

**VERBATIM NOTES
THE PUBLIC PRESENTATION
ON THE FINDINGS OF THE
ENVIRONMENTAL IMPACT
ASSESSMENT
FOR THE NORTH SOUTH LINK
SECTION 2A – CAYMANAS TO
LINSTAD WEDNESDAY,
OCTOBER 10, 2012**



Taking Care of You and Your Environment.



**VERBATIM NOTES OF THE PUBLIC PRESENTATION ON THE
FINIDINGS OF THE ENVIRONMETAL IMPACT ASSESSMENT FOR THE
NORTH SOUTH LINK SECTION 2A - CAYMANAS TO LINSTEAD
HELD AT THE JAMAICA 4-H BUILDING IN THE PARISH OF ST.
CATHERINE ON WEDNESDAY, OCTOBER 10, 2012 COMMENCING AT
5:35 PM.**

PRESENT WERE

Mr. Lloyd Lewis - Chairman

Mr. I. Anderson

Mr. C. Campbell

Mr. S. Panton

Mr. R. Deng

Mr. E. Mortley

Mr. R. Brito

Mr. G. Rose

PARTICIPANTS:

Ms. S. DaCosta

Mr. S. Rose

Mr. H. Ellis

Mr. B. McKenzie

Mr. R. Ferguson

Mrs. H. Page

Mr. C. Hilton

Mr. B. Perry

Mr. E. Headley

Mr. H. Dares

Mr. N. Harvey

Mr. A. Hemmings

Mr. S. Gilmore

AND OTHER INVITED GUESTS/COMMUNITY MEMBERS

Chairman: Good afternoon everyone; apologies for the slight delay in starting. We are not planning to execute the project in this way, in Jamaican time or anything like that; it will be done properly and on time.

So welcome to you all. You are here for the public presentation on the findings of the EIA for the proposed Highway 200 North/South Link.

This Highway will run from Caymanas to Linstead, so that is what we are here to share with you.

What is an EIA? An Environmental Impact Assessment basically is an assessment of the possible impact whether negative or positive that a proposed project may have on the environment. And although we speak about the environment, it does not only include the environment, but the social and economic aspect to be considered in the evaluation. The International Association for Impact Assessment defines an EIA as the process of

Chairman: identifying, predicting, evaluating and mitigating the biophysical and social and other relevant aspects or effects of development proposals prior to major decisions being taken and commitments made; so this is why we are here.

So welcome and I will ask Mr. Hilton to start us off in prayer. Mr. Hilton is from the Deeside community around here.

(Mr. Hilton prayed)

Thank you Mr. Hilton. I will do some introductions now. We have at the head table Mr. Ivan Anderson who is the managing Director for NROCC, who is the developer of the project and the proposer. Beside him we have Mr. Carlton Campbell who is the Managing Director Of CL Environmental Company Limited. And in the audience over there we have Mr. Steven Panton from NEPA. This project really falls under the auspices of NEPA, NEPA being the government agency I will tell you a little bit more about NEPA. And we have Mr. Mortley from NROCC he is the

Chairman: Environmental Manager at NROCC. And we have a contingent from the Chinese Harbour Engineering Company Limited; I think the abbreviation for it is CHEC. And Roy will come up and introduce, I am not too good at Chinese, so Roy will come up and introduce the members of his contingent.

Mr. Deng: Thank you Chairman, good evening to everybody. We will just introduce our members. To the very front is our Deputy General Manager, Mr. Yang Qiwu and next beside him is our Deputy Manager of the Engineering Department Mr. Du Xiegui, and the person behind Mr. Qiwu is our Chief Design Engineer, Mr. Cha Minggao and the lady in front is our Environmental Engineer, she is Ms. Nadine Tarawali and Cha right behind Nadine and Mr. Wang behind Mr. Du and another Mr. Wang all three of them are the design to the project and Mr. Deng Xigui and he is the representative of the company here.

Chairman: Thank you Roy, now you understand why I did not do the introduction of the Chinese.

So as I said before, we are here to speak about the environmental impact of the Caymanas to Linstead leg of the Highway 2000 Project.

Now the EIA is rather a decision aided rather than a decision making tool, but it is an integral part of project planning, a very integral part. But we have to ensure that whatever we do; is compatible with what we want in the environment. And that is where the rule of NEPA comes in.

NEPA's mission as I understand it is to promote sustainable development by ensuring protection of the environment and orderly development in Jamaica. So this project has to have the approval of NEPA. And part of their mandate or the way how they operate is to have extensive participation among citizens and a high level of compliance to relevant legislation. So that is why NEPA is here.

Chairman: China Harbour, I heard it announced on the news media yesterday has full and total responsibility for this project from

Caymanas to Ochi Rios as I understand it. But there are others who are more knowledgeable about these things than myself, so I now invite Mr. Steven Panton to bring a statement from NEPA.

Mr. Panton:

Good evening ladies and gentlemen. What I am going to do is to read an official statement from the National Environmental and Planning Agency as it relates to the proceedings that we are about to convey.

"On the 27th of April, 2012 the National Environmental and Planning Agency received an application from the National Road Operating and Constructing Company for an environmental permit for the proposed highway from Caymanas to Linstead in the Parish of St Catherine.

The information submitted in support of the application is reviewed and a decision arrived at that an Environmental Impact

Mr. Panton:

Assessment would be required for the project.

The job terms of reference for the EIA was submitted and reviewed internally and also by external stakeholders.

The TOR was approved in letter dated 7th of August 2012, and the applicant was advised to proceed with preparation of the Environmental Impact Assessment which will be presented later.

The EIA was submitted to NEPA on the 10th of September and circulated internally and externally. The agency is currently awaiting these comments which, when received, will be reviewed collated and communicated to the applicant for the necessary actions to be taken.

This public presentation has been mandated by the agency and it is being mandated by the applicant in accordance with the terms outlined in the document entitled;

Mr. Panton: *'guidelines for conducting public presentations'.*

Please note that consolation is an integral part of the review process conducted by the agency and that based on the issues raised or comments submitted by the relevant stakeholders, which is yourself, the applicant may be required to provide clarification and/or additional information in the form of an addendum.

It is very important that all participants are aware that the agency is represented at this meeting to only observe the proceedings and to hear the issues being raised. The agency will not participate by answering any questions at this time.

Please bear in mind that no final decision has been made on the application.

We wish to remind you that with respect to the public presentation for the EIA is as follows: - A copy of the verbatim minutes of the public presentation is submitted to the agency by the applicant within seven days of the public presentation and the public is allowed thirty days after the date of this

Mr. Panton:

public presentation to provide written comments to the agency. Upon receipt of comments they are collated and sent to the applicant for responses to be provided. Once responses are received a submission is prepared to facilities deliberations on the technical merits of the project in advance of the recommendations being made in the Natural Resources Conversation Authority, NRCA, for a decision to be made. Please note carefully that final decisions and application is the sole responsibility of the NRCA. So please also bear in mind that the EIA's document is available for access by the public at the following locations; at NEPA office at the documentation centre, it is also on NEPA website which is www.nepa.gov.jm the St. Catherine Parish Library, the St. Catherine Parish Council Office, Angel's Primary School, Bog Walk Branch Library, Linstead Parish Library and at National Road Constructing Company website which is www.h2kjamaica.com and it is also available at the CL Environmental

Mr. Panton:

website at www.clenvironmental.com thank you".

Chairman: Thank you, Mr. Panton. He is repeating that this is a very important process we are going through here, where your participation is expected and your comments will be recognized and will form a part of the decision making process. So this is a very serious exercise we are undertaking, and a very important one, which is not only mandated by Jamaican law, but also is a requirement, I think, Principle 17 of the United Nations Charter with respect to environment I a very important exercise that we are going through here.

Mr. Panton outlined to you NEPA's role here which is to monitor, listen but not participate in the rule because they are really the government body which is listening too and will assist the feedback

Chairman: that will come from this public presentation.

Our next item is greetings from Mr. Anderson who is the CEO of the National Road Operation and Construction Company. Mr. Anderson.

Mr. Anderson: Thank you, Mr. Chairman.

Carlton, members of the head table ladies and gentlemen good evening.

This is a very important time, I think, in the country's history. The issue of dealing with the Gorge, the flooding of the Gorge, the issues of dealing with Mount Rosser, the issue of dealing with Fern Gully has been something that the country has grappled with since about 1968. The first studies of how we can get around the Gorge, how we can get around Mount Rosser were done way back in the 60s. Since then there has been about five different studies over the period as to the various options as so to how we can get around Fern Gully, how we can get around

Mr. Anderson: Mount Rosser and how we can get around the Gorge.

