

Department of Environment
Government of West Bengal
Block G, 2nd, Floor, Writers Building
Kolkata :700001

No. EN/ 04 /T-II-1/025/2012

Date: 01/07/2012

To
M/s. Harmony Vinimay Pvt. Ltd.
1, Sarojini Naidu Sarani
Kolkata – 700 017

Subject : *Environmental Clearance for the Proposed Residential Complex by M/s. Harmony Vinimay Pvt. Ltd. at Premises No. - 67, Christopher Road, Borough – VII, PO – Gobinda Khatik Road, PS – Tangra, Ward No. 58 of Kolkata Municipal Corporation, Kolkata - 700046*

Sir,

This has a reference to your application dated 04/04/2012 and subsequent communications for Environmental Clearance for the Proposed Residential Complex by M/s. Harmony Vinimay Pvt. Ltd. at Premises No. - 67, Christopher Road, Borough – VII, PO – Gobinda Khatik Road, PS – Tangra, Ward No. 58 of Kolkata Municipal Corporation, Kolkata – 700046.

The proposal has been examined and processed in accordance with EIA Notification, of 2006. It is noted that the proposed proposal is for construction of a Residential Complex having two G+24 storied buildings (inter connected at ground, 1st, 2nd, and roof level) having 101 nos. residential flats. The ground floor of the building consists of car parking areas, services and amenities. First and second floors of the proposed buildings will be used for accommodation of car parking and services. From third floor onwards, residential flats have been provided. On third floor itself, private terrace gardens are also have been provided. Related amenities in terms of Gymnasium, Games Room, and Recreational Rooms etc. have been provided on 24th floor only. On roof level, a swimming pool also has been provided.

Salient features of the proposed project are –

Land Area	: 1,825.343 sq.m.
Expected Population	: Residents : 542, floating : 50, Service Staffs : 40, Total : 632
Total Water requirement	: 109 kLD (Domestic : 84, Car cleaning : 5, Road & Pavement : 3, Landscaping : 17)
Fresh Water requirement	: 56 kLD (KMC)
Wastewater generated	: 67 kLD (to be treated in STP)
Wastewater recycled	: 51 kLD (for landscaping, road cleaning, toilet flushing, car cleaning)
Wastewater discharged	: 9 kLD (KMC sewer)
Solid waste disposal	: 320 kg per day (to be collected for disposal by KMC)
Total Built-up Area	: 31,111.59 sq.m.
Ground Coverage	: 2,187.490 sq.m. (27.95% of land area)
Internal Road & Pavement	: 1,910.335 sq.m. (24.412% of land area)
Semi Paved Area	: 1,011.983 sq.m. (12.932% of land area)

Signature

Conditions for Environmental Clearance for the proposed Residential Complex by M/s. Harmony Vinimay Pvt. Ltd. at Premises No. - 67, Christopher Road, Borough - VIII, PO - Gobinda Khantik Road, PS - Tangra, Ward No. 58 of Kolkata Municipal Corporation, Kolkata - 700046.

Exclusive tree plantation area	: 1,775,983 (22.7% of land area)
Soft Area (other than plantation)	: 277,183 (3.542% of land area)
Services & utilities area	: 662.37 sq.m. (8.464% of land area)
No of trees existing / proposed	: Existing - 1, (will be retained) , proposed 109
No. of Parking spaces proposed	: 238 (Covered - 162, Open - 76)
Total Power requirement	: 2542 KW, CESC
Backup Power	: DG Sets (2x500 KVA)
No. of Solar street light	: 11 nos.

State Level Environment Impact Assessment Authority (SEIAA), examined the proposal and also perused recommendations of the State Level Expert Appraisal Committee (SEAC). After due consideration of the project proposal, and after considering the recommendations of the State Level Expert Appraisal Committee (SEAC), the State Level Environment Impact Assessment Authority accords Environmental Clearance to the project as per provisions of the EIA notification no. S.O. 1533 (E) dt. 14th September, 2006 of Ministry of Environment & Forests, GOI, subject to strict compliance of terms and conditions as mentioned below.

Part A – SPECIFIC CONDITIONS

I. Construction Phase

Facility of labourers during construction: -

- Provision of drinking water, wastewater disposal and solid waste management should be ensured for labour camps. Water usage during construction should be optimised to avoid any wastage.
- Proper sanitation facilities should be provided for construction workers to ensure environmental sanitation. Sewage generated from the areas occupied by the construction labourers have to be directed into the existing sewage drain of the area. In case of non-availability of the sewer system, an onsite treatment system has to be provided.
- Health and safety of the workers should be ensured during construction. Personnel protective equipment like helmets, earmuffs, earplugs etc. should be provided to the workers. For vibration control damped tools must be used and the number of hours that a worker uses them must be limited.

