

#### IL/HJW/FAC/GA/02-18/24

13th February 2018

To The Member Secretary Infrastructure and Miscellaneous Projects & CRZ (Infra-2), Indira Paryavaran Bhavan Jor Bagh Road, New Delhi-110 003

**Sub**: Reply to query raised by EAC Infra-2 for "Proposed expansion of Infosys Limited", at Mann Village, Hinjewadi Phase 2, Plot No.24, Pune, during 26<sup>th</sup> meeting of Expert Appraisal Committee on 14-15 December, 2017, Item No. 26.3.13.

#### Ref.:

1. MoEFCC Proposal no.: IA/MH/NCP/62924/2017 Expansion of Infosys, Pune.

2.MoEFCC File no.: 21-157/2017-IA-III

3. Minutes of 26th meeting of EAC (Infra - 2) dtd. 14 December, 2017, Item No. 26.3.13.

Respected Sir,

We M/s. Infosys Ltd. have applied for Environmental Clearance for "Proposed expansion of Infosys Limited" at Mann Village, Hinjawadi Phase 2, Plot No.24, Pune, Maharashtra-411057, as per above said references.

However, during aforesaid presentation the honorable EAC Infra-2 has sought additional information which were documented and conveyed to us through Minutes of Meeting. As desired the additional information is submitted herewith along with pointwise compliance and relevant enclosures.

We request you to kindly consider our project in next agenda and accord prior Environmental Clearance.

Thanking You.

Yours Faithfully,

For Infosys Limited,

Vijaya Lakshmi Mani

Regional Head-Facilities

Encl: Pointwise compliance report along with annexures as mentioned therein.

INFOSYS LIMITED
Plot No. 24 / 2
Rajiv Gandhi Infotech Park
Phase II, Village Maan, Hinjawadi
Taluka Mulshi, Pune 411 057, India
T 91 20 3982 7000
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Corporate Office:
CIN: L85110KA1981PLC013115
44, Infosys Avenue
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T 91 80 2852 0261
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### POINT WISE COMPLIANCE REPORT

(Query's raised during EC presentation – 26<sup>th</sup> meeting of EAC on 14<sup>th</sup> December 2017)

For

### **Proposed Expansion of IT Park, Infosys Limited**

at

Plot No 24, MIDC, Rajiv Gandhi InfoTech Park Phase II, Village- Mann, Tal-Mulshi, Hinjawadi, Pune (MH)-411057

**Project Proponent** 





QCI-NABET & ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007 Accredited EIA Consultant, MoEF & CC (GOI) and NABL recognized Laboratory 60, Bajiprabhu Nagar, Nagpur - 440 033, MS Lab.: FP-34, 35, Food Park, MIDC, Butibori, Nagpur – 441122 Ph.: (0712) 2242077, 9373287475 Fax: (0712) 2242077

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> > FEBRUARY, 2018

# The points raised by Honorable Expert Appraisal Committee during presentation for Environmental Clearance in 26<sup>th</sup> meeting of Expert Appraisal Committee (Infra-2) on 14<sup>th</sup> December, 2017, Item No. 26.3.13

S.No.	Points Raised By Hon'ble SEIAA	Proponent's compliance / Reply
i.	Submit copy of revised Form-1/1-A stating the complete details of Area Statement	Copy of Form 1 & Form 1A revised for Area Statement and other particulars as per EIA Report is attached as <i>Annexure 1</i> .
ii.	An action taken report on environmental conditions stated to be not complied/partly complied as reported in Certified Compliance Report letter F. No. 18-C-51/2011/SEAC/dated 27.09.2017 issued by the MoEF&CC's Regional Office (WCZ), Nagpur	Response to the actions taken on non-complied/partly complied EC conditions as reported in Certified Compliance Report letter F. No. 18-C-51/2011/SEAC/dated 27.09.2017 is submitted to the MoEF&CC's Regional Office (WCZ), Nagpur on 14 <sup>th</sup> December 2017. Copy attached as <i>Annexure</i> 2.
iii.	The Air Quality Index shall be calculated for base level air quality	The Air Quality Index is now calculated for base level air quality and attached as <b>Annexure 3</b> .
iv.	A detailed report on compliance to ECBC norms	Report on ECBC compliance is Attached as <b>Annexure 4</b> .
V.	A certificate from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users	Source of water supply is MIDC. The total water requirement (Existing 2709 KLD + Proposed 131 KLD) is estimated to be 2840 KLD. Already Infosys have agreement with MIDC for supply of 3000 m³/day water. Thus there will be no impact on other users. No modification in existing MIDC agreement envisaged.  Copy of MIDC Agreement attached as <i>Annexure</i> 5.
vi.	A detailed traffic management and traffic decongestion plan to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D. and also have their consent to the implementation of components of the plan which	We would like to draw your attention to the various initiatives that Infosys has taken to decongest the roads of traffic:  1. Infosys believes in mass transportation and runs a fleet of buses. This facility is availed by 1/3 <sup>rd</sup> population (~10000 nos.) of the company's employees as of today. Thus, reducing the traffic load on busy Hinjewadi road.  2. Various carpool Apps are supported and promoted by Infosys to ensure employees can avail these services too.  3. Infosys is a key contributor with active participation in the Hinjewadi Industrial Association (HIA), a body of major companies of Hinjewadi, that works towards betterment of Hinjewadi sector. Metrozip is an initiative of mass transportation sun by HIA as a solution to the traffic congestion and Infosys has been actively participating in all its activities.  4. Infosys has a goal of becoming carbon neutral

	involve the participation of these departments.	company and has aligned its sustainability activities around these goals. We have audited report for GRI G4 wherein transport is one of our major tracks. Emissions (all types) are recorded, reported and audited, giving confidence in achieving our goals of Carbon Neutrality.  5. Infosys through HIA, has worked with the MIDC and local government bodies to better the traffic conditions through various initiatives such as widening of approach roads, proposal for new roads etc. the government has been supportive and have sanctioned the below additional approach routes to Hinjewadi;  Existing: Main road from Wakad entry point towards Shivaji Chowk.  Existing: Bhumkar Chowk to Shivaji Chowk to Tata Johnson.  Existing: Pirangut to Phase 3 to Phase 2.  Existing: Sus-Ghotawade-Nande-Chande link road.  Proposed: Mercedes Benz — Balewadi-Mann Village.  Proposed: Balewadi Stadium (Mhalunge) to Mann Village.  Also, basis condition No. (vi) Regional Development Plan is already prepared, approved by PWD and MIDC and is implemented. We have enclosed route map of the Infosys, Phase II site with Mumbai — Bengaluru National Highway No. 4 and approach roads to Infosys, Phase II in periphery of 5 km from our site ( <i>Annexure 6</i> ).  Thus, given the above, we sincerely request you to reconsider and waive off the clause — "Regional Traffic Survey and management Study" for Grant of Environmental Clearance for Proposed expansion of Infosys Limited, located at Mann Village, Hinjewadi Phase 2, Plot No.24, Pune, Maharashtra — Expansion case.
vii.	The permission of the CGWB for abstraction of ground water and for basement/excavation dewatering	Source of water is MIDC Supply. Hence CGWA/CGWB permission is not required for consumption purpose. Further, the location of project area is on higher elevation and the general topography is undulating and the maximum depth achieved shall be not intercept water table.
		Since Infosys is not abstracting ground water, CGWB permission not required.
viii.	A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project	Present power demand is 11.5 MVA and additional demand for expansion is 3.850 MVA. Currently Infosys has 12 MVA load sanction from MSEDCL vide agreement dtd. 12/09/2013. Sanction for

		additional requirement will be taken in due course if required based on business requirement.  Copy of existing agreement for 12 MVA with MSEDCL is attached as <i>Annexure 7</i> .
ix.	authority for discharging treated effluent/untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal	The IT park is already following zero discharge norms. There is no discharge of treated/untreated effluent in public sewer/drainage. Hence certificate not applicable.  Zero discharge norms will also be followed for
	point	proposed expansion project.
X.	A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater the M.S.W. generated from the project	<ul> <li>Solid Waste Management &amp; Disposal:</li> <li>Segregation of dry and wet garbage done at source.</li> <li>Dry garbage as insert/recyclable waste such as plastics, glass metals and rubber is segregated and disposed-off to recyclers.</li> <li>Wet garbage/biodegradable matter as leftover food, vegetables is composted at in-house vermicompost plant.</li> </ul>
		<ul> <li>Segregated biodegradable waste is used for biogas plant.</li> <li>Slurry (bio-sludge) from the digester &amp; STP Sludge is removed periodically and after drying used as organic manure/soil conditioner within premises.</li> </ul>
		Thus there is no requirement of certificate from any authority.

### FORM 1

Proposed expansion of Infosys Limited, Pune

#### APPENDIX - I (See paragraph – 6)

### FORM 1

### (I) Basic Information

Sr. No.	Item	Details			
1.	Name of Project/s	Proposed expansion of Infosys Limited, Pune			
2.	S. No. in the Schedule	8(b)			
3.	Proposed capacity/ area/ length/	Total Plot Area	4,63,380 m <sup>2</sup>		
	tonnage to be handled/ command	Consumed Built up area	564835 m <sup>2</sup>		
	area/ lease area/ number of wells	Proposed Built up area	302857 m <sup>2</sup>		
	to be drilled				
		Total (Existing + Proposed) Area =	867692 m <sup>2</sup>		
		Detailed Area Statement is attached as A	Annexure I		
4.	New/ Expansion/ Modernization	Expansion			
5.	Existing Capacity/ Area etc.	564835 m <sup>2</sup> BUA			
6.	Category of Project i.e. 'A' or 'B'	A Category (as per new amendment in E built up Area more than 3 lakh)	IA notification		
7.	Does it attract the general	No			
	condition? If yes, please specify.				
8.	Does it attract the specific condition? If yes, please specify.	No			
	Location	Hinjawadi			
	Plot/Survey/Khasara No.	Plot No 24			
9.	Village	Mann			
	District	Pune			
	State	Maharashtra			
10.	Nearest railway station/ airport	Nearest Railway Station: Chinchwad Railway Station,			
	along with distance in kms.	~9.90 km in NE direction.	, ,		
	J	Nearest Airport: Pune International Airp	ort, Lohagaon,		
		Pune ~ 17.0 km E direction from project	site.		
11.	Nearest Town, city, District	Hinjawadi			
	Headquarters along with distance	Distance: 2.35 km			
	in kms.	Pimpri-Chinchwad: 12.5 km			
		Pune : 17.0 km			
12.	Village Panchayats, Zilla	Rajiv Gandhi Infotech Park, MIDC, Hinja	wadi		
	Parishad, Municipal Corporation,				
	Local body (complete postal				
	address with telephonic nos. to be				
13.	given)  Name of the Applicant	Mrs. Vijaya Lakshmi Mani			
14.	Registered Address	Plot No.44 & 97 A, Electronic City, Banga	aloro -560100		
14.	Negistered Address	Tiot No.44 & 97 A, Electronic Oity, Dang	alore -300100		
	Address for correspondence:	Plot No 24, Rajiv Gandhi InfoTech Park I	Phase II, Village-		
		Mann, Hinjawadi, Pune			
	Name	Mrs. Vijaya Lakshmi Mani			
1	Designation	AVP, Regional Head, Facilities			
15.	(Owner/Partner/CEO)				
	Address	Plot No 24, Rajiv Gandhi InfoTech Park I	Phase II, Village		
	D: 0 1	Mann, Hinjawadi, Pune			
	Pin Code	411 057			
	E-mail	vlmani@infosys.com			
	Telephone no.	020-39827000			

Sr. No.	Item	Details
	Fax No.	020-39828000
16.	Details of Alternative sites examined, if any Location of these sites should be shown on a topo sheet.	Not Applicable, proposed site is situated in MIDC Hinjawadi.
17.	Interlinked Projects	No
18.	Whether separate application of interlinked project has been submitted?	Not Applicable
19.	If yes, date of submission	Not Applicable
20.	If no, reason	Not Applicable
21.	Whether the proposal involves approval/ clearance under: if yes, details of the same and their status to be given.  (a) The Forest (Conservation) Act, 1980?  (b) The wildlife (Protection) Act, 1972?  (c) The C.R.Z. Notification, 1991?	No
22.	Whether there is any Government Order/ Policy relevant/ relating to the site?	No
23.	Forest land involved (hectares)	No forest land involved in proposed project site.
24.	Whether there is any litigation pending against the project and/ or land in which the project is propose to be set up?  (a) Name of the Court (b) Case No. (c) Orders/ directions of the Court, if any and its relevance with the proposed project.	No such litigation pending against the project.

(II) Activity
 1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data	
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	Yes	The proposed project site is in MIDC area. Existing land will be used for constructing an IT building and associated services.	
1.2	Clearance of existing land, vegetation and buildings?	No	No clearance activity since the site selected for proposed expansion project is in MIDC adjacent to existing InfoTech park. The existing land is covered with shrubs and patches of grass. Only clearing of grasses and cutting of shrubs will be there.	
1.3	Creation of new land uses?	Yes	Existing land will be used for constructing an IT building and associated services.	
1.4	Pre-construction investigations e.g. bore holes, soil testing?	Yes	Geological investigation including soil testing and necessary borehole tests are already carried out for the existing InfoTech park as well as for the construction activity.  Preliminary soil investigation report is enclosed in Annexure –IX	
1.5	Construction works?	Yes	Proposed	
			302857 m <sup>2</sup> BUA	
1.6	Demolition works?	No	This is a new developmental activity on vacant plot adjacent to the existing InfoTech park. Hence there will not be demolition work anticipated.	
1.7	Temporary sites used for construction works or housing of construction workers?	Yes	In the construction phase, laborers /workers will be utilizing spaces from the nearby locality and there in no provision for residence facilities at the site, however subcontractors will make the arrangement of shelters for workers outside the campus which has all basic infrastructure like power and water, provision of drinking water. Mobile toilets will be provided on site and the sewage generated from mobile toilets will be connected to existing sewage line which is connected to an existing 3 MLD STP. Zero discharge condition will be complied.	
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	Yes	Above ground buildings.	
1.9	Underground works including mining or tunneling?	No	There will not be underground works like mining and tunneling involved.	
1.10	Reclamation works?	No	No reclamation process will be carried out within the site.	

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data	
1.11	Dredging?	No	No dredging will be required for proposed expansion project.	
1.12	Offshore structures?	No	Not Applicable	
1.13	Production and manufacturing processes?	No	It is an IT building.	
1.14	Facilities for storage of goods or materials?	Yes	The materials required for the purpose of construction during the construction phase will be stored within the project site. Temporary sheds for storages will be provided.	
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	<ul> <li>During construction phase:</li> <li>Recyclable wastes will be sent to authorized recycler for disposal</li> <li>Construction waste (soil) will be stored in separate place and will be used for land filling and gardening. The company is having zero land fill policy for construction waste</li> <li>Mobile toilets will be provided on site and the sewage generated from mobile toilets will be connected to existing sewage line which is connected to an existing 3 MLD STP. Zero discharge condition will be complied.</li> <li>During operation phase:</li> <li>Dry organic waste is separately collected and sent to vermi-compost and wet organic waste will be segregated at source and treated in the existing 2 tons/day biogas plant</li> <li>E-waste will be collected separately, stored and then handed over to authorized recycler.</li> <li>STP sludge will be dried, and then will be used as manure for landscaping within campus.</li> </ul>	
1.16	Facilities for long term housing of operational workers?	No	Not Applicable.	
1.17	New road, rail or sea traffic during construction or operation?	No	Since the proposed expansion project is in MIDC area, roads are already constructed by MIDC for transportation purpose. However internal roads will be developed within the project site for transportation.	
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	It is intended to make maximum use of existing road. No new roads are necessary for the proposed expansion project except construction of internal roads.	
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	There will not be any closure or diversion of existing transport routes.	

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data		
1.20	New or diverted transmission lines or pipelines?	No	Not Applicable		
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	Not applicable		
1.22	Stream crossings?	No	Not Applicable		
1.23	Abstraction or transfers of water from ground or surface waters?	No	Not applicable		
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	Not applicable		
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	Trucks/ other vehicles will be used for the transportation of personnel and construction materials.		
1.26	Long-term dismantling or decommissioning or restoration works?	No	Proposed expansion project does not involve any long term dismantling or decommissioning or restoration work.		
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	Since the project does not involve any decommissioning activity, it will not pose any impact to the environment.		
1.28	Influx of people to an area in either temporarily or permanently?	Yes	The proposed expansion project is for IT buildings and site location is in MIDC, hence influx of people will happen only for work purposes. There will be a temporary influx of construction laborers, and this will be only for a short period - until the completion of the construction work.  During operation phase:		
			Existing	Proposed	Total
			31288	3712*	35000
			* The number of employees will be based on Business Plans.		
1.29	Introduction of alien species?	No	There will be no alien species. In landscaping, only native species will be planted.		
1.30	Loss of native species or genetic diversity?	No	The project site is in barren land, thus there is no loss of native species due to proposed expansion project activity. Plantation of native species will be suggested in operation phase		
1.31	Any other actions?	No	No other actions / activities envisaged.		

2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):

Sr. No.	Information/checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data	
2.1	Land especially undeveloped or agricultural land (ha)	No	Land is developed and situated in MIDC.	
2.2	Water (expected source & competing users) unit: m³/day	Yes	Source of water will be MIDC Supply. The total water requirement (Existing + Proposed) is estimated to be 2840 KLD. Already Infosys hav agreement with MIDC for supply of 3000 m <sup>3</sup> /da water.	
2.3	Minerals (Mt)	No	Not Applicable	
2.4	Construction material – stone, aggregates, sand / soil (expected source – Mt)	Yes	Construction material will be arranged from nearby sources as much as possible. The project makes comprehensive use of precast technology.	
2.5	Forests and timber (source – Mt)	No	Not applicable	
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (Mt), energy (MW)	Yes	Present demand is 11.5 MVA. Additional demand for expansion is 3.850 MVA. Total power requirement 15.35 MVA. Source: MSEDCL Present backup through DG sets is 5 X 2000 KVA & 4 X 3000 KVA available. Additional 1 X 2000 KVA will be for expansion (details are given in <b>Annexure VII</b> )	
2.7	Any other natural resources (use appropriate standard units)	No	Not Applicable	

## 3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and Water supplies)	Yes	No storage and handling of hazardous chemicals (as per MSIHC) will be done apart from diesel required for DG sets
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	Not Applicable

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
3.3	Affect the welfare of people e.g. by changing living conditions?	No	Due to the proposed project, infrastructural facilities are likely to grow in line with the development. Which would improve the social economy of the region, resulting into improved quality of life.
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	Not Applicable
3.5	Any other causes	No	Not Applicable

4. Production of wastes during construction or operation or decommissioning (Mt/month)

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data		
4.1	Spoil, overburden or mine wastes	No	Not Applicable.		
4.2	Municipal waste (domestic and or commercial wastes)	Yes	During Construction phase: Construction waste will be used for land levelling purpose. Recyclable waste will be sent to authorized vendors. During operation waste:		
			Existing	Proposed	
			Biodegradable waste: 1666.6 Kg/day Non-Biodegradable waste: 1158.0 kg/day Biogas Generation Potential: 140 kg	Biodegradable waste: 556.80 kg/day Non-Biodegradable waste: 371.200 kg/day Biogas Generation Potential: 47 Kg	
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	During Construction phase: The hazardous substances used during construction of buildings would be paints, solvents & varnishes. But the quantity of waste generated would be negligible. During operation waste: Waste oil generated from DG sets installed will be stored in sealed containers and will be sold to authorized recycling agency.  Any other hazardous waste generated, if any, will be handled as per Hazardous Waste (MH&TM) Rules, 2016.		
4.4	Other industrial process wastes	No	Not Applicable		
4.5	Surplus product	No	Not Applicable	Not Applicable	

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
4.6	Sewage sludge or other sludge from effluent treatment	Yes	Presently daily generation of sewage sludge from STP is 300 Kg/day.
4.7	Construction or demolition wastes	Yes	There is no demolition waste. Construction waste will be minimized by using precast technology.
4.8	Redundant machinery or equipment	No	Not applicable
4.9	Contaminated soils or other materials	No	Not applicable
4.10	Agricultural wastes	No	Not applicable
4.11	Other solid wastes	No	Not applicable

5. Release of pollutants or any hazardous, toxic or noxious substances to air (kg/hr)

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	The only emission will be vehicular emission - PM, SO <sub>2</sub> , NOx and CO from transport vehicles at the time of construction as well as operation.
5.2	Emissions from production processes	No	Not Applicable
5.3	Emissions from materials handling including storage or transport	Yes	Emissions from material handling will be minimized due to the use of precast construction technology, where all the elements of the building are manufactured in the factory under controlled environment.
5.4	Emissions from construction activities including plant and equipment	Yes	Emission will be minimized due to the use of precast construction technology, where all the elements of the building are manufactured in the factory under controlled environment.
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	Yes	Transportation, loading and unloading of materials will generate dust.  There will be dust emission during construction operation which will be controlled by water sprinkling and by erecting barricades around the site. Sewage treatment plant will be well maintained to ensure aerobic conditions. Solid wastes are handled using closed containers to avoid odours nuisance. No odour problem will occur from solid waste since proper segregation, treatment and disposal technique will be adopted while handling solid waste.
5.6	Emissions from incineration	No	Not Applicable, no incineration of waste will take

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
	of waste		place.
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	Not Applicable
5.8	Emissions from any other sources	No	Not Applicable

6. Generation of Noise and Vibration, and Emissions of Light and Heat:

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	Noise and vibration will be generated from construction equipment used at the site. However all the equipment will be used in day time and proper maintenance of the same will be done at regular interval to minimize the vibration and noise. Personal protective equipment like ear plugs/muffs will be used at the site and usage of the same will be ensured.
6.2	From industrial or similar processes	No	There is no industrial activity involved
6.3	From construction or demolition	Yes	There will be marginal increase in noise during construction work and it will be localized to work side. The activities will be restricted only to day time. Personnel protective equipment (PPE) like ear plugs / ear muffs for ear drum protection and masks for protection from dust emissions will be provided to the workers and their proper usage will be ensured. However, noise will be minimized due to the use of precast construction technology.
6.4	From blasting or piling	No	Not Applicable
6.5	From construction or operational traffic	Yes	The proposed expansion project may result in traffic growth and thus noise levels associated with it, during the construction and operational stage. However from the observations of the analysis carried out, it will be of very less intensity and short duration. It will not pose any negative impacts because measures for proper traffic management will be followed. Also, avenue plantation is in progress to curb (attenuate) the noise levels and intensity.
6.6	From lighting or cooling systems	No	Not applicable.
6.7	From any other sources	No	Not applicable

### 7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:

S. No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	No	There will not be any contamination due to hazardous material. Appropriate storage and handling facility will be provided for the oil generating from the use of DG sets.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	<ul> <li>Sewage generated will be treated in STP up to CPCB standards before using it for secondary purposes like flushing and gardening.</li> <li>Presently STP of capacity 3 MLD is in use.</li> <li>One pumping station is provided.</li> <li>Mobile toilets will be provided during construction phase and the sewage generated from mobile toilets will be connected to the existing sewer line which is connected to an existing 3 MLD STP. Zero discharge condition will be followed.</li> </ul>
7.3	By deposition of pollutants emitted to air into the land or into water	No	DG sets will be installed as per CPCB norms.
7.4	From any other sources	No	Not applicable
7.5	Is there a risk of long term build-up of pollutants in the environment from these sources?	No	<ul> <li>The hazardous waste generated from the construction and operational phases would be of negligible values. However, it will be disposed off as per Hazardous Waste (MH&amp;TM) Rules, 2016.</li> <li>A system of treatment &amp; disposal will be implemented for solid waste management.</li> <li>Sewage will be treated in STP &amp; treated water will be used for flushing and gardening</li> <li>The DG sets that will be installed will be used as a back-up power supply only in case of emergency or power failure.</li> <li>DG sets will be installed as per CPCB norms, thus there will not be any risk of long term build-up of pollutants in the environment from any of the sources either on land, water and air.</li> </ul>

### 8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment

S. No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	No	The proposed project activity does not impose any significant threat of explosions, spillages, fires etc. During construction, all the laborers will be provided with personal protective equipment (PPE). Training and awareness about the safety norms will be provided to all supervisors and laborers involved in construction activity.

