This edition of MOMENTS starts with an apology to our many readers, local and abroad, for not having distributed our Newsletter last month... This was due to a technical hitch beyond our control... Sorry guys...

Many events have occurred since the last published edition of MOMENTS; the most memorable being the retirement from office of the Chief Engineer—Mr. R. Ramjan and the Deputy Chief Engineer—Mr. R. Ozeer. They have been replaced, on an acting capacity for the time being, by Mr. A. Gopaul and Mr. S. Gooljar respectively. A Farewell lunch was organised on 06 October 2004 to pay tribute to these two elders of the Civil Engineering Section. The MOMENTS Team was present at the farewell lunch, and is bringing to you some glimpses of that day.

This new edition is also witnessing some changes in the Team, with Mr. Reshad Jewon (Principal Engineer) joining Mr. Ahmed Gopaul (Ag. Chief Engineer) to form a Board of Censors for MOMENTS. The Team wishes them well in their task, and hope that our “writers” will not cause them to create too much flutter with the scissors and red pens...

October 2004 has seen the arrival of two Indian ITEC (Indian Technical and Economic Cooperation) Experts, who have joined the Civil Engineering Section for a one-year period as well as one Indian Structural Engineer. This month has also seen the (temporary) exit of a popular figure of the Civil Engineering Section, with the transfer of Mr. Telkraj (Ajeet) Parbhunath to the Central Tender Board, also for a period of one year. MOMENTS wishes them all luck and success in their new postings.

This issue carries the continuation of our technical (and theoretical) assessment of the Grand Bay Blast, as promised in our last edition; as well as a brief expose on Vaastu Shastra, the metaphysics building principle which is gathering momentum in Mauritius these days. A special note of thanks to Mrs. B. Gupta, Mrs. P. Jummum, Mr. S.K. Das and Mr. D.D. Bunjun of the Architect Section for their help and time in preparing this topic.

On the office front, MOMENTS takes pride that its last edition of HOT SPOT seems, again, to have had some sort of earthquake effect on some of our Engineers. It is with pleasure that we have realised that each and every of our words are being read and discussed. Thank you everyone.

Finally, to rectify a wrong interpretation, following comments received, “Civil Engineers by virtue of education” was to mean “all those who have received an education as Civil Engineers” and was meant as a broad description of all the individuals in the Civil Engineering Section, as opposed to “Civil Engineer by virtue of posting”, which would have excluded our colleagues the Senior Engineers, Principal Engineers, etc...

Happy Reading...

When the going gets tough…. The tough get going...  

Anonymous
BOOM. On the 25 July 2004 the resto-bar Mai-Tai, situated on the first floor of Grand Bay Store was devastated by a huge blast. Two young persons were killed and a dozen were injured. The outcome of this disaster was deeply felt in the region of Grand bay, a wonderful tourist spot. Many inhabitants and commercial owners were affected by this unforeseen event as a result of a highly secured restricted area and also a decrease in the number of tourist activities. After the site investigations and permission from the concerned authority the building was pulled down. We do hope that another building will be reconstructed on the site, so that this special spot may become attractive and lively again.

In our previous Engineering Newsletter, August 2004, the huge blast was stated and some considerations in the design of commercial building at international level were put forward. In this month EN we will try to estimate and give a brief idea of the magnitude of the blast taking into consideration the different structural failures seen on site.

Two important words which come repeatedly in this sad event are ‘blast’ and ‘explosion’. A simple dictionary definition of the word blast is a strong rush of air or gas spreading outwards from an explosion and the definition of explosion is a sudden and violent break apart from internal pressure.

In an explosion there are 3 types of energies which are usually dissipated, namely sound, light and pressure. From site photographs, it can be seen that the several structural elements of the building were distorted and had failed structurally. Many columns had buckled, beams were deflected and parts of the floor slab were uplifted, with reinforcement having been pulled out of the concrete.