This opportune as well because of what we know about the Gorge, what happens when the Gorge floods, what happens even when under normal circumstances, as we saw what happened last week with the truck/trailer going over into the river.

So today we take another step towards getting rid of those dangerous routes along the section from Spanish Town going through Ocho Rios.

Our discussions with China Harbour began about two years ago, since then we have come through a number of different iterations of the project. Earlier this year we signed a concession agreement for the development of this road. And unlike our exiting Highway 2000 project from Kingston to May Pen this project will be fully financed by CHEC in a combination of loans which CHEC will obtain, and equity which CHEC will provide.

Mr. Anderson:

So unlike our existing project like Mandela all the way down to May Pen, the Government of Jamaica will provide no funding for the project. The Government of Jamaica will

provide no equity in the project, the Government of Jamaica will provide no guarantee to the project. So this is a fully private sector project being developed by CHEC under a concession designed to, build, operate and finance and hand back to the Government of Jamaica at the end of the concession period which is about fifty (50) years free of cost to the Government of Jamaica.

So as Mr. Lewis outlined and as NEPA has outlined, before we can start we have to have a permit issued by NEPA. And what has happened is, Carlton is going to go into a little bit more detail. We have done an Environmental Impact Assessment of the alignment and we will have the result, which have been posted on the various website. And today we start the public meetings to get

Mr. Anderson: the public's feedback as to the impact and how they can be mitigated.

What I would like to do is to show you the alignment spend about five minutes and get you familiar with the alignment, and then

Carlton will go into more detail as to the impact at this level.

So for those of you who know Kingston, Mandela Highway, picture yourself coming down Mandela Highway.

So just think of yourself going down Mandela Highway, going down Six Miles, going down Mandela going towards Spanish Town - everybody with me?

Participants: Yes.

Mr. Anderson: Right, so we are coming up to Ferry Police Station and this is where the highway actually starts; it starts at Ferry Police Station just at western pipe. So we turn right going through the Caymanas lands - going too fast or everybody with me?

Participants: Yes.

Mr. Anderson: Going too fast?

Participants: No.

Mr. Anderson: Alright, so we are going through Caymanas, we are at the back of Caymanas now, going up onto the hills this is Caymanas Golf Course,

so we are behind Caymanas Golf Course, running behind the Caymanas Golf Course and then we are going over Sligoville Road. So for the rest of you who know Spanish Town this is Keystone, St Jago Heights and Sligoville Road going up to Sligoville, everybody with me?

Participants: Yes.

Mr. Anderson: Right, we are running parallel to the river now this is the Rio Cobre River Spanish Town, Angels over here and we are running parallel to the river. (Let me just stop and show you) So here we have Angels. Everybody with me?

Participants: Yes.

Mr. Anderson: That round-a-bout that you passed at Angels before you get up to the Dam Head, you know

Mr. Anderson: when you get up to Spanish Town before you come to that round-a-bout, that is the round-a-bout right here. So the highway is coming up on the eastern side of the Rio Cobre River, the Dam Head is just over here. (Indicating) Everybody with me?

Participants: Yes.

Mr. Anderson: So here we are on the eastern side of the river, and in fact, here we come to our first interchange, which is the connection to Angles. So just above Dam Head we are going across the river to the western side of the river. So we are coming down the eastern side of the river, coming up to that interchange by Angels, coming up to Dam Head, right at Dam Head we go across the river, following me, so we are now going up on the other side of the Gorge now the western side of the Gorge now so we have the road down in the Gorge, we have Flat Bridge down at the bottom, the train line coming up to Kent Village on the right hand side and

Mr. Anderson: we are now on top of the hill above the train line. Everybody with me?

Participants: Yes.

Mr. Anderson: We are going north. So the train line is down here we are going through the tunnel the road through the Gorge and we are coming up to Giblatore on top of the hill. Just

above Gibratore we start going down the hill and go through the round-a-bout. This is the round-a-bout at Bog Walk Condensery, and we gone around the corner around this side now, round by Cranberry Farm, Tulloch Farm by True Juice, around that side, everybody understand around that side now.

Alright so we are coming down off the hill, wrapping around the hillside coming down gently then we begin to come through the cane land around the back. So we are now west of Bog Walk coming up to Linstead now, we are just coming up to the main road, the old main road from Bog Walk to Linstead. And we are going to cross over the existing Bog Walk/Linstead main road right by the Church,

Mr. Anderson: right by Customs Azan church. Everybody know where I am?

Participants: Yes.

Mr. Anderson: This is the church right here there is a little hardware store right here, and we come right between here to get back to the

Linstead Bypass. So we don't trouble the church...

Mr. Ellis: So what about the hardware?

Mr. Anderson: The hardware may get affected. But we come up to the round-a-bout now, this is the existing round-a-bout, this is a few years ago before we finish it, everybody know where we are?

Participants: Yes.

Mr. Anderson: So we are now right in this building right here now. So the highway comes up very close to the intersection so we are in this building and the highway is coming up here now and it ties into the existing Mount Rosser right at this turn. Everybody with me?

Participants: Yes.

Mr. Anderson: Alright. So then we continue along the existing Mount Rosser Bypass the Forth Charles which has been built, pass the mud-lake beginning to climb up the hill now so all of this is now built and is completed so

we are beginning to climb up the hill. From here all earth works have already been done, this is a part of the EIA that we have done in 2007 and have gotten the approval for previously.

So we come along the hillside, this is the small area which is not yet completed, which China Harbour will now finish as part of their project. Come back over unto the St. Ann side all of this is now paved and we are coming up to Faiths Pen. Everybody knows where we are now?

Participants: Yes.

Mr. Anderson: So we are on top of the hill coming up to Windalco, Faiths Pen venders are around the back, everybody with me and we are

Mr. Anderson: continuing it down. So we come pass the community of Faiths Penn, come pass the Alcan Housing, Windalco Housing where the road runs parallel to the highway coming down the hill and then we come under that tunnel, where the road goes under the tunnel. So the highway goes over the

existing road going, Moneague is over here;
with me?

Participants: Yes.

Mr. Anderson: And we are continuing down. So all of this is now paved right up to this round-a-bout there. So Moneague is now over here and this is the road to Ocho Rios, the road to Golden Grove, everybody with me?

Participants: Yes.

Mr. Anderson: So this is the entrance of the section that we call it Section 2, the Mount Rosser Bypass section and then we start the final section going down into Ocho Rios. Incidentally some of these, in our proposal we will remove some of the existing round-a-

Mr. Anderson: bouts. So you will get to drive straight through without any round-a-bout.

So from here we go all the way down into Ocho Rios so we have Phoenix Park on the left, the old Lydford operation on the right, coming down to the community of Golden Grove. We come just behind that old

house at Lydford Park right here, then we come down to another interchange which will connect us back to Golden Grove, to Phoenix Park to Browns Town that side of the country.

So the alignment then continues down, we have Dunns River on the right hand side and so we have a big reservation, a watershed around Dunns River we are staying out of all that, we cannot touch that. But this is Davis Town, the UDC development and that is right at the back of Davis Town. Then we come back over the highway just below the church, coming back on to the western side of the road going down into Steer Town, and you know the truck route and the car route.

Mr. Anderson:

So you cross over the car route, the cars come this way and the trucks go this way. We cross over the roads for the cars and we cross over the roads for the trucks, we come just in front of the Great House, the UDC Great House and we come all the way down to the north coast just where the water wheel is, just pass where the water wheel is. So

we have Laughing Waters over there and the hydropower station over there. Everybody with me?

Participants: Yes.

Mr. Anderson: So, this was just to give you an indication of the alignment where it is, where we expected to pass.

Any questions on that before I hand over to..

Mr. Ellis: Question, how many toll plazas would you be installing between Ferry and Ocho Rios?

Mr. Anderson: Well Ferry - we don't expect to actually have - unlike the existing highway, where you have toll plazas, you go through the existing toll plazas you pay as you go. What

Mr. Anderson: we anticipate is that you will have toll plazas on the ramp. When you get on the highway you pick up a ticket and you drive as far as you want to. And when you get to the other end you pay when you are coming off. So if you are coming on at Ferry and you are coming off at Bog Walk or Linstead then you come through one toll plaza. You

coming on at Caymanas and you are coming off at Ocho Rios then you only go through one toll plaza that is what we anticipate.

Mr. Ellis: And the same thing would happen at Angels?