S. No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
8.2	From any other causes	No	-
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?	No	The project site/location has not witnessed any natural disasters such as floods, earthquakes, landslides or cloudbursts in the past.  The project site falls under Seismic Zone III as per seismic zone map of India (Annexure VIII)

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

S. No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
9.1	Lead to development of supporting. facilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.:  • Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.)  • housing development  • extractive industries	Yes Yes	The project will definitely lead to the upgrading of the existing facilities in MIDC like water supply, power supply, street lighting and waste disposal facility.  Since the project leads to increase in number of employees, it is expected to increase demand for housing and thereby lead to housing development. Also the project is expected to stimulate commercial development around the site
	<ul><li>supply industries</li><li>other</li></ul>		
9.2	Lead to after-use of the site, which could have an impact on the environment	No	Not Applicable
9.3	Set a precedent for later developments	Yes	The proposed expansion project will be developed in an environmentally sustainable manner. The project aims at providing better job opportunities to the younger generation in upcoming years
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	As the environmental impact from the proposed expansion will be marginal, no cumulative impacts envisaged.

(III) **Environmental Sensitivity** 

Sr. No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	No	Not Applicable

Sr. No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	No	Not Applicable
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	Not Applicable
4	Inland, coastal, marine or underground waters	No	Not Applicable
5	State, National boundaries	No	Not Applicable
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	Mumbai Bengaluru NH4 (Dehu road Katraj by pass) Chinchwad Station Lohgaon Airport	4.92 Km 9.90 Km 17.0 Km
7	Defense installations	No	Not in Vicinity
8	Densely populated or built-up area	Hinjawadi Village Bodkewadi Marunji Jambhe Kasarsai Nande Chande	2.35 Km 1.15 Km 2.11 Km 5.17 Km 4.70 Km 4.49 Km 4.81 Km
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	Various hospitals, schools, villages are situated within the 15 km from project site
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Not Applicable
11	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	No	Not Applicable

Sr. No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	No	Not Applicable, The site for the proposed expansion project falls under Seismic Zone III as per seismic zone map of India (Annexure -VIII)

#### (IV). Proposed Terms of Reference for EIA studies Attached as Annexure XIII.

"I hereby give an undertaking that the data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information found to be false or misleading at any stage, the project will be rejected and clearance give, if any to the project will be revoked at our risk and cost.

Date: \_\_\_\_\_ Place: Pune Plot No. 24 Village- Mann, Hinjawadi, Pune,



#### Note:

- The projects involving clearance under Coastal Regulation Zone Notification, 1991 shall submit
  with the application a C.R.Z. map duly demarcated by one of the authorized agencies, showing
  the project activities, w.r.t. C.R.Z. (at the stage of TOR) and the recommendations of the State
  Coastal Zone Management Authority (at the stage of EC). Simultaneously action shall also be
  taken to obtain the requisite clearance under the provisions of the C.R.Z.
- The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden thereon (at the stage of EC)."
- 3. All correspondence with the Ministry of Environment & Forests including submission of application for TOR/ Environmental Clearance, subsequent clarifications, as may be required from time to time, participation in the EAC Meeting on behalf of the project proponent shall be made by the authorized signatory only. The authorized signatory should also submit a document in support of his claim of being an authorized signatory for the specific project".

### **ANNEXURE I - AREA STATEMENT**

Particulars	Area (Sq. M.)
Earlier Plot Area	461264
Additional Plot area	2116
Total Plot Area	463380
Built-up Area	
Existing Buildings	BUA Area (Sq. M.)
Software Development Blocks (SDB-1, SDB-2, SDB-3, SDB-4, SDB-5, SDB-6, SDB-7, SDB-8, SDB-9, SDB-10, SDB-11, IBPO-1, IBPO-2)	314111
Food Courts (FC1, FC2, FC3, FC4)	45674
Parking	103957
Services (ECC, Facilities Block, Amphitheatre, Swimming Pool, LPG Station 1 & 2, LPG Station 3, Security Command Centre-1, Security Block-1, Security Block-2, UG Sump-1, UG Sump-2, UG Sump-3, Power Block-1, Power Block-2, 220 KVA Substation, Chiller Plant-1, Chiller Plant-2, Scrap Yard-1, STP-2, Collection Sump)	101093
Total Existing Area	564835
Proposed Buildings	BUA Area (Sq. M.)
Software Development Block (SDB 12)	55742
Parking	164500
Services (Convention Centre, Auditorium, Security Block, Scrap Yard, LPG Station)	82615
Total Proposed Area	302857
Existing + Proposed area	867692

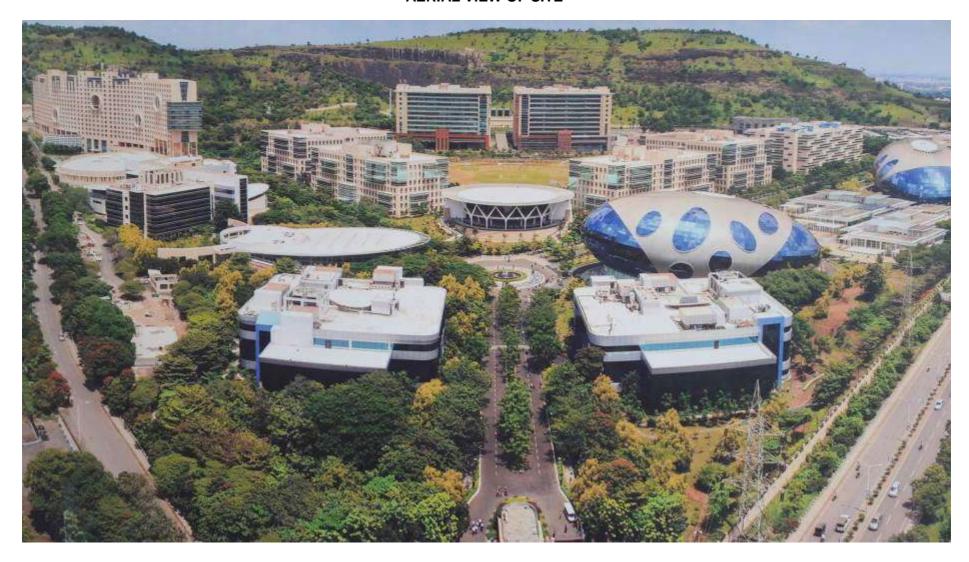
#### Summary: Built-up area

Particulars	Approved in earlier EC	Existing actual	Proposed Addition in EC	Total in Expansion of EC
Plot Area in Sq. M.	461264	461264	2116	463380
BUA Consumption in Sq. M.	622619	564835	302857	867692

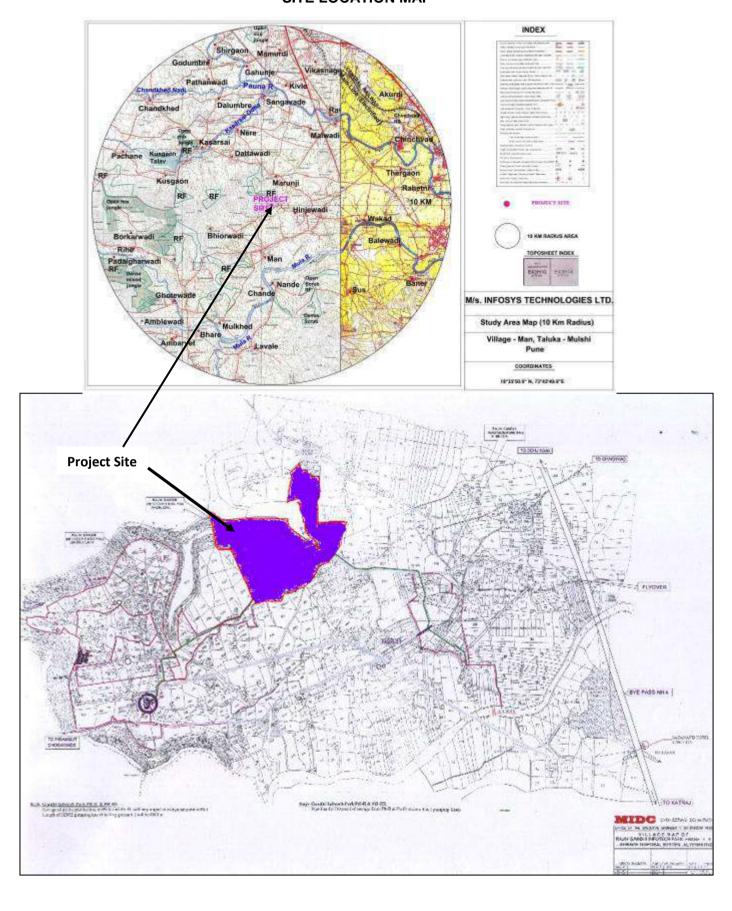
#### **FSI AREA:**

Particulars	Permissible FSI (Present 1.6 times of net plot area and expected to increase to 2 soon)	Approved FSI	Consumed FSI	Proposed addition	FSI after expansio n
FSI Consumption in Sq. M.	664219	536488	464610	146582	611192

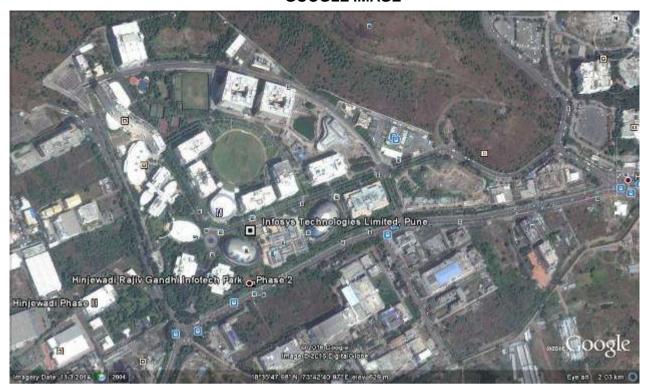
#### ANNEXURE II (a) AERIAL VIEW OF SITE



### ANNEXURE II (b) SITE LOCATION MAP



### ANNEXURE III GOOGLE IMAGE

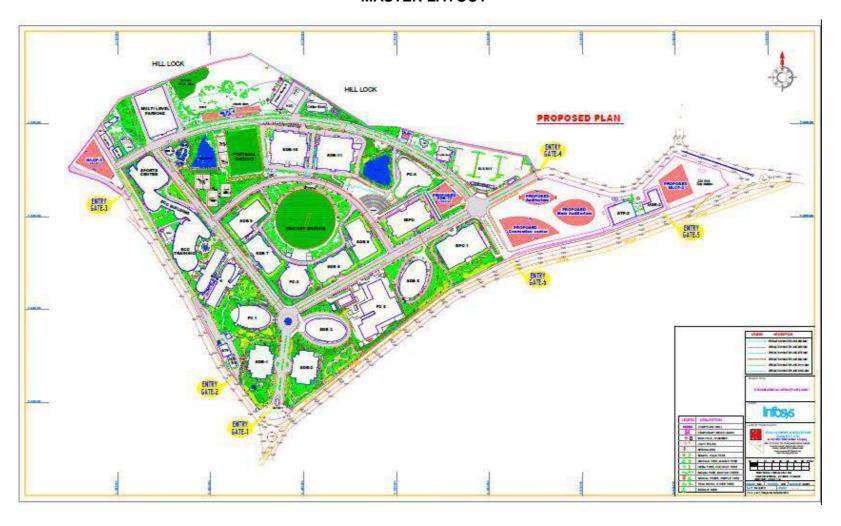


**Infosys Co-ordinates** 

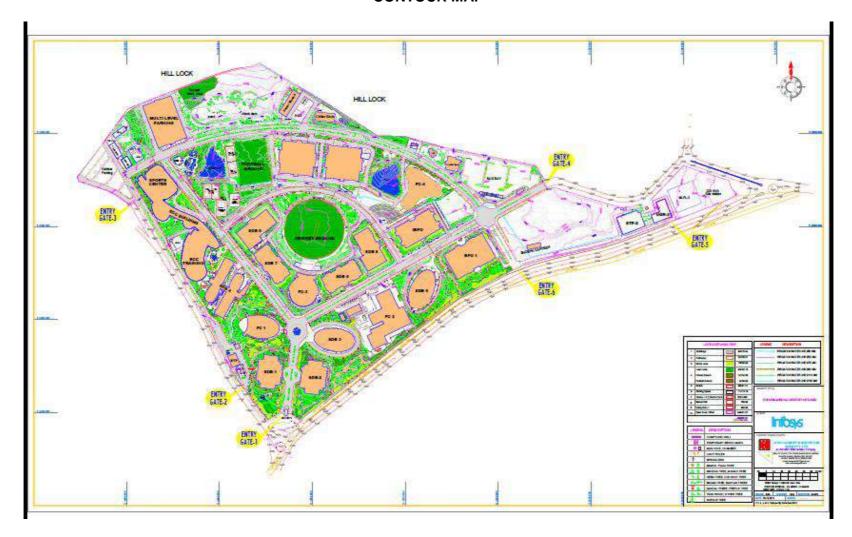
	illosys oo-ordinates									
Sr. No.	Locations	Latitude	Longitude							
1.	SDB-12 (Proposed)	A. N 18 35 50.8	E 73 42 43.2							
		B. N 18 35 51.7	E 73 42 42.5							
		C. N 18 35 50.2	E 73 42 43.0							
		D. N 18 35 50.7	E 73 42 44.9							
2.	Convention Centre(Proposed)	N 18 35 50.6	E 73 42 49.6							
3.	MLCP – 4 (Proposed)	N 18 35 59.7	E 73 42 29.2							
4.	MLCP – 3 (Proposed)	A. N 18 35 54.8	E 73 42 20.5							
		B. N 18 35 54.7	E 73 42 20.2							

### ANNEXURE IV (a)

#### **MASTER LAYOUT**



## ANNEXURE IV (b) CONTOUR MAP



### ANNEXURE V WATER BALANCE DIAGRAM

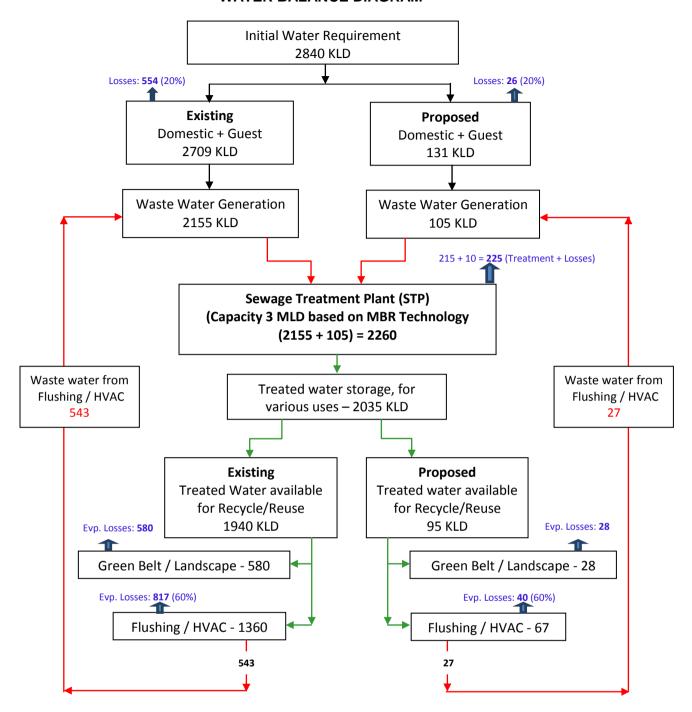


Figure-1: Total Water Balance (including Existing & Proposed quantity)

- Initial total water requirement is 2840 KLD,
- Total evaporation losses are observed 2270 KLD,
- Total wastewater from Flushing / HVAC (543 + 27) = 570 KLD available for recycle,
- Hence daily fresh water requirement will be 2840-570 = 2270 for Existing.

### **Total Water Balance (in KLD)**

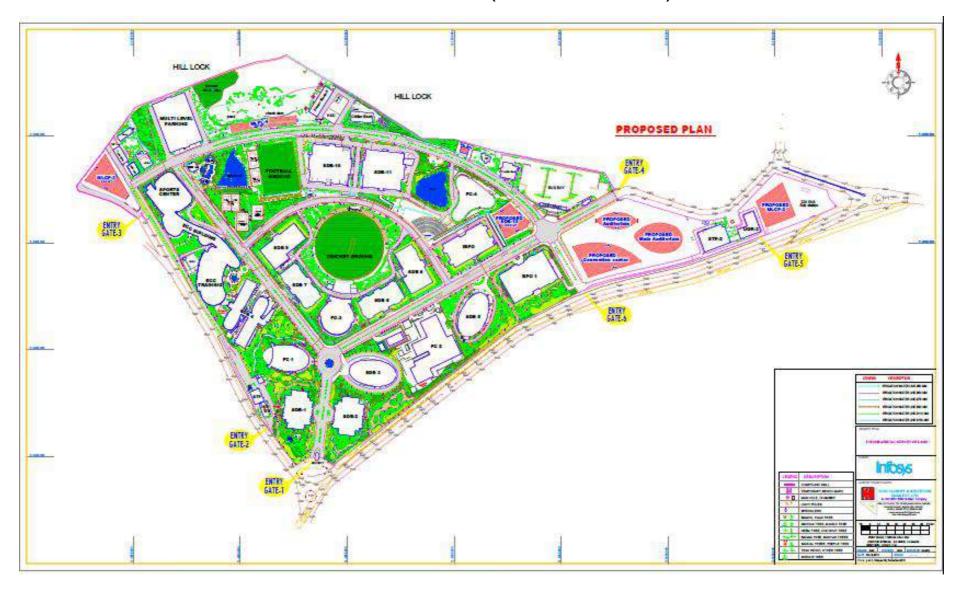
Particulars	Exi	sting Water E	Prop	Proposed Water Balance				Final Water Balance				
	Water Requirement (KLD)	Wastewater Generation (KLD)	Losses	Recycle/ Reuse	Water Requirement (KLD)	Wastewater Generation (KLD)	Losses	Recycle/ Reuse	Water Requirement (KLD)	Wastewater Generation (KLD)	Losses	Recycle / Reuse
Fresh Water Requirement	2709	2155	554		131	105	26		2840	2260	580	
Treated water Quantity	(1940)		215		(95)		10		(2035)		225	
Uses of Treated \	Water											
Greenbelt/ Landscaping	580	00	580	580	28	00	28	28	608	00	608	608
Flushing/HVAC	1360	543	817	1360	67	27	40	67	1427	570	857	1427
Total	1940	2698	2166	1940	95	132	104	95	2035	2830	2270	2035

### ANNEXURE VI (a)

### LANDSCAPE LAYOUT Total Landscape Area details for Phase 2

Description of Item	Existing	Proposed	Total after Expansion
Green Belt Area	170963.53 m <sup>2</sup>	29371.47 m <sup>2</sup>	200335 m <sup>2</sup>
Trees	23157	2800	25957

ANNEXURE VI (b)
GREEN BELT AND PLANTATION (EXISTING & PROPOSED)



### ANNEXURE VII TOTAL POWER REQUIREMENT

Description of Item	Existing	Proposed	Total after Expansion
Power from MSEDCL	11.50 MVA	3.850 MVA	15.35 MVA
Power back up DG set	22.00 MVA	2.00 MVA	24 MVA

Present Power requirement is 11.5 MVA. Future Expansion would require 3.850 MVA. Total Power consumption is 15.35 MVA.

Source of power supply: MSEDCL

DG Sets are provided as emergency backup.

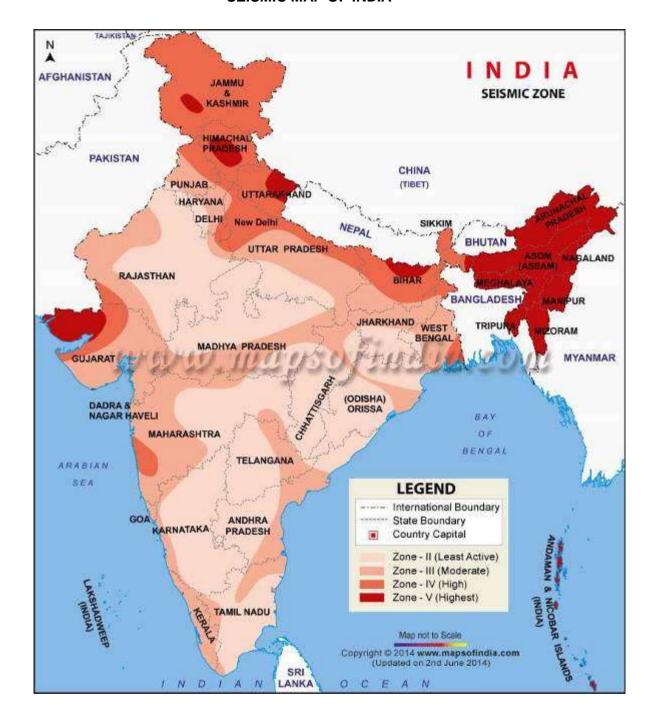
The objective at Infosys is to minimise energy consumption by using efficient equipments and continues measurement and validation of uses pattern.

#### **Power Back-up**

DG sets will be used for power back up and installed as per CPCB Norms.

