

23 /HIDCO/CE(EM)/BP Section/181BP/10-4

Date: 22/6/10

To,
Bengal Unitech Universal Infrastructure Pvt. Ltd.,
Block-C, 4th Floor,
22, Camac Street,
Kolkata-700016

Sub: Granting Construction Permission to Bengal Unitech Universal Infrastructure Pvt. Ltd. for their proposed "Uniworld City, Phase-6" Residential Project at Plot No. AA-III/Blk.-2/6 (Part), AA-III/Blk.-2/5 (Part) & AA-III/Blk.-2/3 (Part), Action Area-III, New Town, Kolkata.

Dear Sir,

This is in reference to your Letter No. BUUIPL/RE-PLNG/406/10, dated 16.04.10 requesting for Construction Permission of proposed "Uniworld City, Phase-6" Residential Project at Plot No. AA-III/Blk.-2/6 (Part), AA-III/Blk.-2/5 (Part) & AA-III/Blk.-2/3 (Part), Action Area-III, New Town, Kolkata.

Permission for carrying out construction of 10 numbers of Towers i.e. Tower -1, 3, 5, 7 & 9 containing Ground Floor & 14 nos. of Upper Floors and Tower-2, 4, 6, 8 & 10 containing Ground Floor & 14 nos. of Upper Floors of proposed "Uniworld City, Phase-6" Residential Project at Plot No AA-III/Blk.-2/6 (Part), AA-III/Blk.-2/5 (Part) & AA-III/Blk.-2/3 (Part), Action Area-III, New Town, Kolkata, is hereby accorded to Bengal Unitech Universal Infrastructure Pvt. Ltd., on the basis of the drawings mentioned below:

No.		Drawing Date	Final Submission Date	Title
1. SD-	P6-MP-A0-R1	16.11.09	16.04.10	Phase-6 Master Plan
2. SD-	P6-A01-R1	16.11.09	16.04.10	Phase-6 Site Plan at Roof Level
3. SD-	P6-A02-R1	16.11.09	16.04.10	Phase-6 Site Plan at Ground Level

Page 1 of 2



4.	SD-T1,3,5,7,9-1.01-R1	16.11.09	16.04.10	Phase-6 Tower-1,3,5,7 &9 Floor Plans
5.	SD-T1,3,5,7,9-1.02-R1	16.11.09	16.04.10	Phase-6 Tower-1,3,5,7 &9 Floor Plans
6.	SD-T2,4,6,8,10-1.01-R1	16.11.09	16.04.10	Phase-6 Tower-2,4,6,8 & 10 Floor Plans
7.	SD-T2,4,6,8,10-1.02-R1	16.11.09	16.04.10	Phase-6 Tower-2,4,6,8 & 10 Floor Plans
8.	SD-T1,3,5,7,9-2.01-R1	16.11.09	16.04.10	Phase-6 Tower-1,3,5,7 &9 Elevations
9.	SD-T2,4,6,8,10-2.01-R1	16.11.09	16.04.10	Phase-6 Tower-2,4,6,8 & 10 Elevations
10.	SD-T1,3,5,7,9-3.01-R1	16.11.09	16.04.10	Phase-6 Tower-1,3,5,7 &9 Sections
11.	SD-T2,4,6,8,10-3.01-R1	16.11.09	16.04.10	Phase-6 Tower-2,4,6,8 & 10 Sections
12.	SD-P6-601-R1	16.11.09	16.04.10	Gatehouse & Boundary Wall

Total 12 (twelve) numbers of approved drawings (enclosed).

Thanking you,

Chief Engineer (Estate Management)

23/1/22/HIDCO/CE(EM)/BP Section/181BP/16-13

Date: 22/6/10

Copy forwarded to:

Managing Director, WBHIDCO.

2. Additional Director General (Planning), WBHIDCO.

Chief Engineer (Estate Management)