Mr. Anderson: Exactly. So if you are coming on at Angels you pick up a ticket and you either go Kingston or you go to Coho Rios.

Mr. Ellis: Will there be any exit at Gibraltore?

Mr. Anderson: No, We have exits at the main towns and we look at some of them.

Chairman: Thank you, Mr. Anderson. Everyone is now familiar with this route which this road will be taking. The Chairman is supposed to be neutral, but Mr. Anderson said something

Chairman: which I think bears repeating, it is about time that we bypass the Gorge. And this project is intended to do that, but it is also equally important that the public participate in the planning of the project to ensure that when it is executed all your concerns, your issues are heard and mitigated as far as possible. So it is very

crucial for you to participate actively, to listen to what Mr. Campbell has to say about the environmental impact and make your concerns known.

Another thing I would like to happen is that, whenever you have questions you have to identify yourself. So that we know who is talking because this is being recorded and it will form a part of the records.

And I think I said earlier that it was Principle 17 of the United Nations Environmental Programme, it is actually Principle 7 of the United Nations Environmental Programme that the EIA are required by. So not only is it required by

Chairman: Jamaican legislation, by Jamaican law, but by Principle 7 of the UN Charter.

So it is over to Mr. Carlton Campbell now who will take you through the EIA.

Mr. Campbell: Thank you very much, Chairman, members of the head table welcome.

The presentation has an outline of what we want to do for this evening.

Firstly, I will kind of give you a brief synopsis of Highway 2000 and then the north/south link. Give you an idea of the proposed project, the EIA study team, just to give you an idea as to who is responsible. A description of the baseline, environmental baseline, alternative to the project which we must discuss as part of the EIA process; and also the potential impacts and outline the monitoring programme and what we think are the reporting requirements as the project goes on.

Alright the Highway 2000 project is the centre piece of the government initiated in

Mr. Campbell: 1989 by the then Prime Minister PJ Patterson.

The main objective is to upgrade the infrastructure of Jamaica, to provide economic growth and create jobs. The project is a public/private partnership which is

structured to minimize operational efficiency and to minimize cost.

The final objectives of the project is to serve as a catalyst of economic activity, provide direct and efficient links between major economic centres and reducing congestion on the existing roads. Reduce population pressures if you have good system then people can live outside the suburb travel into the town do their work and come back out.

Then of course, with any modern motorway then safety is an issue and we design roads to the highest standard.

Highway 2000 north/south link as, Mr. Anderson was saying, it is envisioned that

Mr. Campbell:

when that is put in place, it would take approximately fifty minutes from Caymanas to Ocho Rios. As you said, the origin is near to Caymanas estate as you might be aware, UDC over the years plans to have economic zone and an industrial zone located there.

The bypass to Spanish Town as you can see Linstead, Ewarton, Moneague, the total length is about 66 kilometers and it represents an investment of about US\$600 million.

The north/south link is a negotiation between Government of Jamaica and China Harbour, to be implemented by Build Operated and Transfer Model. It will connect Kinston to Ocho Rios as we have said before. And it has the potential to greatly enhance the tourism product of Jamaica. It also acts as a catalyst for land development along the highway. So a four-lane toll road with design speeds of 80 kilometers per hour and all. This phase that we are discussing tonight Phase 2A, this is between Caymanas

Mr. Campbell:

and Linstead, so we will confine our discussions just for that segment. It says four lanes, with fully grade interchange and interception and it is about 27/28 kilometers long. We will have a cloverleaf interchange at the Caymans area behind Ferry Police Station as you saw before. And about

28 crossings have been identified along the alignment.

Of course, crosses include rivers, local roads, railway and also field connectors roads like in the agricultural area.

These crossings will be facilitated by using either overpasses or underpasses and that design is left by CHEC to do. The main toll plaza three intersections and five separate grade crossing and two main crossing across the river.

It is expected that the overall project will - the construction period is about 36 months that is about three years.

Mr. Campbell:

The EIA study team is a big list and we had JNHT to do the historical and cultural aspects of the project.

Okay, baseline we looked at the climate we set up three weather stations in strategic locations. One was set up in Caymanas Bay, the other Content, this is on the other side of the river, and one at Cambria farms. Just to get a feel for what the temperature,

humanity, wind speed and direction was, that generally what it is all of those are considered and acceptable and the norm for Jamaica.

Soils and geology which is an important aspect of any roadmap structure; the proposed alignment traverses fourteen (14) soil types, 13 of those have slight to moderate erosive properties. The Bonygate Stony Loam was one of the most predominant; this also is one that is also erosive and highly susceptible to erosion. This is a map that kind of gives an idea and the soil might be hard to see. This is the alignment

Mr. Campbell: here running through the different caves and loams.

Theory, we superimposed the alignment on the topography to give you an idea of how the alignment falls. The grades tend to be lower in heights, the sequent meets sea level and as you go up this is Angels off here, this is Gibraltore going into Bog Walk you can see the green - the darker green are the higher

location then it comes back down and back on to the agricultural lands.

As part of it, we also look at the catchments around the highway. Total area of catchment is about 466 km² kilometers they extend as far as Mannings Hills in the east, just outside Kingston, Thetford mountains in the west, Guys Hill in the north, Christian Pen in the south and the catchment is about 31km long and 29-30km wide.

Hydrology is also important to highway progress we also looked at different water sources and recharge areas sinkholes. The alignment traverse, outdated sinkholes and

Mr. Campbell: ten of these sinkholes will remain in a 50m buffer around the alignment. So in total there are about 28 sink holes in which these could possibly be impacted.

We also looked at wells that is important especially as it dwells around Content that those wells lead to the Kingston metropolitan area it would be portable water.

This is a map showing where the catchments are, this is the Rio Cobre catchment, Gordon Spring, and this is the alignment.

The proposed alignment crosses five rivers, four of these alignments are within 4km radius of Linstead Town and the Rio Cobre entrance area. These rivers are known to have floods, they swell rapidly, they overflow their banks under extreme conditions, whether conditions. We listed the rivers here and where you expect the crossings to take place. We have the Jordon Spring which you are aware of, Thomas River, there are two Tributaries, Springvale River

Mr. Campbell:

and of course the Rio Cobre. Fresh River the alignment does not pass through Fresh River but as you will see later on, part of it goes through the attachment of the Fresh River.

This is a map showing the possible locations of where these crossings will be; and location of the catchment showing the different flows around the highway and in those catchment areas.

Just some pictures to give you some idea Jordon Spring which that picture is taken upstream of the alignment, the proposed alignment you have tributary of the Thomas River there, I mean persons might be familiar looking at these pictures. The dry river bed of Springvale River which is closer to the agricultural area; as I have said before, Fresh River catchment, the highway runs in the catchment of it but does not cross the Fresh River. It is also important that we take note of that because

Mr. Campbell:

the development that is proposed here for the industrial and economic zone.

Two tributaries of the Caymanas Estate was traversed by 2.4 km and 1.2 km in length and they run through Caymanas Estate and the highway crosses those straight terms. One of the important thing is that, when the final development is done, the hydrological study is used in more detailed way to see how the sizing of the culverts is in that area. This is a map showing the catchment of the Fresh River in the Caymanas area these are some of

the tributaries of the catchment which extends way up, it is in orange.

Okay, the other thing that we looked at was the flood prone areas. There is a study that was done for NROCC in 2007; it highlighted several flood prone regions. It was reported that flooding was mainly due to ponding and overflowing of the Rio Cobre. But also flooding is influenced by blocked drains which limit the transmission of the flood waters through the channels.

Mr. Campbell:

Low-lying areas of the citrus and cane fields also contribute to events, swell events because they act as ponding in the wetlands, the same effect as a wetland.

The 2008, this is a picture the Rio Cobre, I am sure everybody has seen this over and over. Below this is the Springvale River where the rubble blocked the culverts, and this is Thomas River coming through Wakefield.

We also looked at the flood events with ODPEM, they also have a data base that

stores flood events and as you can see the major ones here Caymanas area, and this is outside the scope of the highway alignment. Bog Walk, and right around the detail of that area is prone for flooding based on the ODPEM, Office of Disaster Preparedness Emergency and Management.

Another thing that we looked at was the climate change of rainfall. As you know over the years, the climate has been slowly changing and we have to take that into

Mr. Campbell:

account. We looked at what the extremes were between 1930 and 1988 and compare them with the new extreme look, rainfall data that the met office had for 1992 to 2008. What it has said with that comparison was that there was an overall increase in rainfall intensity; so percentage here, the overall increase has occurred over a twenty-one (21) year period which equates to about .75% to 5.6% increase per decade. I mean climate change in rainfall pattern is a real and present issue; bearing in mind that the design life for the highway is 75 years.