Presently 5 x 2000 kVA, 4 x 3000 kVA already been installed. The existing DG sets or backup will be sufficient to provide the required load in case of power failure. The storage of oil will sufficient for 8 days normal operation. Also additional 1 X 2000 kVA will be provided in order to fulfil the requirement of internal Audit

### ANNEXURE VIII SEISMIC MAP OF INDIA



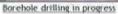
### ANNEXURE IX SOIL INVESTIGATION REPORT

### LABORATORY TEST RESULTS

### ROCK TEST RESULTS

Sr.	BH NO.	Depth (m)	PC. NO.	Specific Gravity	Water Absorpti on	Porosity	Load at failure	Load at failure	Unconfined Comp. Strength	Unconfined Comp. Strength	Remark
-		81 18			9/0	0/6	(kN)	(kg)	(T/m2)	(kg/cm²)	
1		5.5-7.0	25	2.21	4.65	10.26	6.1	621.81	4693.80	469.38	PointLoad
2	- 40	7.0-8.5	33	2.27	4.76	10.81	4.9	499.49	377 0.43	377.04	Point Load
3	1	8.5-10.0	35	2.48	3.59	8.91	65.1	6636.09	2821.19	282.12	
4		10.0-11.0	44	2.66	1.47	3.91	100.7	10265.04	4379.95	438.00	
5		1.5-3.0	2	2.45	3.51	8.59	61.7	6289.50	2671.90	267.19	
7	2	4.5-5.5	28	2.43	2.26	5.49	87.3	8899.08	3777.74	377.77	
8		5.5-6.5	29	2.58	2.73	7.03	66.0	6727.83	2891.81	289.18	
10		4.5-6.0	41	2.43	3.76	9.15	4.1	417.94	3154.85	315.49	Point Load
11	3	6.0-7.5	43	2.59	2.23	5.77	100.6	10254.84	4346.92	434.69	
12	3	7.5-9.0	46	2.34	4.31	10.08	82.2	8379.20	3567.45	356.75	
13	1 1	9.0-10.15	54	2.27	5.61	12.73	66.8	6809.38	2894.86	289.49	
14		3.0-4.5	2	2.19	7.17	15.67	3.8	387.36	2924.01	292.40	PointLoad
15	1	4.5-6.0	13	2.03	6.35	12.90	4.4	448.52	3 38 5.69	338.57	Point Load
16	4	6.0-7.0	21	2.32	5.84	13.56	5.1	519.88	3924.33	392.43	Point Load
17	4	7.0-8.0	28	2.52	2.06	5.20	100.2	10214.07	4320.17	432.02	
18	1	8.0-9.0	31	2.42	4.67	11.32	35.9	3659.53	1552.37	155.24	
19		9.0-10.	39	2.38	6.28	14.96	37.2	3792.05	1585.93	158.59	
20		5.0-6.0	6	2.39	3.94	9.41	74.3	7573.90	3211.67	321.17	
21	5	6.0-7.0	21	2.36	4.92	11.63	64.2	6544.34	2768.01	276.80	
22		7.0-8.0	29	2.47	3.74	9.23	29.1	2966.36-	1258.33	125.83	
23		3.0-4.5	2	2.40	5.53	13.27	3.3	336.39	2539.27	253.93	Point Load
24		4.5-6.0	13	2.64	2.42	6.37	63.4	6462.79	2786.07	278.61	
25	6	6.0-7.5	34	2.51	2.82	7.07	4.6	468.91	3539.59	353.96	PointLoad
26	191	6.0-7.5	22	2.66	2.06	5.47	90.3	9204.89	3988.69	398.87	
28	1	9.0-1 0.0	53	2.65	1.13	3.01	177.5	18093.78	7745.87	774.59	





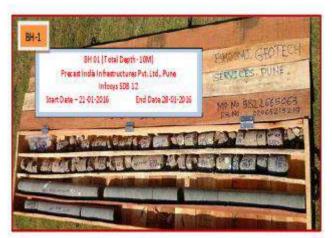


### LABORATORY TEST RESULTS

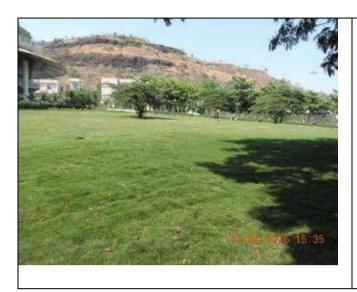
### **ROCK TEST RESULTS**

Sr. No.	BH NO.	Depth (m)	PC. NO.	Specific Gravity	Water Absorption	Porosity	Unconfined Comp. Strength	Unconfined Comp. Strength	Remark
	9				0/0	%	(T/m2)	(kg/cm²)	
1		3.0-4.0	15	2.10	5.99	12.57	6145.74	614.57	Point Load
2		3.0-4.0	22	2.26	4.02	9.09	5191.07	519.11	Point Load
3		4.0-5.0	27	2.22	6.44	14.29	4989.16	498.92	Point Load
4	1	6.0-7.0	42	2.30	6.20	14.23	6100.64	610.06	Point Load
5		7.0-8.0	51	2.77	3.01	8.33	7067.60	706.76	Point Load
6		8.0-9.0	54	2.54	1.52	3.88	4282.99	428.30	
7		9.0-10.0	58	2.62	0.88	2.31	4279.84	427.98	
8	2	4.5-6.0	11	2.43	3.47	8.43	8769.66	876.97	Point Load
9	3	6.0-7.5	20	2.23	4.27	9.52	6684.87	668.49	Point Load
10	3	7.5-9.0	28	2.03	10.63	21.57	6750.94	675.09	Point Load
11		10.5-11.5	37	2.41	3.21	7.75	4265.71	426.57	
12		4.55-6.0	9	2.38	7.02	16.67	4795.95	479.59	Point Load
13		6.0-7.0	18	2.23	8.25	18.42	8811.97	881.20	Point Load
14	4	7.0-8.0	22	2.38	5.55	13.21	4262.58	426.26	
15		9.0-10.0	46	2.39	1.36	3.26	4286.14	428.61	
16		2.1-3.5	6	2.09	10.37	21.71	9247.48	924.75	Point Load
17	5	6.5-7.5	42	2.54	2.28	5.79	4234,57	423.46	L
18	:5:	7.5-8.5	48	2.40	1.19	2.86	4270.42	427.04	
19		9.5-10	56	2.31	2.12	4.91	4206.82	- 420.68	
20		6.0-7.0	3	2.31	4.57	10.55	7548.85	V -754.88	Point Load
21		7.0-8.0	12	2.07	9.24	19.13	6793.96	679.40	Point Load
22	2	8.0-9.0	22	2.15	4.68	10.07	6793.96	679.40	Point Load
23	2	9.0-10.5	23	2.15	6.37	13.68	8495.23	849.52	Point Load
24		10.5-12.0	32	2.49	2.58	6.42	4268.85	426.88	
25		12.0-13.5	44	2.62	2.49	6.51	4179.35	417.94	





### ANNEXURE X LAND USE/ LAND COVER

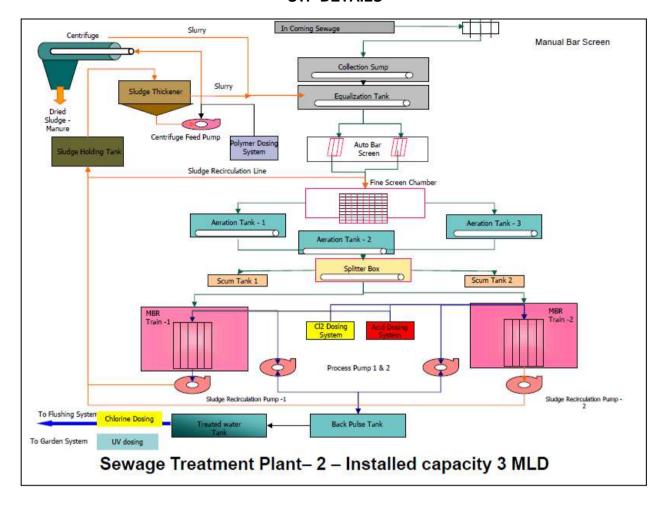




## ANNEXURE XI PARKING DETAILS (EXISTING AND PROPOSED)

Description of Item	Existing Parking	Proposed Parking	Total Parking after Expansion
Parking Area (BUA)	103957 Sq. M.	164500 Sq. M.	268457
Buses	140	-	140
Cars	4976	6608	11584
Scooter	400	3605	4005
Cycle	1000	-	1000

# ANNEXURE XII STP DETAILS



### **UNIT DETAILS, SALIENT FEATURES AND OPERATION**

#### 1.0 UNIT DETAILS AND SALIENT FEATURES

In this section the various units of the plant are listed, their objectives explained, salient features of the units given and their normal operational procedure defined with precautions to be followed listed. The sections have been organized in a sequential manner with connected sub units being placed under one section.

#### 1.1 COLLECTION SUMP

The Objective of the Collection Sump is to receive the waste from the various sources by gravity, to hold the same and to even out the variations in flow and quality.

#### TANK DETAILS

Quantity : 1 No.

Size : 17.4 M X 2.5 M X 2.3 M SWD

Make : MCC

Capacity : 100 Cu.m/hr

PUMP SPECIFICATION

Quantity:4 Nos.Capacity:85 cum/hrMake:GrundfosModel:100 KSE 5.5 4T

Rating : 5.5 KW

The sewage transfer pumps shall normally operated by the level controller which will switch on the pump at the high level of the Equalisation Tank and switch off the pump at low level.

#### 1.2 EQUALIZATION TANK

#### **OBJECTIVE**

The Objective of the Equalization Tank is to receive the waste from the various sources, to hold the same and to even out the `variations in flow and quality'. It gives the following benefits:

- Performance of the Biological treatment is enhanced, because shock loadings are eliminated or can be minimized, inhibiting substances can be diluted.
- The sewage quality and thickening performance of the Secondary Settling Tank following biological treatment is improved through constant solids loading.
- Helps to reduce the size and cost of down-stream treatment facilities.

#### TANK DETAILS

No. Of units : 1 No.

Tank dimension : 17.4 M X 13.0 M X 6.6 M SWD

M.O.C : RCC

**AIR MIXING SYSTEM** 

Type : Coarse Bubble Diffusers.
Air Source : Twin Lobe Air Blowers

Make : AETPL

# **PUMP SPECIFICATION**

Quantity : 4

Capacity : 50 Cu.m/hr
Make : Grundfos
Model : 80 KSE 2.2 4T

#### **OPERATION**

The equalisation tank shall normally operate on the fill and draw principle providing sufficient residence time at full flow conditions prior to the wastewater going to the downstream treatment units.

## 1.3 BAR SCREEN CHAMBER

#### **OBJECTIVE**

The main objective of the Bar Screen Chamber is to retain the floating matter. Floating matter retained in the Bar Screen has to be manually cleaned. Bar screens are made of MS angle frame with MS flats.

#### TANK DETAILS

Chamber Size :  $3.0 \times 0.4 \times 0.3 \text{ LD} + 0.4 \text{ FB}$ 

MOC : RCC

Make : AETPL

# **FINE BAR SCREEN (MANUAL)**

Quantity : 2 No.

Screen Dimension : 0.4 W x 1.0 L MOC : SS-304 Make : AETPL

# FINE BAR SCREEN (MECHANICAL)

Quantity : 2 No.
Rating : 1.10 Kw
Make : Jash

#### 1.4 BIO-REACTOR TANK

#### **OBJECTIVE**

The Bio reactor is used to remove oxygen consuming organic matter from the sewage by Biological treatment. Diffused Aeration is used for supplying air-containing oxygen. The bubbles produced from the diffusers are of extremely small size. Thus the total surface area that interacts is large and the contact time of bubbles is large due to slow rise rate of the bubbles. The system is thus extremely efficient in terms of oxygen transfer efficiency. The flow of fine bubbles provides a gentle mixing, which prevents floc shear. This results in increased efficiency of the Settling tank and higher sludge concentration.

The diffuser consists of a porous membrane, each made of EPDM rubber. Each diffuser is fully supported over the length and circumference with a 90 mm PVC membrane support frame.

# **BIO-REACTOR TANK**

No. of units : 2 No.

Capacity : 400 cum/each

M.O.C : RCC

**AERATION SYSTEM** 

Type : Diffused Aeration System Number of Membranes : 120 Nos. (1.0 M Long)

M.O.C of Membranes : EPDM

Air Source : Twin Lobe Air Blowers

Make : AETPL - EDI. USA

#### **OPERATION**

The Aeration Tank operates on the overflow principle. Constant aeration and mixing of the contents is required to ensure complete mix of the biomass and the wastewater. Aeration also prevents sceptic conditions.

# 1.5 TWIN LOBE AIR BLOWERS

# **OBJECTIVE**

The purpose of the Twin Lobe Air Blowers is to provide a source of compressed air for the fine bubble Diffused Aeration / mixing system in the Aeration and Equalization tanks. The Twin Lobe Air Blowers are complete with accessories such as suction filter, suction and discharge silencer, vibration pads, pressure gauge, pressure relief valve, non-return valve, etc.

## **BLOWERS (Bio Reactor)**

Quantity: 4 Nos.

Make : USHA COMPRESSORS

Model : UR -1150 Capacity : 1350 cu.m/hr RPM : 980 rpm

# **MOTORS**

Quantity : 4 Nos. (2 OP + 1 SB)

1 no (EQT, CS, SHT)

Rating : 37 KW/50HP
Speed : 1450 rpm
Make : ABB
Type : Continuous

Type . Continuo

**BLOWERS (Membrane Reactor)** 

Quantity : 2 Nos. (1 OP + 1 SB)
Make : USHA COMPRESSORS

Model : UR-1150 Capacity : 1850 cu.m/hr

RPM : 1270

**MOTORS** 

Quantity : 2 Nos. (1 OP + 1 SB)

Rating : 45 KW/ 60HP
Speed : 1450 rpm
Make : ABB
Type : Continuous

**OPERATION** 

The Air Blowers need to be operated on a continuous basis. A minimum of one Blower should be kept always in operation.

# 1.6 AIR COMPRESSOR

#### **OBJECTIVE**

The objective of the air compressor is to supply enough pressure to operate the pneumatic actuator valves.

## **COMPRESSOR SPECIFICATION**

Quantity : 2 Nos

Type : Reciprocating

Make : ELGI

Model : TS 07 120 H

AIR DRYER

Quantity : 1 Nos.
Capacity : 20.10 CFM
Model : ELD - 020
Type : Desiccated Type

#### 1.7 MEMBRANE TANK

#### **OBJECTIVE**

The screened, equalized, pretreated, aerated effluent is passed through Aeration tank where the organics are totally treated / oxidized aerobically. MBR process is a technology that consists of a suspended growth biological reactor integrated with an ultra-filtration membrane system (hollow fiber membranes). Essentially, the Membrane filtration system replaces the solids separation function of secondary clarifiers & filtration in a conventional activated sludge process.

The Membrane filtration membranes are immersed in an aeration tank (in a separate membrane tank compartment), in direct contact with mixed liquor. Through the use of a permeate pump, a vacuum is applied to a header connected to the membranes. The vacuum draws the treated water through the hollow fiber membranes.

Permeate is then directed to Chlorine contact tank (clarified water tank). Intermittent airflow is introduced to the bottom of the membrane module, producing turbulence that scours the external surface of the hollow fibers. This backwash then rejects solids away from the membrane surfaces.

No. of units : 2 No.

Size of Tank : 3.6 M x 4.6 M 4.25 M Ht

MOC : RCC

#### **OPERATION**

Membrane tank should operate in continuous basis.

# 1.8 PERMEATE LOBE PUMPS

#### **PUMP SPECIFICATION**

Quantity : 2 Nos Type : Tri Lobe

Capacity: 1850 CUM/HR

Make : Borger Model : PL 300

MOTOR

Speed : 1500 rpm Rating : 7.5 KW/ 10 HP

Make : Borger

#### 1.9 BACK PULSE TANK

#### **OBJECTIVE**

The objective of back pulse tank is to provide fresh water for the back pulse of the membranes.

# **TANK DETAILS**

No of Unit : 1 No

Size : 3.5 M X 2.55 M X 5.6 M SWD

MOC : RCC

# **OPERATION**

Membrane tank should operate in continuous basis.

# **Hypo Dosing System (Membrane cleaning)**

# **TANK DETAILS**

Dimension : 1000 Dia. X 1410 Ht.

Capacity : 1000 lts MODEL : CV-30-01 M.O.C : HDPE

# **PUMP SPECIFICATION**

Quantity: 2 No.

Capacity : 0 – 17520 LPH Make : Kemp ion

Model : KDV-54L-PTC-FWX

# **HYPO DOSING SYSTEM (DISINFECTION)**

### TANK DETAILS

Dimension : 1000 Dia. X 1410 Ht.

Capacity : 1000 lts MODEL : CV-30-01 M.O.C : HDPE

PUMP SPECIFICATION

Quantity: 2 No.

Capacity : 0 – 20 LPH Make : Kemp ion

Model : KS-52-PRC-HWS-B

# CITRIC ACID DOSING SYSTEM

TANK DETAILS

Dimension : 1000 Dia. X 1410 Ht.

Capacity: 1000 lts

MODEL : CV-100-01 M.O.C : HDPE

**PUMP SPECIFICATION** 

Quantity : 2 No.
Capacity : 0-700 LPH
Make : Kempion

Model : KDV-14G-PTC-FWX

#### **POLY ELECTROLYTE DOSING**

**TANK DETAILS** 

Dimension : 1000 Dia. X 1410 Ht.

Capacity : 1000 lts MODEL : CV-200-01 M.O.C : HDPE

**PUMP SPECIFICATION** 

Quantity : 2 Nos.

Capacity : 0 - 500 LPH

Make : Kempion

Model : KDV-14N-PTC –FWX

#### 1.10 FINAL TREATED WATER TANK

## **OBJECTIVE**

The filtered water is then collected into the final treated water tank from where it would be supplied for toilet flushing.

#### **TANK DETAILS**

NO of units : 2 Nos

Size : 16.5 M X 15.52 M X 5.35 M SWD

MOC : RCC.

# 1.11 SLUDGE HOLDING TANK

#### **OBJECTIVE**

The sludge from the sludge thickener is then collected into the sludge holding tank to be feed into the filter press to be formed into cakes to be disposed.

#### **TANK DETAILS**

No. of units : 1 Nos.

Size : 4.08 M X 3.6 M X 4.0 M SWD

MOC : RCC

# 1.12 SLUDGE THICKENER (ST – 01)

## **OBJECTIVE**

The main objective of the Sludge Thickener is to store and thicken the bio sludge in terms of sludge concentration and further fed to the Centrifuge for sludge dewatering.

#### **PUMP SPECIFICATION**

Size : 4.0 M X 4.0 M X 3.2 M SWD

Speed: 1440rpm

Rating : 0.37 KW / 0.50 HP Type : TEFC, Foot, IP 55

### **OPERATION**

The Sludge holding tank is operated on a continuous basis

#### 1.13 THICKENER FEED PUMP

## **OBJECTIVE**

The purpose of the thickener feed Pumps is to transfer the sludge from the sludge holding tank to the thickener.

#### **PUMP SPECIFICATION**

Quantity: 2Nos

Type : Self Priming Make : Johnson Model : KGEN-11-4

**MOTOR** 

Speed : 3000 rpm Rating : 1.1 KW/ 1.5 HP

Make : ABB

#### 1.14 SLUDGE RECIRCULATION PUMPS

#### **OBJECTIVE**

The purpose of the sludge recirculation pumps is to transfer the settled sludge from the bottom of the membrane tank to the aeration Tank. The excess sludge produced is put on to the Sludge Holding Tank for digestion.

# **PUMP SPECIFICATION**

Quantity:4 Nos.Capacities:208 Cu.m/hrMake:Johnson

Type : KGEN 29NA-15

BHP : 16 HP

#### **MOTORS**

Quantity: 4 Nos.

Rating : 15 KW / 20 HP Speed : 1500 rpm Make : ABB

# **OPERATION**

The sludge recirculation Pump should operate on a continuous basis. The sludge is normally transferred to the inlet of Aeration tank. Occasionally the excess sludge is bled from the system to the sludge holding tank. The frequency of de-sludging depends on the quantity of sludge produced.

# 1.15 CENTRIFUGE

## **OBJECTIVE**

The main purpose of the centrifuge is to dewater/ dry the conditioned sludge to a form in which it can be conveniently disposed off as sludge cakes.

#### **CENTRIFUGE SPECIFICATION**

Quantity : 1 No.
Capacity : 20 cum/ hr
Make : Hiller

Model : DP 450, 30 KW

Speed: 3000 Make: Kirloskar

Speed: 3000 rpm

**OPERTAION** 

The centrifuge is operated on an intermittent/ batch mode.

# 1.16 CENTRIFUGE FEED PUMPS

#### **OBJECTIVE**

The purpose of the centrifuge feed Pumps is to transfer the settled sludge from the sludge Thickener to centrifuge for dewatering.

# **PUMP SPECIFICATION**

Quantity : 2 Nos.
Capacity : 20 Cu.m/Hr
Make : Johnson

Model : KGEN-12B-5

Rating : 2 HP

# **MOTOR SPECIFICATION**

Make : Bharat bijlee

HP : 2 HP RPM : 3000 rpm

# 1.17 MOTOR CONTROL CENTRE (MCC)

There are no special process or technological checks required for operating the MCC / Control panel, except for normal safety and precautions required for operating LT electrical systems.

Normal preventive maintenance and routine checks to confirm the working of all relays, contractors and instrumentation should be followed as per the State Electricity Board guidelines and code of practice.

# ANNEXURE XIII PROPOSED TERMS OF REFERENCE

Proposed expansion of Infosys Limited, Pune

# 1.0 Proposed Scope of Work for EIA Study

The components of the EIA study include:

- Detailed description of all elements of the project activities (existing and proposed expansion)
  during the pre-construction, construction and operational phases. The elements analysed include
  resources availability, infrastructural facilities project including land requirement, drainage
  features, roads, power, transportation facility, manpower requirement, waste collection, disposal
  and management and utility requirements;
- Assessment of existing status of environment by monitoring primary baseline data and secondary data available with various government offices and published reports on various environmental components viz. Air, land, noise, water, biological and socio-economics including infrastructure, sensitive areas (forests, archaeological, historical places, etc.)
- Identification and assessment of impacts due to existing and proposed project activities on the environmental components.
- Preparation of EIA and EMP documents with recommendations on preventive and mitigation measures for limiting the impact on environment to the desired level during various stages of project. Development of a suitable post project-monitoring program to comply with various environmental regulations; and
- Risk Assessment (RA) and Disaster Management Plan (DMP) describing the probable risks and preventive & precautionary measures to be followed in the event of emergency situations such as accidents, fire etc.