Steps to avoid disturbance during construction:-

- All the topsoil excavated during construction activities should be stored for use in horticulture/landscape development within the project site. Adequate erosion and sediment control measures to be adopted before ensuing construction activities.
- Prior permission should be obtained from the competent authority for demolition of existing structure, if any waste recycling plans should be developed for prior to beginning of demolition or construction activity. The plans should identify the wastes to be generated and designated handling, recycling and disposal method to be followed.
- Disposal of muck including excavated material and demolition debris during construction phase should not create any adverse effects on the neighbouring communities and disposed off taking the necessary precautions for general safety and health aspects.
- Diesel generator sets during construction phase should have acoustic enclosures and should conform to E(P) Rules prescribed for air and noise emission standards.



Conditions for Environmental Clearance for the proposed Residential Complex by M/s. Harmony Vinimay Pvt. Ltd. at Premises No. - 67, Christopher Road, Borough - VII, PO - Gobinda Khutik Road, PS - Tangra, Ward No. 58 of Kolkata Municipal Corporation, Kolkata - 700046

- v. Vehicles / equipment deployed during construction phase should be in good condition and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.
- vi. Ambient noise levels should conform to residential standards both during day and night. Only limited necessary construction should be done during nighttime. Fortnightly monitoring of ambient air quality (SPM, SO₂ and NO_x) and equivalent noise levels should be ensured during construction phase.
- vii. Construction spoils including bituminous material and other hazardous materials including oil from construction equipments must not be allowed to contaminate watercourses and the dumpsites for such material must be secured so that they should not leach into the ground water. If necessary, oil trap should be installed where there is deployment of heavy machineries.
- viii. Regular supervision of the above and other measures should be in place all through the construction phase so as to avoid disturbance to the surroundings.
- ix. The proponent must ensure that no driven piles shall be proposed for this project.
- x. 15m-screen and adequate sprinkler arrangement shall be provided. Care should be taken to keep all material storages adequately covered and contained so that they are not exposed to winds.
- xi. Loading and unloading operations should not be carried out in open areas.
- xii. Use of Ready-Mix concrete is recommended for this project.
- xiii. Adequate measures to be adopted to avoid wastage of water for curing of concrete structures.
- xiv. Adequate mitigative measures should be adopted to control dust emissions, noise and vibrations from construction activities. Vehicles and construction machineries should be properly maintained. Vehicles should conform to Pollution under control (PUC) norms.
- xv. Locally available materials with less transportation cost should be used preferably.
- xvi. Promotion of use of cleaner fuel and fuel quality improvement should be done. Excessive energy consumption and fuel usage should be avoided.
- xvii. Accumulation/stagnation of water should be avoided to ensure vector control.

Selection of materials for better energy efficiency:-

- i. Use of energy efficient construction materials should be ensured to achieve the desired thermal comfort.
- ii. Design layout should ensure adequate solar access and ventilation. Proper planning and window design for daylight integration should be considered.
- iii. Fly Ash is to be used for construction as per Notification No. S.O. 763(F) dated 14.09.1999 amended vide Notification No. S.O. 979(E) dated 27.8.2003 and S.O. 2804(F) dated 03.11.2009 of the Ministry of Environment & Forests, Govt. of India.
- iv. Construction should conform to the requirements of local seismic regulations. The project proponent should obtain permission for the plans and designs including structural design, standard and specifications from concerned authority.
- v. Construction technologies that require less material and possess high strength should be adopted. Materials with low embodied energy and high strength should be used preferably.
- vi. Use of alternate building materials and alternate construction techniques should be considered apart from the conventional materials and methods. Use of hollow unit masonry should be considered.
- vii. Use of energy efficient lighting systems e.g. High Pressure Sodium Vapour (HPSV) Lamps, LED etc. should be promoted. Solar energy should be used for outdoor lighting as far as practicable.
- viii. Passive solar cooling to be incorporated in building design. Buildings should be oriented for ensuring natural ventilation and daylighting.



Conditions for Environmental Clearance for the proposed Residential Complex by M/s. Harmony Vinimay Pvt. Ltd. at Premises No. - 67, Christopher Road, Borough - VIII, PO - Gobinda Khatik Road, PS - Tungra, Ward No. 58 of Kolkata Municipal Corporation, Kolkata - 700046.