This map shows areas that might have similar rainfalls, the red are the areas that have higher rainfall, and as you can see, the Jordon Spring area, those areas received the highest rainfall.

Quarries are also important, because apart from the cut and fill that we have, some required material for the building of the highway so we have to look at the quarries

Mr. Campbell: that are in close proximity and that is listed in the document.

Hazards, landslides, Bog Walk fault zone is fragmented, it will result in unstable slope, potential for landslide is high and if the highway intersects slivers of volcanic rock then the potential will become even higher.

An example here of land slippage; this is another area it is so soft that this gentleman here can push his cutlass right into the material.

We did a landslide vulnerability assessment using GIS, using data from ODPM, road survey, fault lines and soils with the topography to come up with the vulnerability for landslide assessment.

The most vulnerable locations were in the mountainous sections north of Lime Walk and south of Bog Walk. Other susceptible regions were Crescent and Content where it intersects the Rio Cobra. Based on the GIS

Mr. Campbell: this is the map that we come up with on the model. The orange areas are the areas where you have higher lifestyle vulnerability and as you can see right coming off Gibratore into Bog Walk that is an area that you have landslide. This will guide with the whole development and the geotechnical aspect of the project.

There are sinkholes and steep slopes areas that are also important. There may be issues with caves with the sinkholes and the blockage of sinkholes. I mean sinkholes are important in terms of getting water off, run-off so we have to be careful when we are

doing the highway we don't block the sinkholes which will cause potential for flooding.

There is need as we go along to do a lot more geological study as the finalization of the alignment proposed.

We looked at earthquake as a means of risk of the highway, they will take that into the design, the consideration of the design, and

Mr. Campbell:

that black box is where there will be a pitch.

We also looked at water quality three exercises were done over different periods at about six locations. The results their PH was consistently above NEPA standard, phosphates and fecal coliform at different locations were exceeding.

Air quality we looked at both the coarse particles and fine particles. Coarse particles are particles with 2.5 micrometers to 10, and the fine particles are the one that falls below 2.5 micrometers. It is important to distinguish between the two as

you will see further down. Sources of the coarse particles crushing and grinding operations, dust stirred up by vehicles. Fine particles sources include combustion, include motor vehicle, power plants, residents burning wood and forest fires that is important in terms of determining in the long term what impact if any the highway, the operation of the highway will have on

Mr. Campbell:

the area. So what we call it is baseline information so as the years go by comparison can be made.

This is an example of one of the pumps that were used to collect the data for the particles. This is a location where these pumps were set up. And as you can see there is no red, so we are in compliance with the NEPA standard as is.

We also looked at noise, another important thing with the highway operation. We looked at nine locations; these are the nine locations along the highway. And in comparison at the existing noise with the highway with NEPA guidelines the daytime

which is between 7:00 and 10:00 and the nighttime is between 11:00 and 7:00, as you can see two locations exceed the NEPA daytime noise levels and three locations exceeded the night. And further down we did what you call a L90 which is statistical calculation to determine what the background noise is how much the noise fluctuates. And

Mr. Campbell:

if you looked at those locations, for example, Station 5 is that you have moderate to large fluctuation, background noise which is noise that most of the times in that area was relatively quiet 40.6, but the last fluctuations brought change that could possibly be repeated because of vehicles, people playing music whatever it is.

We looked at the biological aspects of the alignment Flora, fifteen (15) sites were assessed, a total of ninety (90) floral species were found, of the ninety (90) ten (10) were endemic, that is found either in Jamaica or either just at that location, found only in the Caribbean. Ten (10) of

those ninety (90) species is what you call endemic species.

Tree density vary over the alignment I mean the hilly areas tend to have higher tree density.

The vegetation along this alignment shows various forms of human interaction or influence reason being, we have subsistent

Mr. Campbell:

farming in the hills, major agricultural farming on the plains, some of it is residential areas people building their homes, certain industrial areas and also areas that people go into to get food stuff ackee and the like.

The St. Johns/Red Hills area which is just over this hill is the area with the highest amount of what you call endemism for trees and the plants that is an area of high numbers endemic trees and plants. When they are going to develop in that area, extreme care will have to be taken in that hilly area.

This is an example of some of the endemic plants that were found of the ten (10) some of them you might not know God Okra, broom thatch which is a palm some of them you might have known the mountain cabbage is another plant. These are the areas which did the vegetation analysis along the highway.

These are some of the pictures that were taken showing the different vegetation and alignment. We have parcel land at Caymanas,

Mr. Campbell:

we have the Spanish area in Content, this is on the hill at Bog Walk, Giblatore this is how general it is. At first you know, this is the cane citrus area. We went as far as to do some classification on vegetation it might be hard to see here, but if you look at the hard copies you will see it.

We also looked at fauna, birds; we also looked at invertebrates, insects and stuff.

Thirty-five (35) species were species were identified in the area they called Gully Forest it is mostly the first years. Forty-one (41) were observed in the Caymanas, and

the other side got lower numbers. A number of those were endemic species of birds probably they do not require what you call primary forest, the forest were undisturbed. They also strived in secondary forest that people have disturbed already. So the impact of putting a highway is less with those species.

One amphibian was found, reptiles and there is not much arthropod which are in place.

Mr. Campbell: The species that were found were not known to be endangered or in need of any special protection. Therefore standard environmental practices would preserve those species and you would not have to worry that the development of the highway would impact negatively on them.

We also looked at land use, the existing land use and you know that agricultural, commercial and land, you have the motor rally route around here you have the airstrip, you have caves which is important especially in building the highway, you don't want to build any over caves. People

have burial grounds which are important if the alignment is passes through it then you know we have to exhume the bodies, it is a whole process.

Power lines, one that we spoke about before is important for persons in the Content area especially the Rio Cobre pipeline in Kingston; the telecommunication they have their towers and that is easier to move.

Mr. Campbell: Historically, based on information gained from JHT you had areas where Tainos or what we used to called the Arawaks, areas that they were found. You also had the Spanish who settled after the Tainos and of course the English came after and constructed new roads. Construction of roads, disturbed natural habitat, especially for the agricultural pursuits, and of course the Bog Walk Gorge was constructed in 1770. You have the agroindustry also and of course the sugar estate.

In the future the ones are, of course, we spoke about it the UDC here for residential industrial and I guess as the alignment

progresses then more and more development will happen.

We also went and did a structure survey and along the alignment to see what structures would have been impacted and approximately 220 would be. And we are in the process of handling that aspect, but they vary from stalls, unfinished structures, farms, pens

Mr. Campbell:

and things like that. Most of them were found between the Crescent Content area and this is a little map that gives you an idea where the structures are found, the channels and stuffs that will be impacted.

Socioeconomic - thirty-three (33) schools were in the social impact area. And I must tell you that the social impact area is an area that we define as 3km around the alignment. We looked at what is in the three kilometers. The average household size is lower than what was in the parish, but higher than what is national, that is in Jamaica.

We expect a thousand (1,000) persons to be employed during the project during site clearance and preparation; four hundred (400) jobs will be created during operation. Within that 3km is approximately two hundred and ninety-three thousand (293,000) persons which, based on the projected growth rate we expected that it will go up the five hundred (500,000) nearly six hundred (600,000)

Mr. Campbell: persons during the next twenty-five (25) years if the growth rate continues the same, and that is even more important to have the highway and not to move these people.

Most of the population can be expressed as fairly youthful, mostly of the females and the majority of the population is between 49 years of age. You have more female in the population that is why the sex ratio is 84.7 compared to St. Catherine which is the parish where you have more males than females.

We also looked at the houses they were living in, most persons build one and three bedrooms along that highway. We also looked

at the tenure most persons in the social impact home. A lot of the persons did not report what their ownership was. Increase in residential, as you know, in St. Catherine there has been an increased in housing, that increases the congestion in Spanish Town. Spanish Town is one of the main trips to Kingston from the north coast where most

Mr. Campbell:

people come through. So the construction we have several benefits to these commuters coming in from the north coast and also people who live in Spanish Town and heading into were getting into Kingston to work. You will have less congestion on the road, safer driving conditions for the motorist and pedestrian, plus a reduction in travelling time it one of the major benefits here.