# 2.0 Baseline Environmental Data Generation

Sr. No.	Attributes	Scope of Work
1	Air Environment	, -
	Meteorological data	Micrometeorological survey will be carried out at project site for three months. Data will be generated for temperature, wind speed, wind direction, relative humidity (min & max), rainfall, and cloud cover.
		The survey will be supported by the meteorological data for the area collected from IMD and trend analysis of micrometeorological data generated at the site.
	Ambient Air Quality	Design of ambient air quality sampling network with regard to topography, population, sensitive locations, emission sources, background concentrations and possible impact zones, through application of screening air quality models for assessing air quality prior to start of baseline study.
		The baseline air quality will be monitored at six (6) locations twice a week during one non-monsoon season for $PM_{10}$ , $PM_{2.5}$ , $SO_{2}$ , $NO_{x}$ , $CO$ .
		AAQ monitoring locations will be selected as per guidelines specified in GSR 176 (E) Notification (Selection of AAQ sites).
		Study of vehicular emissions due to raw materials and finished products transportation on state and national highways.
2	Noise Environment Noise Levels	Noise level monitoring (day and night) will be carried out at six (6) locations considering sensitive, residential, commercial and industrial zones as prescribed by CPCB.
		Vehicular frequency and noise levels during day and night due to transportation on nearby state and national highways.
3	Water Environment Water Quality	Water quality monitoring will be carried out by collecting surface and ground water samples from six different locations covering study area. The samples will be analyzed as per IS-10500-2012.
4	Land use/land cover	Land use and land cover pattern within 10 km radial distance from the project site by using NRSC satellite data. Classification of data for identification of different land use land cover features within the study area and preparation of land use land cover map, drainage pattern and FCC supported by secondary collection through District census handbooks.
	Soil Quality	Soil samples will be collected at six locations from three different levels up to a depth of 90 cm and analyzed for the parameters such as Texture, Bulk Density, Water Holding Capacity, Porosity, ESP, pH, Electrical Conductivity, Exchangeable Cations, CEC, Organic Carbon, Organic Matter available NPK and Heavy Metals, etc.
5	Ecological Studies (Terrestrial and Aquatic)	Primary as well as secondary data will be conducted for flora and fauna of the study area.
	•	The survey includes assessment of the species diversity, density, abundance etc. in the study area and formulation of ecological indices, assessment of likely changes on flora and fauna due to the project related activities, suggestions for conservation and protection of flora and fauna in the study area.

Sr. No.	Attributes	Scope of Work
6	Socio-Economic	Socio-economic aspects like infrastructural availability, amenities
	aspects	and demographic structure will be covered based on the Census
		documents and NIC database along with primary data collection
		through socio-economic survey

# 2.1 Legislation and Regulatory Considerations

- Government policies, legislation and regulations relevant to the proposal will be identified. Local
  plans and policies will also be evaluated. Project characteristics will be analyzed to ensure
  compliance with these policies, legislation and regulations.
- Appropriate recommendations will be provided to ensure regulatory compliance. The legislation relevant to the project will be summarized and presented in the EIA Report.

# 2.2 Environmental Impact Assessment

- There are various qualitative as well as quantitative methods of conducting EIA studies, each
  having its own merits and demerits. We intend to use the best logical tools (modeling) to assess
  the impact of the project.
- A qualitative and quantitative assessment of pollution aspects of proposed project (air and dust, wastewater, noise pollution, wastewater discharges etc.) will also be done to identify the adequacy of the proposed control measures as well as the likely impact on existing critical areas. The short term and long-term impacts, particularly on sensitive targets such as endangered species, plants and historically important monuments, will be identified and mitigation measures to reduce adverse impacts will be suggested.
- Impacts will be assessed if any with respect to all environmental components due to proposed expansion.

### Air Impacts:

- Emission Inventory will be carried in an area of 10-km around the project site. A computer based internationally recognized mathematical air quality models ISCST3 and other model suitable for the region will be identified and run to predict the concentration of PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> due to the operation of the proposed project. The dispersion model results will be included in the report using isopleths or other graphical methods, over laying a land use map of the surrounding area.
- Prediction of short term and long term ground level concentrations of PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> and graphical representation in the form of isopleths through application of air quality models taking effects of terrain and requirements specified in the publication by Central Pollution Control Board, New Delhi 'Assessment of Impact on Air Environment: Guidelines for conducting Air Quality Modeling';

# **Water Environment**

- Estimation of water balance for the proposed expansion will be carried out;
- Characterization/collection of data on waste water streams;
- Assessment of the nature of effluents likely to be discharged and its impact;
- Assessment of feasibility of water recycles, and reuse for green belt development and irrigation;
- Recommendations on water conservation measures based on past experience on similar projects.

# **Land Environment**

• Collection of data on soil characteristics and soil types;

- Quantification of solid wastes likely to be generated during operation and suggestions on proper collection, treatment and disposal methods;
- Delineation of environmentally compatible options for value added utilization of solid wastes;
- Strengthening of green belt keeping in view the selected plant species and attenuation factors for noise and air pollutants.

# **Biological Environment**

- Collection of the existing and available information on flora and fauna in the study area including rare and endangered species;
- Assessment of the species diversity, density, abundance etc. in the study area;
- Assessment of likely changes on flora and fauna due to the projects and related activities;
- Delineation of conservation measures for the protection of flora and fauna in the study area.

## **Noise Impacts:**

- Sources of noise and its impact on the environment would be clearly brought out. The noise level
  at varying distances for multi-sources will be predicted using suitable model. A comparison of
  measured noise (Leq) at monitoring locations to that of predicted noise levels (Leq) would be
  made and mitigation measures required, if any, will be recommended to conform to regulatory
  ambient noise standards.
- We propose to estimate increase in noise levels over the baseline conditions in different zones like industrial, residential and sensitive areas like hospitals, wild life habitation etc. The potential noise level exposure will be determined and evaluated for acceptable limits of exposure.

### Socio-economic and Health Environment

- Study of parameters to assess/characterize the quality of life in the study area;
- Assessment of changes from the baseline in the socio-economic parameters due to proposed plant operations;
- Assessment of economic benefits to community.

# **Aesthetic/Cultural**

Identification of all historical/archaeological sites/monuments in the study area

# 2.3 Environment Management Plan

For each potential negative impact identified, recommendations will be presented for avoidance, minimization or mitigation of impacts along with costs associated with potential mitigation.

An EIA/EMP, based on three months baseline study, will be prepared for the project. The EMP will address the following:

- Identify and summarize all anticipated significant adverse environmental impacts;
- Identify and summarize all mitigation measures, including the type of impact to which it relates and the conditions under which it is required;
- Define a set of policies and objectives for environmental performance and continual enhancement of performance;
- Green belt development plan;
- Recommend monitoring and reporting procedures including the parameters to monitored, methods to be used, sampling locations, frequency of measurements, detection limits and definition of thresholds that will signal the need for corrective actions;
- Recommend capacity development and training requirements for implementation of EMP;
- Recommend an organizational structure for effective implementation of the EMP; and
- Draw up an implementation and cost schedule for EMP.
- An environmental monitoring and management plan will be developed for the sensitive elements
  of the environment that may require monitoring during construction and implementation of the

proposed project. Recommendations will be made on the institutional arrangements that will be necessary to ensure effective monitoring and management.

A detailed management and monitoring program will be developed to reduce the effects of potential negative environmental impacts.

# 2.4 Risk Assessment and Disaster Management Plan

Risk Assessment studies comprising sub-activities such as hazard identification, assessment and quantification of risk for suggesting risk mitigation measures based on Maximum Credible Accident (MCA) Analysis to be carried out for the proposed project. Preparation of the Risk Assessment Report will be followed by Disaster Management Plan (DMP) and Emergency Preparedness Plan (EPP) based on the quantitative Risk Assessment of the proposed activity and associated infrastructure for the project.

# 2.5 Occupational Health and Safety

The company will review the safety management and occupational health surveillance system in the proposed facility plant and recommend for further appropriate measures.

# FORM 1 A

Proposed expansion of Infosys Limited, Pune

#### FORM-I A

(Only for construction projects listed under item 8 of the schedule)

#### CHECKLIST OF ENVIRONMENTAL IMPACTS

(Project proponent are required to provide full information and wherever necessary attach explanatory notes with the form and submit along with proposed environmental management plan & monitoring program)

#### 1.0 LAND ENVIRONMENT

(Attach panoramic view of the project site and the vicinity)

Refer: ANNEXURE II (a)

1.1 Will the existing land use get significantly altered from the project that is not consistent with the surroundings? (Proposed land use must conform to the approved master plan/ development plan of the area. Change of the land use if any and the statutory approval from the competent authority should be submitted). Attach maps of (i) site location, (ii) surrounding features of the proposed site (iii) the site (indicating plans.

**Infosys** Ltd., Pune has proposed to expansion of IT building {(Software Development Block (SDB 12), Parking & Services (Convention Centre, Auditorium, Security Block-4, Security Block-5, Scrap Yard-2, LPG Gas bank)} at plot 24, Rajiv Gandhi Infotech Park, MIDC-Hinjawadi-Pune. There will be a permanent change in the land use due to construction of these facilities. Land has been allotted to Infosys Ltd by MIDC. It is covered with sparse vegetation. All construction activities will be confined within the project premises, there will be no physical changes outside the construction area boundary.

- Site Location map detailed given in Annexure- II (b)
- Google image showing surrounding topography detailed given in Annexure- III
- Site indicating levels and contours detailed given in Annexure- IV (b)
- Master layout detailed given in Annexure- IV (a)
- Area statement detailed given in Annexure- I
- 1.2 List out all the major project requirements in terms of the land area, built up area, water consumption, power requirement, connectivity, community facilities, parking needs etc.

Sr.	Particulars	Details
No.		
1.	Name of the project	Infosys Limited - Proposed expansion
2.	Location of project	Plot 24, Rajiv Gandhi Infotech Park, MIDC - Hinjawadi-
		Pune- 411057.
3.	Total plot area (after	4,63,380 m <sup>2</sup>
	expansion)	
4.	Consumed Build-up area	564835 m <sup>2</sup>
5.	Proposed Built up area	302857 m <sup>2</sup>
6.	Total (Existing + Proposed)	867692 m <sup>2</sup>
	Area	
7.	Total Water requirement	Existing: 2709 m <sup>3</sup> /day
		Proposed: 131 m <sup>3</sup> /day
		Total after expansion: 2840 m <sup>3</sup> /day
		(Details are given in <b>Annexure V</b> )

Sr.	Particulars	Details					
No.							
8.	Total green/ landscape area	Descript			tal after		
		ion of Item	Existing	ed	Exp	pansion	
		Green Belt	170963.5	29371.4	200	0335 m <sup>2</sup>	
		Area	3 m <sup>2</sup>	7 m <sup>2</sup>			
		Trees	23157	2800	2	25957	
9.	Total power requirement	Source: MS	EDCL				
		Existing: 1	1.5 MVA				
		Proposed:	3.850 MVA				
		Total: 15.35	MVA				
		(Details are	given in An	nexure VII)			
10.	Total parking area	Description of Item	on Existin	•		Total Parking after Expansion	n
		Parking Ar in Sq. M. (BUA)	rea 10395	7 16450	00	268457	
11.	Site connectivity			•		-4 is about 4	1.92
			oject site, <b>Ne</b>		-		
		Chinchwad					
		Nearest Airport: Pune International Airport, Lohagae					n,
10			) km E direc		oject si	ite.	
12.	Project Cost	Approximat	ely INR 690.	0 Crores			

<sup>\*</sup> Buildup area will be used as per the MIDC rules.

# 1.3 What are the likely impacts of the proposed activity on the existing facilities adjacent to the proposed site? (Such as open spaces, community facilities, details of the existing Land use, disturbance to the local ecology)

The impact due to the proposed project may increase in the traffic loads, increase in noise levels during construction activities. As precast technology is being used dust emission will be minimised. Due care will be taken during construction as well as operational phase to minimize the impact on surroundings such as shielding of construction site, wetting of roads and stockpiles etc.

There will not be any significant impacts from the proposed activity on the existing facilities adjacent to the proposed site. All construction activities will be confined within the project area. There will be no physical changes outside the project boundary. Development and Construction of proposed project will be done as per applicable norms/byelaws and building codes.

There is no disturbance to the local ecology. Adequate land area will be developed as soft green. The project will have positive impact on the existing environment. Since the project site is falling in the city itself so no significant disturbance is anticipated.

# 1.4 Will there be any significant land disturbance resulting in erosion, subsidence & instability? (Details of soil type, slope analysis, vulnerability to subsidence, seismicity etc. may be given)

There will be minimal land disturbance due to the upcoming project as the project will involve clearing, grading and construction of impervious surfaces.

Following mitigation measures will be used to mitigate the same:

- Construction planning will be done to minimize exposed soil during times of the year when the potential for erosion is high, for example during summer.
- Site will be stabilized and erosion control measures will be adopted.
- Suppression measures, such as watering exposed area will be taken during the course of construction.
- Stockpiles will be located with the slope not greater than 2:1 (horizontal or vertical).
- Size and number of stockpiles will be kept minimum and will be located away from drainage line.

The land in consideration has an effective slope of 4 mtrs. Slope stabilization and soil erosion measures will be taken up as deemed necessary. It is proposed to develop professionally designed landscape to avoid the erosion of the texturally disturbed soil. The project site falls under seismic zone III as per seismic zone map of India (Seismic zone map of India attached as **Annexure VIII**)

Soil type: Sandy loam

**Slope Analysis**: As per the site scenario, the proposed site for expansion is sloping towards N-S direction with a contour level difference of 4 m from higher contour level to lower level. Excavation and filling activities will be carried out as per the site requirements to ensure minimize soil disturbance.

**Vulnerability to subsidence**: The soil will be not vulnerable to subsidence.

**Seismicity**: The proposed structure will be designed as per Seismic Zone III standards.

- 1.5 Will the proposal involve alteration of natural drainage systems? (Given details on a contour map showing the natural drainage near the proposed project site) Contour map shows that average Elevation levels of proposed site are 4 m and its slope is towards north to south of project site (Annexure III). There will be no alteration to natural drainage system as can be seen from the contour map. The drainage pattern of the site is in line with the natural drainage system.
- 1.6 What are the quantities of earthwork involved in the construction activitycutting, filling, reclamation etc. (Give details of the quantities of earthwork involved, transport of fill materials from outside the site etc.)

No cuttings, filling and reclamation are involved in the construction area. Only earth excavation will be required. The project uses precast technology and hence requirement of construction material onsite is minimal. Construction activities will be carried out on land area of  $2116\,\mathrm{M}^2$ .

It is estimated that approximately 29646 m³ of earth material will be excavated during initial construction phase for foundations. 80-90 % shall be reutilized into backfilling and levelling. Very little cutting & filling will be done as the site is fairly plain. The top soil excavated during construction will be first temporarily stored in an area earmarked, properly covered by tarpaulin sheets and then partly shall be used to fill up low lying areas around the project site and rest of the soil shall be disposed off as per the secondary mineral rules dully approved by the District collector Pune.

The sources and nature of wastes from different sources and their usage & disposal are given as follows:

• Excavations produce topsoil, clay, sand, and gravel. This may be either re-used as filler at the same site after completion of excavation work.

- •
- Construction debris will be minimal because use of precast technology.
- The fertile top soil will be reused for horticultural purpose.
- Mobile toilets will be provided on site and the sewage generated from mobile toilets will be connected to existing sewage line which is connected to an existing 3 MLD STP. Zero discharge condition will be complied.
- Domestic solid waste generated will be managed as per MSW (M & H) Rule.

# 1.6 Give details regarding water supply, waste handling etc during the construction period.

During construction phase, about 90.55 KLD water will be required and water supply will be through tankers. For sanitation and drinking purposes existing facilities available will be utilized. Sewage generating from the construction workers will be disposed by channeling it through the existing 3 MLD STP. Generated construction waste (excavated soil) will be used in leveling / landfilling. Excavated top soil will be stored at a designated place within the premises and will be used in landscaping. Recyclable waste will be sold out to the authorized recycler (the company is having zero to land fill policy for construction waste).

- 1.7 Will the low lying areas & wetlands get altered? (Provide details of how low lying and wetlands are getting modified from the proposed activity)
  - No, wetlands and major low-lying areas are found in the surrounding areas. Therefore there will be no alteration of low lying area and wetlands due to proposed project activities.
- 1.8 Whether construction debris & waste during construction cause health hazard? (Give quantities of various types of wastes generated during construction including the construction labour and the means of disposal)

Construction debris and waste will be minimal because of use of precast technology. Any construction waste generated will be re-used in road construction.

# **Materials from Earthworks**

It is estimated that approximately 29646m³ of earth material will be excavated during initial construction for foundations etc. Maximum percentage of excavated material will be re-used within premises for different purposes.

# **Municipal Waste & Other waste**

Approximately 0.25 Kg/capita/day of municipal waste may be expected during construction phase. The domestic waste water generated from construction camps shall be disposed of through existing 3 MLD STP.

#### **Hazardous Waste**

Hazardous waste could include diesel oil spillage from vehicles, DG Sets, paints and emulsions. Only PUC certified vehicles will be allowed inside the campus and it will be ensured that there are no spillages. DG Sets, paints and emulsions will be stored properly, so as to eliminate any chances of spillage.

The Impact, if any, on soil during construction phase will be marginal and reversible in nature.

Safety equipment like mask, goggles, ear plugs etc. will be provided to the laborers. Generated construction waste (excavated soil) will be used in leveling/landfilling. Excavated top soil will be stored at designated place within the premises and used in

landscaping. Recyclable waste will be sold out to the authorized recycler (the company is having zero to landfill policy for construction waste).

During construction phase, approximately 400 laborers/ workers will be deployed. The total quantity of water is estimated to be 54 m³/d. The domestic waste generated will be 43 m³/d. Mobile toilets will be provided on site and the sewage generated from mobile toilets will be connected to existing sewage line which is connected to an existing 3 MLD STP. Zero discharge condition will be complied.

#### WATER ENVIRONMENT

2.1 Give the total quantity of water requirement for the proposed project with the breakup of requirements of various uses. How will the water requirement met? State the sources & quantities and furnish a water balance statement.

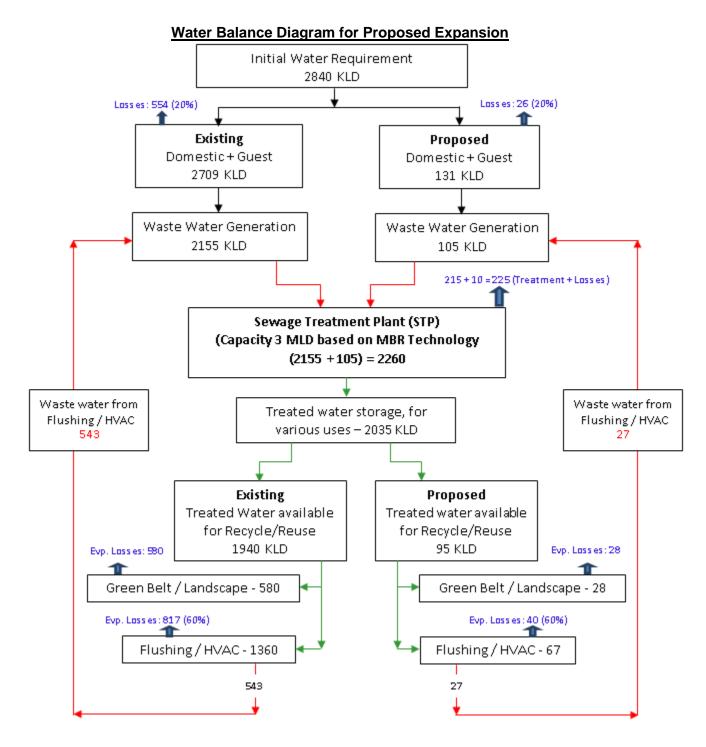
A provision of 45 LPCD (liters per capita per day) for water requirements shall be made. This in accordance with the Manual of Water Supply, Central Public Health and Environmental Engineering Organization (CPHEEO), Ministry of Housing, Government of India (GOI), hence the total water requirements shall be:

The water consumption can be reduced by:

- 1. Low flow faucets along with other water saving devices resulting in 25 to 50 percent water saving.
- 2. Recycling of tertiary treated water
- 3. Recycled water used for flushing, irrigation and cooling tower make up
- 4. Implementation of smart fixtures:
  - ❖ Single flow shower head in place of multi flow saved 33% water
  - Pressure reducing valves
  - Self-regulating flow restrictors in showers and taps
  - Installation of Electromagnetic flow meters better accuracy, connectivity to BMS, smart water metering
  - Low flow fixtures, waterless urinals, dual flush toilets
  - Faucet/Tap Aerators
  - ❖ 0.5 GPM (1.87 LPM) flow rate maintained in all taps
  - ❖ PCA (Pressure compensating aerators) in every faucet with 1.87 LPM
  - Wherever aerators are not possible to install, pressure compensating washers are used.
  - Pressure reducing valves in every shaft
- 5. Capacitive De-Ionization (CDI) An RO alternative with less rejection of water.
- 6. Anaerobic MBR An alternative to extended aeration/MBR process.
- 7. Root zone irrigation (reduce evaporation loss) for plants and sprinkler irrigation for lawns
- 8. Online remote monitoring of all water infrastructures (SCADA in WTP and STP with sensors inside storage tanks, at PHE shafts, Electromagnetic type water meter, etc.)

# **Total Water Balance (in KLD)**

Particulars	Existing Water Balance			Prop	Proposed Water Balance			Final Water Balance				
	Water Requirement (KLD)	Wastewater Generation (KLD)	Losses	Recycle/ Reuse	Water Requirement (KLD)	Wastewater Generation (KLD)	Losses	Recycle / Reuse	Water Requirement (KLD)	Wastewater Generation (KLD)	Losses	Recycle / Reuse
Fresh Water Requirement	2709	2155	554		131	105	26		2840	2260	580	
Treated water Quantity	(1940)		215		(95)		10		(2035)		225	
					Uses of Trea	ted Water						
Greenbelt/ Landscaping	580	00	580	580	28	00	28	28	608	00	608	608
Flushing/HVAC	1360	543	817	1360	67	27	40	67	1427	570	857	1427
Total	1940	2698	2166	1940	95	132	104	95	2035	2830	2270	2035



**Total Water Balance (including Existing & Proposed quantity)** 

- Initial total water requirement is 2840 KLD
- Total evaporation losses are observed 2270 KLD
- Total wastewater from Flushing / HVAC (543 + 27) = 570 KLD available for recycle
- Hence daily fresh water requirement will be 2840 570 = 2270 for Existing

The domestic waste generated will be treated in existing STP and treated water will be used for plantation/greenbelt or flushing. No wastewater will be discharged to water course or on land. Thus Zero liquid discharge will be maintained.

- 2.2 What is the capacity (dependable flow or yield) of the proposed sources of water?

  The proposed water demand will be made available through MIDC. No ground water will be utilized for the project.
- 2.3 What is the quality of water required, in case, the supply is not from a municipal source? (Provide physical, chemical, biological characteristics with class of water quality)

Water source will be from MIDC for drinking and domestic purpose. STP treated water will be used for green belt development and flushing.