Page 2 of 2



Tel.: 5529600

Ext.: 419

Airports Authority of India

National Airports Division

Calcutta Region, N. S. C. B. I. Airport

	Calcutta-700 052	
No.	Calcutta-700 052 AI/ER/NOC (559)/1221-1222 CRYOPS/NOC (
То	NOC FOR HEIGHT CLEARENCE ONLY.	
	Bengal Unitech Universal NOC FOR HEIGHT AND ONLY	
Ble	ock-e,4th floor,	
220	Samac Street, Kelkata-16.	
	Issue of NOC.	
1.	Please refer to your letter No	
	datedon the subject mentioned above. This office has no objection to the construction of the proposedbuilding	
2.	by *** hereinafter referred to as the applicant (s) at location	
	to height 135.1M ft./M. (in figures) One hundred thirty five feet/Metres (in words) ABOVE GROUND LABEL, so that the top of the proposed structure when erected shall not exceed 2.55M ft./M. (site Elevation) plus (+) 135.1M ft./(M) height of the structure i.e. 137.65M ft./M. ABOVE MEAN SEA LABEL. (One hundred thirty seven deci	
3.	This no Objection Certificate is being issued on the express understanding that the site-elevation reduced level (height above mean sea level) vis2.55 Mft./M. relative location of the proposed Bldg./ Structure & its distances and Bearings from the ARP/Runway ends. as tendered by the applicant (s) are correct. If, however, at any stage it is established that the said data as tendered by the said applicant is actually different from the one tendered & which could adversely affect aircraft operations, the structure or	
	parts (s) thereof in respect of which this N.D.C. is being issued will have to be demolished at his own cost	
	as may be directed by the Airports Authority of India (NAD). The applicant (s) is/are therefore advised in his/their own interest to verify the elevation and other data furnished for the site, before embarking on the propossed construction.	
4.	The issue of this 'NOC' is further subject to the provisions of Section 9-A of the Indian Aircraft Act; 1934	
	and those of any notifications issued thereunder from time to time and under which the applicant may be called upon by the Airport Authority of India (NAD) to demolish in whole or in part the structure now being authorised vide this 'N.O.C.'	
5.	No Radio/TV Antenna, lighting arresters, staircase, Mumtee, Overhead water tank and attachments or fixtures of any kind shall projech above the height indicated in para 2.	
6.	The use of oil fired or electric fired furnance is obligatory.	
7.	This Certificate is valid for a period of two years from the date of its issue. If the building/structure/Chimney is not constructed & completed within the above mentioned period of two years he will be required to obtain a fresh No Objection Certificate from the Chairmen Airports Authority of India (NAD) and/or the	
	Director of Aerodroms, Calcutta Region. The date of completion of building/structure/chimney should be intimated to the chairman/or the Director of Aerodroms Calcutta Region.	
8.	No light or a combination of lights which by reason of its intensity, configuration or colour may cause confusion with the aeronautical ground lights of the Airport shall be installed at the site at any time during or after the construction of the building.	
. , +	***Bengal Unitech Universal Infrastructure Pvt Ltd.	
	**Day & Night marking with secondary Power Supply may be provided as ICAO standered.	per
Co	py to :- (1) The Chairman, Airports Authority or India for AIRPORTS AUTHORITY OF INDIA (NAD)	
	Safdergung Airports, Rajiv Gandhi Bhavan, New Delhi-110003	
	with a Copy each document for information. (Rajkumar)' General Manager (AERO) ER	
	(2)	
	(Rajkumar).	
	(3)	

No. AAI/ER/NOC(336/14) 2036-2039.	Date: 21/7/2015
Sameer Bahri		
001&002, Action	Horizons tower 7, Unit no. n Area-III, Main Arterial Rajarhat, Kolkata-700156	
	NO Objection Certificate for Height CI	earance
This NOC is issue the provisions of C Regular Aircraft O	d by Airports Authority of India (AAI) in pursuance of re Sovt. of India (Ministry of Civil Aviation) order SO84 (E)	esponsibility conferred by and as per
1. References:	* **	
NOCID K	OLK/EAST/B/091914/64355	
Applicant Letter		
AAI Reference N	O.AAI/20012/22/2015-ARI(NOC) DT.09.07.2015	
2. NOC Details for	· Height Clearance:	
Applicant Name、	Sameer Bahri	
Type of Structure	Building	
Site Address	Plot no. III B/2, Action Area- III, New Town, Kolkata	
Site Cordinates	22 33 58N -88 29 52E 22 33 48N -88 30 6E 22 33 36 58E	5N -88 29 37E 22 33 25N -88 29
Site Elevation AMSL in Mtrs	10M Mtrs ONE ZERO METRES.	
Permissible height above Ground Level in Mtrs	135.100Mtrs ONE THREE FIVE DECIMAL ONE ZERO ME	ETRES.
Permissible Top Elevation AMSL in Mtrs	145.10NMtrs ONE FOUR FIVE DECIMAL ONE ZERO ME	TRES.
3. This NOC is sub	oject to the terms and conditions as given below:	
permissible top ele data is different fr b. The issue of the those of any notifi	on and site coordinates provided by the applicant are evation for the proposed structure. If,however, at any som the one, provided by the applicant, this NOC will be 'NOC' is further subject to the provisions of Section 9 cations issued there under from time to time including the structure of the provisions.	tage it is established that the actual invalidA of the Indian Aircraft Act, 1934 and
c. No radio/TV An	gs and trees etc.) Rules,1994. tenna, lighting arresters, staircase, Mumtee, Overhead d shall project above the Permissible Top Elevation	
	red or electric fired furnace is mandatory, within 8 KM	
not constructed & Designated Office	is valid for a period of 5 years from the date of its issue completed within the period, the applicant will be requi r of Airports Authority of India. The date of completion s office of AAI. Request for revalidation of NOC will no	red to obtain a fresh 'NOC' from the of Building/Structure/Chimney should

NOCLetter

validity period.

- f. No light or a combination of lights which by reason of its intensity, configuration or colour may cause confusion with the aeronautical ground lights of the Airport shall be installed at the site at any time, during or after the construction of the building.
- g. The applicant will not complain/claim compensation against aircraft noise, vibrations, damages etc. caused by aircraft operations at or in the vicinity of the airport.
- h. Day markings & night lighting with secondary power supply shall be provided as per the guidelines specified in chapter 6 and appendix 6 of Civil Aviation Requirement Series 'B' Part I Section 4, available on DGCA India website: www.dgca.nic.in
- i. The applicant is responsible to obtain all other statutory clearances from the concerned authorities including the approval of building plans as this NOC for height is for the purpose of 'to ensure the safe and regular aircraft operations' and shall not be used as document for any other purpose/claim whatsoever, including ownership of land etc
- j. This NOC has been issued w.r.t. the Civil Airportsas notified in S0 84(E). Applicant needs to seek separate NOC from Defence, if the site lies within jurisdiction of Defence Airport.