We should consider the preservation of vehicular access at current intersections at the round-a-bouts. Pedestrians, we should take into consideration people walking from one community to the other and of course the legal rights of persons that has to be respected. Also there are

community perception, 21 communities were visited, just to have a feel of what people knew about the project, what are your concerns. One hundred and fifty-five (155) were administered and about 43% knew of NROCC, not as much knew what their services they offered. But 37% knew about the

Mr. Campbell:

proposal of this new alignment and then there were concerns and comments relating to the project. They expressed that the toll will reduced the time it takes to travel. They express the existing off roads be upgraded that is one of their wishes. Some of the concerns they highlighted, the possibility of high toll fees, making current access to the areas inaccessible as we had spoken before, the issue of potential flooding is also a current concern.

Cultural and historic sites there were 19 sites, ten (10) shows signs of Tainos. The NHT collected 235 pieces of historical materials from several of the sites, Caymanas was one of the major one, Cross Pen, Content Crescent is across the river,

Dignum Mountain and Harper and Wakefield. They also had a restructure like the Rio Cobre dam pipeline and the railway at Vanity Fair.

We also asked other persons, one other concern was the removal and the opening of

Mr. Campbell: new places that was previously inaccessible.

We also, in terms of the material for the building of the highway was also another concern raised, and also the noise, the potential noise impact from the operation of the highway.

Part of the project that you have - when you are doing an EIA you have to look at - the no-alternatives; one of the alternatives that you have to look at for sure is no-action please do not move, leave it as is, don't do the project. If that was the case, the no action then there would be no user fees for motorist travelling from Linstead. Destruction of natural habitats would be avoided from cutting and filling operation, but you would also have considerable delays

experienced in Spanish area during morning and during the peak hours. Continual delays in the Bog Walk Gorge and the Spanish Town Bypass, Long Detours through Sligoville and Barry whenever the Gorge is flooded because of the disrepair and also the high accident

Mr. Campbell:

rate travelling through the Gorge. You have maintenance cost and fuel cost because the waiting and in traffic and poor road condition; loss of potential employment opportunities, for communities near to the alignment.

If you look at the alignment as proposed, it is a poor alternative to use the Bog Walk Gorge which of course the Bog Walk is subjected to flooding and congestion. Reduced travel time from the urban centres and residential centres of St Catherine, and other northern and western parishes.

It will reduce maintenance costs for the vehicle and also the fuel cost, and you get better quality road. And you would not have the experience of the traffic congestion in Spanish Town. It also increases in job

opportunities of the proposed alignment during construction and also during the post construction phase of this project.

The improved travelling conditions, destruction of the habitat, especially in

Mr. Campbell:

the hills, especially between Bog Walk and Caymanas Bay and also relocation of some residents whose properties will fall within the proposed alignment.

There is also the potential for contamination of ground water; there are several sinkholes in close proximity. The other option is to relocate the alignment to another location but this would have more or less the same socioeconomic issues and environmental and engineering issues which may vary due to the geology and hydrology of the area so it is not a big difference if you relocate it.

Okay, the potential impacts of this proposed project. I will try and go a little faster. You have soil removal of rock blasting during the construction from the clearance

and preparation; you have soil erosion and siltation. And as you can see the mitigation are on the soil just to minimize the impact of those facilities. Different mitigation installs soil erosion and siltation,

Mr. Campbell: instillation of proper dams, removal of trees only where necessary. The Water Resources we looked at mismanagement of the charged areas for the wells and mapping exercise is best to handle that.

We also said that vexation buffer should be installed around sinkholes drainage just to prevent sediments from getting in there and blocking them.

Also ensure that proper culverts and drainage be implemented wherever the alignment passes the surface drains.

Vegetation, we are going to have to limit right away, I mean the highway may increase access, parts of it will be fencing and stuff to prevent people from getting into the previously vegetated areas which they did not have access. We also suggested

incorporating regular intervals engineering solutions which would minimize habitat fragmentation allowing animals and stuff to pass between areas that you would cut them off especially if it is a feeding ground.

Mr. Campbell:

Vegetation, the habitat removal disturbance, a proper plan should be developed concerning transporting routes and storage of equipment to be used in construction of the thing. Noise pollution use low emotion equipment operated during the normal working hours, also for the protection of the workers there is a guideline of what you need to wear to gain protection over 80 decibels for over eight (8) hour period.

Air quality air should be damped every 4-6 hours or within reason to prevent dusting. And I said before, minimize areas that you don't remove the vegetation that will help produce dusting. Cover or wet construction materials to prevent the dusting sites. Solid waste, having a proper solid waste programme in place, having skips and having them collected on time and having them

disposed of in specified disposal areas. Wastewater generation provide portable conveniences for workers when there is a

Mr. Campbell:

ratio of 25 workers a chemical toilet should be used and also if possible showers.

Storage of raw material you put them up and burn them if to prevent them from being washed into drainage areas. Storage of fuel you also put them in bondage area so that if the container leak then it would contained and also you need to label the containers so that persons know what are stored in those containers. Transportation of raw material, the appropriate signs flagmen, coverings, you carrying heavy equipment of course you try and do them off peak hours, early morning or late, late nights. Emergency response it is important at every construction site there is the potency to have accident. So a lead person would have to be identified for the safety issues and then you would have to have a nurse or a local doctor who is on call and material with the data sheets which are sheets that

tells you what the chemicals are how dangerous they are and also how to handle

Mr. Campbell:

the. And also to make prior arrangements with the hospital in case an emergency comes up.

Workers safety, the necessary safety equipment the scaffolding if you are doing the excavation and there are certain guidelines that needs to be followed.

Traffic management the delivery of the construction material and stuff that needs to be done with the community persons in mind in terms of mining the delays and also in terms of the weight of the truck, the NWA has a guideline to prevent damage to the roads. And also if you are doing traffic diversion you must identify far in advance the public must be informed.

Cultural and historical I think one of the things that will have to be done is that the NHT will have to be alongside during the site clearance so that if any artefacts

that turn up they can take them and handle them.

Mr. Campbell: During the operation phase potential of natural hazard design the highway to deal with flood events, earthquake and such.

Climate change take into account that extreme rainfall has been increasing so in terms of designing the opening and bridges and the culverts then that needs to be taken into account. Landslides as pointed out, are areas where there are potential landslides, there are engineering things that can be done geotechnical study to determine how best to approach it and I sure know that that those will be done.

Debris flow, sediment, trees tend to flow down into the gullies, to reduce the impact we say put in check dams temporary or permanent constructed across a channel or drainage ditch and sedimentation basins to reduce it.

Emergency response these operations you need to know the routes, adequate signs and stuff to determine the areas.

Mr. Campbell:

Noise to conduct annual noise assessment part of the EIA you would need a noise monitor to determine what impact the noise would be during the operation of the highway and so that determine how best to minimize the impact on the residents. Cumulative impact which is the noise that the highway would produce and we added back to our existing noise in our communities. There are certain areas that would have exceeded the limits Content, over Dam Head, Banbury, Vanity Fair and Gibratore over the daytime and then you have nighttime you have Waterloo, Obama Heights, you have Content and Dam Head Banbury, Vanity Fair and Gibratore and for those areas then, of course, the appropriate noise things would have to be put in place.

Air Quality, we don't anticipate much training with it based on the volume. Run-offs there would be an increase and there is

some calculation with the increase; so the engineer would take that into account in

Mr. Campbell:

terms of how to handle the runoffs from the highway. There is a monitoring in place now during the construction, site clearance and construction; there is a list that we have drafted that we have submitted. During inspection we have to ensure that construction is not occurring during working hours, not creating any dust nuisance, and there is also a list of responsibilities people who will need to be responsible to ensure that these are done and where possible.

During the site clearance and the construction phase we take the water quality sampling. We also looking at the trucks carrying raw material to make sure that they are covered and they are not dirtying up the place along the way and also not falling along the road.

Look at the soil waste being generated make sure that the appropriate things are in

place for the workers and ensuring that suppliers of the quarry material are

Mr. Campbell: licensed, only licensed quarries will be used, and also looking at the refueling and repairing of equipment on site. Of course, as I said before the traffic management system has to be in place to minimize any impact or delays on the public and of course, the source employment from within local communities. Operation phase, we look at the sinkholes and the rivers and the culverts to ensure that there are no impediments that may cause flooding. And checking the road structure and also noise monitoring and water quality monitoring; and if there are any reporting requirements that we think can be avoided, occupational noise, I mean workers in the toll booth. Air quality and for the areas around and of course the water quality and we have listed some of the parameters that we think is important to test.