# **Analysis of Drinking Water**

Sr.	Test Parameter	Unit	Test Method	As per IS 1 (Drinkin Specif	Test results	
No.				Acceptabl e Limit	*Permissi ble Limit	
1.	pH value at 25°C	-	IS 3025 (Part 11)	6.5 to 8.5	No relaxation	7.1
2.	Electrical Conductivity at 25°C	μS/cm	IS 3025 (Part 14)	-	•	180
3.	Turbidity	NTU	IS 3025 (Part 10)	1	5	0.5
4.	Nitrates (as NO <sub>3</sub> )	mg / I	APHA method	45	No relaxation	1.11
5.	Total dissolved solids (TDS)	mg / I	IS 3025 (Part 16)	500	2000	99
6.	Total Suspended solids	mg / I	IS 3025 (Part 17)	-	-	<1
7.	Fluoride (as F)	mg / I	IS 3025 (Part 60)	1.0	1.5	0.31
8.	Alkalinity (as CaCO <sub>3</sub> )	mg / I	IS 3025 (Part 23)	200	600	55.5
9.	Total hardness (as CaCO <sub>3</sub> )	mg / I	IS 3025 (Part 21)	200	600	58.0
10.	Chloride (as Cl)	mg/l	IS 3025 (Part 32)	250	1000	11.55
11.	Dissolved Oxygen (DO)	mg/l	IS 3025 (Part 38)	-	-	6.5
12.	Sulphate (as SO <sub>4</sub> )	mg / I	IS 3025 (Part 24)	200	400	11.22
13.	Phenolic compounds (as $C_6H_5OH$ )	mg / I DL 0.001	APHA method	-	-	BDL (DL 0.001)
14.	Copper (as Cu)	mg/I	IS 3025 (Part 2)	0.05	1.5	BDL (DL 0.02)

Sr.	Test Parameter Unit Test Method		As per IS 1 (Drinkin Specif	Test results		
No.				Acceptabl e Limit	*Permissi ble Limit	
15.	Manganese (as Mn)	mg / I	IS 3025 (Part 2)	0.01	0.3	BDL (DL 0.03)
16.	Mercury (as Hg)	mg / I	IS 3025 (Part 2)	0.001	No relaxation	BDL (DL 0.0008)
17.	Cadmium (as Cd)	mg / I	IS 3025 (Part 2)	0.003	No relaxation	BDL (DL 0.002)
18.	Arsenic (as As)	mg / I	IS 3025 (Part 2)	0.01	0.05	BDL (DC 0.01)
19.	Lead (as Pb)	mg / I	IS 3025 (Part 2)	0.01	No relaxation	BDL (DL 0.008)
20.	Zinc (as Zn)	mg/l	IS 3025 (Part 2)	5	15	BDL (DL 0.05)
21.	Chromium (as Cr <sup>+6</sup> )	mg/l	IS 3025 (Part 2)	0.05	No relaxation	BDL (DL 0.02)
22.	Anionic detergents (as MBAS)	mg / I	APHA method	-	-	BDL (DL 0.1)
23.	Total coliform	MPN/100 ml	IS 1622	-	-	Absent
24.	Fecal coliform	MPN/100 ml	IS 1622	Absent	Absent	Absent

BDL: Below detection Limit, DL: Detection Limit

2.4 How much of the water requirement can be met from the recycling of treated wastewater? (Give the details of quantities, sources and usage)

The total wastewater generation from domestic use is estimated to be 105 m³/day. The whole generated wastewater will be used for plantation and greenbelt or for flushing after treatment. Additional domestic waste water generated during construction and operation phase will be connected to existing STP which has adequate capacity (3 MLD Cap) to take additional load. No wastewater will be discharged to water course or on land. Zero liquid discharge will be maintained.

- 2.5 Will there be diversion of water from other users? (Please assess the impacts of the project on other existing users and quantities of consumption)

  Not Applicable. No diversion is anticipated.
- 2.6 What is the incremental pollution load from w/w generated from the proposed activity? (Give details of the quantities and composition of w/w generated from the proposed activity)

From the proposed activities, the wastewater generation will be 105 m<sup>3</sup>/d (80% of the proposed water requirement (131m<sup>3</sup>/d). The wastewater generated will be treated in

existing STP and treated water will be used for gardening/plantation or flushing purpose only.

The details of overall domestic wastewater generated (quantity and quality) from the project are as below:

Quantity of wastewater	131 m³/day	
Characteristics	Raw	Treated
рН	7 – 8	7 -8
BOD mg / I	250-300	<10
COD mg/l	450-600	<50
SS mg/l	100-200	<10

STP details are shown in **Annexure XII** 

# 2.7 Give details of the water requirements met from water harvesting? Furnish details of the facilities created.

The project activity shall have storm water and rainwater harvesting. (Annexure VI).

#### **QUANTIFICATION:**

# (A) Total availability of water at the site

- = Geographical area x Rainfall x Runoff Coefficient
- = 461264sq.m. x 0.72 Mt. (720 mm) x 0.5
- = 1,66,055.04 M<sup>3</sup>/annum

# (B) Water that can be accommodated in the Aquifer.

- = Area of aquifer (Sq.Mt.) x Thickness of aquifer x specific yield of aquifer.
- = 461264 Sq.Mt. x 10 Mt. x 0.03
- = 138379.2 M<sup>3</sup>/annum.

#### (C) Rainwater than can be harvested

- = No. of Bore holes x depth of recharge bore hole x Area of recharge influence
- = **68 (52 existing and 16 proposed)** x 20 x 100

# = 1, 36,000 m<sup>3</sup>/annum

Considering an area of influence of 100 meters and depth of 20 meters for 68 Nos of Injection well (52 existing and 16 proposed) boreholes a total quantity of 1,36,000 m<sup>3</sup> can be harvested. The excess water however, looking at the condusive hydrogeological situation, few more injection wells can be drilled to harvest the surplus water available or the excess water can be stored on the surface in a farm pond or in a storage tank.

# 2.8 What would be the impact of the land use changes occurring due to the proposed project on the runoff characteristics (quantitative as well as qualitative) of the area in the post construction phase on a long term basis? Would it aggravate the problems of flooding or water logging in any way?

Maximum storm rainfall of 793.3 mm/annum has been assumed on the past experience. The project will increase the paved areas and thus the runoff from the project area is expected to increase due to reduced infiltration. No adverse impacts are envisaged due to proposed project on the run off characteristics of the area as adequate arrangements have been made to trap the rainwater and suitable storm water drainage system has been provided, along with a functional mechanism to use the collected rain water.

During the post-construction phase, runoff will not be allowed to stand and create water logging or enter into the road side or nearby drain. Adequate measures shall be taken to collect such run off. Suitable garlanding drain as per the existing contours of the plot will be developed. The project will not aggravate the problems of flooding or water logging in any way, as the topography is plain.

2.9 What are the impacts of the proposal on the ground water? (Will there be tapping of ground water; give the details of ground water table, recharging capacity, and approvals obtained from competent authority, if any)

There will be no impact on the groundwater by the proposed project; fresh water shall be supplied through MIDC water supply while treated water shall be recycled for other low end uses.

Actually the groundwater will be augmented further as rainwater harvesting through pits are proposed. The rain water collected from Roof top will be sent for ground water recharging through recharging pits.

Appropriate permissions from local municipal authorities will be procured before starting of the project.

# 2.10 What precautions/measures are taken to prevent the run-off from construction activities polluting land & aquifers? (Give details of quantities and the measures taken to avoid the adverse impacts)

Adequate control measures will be taken to check the surface run-off, as well as uncontrolled flow of water into any water body. The following management measures will be taken to protect the water quality during the construction phase:

- Provision of silt traps at adequate location.
- Ensuring vehicle stick to the access tracks.
- Cleaning all mud and dirt deposition on road from construction related activities.
- Avoid excavation during monsoon season
- Preventing soil erosion.
- Mobile toilets will be provided on site and the sewage generated from mobile toilets will be connected to existing sewage line which is connected to an existing 3 MLD STP. Zero discharge condition will be complied..
- To prevent surface and ground water contamination by oil and grease, leak proof container will be used for storage and transportation of oil and grease. Oil and

grease handling will take place in a designated area which will have an impervious surface only.

# 2.11 How is the storm water from within the site managed?(State the provisions made to avoid flooding of the area, details of the drainage facilities provided along with a site layout indication contour levels)

Since the existing topography is congenial to surface disposal, a network of storm water pipe drains has been planned. All building roof water will be brought down through drain water pipes. Proposed storm water system consists of pipe drains, catch basins and seepage pits at regular intervals for rain water harvestings and ground water recharging. The storm rainfall of 793.3 mm/annum has been considered for designing the storm water drainage system.

Detailed storm water management plan will be implemented and regular inspection and cleaning of drains will be carried out.

The plan will incorporate best management practices, which will include the following:

- Regular inspection and cleaning of storm water drains
- Installation of clarifiers or oil / water-separators / trap-system of adequate capacity around parking areas and garages as per requirement
- Avoiding application of pesticides and herbicides before monsoon season
- Conducting routine inspections to ensure cleanliness
- Preparation of spill response plans, particularly for fuel and oil storage areas
- Provision of silt traps in storm water drains
- Good housekeeping in the above area

# 2.12 Will the deployment of construction labour particularly in the peak period lead to unsanitary conditions around the project site (Justify with proper explanation)

During construction phase there will be generation of domestic waste and municipal solid waste. Proper sanitary facilities in the form of temporary toilets / mobile toilets will be made available for the construction laborers (through contractors) for sewage management for labor comp. Domestic sewage generated during construction phase will be connected to existing STP. Solid wastes will be disposed off in municipal waste disposal system as per MSW Rules 2016. So, there will not be any unsanitary conditions around the project site.

2.13 What on-site facilities are provided for the collection, treatment & safe disposal of sewage? (Give details of the quantities of wastewater generation, treatment capacities with technology & facilities for recycling and disposal)

Sewage treatment details are given in **Annexure XII** 

One STP of capacity 2 MLD and other STP of 1 MLD (2000m³ + 1000m³) are in operation presently. Sewage generated from the proposed activity will be treated in Sewage Treatment Plants of 2000 and 1000 m³/day wherever is possible and the treated water will be utilized for secondary purposes like gardening or flushing. Thus, it is a step towards effective water conservation and cleaner environment.

The details of STP and its working are provided below:

STP capacity and number: 1 STP (2000 m<sup>3</sup>) +1 STP (1000 m<sup>3</sup>), total 3000 m<sup>3</sup>

Technology used: MBR

Quantity of wastewater generation from proposed expansion is estimated to be: 105 m<sup>3</sup>/day (details are provided in water balance). Also the quality of sewage water entering into STP and treated sewage water.

2.14 Give details of dual plumbing system if treated waste used is used for flushing of toilets or any other use.

A separate treated water storage tank connected to outlet of STP is provided. Treated wastewater is used for secondary purposes after chlorine/UV dosing such as flushing of toilets and gardening. Hence dual plumbing system is adopted for the proposed project.

## 3.0 VEGETATION

3.1 Is there any threat of the project to the biodiversity? (Give a description of the local ecosystem with it's unique features, if any)

No, the proposed project site and its surrounding do not have any significant vegetation and will not pose any threat to biodiversity in anyway. The area does not fall in any sensitive ecological area providing habitat for any sensitive wildlife and biological flora & fauna.

- 3.2 Will the construction involve extensive clearing or modification of vegetation? (Provide a detailed account of the trees & vegetation affected by the project)
  - No, the construction activities do not involve extensive clearing or modification of the vegetation. Land is covered with sparse shrubs and sporadic patches of grasses; and only clearance of grasses will be done.
- 3.3 What are the measures proposed to be taken to minimize the likely impacts on important site features (Give details of proposal for tree plantation, landscaping, creation of water bodies etc. along with a layout plan to an appropriate scale)

Due care will be taken to protect the important site features:

- Tree plantation will be done to protect the site features such as topsoil erosion, ground water attenuation and avoiding contamination by leachate.
- The excavated soil will be stored at earmarked places protected from contamination and from polluting the existing features and will be used for surface leveling and for creation of landscaped areas.

Adequate measures will be taken to minimize the likely impacts of the proposed project on the surrounding as well as the project site itself and documented in the Environmental Management Plan.

General principles in greenbelt design considered for this study area:

- Type of pollution likely air, noise, and water and land pollution generated from the activities at the site.
- Agro-climatic zone and sub-zone where the greenbelt is located
- Water quantity and quality available in the area
- Soil quality in the area.

# **Green & Open Areas**

Total no. of trees required: = 1 Tree/ 80 m<sup>2</sup> of plot Area

= 200335/ 80 = 2504 Trees

Proposed = 2800 Trees Total trees planted in the existing campus = 23096 Nos.

A combination of evergreen and ornamental flowering trees, palms, shrubs and ground covers, which are indigenous and native to the area, will be planted along the sides of the roads and in open spaces & set back area within the campus.

Landscaping is an important element in altering the microclimate of a place. Proper landscaping reduces direct sun from striking the buildings and heating up building surfaces, prevents reflected light carrying heat into a building from the ground or surfaces, creates different airflow patterns and can be used to direct or divert the wind advantageously by causing a pressure difference. Shade created by trees and the effects of grass and shrubs reduce air temperature adjoining the building and provide evaporative cooling. A study shows that the ambient air under a tree is 2°C to 2.5°C lower than that for adjacent un-shaded areas.

#### **Parks & Avenue Plantation**

Ornamental trees with spreading branches, shade giving with colorful flowers for employees to relax and suitable patches of lawns shall be provided. The following trees proposed to be planted in the proposed project.

- Trees with colonial canopy with attractive flowering.
- Trees with branching at 10 feet and above.
- Trees with medium spreading branches to avoid obstruction to the traffic, fruit trees to be avoided because children may obstruct traffic and general movement of public.

The selection of plant species for the development depends on various factors such as climate, elevation and soil.

#### 4.0 FAUNA

# 4.1 Is there likely to be any displacement of fauna- both terrestrial and aquatic or creation of barriers for their movement? Provide the details.

No. The proposed project site supports commonly found faunal species. The project will not create any barrier for the movement of faunal species. Additionally, the peripheral greenbelt developed will provide excellent habitat for the native fauna.

# 4.2 Any direct or indirect impacts on the avifauna of the area? Provide details.

No impacts on the avifauna are expected. All species recorded were local and commonly found all over the region. The existing plantation is rather supporting the local fauna to come. No endangered or rare avifauna is recorded from the study area. The existing horticultural plantation is helping and supporting for getting food and habitat for birds.

# 4.3 Prescribe measures such as corridors, fish ladders etc. to mitigate adverse impacts on fauna

No, not applicable, however the existing landscape and green area are providing a suitable habitat for some groups of faunal species. Moreover the proposed landscape

and green area will provide a suitable habitat for more faunal species once it will be fully developed. Planting of fruit bearing trees in the proposed greenbelt and plantation will be an attraction for the local bird population.

#### 5.0 AIR ENVIRONMENT

5.1 Will the project increase atmospheric concentration of gases & result in heat islands? (Give details of background air quality levels with predicted values based on dispersion models taking into account the increased traffic generation as a result of the proposed constructions)

The major sources of air pollution from the project are from

- (a) DG Sets
- (b) Additional Vehicular Traffic

The DG sets shall be procured strictly as per compliance with the applicable CPCB regulatory norms. They will also be provided with chimneys with sufficient height as per the norms for the proper dispersion of pollutants.

It is expected that there will be a marginal increase in the pollutant levels due to vehicular emissions from operational traffic. However, the employees shall be encouraged to use mass transit system and optimal use of vehicles which has been in practice for existing facility as well, and will be extended further for the proposed one too.

The impacts from the proposed project will be marginal, hence won't cause heat island effect. For minimizing the atmospheric concentration, green area / landscape is proposed in 200335 m² area. There is massive plantation suggested in the proposed landscape area.

## Ambient air Quality Monitoring Report in and around Phase - 2

All Values in µg/m³ except CO (mg/m³)

							Value	· · · · · · · · · · · · · · · · · · ·		P	(····g/··· /	
S.	Sampling	Samplin	PM <sub>10</sub>	PM <sub>2.5</sub>	SO2	NOx	CO	NH <sub>3</sub>	<b>O</b> <sub>3</sub>	C <sub>6</sub> H <sub>6</sub>	Вар	VOC
no.	Location	g date										s
A1	MLCP 3	4/5/2016	49.5	33.4	7.1	24.1	0.26	16.1	12.2	ND	ND	ND
							5					
A2	SDB 12	4/5/2016	47.2	32.5	8.3	26.2	0.25	18.3	13.1	ND	ND	ND
							1					
А3	MLCP 2	5/5/2016	54.1	36.7	9.5	28.5	0.23	17.5	11.2	ND	ND	ND
							9					
A4	Conventio	5/5/2016	51.9	35.1	7.7	25.5	0.26	15.2	10.5	ND	ND	ND
	n Centre						9					
A5	Hinjawadi	6/5/2016	58.6	38.5	11.9	33.7	0.36	21.1	16.5	ND	ND	ND
							8					
CPC	CPCB Standards		100	60	80	80	2	400	180	5-0	1-0	-
			(24	(24	(24	(24	(8	(24	(1hr	(An	(Ann	
			hrs)	hrs)	hrs)	hrs)	hrs)	hrs)	s)	n-	u-al)	
										ual)		

ND: Not detectable

# Impact due to proposed Traffic Density

All the major raw materials will be transported by road ways. A road network will be provided up to the site. All the tippers/ trucks will be covered by tarpaulin. Hence there will not be much fugitive dust generation during transportation of raw materials for construction. Pucca road exists upto the site. The existing road is capable of absorbing this additional truck movement. Hence there will not be generation of fugitive dust during transportation of raw materials, and therefore there will not be any adverse impact due to vehicular traffic.

#### **Vehicular Emission**

The national Highway (NH-4) is passing through the 10 km radius of the project location. Heavy traffic was observed on the main road till the circular square opposite to the gate no. 1 as well as on NH-4. It was observed that nearly 652 and 649 vehicles were plying on NH-4 and opposite of gate No. 1 of Infosys Ltd. respectively. The traffic details in the study area are given in table below:

The major pollutant expected to be emitted due to vehicular activities is particulate matter due to construction activities.

Vehicular Traffic during Peak Hours in the study area

Sr. No.	Traffic Intersection	Distance from project site	Direction w.r.t. plant	Traffic peak ho		
				Н	M	L
1	NH-4	6.19 km	NE	98	123	431
2	Infosys Gate no. 1	0.61 km	WSW	65	98	486

H: Heavy vehicles, M: Medium vehicles, L: Light vehicles

#### **Details of Air Quality Model**

The mathematical model ISCST – version 3, 1996 was used for predicting the GLCs, which is entirely in line with the requirement of Central Pollution Control Board, New Delhi. The air quality impact of a source or group of sources is evaluated by the use of mathematical models. This widely accepted interpretation model simulates the relationship between air emissions and its impact on air quality. For the present study, this model is used for the prediction of maximum ground level concentrations (GLCs). The ISCST-3 (Industrial source complex short term - 3) from lakes and Environment is an hour by hour steady state Gaussian plume model. This model is widely recognized as predictive tool in Impact Assessment for Air environment. The ISCST-3 model was applied with the consideration of elevated + flat terrain, gradual plume rise and buoyancy induced dispersion options in the present study. Assessment of air pollution is done for vehicular modeling by using ISCST-3 model.

#### Impact on Ambient Air Quality due to increase in Traffic volume

The ambient air quality in 10 km radius of Infosys Ltd. was observed in the range of  $PM_{10}$   $47.2-69.1~\mu g/m^3$ ,  $PM_{2.5}$ - 32.5- $40.2~\mu g/m^3$ , SO2-7.1- $16.3~\mu g/m^3$ , NOx-24.1- $33.7~\mu g/m^3$  and CO-0.239- $0.449~m g/m^3$ . The increase in concentration due to increase in traffic load is estimated to be  $5.38\mu g/m^3$  for particulate matter. The cumulative load in terms of  $PM_{10}$  will be  $74.48~\mu g/m^3$  indicating slight increase in the concentration levels.

#### **Air Pollution control Measures**

To minimize the pollution load from the additional traffic for transportation and construction, following pollution control measures will be adopted.

- Transportation materials in trucks covered with tarpaulin.
- Over loading of trucks will be strictly prohibited.
- Trucks shall be maintained as strictly spillage proof
- Periodic maintenance of transport trucks to control emission
- Speed of the transport trucks will be regulated
- Transportation will be carried out during non-peak hours
- Periodic maintenance of internal roads within premises
- Plantation along internal road side within project site
- Regular water sprinkling during /after transportation
- Entry of only PUC certified vehicles inside the project site

# 5.2 What are the impacts on generation of dust, smoke, odorous fumes or other hazardous gases? Give details in relation to all the meteorological parameters.

As precast technology is being used dust emission will be minimal.. This is however temporary in nature, which will be controlled by providing water sprinklers. Tarpaulin cover will be provided on stored loose materials to reduce dust emission.

During operation phase: The major gaseous emissions would come from the DG set and the additional vehicular traffic due to the project. The impacts due to DG sets will be minimal as they would be used only in case of power failure. DG set will be installed as per CPCB norms.

#### **Mitigation Measures**

The project proponent will develop green belt/ plantation inside the premises and along the internal roads which will act as a barrier for the restricting dispersion of pollutants and help in pollution control.

The details regarding activities carried out during construction and operation phase and its impacts with emissions will be incorporated in EIA report.

- 5.3 Will the proposal create shortage of parking space for vehicles? Furnish details of the present level of transport infrastructure and measures proposed for improvement including the traffic management at the entry & exit to the project site.
  - Presently Parking is provided for 4976 Four Wheelers and 400 Two wheelers and 140 buses. Parking proposed for the project for four wheelers will be 6608 and 3605 for two wheelers. Overall total parking arrangement will be for 11584 four wheelers, 140 buses and 4005 two wheelers (existing & proposed) (Annexure XI).
  - Parking norms as per MIDC rules 2009 will be implemented.
  - For vehicular movement within the site, internal roads with sufficient width will be constructed such that it will not disturb the land scape areas and organized open spaces.

# 5.4 Provide details of the movement patterns with internal roads, bicycle tracks, pedestrian pathways, footpaths etc., with areas under each category.

Internal approach roads of adequate width will be planned within the premises of proposed project. The project proponent will comply with MIDC parking rules 2009.

# 5.5 Will there be significant increase in traffic noise & vibrations? Give details of the sources and the measures proposed for mitigation of the above.

During the construction phase, some noise will be generated through the operation of construction machines, excavators, DG set, etc. Following measures should be taken; into consideration to mitigate the noise at construction site:

- The project shall not employ such excavation/ construction machines, which generate noise levels much more than 85 dB (A),
- Silencers shall be fitted on construction machines and DG set.
- Acoustic enclosures should provide to DG set at the construction site,
- Earmuff and other protecting, devices shall be provided to labour working in high noise generation machines.

During post construction phase, not much noise is anticipated, on account of project being a technology park. However, noise generated due to vehicular movement, operation and maintenance will be mitigated by adopting following measures.

- DG set will be silent type with anti-vibration pads.
- Administrative control by display of slogans and singes
- Green belt/plantation along the internal roads will also work as noise barriers.
- No vehicle will be allowed to enter unless having PUC.