Continued on page 4
The section of a slab/beam shown in figure below will be referred to for the calculations of the minimum pressure that have occurred to cause such structural failures. A slab thickness of 125mm and links of Ø 8mm equally spaced at 200mm will be used for the calculations. The pressure exerted by the explosion has caused an uplift of the slab and developed a shear failure in the concrete slab. The shear stress, \( v_c \), can be calculated and from this value a minimum pressure can be estimated. The pressure obtained from this failure amounts to 35 KN/m².

The Ø 8mm links in the beams have been straightened upwards by the pressure exerted by the explosion. The pull out forces exerted on the links can be estimated by taking into considerations the anchorage length of these links in the slab. The pressure exerted on the slab can hence be evaluated with an assumption that the interface of the slab/beam failed before the slab failure occurred. The pressure calculated approximates to 75 KN/m².

The force exerted by the blast inside the building where the explosion occurred can be converted into an approximate gust of wind. The greater of the two pressures obtained from these two failures is used for the calculation of the wind speed.

The latter can be estimated by using the dynamic pressure equation:

\[
q = 0.613V_s^2
\]

where \( q \) is the greater of the dynamic pressure obtained.

The basic wind speed obtained for a pressure of 75 KN/m² approximates to 525 m/s or about 1900 Km/hr. This is the minimum expected gust to cause such failures on this particular structural element.

Of course this value obtained is just an approximation for the pressure that has caused the structural failure. The overall pressure exerted by the blast is much more, given that our approximation is at a point some distance away from the centre of the explosion.

The above, however, is only a theoretical analysis of the possible magnitude of the explosion, based on the visual clues obtained on site. An accurate assessment of the blast and its effect can only be obtained after laboratory tests of the physical properties of the elements remaining on site.
CONCEPTS

Innovative Civil Engineering Structures: The Hong Kong Millennium Tower

The Petronas Towers (Twin Towers) of Kuala Lampur are presently the tallest building with a height of 1,483 feet (445m) and 88 stories. Now, imagine a skyscraper almost twice the size of the Empire State Building with a height of 2,755 feet (827m) and 170 stories. This massive building would be a city within a city, hosting its own hospitals, schools, shopping centres, cinema, flats, offices etc. The Government of Hong Kong are looking into the possibility of constructing this colossus in the harbour of Hong Kong. This building, the Hong Kong Millennium Tower, will shelter 52,000 people with an elevated traffic of 100,000 people per day. Its estimated cost is $10 billions, for a construction period of 10 years!

Design and Construction

Hong Kong being in a region which is often hit by the typhoons and earthquakes, this huge building will thus have withstand the enhanced negative aspects of nature, namely strong gusts and sudden vibrations. Designers went around the first hurdle by proposing a round-base structure, which will alleviate the problem of wind resistance found in a traditional rectangular building such as the Empire State Building. It is also being proposed to vary its width from top to bottom, in an attempt to help dissipate vibration faster. The building will be designed to withstand wind speed up to 200 miles per hour (320km/hr) and earthquake of the magnitude of 8.6 on the Richter Scale. This would be achieved by providing additional dampers and motion sensors to the building.

Construction of this Millennium Tower can be done with traditional building techniques, but these techniques will put iron-workers thousands of feet in the air with very less safety gear. This, form a safety point of view, is far from being acceptable. Thus, it is being planned to build this huge building by using computers whereby a self-rising factory will be set up with cranes and lifts surrounded by a weatherproof enclosure. With a precise schedule, the steel beams will be essentially handed to the machinery which will then make place to workers to bolt the steel trusses together. Once the beams and concrete panels for each floor will be complete, the machinery will hoist the entire structure and the process will be repeated.

The Future of this Project

Is this building a dream? A single building which, in itself, will be a complete city, with its own hospital, floors of theatres and shopping complexes, residential blocks and offices.... It is being argued in international spheres that such a building could be the future to many over crowded harbour-cities, and Tokyo or Mumbai may also be interested in this giant. The question that remains, however, is: will this “multi-purpose city-tower” be appealing enough for the investors to start flowing in?

Closer to us, in Mauritius, one or two investors are already thinking along these same line, although not to that scale... thus, a few proposals are being put ahead for “integrated office-shopping mall” complexes, where the workers will not have to travel far from his working place for time consuming but yet routine tasks like a hair cut, grocery shopping, clothes shopping, etc... let’s wait and see where progress leads us...

