so you should have an even flow in both directions. But they didn't study that side because the luminescence side is not an area that everybody has the most answers on.

MR. DESMOND LEVY: If the reef runs across, so if the flow is not going west and you have low tide, you are likely to have lower water levels on the western sides.

DR. DAVID SMITH: No, it's not going to affect the water levels. The only thing it will affect is the direction of the currents. The water level is not going to change beyond what it is now.

MR. DESMOND LEVY: And you are satisfied that the flow east to west won't be affected?

DR. DAVID SMITH: It will be affected because the wharf

will change the patterns of flow when exiting, when it's leaving Falmouth.

MR. DESMOND LEVY: **And the effect would be what?**

DR. DAVID SMITH: **Well, as I said, unfortunately our brief was not to look at the impact on currents on the western side of wharf, focusing on the dinoflagellates.**

MR. LEON KING: **Good afternoon everybody. I have one question to be directed at the last presenter. You were very careful in indicating that this new development will not affect the luminescence lagoon in any adverse way but it was quick to point out that there are a lot of other problems, a lot of other developments that are taking place that could adversely affect the lagoon.**

Now, my question is, what sort of data is going to be collected to indicate to us in a another couple of years if the lagoon stops illuminating and we lose the tourism product, at the end of day to tell us that it was in fact

not the development that has caused this but the other situations that has so-called caused this.

(A P P L A U S E)

MR. PETER GAYLE: **I think you have to look at other datas, such as the pesticides levels coming down in the river, the nutrient levels brought down by the Martha Brae, the sediment levels coming out of the Martha Brae themselves as indicators of what could happen and how these might as a point source be different from what is coming from further to the west, which is actually would have to go along the distance against the prevailing currents much of the time but the, my point is that there is other data coming out of the Martha Brae which we will be collecting at the same time which should indicate what's going on.**

MR. LEON KING: **Has these datas being collected in recent times to indicate whether increase level of pesticides and all**

that coming down in the river, because we have had this lagoon for a number of years and it has been there illuminating with all of what is happening with the development, what other development that you are now talking about that will affect us in that lagoon?

MR. PETER GAYLE: **Remember for instance you had the activity that is taking place in the vicinity where you put down the two marls loads through the wetlands to the east of Oyster Bay of the Glistening Waters area, the inner corner, and after those two marl roads were put down the bioluminescence took a distinct drop and it was pretty much absent for a many years and it has only in recent years recovered possibly naturally because of the development, increased development of the mangroves in that eastern corner to make up the difference as it it were, in nutrients that they were**

receiving. We do have a history of impact and the point is to be taking as much data as you can, as frequently as you can, within reason to be able to isolate and hopefully focus your attention on what the exact point source could be.

MR. LEON KING: **Well, we would like to make sure that the data is available to us at all times because my concern here, is that you are going to be doing a lot of drilling.**

(A P P L A U S E)

MR. LEON KING: **Will that eliminate your not affecting the lagoon?**

MR. PETER GAYLE: **Just to respond to quickly. As far as I am aware the monitoring calls for data to be submitted to NEPA within two weeks of it being collected. I hope I am not speaking out of term but I think that's the schedule we have for the set of monitoring data.**

RICHARD BURKE: **Richard Burke, Star Fish Resort. Most of the information that was presented**

this evening, especially you know, the tide impacts, everything else speak to before or after and not during, the significant impact of this whole exercise will be during the dredging phase as to how we are going to protect the Bay during that stage etc. Added to that, is during this dredging phase, what will be the impact of access to Falmouth Harbour where the boats that presently operate out of Falmouth, will it impact our ascess into and out of the Bay while the dredging is going on?

MR. HUGH DARLEY: **As it relates to your question, I want to see if James or someone is here from PIHL or from MOTT McDonald or someone else want to address this. I do it from a layman's sense but again, within the restrictions that NEPA puts upon on the project for us to operate and continue to use the road transportation, both water and landside, we are going to minimize any**

of those impacts.

I don't know if there is a PIHL Person here can address the dredging operation itself but we are going to building from the landside out. So, what you see here, is once we start the dredging along the shoreline, that dredge material we will start loading in on the landside and move out to the port, so it shouldn't affect really any transportation coming in and out of the cut on the marine side. You talk about the marine side, coming in and out of the lagoon, yes, I don't think it's going to limit any of that activity though. Does that answer your question?

RICHARD BURKE: **They have to widen the entrance so you will have a deepening.**

MR. HUGH DARLEY: **That's right.**

RICHARD BURKE: **There will be a dredge working there, what is the limitations that are going to occur during that period?**

MR. HUGH DARLEY: **The final dredge cut, James, you want**

to address that?