# 5.6 What will be the impact of DG sets & other equipment on noise levels & vibration in & ambient air quality around the project site? Provide details.

### Impacts on Air Quality and Noise levels due to DG Sets & other equipment

Noise will be emitted during construction due to operation of construction machinery like transit mixture, concrete pumps, tower cranes, Air compressors etc. Vulnerable receptors would not be significantly affected. Noise generated in this phase would be spread throughout the site depending upon equipment operation at a location. Impact on onsite workers are expected but will be mitigated by the use of PPE like earplugs and earmuffs.

One of the major sources of noise during operational phase will be the diesel based generator. Impacts on ambient air during operation phase would be due to emissions from the stacks attached to stand by DG sets only during grid power failure.

#### **Mitigation Measures**

- Back up DG sets will comply with the applicable emission norms.
- Adequate stack height for DG sets will be provided as per norms.
- Back up DG sets will be used only during power failure.
- Monitoring of emissions from DG sets and ambient air quality will be carried out as per norm.
- DG set will be silent type with anti-vibration pads.

#### 6.0 **AESTHETICS**

6.1 Will the proposed constructions in any way result in the obstruction of a view, scenic amenity or landscapes? Are these considerations taken into account by the proponents?

The project will have state of art infrastructures designed to the best architectural features, using the latest available standards. The proposed constructions in any way will not result in the obstruction of a view, scenic amenity or landscapes. The campus is well planned with plenty of open space, green areas and amenities.

6.2 Will there be any adverse impacts from new constructions on the existing structures? What are the considerations taken into account?

The development in the project-influenced area is as per the development plan. Hence no adverse impacts are anticipated from new constructions on the existing structures in this area. Proper care will be taken during construction phase to isolate any impact arising out of construction work on existing nearby structure.

6.3 Whether there are any local considerations of urban form & urban design influencing the design criteria? They may be explicitly spelt out.

The project will be designed as per rules and guidelines of MIDC. The proposed project will strictly follow the NBR. All norms on ground coverage, FAR, height setbacks, fire safety requirements, structural design and other parameters will be strictly adhered to.

6.4 Are there any anthropological or archaeological sites or artifacts nearby? State if any other significant features in the vicinity of the proposed site have been considered.

As per Archaeological Survey of India, there are no anthropological or archaeological sites or artifacts nearby

#### 7.0 SOCIO-ECONOMIC ASPECTS

7.1 Will the proposal result in any changes to the demographic structure of local population? Provide the details.

Due to proposed project, there will be a positive impact on demographic pattern or structure of local population, as job opportunities will increase. Most of the workers/ staff in construction as well as operation stages will be from the nearby villages and township. The proposed expansion project is for IT buildings and proposed site location is in MIDC, hence influx of people will happen for work purposes. There will be a temporary influx of construction laborers, and this will be only for a short period until the completion of the construction work. During construction phase, most of the labor will be recruited locally. The existing employment is around 31288, and for proposed it will be additional 3712, so the total employees at Infosys campus will be 35000.

This project will lead to an up-gradation of the existing infrastructural facilities and increase in the land value of the surrounding area.

7.2 Give details of the existing social infrastructure around the proposed project.

The project comes in MIDC area and has all basic infrastructural facilities. The area is mostly designated for IT parks which are already set up by different companies (Tech. Mahindra, Atos, Wipro, Cognizant, TCS etc.). Hinjawadi is at a distance of 2.5 km, Pimpri Chinchwad: 12.5 km, Pune 17.0 km.

Socio-demographic features/ survey are very useful to understand social and economic condition of study area. To understand the socio-demographic status and the trends of the communities in the 05 km radius through census 2011 & DCHB 2011 will be contemplated and necessary data will be compiled and incorporated in the EIA report.

## **Demographic Structure**

The total numbers of households are 16,625 and total population as per census of 2011 was 75,713. Total male population is 40,481 and female population is 35,232. However for every 1000 number of male, there are 870 female, 0-6 child population is 10473, which is (14%) of total population. The SC and ST population in the area is 8,569 (11%) and 3,980 (5%) of the total population respectively.

Project area is in MIDC within Municipal jurisdiction and well connected with Pune city by road. All types of communication facilities like post office, net café, newspapers etc. are available in the study area. Medical facilities are well enough with all types of hospitals. Well known educational facilities are available in the study area. Drinking water supply is through Pune Municipal Corporation.

## **Employment**

The proposed constructional and operational activities are likely to provide direct and indirect employment and likely to increase the Socio-economic status of the study area especially the Hinjawadi area where the facilities are being located. Different types of employment pattern in the form of skilled, unskilled etc. will be generated during construction and operation phases of the project.

#### **Infrastructure Facilities**

Due to proposed project, the facilities for public transport, water supply, telecommunication, education, public wealth etc. are likely to improve.

7.3 Will the project cause adverse effects on local communities, disturbance to sacred sites or other cultural values? What are the safeguards proposed?

There are no archeological monuments of historical significance, sacred sites or other cultural structures that may cause adverse change in cultural values in or near the project site. Hence no adverse impact in this regard is anticipated.

## 8.0 BUILDING MATERIALS

- 8.1 May involve the use of building materials with high-embodied energy. Are the construction materials produced with energy efficient processes? (Give details of energy conservation measures in the selection of building materials and their energy efficiency)
  - The project makes comprehensive use of precast technology.

#### **Benefits of Precast Technology**

- 1. Eliminates the transportation of Raw materials to the site Cement, Sand, Stones, Bricks, etc. Most of these are dust producing raw materials. Impact Zero.
- 2. Reduced transportation in the already congested IT Hub area, reduced to nil pressure on
  - The waste management,
  - ii. Pollution due to construction material creating dust on and off the site.
- 3. Minimal Waste generated at site (dust, debris, etc.) minimises the adverse impact on environment.
- 4. Quicker construction timeline compared to in-situ construction.

- 5. Efficient usage of material since most construction is done in controlled environment in the factory.
- 6. Minimize labor on construction site.
- 7. Significant water savings as curing water requirement is nil for precast elements.
- 8. Better quality of construction compared to regular buildings.
- All items to be used in the proposed project will be as per the National Building Code specification.

:	Power back up invertor/ DG set for lifts and common area
	use solar panel will be setup to save energy in the area like.
:	Roof top Solar PV.
:	R.C.C. fume structure with brick work & normal plaster
	height of each floor 9.0 ft.
:	Glass doors with efficient light passage
:	Teak wood with Navapan Panal door
:	Teak wood frames
••	Aluminium frame glazed windows with mild steel grill
	Vitrified tiles in Halls, ceramic tiles to all rooms & passage.
	Grey Mosaic tiles in staircase and common passage.
	Ceramic tiles flooring and spartex tile
	Concealed wiring in all floor and cabins. Power plugs in W.
	C. and rest/ visit room
	Sanitary fitting and water fittings as per general practice,
	one wash basin, drinking water supply and utility water
	supply through separate lines from main water supply.
	External surface with water proof cement paint. Distemper
	to all inner side walls, white wash to all ceillings, synthetic
	enamel paints to door, windows and railings.
	Maximum separate working space in each floor. Lift for best
	services, sufficient covered parking for two-wheelers and
	four wheelers.
:	Project proponent reserves the right to make charges and /
	or substitution as necessary
:	Details and dimensions on floor plan are defined however
	subject to change if requires necessity.

# 8.2 Transport and handling of materials during construction may result in pollution, noise & public nuisance. What measures are taken to minimize the impacts?

Transportation and handling of materials during construction and operation phase results mainly in pollution of air and noise. It will be detailed in Environmental Management Plan considering the aspects of mitigation measures to be adopted.

# Mitigation Measures for Air pollution during construction

- Construction materials will be suitably covered with tarpaulin during transportation
- Water sprinkling will be done on haul roads where dust generation is anticipated

- Raw materials storage and handling yard will be enclosed from all sides.
- The trucks used for transport will be thoroughly checked for emission parameters and will have PUC certificates.
- The raw materials transport will be avoided during the peak hours to reduce traffic load.
- All workers will have safety helmets and masks.

## Mitigation measures for Noise during construction

- Noise generated due to engineering and administrative activities will be controlled.
- Isolation of noise generation sources and temporal differentiation of noise generating activities will ensure minimum noise levels at the receiver's end
- To prevent any occupational hazard, earmuffs / earplugs will be given to the workers working around construction & machinery emitting high noise levels.
- Use of machinery will be allowed during night time. Careful planning of machinery operation and scheduling of operations will be done to minimize such impacts.

# 8.3 Are recycled materials used in roads and structures? State the extent of savings achieved?

Construction debris and waste will be minimal because of use of precast technology. Any construction waste generated will be re-used in road construction..

8.4 Give details of the methods of collection, segregation & disposal of the garbage generated during the operation phases of the project.

# **Waste Generation during Operation Phase**

During operation phase of the project municipal solid waste will be generated based on population residing in buildings. The waste will be collected and segregated in each building.

#### **Proposed Municipal Solid waste Generation**

Additional professional during Operation Phase = 3712

Waste Generated per Capita = 0.25 kg/day

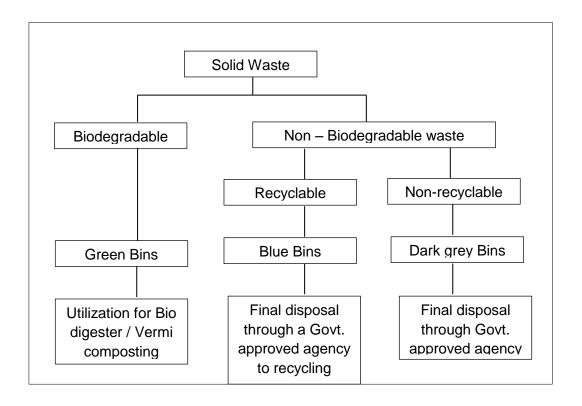
Total Waste Generated = 928 Kg/Day

Biodegradable waste = 556.80 kg/day

Non-biodegradable waste = 371.200 kg/day

E-waste = 92.8 say 93 kg/month

The waste management will focus on the segregation of waste generated during operational phase of the biodegradable and non-biodegradable at source. Degradable will be disposed through organic waste convertor to convert in to manure which will be used for gardening. Non-biodegradable to recycler or approved vendor. E-waste will be sent to authorized recycler.



#### 9.0 ENERGY CONSERVATION

9.1 Give details of the power requirements, source of supply, backup source etc. What is the energy consumption assumed per square foot of built-up area? How have you tried to minimize energy consumption?

Present Power requirement is 11.5 MVA. Future Expansion would require 3.850 MVA. Total Power consumption is 15.35 MVA.

Source of power supply: MSEDCL

DG Sets are provided as emergency backup.

Our motive is minimum energy consumption.

Energy Conservation and Non-Conventional Energy

 There will be total 3.850 MVA power requirements for the expansion facility; however existing facility requires 11.5 MVA power. The power is supplied by Maharashtra State Electricity Development Corporation Limited (MSEDCL). There is power back of 20 MVA and storage of fuel is for 8 days.

Infosys strongly believes in energy conservation and sustainable development which is reflected in their design and operation approach.

Some of the best practices adopted for energy efficiency include:

- Radiant cooling system design for buildings,
- 75% of total load catered to by enhanced chilled water temperature (16/20 °C) as against conventional system.
- 7/12 °C and balance 25% of load being catered to by 8/16 °C Chilled water
- Amorphous core transformers instead of conventional transformers at all locations which operate at near 100% efficiency;
- Power factor correctors at the supply level of the state grid power, to achieve highenergy efficiency;
- Generators of varying capacities, to avoid running higher capacity generators for smaller loads;
- Building automation systems to regulate the working of centralized air conditioning, depending on the ambient temperature and temperature required;
- Energy efficient screw/centrifugal compressors for the central air conditioning system;
- Stand-alone split air conditioners for areas that require 24 hour air conditioning, such as server rooms, UPS rooms, EPABX rooms, labs, etc., so that the central A/C plant can be switched off when not required;
- Landscaping in and around the atrium areas of the buildings to keep the ambient temperature down;
- Energy efficient computer systems and other equipment, including CFLs, electronic ballast for fluorescent tubes and mirror optic light fittings;
- · Timer for street lights and high mast;
- Skylights in the atrium and terrace areas to optimally use sunlight;
- Solar water heating system for on-campus guest houses –2,500 rooms across India receive hot water from this system;
- High-efficiency hydro-pneumatic pumps for water pumping system;
- PVC pipes for irrigation and swimming pool operations to reduce friction, and thereby reduce power costs in pumping;
- Sensors in toilets for optimal use:
- Variable frequency drives in various pump sets such as chiller pumps.

The following measures are adopted to make buildings more energy efficient:

- Energy efficient LED fixtures will be proposed for all areas of building;
- Double walls with an air cavity to reduce the heat load;
- Overhangs and stilted areas to avoid direct exposure to sunlight and reduce the resultant heat load;
- Day light photo sensors to ascertain automatic shut off of common area lighting when not in use;
- Under-deck insulation, and 24 thermo shield coating in the newer buildings, to reduce the heat load;
- External surfaces painted in pastel shades, to reflect heat; and
- High-quality reflective and double glass, used to reduce heat ingress.

#### 9.2 What type of, and capacity of, power back-up to you plan to provide?

- DG sets will be used for power back up and installed as per CPCB Norms.
- Presently 5 x 2000 kVA, 4 x 3000 kVA already been installed. The existing DG sets or backup will be sufficient to provide the required load in case of power failure, additional 1 X 2000 kVA will be provided
- Utilize all pumping stations at night time to get benefit of less tariff of MSEDCL

### 9.3 What are the characteristics of the glass you plan to use? Provide specifications of its characteristics related to both short wave and long wave radiation?

High-quality reflective and double glass, used to reduce heat ingress. The glass used will be such that it's SHGC (Solar Heat Gain Co-Efficient) is 0.25 or less typically suitable for the area.

### 9.4 What passive solar architectural features are being used in the building? Illustrate the applications made in the proposed project.

The following solar architectural features will be used in the building:

- The orientation of buildings will designed in such a way that the maximum day light is available
- Maximum use of natural ventilation will be practiced to keep the public area cool
- The roof tops will be coated using high reflecting coatings. This will help in creating a layer of heat insulation which in turns reduces the heating of the roofs
- Sufficient green areas will be developed surrounding the infrastructure in order to reduce the impact of temperature.

The building will be designed considering the following aspects:

- North South exposure
- High performance glazing
- Use of light shelves & shading devices
- Balance daylight admittance
- Excellent fascade glass properties with low U and SHGC values.
- Lower Lighting and plug loads
- Relatively low AC to built up area ratio.

# 9.5 Does the layout of streets & buildings maximize the potential for solar energy devices? Have you considered the use of street lighting, emergency lighting and solar hot water systems for use in the building complex? Substantiate with details.

Yes, the building will be designed considering the following aspects:

- North South orientation of the buildings
- Increase exposure to daylight
- High performance glazing
- Use of light shelves & shading devices
- Balance daylight admittance
- No private offices on the N-S periphery

Presently Solar hot water systems and Solar PV have been installed on terrace of Employee care center (ECC), Food court 2 and Facility block. Total installed capacity of Solar hot water is 68000 LPD and Solar PV is 1238 KW.

- 9.6 Is shading effectively used to reduce cooling/heating loads? What principles have been used to maximize the shading of Walls on the East and the West and the Roof? How much energy saving has been effected?
  - Pergolas, projections, facade elements will be provided to reduce cooling loads.
     Green areas and open areas will be so spaced that a reduction in temperature is achieved.
  - Roofs will be painted with reflective, aluminum based paints with solar reflectance ranging from 0.3-0.6. This will result in less absorption of sunlight causing 40% back reflection and less heating of building structures during summer season.
  - Passive solar cooling utilizing building shading.

#### **Building Envelope**

- External heat gain in building to be less than 0.75 W/sq.ft
- Wall insulation with R value of 10
- Roof insulation with R value of 15
- Window-wall ratio < 30%
- Low SHGC of 0.2 with low e glass. Double glazed unit with argon gas to achieve R value of 5.5
- Glazing completely shaded
- 9.7 Do the structures use energy-efficient space conditioning, lighting and mechanical systems? Provide technical details. Provide details of the transformers and motor efficiencies, lighting intensity and air-conditioning load assumptions? Are you using CFC and HCFC free chillers? Provide specifications.

Yes, the rooms will be so dimensioned that effective air conditioning can be carried out. Common/Public areas will be cooled by natural ventilation. The design of the buildings will be such that maximum use of natural lighting can be achieved. The walls, roofs and openings will be so designed that influx of heat is minimum.

#### **Energy Efficient Features:**

- 1. Substantial reduction in total air conditioning load due to:
- North-South exposure
- Insulated external walls
- Excellent façade glass properties with low 'U" and SHGC values
- Lower lighting and plug loads
- Relatively low AC to built up area ratio

Measures prescribed in energy conservation building code will be adopted to reduce the heat influx by wall roofs and openings.

- 2. Substantial reduction in chiller power consumption due to:
- Radiant cooled System design
- 75% of total load catered to by enhanced chilled water temperature (16/20 Deg C) as against conventional 7/12 Deg C, and balance 25% of load being catered to by 8/16 Deg C chilled water.
- Selection of chillers with efficiencies better than ASHRAE 90.1 standards
- Incorporation of CTI certified cooling towers with 2.8 Deg C approach as against conventional towers with 3.9 Deg C approach

- Part of fresh air load being taken care of by mid temperature (16/20 Deg C) chilled water
- 3. Substantial reduction in air pumping power
- As radiant cooled slabs would totally take care of space sensible loads, only treated fresh air needs to be pumped into the building thereby significantly reducing AHU power consumption.
- Ducts sized for not more than 1000 FPM as against standards 1500 FPM
- AHUs selected with lower coil face velocities.
- 4. Savings in chilled and condenser water pumping power due to reduce system pressure drops:
- In-line pumping system ensures rationalization of number of valves
- Pipe sizes selected with lower velocities
- 5. Savings in fresh air load:
- Single stage indirect cooling system envisaged at fresh air intake to reduce fresh air load on cooling coils.
- 6. Extensive use of EC drive Fans & variable frequency drives:
- EC drive Fans extensively used on AHU Fans.
- Variable frequency drives for pumps, cooling towers.
- 7. Only amorphous core transformers will be used.

## 9.8 What are the likely effects of the building activity in altering the micro-climates? Provide a self-assessment on the likely impacts of the proposed construction on creation of heat island & inversion effects?

No, there will not be change of micro-climate. The heat generated will not be significant and will be dissipated in the lush greens and open areas provided within the premises. However heat emissions from the construction may be from the following sources:

- Heat absorbed from the paved and concrete structures
- Heat generated from equipment appliances
- Heat increase due to population increase in the project

## 9.9 What are the thermal characteristics of the building envelope? (a) roof; (b) external walls; and (c) fenestration? Give details of the material used and the U-values or the R values of the individual components.

**Roofs:** The intensity of solar radiation is maximum on horizontal surfaces, which are roofs of the buildings. Conductance of heart from the roof is very high and this may result in high discomfort in the naturally ventilated space below

The thermal conductivity of the roofs will be reduced by use of white broken china mosaic as the roof finished material. This will ensure up to 50% more solar reflectance in comparison to traditional roof finishes.

**Walls:** The external walls will be protected from the direct exposure to sun with the provision of horizontal projections like patios and balconies on the south facing façade and vertical fins on the east and west facing facade. Wall 9" outer and 4  $\frac{1}{2}$ " internal walls.

Fenestration Detail: For air conditioned spaces in a region with high summer temperature, the desirable window to wall ratio, the U & R value for the major building

components will be considered. Window & Grill M.S. Grill with powder coated aluminium window & sunglass.

- The glare and prolonged exposure of sun will be reduced by orienting facades of the structure in N-S direction
- High-reflecting coating to roofs to reduce heat gain through roofs. Green areas and open areas will be so spaced that reduction in temperature is achieved.

S. No.	Heat Gain factors	Btu/hr/sqft/F
1	Wall	0.07
2	Roof	0.06
3	Partition	0.35
4	Floor	0.20
5	Glass (Transmission)	0.25
6	Glass (SHGC)	0.30

### 9.10 What precautions & safety measures are proposed against fire hazards? Furnish details of emergency plans.

Adequate fire protection facilities will be installed including fire detectors, fire alarm and fire fighting system to guard the building against fires. All fire protection facilities are designed as per the latest National Building Code. The approvals in this regard will be obtained.

#### Fire Safety

The building materials shall be of appropriate fire resistance standard. Further, design of office building will be as per NBC, 2016, which include following provisions:

- The electrical systems shall be provided with automatic circuit breakers activated by the rise of current as well as activated by over current.
- Fire detection systems
- Fire Alarm systems at appropriate places
- Double door and Double stairs in building will be provided
- Bell Mouth Traffic entry/exit from 60 &30 m wide road
- 8 m wide fire tender pathway
- Provision of Mechanical ventilation for air conditioned room will be made.
- Adequate fire fighting requirement shall be taken into account while designing the electrical distribution system

#### Sprinkler system

The building will be equipped with sprinkler system of fire fighting and the sprinkler heads shall be distributed as per the National Building Code. The sprinkler pump will be suitable for automatic operation when there is a drop of pressure in the system. Sprinklers shall be provided throughout the basement area with separate sprinkler risers as required. All the risers shall be provided with installation control valves and a hydraulic alarm. An electrical sensor flow switch will be provided on each floor and connected to the fire control panel in the security room, to identify the affected floor immediately.

The building will conform to the provisions of National Building Code as well as the provisions of State Fire Safety by Laws and local authority having jurisdiction.

### 9.11 If you are using glass as wall material provides details and specifications including emissivity and thermal characteristics.

The project being an office campus, has been designed in such a way, that it uses optimal amount of glass. The specifications are as discussed in point no.9.9.

### 9.12 What is the rate of air infiltration into the building? Provide details of how you are mitigating the effects of infiltration.

The proposed office campus will be centrally air-conditioned. Adequate provisions will be made to mitigate the effects of air infiltration. These include planting trees and shrubs on the windward side of a building to shield it from the wind, sealing air leaks in the building envelope and sealing duct joints.

Air Handling Units (AHUs) shall be double skin with Inner sheet of the panels be made of 0.63 mm thick plain GSS and outer sheet with 0.8 mm thick GSS with pre plasticized finish, with sandwiched polyurethane foam (CFC free) insulation of density 40 kg/cum and K factor not exceeding 0.02 W / M deg. C. They shall be of thermal break profile. AHUS shall be complete with EC fans.

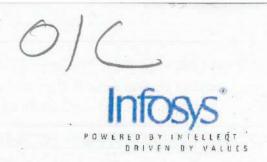
## 9.13 To what extent the non-conventional energy technologies are utilized in the overall energy consumption? Provide details of the renewable energy technologies used.

Solar energy will be utilized during operation phase of the project. Solar street lights will be used in proposed project.