Sources: various
Vaastu Shastra is an ancient Indian science that deals with the observations of the law of nature and their effects on human life in their dwellings. The word ‘Vaastu’ comes from the root ‘Vas’, meaning ‘reside’. Vaastu Shastra deals with the design and construction of buildings, while assigning a proper place to each of the five basic elements – air, earth, fire, space and water – within the building. A building constructed as per Vaastu principles is supposed to bring happiness, good health, wealth and prosperity to its in-mates.

**Basic Principles of Vaastu.**

1. The center of the building, assigned to space should have the least activity.
2. The North-East direction is called the Direction of Heaven since stress concentration of interacting energies is minimum in that direction. The North-East is assigned to water and is ideal for water tanks, swimming pools, etc.
3. The South-West direction, assigned to earth, is the most stable of the elements. This space should be used as much as is possible.
4. The North-west, allotted to air would be suitable for a guest-room.
5. The South-East, allotted to fire, can have the kitchen.

**Definition of a Good Plot of Land:**

1. East facing and North facing plots are considered to be very good.
2. The North-South length should be greater than the East-West length. If the plot is rectangular, the length should not be more than twice its breadth.
3. The ground should slope towards the North and East directions. The North-East is consid-

### Houses: Planning of layout

1. The maximum area of the plot in the North-East should be kept open to receive plenty of sunshine.
2. Any underground tank should be located in the North-East quarter of the plot and any overhead tank should be in the South-West quarter of the plot.
3. Doors, windows and balconies in the East and North are ideal due to sunshine.
4. The master bedroom should be located in the South-West sector. One should sleep with the head to the South.
5. The East sector is best suited for a bathroom.
6. Children’s rooms can be in the West or North of the building. They can have their beds to the South-West corner of the room with heads on the West. They can have their desks on the East or North and face East while studying.
7. Guest rooms can be located in the North-West of the house.
8. The right place for kitchen is the South-East sector, with one facing the East while cooking.
9. West or East rooms are for the dining hall.
10. Living rooms can be in the North-East sector.
11. Toilets should be in the North-West sector.
12. South-West bedrooms should be avoided.
13. Septic tanks and garages can be in the North-West sector. A second choice for garages is the South-East.
14. Staircases may be anywhere except in the North-East and central portion. However, it is better to locate them in the South, West or South-West sectors.
Educational Institutes: General Guidelines
1. The building should face the East or West.
2. The main entrance to the plot should either be in the East or in the North-East.
3. The main building should be in the South-West, South or West side of the plot.
4. The office room should be in the South-East side of the building, with doors in the north or East wall.
5. The length of the classroom should be double the width of the room.
6. The blackboard should be placed in the West side of the room.

Hospitals: General Guidelines
1. An East facing plot is ideal for hospitals.
2. The building should be on the East side of the plot.
3. The main entrance to the plot should be in the East or North-East corner.
4. The enquiry window should be facing the South-East.
5. The waiting room should be in the South side.
6. Patients should be checked in the room that is in the North side of the building.
7. Patients should be made to lie with their heads towards the South or West.

In Mauritius, Vaastu Shastra is mainly observed from a superstitious point of view. Some people would generally apply these principles when constructing their houses to ensure that “nothing goes wrong” when they start living there. Often, the practical or scientific side of Vaastu Shastra is not followed because no reasons have been given to the people why to do so and so. Many books are available on the subject, and while they do indicate what should be done, many do not explain the reasons behind the principles.

To have a glimpse of the extent to which Vaastu Shastra is used by MPI Architects in their design of a building layout, we have interviewed four Architects (two Indians and two Mauritians) from the Architect Section. When we enquired about the origin of Vaastu Shastra, we obtained diverging answers. They however all agreed that it is one of the oldest principles used to construct buildings. One Architect defined Vaastu Shastra as being a set of strict rules laid by Brahmins in ancient India, in a period void of political control. Those rules came up to ensure that there were some norms when constructing buildings. Those rules were based on the general climate, type of soil, angle of sunlight, etc. Another opinion is that Vaastu Shastra is based totally on magnetic waves (most positive waves are present in the North-East direction). Others believe that it is partly holistic and partly scientific. All of the Architects, however, agreed that they apply its practical concepts, mostly those related to the environment, to some extent in their design.