MR. JAMES: **The existing fisherman village that's currently located on the west of the proposed development is to be relocated. They have a new building now built for them and they will be moving over there imminently. All their boats and equipment will move over there so that will be their new facility and that gives us access now to dredge the work side and develop that area where they used to be. And in terms of dredging there will be dredge in the channel from the end of the peninsula out through the reef to the deep, thousand meters of contour line and the proximity of that doesn't really restrict access in and out of, as I said the Glistening Water area and also because of the relocation of fishing village, shouldn't have an impact on that.**

MISS DIANA McCAULAY: **Good evening everyone, my name is Diana McCaulay. I am from Jamaica**

Environment Trust and I have a quite a few questions. So, I want to start Mr. Darley, I think your name is. You talked a bit about, in the beginning about this change being advantageous to the Heritage aspects, that early affairs with the previous meeting were that the Finger Pier would actually isolate the development from the town and this is an improvement. I am actually really surprised to hear that because I have a letter dated March 16th, 2009, to Mr. Hylton from the Jamaica National Heritage Trust which says the exact opposite and turns down this project. So, would you like to comment on this, sir? I could read it if you like.

MR. HUGH DARLEY: You could read what they say.

MISS DIANA McCAULAY: Would anyone like to hear?

(A P P L A U S E)

MEMBERS OF THE FLOOR: Yes. We would like you to read it.

MISS DIANA McCAULAY: The proposal to create a landmass

with large new buildings at the waterfront of the historic town cannot be supported as the magnitude of the Development in addition to the height of the buildings will overwhelm the historic town and destroy its historic integrity.

The urban and historic relationships that converge to make Falmouth worthy of preservation; the relationship of the monumental or landmark buildings in the town, the square and the waterfront. The scale of the buildings in relation to the town grades and the historical aspects of the town are severely compromised by the location and size of the proposal as it does not appear mindful of these factors and becomes the primary feature of the town where it should be more respectful of the historic district. We reiterate our preference for the developer to return to the original proposal which was revised on

numerous occasions by both the HDRC and the Port Authority of Jamaica. This proposal was agreed to by both parties and to the, and to that extent it was integrated into the fabric of the town and would have acted as a catalyst for the town's growth and development. We believe that the present proposal would effect the opposite and would styming potential restoration as it makes the town an alien territory to the visitor and the visitors' domain similarly alien to the people of Falmouth. 16th of March, 2009.

MR. HUGH DARLEY: I can address on each point. This is from a meeting we had, I believe in February 16, with Jamaica National Heritage Trust, where we actually presented the arguments as discussed in that letter.

Let me address each one of them because there was about four or five different aspects to that.

In the original Design here and you will see, if you can see where this red marker is, this was the original location of the Pier design. Material...

MISS DIANA McCAULAY: **We actually can't see your marker.**

MR. HUGH DARLEY: **Can you see the little pointer here? Okay. The original Pier was in this location, it actually came out at about 45 degree angle and then was here. That required four million (4, 000, 000) cubic tonnes of dredge material, the new design requires less than one-and-a-half million (1,500, 000) tonnes, so we have reduced the dredge. The technical reasons for that was the predetermined fact that we could also protect the environment better if we moved it. The Second part to your question is, they did say in the original Design that we built a Pier to the east and it was out of town, it was not built**

into the fabric of the city. We agreed. They also told us that we could not build a building higher than the courthouse and you cannot use a building scale bigger than the courthouse and that we could not be higher than the Cathedral Tower. We did a drawing after that meeting and after that letter, which illustrates that none of our buildings are of bigger volume than the courthouse and none of them, of course, were higher than the cathedral. They also asked us to make sure that the fabric of the City continued along the streets so we did do that. As you can tell here, there is four City Streets that now extend from Parade Street and I am forgetting this street for a second, where the Fisherman's Village is located, all of these streets now continued in the neighbourhood.

MEMBER OF THE FLOOR: Seaboard Street.

MR. HUGH DARLEY: I am sorry.

MEMBER OF THE FLOOR: Seaboard Street.

MR. HUGH DARLEY: Seaboard Street. So, Seaboard Street that runs currently along here, which is where the Fisherman's Village is and there are some vendors, there are some Vegetable Vendors here. Here is the courthouse. We specifically made sure that the courthouse, standing on the stairs in front of the courthouse, look, there is nothing. We preserved that view. We preserved the historical relevance of the courthouse and hope to have all that green space kept as a park in front of the courthouse. Currently there is a church there which probably doesn't help the aspects of the courthouse. So, what we have done, is to extend all these Streets to make it a part of the fabric of the city. The best thing that a resident can do is to not know the difference between a development and a downtown. We made sure that we incorporated those

streets and are working with the Mayor to actually make these grid streets all the way up to Parade Street. So Falmouth Street will actually stand here, this is Reid Lane, I think Tharpe Lane is in there and there is another street. So, to address the community aspects you can now walk from anywhere in the city into the new development. In the eastern location you could not do that, there were no streets that continued from the existing grid from the Eighteen Thirties (1830's) or from the Seventeen Thirties (1730's) into the development.

MISS DIANA McCAULAY: So, Mr. Darley, what has been the response? I mean, are you saying that since this letters was written there has now been approval by the Jamaica National Heritage Trust?

MR. HUGH DARLEY: We met with NEPA and we have met with the Jamaica National Heritage Trust in that meeting as they are apart of the

NEPA, the Board. We disagreed with your opinion...