Thank you very much. (Applause)

Chairman: Thank you Mr. Campbell. We had a very detailed report from Mr. Campbell. I guess

Chairman: it is consistent with the magnitude and importance of this project.

Just a procedural matter before we go on to question and answer for people who have not signed the register; just raise your hand and someone will bring around the register to you so that we don't want a mad rush to the register. So for those who have not signed the registered someone will bring the register to you.

And remember for the questions, you are to identify yourself and the mike will come to you. So when you get the mike you identify yourself so those are just some procedural matters.

So we are coming on to the possible the most important part of this presentation and the real reason why we are here. There are no foolish questions; Mr. Hilton said that in his prayer, there are no foolish questions.

So feel free to ask any question because as usual we expect people to be respectful and curious in their dialogue, but there are no foolish questions.

Mr. Campbell:

Now I will ask that you have us sit during the question and answer because I am neither youthful nor female as Mr. Campbell said in his survey. He noticed that most people were either youthful or female I am neither. He is a little more youthful but I don't think he will mind sitting either. So we will sit during the question and answer session here so please wait until you are recognize I will have to figure out a way to recognize people. So the question answer session is now open.

QUESTIONS AND ANSWERS SESSION

Mr. Ellis:

Good evening everyone, my name is Henry Ellis, and I am from the community of Charley Mount. When Mr. Panton read his deposition, he mentioned that it will not be a question and answer session; however, I am glad that it is.

Chairman: Let me just clarify. He said NEPA will not be answering any questions.

Mr. Ellis: Oh NEPA will not be answering any questions. Okay thanks for the clarification.

Okay, Mr. Chairman, some questions came about as a result of Mr. Campbell's presentation. Let me first say that on behalf of my community we are happy for the development and we would hope that it be taken off with expedition. However, the first question that comes to my mind is the land acquisition and the relocation of residents who actually fall within the highway parameters. When would this begin, where would you relocate people to? And of course, in a great development like this, I would like some light to be thrown in that area? Two other questions and I will give you back the mike. This watershed area..

Chairman: Let us try to answer that question first; we are not so young so we cannot remember all of them so we prefer to answer them one at a

Chairman: time. The first question you asked was about the relocation...

Mr. Ellis: Land acquisition and relocation, yes.

Mr. Anderson: We did not talk so much about the timeframe but let me tell you what time frame we are working with. We expect to be able to start construction somewhere next year in October. So between now and next year October we will be doing land acquisition, the surveys will be going on, we have surveyors out, the engineer designs will be done we are getting the necessary approvals all of that will proceed the actual construction taking place.

So in relations to land acquisition, we have a team already we have a team we call independent valuers who will be in the field carrying out valuations of properties. And basically there are three types of a persons that we will encounter, people who will have titles for their properties, people who will have claim to the property they may not have the title in their name,

Mr. Anderson: they may have a grandfather or a grandmother who have died and left the property so they have claim to the property but not necessarily be in their names. And then you have people who are on the properties without any claim to the property, squatters as we typically call them or informal settlers.

The objective of the property is to try and make sure that nobody is any worse off than they were before. So people who have titles to properties are straightforward. The valuers will come sit with the people negotiate and agree with the acquisition of the property and they will be paid and arrangement made and they take possession of the property.

Mr. Ellis: But, Mr. Chairman, please, sir, I mean you are just going to pay the people?

Mr. Anderson: We will come to an agreement with them. In all the cases that we have operated, most people accept cash rather than relocate but

Mr. Anderson: there are different options. So that is for people who have titles.

For people who don't have titles but who have claim to the property what we do is we do an assessment of the structure whether the people are building chicken coop, pig pen, farms, crops whatever is on the property and what we do is to pay the people at current price for the building that they have on the property to allow them to relocate the building. Once they are able to go through the process and get titles for the property then we pay for the land. Similarly, for people who don't have claim for the property informal settlers, we compensate the people in the same way for the building that they have and the property at current value which will allow them to relocate.

Mr. Rose: Mr. Anderson, Sydney Rose Counselor. I am just correcting you re something, because you mentioned something about the Parish Council which you have not mentioned just

Mr. Rose: now in respect to assisting the person through LAMP so you need to tell them about that aspect.

Mr. Anderson: As Mr. Rose just explained, there are also people who as is mentioned in the category who don't have titles, they have claim to the property like a grandfather or a grandmother or a relative who have died and left it to them but they don't have title. So there is a process in going about in getting the title, through LAMP, LAMP is one of the government agencies that help people who are going through that process. So we will work along with the person along with LAMP to assist them to get titles for the property and therefore allowing them to get paid for the property.

Mr. Rose: Pertaining to what he has just said and what Mr. Anderson has answered, in respect to the next year, but it is a phase that is going to be taking place and I think some land acquisition is currently being done.

Mr. Anderson: Right, so we actually have not started the land acquisition yet. But as Mr. Rose said

that over the next year, we are going to be doing evaluation and beginning the acquisition; we don't actually begin until we have an agreed sign-off from NEPA that the project is okay and we have a permit and then we have a finalized alignment. What we have now is a general alignment it is approximate where it will be, but based on surveys that are now being done, the designs that CHEC are doing, the alignment may shift slightly where it is. So right now we are beginning to process, we have some evaluators out there, there are some areas where we are more confident in terms of where the alignment is and others, and those we will begin as soon as possible hopefully before the end of the year we will start having that discussion with people.

Mr. Ellis: Mr. Anderson, having observed that this highway is going to take out a number of trees along the path throughout the whole

Mr. Ellis: journey, I would ask sir that as much as is possible especially large trees that two trees be planted for every three that is dug

up along the highway. This is a watershed area, you know, and we depend on it right so we want to have the watershed destroyed along the highway.

And finally, I notice that they have what is known as 'asphalt teem' paving the roadway nowadays...

Mr. Anderson: Have what?

Mr. Ellis: 'Asphalt teem' these are residue that the last product from - rather it is the residue which has been sanded and lit and oiled and they used it and pave the potholes and all those type of stuff. I would ask that China Harbour does not think of using 'asphalt teem' but get the good fish from Trinidad mix it with sprit and build the road properly.

Thank you very much, sir.

Chairman: Thank you very much. Any more questions.

Mr. McKenzie: Thank you very much, Chairman, Belford McKenzie from SDC. First I would just like to commend the group for engaging the

community because we believe that community participation is key to any development that is taking place. I just want to, on the matter of the noise pollution, there got to be some restriction pertaining to the working out because I know there are times when plumbing do take place, you leave home for work when you get back 9:00, 10:00 o'clock they are still doing some work creating some havoc, so we must monitor that because I know that whatever it is there some guideline in that, but the monitoring of people at times break down. And as I speak to monitoring I think the community-based organization should be included in the process of monitoring because they are there and understand what is happening and therefore they must be included to give feedback as to what is happening on the ground. And I just want to find out, if you are passing through the Caymanas area are

Mr. McKenzie:

you going to have such an intervention there when you meet with the residents also in

Sligoville just as how you are here in Linstead?

Mr. Anderson: Let me answer the last question first. This is the first of a series of meetings that we expect to have. We will have smaller and smaller meetings in smaller groups and what we try to do in the smaller groups is to identify maybe two or three people who will liaise directly with NROCC or with the developer to ensure that if there are any issues that come out of the community that those issues can be brought forward and can be resolved. In terms of the noise issues as part of the permitting process we have restrictions in terms of times when the developer will be able to operate and those we expect to enforce stringently.

Mr. Campbell: Just to answer the part about community organization. As part of the monitoring plan we have rules and responsibility for the citizens association to help with the

Mr. Campbell: monitoring of some of those things. As I rightly say they are there you know and they are the ones who are being impacted so they

will let you know if something is going wrong.

Mr. Ferguson: My name is Robin Ferguson I am from the Rose Hall Community. The tolled highway I don't know if you have worked out all the tolls yet, but say for example between Caymanas to Linstead how many tolls you expect in that route?

Mr. Anderson: As I had indicated a little earlier even before you came in, the highway will be a little different from what we have now, it would be what we call a close processing and you won't be driving through toll plazas like how you drive through Vineyard or you drive through May Pen along the mainline. What will happen is that when you get on to the highway, whether you get on to Angels or you get on to Caymanas you get a ticket and you drive as far as you want and when you are getting off you hand the toll

Mr. Anderson: collector the ticket and they will tell you how much you owe. So you won't be going through a series of toll plazas when you get

on you get a ticket and when you get off you pay.