The position of trees, water bodies, etc in the yard is of great importance in Vaastu Shastra. Architects consider factors like purpose of the building, location of site and aesthetic aspects when deciding on the most suitable position of those features. Trees are efficient natural sunlight filters and windbreaks so that they will be placed where these characteristics are most required. Architects often consider the purpose of the building, climate, the effect of the water body on surrounding air humidity, etc when positioning a water pool. The preferred colour of a building is not specified in Vaastu Shastra. Consequently, the client’s request, if any, predominates. Else, it will depend on the purpose of the building, site and aesthetic factors.

The Architects noted that, in Mauritius, the principles of Vaastu Shastra have mostly been used for individual’s houses, and that they have not yet had to apply it fully to government projects. The Architects further mentioned that, unless otherwise instructed by the client, they usually go by anthropometrics, general guidelines and standards when preparing the layout of a building; the factors they consider are: size and shape of site plot, position of sun and wind and air circulation which are all important aspects when positioning and sizing doors and windows and when orientating a building.

As far as government buildings are concerned, it was felt that Vaastu may be applied as a function of the location and space available, but while keeping in mind that such an application should not be at the detriment of practicality, or should not come with an unreasonable increase in cost... In certain cases, it has to be accepted that it is impossible to go strictly by Vaastu...

So, Vaastu or no Vaastu.. The debate is on...

Sources: Various
TRIBUTE
Farewell... and Wishes for a Peaceful Retirement...

Last month’s Main Event in Pictures

One picture is worth a thousand words, it is said...
Words would not have been enough to describe the feeling on the retirement of the Chief Engineer—Mr. R. Ramjan and the Deputy Chief Engineer—Mr. R. Ozeer. *MOMENTS* is publishing this month some photos of the retirement lunch in their honour.

... “two of the most senior in the Civil Engineering Section…”

...“retiring after long and eventful careers…”

...“Wishing them both best of luck and a peaceful retirement…”

The Permanent Secretary of the MPI, Mr. G. Gunesh, giving a speech on the occasion.

Mr. G. Gunesh offering farewell gifts to Mr. R Ramjan and Mr. R. Ozeer.
TRIBUTE
Farewell... and Wishes for a Peaceful Retirement...

Last month’s Main Event in Pictures

The Acting Chief Engineer—Mr. A. Gopaul offering farewell momentoes to the two elders on behalf of the Civil Engineering Staff.
At the extreme right: Mr. S. Gooljar, the Ag. Deputy Chief Engineer

The MOMENTOES

moments Engineering Newsletter 05 October 2004
MILESTONE

Yet Another One...

Wishes for a Happy & Blissful married life to

Fazool & Bilkiss

From The MOMENTS TEAM

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Civil Engineering Section Identity Card

The Team is pleased to announce its contribution to the first issue of Identity Cards to the Engineering staff of the MPI Civil Engineering Section.

The approved format is as shown below.

So far, some of our Engineers have been issued with the same. The Technical Officers will be next on the issue list.

The Team urges all those who have not yet given their photo for the ID card to please contact us.

You may wish to note that a tie is mandatory for the photo.

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<thead>
<tr>
<th>B'Day Boys (&amp; Girls!)</th>
<th>October 2004</th>
<th>November 2004</th>
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<tbody>
<tr>
<td></td>
<td>Mrs. N. Jhowry</td>
<td>Mr. A. Jhuboo</td>
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<td></td>
<td>Mr. V. Ramjattan</td>
<td>Mr. A. Saumtally</td>
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<td></td>
<td>Mr. N. Seevathean</td>
<td>Ms S. Gaya</td>
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</tbody>
</table>
Mr. Atul Kumar RASTOGI, an Indian citizen, has joined the Civil Engineering Section this month on the Government of India ITEC programme.
Mr. A.K. Rastogi is the holder of a B.Tech in Civil Engineering from BHU IT (1980). Before coming to Mauritius, he was working as Superintendent Engineer for the Central Public Works Department in Delhi, where he was in charge of structural design and repairs and rehabilitation of structures in Delhi.
Mr. A.K. Rastogi has been posted under the Principal Engineer in charge of Education Projects, and he has been assigned structural design works.