#### 10.0 ENVIRONMENT MANAGEMENT PLAN

The Environment Management Plan would consist of all mitigation measures for each item wise activity to be undertaken during the construction, operation and the entire life cycle to minimize adverse environmental impacts as a result of the activities of the project. It would also delineate the environmental monitoring plan for compliance of various environmental regulations. It will state the steps to be taken in case of emergency such as accidents at the site including fire. The related to EMP will be given in EIA report.

Response to the actions taken on non-complied/partly complied EC conditions as reported in Certified Compliance Report



IL/HJW/FAC/GA/12-17/251

13th December 2017

To
The Director,
Ministry of Environment, Forests & Climate Change (MoEFCC),
Regional Office (WCZ), Ground Floor, East Wing, New Secretariat Building,
Civil Lines, Nagpur-440 001

Kind Attn.: Dr. Suresh Kumar Adapa, Scientist 'D'

Dear Sir,

Subject: Submission of response for non-compliance raised during EC verification site visit dtd. 08th September 2017 for "Proposed expansion of IT Project at Plot no. 24, Rajiv Gandhi Infotech Park, Phase II, Village Mann, Taluka Mulshi, Pune" by M/s. Infosys Technologies Ltd. (M/s. Infosys Ltd.).

#### Ref:

- Monitoring report for the EC verification of project vide F.No:18-C-51/2011/SEAC dtd. 27.09.2017.
- 2. EC letter no. SEAC-2010/CR.707/TC.2 dtd. 09th June 2011.

We are submitting herewith our response on the observations as part of compliance during your site visit dtd. 08<sup>th</sup> September 2017 for the verification of EC conditions for our IT Project expansion at Plot no. 24, Rajiv Gandhi Infotech Park, Phase II, Village Mann, Taluka Mulshi, Pune vide letter no.SEAC-2010/CR.707/TC.2 dtd. 09<sup>th</sup> June 2011.

The observations related to monitoring of ground water, soil, noise and some procedural requirements post EC. We have complied all the observations and the monitoring reports are enclosed for ready reference.

We assure you that same will be also complied regularly in subsequent six monthly compliance reports.

We are thankful to your cooperation and timely support.

Thanking you.

Yours faithfully

For Infosys Limited,

Amis Cadra

Senior Manager - CAG

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय Ministry of Environment, Forest & Climate Change क्षेत्रीय कार्यालय (पश्चिम मध्य क्षेत्र) Regional Offics (Western Central Zone) मून्तल, पूर्व खंड/Ground Floor, East Wing ज्या सचिवालय भवन/New Secretariat Building

रिनियितः लाईन्स/ Civil Lines वाराप्त्र/ Nagylor-440 001

Encl: Response to the non-compliance observed for Infosys Ltd. Pune

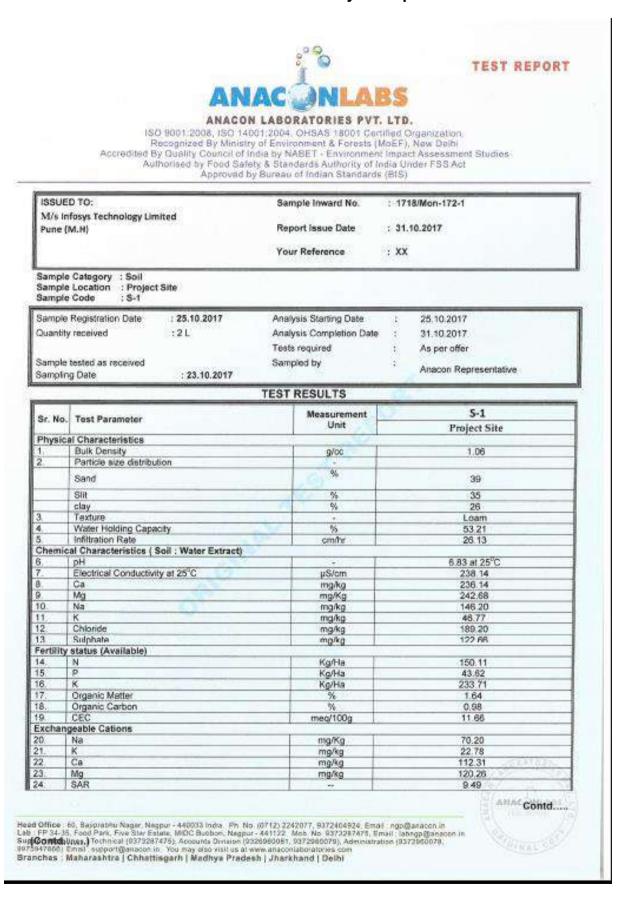
Plot No. 24 / 2 Rajiv Gandhi Infotech Park Phase II, Village Maan, Hinjawadi Taluka Mulshi, Pune 411 057, India T 91 20 3982 7000 F 91 20 3982 8001 Corporate Office: CIN: L85110KA1981PLC013115 44, Infosys Avenue Electronics City, Hosur Road Bengaluru 560 100, India T 91 80 2852 0261 F 91 80 2852 0362 askus@infosys.com

Cond.	Conditions	Compliance Status as	Response/Action Plan
Sr. No		per monitoring report by RO, MOEFCC	
iv	"Consent for Establishment" shall be obtained from Maharashtra Pollution Control Board under Air and Water Act and a copy shall be submitted to the Environment Department before start of any construction work at the site	Partly Complied MPCB granted consent to establish vide letter no. BO/RO(HQ)/CE/CAC-60 dated 10.05.2011. No details submitted regarding submission of copy of consent to establish to environment Department before the start of construction activity.	Consent to Established was obtained before start of construction however same was not submitted to Dept. of Environment, Govt. of Maharashtra / SEIAA, Maharashtra.  Same is noted and shall be adhered strictly during future expansion projects.
XV	Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.	Not Complied Soil quality and ground water quality monitoring is not being carried out. PA submitted that there is no source of ground water at the project.	The project is related to building and construction and only software development related activities carried out in the premises. However, soil (within and around campus) and ground water analysis (around campus) is carried out in October 2017 and same will be carried out quarterly including heavy metal analysis. Also same will be submitted along with six monthly compliance reports in future. No contamination of heavy metals found in soil & groundwater.  Copies of monitoring report attached as Annexure-I (Soil) and Annexure-II (Ground water) for October 2017.
xx	Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.	Partly Complied As per the details provided vehicles with valid PUC were allowed to enter the site. The vehicles have been operated during nonpeak hours. As per the monitoring data, the air quality levels found to be within prescribed standards. Noise levels are being monitored only during day time. Day time noise levels found to be within prescribed standards.	Noise monitoring is carried out in October 2017 for both day and night time. Same will be carried out quarterly.  Copies of monitoring report attached as Annexure-III which are already submitted along with six monthly compliance report for June, 2017 to November, 2017.
xxi	Ambient noise levels should confirm to residential standards both during day and night.	Partly Complied As per the monitoring data, the air quality levels found	Noise monitoring is carried out in October 2017 for both day and night time. Same will be

Cond. Sr.	Conditions	Compliance Status as per monitoring report by	Response/Action Plan
No		RO, MOEFCC	
	Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to confirm to the stipulated by CPCB/MPCB.	to be within prescribed standards.  Noise levels are being monitored only during day time. Day time noise levels found to be within prescribed standards.	carried out quarterly.  Copies of monitoring report attached as Annexure-III which are already submitted along with six monthly compliance report for June, 2017 to November, 2017.
xxvii	The ground water level and its quality should be monitored regularly in consultation with Ground Water Authority.	Not Complied. Ground water level and quality are not being monitored. PA submitted that there is no source of ground water at the project.	Ground water analysis (around campus) is carried out in October 2017 and same will be carried out quarterly. Also same will be submitted along with six monthly compliance reports in future. Copies of monitoring report attached as Annexure-II (Ground water) for October 2017.
xxxvii	Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.	Partly Complied. Noise levels are being monitored only during day time. Day time noise levels found to be within prescribed standards.	Noise monitoring is carried out in October 2017 for both day and night time. Same will be carried out quarterly.  Copies of monitoring report attached as Annexure-III which are already submitted along with six monthly compliance report for June, 2017 to November, 2017.
xlix	The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the Marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at http://envis.maharashtra.gov.in.	Partly complied. Advertisement has been provided however the clause of seven days was not followed.	The copy of EC letter dtd. 09 <sup>th</sup> June 2011 was received late to the Infosys office, hence couldn't able to follow 7 days clause. Management noted the same and will consider for future projects.
li	A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation and the local NGO, if any, from whom	Partly complied.  As per the details provided, copy of the EC was submitted to MIDC; however the same was not	EC letter was now uploaded on the company website https://www.infosys.com/sustainability/approvals/Pages/index.aspx

Cond.	Conditions	Compliance Status as	Response/Action Plan
Sr.		per monitoring report by	
No	cugacations/representations if	RO, MOEFCC uploaded to company	
	suggestions/representations, if any, were received while	uploaded to company website.	
	processing the proposal. The	website.	
	clearance letter shall also be		
	put on the website of the		
	Company by the proponent.		
lii	The Proponent shall upload the	Partly complied.	Six monthly EC compliance
	status of compliance of the	PA did not upload the copy	reports were now uploaded on
	stipulated EC conditions,	of six monthly compliance	the company website along
	including results of monitored	report in company website.	with environmental quality
	data on their website and shall	Criteria pollutant levels are	monitoring data. Environmental
	update the same periodically. It	being displayed at the	monitoring data is also
	shall simultaneously be sent to	project site.	displayed on main gate of the
	the Regional Office of MOEF.		company.
	The respective Zonal Office of CPCB and the SPCB. The		
	criteria pollutant levels namely;		
	SPM, RSPM, SO <sub>2</sub> , NO <sub>x</sub>		
	(ambient levels as well stack		
	emissions) or critical sectorial		
	parameters, indicated for the		
	project shall be monitored and		
	displayed at a convenient		
	location near the main gate of		
	the company in the public		
	domain.		
liv	The environmental statement	Partly complied.	Environmental Statements now
	for each financial year ending 31 <sup>st</sup> March in Form-V as is	PA submitted the	uploaded on the company
	mandated to be submitted by	environmental statement for the financial year 2015-	website; <a href="https://www.infosys.com/">https://www.infosys.com/</a>
	the project proponent to the	16 to MPCB. Copy of the	sustainability/approvals/Pages/i
	concerned State Pollution	environment statement	ndex.aspx.
	Control Board as prescribed	was not uploaded to the	
	under the Environment	website.	
	(Protection) Rules, 1986, as		
	amended subsequently, shall		
	also be put on the website of		
	the company along with the		
	status of compliance and shall		
	also be sent to the respective		
	Regional Officers of MoEF by		
	e-mail.		

#### Annexure 1 - Soil Analysis Reports





TEST REPORT

ISO 9001;2008, ISO 14001;2004, OHSAS 18001 Certified Organization. Recognized By Ministry of Environment & Forests (MoEF), New Delhi Accredited By Quality Council of India by NABET - Environment Impact Assessment Studies Authorised by Food Safety & Standards Authority of India Under FSS Act Approved by Bureau of Indian Standards (BIS)

ISSUED TO: Sample Inward No.

M/s Infosys Technology Limited

Pune (M.H)

: 1718/Mon-172-1

Report Issue Date

31.10.2017

Your Reference

: XX

Sample Category : Soil

Sample Registration Date

Sample Location Sample Code

: Project Site

- 5-1

: 25.10.2017

Analysis Starting Date

25 10 2017

Quantity received

21

Analysis Completion Date Tests required

31.10.2017 As per offer

Sample tested as received

Sampling Date

: 23.10.2017

Sampled by

Anacon Representative

Se Ma	Test Parameter	Measurement	S-1
St. NO.	rest Patameter	Unit	Project Site
Heavy N	Metals (Digested Soil)		- Phino
25.	As	mg/kg	Absent
25 26 27 28 28 30 31 32 33 34 35 36	В	mg/kg	Absent
27.	Cd	mg/kg	0.03
28.	Cr	mg/kg	Absent
29.	Cu	mg/kg	0.02
30.	Pb	mg/kg	0.01
31.	Ni	mg/kg	Absent
32.	Co	mg/kg	0.03
33.	Fe	mg/kg	9.12
34.	Mn	mg/kg	0.09
35.	Zn	mg/kg	0.10
36.	Se	mg/kg	Absent

1. Results relate to tested sample only. 2. Test report should not be reproduced partially. 3. 'mg/Kg' is equivalent to 'ppm'.

4. 'g/100g' is equivalent to "%w/w". 8. All parameters are in 1:5 water extract.

REMARKS: Based upon request of party, sample was tested for above mentioned parameter only.

For ANACON LABORATORIES PVT. LTD.

**Authorized Signatory** 

Head Office: 60, Sajorebho Nagar, Nagzur - 44003 India. Ph. No. (0712) 2242077, 9372404924, Email: hgp@anacon.in Lab.: FP 34-35, Food Park, Five Stat Estate, MIDC Butibor, Nagpur - 441122, Mob. No. 9373297475, Email: lobrage@anacon.in Support Helptines: Technical (9373287475), Accounts Otvision (9326960081, 9372960078), Administration (9372960076, 9975947866). Email: support@anacon.in. You may also visit us at wew.anaconlaboratories.com Branches : Maharashtra | Chhattisgarh | Madhya Pradesh | Jharkhand | Delhi





TEST REPORT

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ISSUED TO: Sample Inward No. : 1718/Mon-172-2 M/s Infosys Technology Limited

Pune (M.H) Report Issue Date : 31.10.2017

Your Reference : XX

Sample Category : Soil Sample Location : Hinjewadi Sample Code : S2

Sample Registration Date : 25.10.2017 Analysis Starting Date : 25.10.2017

Quantity received : 2 L. Analysis Completion Date : 31.10.2017

Tests required : As per offer Sample tested as received Sampled by :

Sample disted as received Sampled by Anacon Representative

#### TEST RESULTS

Sr. No.	Test Parameter	Measurement Unit	52
Physica	al Characterístics		
1	Bulk Density	g/cc	1.07
2	Particle size distribution		
	Sand	96	45
	Siit	%	24
	clav	%	31
3	Texture		Sandy Clay Loam
4	Water Holding Capacity	%	51.23
5.	Infiltration Rate	cm/hr	32.02
Chemic	al Characteristics ( Soil : Water Extract)		
6	pH		6.69 at 25°C
7.	Electrical Conductivity at 25°C	µS/cm	427.41
3	Ca	mg/kg	235.48
9	Mg	mg/Kg	98.30
10.	Na	mg/kg	142.44
11.	K	mg/kg	52.22
12.	Chloride	mg/kg	256.36
13.	Bulphato	mg/kg	165.27
ertility	status (Available)	The second second	140007344
4	N	Kg/Ha	130.61
5.	P	Kg/Ha	34.41
6.	K	Kg/Ha	258.44
7.	Organic Matter	%	1.68
8.	Organic Carbon	%	0.97
9.	CEC	meg/100g	15.44
xchan	geable Cations		
0.	Na	mg/Kg	70.36
11.	K	mg/kg	27.91
2.	Ca	mg/kg	115.47
3	Mg	mg/kg	48.17
4.	SAR		11.02

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Accredited By Quality Council of India by NABET - Environment Impact Assessment Studies Authorised by Food Safety & Standards Authority of India Under FSS Act Approved by Bureau of Indian Standards (BIS)

ISSUED TO: : 1718/Mon-172-2 Sample Inward No.

M/s Infosys Technology Limited

Pune (M.H)

Sampling Date

: 31.10.2017 Report Issue Date

Your Reference : XX

Sample Category : Hinjewadi Sample Location Sample Code : 3-2

Sample Registration Date

: 25.10.2017

: 23.10.2017

Analysis Starting Date

25.10.2017

Quantity received

:21

Analysis Completion Date Tests required

31.10.2017 As per offer

Sample tested as received

Sampled by

Anacon Representative

e	20,200	Measurement	5-2
Sr. No.	Test Parameter	Unit	Hinjewadi
Heavy	Metals (Digested Soil)		Will state of
25	As	mg/kg	Absent
26	8	mg/kg	Absent
26 27	Cd .	mg/kg	0.03
28	Cr	mg/kg	Absent
29.	Cu	mg/kg	0.04
30.	Pb	mg/kg	0.02
31	Ni	mg/kg	Absent
28. 29. 30. 31. 32. 33. 34. 35. 36.	Co	mg/kg	0.01
33.	Fe	mg/kg	8.89
34.	Mn	mg/kg	0.12
35.	Zn	mg/kg	0.02
36.	Se	mg/kg	Absent

Note: 1. Results relate to tested sample only. 2. Test report should not be reproduced partially. 3. 'mg/Kg' is equivalent to 'ppm'. 4. 'g/100g' is equivalent to '%w/w' 5. All parameters are in 1:5 water extract.

REMARKS: Based upon request of party, sample was tested for above mentioned parameter only.

For ANACON LABORATORIES PVT. LTD.

**Authorized Signatory** 

Head Office: 60, Bajlprabhu Nagar, Nagpur - 440033 India: Ph. No. (0712) 2242077, 9372404924; Email: ngp@anacon.in Lab FP 34-35, Food Park, Five Stot Etdate, MIDC Burbon, Nagpur - 441122. Mob. No. 8373297475, Email: lobingb@anacon.in Support Helipfines: Technical (9373287475), Accounts Division (9325960061, 9372960079), Administration (9372960078, 9375947665) Email: support@asscon.in. You may also visit us all www.shaconisbors/sones.com Branches : Maharashtra | Chhattisgarh | Madhya Pradesh | Jharkhand | Delhi



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Approved by Bureau of Indian Standards (BIS)

ISSUED TO:

M/s Infosys Technology Limited

Pune (M.H)

Sample Inward No.

: 1718/Mon-172-3

Report Issue Date

: 31.10.2017

Your Reference

: XX

Sample Category : Soil Sample Location : Dattawadi : S-3

Sample Code

Sample Registration Date

: 25.10.2017

Analysis Starting Date

25.10,2017

Quantity received

:21

Analysis Completion Date

31.10.2017

Tests required Sampled by

As per offer

Sample tested as received Sampling Date

: 23.10.2017

Anacon Representative

#### TEST RESULTS

Sr. No.	Test Parameter	Measurement	S-3	
		Unit	Dattawadi	
Physic:	al Characteristics		100000000	
10000	Bulk Density	g/cc	1.05	
2	Particle size distribution		11.000	
	Sand	9%	39	
	Slit	%	26	
	clay	36	35	
3.	Texture		Clay Loam	
4	Water Holding Capacity	%	56.12	
5.	Infiltration Rate	cm/hr	37.15	
Chemic	al Characteristics ( Soil : Water Extract)			
6.	pH		6.84 at 25°C	
7.	Electrical Conductivity at 25°C	µS/om	280.51	
3.	Св	mg/kg	161,37	
9	Mg	mg/Kg	145.96	
10.	Na	mg/kg	105.80	
110	K	mg/kg	94.32	
12.	Chloride	mg/kg	189.67	
13.	Sulphate	mg/kg	152.47	
ertility	status (Available)			
4.	N	Kg/Ha	165.17	
5	P	Kg/Ha	50.43	
16	K	Kg/Ha	213.14	
7.	Organic Matter	%	1.48	
8.	Organic Carbon	96	0.90	
9.	CEC	meg/100g	15.45	
xchan	geable Cations			
0	Na	mg/Kg	75.36	
11	К	mg/kg	37.43	
2	Ca	mg/kg	79.16	
23.	Mg	mg/kg	72.46	
14.	SAR		8.53	

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ISSUED TO: Sample Inward No. : 1718/Mon-172-3

M/s Infosys Technology Limited

Pune (M.H) Report Issue Date : 31.10,2017

Your Reference : XX

Sample Category : Soil Sample Location : Dattawadi

5-3

Sample Code

Sample Registration Date : 25.10.2017 Analysis Starting Date : 25.10.2017

Quantity received : 2 L Analysis Completion Date : 31.10.2017
Tests required : As per offer

Sample tested as received Sampled by Anacon Representative

Sr N	o. Test Parameter	Measurement	S-3
ALC: 1885	J. Test Falamoter	Unit	Dattawadi
	Metals (Digested Soil)	100000	
25:	As	mg/kg	Absent
25 26	В	mg/kg	Absent
27	Cd	mg/kg	0.03
27 28 29 30	Cr	mg/kg	Absent
29.	Cu	mg/kg	0.01
30.	Pb	mg/kg	0.01
31.	Ni	mg/kg	Absent
31 32 33 34 35	Co	mg/kg	0.03
33.	Fe	mg/kg	7.89
34	Mn	mg/kg	0.13
35.	Zn	mg/kg	0.06
36.	Se	mg/kg	Absent

Note: 1. Results relate to tested sample only. 2. Test report should not be reproduced partially. 3, 'mg/Kg' is equivalent to 'ppm' 4. 'g/100g' is equivalent to '6w/w'. 5. All parameters are in 1:5 water extract.

REMARKS: Based upon request of party, sample was tested for above mentioned parameter only.

For ANACON LABORATORIES PVT. LTD.

Authorized Signatory

Head Diffice: 60, Bajiprabhii Napar, Negour: 446033 India. Ph. No. (0712) 2242977, 9972404924, Email: ngp@ahaton.in. Lab. FP 34-35, Food Park, Five Star Estato, MIDC Butibon, Nagpur: 441122. Mob. No. 9373287475, Email: labrigp@ahaton.in. Support Helpilines: Technical (3073287475), Accounts Division (9326960851, 9372660079), Administration (9372860078, 8375947066). Email: support@ahaton.in. You may also visit us at www.araconiaboratones.com
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ISSUED TO: Sample Inward No. : 1718/Mon-172-4

M/s Infosys Technology Limited

Pune (M.H)

Report Issue Date

77 Tulmon-172

Your Reference

: XX

: 31,10,2017

Sample Category : Soil Sample Location : Marunji Sample Code : S-4

Sample Registration Date

: 25.10.2017

Analysis Starting Date

25 10 2017 31 10 2017

Quantity received : 2 L

Analysis Completion Date Tests required

As per offer

Sample tested as received

Sampling Date : 23.10.2017

Anacon Representative

#### TEST RESULTS

Sampled by

Sr. No.	Test Parameter	Measurement Unit	S-4 Marunji
Physica	d Characteristics		
1.	Bulk Density	g/cc	1.08
2	Particle size distribution	200	
	Sand	%	39.
	Slit	56	21
	clay	%	40
3.	Texture		Clay
4	Water Holding Capacity	96	55.12
5	Infiltration Rate	cm/hr	30.33
Chemic	al Characteristics ( Soil : Water Extract)	97000	
6	pH		6.85 at 25°C
7.	Electrical Conductivity at 25°C	µS/cm	307.41
8.	Ca	mg/kg	238.21
9	Mg	mg/Kg	143.18
10.	Na	mg/kg	151.73
11.	K	mg/kg	91.70
12	Chloride	mg/kg	194.37
13.	Sulphate	mg/kg	128.50
	status (Available)		N. Garage
14.	N	Kg/Ha	146.33
15.	P	Kg/Ha	40.24
16.	K	Kg/Ha	212.79
17.	Organic Matter	%	1.70
18.	Organic Carbon	%	1.10
19.	CEC	meg/100g	18.13
	geable Cations		
20	Na	mg/Kg	64.56
21.	K	mg/kg	48.38
22.	Ca	mg/kg	115.15
23.	Mg	mg/kg	72.31
24.	SAR		10.99

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ISSUED TO: Sample Inward No. : 1718/Mon-172-4

M/s Infosys Technology Limited

Pune (M.H)

Report Issue Date

Tr. Tollingti-114

: 31.10.2017

Your Reference

: xx

Sample Category : Soil Sample Location : Marunji Sample Code : S-4

Sample Registration Date

: 25.10.2017

Analysis Starting Date

25.10.2017 31.10.2017

Quantity received

:2L

Analysis Completion Date Tests required

As per offer

Sample tested as received

Sampling Date

: 23,10,2017

Sampled by

Anacon Representative

Sr. No.	Test Parameter	Measurement	S-4
OIL IEU.	reat ratameter	Unit	Marunji
Heavy N	fetals (Digested Soil)		WOODEN TO THE PERSON OF THE PE
25.	As	mg/kg	Absent
26.	В	mg/kg	Absent
27:	Cd	mg/kg	0.02
25 26 27 28 29 30 31 32 33 34 35 38	Ċr .	mg/kg	0.02
29	Cu	mg/kg	0.01
30.	Pb	mg/kg	0.05
31.	Ni	mg/kg	Absent
32	Go	mg/kg	0.03
33	Fe	mg/kg	1.12
34.	Mo	mg/kg	0.04
35.	Zn	mg/kg	0.05
36.	Se	mg/kg	Absent

Note: 1. Results relate to tested sample only. 2. Test report should not be reproduced partially. 3. 'mg/Kg' is equivalent to 'ppm'.