This certificate is issued for "HEIGHT CLEARANCE ONLY" with the approval of Competent Authority for Permissible Top Elevation 145.10M Mtrs.

CHANDAN SEN)

General Manager(ATM)ER

Airports Authority Of India

Copy to:

1. The Executive Director(ATM), AAI, Rajiv Gandhi Bhavan, Safdarjung Airport, New Delhi-110003

2. GM(NOC)/Airport Director(Bundle).

3. Guard File

4. APPLICANTS FILE.

Note: "Generate Letter" will allow to preview the letter and will able to take the print out of the Issued Letter. With the click of "Issue NOC" the Issue letter will be Finally issued and will not be available in the pending list

Generate Letter



भारतीय विमानपत्तन प्राधिकरण AIRPORTS AUTHORITY OF INDIA

By Speed-Post

Dated: 09.07.2015

No. AAI/20012/22/2015-ARI(NOC)

To,

The Regional Executive Director,

Eastern Region,

Airports Authority of India, .

NSCBI Airport,

Kolkata - 52.

Kind Attn: GM (ATM-NOC)ER

Case No. ER/336/2014 (NOCAS ID: KOLK/WEST/B/091914/64355).

Sub:- Authorization for issuance of revised height clearance.

Reference:

- 1. The NOC issued by GM Aero-ER vide letter No. AAI/ER/NOC/(336/14)/112-15.dated 06.01.2015.
- Applicant's letters No. BUUIPL/RE-PLNG/650/15, BUUIPL/RE-PLNG/652/15 dated 10.02.2015 and 19.03.2015 for Appeal.

Sir.

The Appeal application dated 10.02,2015 and 19.03,2015 was examined at AAI CHQ. You are authorized to issue revised NOC for height clearance as per following details:-

Applicant Name	Bengal Unitech Universal Infrastructure Pvt. Ltd.		
Type of Structure	Building		
Site Address	ot No. III B/2; Action Area, III, New Town, Kolkata - 700156 New Town		
Site Coordinates	22 33 58 N 88 29 52 E, 22 33 48 N 88 30 6 E, 22 33 36 N 88 29 37 E, 22 33 25 N 88 29 58 E		
Site Elevation	.10.00 Mts AMSL (Ten Decimal Zero M AMSL)		
Permissible height Above Ground Level	135.10 Mts AGL (One Hundred Thirty Five 'decimal One Zero Mts AGL)		
Permissible Top Elevation	145.10 Mts AMSL (One Hundred Forty Five Decimal One Zero Mts AMSL)		

The following additional terms & conditions shall also be included in the NOC:

"This NOC is issued as per the decision of The Appellate Committee of Ministry of Civil Aviation in its meeting held on 24.06.2015.

While issuing the NOC, CHQ reference letter may also be quoted.

This issues with the approval of the competent Authority.

"THIS IS NOT AN NOC"

varesh Pal)

दुरभाष: 24632950

Phone: 24632950

Your faithfu

Asst. Gen. Manager (ATM-NOC) For Executive Director (ATM)

Copy forwarded for information to:-

 The Joint Secretary, Chairman, Appellate Committee, Ministry of Civil Aviation, R.G. Bhavan, New Delhi - 110003.

2. The Director General of Civil Aviation, Technical Centre, Opp. SAP, New Delhi - 1100 03. (Kind Attn: Shri J.S. Rawat, Jt. DGCA).

M/s. Bangal Unitech Universal Infrastructure Pvt. Ltd., Uniworld City City, Horizons, Tower-7, Unit No. 001 & 002 Action Area - III, Main Artierial Road, New Town, Rajarhat, Kolkata - 700 156.

4. Guard file



NOC NO61767

WEST BENGAL POLLUTION CONTROL BOARD

Paribesh Bhawan 10A, Block-LA, Sector-III Salt Lake City, Kolkata-700 098

Memo No. 490 -2N-353/2005



Dated 24/07/200

From:

Member Secretary,

West Bengal Pollution Control Board

To M/s. Bengal. Vnited Saiversal 22, Camac

Sub:

Consent to Establish (NOC) from Environmental Point of View

Ref:

Yourletter No: BUUTFLVRE `340/09

Dear Sirs,

In response to the application for Consent to Establish (NOC) for proposed Unit of Mis Bengal

Unitech Universal Infrastructure PVs. Ltd., "Unimental CITY"

construction of Residential Group Housing Project having 3712

for manufacturing/stocape/instables

apartments and IRBA of 857437,37 squ.

this is to inform you that this Board hereby grants the Consent to Establish (NOC) from the environmental point of the above subject to the following conditions and special conditions annexed.