Mr. Niranjan Kumar SINHA, an Indian citizen, has also joined the Civil Engineering Section this month on the Government of India ITEC scheme.
Mr. N.K. Sinha is the holder of a B.Tech in Civil Engineering from REC Jamshedpur since 1970. Before coming to Mauritius, he has had a rich career with the CPWD and has worked in various cities of India, and on the design of many major structures.
His last posting before joining us was as Superintendent Engineer for the Central Public Works Department in Delhi.
Mr. N.K. Sinha has also been posted under the Principal Engineer in charge of Education Projects, and he has been assigned structural design works.

Mr. Arnab CHAKRABORTY, an Indian citizen, is the third newcomer of this month. He has joined the Civil Engineering Section following the recruitment, by the Government of Mauritius, of Structural Engineers from India.
Mr. A. Chakraborty is the holder of a B.E in Civil Engineering from Jadavpur University in Calcutta (1994) and a Masters in Structural Engineering from Bombay University, obtained in 1999.
Before coming to Mauritius, Mr. A. Chakraborty has worked for UHDA Co. in the design of industrial structures for the petrochemical industry, then in the design of bridges for the Land Transport Department of Singapore. He then worked for Pellfishmann (UK) in the design of buildings, and finally in Jamaica, where he designed the bridges and culverts on their first highway—Highway2000.
Mr. A. Chakraborty has also been posted under the Principal Engineer in charge of Education Projects, and he has also been assigned structural design works.
HOT SPOT

By Kiran Bhujun

Communication... a new Challenge

Communication... a big word, and too often a vain one. What is communication? Or rather, how do people communicate? And how do we at the Civil Engineering Section communicate and what are the tools put to our disposal for communicating?

The Basic

The basic communication tool, in our modern time, is the telephone set, as an open line to the outside world. Three basic forms of this tool exist nowadays:

(a) A cellular phone; (b) A direct line and (c) A phone connected through a PABX system.

In the Civil Engineering Section, none of the above is available to everyone... yeah? Well... oops, that’s already an example of bad communication. The first sentence was in fact supposed to mean: “In the Civil Engineering Section, none of all of the above is available together to most Engineers” ... Haaa... I just saved myself from another wave of protest...

Cellular phones, with subsidized operational fees have, in fact, been provided to some of the senior staff... while the rest of us have been put on hold for similar facilities... Does that mean that Engineers’ communication needs is less or less important than others’? I don’t think so... Many of us already “adjust” and use our personal phone set to communicate with our heads, contractors, clients and other department... but for how long?

Luckily the new CPP* protocol has somehow alleviated the cost of mobile communication. But then, is it normal that our professional communication needs are constrained, thereby we may be causing unnecessary delay in our projects?

HOT SPOT feels that measures should be taken to encourage Engineers to use their personal mobile phones for official purposes, but that they should be granted a decent monthly allowance for the same, say some Rs 400 per month, to pay for the cost of communication and to account for the depreciation in the Engineer’s personal mobile phone, through more frequent use. This will have the advantage of reducing the Ministry’s capital investment in purchasing a set for each Engineer, while having the benefit of readily being able to contact these officers for information when so required.

Along the same line, some Engineers at this Ministry have recently been provided with PABX phone sets, following upgrading works in the telephonic system. While we were all very pleased that this new system will be a digital one, as indicated in the project files, with facilities to have a voice mail, caller recognition and calling number logging system, we were taken by surprise to see that we, Engineers, have been allotted basic analogue phone sets... and the surprise was even more when it was realised that many of our Architect colleagues had been provided with a digital set since last year... the current distribution ratio right now stands at 4 digital sets for Engineers: approx 15 sets for Architects: 3 sets for Quantity Surveyors!!!