MISS DIANA McCAULAY: But for now they have turned it down.

MR. HUGH DARLEY: Well, NEPA hasn't. The Jamaica National Heritage Trust is not happy with the points we took.

MISS DIANA McCAULAY: I am not speaking about NEPA, I am speaking about the Jamaica National Heritage Trust.

MR. HUGH DARLEY: They have approved.

MISS DIANA McCAULAY: I just phoned them and they said they haven't approved it. Just in case something happened between then and now.

MR. HUGH DARLEY: We have addressed all the issues, that's all I can tell you. I know that they are not happy with it from the technical merits of the project. My understanding is that the district interest is in this area of the room that we have, and actually we have several persons here that can address that question better than I can.

MISS DIANA McCAULAY: Is there someone here who can say definitively?

MR. HUGH DARLEY: Is anybody here from Jamaica National Heritage Trust here?

MISS DIANA McCAULAY: I am prepared to move on. I have raised the question...

MR. HUGH DARLEY: Let me say again. We have addressed each question on a technical merit, something that I can't do and something that the Port Authority and NEPA cannot do, you cannot change someone's professional opinion. Their professional opinion varies differently from the other members of board.

MISS DIANA McCAULAY: My second question is for the consultant who did the hydrodynamics study. So, Dr. Smith, you have explained that in order to make sure your model works you have to take actual data and so you make predictions and you go and you put your little machine into the water and then you check the actual data that

you see against the predictions that you made. It seems to me that those, that data that you actually collected was in one site over 45 days, more than one site, two, two sites?

DR. DAVID SMITH: One for thirty (30) days and one for fifteen (15).

MISS DIANA McCAULAY: So, two different sites, one for thirty (30) one for fifteen (15). So, my question to you, don't you need a much longer data site to make conclusions about a model?

DR. DAVID SMITH: Yes.

MISS DIANA McCAULAY: Because you need to cover wet and dry seasons, bad weather?

DR. DAVID SMITH: Yes, and I think that's the reason why one of the things that we did, if you remember the last simulation, which I showed which was the Martha Brae flood events to get a sense because we, so we happen to have been measuring when Hurricane, Tropical Storm Gustav was going by, so we picked up a Martha Brae flood events

and so we were able to get a sense of what the national recovery sytem would be in the Oyster Bay area and so that's the reason we did that simulation towards the end of our work which is to look at response of the model versus the existing system.

MISS DIANA McCAULAY: But ideally, yes?

DR. DAVID SMITH: But ideally, yes. Yes.

MISS DIANA McCAULAY: My third question is for Mr. Gayle, Dr. Gayle. I think it was Mr. Darley who identified run-off on the new Wharf Pier that's going to be built and he showed us a diagram of water drainage and said that the water, this increase run-off would be collected by the drainage system and put in the sea, but Dr. Gayle, isn't that likely to have impact on the marine environment, increased run-off into the inshore marine environment which may or may not affect the dinoflagellates or other marine organisms?

MR. PETER GAYLE: My reflection is that is a run-off from a rain event...

MISS DIANA McCAULAY: Yes.

MR. PETER GAYLE: ...which would be coming out of the town, in any case, in an uncontrolled manner, this is collecting it and putting it to a point and allowing it to settle, any suspended sediments to settle so that you are not having the normal impact of run-off on the coral reefs, for instance where you have a cloud of fresh water including sediments, this will just be fresh water which will be floating on the surface and be waiting for the next day...

MISS DIANA McCAULAY: So it will it be settled on land before discharge?

MR. PETER GAYLE: According to the plans, yes. There are some catchment ponds and settling areas, so that what comes out does not contain high levels of suspended solids.

MISS DIANA McCAULAY: And oil and other things?

MR. PETER GAYLE: Yes.

MISS DIANA McCAULAY: Lastly and this question is for Mr. Hylton. How is this project going to be financed? Is it a loan? Are we going to have to pay it back? What are the interest rates? Over what time period? How are we going to be paying it back and what are the benefits to the people of Jamaica beyond the five hundred (500) permanents jobs that has been brought out in the press? Who is actually paying for this?

MR. NOEL HYLTON: I suggest that you refer that question to the Ministry of Finance. (L A U G H T E R)

MISS DIANA McCAULAY: So, we can't get an answer here today? The public cannot be told what the answer is, Mr. Hylton? Madam Chairman, I think it's a fair question and I think it should be answered by someone.

MRS. AUDREY BARRETT: Is there anyone who care to give further answer to that question? Here

comes Mr. Hylton.