- The quality of sewage and trade effluent to be discharged from your factory shall satisfy the permissible limits as prescribed in IS: 2490 (Pt. I) of 1974; and/or its subsequent amendment and Environment (Protection) Rules 1986;
- Suitable measures to treat your effluent shall be adopted by you in order to reduce the pollutional load so that the quality of the effluent satisfies the standards mentioned above;
- You shall have to apply to this Board for its consent to operate and discharge of sewage and trade effluent according to the provisions of the water (Prevention & Control of Pollution) Act, 1974. No sewage or trade etfluent shall be discharged by you without prior consent of this Board;
- All emission from your factory shall conform to the standards as laid down by this Board;
- No emission shall be permitted without prior approval of this Board and you shall apply to this Board for its' consent to operate and atmospheric emission as per provision of the Air (Prevention & Control Pollution) Act, 1981;
- No industrial plant, furnace, flues, chimneys, control equipment, etc. shall be constructed/reconstructed/ erected / re-erected without prior approval of this Board. 247.09

Papas Kr. Gupta CHIEF ENGINEER - 1 W.B. POLLUTION CONTROL BOARD KOLKATA-700 098

NOC NO61767

- You shall comply with
 - Water (Prevention and Control of Pollution) Cess Act, 1977, if applicable.
 - Water (Prevention and Control of Pollution.) Cess Act, 1978, if applicable.
 - (iii) Environment (Protection) Act, 1986
 - (iv) Environment (Protection) Rules, 1986
 - (v) Hazardous Wastes (Management and Handling) Rules, 1989 and Amended Rules, 2000
 - (vi) Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and Amended Rules, 2000
 - Manufacture, Use, Import and Storage and Hazardous Micro-Organisms, Genetically Engineered Organisms (vii) or Cell Rules, 1989
 - (vill) The Public Liability Insurance Act, 1991 and Amended Act, 1992
 - The Public Liability Insurance Rules, 1991 and Amended Rules 1993 (ix)
 - Biomedical Wastes (Management & Handling) Rules, 1998 and Amended Rules 2000 if applicable, (x)
 - Recycled Plastics Manufacture and Usage Rules 1999, if applicable and (xi)
 - Ozone Depleting Substances (Regulation & Control) Rules, 2000, if applicable
- You will have to abide by any other stipulations as may be prescribed by any authority/local bodies/Government Departments etc.

SPECIAL CONDITION:

Please refer to Annequre, Gross Capital investment - Rs. 1221 Crores.

Any violation of the aforesaid conditions shall entail cancellation of this Consent to Establish (NOC)

Yours faithfully,

Member Secretary/ C West Bengal Polition Tailes & CHIEF ENGINEER .

W.B. POLLUTION CONTROL BOARD KOLKATA-700 098 Dated

Copy forwarded for information to :

Chief Inspector of Factories, Government of West Bengal, N. S. Building, Kolkata-700 001

Director of Industries/Director of Cottage & Small Scale Industries, Govornment of West Bengal, N. S. Building, Kolkata-700 001

Guard file, West Bengal Pollution Control Board 3.

Environmental Engineer, I/II/Alipur H.O./Howrah F.O./Hooghly R.O./B.R.O./D.R.O./Haldia R.O./S.R.O./ Asansol /

Sub-R.O./WBPC Board Himalaya Bhawan

Delhi Road, Dankuni Dist. Hooghly

Paribesh Bhawan 10A, LA-Block, Sector-III Sall Lake City, Kolkala-700 098

Vill, Panpur Kalyani Expresswaly P.O. Narayanpur

Dist. 24 Pgs. (N)

Block-05 at 40 Flats Complex Adjacent to Priyambada

Housing Estate P.O.: Khanjanehak,

P.S. Durgachak Haldia-721602 Dist : Purba Medinipur

Asansol Sub-Regional Office Ghanty Mansion (2nd Floor)

60, G. T. Road AsansoF713 301 Sahid Khudiram Sarani City Centre, Durgapur-16

Oist. Burdwan

Paribahan Nagar Matigara, Siliguri Dist-Darjeeling

Bhabani Bhawan 2nd Floor, Alipur Kolkata-700 027

10, Camac Street

2nd Floor Kolkata-700-017

Member Secretary, / Engineer-I West Bengal Polytion Control Board upta

CHIEF ENGINEER - I POLLUTION CONTROL BOARD KOLKATA-700 098 mexure to NOC Sl. No. NO61767

Special Conditions issued to

M/s. Bengal Unitech Universal Infrastructure Private Limited,

for the proposed Residential Complex "UNIWORLD CITY" at Plot No. AA-III/Blk, Action Area - III, New Town, Rajarhat, Pin - 700156, Dist. - 24 Parganas (North).

Pg 1 of 3

A. Emission:-

1. DG Sets (9 x 500 KVA & 8 x 625 KVA).

Stack -

- i. DG sets to be provided with acoustic enclosures and residential silencer.
- ii. Stacks to have sampling port, platform and ladder as per the Emission Regulation Part III of CPCB.
- iii. Emission standards, Fuel specification and Stack height should comply with the prescribed limits under the notification of Ministry of Environment & Forest, Govt. of India, G.S.R. 489(E) [09.07.2002] and subsequent amendments.