Is it normal for Engineers to be constantly taken for granted and treated as second-class professionals in this Ministry? Or is that the case because we, Engineers, are not the ones “managing” these projects? One of the reasons brought forward for this differential purchase scheme is the high cost of digital phones compared with analogue ones, and that money was not available to one buy one for everybody... then, why not for the time being, share the digital phones equally between all the professionals of the MPI, and why not buy some more such phones during this financial year?

HOT SPOT will request that, in future, the requirements of all Sections be taken prior to any “common projects” being undertaken at the Technical Office, and should finance be a hurdle for overall procurement, then at least equal distribution should be seriously envisaged. This should be the first line of professional etiquette, as against “control and grab” motives.

Similarly, it should be stressed, again, that many Engineers still do not have a direct phone line in their office. The answer to this query: these people can make their call through the PABX operator... Should an Engineer’s work be allowed to be constrained by a PABX operator? What will happen on the day that the latter is absent?
Communication... a new Challenge

On the contrary, a telephonic system should be set-up so that we, Engineers, do not miss any phone calls, so that we can log all our callers’ ID or take their message, and call them back once we are back in office, from site. That would be working in a professional manner... The Modern

Another tool made available to us recently is email facilities and internet connection. This is most welcome and was long overdue. Appreciation of the work being done by the CISD* staff at MPI to set-up and maintain the system is highly commendable. The next step in this “IT proficiency” evolution should now be the optimal use of these facilities.

Most of us have, by now, realized the time-saving effect of computers and inter-connectivity. It is felt that a new culture needs to be developed, with people being encouraged to share their files, survey photos, etc over the network, instead of tediously copying them on floppies, then transferring them around, etc. Similarly, it should be realized that internet is not only to download music and the like, as some may think, but also a formidable tool to make things happen faster.

However, to extract the maximum benefits from the computer system installed, it is felt that “email / web awareness programmes” should be implemented, so that people can know how a computer can be used for a better job quality. Of course, this should not apply to those Engineers who, for unknown reasons, have not been granted a computer to work, in the first place...

By extension, with these new facilities, we hope that in the near future meetings too would be held online, in a netmeeting conference room. The advantages are obvious: no travelling, no hassle of having to stop a task to go somewhere, no added traffic on the roads, and no headache of finding a parking space. With the set-up of the GINS* project, can netmeeting help to reduce traffic on the roads? It might be the case for our Ministry, where different Engineers travel very regularly to Port Louis to attend several meetings of varying nature. On the lighter side, to make the “money-people” smile, netmeeting will also reduce the recurrent expenses incurred in providing refreshments during a traditional meeting © The Conventional

Talking of “traditional meeting”; this is yet another means of communication available to us. Such meetings are generally welcome because they allow staff members to remain in touch with their section as a unit, while allowing them to voice out their problems and apprehensions. These, however, are very rare at the Civil Engineering Section. The last general body meeting that I remember was the one to canvass people to join the RDA... In the current work conjuncture, with increasing work load, it is felt that the conduct of general meetings, as well as meetings between members of smaller units is a must. This will allow better planning of projects, but also will be an incentive for all of us to improve the control over projects and be ready for reporting on the status of our projects, albeit slight additional increases in work load.

One of the very obvious advantages of meetings that every staff member is able to voice out his opinions and any differences. This is more solution-related than, for example, some staff members feeling, sometimes, forced to substitute dialogue with protest letters... with often a handful masterminding the plot and others being pressurized to join in ....

The last of the more “traditional” means of communication at our disposal is the “old but good” letter... Their use is already well documented, so HOT SPOT will not analyse them further...

The Non-Conventional

At another level, the degree of camaraderie among our generation of Engineers is a promise of a brighter professional future in the Civil Engineering Section.