- ix. Proper insulation of roof should be provided to achieve desired thermal comfort. Use of light coloured, reflective roofs having an SRI (solar reflectance index) of 50% or more should be incorporated.
- x. Use of high albedo or reflective pavements to keep parking lots, pavements and inside roads cool should be incorporated.
- xi. Guidelines to the occupants should include usage efficiency measures such as energy efficient lighting and water efficient system.
- xii. Reduce hard paving-onsite (open area surrounding building premises) and/or provide shade on hard paved surfaces to minimize heat island effect and imperviousness of the site.
- xiii. Adequate open space, greenery and water bodies to be provided as per rules.
- xiv. Any proposed building with air-conditioning facility should follow the norms proposed in the ECBC regulations framed by the Bureau of Energy Efficiency. Use of chillers will be CFC & HCFC free.
- xv. Restrict the use of glazed surface as per National Building Code 2005.

Water Body Conservation:-

- i. Water body if any should not be lined and no embankments should be cemented. The water bodies are to be kept in natural conditions without disturbing the ecological habitat.

Plantation Proposal:-

- i. The unit should strictly abide by The West Bengal Trees (Protection and Conservation in Non-Forest Areas) Rules, 2007. The proponent should undertake plantation of trees over atleast 20% of the total area.
- ii. No trees can be felled without prior permission from the Tree Cutting Authority constituted as per the West Bengal Trees (Protection and Conservation in Non-Forest Areas) Act, 2006 and subsequent rules.
- iii. The proponent should plant atleast 109 trees, as proposed. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.

Water supply:-

- i. Water requirement during construction phase shall be met from KMC supply.

Sewage Treatment Plant:-

- i. As per the proposal submitted by the proponent wastewater shall be treated in Septic tank and discharged to KMC sewer.

Stormwater Management & Mitigation of Heat Island Effect :-

- i. Imperviousness of the site shall not exceed the NBC (National Building Code 2005) standards for imperviousness factor applicable to different types of area.
- ii. Total paved area of site under parking, roads, paths or any other use should not exceed 25% of the site area.
- iii. Minimum 50% of paved area on site should have pervious paving or shaded under vegetation or topped with finish having solar reflectance of 0.5 or higher.
- iv. Adequate stormwater drainage network to be designed for the project without disturbing the surrounding settlements. Storm water management plan should be implemented so as to prevent sudden discharge of excessive volumes of storm water to the receiving waters thus reducing the shock load on the drainage system and impact on receiving water body.
- v. Disruption to the natural hydrology of the site should be minimised by reducing impervious cover, increasing on site infiltration and managing storm water run off.
- vi. Heat island effect should be minimized by use of shading or reflective surfaces, mainly the surfaces that contribute to the heat island effect i.e. streets, sidewalks, parking lots and buildings. White roofs should be provided in the buildings.

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Conditions for Environmental Clearance for the proposed Residential Complex by M/s, Harmony Vinimay Pvt. Ltd. at Premises No. - 67, Christopher Road, Borough - VII, PO - Gobinda Khatik Road, PS - Tangra, Ward No. 58 of Kolkata Municipal Corporation, Kolkata - 700046.

Rain Water Harvesting Scheme:-

- i. The proponent must follow the Rainwater Harvesting Guidelines of the State Expert Appraisal Committee (SEAC) available in the website (<http://www.wbpcb.gov.in>).
- ii. The proponent must collect rainwater from roof-top catchments and reuse for various purposes after necessary cleaning. Water bodies should be created and used for storing rain water. Adequate retention time and storage provisions should be provided for harvesting rainwater.
- iii. The sub-surface recharge proposal including design of recharge structure and location of recharge structure should be considered as per the SEAC guidelines.
- iv. Adequate water storage for firefighting should be provided as per norms.

Municipal Solid Waste Management :-

- i. Adequate provision shall be made for storage of solid waste and adequate means of access shall be provided. Space should be kept reserved for waste storage, collection etc. in site planning and architectural designs.

Transport Management: -

- i. Both internal and external traffic planning and management should be adequate to ensure uninterrupted traffic movement in the area during construction as well as operation phase.
- ii. The design of service road and the entry and exit from the project area should conform to the norms & standards of competent authority for traffic management. Bell mouth type arrangement should be made at the entry & exit. Proper traffic management plan should be adopted in consultation with Traffic authorities.