MR. NOEL HYLTON: **What was the question again?**

(L A U G H T E R)

MISS DIANA McCAULAY: **I will speak very slowly. Oaky. How is this project to be financed? Is it a loan or a grant? How long do we have to pay back the money if it is a loan? What is the interest rate? What are the benefits to the people of Jamaica, beyond the five hundred (500) permanent jobs that have been reported in the press?**

MR. NOEL HYLTON: **You go too fast. Let me answer them one by one. First of all, it is financed by Equity and Loan. Next question.**

MISS DIANA McCAULAY: **The interest rate.**

MR. NOEL HYLTON: **The interest rate is about four (4)%. Next question.**

MISS DIANA McCAULAY: **Period of time; how long is the loan?**

MR. NOEL HYLTON: **It is payable over ten (10) to eleven (11) years.**

MISS DIANA McCAULAY: **Sum of the money?**

MR. NOEL HYLTON: It's about, now I am saying about because I am not too sure of the exact figures, about a Hundred and Twenty-one (121,000,000) Million Dollars?

MISS DIANA McCAULAY: U.S.?

MR. NOEL HYLTON: Yes, ma'am.

MISS DIANA McCAULAY: The benefits.

MR. NOEL HYLTON: Well, as far as I know, for the next twenty (20) years shipping lines, we have guaranteed calls from shipping lines for the next 20 years into Falmouth, taking, we estimate an average of about Eight Thousand (8,000) minimum passengers per year.

MR. HUGH DARLEY: Eight Hundred Thousand (800,000) passengers per year through the Port.

MR. NOEL HYLTON: Minimum.

MR. MIKE SHORTS: Yes, Mike Shorts. So, much depends on the model, hydrodynamic model and the threats to the dinoflagellates. First question. You put up three scenarios, with sediments with normal conditions, with the windy period and

with the ships. How did you calibrate the sediment model?

GRAHAM JARVIS: **Okay. The sediment model, right, because we have no data, there is no data collection for sediment load. We made an assumption for suspended, assumed load under existing conditions then we apply the same load condition to the proposed and with vessels option to see if there will be any difference, to be truthful there is no data, there is no suspended load data coming out of Martha Brae. It was basically an assumption after we calibrated the model for hydrodynamic assume sediment load.**

DR. DAVID SMITH: **I just wanted to add something to what Graham said but it's an informed assumption. You said we collected sediment samples. We had an idea of what the sediment composition was and we had an idea what the river flow information could be from the Water Resource Agencies. So there are bed**

and suspended sediments, they are there formally for very many decades, it's quite reliable and gives one a sense of what the suspended sediment could be.

GRAHAM JARVIS: **Key point. It really gives you a relative indication of the performance of the impact rather of proposed structures on water columns that are based on the existing case and then a difference.**

MR. MIKE SHORTS: **For the dinoflagellates, critical conditions for them are the fact that the water in the Bay is stratified and it has different currents, it has east to west current, resulting from the flow of the river as a tidal flow west to east or whichever way it is though, and it has a surface flow due to the wind and that's during the day. Now the wind data that you suggested you used came from Montego Bay; is that correct?**

DR. DAVID SMITH: **No.**

MR. MIKE SHORTS: Local knowledge, wind on the east just outside of the Harbour varies enormously within a hundred meters. My limited experience with wind-surfing, sometimes I am overpowered and sometimes I am underpowered, have to sail it so that I know that wind varies. Even locally I am quite sure it varies substantially from Montego Bay.

DR. DAVID SMITH: It probably does.

MR. MIKE SHORTS: With local variations you find so but is the local wind pattern which affects surface flow, essentially is a component for retaining dinoflagellates in the eastern end of the harbour.

DR. DAVID SMITH: I think that the primary system, river runs, flow and the tides, what we see in the river actual existing, going to the east and bending out of the west before it exits the Harbour, no profound impact on what we see now, the way that the system works.

MR. MIKE SHORTS: That is my point. I believe that your model may reflect what the river is doing. I suggest it does not reflect any of the surface flow.

GRAHAM JARVIS: I can show you that it does.

MR. HUGH DARLEY: I was going to offer, we have some technical data if you would like to, right after this meeting, there is a lot of scientific data.

GRAHAM JARVIS: That -- I can explain that to you in more detail.

MR. LEON KING: I would like to know, is the work on Pier is going to go along with the work on the reef and the dredging, naturally the dredging will build the base for Pier, if I am correct.

MR. HUGH DARLEY: Correct. What we will do is, we will start the dredging and plan stage by stage. James again, we will begin the dredging process along the foreshore and we will work out our way towards the reef cut. The last thing we will do is once the reef or the wharf is put in place then we will make the

reef, cut. So, we will work our way from the shore out to the cut and once the wharf is put in place then we will make the cut at the end.

MR. LEON KING: Have any computer models been done of the currents that will be affected during the time that the wharf is being built?

MR. HUGH DARLEY: What you saw in the earlier slides is the existing condition and the new condition, you can have play during that time, that's going to be modified between two, those two points, during the process and then after.

MR. LEON KING: Okay.

MR. HUGH DARLEY: There is no dramatic difference during and after the process.

MR. LEON KING: I didn't see any models showing what would happen during a norther.

MR. HUGH DARLEY: We didn't do, they did a holistic model, they didn't do one in phases as the construction have been going.

DR. DAVID SMITH: We didn't look at waves. I mean when you are talking about norther, you are

talking about northerly waves coming in?