B. Effluent:-

Domestic – as proposed wastewater shall be treated in STP. Treated wastewater shall be partly reused
and partly discharged to WBHIDCO sewer line. However, after commissioning of STP by WBHIDCO
untreated sewage may be discharged to WBHIDCO sewer line.

C. Solid Waste:-

to be collected and disposed off regularly as per the Municipal Solid Wastes (Management and Handling) Rules, 2000.

D. General:-

- 1. The Project Proponent shall have to obtain prior concurrence from WBHIDCO ensuring supply of water, discharge of sewage to the sewer line and disposal of solid wastes.
- 2. D.G. Set noise level should not exceed the permissible limit. The Project Proponent should ensure that the ambient noise level is maintained within permissible limits during the construction phase.
- 3. The proponent should strictly comply with the standards / guidelines for control of noise from stationery Diesel generator sets. These standards and guidelines are prescribed under the notifications of Ministry of Environment & Forest, Govt. of India, G.S.R. 371(E) [17.05.2002], G.S.R. 489(E) [09.07.2002] and subsequent amendments.
- 4. The following activities are restricted during the night time (9 P.M. to 6 A.M.), if there is any habitation in the locality
 - a) Piling work.
 - b) Operation of Ready Mix Plant, if installed and Vibrator.
 - c) Loading and unloading of construction materials.
- 5. Adequate measures are to be taken to reduce vibration during piling work.

CHIEF ENGINEER - I
W.B. POLLUTION CONTROL BOARS

mexure to NOC Sl. No. NO61767

Special Conditions issued to

M/s. Bengal Unitech Universal Infrastructure Private Limited,

for the proposed Residential Complex "UNIWORLD CITY" at Plot No. AA-III/Blk, Action Area - III, New Town, Rajarhat, Pin - 700156, Dist. - 24 Parganas (North).

Pg 2 of 3

- 6. Water sprinkling arrangement should be ensured at every loading and unloading point to prevent spreading of dust. Rubbish, debris, broken materials and others must be kept properly within project area at suitable place with proper water sprinkling to prevent fugitive dust spreading.
- 7. Provision of drinking water, wastewater disposal and solid waste management should be ensured for labour camps. Proper sanitation facilities should be provided for construction workers to ensure environmental sanitation. Health and safety of the workers should be ensured during construction.
- 8. The project proponent should take necessary care not to cause any inconvenience to the residents of surrounding neighbourhood. Regular supervision should be in place all through the construction phase so as to avoid disturbance to the surroundings.
- 9. The Project Proponent will ensure that no accumulation of any kind of water occurs within the project area to prevent breeding of various disease spreading vectors.
- 10. Necessary dust barrier should be provided during construction phase. Before taking up the construction work it is preferable to enclose the area with some enclosure.
- 11. Appropriate arrangement is to be done for rainwater harvesting within the site. The proponent must practice rainwater harvesting on regular basis.
- 12. Ground water should not be abstracted without prior permission of the Competent Authority as per the West Bengal Ground Water Resources (Management, Control and Regulation) Act, 2005.
- 13. Provision of screen wall should be made surrounding the batching plant, if installed for control of fugitive emission from such operation.
- 14. Fly Ash is to be compulsorily used for construction as per notification No. S.O.979(E) dated 27.8.2003 of MoEF, Govt. of India and subsequent amendments.
- 15. Proper steps are to be taken so that the flora and fauna are not affected during the construction phase.
- 16. The proponent should strictly abide by The West Bengal Trees (Protection and Conservation in Non-Forest Areas) Rules, 2007.
- 17. 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.
- 18. Adequate green belt is to be developed within the project site. Water intensive and/or invasive species should not be used for landscaping.
- 19. No water body should be lined and no embankments should be cemented. The water body, if any, is to be kept in natural condition without disturbing the ecological habitat.
- 20. Adequate firefighting storage should be provided as per Rules.
- 21. Adequate parking space should be provided within the project site as per Rules.

Dr. Tapas Kr. Gupta CHIEF ENGINEER . I

W.B. POLLUTION CONTROL BOARD

KOLKATA-700 098

anexure to NOC Sl. No. NO61767

Special Conditions issued to

M/s. Bengal Unitech Universal Infrastructure Private Limited,

for the proposed Residential Complex "UNIWORLD CITY" at Plot No. AA-III/Blk, Action Area - III, New Town, Rajarhat, Pin - 700156, Dist. - 24 Parganas (North).

Pg 3 of 3

- 22. Road design should be done with due consideration for environment and safety of users. The entry and exit points should be designed properly without disturbing the existing traffic.
- 23. Use of energy efficient construction materials should be ensured. Water efficient devices / fixtures should be installed. Energy efficient systems should be installed.
- 24. Adequate provision shall be made for storage of solid waste and adequate means of access shall be provided. Vats / bins should be provided inside the project area from where the wastes are to be disposed off by arrangement with the local body.
- 25. The proponent shall undertake awareness programmes for the residents to promote water and energy conservation and to ensure environmental protection.
- 26. No expansion of the project should be undertaken without prior permission of the State Board.
- 27. The unit should not start operation without obtaining 'Consent to Operate' from this Board.
- 28. The unit should abide by the Terms and Conditions of the agreement made with WBHIDCO.
- 29. The proponent should abide by the conditions stipulated in the Environmental Clearance accorded by the State Environment Impact Assessment Authority (SEIAA), West Bengal, vide No. EN/493/T-II-1/007/2009 dated 17.02.2009 and the amendment issued vide No. EN/1521/T-II-1/007/2009 dated 28.05.2009.
- 30. This NOC is valid upto 31.05.2014 for construction of the proposed Residential Group Housing Project alongwith other amenities including Club, Retail, School and Service Apartments. The project will be developed in 9 (nine) Phases. At its final stage the project will have 3712 nos. of apartments and Total Built-up Area of 857427.37 sqm.