Others:-

- i. All mandatory approvals and permission as required from Director of Explosives, Fire Department etc. should be obtained.
- ii. Provision of Effective Controls and Building Management Systems such as Automatic Fire Alarm and Fire Detection and Suppression System etc. must be ensured.
- iii. Use of Energy efficient lighting systems should be promoted for energy conservation.
- iv. Efficient management of indoor air quality must be ensured for health and safety of the users.
- v. Adequate measures to be adopted for water conservation during construction and operation stage. Use of efficient irrigation equipment, evaporative cooling unit in air-conditioning system etc should be considered.
- vi. Rest room facilities should be provided for service population.
- vii. Provisions should be kept for the integration of solar water heating system.
- viii. Adequate access to fire tenders should be provided.
- ix. CO monitoring facility with automatic alarm should be provided at basement car parking, if any.

II. Operation Phase

Water supply :-

- i. Water requirement during operation phase shall be met from KMC supply.
- ii. Use of water meter conforming to ISO standards should be installed at the inlet point of water uptake to monitor the daily water consumption. Use of water efficient devices / fixtures and appliances should be promoted. Installation of dual flushing system should be considered to conserve water.
- iii. The proponent must practice rainwater harvesting on regular basis.

Sewage Treatment Plant:-

- i. As per the proposal submitted by the proponent waste water shall be treated in STP and discharged to KMC sewer. Discharge of treated sewage should conform to E(P) Rules.

Conditions for Environmental Clearance for the proposed Residential Complex by M/s. Harmony Vinimay Pvt. Ltd. at Premises No. - 67, Christopher Road, Borough - VII, PO - Gobinda Khaitik Road, PS - Tangra, Ward No. 58 of Kolkata Municipal Corporation, Kolkata - 700046.

Emission from Diesel Generator Set: -

- i. Noise barriers will be provided at appropriate locations so as to ensure that the noise levels do not exceed the prescribed standards. Diesel generator sets should be provided with integral acoustic enclosure at the manufacturing stage itself as per CPCB norms.
- ii. The stack height and emissions from D.G. sets should conform to the norms of Central Pollution Control Board. The certification of space design for DG sets should be done by competent authority.

Ensure Energy Efficiency:-

- i. Use of energy efficient construction materials to achieve the desired thermal comfort should be incorporated. The desired level of R and U factors must be achieved. U factor for the top roof should not exceed 0.4 Watt/sq.m/degree centigrade with appropriate modifications of specifications and building technologies. The provisions of National Building Code 2005 should be strictly followed.
- ii. Use of energy efficient electrical systems should be promoted. High efficiency lamps with electronic ballasts should be used.
- iii. Energy efficient Motors and properly rated Transformers should be installed. Manufacturer's certificate to this effect shall be obtained and kept on record. Back up power supply should be based on cleaner fuel.
- iv. The power cabling shall be adequately sized as to maintain the distribution losses not to exceed 1% of the total power usage. Record of transmission losses shall be maintained. The proponent shall install permanent electrical metering to record demand (kVA), energy (kWh) and total power factor.
- v. The project proponent should resort to solar energy at least for street lighting and water heating.

Transport Management: -

- i. Use of public mode of transportation should be promoted. Use of the least polluting type of transportation should be promoted. Adequate parking space should be provided as per norms.
- ii. Pathways should be covered or shadowed by tree canopy as far as practicable. Transport system should be such that traffic will be calm in neighbourhoods. Traffic within the project site should be restricted by regulation. Adequate vertical and horizontal clearances of overhead electric power and telecommunication lines should be provided.

Solid Waste Management:-

- i. The proponent should abide by the Municipal Solid Wastes (Management and Handling) Rules, 2000. The proponent must develop the Solid Waste Management and Disposal Scheme ensuring storage and segregation of biodegradable and non biodegradable wastes. The solid waste is to be disposed off in consultation with KMC.
- ii. The proponent should provide different coloured bins for different categories of waste and ensure complete segregation of biodegradable and non-biodegradable wastes. The solid waste from different collection and storage bins should be finally collected at transfer stations. Further segregation will be done at transfer stations to collect recyclables such as plastic, polythene, glass, metals, textiles, rubbers, leathers, paper etc. Separate compartments shall be provided for each type of recyclables.
- iii. The proponent should abide by the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008. Collection and storage of hazardous wastes during Pre-construction and Post-construction activity should be planned properly. The expected hazardous wastes should be disposed off separately as per the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008.
- iv. Spent oil from DG Sets should be stored in HDPE drums in isolated covered facility and disposed off as per the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008. Spent oil from DG Sets should be disposed off through registered recyclers only.