MR. LEON KING: **That's correct. Yes, it happens any time between November and March, which is during the construction period. I want -- so there are no models of what would occur during that period, no?**

GRAHAM JARVIS: **We didn't do it but we can do it.**

MR. HUGH DARLEY: **But not for a period of time, no.**

MR. MIKE SHORTS: **But that's the time when most of the construction period is going on?**

MR. HUGH DARLEY: **Well, what I would assume that since the contractor is in place, he is to mitigate any damage or mitigation that we will need to, he is certainly not going to expose himself to any lawsuits so I would assume that it's going to be a conservative approach while we are doing the dredging. We certainly aren't going to create an adverse condition because we have a timeframe.**

MR. MIKE SHORTS: **I think the major concern is with the flagellates.**

MR. HUGH DARLEY: Well, I would just suggest anyone in the technical round, anyone who wants to go to the site should just come up here and look at two years worth of studies, we have studied it to death, it's just a sort of term, but we have pretty much studied it to death, we can show it to you after the meeting. Anyone who wants to stay we can go over it.

MISS MARY DOHEARTY: My name is Mary Dohearty. What I would like to know, is when this work is going to start?

(A P P L A U S E)

(L A U G H T E R)

MR. HUGH DIXON: I would suggest that that answer be given immediately after the next couple of questions. But I have a question for you Peter. My name is Hugh Dixon from Southern Trelawny Environmental Agency. With respect to the dinoflagellates, you spoke to chemical flow as one of the potential causes that could interfere with them

because you didn't found anything at the moment but I haven't heard, you haven't spoken to the fact that you are cutting into the reef and you are going to have deep water intrusion into the Bay, have you addressed that as a factor?

MR. PETER GAYLE: **I did say that simulation done and the modelling spoke to that issue, and if I am correct, there was no real significant difference in what was coming in despite the fact that the reef was deeper.**

MR. HUGH DIXON: **Okay. let me move to the economic. In the period of construction, there is likely to be -- well, there is going to be an influx of labour if you had not decided to utilize local labour. Two-fold, is your labour going to be so sourced locally and if your labour is going to be sourced from outside, what provisions have you made for housing and accommodation to ensure that a secondary level of**

environmental impact is not affecting the ecology of the local Falmouth area?

MR. HUGH DARLEY: **I will speak again from a layman's sense. Certainly, there are better agencies to answer those specific questions but currently the plan is that NEPA will establish some guidelines and the YPC has been identified as the general contractor in Kingston, who is assisting the project in defining labour sources, equipment sources, sub-contactor sources, the Minister from here, Mr. Meadow is responsible locally as well as Dr. Harris as identifying the local resources and I will speak to the long-term operations of the port. We are a corporate community as Mr. Hylton says for at least twenty (20) years our responsibility is here socially and we are actually the foundation of everything you see presented today. Our goal is to make**

this a Trelawny project to benefit primarily the people of Trelawny but it will have an over-reaching effect for all of Jamaica.

The idea currently, is that PIHL the general contactor will be identifying who those construction sub-contractors are and as those people are brought to there, there are already some housing that is being developed in the area and I assuming at the local level that I will have to defer to Dr. Harris and the Minister regarding the exact conditions of those situations.

MR. HUGH DIXON: **Last question. The -- Mr. Hylton spoke to 20 years of commitment to the cruise lines coming into Falmouth and I suppose that is based on your projection of bookings by tourists to your cruise line but my concern is, that gives a business projection as to how feasible the proposal for the port is but we are currently in a recession and we don't know if another one is**

likely to happen within that period. Does the contract for cruise ship arrivals, do you have any sort of mitigating measures in the event that you chose midway not to operate this port as a reference point for arrivals, what would be the likely impact to the outstanding loan, interest payments, projected feasibility on the project?

MR. HUGH DARLEY: **I wish I knew the answer to that question. I also wish you had an answer in there somewhere. Certainly the economic conditions are global. They certainly have effects on tourism. Jamaica is very fortunate, as you have seen in the press, your arrivals and your span and your arrivals are much higher than much of those places in the Caribbean and you have great airlift service. So speaking to the landside of your business, of course, the cruise business, Jamaica as long ago by its**

name, as you know is a highly sought destination. Right now we got all the users and Mr. Hylton has referred to one specific cruise line but all of the cruise lines, they are currently looking to come into Falmouth. There are numerous, there are more than five. I don't think any of them have any plans, other than to see a change in the economics greatly downward. Jamaica seems to be on everybody's mind as long as the passengers want to come here they are going to continue to come. One of the ideas is that Falmouth is a new type of development. It's a kind of village and developing a village where guests come and really adds value to their landside visit. You are not getting off on an old Sugar Pier, you are not getting of on an old Gravel Pier, you are not getting off in a remote part of town, you are getting off in one of the four hundred-year-old (400) city. It's one

of the capital cities of the Caribbean. So, the story that we plan to tell, we think will actually help to entice people to take that trip. For those of you unaware, when you pick a destination you are looking at an itinerary that can take you anywhere in the Caribbean. One of the greatest destinations in that itinerary, in the western itinerary is Jamaica. So the continued calls here should continue and I don't see it really diminishing.