Member Secretary / Chief Engineer-I

West Bengal Pollution Control Roardsupta

CHIEF ENGINEER - 1

W.B. POLLUTION CONTROL BOARD

KOLKATA-700 098

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

No. EN/493 /T-II-1/007/2009

Date: 17 / 02/2009

To M/s. Bengal Unitech Universal Infrastructure Pvt. Ltd. Block – C, 4^{th} Floor 22, Camac Street Kolkata – $700\,016$

Subject: Environmental Clearance for the proposed Residential Complex "UNIWORLD CITY" by M/s.

Bengal Unitech Universal Infrastructure Private Limited at Plot No. AA-III/Blk-1, Action
Area - III, New Town, Rajarhat, Kolkata.

Sir,

This has a reference to your application and subsequent communications for Environmental Clearance for the proposed Residential Complex "UNIWORLD CITY" by M/s. Bengal Unitech Universal Infrastructure Private Limited at Plot No. AA-III/Blk-1, Action Area - III, New Town, Rajarhat, Kolkata.

The proposal has been examined and processed in accordance with EIA Notification, of 2006. It is noted that the proposed project is for a Residential Group Housing Project alongwith other amenities including Club, Retail, School and Service Apartments. The project will be developed in 9 (nine) Phases. At its final stage the project will have 3712 nos. of apartments.

It is noted that the salient features of the project, for which Environmental clearance has been considered are as follows:

Land Area	: 39.81 ha	
Expected Population	: 18560 persons	
Total Water requirement	: 4016 KLD (Operation phase)	
Domestic Water requirement	: 3046 KLD (WBHIDCO supply)	
Wastewater generated	: 2437 KLD (to be treated in STP, partly reused and partly discharged to WBHIDCO sewer)	
Solid waste disposal	: 6.241 tonne per day	
Total Built-up Area	: 857427.37 sqm. (as per Master Plan Area Statement), Bui up Area for Covered Car Parking 129840 sqm., Total 987267.37 sqm	
Ground Coverage	: 69661.27sqm. (17.5% of land area) including built-up area for utilities	
Utility Area (soft)	: 23883.86 sqm. (6% of land area)	
Landscaped Green Area	: 199947.74 sqm. (50.23% of land area)	
Landscaped Water Body	: 5592.80 sqm. (1.41% of land area)	
Paved Area	: 98978.70 sqm. (24.86% of land area)	
No. of Car Parking Spaces proposed	: 8033 nos. (Covered 6492, Open 1541)	

Total Power requirement	: 24 MVA, NTESC		
Backup Power	: DG Sets (9 x 500 KVA & 8 x 625 KVA)		
Construction started	: Yes	1. 5	

State Level Environment Impact Assessment Authority (SEIAA), examined the proposal and also perused the 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.
- ii. Water usage during construction should be optimised to avoid any wastage.
- iii. 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.
- iv. 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:-

- i. All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.
- ii. Adequate erosion and sediment control measures to be adopted before ensuing construction activities.
- iii. Disposal of muck including excavated material 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.
- iv. Diesel generator sets during construction phase should have acoustic enclosures and should conform to E(P) Rules prescribed for air and noise emission standards.
- 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 nonpeak 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 NOx) 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

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- 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.
- xy. 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:-

- Use of energy efficient construction materials should be ensured to achieve the desired thermal comfort.
- Design layout should ensure adequate solar access and ventilation. Proper planning and window design for daylight integration should be considered.
- iii. Use of ash based bricks should be explored to the maximum extent possible. Blended cement with fly ash will be used. The provisions of MoEF Notifications on "Fly Ash Utilization" must be complied with.
- 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.
- 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.
- 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. Chillers should be CFC & HCFC free
- xv. Restrict the use of glazed surface as per National Building Code 2005.

Water Body Conservation:-

i. No water body should be lined and no embankments should be cemented. The water bodies are to be kept in natural conditions without disturbing the ecological habitat. The water bodies within the project area shall be maintained in conformity with the conditions stipulated in the Environmental Clearance and the NOC accorded to the Department of Housing, Government of West Bengal for the proposed New Town Project at Rajarhat.

Plantation Proposal:-

- 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. The proponent should plant atleast 5600 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:-

 Water requirement during construction phase shall be met from WBHIDCO supply. Ground water should not be abstracted without prior concurrence of WBHIDCO and also approval of the competent authority as per the West Bengal Ground Water Resources (Management, Control and Regulation) Act, 2005.