Others :-

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Conditions for Environmental Clearance for the proposed Residential Complex by M/s. Harmony Vinimay Pvt. Ltd. at Premises No. - 67, Christopher Road, Borough - VII, PO - Gobinda Khatik Road, PS - Tangra, Ward No. 38 of Kolkata Municipal Corporation, Kolkata - 700046.

- i. The implementation of Environmental Management Plan should be carried out, as proposed. Regular monitoring should be carried out during construction and operation phases.
- ii. The project proponent should provide guidelines to the users to ensure conservation of energy and water. In-house environmental awareness campaigns should be carried out at regular intervals to ensure environmental protection.
- iii. Fire fighting systems should be designed in compliance with the WBFS and NBC norms. Preventive measures should be adopted for Risk & Disaster Management as per the provisions of the National Building Code 2005.
- iv. The proponent should obtain NOC for Height Clearance from AAI, if applicable.
- v. The Corporate Social Responsibility Plan with specific financial commitment should be implemented for the proposed project.
- vi. The proponent should abide by the Direction issued by the Department of Environment, Government of West Bengal, vide No. FN/3170/T-IV-7/001/2009 dated 10.12.2009.
- vii. Environmental Management Information System shall be maintained properly.

Part-B GENERAL CONDITIONS

- i. The environmental clearance accorded shall be valid for a period of 5 years for the proposed project.
- ii. Prior Consent-to-Establish (NOC) for the proposed project must be obtained from WBPCB by the proponent. All other statutory clearances should be obtained by project proponent from the competent authorities.
- iii. The proponent should maintain a display board at the site, providing detailed information on the salient features of the proposed project.
- iv. The environmental safeguards contained in the EMP report should be implemented in letter and spirit.
- v. All the conditions, liabilities and legal provisions contained in the EC shall be equally applicable to the successor management of the project in the event of the project proponent transferring the ownership, maintenance of management of the project to any other entity.
- vi. Provision should be made for the supply of kerosene or cooking gas to the labourers during construction phase. All the labourers to be engaged for construction works should be screened for health and adequately treated before issue of work permits.
- vii. The project proponent should make financial provision in the total budget of the project for implementation of the suggested safeguard measures.
- viii. Six monthly monitoring reports should be submitted to the West Bengal Pollution Control Board, who would be monitoring the implementation of environmental safeguards and should be given full cooperation, facilities and documents / data by the project proponents during their inspection. A complete set of all the documents should also be forwarded to the State Level Environment Impact Assessment Authority, West Bengal.
- ix. In case of any violation of the conditions laid down in this Environmental Clearance, Section 16 of The Environment (Protection) Act, 1986, will be applicable. In case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEIAA, West Bengal.



Conditions for Environmental Clearance for the proposed Residential Complex by M/s. Harmony Vinimay Pvt. Ltd. at Premises No. - 67, Christopher Road, Borogh - VII, PO - Gobinda Khatik Road, PS - Tangra, Ward No. 58 of Kolkata Municipal Corporation, Kolkata - 700046.

- x. The State Level Environment Impact Assessment Authority, West Bengal reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time-bound and satisfactory manner.
- xi. The Project Proponent should inform the public that the proposed project has been accorded environmental clearance by the SEIAA, West Bengal and copies of the clearance letter are available with the State Pollution Control Board / Committee and may also be seen at website of the SEIAA, West Bengal (<http://enviswb.gov.in>). This should be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned.
- xii. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Civil Aviation Department (if required) etc. shall be obtained by project proponents from the competent authorities.
- xiii. Provision for incorporation of appropriate conditions in the Sale Agreement / Deed, for ensuring sustained Operation and Maintenance (O&M) of the common facilities (STP, Rainwater harvesting system, Solid waste management system, Solar street lights etc.) even after transfer of ownership of the project, should be made in explicit and transparent manner. Copy of the Agreement should be submitted to the SEIAA.
- xiv. The above stipulations would be enforced along with those under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008, the Public Liability Insurance Act, 1991, the Environment Impact Assessment Notification 2006 and their amendments.

Yours faithfully,



(Debal Ray)

Member Secretary, SEIAA &
Chief Environment Officer



BHARAT SANCHAR NIGAM LIMITED

(A Govt. of India Enterprise)

Office of the Chief General Manager, Telecom Projects, E/Zone,

Microwave Survey Division,

2/5A, Judges Court Road, Alipore, Kolkata – 700 027

To

The Director
Harmony Vinimay Pvt. Ltd.
67, Christopher Road,
Kolkata-700046.