MR. HUGH DIXON: And quickly and lastly, what are you doing or is there any plans to encourage the local population to gear themselves for the changing circumstances that will take place?

MR. HUGH DARLEY: I meet with this gentleman here to my left every two weeks. One of our big agendas right now is as we begin this process of construction in the next couple of weeks, we will actually be working hand-in-hand with the

Minister, Doctor Harris and the Mayor and making sure we put in place working, but there is numerous Government Agencies that have already come forward and offered to help us train, recruit and develop a tourism-based economy for Falmouth. So, I think again, we are here to stay, this is not a construction effort where we are going to disappear. We are here to actually own and operate and run this port, working with the City of Trelawny or the Parish of Trelawny in the City of Falmouth. So, we are part of you, we are your community. We want to make sure that as much opportunity is given to the local population as quick as possible.

MEMBER OF THE FLOOR: Thank you. Madam Chair, our Technical Panel, Mr. Hylton, Contractors from PIHL, as you can see, the turnout for this town meeting, I don't think you have seen it anywhere

else from NEPA and that speaks to the enthusiasm, the anticipation that the people of Falmouth awaits this particular project. Now, there are concerns, yes, but there is a lot of anticipation, want to say to you as well that we did a study on the Martha Brae River Estuary Project and Mr. Smith would have been aware of that, and that was like twelve (12) thirteen (13) years ago which spoke to the biodiversity in the area and we spoke to the dinoflagellates at that time and what would impact on them, and just to be technically sound, what we found at that time was that the greatest impact on them was the clearing of the mangrove east of the Glistening Waters, one east, and two, the land filling with marl in that eastern section, those were the two most dramatic impacts on that area and that is why when the Oyster Bay Project was supposed to go up we were

very strong in saying to NEPA and the developers that they should not landfill more than ten (10)% of the area. They should not use high-rise buildings and the land filling should be with river shingle or shale material and not marl. So the Oyster Bay area we have pretty much taken care of. What some of the technical people will not remember as well, is that there is a flow of water in between the Martha Brae and the eastern section of Glistening Water as well, that puts in a fresh water stream into it and some people believe that that may be that little ingredient that makes that area different, because you get fresh water directly into that bay and that may be one of the reasons why you have that kind of mix. Inside of that area. So, this area we have been studying for a long time and we anticipate this project.

Now, I want to say that the wharf is our conceptualization and we want this particular project but the question that I want to ask is, one, we also need to have our stories told from our perspective. We want Tharpe Museum, yes, but we also want a music museum. We also would like to see the William Knibb Museum put up. We also want to see the Postal Museum put up and we also would like to see a Slavery Museum put up.

Now, it might not be in your competence today to speak of all three and I am not referring to the technical people because from where I sit I can tell you more information as to what is going on and who should be doing what, but that is where the direction must go. Also, I would also want to ask the new Design, the new Design, how will that affect the designate, because people in Falmouth want to be designated one of the

World's 100 Heritage Sites. We want that designation. Now, the question is, how will this new Design affect that designation?

MR. HUGH DARLEY: From the technical aspects of the historic district. We are currently developing adjacent to the historic district. We have been very careful to protect those buildings you saw in that slide I showed to you. The existing historical buildings, is Tharpe House, Foundry Yard, what would be the four court there, that would include the Rum Tour, are apart of the historic district. All of the new land, of course, is in the historic district because it's currently in the water. So we are building a neighborhood adjacent to the historic district. From the technical aspects of creating historic district, we believe our project is enhancing the ability by protecting the foreshore. We are raising the elevation to help

protect from these wave events which several people have raised. So we are actually as you see, adding land to the north-side of the foreshore, so it's protecting the existing architectural Heritage of the Courthouse, Tharpe House, Foundry Yard. The existing warehouse building and this is Hampden have remained unchanged at this time. So, to answer your question, we don't adversely in any way affect the historic district or the future opportunity to list the site as a historic site for World Heritage.

MEMBER OF THE FLOOR: Last question that I would want to ask, Mr. Darley, you showed us a small building and said that building may in the future be providing a home for home porting, I was wondering how big a vessel or how far in the future will that homeport facility, because in our own minds we want the Port but the homeport designation as well,

maybe you could explain it to the residence here, but maybe from where I sit, we would want the homeport designation for as many vessels as possible because that is where we see ourselves taking real advantage of this facility.

MR. HUGH DARLEY: **Sure. Home porting provides a couple of things. It means guests arriving to the area by land, they may spend a night, two nights, they get board the vessel and they return. All these will be pocket ships. These will be small ships. The facilities are required to load two thousand (2,000) plus vessels or greater than this. So, what these would be, these would be your pocket ships and your boutique ships, usually under nine hundred (900) passengers. So that's the size of the vessel that we have already received calls for people wanting to homeport for on unique destinations in the smaller ports.**

GLADSTONE KNIGHT: Good afternoon. My name is Gladstone Knight. A resident of Trelawny. My question is, I would like to be on a Euro-cruise ship, you know for a cruise.