Sewage Treatment Plant:-

i. As per the proposal submitted by the proponent wastewater shall be treated in sewage treatment plant before commissioning of STP by WBHIDCO. Treated wastewater shall be partly reused and partly discharged to WBHIDCO sewer line. However, after commissioning of STP by WBHIDCO untreated sewage may be discharged to WBHIDCO sewer line.

Stormwater Management & Mitigation of Heat Island Effect :-

- Imperviousness of the site shall not exceed the NBC (National Building Code 2005) standards for imperviousness factor applicable to different types of area.
- 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 to prevent large volumes of storm water to be conveyed to the receiving waters by the municipality, which reduces the load on municipality drainage system, and receiving waters are not impacted.
- 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.

Rain Water Harvesting Scheme:-

- i. The proponent must follow the Rainwater Harvesting Guidelines of the State Level Expert Appraisal Committee (SEAC) available in the website (http://www.wbpcb.gov.in).
- ii. The proponent must collect rainwater form roof-top catchments and reuse for various purposes after necessary cleaning. Water bodies should be created and used for storing rainwater. Adequate retention time and storage provisions should be provided for harvesting rainwater.
- iii. The sub-surface recharge proposal including the design of recharge structure and location of recharge structure should be approved by competent authority as per West Bengal Ground Water Resources (Management, control and Regulation) Act, 2005. The total quantity of the rainwater which would be harvested, including surface storage and sub-surface recharge, should also be mentioned in the proposal.
- iv. Adequate water storage for firefighting should be provided as per norms.

Municipal Solid Waste Management :-

 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:-

- 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, Building Automation System for energy conservation, Management Information Systems etc. must be ensured, wherever applicable.
- iii. Automatic lighting control, occupancy sensors, heat exchanger, high efficiency chillers etc. should be provided for energy conservation, wherever applicable.
- 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.

Court June

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II. Operation Phase

Water supply :-

- Water requirement during operation phase shall be met from WBHIDCO / municipality supply. Ground water should not be abstracted without prior concurrence of WBHIDCO / municipality and also approval of the competent authority as per the West Bengal Ground Water Resources (Management, Control and Regulation) Act, 2005.
- 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 wastewater shall be treated in sewage treatment plant before commissioning of STP by WBHIDCO. Treated wastewater shall be partly reused and partly discharged to WBHIDCO sewer line. However, after commissioning of STP by WBHIDCO untreated sewage may be discharged to WBHIDCO sewer line.
- ii. A scheme should be framed for recycling and reuse of treated wastewater.

Emission from Diesel Generator Set: -

- 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:-

- 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. The lighting design and the heating, ventilation and air conditioning systems should conform to the recommendations of the Energy Conservation Building Code 2007 of the Bureau of Energy Efficiency, GoI, wherever applicable.
- iii. Use of energy efficient electrical systems should be promoted. High efficiency lamps with electronic ballasts should be used.
- iv. 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.
- v. 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.
- vi. The project proponent should resort to solar energy at least for street lighting and water heating.

Transport Management: -

- 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. Transport system should be such that traffic will be calm in neighbourhoods. Traffic within the project site should be restricted by regulation.
- iii. Adequate vertical and horizontal clearances of overhead electric power and telecommunication lines should be provided. Guard cradle or screen should be provided for electrical power lines carrying voltage exceeding 110 volts while crossing the road. The cradle should extend desirably over the full right-of-way.

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. Solid waste should be stored in the specific location as approved by WBHIDCO. The solid waste is to be disposed off in consultation with WBHIDCO.
- 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 and Handling) Rules, 2003. 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 and Handling) Rules, 2003.
- 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 and Handling) Rules, 2003. Spent oil from DG Sets should be disposed off through registered recyclers only.
- v. Various types of electrical and electronic wastes generated, which includes PC, Xerox machine components etc. should be collected separately for transportation to the authorized recyclers approved by the State / Central Pollution Control Boards. There should also be provision for storage of these wastes in the building before transportation. The e-waste collected should be processed in authorized recycling unit.

Others :-

- 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. Firefighting 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. Environmental Management Information System shall be maintained properly.

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Part-B GENERAL CONDITIONS

- i. The environmental safeguards contained in the EMP should be implemented in letter and spirit.
- ii. 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.
- iii. Provision should be made for the supply of kerosene or cooking gas to the labourers during construction phase.
- iv. All the labourers to be engaged for construction works should be screened for health and adequately treated before issue of work permits.
- v. The project proponent should make financial provision in the total budget of the project for implementation of the suggested safeguard measures.
- vi. 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.
- vii. 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.
- viii. In case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEIAA.
- ix. The State Level Environment Impact Assessment Authority 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.
- x. The Project Proponent should inform the public that the proposed project has been accorded environmental clearance by the SEIAA 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 (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.
- xi. 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.
- xii. The project proponent should strictly abide by the conditions laid down in the Environmental Clearance for the proposed New Town Project at Rajarhat, Kolkata, accorded by the Department of Environment, Government of West Bengal to the Department of Housing, Government of West Bengal vide Memo No. EN/1998/4W-8/99 dated 10th November, 1999 and Memo No. EN/P/90/4W-8/99 (Pt.II) dated 30th January, 2003.
- xiii. The project proponent should also abide by the NOC conditions accorded by the West Bengal Pollution Control Board to the Department of Housing, Government of West Bengal for the proposed New Town Project at Rajarhat, Kolkata, vide Sl. No. 04462 Memo No. 1295-175/WPB-NOC/99-2000 dated 31st August, 1999 and Sl. No. NO10868 Memo No. 7041-175/wpb/NOC/99-2000 dated 9th June, 2004.