No-G/MWC/1-150/T.B/2011-12/16/Vol.-III

Dated at Kolkata 21-01-2012

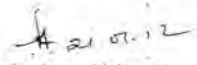
Sub:- Clearance of height of proposed buildings at Premises No. 67 Christopher Road (Including Premises No. 6 Tangra 2nd Lane), KMC Ward No.-58, Borough-VII, Kolkata-700046.

Sir,

In connection with your application dated 06-01-2012 regarding above mentioned subject, it is observed that there is no physical obstruction to the existing /Working BSNL Microwave schemes, hence the height of the proposed buildings at the above mentioned premises has been cleared for **108.0M (One Hundred Eight Point Zero meters only)** above ground level including lift machine room and water tank on the roof top.

One set of drawings, duly signed is returned herewith. Any change in the drawings is not permissible, if so, a separate application with proper drawings in this regard is to be submitted to this office.

Encl:- As stated


Divisional Engineer Telecom.
Microwave Survey Division
Kolkata.

2

GOVERNMENT OF WEST BENGAL
Office of the Competent Authority, Kolkata under
the Urban Land (Ceiling and Regulation) Act, 1976
Mayukh Bhavan, 2nd & 3rd Floor, Bidhannagar
Kolkata -700 091.

No. 24 U.L.
XVI-3232/2011

Dated 16/2/2012 200

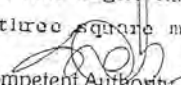
To
Shri/Smt. M/s. Harmony Vinimoy Pvt. Ltd. & 15 other companies,
67, Christopher Road,
Kolkata-700 046.

Sub: Your application for No-objection Certificate dated 10.2.2012 in respect of
Premises No. 67, Christopher Road, Kolkata-700 046.
..... in terms of Rule 4(4) of the
Kolkata Municipal Corporation Building Rules 1990.

1. In consideration of your application and prayer thereof No-objection certificate is hereby granted in terms of rule 4(4) of the Kolkata Municipal Corporation Building Rules, 1990 in respect of the landed property mentioned hereunder.
2. A statement required in terms of provision of section 22(1) of the Urban Land (Ceiling and Regulation) Act, 1976 must be filed by you after demolition or destruction of existing structure/ structures within the stipulated time.

Schedule of land

Premises No. 67, Christopher Road, Kolkata-700 046.
Area 7825.343 M² (Seven thousand eight hundred twenty five point three four three square metres).

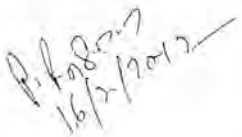

Competent Authority, 16.02.2012
Kolkata.

No. XVI-3232/2011 U.L.

Dated 200

Copy forwarded to :-

1. The Deputy Chief Engineer, The Kolkata Municipal Corporation, 5, S. N. Banerjee Road, Kolkata - 700 013 for information. He is also requested to intimate the date of demolition or destruction of existing structures of the premises land in due time. This cancels the previous N.O.C. vide no. 112/XVI-3232/2011/U.L. dated 25.10.2011.
2. The Joint Secretary, Urban Development Department, Urban Land Ceiling Branch, 'Nagarayan', 3rd Floor, Salt Lake City, Kolkata - 700 064.


16/2/2012



Competent Authority,
Kolkata.

GOVERNMENT OF WEST BENGAL
OFFICE OF THE DIRECTOR GENERAL
WEST BENGAL FIRE & EMERGENCY SERVICES
13-D, Mirza Galib Street, Kolkata – 700 016.

Memo. No. : WBFES/DB/FP/122/12/Kol.-RB/96/12(96/12) Date : 07.02.12 .

From : Director,
West Bengal Fire & Emergency Services.

To : The Director,
M/S. Harmony Vinimay Pvt. Ltd. & Others,
67, Christopher Road, Kolkata-700 046.

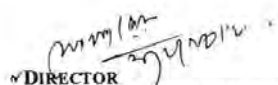
Sub : Fire and Life Safety recommendation for G+24 storied Residential Building at premises No.- 67, Christopher Road, Kolkata-700 046, Ward No.-58, Borough-VII, P.S.-Tangra, Under K.M.C.

This is in reference to your letter No.-Nil dated 16.01.2012 regarding life and fire safety measure for proposed G+24 storied Residential Building at premises No.- 67, Christopher Road, Kolkata-700 046, Ward No.-58, Borough-VII, P.S.-Tangra, Under K.M.C.