Ms. Page: Good evening everyone. I am Heather Page, I am from the community. I would just like you to recap, Mr. Anderson, exactly where the road is going to be. You mentioned Vanity Fair right at the church at the hardware, and that it is to the highway that was prepared before. I need to have it clear in my mind; I don't know if everybody here knows exactly where it runs?

Chairman: While Mr. Anderson goes back to his computer, to show you again, we can have another question.

Mr. Hilton: Charlie Hilton Bayside Citizens Association President. Looking at the designs and all of, one thing that comes fresh in my mind; you have these various rest stops, for example, like Juicy Patties down at the round-a-bout, at Bog walk, where people

Mr. Hilton: would normally be coming from the north coast and they will stop sometimes not just to buy patties but to relieve themselves. I

have not seen on the design so far wherein you are going to have like rest stops, because travelling the toll that we presently have now, one can easily look forward into going to the toll plaza to relieve themselves; And take into consideration the - a lot of people have diabetes and you know they cannot hold their urine for long, you know, so we need to think about like rest stops along the way.

Mr. Anderson:

Just to say that we expect that along the highway possible in the location where you see the Mount Rosser toll plaza will be that we will have a major rest stop that will have bathrooms all other major facilities.

This is the area you were asking about. This is about the church where we come across. So this is the corridor we are trying to come through, this is the church, this is the

Mr. Anderson:

hardware store, this is the fire station up north, I think the hardware is going to be affected but the fire station and those properties north of it won't be affected and

the church won't be affected, it will come through a very narrow corridor through here. One thing I know, we talked about it earlier, just back to the Linstead Bypass and down to join back Mount Rosser, we have the hardware rightward here, the intersection where we have the stop sign and we come back right here.

Mr. Ellis: So where do you join back to the round-a-bout?

Mr. Anderson: So part of what we are doing is to redesign all of that area, so you are not going to go through a round-a-bout right here we are talking about just driving straight along the highway, you won't have to go through any round-a-bout, the round-a-bout will remain for the connection going back to Charlie Mount, going back to Thread-way we call it. So you come to the round-a-bout and

Mr. Anderson: go right but the highway will connect back you back to the Linstead Bypass closer to the train line. Everybody with me?

Participants: Yes.

Mr. Anderson: So people coming out the existing Linstead Bypass will come to the intersection and goes under the highway and continue on their way, they won't be affected by the highway at all. People going into Burmaddy to Mullock, up into that community will come down come through the traffic light into the town there come through the round-a-bout and go right. The highway will go over the existing road.

Mr. Ellis: So what you are saying, Mr. Anderson is that most of this highway will be elevated then, like what happen abroad?

Mr. Anderson: Most of the highway will be on the ground, but where we are coming across the existing road, it is either the road will be elevated from the highway or the highway will be elevated from the road.

Mr. Perry: Yes, Mr. Chairman, thank you very much. My name is Brian Perry I represent the Linstead development area committee. I hear you made mention earlier about the Bog Walk Gorge but the question I have, you bypass the Bog Walk Gorge but we will pay to bypass the Bog Walk

Gorge. So for persons who cannot pay to bypass the Bog Walk Gorge will still have to use it. Why we have to pay to bypass the Bog Walk Gorge.

Mr. Anderson: Yes.

Mr. Perry: So if you cannot pay to bypass the Bog Walk Gorge and there is problem with rain and flooding you are still stuck in Bog Walk Gorge?

Mr. Anderson: You will use the same alternative that you have now, you go Slygoville or you go Barry.

Mr. Perry: Mr. Chairman, sir, the alternative is no alternative right now because the last shower of rain we really had the two alternatives was blocked, so the alternative is no alternative now.

Mr. Anderson: So you use the highway then.

Mr. Perry: This might seem like a laughing matter or a joking matter but it is not. It is a serious issue because the Bog Walk Gorge, we see a problem the two alternative routes is a problem. Now we are talking about a bypass

but you have to pay to use that bypass if you cannot pay to use that bypass and there is heavy rain you are still stuck in that Gorge.

Mr. Anderson: I think you are asking the wrong people. There are two agencies that are responsible for that, the National Works Agency and the Parish Council those are the companies that you would have to ask.

Mr. Perry: So your company would not look towards that one you have to talk to those agencies on that one?

Chairman: Yes you have some councilors here but we won't take that up right now.

Mr. Rose: But what I can tell you Chairman, that an appropriate arrangement will be worked out with the highway in case of an emergency.

Chairman: Could you repeat that Mr. Rose because I don't think that everybody understood what you are saying.

Mr. Rose: I am saying that appropriate arrangement will be worked with the government and the

people who own that highway if and when an emergency occurs in respect of flood or something of that nature.

Mr. Headley: My name is Earl Headley and I have some property nearby here in Vanity Fair and I came in late so I heard the lady's question about the direction the highway is propose to take. I am sure you might have gone over it but just to facilitate me could you show it to me Caymanas and move into Vanity Fair.

Chairman: I missed the name, sir, but we really sympathize with you for coming in late but we really can't deal with that right now but

Chairman: we will show you on the map after so that we don't hold up everybody.

Mr. Headley: No problem with that.

Chairman: Afterwards, during the refreshment we will show you that since we went through that already.

Mr. Dares: Thank you very much Herbert Dares Councilor for Linstead. I just have a slight fear that - friends are thinking that the highway will

cause excess water to get on the Bog Walk Gorge or any one of the alternatives and I am here saying I don't think so hence the question that was asked before.

Chairman: Which question was that?

Mr. Dares: Re the blocking of the - if the Bog Walk Gorge is blocked and the two alternative routes are blocked - I am here saying that I sense that people are thinking that the highway will cause excess flooding and I am saying no. And I just want to say that the highway is not an alternative for the Bog Walk Gorge, you know, it is not an

Mr. Dares: alternative for the Bog Walk Gorge, it is a highway that is going to be built to allow one to move freely up and down.

Chairman: Thank you councilor Dares, there is a lady up here.

Ms. Harvey: I am Nicole Harvey; I am a resident of the Byndloss, beside Prochoice Hardware. If residents have any damages to their homes who can they talk to in case there is damage? Because when the previous company

was constructing the road I had damages to my property and there was no one for me to go to. I have cracks in my wall even on the floor there is damage so there is one one for me to go to so who can I go to if there is more damage because I don't think my house can take any more damage.

Mr. Campbell: Miss Harvey what is normally done in projects like these when you are close enough and the potential for damage pertains to your building that a structure survey is conducted before hand to see what it is and during the works you have any problem then

Mr. Campbell: we can look back and see it works was responsible for the structure being damage. In that case at the end of the day then I think the developer would check and NROCC would in fact be the person that you would have to complain to, but I mean to protect both sides, I would suggest that when you are close enough to a structure a structure survey is done to assess what the present condition of those structures are before the work is done.

Chairman: To help Ms. Harvey, suppose she has a concern about her proximity how does she go about it?

Mr. Anderson: Just to say two things in terms of Mount Rosser Ms. Harvey we did a - we went through and we took photograph of every house before blasting commence. So if you have an issue then we take note of it, the contractor have not being released from their responsibilities at Mount Rosser. So we before we start we take picture of the house inside if it has damages et cetera. When it

Mr. Anderson: is finished we do the same thing we take pictures and we compare the pictures after with the pictures before and if there are any cracks which appear on the latter set of pictures which were not there before then the contractor has that responsibility of fixing them. If you still have the problem we can have the contractor come back - but as I said we have pictures before and we have pictures after.

Typically we do within one kilometer - 800 meters on either sides of the road, we take

pictures of every house within 800 meters on either side of the roadway where we are doing blasting, and as I said we have a pre-blast survey and we have a post-blast survey and we compare the two.

Mr. Ellis: Thank you very much, Mr. Chairman, you mentioned in your presentation, Mr. Campbell, that a rhinella what is a rhinella?

Mr. Campbell: I am sorry that is something outside of my scope in terms of the fauna, and the persons

Mr. Campbell: are not here but I can find out exactly what it is. But I can find out and give you that information.

Mrs. Page: Good evening again, I notice where this project is privately managed by China Harbour, and it is noteworthy that you are going to have employment here. But is there any ratio as to the Jamaican employment as against Chinese people from China because they are also people here who also have the know with all, so is there any understanding unless privately owned Jamaicans we would

like to be assured that there is a percentage and there is some consideration as to amount. So I don't know if there is any China Harbour person can.