- xiv. 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.
- xv. Prior Consent-to-Establish (NOC) for the proposed project must be obtained from WBPCB. All other statutory clearances should be obtained by project proponent from the competent authorities.
- xvi. 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 and Handling) Rules, 1989, the Public Liability Insurance Act, 1991, the Environment Impact Assessment Notification 2006 and their amendments.
- xvii. This Environmental Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs Union of India in Writ Petition (Civil) No. 460 of 2004 as may be applicable to this project.

(Debal Ray

Member Secretary, SEIAA

Chief Environment Officer

All Communication to Government should give the Number, Date and Subject at any previous Correspondence and be addressed to the Secretary of the Department concerned.

Government of West Bengal

Department of Environment Writers' Buildings, 'G' Block, 2nd Floor, Kolkata- 700 001 Phone No. 2214 1356, 2214 1357, Fax No.: 2214 1356 E Mail: environmentwb@gmail.com Website: www.enviswb.gov.in

Date: 28 /05/2009

No. EN/ 152 /T-II-1/007/2009

From : Member Secretary, SEIAA &

Chief Environment Officer

To M/s. Bengal Unitech Universal Infrastructure Pvt. Ltd. Block – C, 4th Floor 22, Camac Street Kolkata – 700 016

SUB.: Amendment for the Plot No. mentioned in the Environmental Clearance of the proposed project "Uniworld City" at Plot No. AA-III/BLK, New Town, Kolkata, West Bengal.

REF.: Your no. BUUIPL/RE-PLNG/341/09 dt. 22/05/2009.

Sir,

This is to inform you that SEIAA has taken note of the error in the plot no. mentioned in environmental clearance. Therefore the plot no. for the proposed project "Uniworld City" which was granted environmental clearance vide memo no. EN/493/T-II-1/007/2009 dt. 17/02/2009 may be read as AA-III/Blk instead of AA-III/Blk-I in the environmental clearance. This letter may be treated as part of the environmental clearance.

Yours faithfully,

(Debal Ray) Member Secretary, SEIAA

Chief Environment Officer

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/ 2078/09' /Kol-1

/Kol-RB/571/09/(583/09)

Date: 14/7/09.

From:

Director General,

West Bengal Fire & Emergency Services.

To

Sri Priyanko Roy,

Bengal Unitech Universal Infrastructure Pvt. Ltd,

22, Camac Street, Block-C,

Kolkata-700 016.

Sub: Provisional N.O.C. for proposed construction of Housing Complex comprising G+XIV storied 10 Nos. Tower of Residential 'UNIWORLD CITY' phase-6, Plot No.-AA-III/BLK-2/6(Part), AA-III BLK-2/5 (Part) & AA-III BLK-2/3 (Part), New Town, Kolkata.

Sir,

This is in reference to your letter No.-BUUIPL-RE-PLNG-343-09 dated 27.05.2009 regarding Provisional N.O.C. of fire safety measure for proposed construction of Housing Complex comprising G+XIV storied 10 Nos. Tower of Residential 'UNIWORLD CITY' phase-6, Plot No.-AA-III/BLK-2/6(Part), AA-III BLK-2/5 (Part) & AA-III BLK-2/3 (Part), New Town, Kolkata.

The plan drawing submitted by you was scrutinized and marked as found necessary from fire safety point of view. In returning one set of plan with recommendation, this office is issuing **Provisional N.O.C.** in favour of the aforesaid Housing Complex subject to the compliance of the following fire safety measure.

Enclo.:

- One set of plan.
- Recommendation placed in this file.

Yours faithfully,

DIRECTOR GENERAL

WEST BENGAL FIRE & EMERGENCY SERVICES

RECOMMENDATION

A. <u>CONSTRUCTION</u>:

- 1. The whole construction of the proposed building shall be carried out as per approved plan drawings conforming the relevant building rules of local Municipal Body (Bidhannagar/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. Balcony of all floors and tenements shall be open type as per declaration and shall be use as fire refuge area.
- 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 1,50,000ltrs, and overhead reservoir of 5,000Lts. 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. <u>Hydrant System</u>:

- 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 2250 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 that 3.5 Kgs/Cm2. All other requirements shall conform I.S. 3844-1989.
- 2. Provision of standard Hose Reel Hose supplied from the overhead reservoir through Booster Pump shall have to be made in all the floor of the building satisfy the code of I.S. 3844-1989.
- 3. Yard Hydrant/Ring Main Hydrant with provision of four 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. $\underline{\mathbf{FIRE PUMP}}$:

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. <u>ELECTRICAL INSTALLATION & DISTRIBUTION</u>:

- 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:

- 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.
- Auto fire detection system with the help of Flent 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 C02/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 Ducts 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

DIRECTOR GENERAL

WEST BENGAL FIRE & EMERGENCY SERVICES