The plans submitted by you were scrutinized and marked as found necessary from fire safety point of view. In returning one set of plan with recommendation, this office is issuing **Life & Fire Safety recommendation** in favour of the aforesaid building subject to the compliance of the following fire safety measures.

Encls. :

1. One set of plan
2. Recommendation.


DIRECTOR
WEST BENGAL FIRE & EMERGENCY SERVICES

RECOMMENDATION

A. CONSTRUCTION :

1. The whole construction of the proposed building shall be carried out as per approved plan drawings conforming the relevant building rules of Kolkata Municipal Corporation.
2. The floor area exceeds 750m² shall be suitably compartmented by separation walls up to ceiling level having at least two hours Fire resisting capacity.
3. The interior finish decoration of the building shall be made low flame spread materials conforming I.S. specifications.
4. Provision of ventilation at the crown of the central core-duct of the building shall be provided.
5. Arrangements shall have to be made for sealing all the vertical ducts by the materials of adequate Fire resisting capacity.

B. OPEN SPACE & APPROACH :

1. The open space surrounding the building shall conform the relevant building rules as well as permit the accessibility and maneuverability of Fire appliance with turning facility.
2. The approach roads shall be sufficiently strong to withstand the load of Fire Engine weighting up to 45 M.T.
3. The width and height of the access gates into the premises shall not be less than 4.5M and 5 M respecting abutting the road.

C. STAIRCASE :

1. The staircase of the building shall be enclosed type. Entire construction shall be made of bricks / R.C.C. type having Fire resisting capacity not less than 4 hours.
2. The staircase of the building shall have permanent vents at the top and openable sashes at each floor level in the external wall of the building.
3. The width of the staircases shall be made as marked in the plan. Corridors and the exit doors shall conforming the relevant building rules and well as rules of the cinematograph Act. With up-to-date amendments.
4. All the staircase shall be extended up to terrace of the building and shall be negotiable to each other without entering into any room.
5. Fire and smoke doors at the entrances of all the Staircase enclosures as marked in the plan at each floor level shall be provided. The F.C.D. shall be of at least one hour Fire resisting wire glass window fitted with self-closing type openable in the direction of escape.

D. LIFT :

1. The walls of the lift enclosure shall be at least two hours Fire resisting type. Collapsible gate shall not be permitted.
2. One of the lift shall be designed for Fire Lift. The word "FIRE LIFT" shall conspicuously written at ground floor.

E. REFUGE AREA:

1. Refuge area is not less than 15sq. m. shall be provided on the external wall with cantilever projection or other suitable means at 26.2M, 42.2M, 58.2M and 74.2M. levels of the building as shown in the drawing.

2. The refuge area shall be of Fire resisting construction and protected with self closing F.C.D. at the entrance from the corridor or the staircase lobbies.
3. The position of refuge Areas shall be such that they are negotiable by the Fire service Ladder from the ground.

F. FIRE FIGHTING WATER :

Underground water reservoir having water capacity at 2,00,000ltrs. and overhead reservoir of 25,000Lts. Capacity exclusively for Fire fighting purpose with replenishing arrangements @ 1000 lts./min. Preferably from two different sources of water supply shall be provided. The Fire Water Reservoir shall have overflow arrangement with the domestic Water Reservoir as well as to avoid stagnancy of water. The water reservoir shall be kept full at all time.

G. HYDRANT SYSTEM :

1. The building shall be provided with Wet Riser of 150mm internal diameter pipe line with provision of landing valves at the Staircase landings/half landings at the rate of one such riser for 1000 Sq m of floor area. The system shall be so designed that shall be kept charged with Water all the time under pressure and capable to discharge 2850 lts /min at the ground floor level outlet and minimum 900 lts/min at the top most outlet. In both cases the running pressure shall not be less than 3.5 Kgs/Cm². All other requirements shall conform I.S. 3844-1989.
2. Provision for Hose Reel in conjunction with Wet Riser shall be made at each floor level. Conforming the relevant I. S. Specifications.
3. Yard Hydrant/Ring Main Hydrant with provision of adequate numbers Hydrant shall be installed surrounding the building in accordance with relevant I.S. specification.

H. SPRINKLER INSTALLATION:

The automatic Sprinkler installation shall be provided in all floor areas of the building as per I.S.9972. Alarm gang to be incorporated along with the sprinkler system.

I. FIRE PUMP :

Provision of the Fire Pump shall have to be made to supply water at the rate-designed pressure and discharge into the water based system, which shall be installed in the building. One such pump shall always be kept on Stand- by preferably be of diesel driven type.