Mr. Anderson: Thank you and that is an important question and there is absolutely no truth to the rumor that we are going to have all Chinese workers, but at no point in time we are going to have more Chinese - let me not say Chinese - but more expatriate than Jamaicans on the site there is a maximum level of one

Mr. Anderson: to one there cannot be no more than one to one at a maximum. We don't expect it to get to that in fact in the case of When Bouygues was doing their operation we had more than 90% of the workers were actually Jamaicans, but in the case of CHEC, at maximum we don't expect to get to it but at maximum is no more than one to one.

Chairman: Just a follow-up to Mrs. Page there, is there a procedure, I know some people here would be interested in that for Jamaicans who have an interest in getting employment for them to follow, I mean who they contact

or how do they go about it, people from this area.

Mr. Anderson: You are asking about how people go about employment.

Mr. Deng: It is difficult for me to finalize how many workers will be employed in the future but China Harbour and the locals will be a one to one but I am sure the locals will be more than Chinese because you know that China is half a global from here so we at China

Mr. Deng: Harbour we will take the skilled workers here.

Mr. Rose: What about the labourers?

Mr. Deng: Yes labourers.

Mr. Anderson: As CHEC begins to move into the construction phase, is that CHEC will have local liaison people working with them and so people who are looking for employment can interface with those local liaison officers.

Mr. Grant: Hello, goodnight everyone my name is Raphael Grant, I am from Bayside I am a home owner, if this project should go through my home

who can I talk to and at what point. I see people do it so I would like to know.

Chairman: Well I think that was answered already.

Mr. Grant: Sorry I came in late.

Chairman: So we will deal with you after I am not being rude but we started at a certain time..

Mr. Grant: I understand.

Chairman: So you know, we could answer that one privately afterwards. But I will just tell you quickly, they did survey, that is it.

Mr. Anderson: Mr. Chairman, we are also going to be publishing some notices we will be going out into the field and putting up notices of all the people that we think we may affect so right now about 180 parcels on this side that we think will be impacted we will be going around putting up notices on those properties that we think we will affect and that is when the discussion will begin.

Mr. Grant: And about when will you start?

Mr. Anderson: Over the next two months you will see the notices going up.

Mr. Hemmings: My name is Alston Hemmings, I am presently resided in Charley Mount Housing scheme. I am concerned about the river training. Will China Harbour be doing river training in the Jackass fording area closer to the Byndloss Gully, because as a young boy I remember that area being flood prone during the flow

Mr. Hemmings: of rains? And I noticed that your EIA assessment only cover some twenty odd years so when I examined the area that runs adjacent to the Charley Mount housing scheme there are some outlets that are directly deposited into that stream and I am afraid that area is a flood prone area and houses are likely to be impacted there.

I want to know if China Harbour intends to go into extents river training in that area.

Mr. Anderson: Let me talk generally rather than talk specifically about these areas. As Carlton outlined the developers are now doing an engineering hydraulic design so we will look at the whole catchment area how much water we expect and how we can pass the water on to the highway. With all the drainage

structures on the highway the life of the drainage structure are typically designed for a hundred year span. On the south fall side where the water passes under the highway those are areas that we have to be looking at carefully to make sure that all

Mr. Anderson: the outfall of the area can take the water which is passing under the highway and that is where if we need to do any river training to improve the outfall areas then those would have to be dealt with at the same time.

Mr. Hemmings: I don't know the engineering aspect of it but you said if we need to do any?

Mr. Anderson: Yes.

Mr. Hemmings: And I am saying that there are some twelve outlets right now coming off the highway even in its incomplete state that it is having a direct impact presently. So I think some amount of looking in needs to be done right there.

Mr. Andersons: Thank you.

Chairman: I am not rushing you, you know because this is the most important part of the programme.

Mr. Gilmore: Good evening I am Scott Gilmore from Cambria Farm. When I was looking on when you go through Cambria it seems to me that you are going at the lowest point. And I am

Mr. Gilmore: wondering you will have to build it up and that would also affect the other farmlands, I don't know if you could reroute it on a higher ground.

Mr. Anderson: I think in fact we actually - our technical consultants were actually out in the areas with Mr. McConnell on Monday looking on this very same issue where if we adjust the alignment point it is going to take us down to the lowest point. So all of those issues are issues that we are looking at now as I said it is just a preliminary alignment that we have there are some tweets that have to be done as we look at individual areas and the characteristic of those areas.

Chairman: Are there anyone else, I have not heard any foolish questions yet, you know.

Mr. Ellis: Mr. Chairman, when it comes to Vanity Fair, the major development which will have to take place there will be like overhead bridges which will go over the main road from Linstead to Builders area and also the train line. So the question here now, Mr.

Mr. Ellis: Chairman, are we going to reroute the traffic onto the highway out there to bypass that area or what will be done with that?

Mr. Anderson: This is the existing leg of the bypass coming down going towards Ewarton, this will not change everything will be exactly the same.

Mr. Ellis: Right where there is Vanity Fair where you go over - well near to the church and the hardware.

Mr. Anderson: At Vanity Fair as I said we go over the existing road there is a railway line right beside it and we go over both of them at that intersection.

Mr. Ellis: One big bridge.

Mr. Anderson: One big bridge over both.

Mr. Ellis: So at that time you will reroute the traffic onto the highway there?

Mr. Anderson: You mean temporary diversion - we will have to do some temporary diversion but once the construction is finished the road will

Mr. Anderson: continue as usual and the railway will continue still.

Mr. Ellis: But Mr. Chairman, this won't have anything to do with the new developers but that Linstead Bridge cannot take no more traffic and so we are asking that something be done.

Chairman: The one at Vanity Fair, the politicians are here that is an existing problem for them. The NWA needs to look at that Vanity Fair.

Mr. Ellis: I am tired of talking to them about it.

Mr. Rose: Well we have spoken to them about it already they have done an assessment and they are waiting some financing to do some work on it. The structure of the work is good, it need to be taken up and painted but the structure is good. I have been assured by

Mr. Francis that very soon when the financing is in place, it will be done.

Chairman: I think they are asking also for pedestrian access. But that is not for this meeting. Are there any more questions.

Mr. Rose: One thing, as a counsellor Mr. Garret and myself is accessible and we will be volunteering in every respect from a parish council perspective, and as individuals please free to contact us and we will give our support.

Chairman: Thanks for the assurance, sir.

Ms. DaCosta: My name is Simone DaCosta from Bog Walk, I think my question relates to the end of the highway leading on to Mandela. Is it possible to view that image on the screen?

Chairman: You said your name was Ms. Dacosta, we showed that before and we will show it to you again...

Ms. Dacosta: My question is, and this is a question that we are going to face, we actually accept the bypass leading into Kingston for people

living in Ocho Rios and Linstead Bog Walk. But we need to understand that the highway is going to be leading off faster traffic going onto Mandela which is a minor highway we already have the existing problem with

Mr. DaCosta: the highway leading off from Mandeville and Spanish Town going on there which is causing a big bottle neck right there in the mornings. How do we address this problem because these are two major highways leading on to a small highway?

Chairman: Mr. Anderson will speak to that but there are two independent roads, he answered it already before you came but a new leg will be put in, you will be exiting on the north beside ferry police station going through the Caymans land so there is no interaction with what is happening so you will be going over the road. Did I answer it properly Mr. Anderson?

Mr. Anderson: I think she is asking about traffic at Mandela coming out of Kingston going towards Spanish Town. So there are two things that are going to be in the works, NWA I know

have plans to widen Mandala that is in their long term planning I am aware to change Mandala from four lanes to six lanes. But in the short term as part of the CHEC

Mr. Anderson: Development we are also going to be looking at some of the issues that affect traffic going into Kingston especially in the mornings.

Ms. DaCosta: Yes, because actually that is going to is a major area right there waiting for future development of the UDC.

(Electricity went)

Chairman: I don't know when this power will be coming back, so in closing let me thank you all for coming and I believe the exchange was good, the information was good and I expect that NROCC will keep us informed as we progressed. It is a huge project US\$600 million, a lot of engineers were involved so a lot of the issues that were spoken about involve engineers which will come out in the detailed engineering. And the output of this meeting I think the seven days that the

consultants have to get its report into NEPA, and you have thirty days up to thirty (30) days that you can write to NEPA with

Chairman: any issues that you have with this presentation that was done today.

So you have thirty (30) days if you can send a written submission to NEPA.

So let me thank you all for coming and we are supposed to have refreshment and all of that. I don't know if the 4-H has a back-up generator.

So thank you all for coming do travel safely home and we expect that we will continue to be involved in the public participation in this project. So thank you all. (Applause)

Adjournment taken at 8:00 p.m.