(L A U G H T E R)

GLADSTON KNIGHT: Is it possible or is it going to be possible to join your ship right here in Falmouth or we have to fly to San Juan or Miami or some place in America and then join the ship? What is it? What is the plans?

MR. HUGH DARLEY: I am going to look...

(A P P L A U S E)

MR. HUGH DARLEY: There are opportunities on certain cruises, on certain cruise lines to join cruises at any time. As in home porting the smaller ships leave from here. The larger ships, because of some security requirements, for boarding and disembarking, those aren't possible but there are will be opportunities and certainly working with the cruise lines you will be able

to look for opportunities on which ships and which itineraries allow you to make that transition. Currently we have employees who don't fly who actually come to Jamaica and get off the ship, work their six weeks and go home. So, yes, it is possible to get on a ship in Jamaica and travel. It will be dependent on the itinerary and the cruise line, but I am sure they are going to make that an opportunity for people from Jamaica.

MR. DELROY ORMSBY: Delroy Omsby. Not a technical question but something which impacts on all this security. I don't know how many people are going to be up on the port when two ships come in and the size of ships. You see, we had the police station which started from World Cup Cricket and is not yet finished. We are going to need more personnel, more equipment, etc, is it the plan in the concurrent activity to ensure that when December comes 2010

security arrangements are in place?

(A P P L A U S E)

MR. NOEL HYLTON: **Let me just answer your question in respect of security. The question of security is an International matter and after 9-11 the United Nations passed a Resolution setting out the kind of security and the terms under which security must operate in all Ports in the world, whether it is a Cargo Port or a cruise ship Terminal, if those security measures are not put in place. Ships will not be allowed to operate out of those Ports, so, therefore, it is mandated that we put in place a security system that is in accordance with the Regulations of the United Nations and that will happen in Falmouth.**

(A P P L A U S E)

MR. CHRISTIE: **Yes, sir, I am Mr. Christie from Trelawny Fisherman Association. Our concern is in the dredging where we had seen that after the dredging and**

the disturbance of the reef most of the fish will be migrating to deeper waters and all the vessels that we have presently is not big enough to take the deeper waters, so we are saying that if you are going to assist us to get a larger vessel, like a hundred (100) footer...

(L A U G H T E R)

...in order to, sir, we won't able to supply our Market plus the new market with the tourism with the inadequate boats to catch the fish while the fish are migrating into deeper waters, so it need larger vessels, which we think, Mr. Hylton and probably and you might be able to help us to acquire. Well, to help the community and Jamaica.

(L A U G H T E R)

MR. DENNIS SEIVEWRIGHT: Dennis Seivewright, I heard in your presentation, you spoke proudly of the accommodating of the small businesses in Trelawny and that

Trelawny people should be present inside of the commercial district in your shops, particularly the markets and inside the wharf. Is there a consideration on a body or a strategy in place to see how we make it affordable to our locals? Two, rental space? We know that the cruise line want to recover their money in quick order but at the same time we are just starters here and our business people are mainly small businesses, especially for the marketing area and the craft. I ask that if not yet someone look at the cost structure for affordability because it would be sad if we have such a large investment without the inclusion for local people making money out of the Pier. So, I ask, it is a question and a suggestion at the same time.

MR. HUGH DARLEY: Again I will defer that back to our earlier, we are working with the

Mayor. We meet every two weeks to talk about these types of issues. The Port Authority and Royal Caribbean have made a combination for facilities out on the wharf that are at different costs levels. We hope that local community, also local the banks and local investors and locals will help to participate, the small vendors, but as in the economic situation of any reality, we are going to make it as economic feasible as possible but there are certainly not going to be say without give away space. So, we will work with the local community to provide tiers of entry, for example we have forty (40) stalls that are very low in entrant price and then that price have not determined yet. That will allow people to come in, if they are successful they can move up to ten by ten 10x10 Kiosk, if they are successful then they can move to 20 by 20 kiosk, they can then move into a

building square footage, so the ability we have actually created a staged entry level so there could be a lot of early entry people, very local, very small amounts of money that could move into the port.

MR. DENNIS SEIVEWRIGHT: **With the high level of expectations for involvement for small business in Falmouth and Trelawny we would want to ask for disclosure and close communication with the people so that based on the levels of expectations you don't have chaos when we begin, so, I would implore you to see to it that communication flows at a steady pace and people are aware of what is happening in terms of space so they can make up their minds as to whether they can afford it or not without being surprised.**

MR. HUGH DARLEY: **We are actually working with the Mayor right now because if you look at Number One Trelawny Street, you will not be familiar with, Number One**

Trelawny is the small Georgian building that sits right on the Baptist Manse, that will be our Information Center, we plan to have the model which is down in the back of the room and all of the renderings will be in that information center. The Mayor is working with us to staff there. It will be staffed from sometime in the morning, say 9:00 o'clock in the morning 'till 3:00 in the afternoon. There will be an information person in there that will have information regarding the future development. There will be a newsletter, it will be distributed by the Parish Council, so we will try to keep everybody informed as we move forward from here tonight. We will be putting out those newsletters every six to eight weeks and that will give you information about where to go to source the jobs, training, what business opportunities exist, as soon

as the retail rates are published, all that information will be given out to the public. And again, we are part of your community so we want you to participate. By the way, my forms are already in for you to be a Member of the Chamber of Commerce.