A separate Fire Pump shall preferably be made for the total Sprinkler Installation of the building. Provision of Jockey Pump shall also have to be made to keep the Water based system under pressurized condition at all the time. All the pumps shall be incorporated with both manual and auto starting facilities. The suction of pumps shall preferably of positive type or in case of negative suction the system shall be wet Riser-cum-Down comer with suitable terrace pump with overhead tank.

J. ELECTRICAL INSTALLATION & DISTRIBUTION :

1. The electrical installation including transformers, Switch Gears, Main & Meters etc. and the distribution system of the premises shall be made satisfying the code of practice for Fire safety in general building as laid down in I.S. specification 1946 – 1982.
2. The vertical ducts shall be supply sealed at alternative floor level.
3. The electrical installation shall be adequately protected with CO₂/D.C.P. or Medium Velocity / Projector System.

4 Alternative Power Supply :

Arrangements shall have to be made to supply power with the help of a generator to operate at least the Fire Pump, Pump for deep Tube-well, Fire Alarm System, Fire Lift etc. and also for illuminating the Staircase, corridors etc. and other places of assembly of the building incase of normal power failure.

K. DETECTION, ALARM AND SUPPRESSION SYSTEM :

1. Manually operated Electrical Fire Alarm system with at least three numbers of break glass type call boxes fitted with Hooters along with public address system, talk back system at each floor connecting with audio-visual panel board shall be made in Control Room. The Control Room shall be located at the entrance of Ground Floor of the building, other requirements of the system shall be made conforming I.S. 2189 - 1988.
2. Auto fire detection system with the help of Heat and smoke detector shall be installed in all places of below and preferably above false ceiling of the building. The system shall also be made in places of rooms where valuable articles have been kept. The other requirements of the system shall be made in accordance with I.S. 2189-1988.
3. The suppression system shall be made with Fire Extinguishers and total flooding system with CO2/F.M.-200 particularly in computer and Electrical processing and data room and in a room of irreplaceable articles.
4. Hooter will be sounded in such a manner so that an operation of a Detector or Manual Call Point Hooters will sounded on the same floor and immediate alternate floor.
5. Public Address System :-

Public address system linked between all floors and Control Room shall have to be established.

L. AIR CONDITIONING SYSTEM: (If any)

1. The A.H.U. shall be separated for each floor with the system Air Duets for individual floors.
2. Arrangement shall be made for isolation at the strategic locations by incorporating auto dampers in the Air Conditioning system.
3. The system of auto shut down of A.H.U. shall be incorporated with the auto detection and alarm system.
4. The air handling units room shall not be used for storage of any combustible materials.

M. FIRST AID FIRE FIGHTING SYSTEM :

First Aid Fire fighting arrangement in the style of placing suitable type of portable Fire Extinguishers, Fire Buckets etc. in all floors and vulnerable locations of the premises shall be made in accordance with I.S. 2190 - 1992.

N. GENERAL RECOMMENDATIONS :

- 1 Fire License shall have to be obtained for proposed storing and processing with L.P.G. and other highly combustible articles.
- 2 Fire Notice for Fire Fighting and evacuation from the building shall be prepared and be displayed at all vulnerable places of the building.
- 3 Floor numbers and directional sign of escape route shall be displayed prominently.
- 4 The employees and security staff shall be conversant with installed Fire Fighting equipments of the building and to operate in the event of Fire and Testing.

- 5 Arrangement shall be made for regular checking, testing and proper maintenance of all the Fire Safety installation and equipments installed in the building to keep them in perfectly good working conditions at all times.
- 6 A crew of trained Fireman under the experienced Officer shall be maintained round the clock for safety of the building.
- 7 Mock Fire practice and evacuation drill shall be performed periodically with participation of all occupants of building.
- 8 Each year a certificate is to be obtained from the **Director General, West Bengal Fire & Emergency Services** certifying about the satisfactory services, performance of all the Life and Fire Safety arrangements and installation of the building.

This shall be treated as provisional N.O.C. On compliance of all the above Fire and Life safety recommendations, the **Director General, West Bengal Fire & Emergency Services** shall be approached for necessary inspection and testing of the installation, Final N.O.C. in favour of the occupancy shall be issued on being satisfied with the tests and performances of safety aspects of installation of the building.

N.B. : Any deviation and changes the nature of use of the building in respect of the approved plan drawing, without obtaining prior permission from this office, this provisional N.O.C. will be treated as cancelled

[Handwritten Signature]
DIRECTOR

WEST BENGAL FIRE & EMERGENCY SERVICES