CPP: Caller Party Pays:
CISD: Central Information Systems Division
GINS: Government Intranet System

continued on page 14
HOT SPOT

The number of participants and enthusiasm in after working hours “social” meetings is highly viewed and has so far led to great memories. Some of the more recent activities include the Winter Domino Tournament, Barbeque parties, the fishing trips, the football and badminton matches...

A recent addition to this non-conventional folklore, at the Civil Engineering Section, is the publication of this Newsletter. One of the aims of this newsletter is to inform about facts and create atmospheres of interaction, for the general realisation that the Civil Engineering Section is one entity and to inform its members that no-one is really doing things – or should be doing things – on a stand-alone basis. This Newsletter was also launched to enable people to express their opinions and invite others, with diverging views, for a sane, mature and responsible debate. While the facts are being disseminated, the reactions which will begin the debates are still being awaited.

The end-note

So, what are the possible solutions to all these short-comings? As usual, HOT SPOT has not only pin-pointed FACTS but has also proposed one possible set of solutions for the black spots earmarked. The above is only a broad analysis of our communication system, but HOT SPOT hopes that the Authorities will take note of our grievances, as well as our humble proposals, and that acceptable solutions will be implemented at the earliest. The Team, again, welcomes any suggestions, critics*, etc which can be of some help in the constructive development of the Civil Engineering Section at large.

* Definition of critics: Any comments, whether positive or negative, but Non-egotistic and non-conceit, about the topic of discussion, which can bring about an improvement in either the quality of HOT SPOT or a change, for the better, in the working conditions at the Civil Engineering Section.

READERS’ CORNER

The Team has received the following comment from Mr. Bava S. Sathan of London regarding the previous CONCEPTS—the Thames Barrier article.

Although it is an interesting read about a fine piece of engineering, I would like to bring some additional information: it was mentioned in the article that the barrier has been raised only 27 times since its construction - According to information published by the Environment Agency (the leading public body in the UK in charge for Environmental protection), the gates are operated once every month for maintenance and testing purposes. Other than that the barrier has been operated 57 times over the last six years, compared to only 4 times in between the period after its completion in 1983 and up to 1989 (New Civil Engineer, Magazine of the Institution of Civil Engineer, 1st July 2004 – “Thames Gateway – Opening the Floodgates” pp 18-19)

Moments: Thank you dear reader.... We seize the opportunity to invite readers to come forward with their comments and suggestions in the future.

THANKS FOR YOUR HELP

Mr. S.K. Das

Mrs. P. Jhummun

Mr. D.D. Bunjun

Mrs B. Gupta
HUMOUR

Bill Gates in Hell

Upon dying, Bill Gates went to purgatory.

St. Peter said to him, "Now Bill, you have done some good things, and you have done some bad things. Now I am going to let you decide where you want to go".

So, Bill takes a look at Hell and see these beautiful women running around on beautiful beaches... etc...

Then he took a look at heaven and it was nice, you know harps and singing and worship and stuff like that.

So he said to St. Peter that he would like to go to Hell.

About a week later, St. Peter went down to Hell to check on Bill. There he saw him, being whipped by demons.

He said to St. Peter, "What happened to all the beautiful women, and the beaches and the hot stuffs?"

St. Peter replied, "Oh, that was just the screen saver."

To our (newly) married friends :-)

She Said, He Heard

What a woman says:
"This place is a mess! C'mon, you and I need to clean up, Your stuff is lying on the floor and you'll have no clothes to wear, if we don't do laundry right now!"

What a man hears:
"blah, blah, blah, blah, C'MON blah, blah, blah, blah, YOU AND I blah, blah, blah, blah, ON THE FLOOR blah, blah, blah, blah, NO CLOTHES blah, blah, blah, blah, RIGHT NOW"

MOMENTS is now on the web and can be downloaded from our Ministry’s web-page web: http://publicinfrastructure.gov.mu/news.htm. Please use this visit to check out the Civil Engineering Section web-page too...

The Team invites all those interested in submitting articles to MOMENTS to do so as soon as possible after the publication of each issue. Please contact any of the Team members for any additional information.

Articles and any suggestions towards improving the quality of this newsletter are most welcome.

Please direct your comments / letters to:

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Chief Censor

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