MR. PAUL GLENHORNE: Okay my name is Paul Glenhorne and I am from Falmouth right here and I have a question. Suppose someone has the capability and the funds who want to be a part of your establishment, who will be the contact person that that individual would need to contact?

MR. HUGH DARLEY: Actually there are several ads running currently in the Gleaner, I think in the Observer, those ads are running that gives a contact information in Miami. If you need a copy of that just see Lucy, up her who works with me, up here at the front. She will make you get a copy and a phone number and contact information, but there is leasing information and

those ads have been running the last couple of weeks in the papers here in Jamaica.

MRS. AUDREY BARRETTE: Thank you very much ladies and gentlemen. You -- we have listened to the presentations and we have asked our question, questions based on the presentations. Questions borne out of our own deeper thoughts and concerns for the project. We have had our questions answered and we have shared our ideas, our comments. I trust that you are satisfied but there is some, there is allowance, there is provision for continued dialogue because I am sure that there are those among us who still have thoughts rolling over in their minds, there are those among us who might not have had the chance to ask their questions, air their concerns and so provisions have been made, you may contact anyone of our experts here at any time to have your questions and concerns dealt with.

Of course, I am sure you will do so in an understanding or an appreciation of the fact that in any Development there is going to be an extent or some extent to which we give a little, take a little, and in that context we will continue to be critical and to push for answers.

We have exhausted our programme, having gone through all of those and so we have come to the end. I trust that persons feel even more apart of the whole Development and that you will feel free to continue to make your impact, your contribution, on all that is happening for Falmouth, for our nation.

It has been my pleasure, ladies and gentlemen. My name is Audrey Barrett and it was good to serve in this capacity. I must, I am just being informed by Mr. Darley that there is a two-week period for over which concerns, questions, must be

submitted, to the Office, Mr. Darley, to the Port Authority of Jamaica and NEPA. I must say thanks on behalf of all of us. Two weeks starting today, to NEPA, not to the Port Authority. The responses must go to NEPA not the Port Authority. Thanks Mr. Peter Knight and his team from NEPA, Mr. Noel Hylton and the Port Authority of Jamaica, to our Experts Mr. Hugh Darley, Dr. David Smith and Mr. Jarvis, Mr. Peter Gayle. Thanks to our very efficient reporter, Miss Rebecca Broderick, and of course, to our Facilitator, Mrs. Fay Pickersgill. Thanks to you ladies and gentlemen for having come and shared your thoughts, your concerns, your ideas, asked your questions. They, of course, will be among the many instruments that guide further Development, further thoughts on the project.

(A P P L A U S E)

MRS. AUDREY BARRETT: It was great serving.

(T E R M I N A T I O N)

Point to go along, along with the work on the reef and the dredging, naturally the dredging will build the base for the pier, if I am correct.

MR. HUGH DARLEY: Correct. What we will do is, we will start the dredging and plan stage by stage. We will begin the dredging process along foreshore and we will work our way towards the reef cut. The last thing we will do, is once the reef or the wharf is put in place then we will make the reef cut. So we will work our way from the shore out to the cut and once the wharf is put in place then we will make the cut at the end.

MR. NOEL HYLTON: Have any computer models been done of the currents that will be affected during the time that the wharf is being built?

MR. HUGH DARLEY: What you saw on the earlier slides was the existing condition and then the new condition, you can have play that during time that that's going to be modified between those two points.

MR. NOEL HYLTON: Okay.

MR. HUGH DARLEY: So, it's not dramatically different during the process and then after.

MR. NOEL HYLTON: Yes. I didn't see any models showing

what would happen during a norther.

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DR. DAVID SMITH: We didn't look at winds. I mean, when you speak about norther you speak about northerly waves coming in?

MEMBER OF THE FLOOR: That's correct, it happens anytime between November and March.

DR. DAVID SMITH: Well, we didn't look at winds.

MEMBER OF THE FLOOR: Which is during the construction period. So, there is no models of what will occur during that period?

DR. DAVID SMITH: No. We could have do it but we didn't.

MEMBER OF THE FLOOR: No models have been done?

MR. HUGH DARLEY: Not for that period of time though.

MEMBER OF THE FLOOR: But that's the time when most of the construction is going to be going on; isn't it?

MR. HUGH DARLEY: Well, I would assume that since the contractor is in place, he is to mitigate any damage or any mitigation that we will need to, he is certainly

not going to expose himself to any lawsuits. So obviously it's going to be a concern and we approach dredging we certainly aren't going to create an adverse condition because we have time.

MEMBER OF THE FLOOR: I think the major concern is with the flagellates.

MR. HUGH DARLEY: I suggest