4. 'g/100g' is equivalent to '%w/w'. 5. All parameters are in 1:5 water extract.

REMARKS: Based upon request of party, sample was tested for above mentioned parameter only.

For ANACON LABORATORIES PVT. LTD.

**Authorized Signatory** 

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#### **Annexure II – Ground Water Analysis Reports**



TEST REPORT

ANACON LABORATORIES PVT. LTD.

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Page 1 of 2

ISSUED TO:

M/S Infosys Technology Limited

Sample Inward No. : 1718/Mon-172-1

Man, Pune

Report Issue Date

: 31.10.2017

Sample Category : Ground Water Sample Code

: GW-1

Water Level: 6.2 mbgl

Sample Location

: Near Project Site

Analysis Starting Date

25.10.2017

Sample Registration Date Quantity received

Sampling Date

: 25.10.2017 :21

Analysis Completion Date

31.10.2017 As per offer

Sample tested as received

: 23.10.2017

Tests required Sampled by

Anacon Representative

#### TEST RESULTS

Sr.	Test Parameter	Measurement	Test Method	As per IS 10500 : 2012 (Drinking Water - Specification)		QUARTED STREET
No		Unit		Acceptable Limit	'Permissible Limit	Test Result
1	pH value		18 3025 (Part 11)	6.5 to 8.5	No relexation	7.81 at 25°C
2.	Electrical Conductivity at 25°C	µS/cm	19 3025 (Part 14)	-	-	719.45
3.	Turbidity	NTU	IS 3025 (Part 10)	1	5	0.8
4	Dissolved Oxygen	mg / 1	1S 3025 (Part 38)			5.2
5.	Total dissolved solids (TDS)	mg/f	IS 3025 (Part 16)	500	2000	396
6.	Total suspended solid (TSS)	mg/I	IS 3025 (Part 17)		57	<10
7.	Total alkalinity (as CaCO <sub>3</sub> )	mg/I	IS 3025 (Part 23)	200	600	160.8
8	Total hardness (as CaCO <sub>2</sub> )	mg/1	IS 3025 (Part 21)	200	600	191.76
9.	Sodium (as Na)	mg/l	IS 3025 (Part 45)	- 4		28.0
10.	Potassium (as K)	mg/I	IS 3025 (Part 45)	- 2	41	9.68
11.	Magnesium (as Mg)	mg/I	IS 3025 (Part 45)	30	100	7.96
12	Calcium (as Ca)	mg/1	IS 3025 (Part 40)	75	200	63,65
13	Sulphate (as SO <sub>4</sub> )	mg /1	IS 3025 (Part 24)	200	400	20.18
14.	Nitrate	mg /1	APHA Method	45	No relaxation	19.22
15.	Fluoride (as F)	mg/I	15. 3025 (Part 60)	1.0	1.5	0.68
16.	Chlorides (as Cl)	mg/l	IS 3025 (Part 32)	250	1000	50.17
17	Total Nitrogen	mg/l	IS 3025 (Part 34)			19.89
18.	Oil and Grease	mg/I	IS 3025 (Part -39)	. 111	(e)	< 4
19	COD	mg/l	IS 3025 (Part 58)	+		<4
20.	BOD	mg / I	IS 3025 (Part 44)	+	**	<2
21.	Free Residual Chlorine	mg/l	IS 3025 (Part 26)	0.2	1	<0.1
22	Total Phosphate	mg/I	IS 3025 (Part 31)	-		< 0.3
23.	Arsenic (as As)	mg/t	IS 3025 (Part 2)	0.01	0.05	<0.01
24.	Cadmium (as Cd)	mg/I	(S 3025 (Part 2)	0.003	No relaxation	< 0.001
25	Total Chromium (as Cr)	mg/I	IS 3025 (Part 2)	0.05	No relaxation	<0.03
26.	Copper (as Cu)	mg/I	IS 3025 (Part 2)	0.05	1.5	<0.03

Head Office: 60, Sajiorabhu Nagar, Nagpur. 440033 India: Ph. No. (0712) 7247077 9372454974. Email: hgp@anacon.in
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Support Halpilmas: Technical (1373287475). Accounts Direiton (1328980581, 9372980079). Administration (3372960778.
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TEST REPORT

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Page 2 of 2

					and the second second
Lead (as Pb)	mg/I	IS 3025 (Part 2)	0.01	No relaxation	< 0.001
Iron (as Fe)	.mg/i	IS 3025 (Part 2)	0.3	No relaxation	0.10
Manganese (as Mn)	mg/l	IS 3025 (Part 2)	0.1	0.3	0.39
Zinc (as Zn)	mg/l	IS 3025 (Part 2)		15	<0.1
Nickel (as Ni)	mg/I	1S 3025 (Part 2)	7.4		< 0.01
Cobalt (as CO)	mg/1	18 3025 (Part 2)	2.7150	40.00	< 0.01
Total coliform	MPN/100 ml	IS 1622	Absent	Absent	<2
E. coli	100 ml	IS 1622	34-		Absent
	Iron (as Fe) Manganese (as Mn) Zinc (as Zn) Nickel (as Ni) Cobalt (as CO) Total coliform	Iron (as Fe)   mg / I   Manganese (as Mn)   mg / I     Zinc (as Zn)   mg / I     Nickel (as Ni)   mg / I     Cobalt (as CO)   mg / I     Total coliform   MPN/100 ml	Iron (as Fe)   mg / I   IS 3025 (Part 2)	Iron (as Fe)         mg / I         IS 3025 (Part 2)         0.3           Manganese (as Mn)         mg / I         IS 3025 (Part 2)         0.1           Zinc (as Zn)         mg / I         IS 3025 (Part 2)         5           Nickel (as Ni)         mg / I         IS 3025 (Part 2)         —           Cobalt (as CO)         mg / I         IS 3025 (Part 2)         —           Total coliform         MPN/100 ml         IS 1622         Absent	Iron (as Fe)         mg /I         IS 3025 (Part 2)         0.3         No relaxation           Manganese (as Mn)         mg /I         IS 3025 (Part 2)         0.1         0.3           Zinc (as Zn)         mg /I         IS 3025 (Part 2)         5         15           Nickel (as Ni)         mg /I         IS 3025 (Part 2)         -         -           Cobalt (as CO)         mg /I         IS 3025 (Part 2)         -         -           Total coliform         MPN/100 ml         IS 1622         Absent         Absent

Note: 1. Results relate to tested sample only. 2. Test report should not be reproduced partially.

REMARKS: Based upon request of the party, sample was tested for above mentioned parameters only. Sample complies with IS:10500:2012, for test conducted, indicating that it is fit for drinking purpose with respect to tested parameters.

For ANACON LABORATORIES PVT. LTD.

Authorized Signatory

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TEST REPORT

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Page 1 of 2

ISSUED TO:

M/S Infosys Technology Limited

Man, Pune

Sample Category

: Ground Water

Sample Code : GW-2 Sample Location ; Hinjewadi

Sample Registration Date

Quantity received

Sample tested as received Sampling Date

: 25.10.2017

: 21

: 23.10.2017

Sample Inward No. : 1718/Mon-172-2

Report Issue Date : 31.10.2017

Water Level: 7.1 mbgl

25.10.2017

31.10.2017

As per offer

Anacon Representative

#### TEST RESULTS

Tests required

Sampled by

Analysis Starting Date

Analysis Completion Date

Sr.	/	Measurement			As per IS 10500 : 2012 (Drinking Water - Specification)	
No	Test Parameter	Unit	Test Method	Acceptable Limit	*Permissible Limit	Test Result
1.	pH value		IS 3025 (Part 11)	6.5 to 8.5	No relaxation	7.98 at 25°C
2	Electrical Conductivity at 25°C	µS/cm	IS 3025 (Part 14)			1203
3.	Turbidity	NTU	IS 3025 (Part 10)	1	5	1.2
4.	Dissolved Oxygen	mg/I	IS 3025 (Part 38)		- 42	5.0
5	Total dissolved solids (TDS)	mg/I	IS 3025 (Part 16)	500	2000	662
6.	Total suspended solid (TSS)	mg/I	IS 3025 (Part 17)		75	×10
7.	Total alkalinity (as CaCO <sub>3</sub> )	mg/I	IS 3025 (Part 23)	200	600	166.2
8.	Total hardness (as CaCO <sub>2</sub> )	mg/I	IS 3025 (Part 21)	200	600	385.56
9.	Sodium (as Na)	mg/I	IS 3025 (Part 45)		44	40.7
10.	Potassium (as K)	mg / I	IS 3025 (Part 45)	- 75	**	24.68
11	Magnesium (as Mg)	-mg/1	IS 3025 (Part 45)	30	100	9.20
12	Calcium (as Ca)	mg/I	IS 3025 (Part 40)	75	200	128.11
13	Sulphate (as SO <sub>4</sub> )	mg/I	IS 3025 (Part 24)	200	400	93.17
14	Nitrate	mg/I	APHA Method	45	No relaxation	40.24
15.	Fluoride (as F)	mg/I	IS 3025 (Part 60)	1.0	1.5	0.81
16.	Chlorides (as Cl)	mg/l	18 3025 (Pert 32)	250	1000	115.0
17.	Total Nitrogen	mg / I	IS 3025 (Part 34)	10.	44	43.72
18.	Oil and Grease	mg / 1	IS 3025 (Part -39)	-	44	< 4
19.	COD	mg /1	IS 3025 (Part 58)	-		<4
20.	BOD	mg/I	IS 3025 (Part 44)	- 4	**	<2
21.	Free Residual Chlorine	mg/l	IS 3025 (Part 26)	0.2	1	<0:1
22	Total Phosphate	mg/I	IS 3025 (Part 31)			< 0.3
23.	Arsenic (as As)	mg/l	IS 3025 (Part 2)	0.01	0.05	<0.01
24.	Cadmium (as Cd)	mg/1	IS 3025 (Part 2)	0.003	No relexation	< 0.001
25.	Total Chromium (as Cr)	mg/1	IS 3025 (Part 2)	0.05	No relaxation	<0.03
26	Copper (as Cu)	mg / I	(S 3025 (Part 2)	0.05	1.5	< 0.03
27	Lead (as Pb)	mg / 1	IS 3025 (Part 2)	0.01	No relaxation	< 0.001
28.	Iron (as Fe)	mg/I	1S 3025 (Part 2)	0.3	No relaxation	AC . 10.15

Mead Office: 60, Rayprishiu Nagar, Nagor - 440033 India: Ph. No. (9712) 2242077, 9372404924, Empil: ngp@anacon.in Lab: FP 34-35, Food Park, Five Star Estate, MIDC Butibon, Nagorr - 441122; Mob. No. 9273287475, Email: isbngp@anaco Support Helplines: Tochnical (9373287475), Accounts Division (932680081, 937396079), Acroninatratios (9372980078, 9975947566), Email: support@anacon.in You may also visit us air waw anaconiaboratories com Branches: Maharashtra | Chhattisgarh | Madhya Pradesh | Jharkhand | Delhi



TEST REPORT

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Page 2 of 2

_						THE RESERVE OF THE PARTY OF THE PARTY.
29.	Manganese (as Mn)	mg/l	IS 3025 (Part 2)	0.1	0.3	<0.05
30.	Zinc (as Zn)	mg/l	IS 3025 (Part 2)	5	15.	<0.1
31.	Nickel (as Ni)	mg/):	(S 3025 (Part 2)	10 <b>4</b> 00		<0.01
32.	Cobalt (as CO)	mg/l	IS 3025 (Part 2)		120	<0.01
33	Total coliform	MPN/100 ml	IS 1622	Absent	Absent	<2
34	E. coli	100 ml	IS 1622	740	(m)	Absent

1. Results relate to tested sample only. 2. Test report should not be reproduced partially. Note:

REMARKS: Based upon request of the party, sample was tested for above mentioned parameters only. Sample complies with IS:10500:2012, for test conducted, indicating that it is fit for drinking purpose with respect to tested parameters.

For ANACON LABORATORIES PVT. LTD.

Authorized Signatory



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Page 1 of 2

ISSUED TO:

M/S Infosys Technology Limited

Man, Pune

Sample Category

: Ground Water

: 23.10.2017

Sample Code : GW-3 Sample Location : Dattawadi

Sample Registration Date

: 25.10.2017 Quantity received

:2L

Sample tested as received Sampling Date

Sample Inward No.: 1718/Mon-172-3

Report Issue Date : 31.10.2017

Water Level : 4.5 mbgl

25.10.2017

31 10 2017

Tests required As per offer

Sampled by Anacon Representative

#### TEST RESULTS

Analysis Starting Date

Analysis Completion Date

Sr.	Test Parameter	Measurement	Test Method	As per IS (Drinking Wate	7 0 0	
No	10st Parameter	Unit	Test method	Acceptable Limit	*Permissible Limit	Test Result  7.61 at 25°C  1226.36  1.3  4.9  675  <10  147.6  363.12  40.2  18.17  12.91  124.03  135.6  47.33  0.91  115.20  49.63  <4  <4  <2  <0.1  <0.3
1	pH value	39	IS 3025 (Part 11)	6.5 to 8.5	No relaxation	7.61 at 25°C
2	Electrical Conductivity at 25°C	µ\$/cm	IS 3025 (Part 14)		1 50	1226.36
3.	Turbidity	NTU	IS 3025 (Part 10)	1	5	1.3
4.	Dissolved Oxygen	mg/I	IS 3025 (Part 38)	- 4	+	4.9
5.	Total dissolved solids (TDS)	mg/I	IS 3025 (Part 16)	500	2000	675
6.	Total suspended solid (TSS)	mg/I	IS 3025 (Part 17)	6.	-	<10
7.	Total alkalinity (as CaCO <sub>3</sub> )	mg / 1	IS 3025 (Part 23)	200	600	147.6
8.	Total hardness (as CaCO <sub>3</sub> )	mg/I	IS 3025 (Part 21)	200	600	363.12
9.	Sodium (as Na)	mg / 1	IS 3025 (Part 45)	4-		40.2
10.	Potassium (as K)	mg /1	IS 3025 (Part 45)	-	1770	18.17
11.	Magnesium (as Mg)	mg/l	IS 3025 (Part 45)	30	100	12.91
12.	Calcium (as Ca)	mg/I	IS 3025 (Part 40)	75	200	124.03
13.	Sulphate (as SO <sub>4</sub> )	mg /1	IS 3025 (Part 24)	200	400	135.6
14	Nitrate	mg/l	APHA Method	45	No relaxation	47.33
15	Fluoride (as F)	mg/I	IS 3025 (Part 60)	1.0	1.5	0.91
16.	Ghloridea (sa Cl)	mg/i	15: 3025 (Part 32)	250	1000	115.20
17	Total Nitrogen	mg/l	IS 3025 (Part 34)	-		49.63
18.	Oil and Grease	mg/l	IS 3025 (Part -39)		-	<4
19.	COD	mg/1	IS 3025 (Part 58)	-		<4
20	BOD	mg/I	IS 3025 (Part 44)		1000	<2
21.	Free Residual Chlorine	mg/I	IS 3025 (Part 26)	0.2	1	<0.1
22.	Total Phosphate	mg/I	IS 3025 (Part 31)		+	<0.3
23.	Arsenic (as As)	mg / 1	IS 3025 (Part 2)	0.01	0.05	< 0.01
24.	Cadmium (as Cd)	mg/I	IS 3025 (Part 2)	0.003	No relaxation	< 0.001
25.	Total Chromium (as Cr)	mg / I	IS 3025 (Part 2)	0.05	No relaxation	<0.03
26.	Copper (as Cu)	mg / 1	15 3025 (Part 2)	0.05	1.5	<0.03
27.	Lead (as Pb)	mg / I	1S 3025 (Part 2)	0.01	No relaxation	<0.001
	Iron (as Fe)	mg/I	IS 3025 (Part 2)	0.3	No relaxation 17	

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						CONTRACTOR STATEMENT
29.	Manganese (as Mn)	mg / I	IS 3025 (Part 2)	0.1	0.3	<0.05
30	Zinc (as Zn)	mg / 1	IS 3025 (Part 2)	5	15	<0.1
31.	Nickel (as Ni)	mg / 1	IS 3025 (Part 2)	- 1	-	<0.01
32.	Cobalt (as CO)	mg / 1	IS 3025 (Part 2)	4	-	<0.01
33.	Total coliform	MPN/100 ml	IS 1622	Absent	Absent	<2
34	E. coli	100 mi	IS 1622		-	Absent

Results relate to tested sample only. 2. Test report should not be reproduced partially.

REMARKS: Based upon request of the party, sample was tested for above mentioned parameters only. Sample complies with IS:10500:2012, for test conducted, indicating that it is fit for drinking purpose with respect to tested parameters.

For ANACON LABORATORIES PVT. LTD.

**Authorized Signatory** 

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Page 1 of 2

ISSUED TO:

M/S Infosys Technology Limited

Man, Pune

: Ground Water

: GW-4 Sample Code Sample Location : Marunji

Sample Category

Sample Registration Date

Quantity received

Sample tested as received

Sampling Date

: 25.10.2017

: 23.10.2017

:24

Analysis Completion Date Tests required

Sampled by

Report Issue Date : 31,10,2017 Water Level : 4.9 mbgl

3

25.10.2017

Sample Inward No.: 1718/Mon-172-4

31 10 2017

As per offer

Anacon Representative

#### TEST RESULTS

Analysis Starting Date

Sr. No	Test Parameter	Measurement	Test Method	As per IS (Drinking Wate		
	rest rarameter	Unit	rest metriod	Acceptable Limit	*Permissible Limit	Test Result
1	pH value		IS 3025 (Part 11)	6.5 to 8.5	No relaxation	7.93 at 25°C
2	Electrical Conductivity at 25°C	µS/cm	IS 3025 (Part 14)		20	731.35
3	Turbidity	NTU	IS 3025 (Part 10)	1	5	0.9
4.	Dissolved Oxygen	mg/I	IS 3025 (Part 38)		- 4	5.1
5.	Total dissolved solids (TDS)	mg/l	IS 3025 (Part 16)	500	2000	403
8	Total suspended solid (TSS)	mg/I	IS 3025 (Part 17)		94	<10
7.	Total alkalinity (as CaCO <sub>3</sub> )	mg/I	IS 3025 (Part 23)	200	600	120.68
8.	Total hardness (as CaCO <sub>3</sub> )	mg / I	IS 3025 (Part 21)	200	600	150.96
9	Sodium (as Na)	mg/l	IS 3025 (Part 45)	2		53.4
10.	Potassium (as K)	mg /1	IS 3025 (Part 45)	-	2040	19.63
11.	Magnesium (as Mg)	mg / 1	15 3025 (Part 45)	30	100	7.45
12	Calcium (as Ca)	mg/I	IS 3025 (Part 40)	75	200	48.14
13.	Sulphate (as SO <sub>4</sub> )	mg / I	IS 3025 (Part 24)	200	400	23.05
14.	Nitrate	mg/I	APHA Method	45	No relaxation	9.11
15:	Fluoride (as F)	mg/I	IS 3025 (Part 60)	1.0	1.5	0.43
10.	Clifunides (as Cl)	mg/fl	13 3023 (Part 32)	250	1000	93.80
17.	Total Nitrogen	mg / 1	IS 3025 (Part 34)	12		9.88
18.	Oil and Grease	mg/I	IS 3025 (Part -39)	40		< 4
19.	COD	mg/I	IS 3025 (Part 58)	125		<4
20.	BOD	mg/i	IS 3025 (Part 44)			<2
21.	Free Residual Chlorine	mg/1	IS 3025 (Part 26)	0.2	1	<0.1
22	Total Phosphate	mg/l	IS 3025 (Part 31)	72		< 0.3
23	Arsenic (as As)	mg/l	IS 3025 (Part 2)	0.01	0.05	<0.01
24.	Cadmium (as Cd)	mg/I	IS 3025 (Part 2)	0.003	No relaxation	< 0.001
25.	Total Chromium (as Cr)	mg/I	IS 3025 (Part 2)	0.05	No relaxation	< 0.03
26	Copper (as Cu)	mg/1	IS 3025 (Part 2)	0.05	1.5	<0.03
27	Lead (as Pb)	mg/I	IS 3025 (Part 2)	0.01	No relaxation	< 0.001
28.	Iron (as Fe)	mg/I	IS 3025 (Part 2)	0.3	No relaxation	-

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9375947566). Email: support@araccn.in. You may also visit us at www.anaconaboratories.com
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TEST REPORT

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Page 2 of 2 Manganese (as Mn) mg/I IS 3025 (Part 2) 0.3 < 0.05 30. Zinc (as Zn) mg/1 IS 3025 (Part 2) 5 15 < 0.1 31. Nickel (as Ni) < 0.01 mg/l IS 3025 (Part 2) Cobalt (as CO) 32. mg/1 IS 3025 (Part 2) < 0.01 33 Total coliform MPN/100 ml IS 1622 <2 Absent Absent 34. E, coll 100 ml IS 1622 Absent

Note: 1. Results relate to tested sample only. 2. Test report should not be reproduced partially.

REMARKS: Based upon request of the party, sample was tested for above mentioned parameters only. Sample complies with 15:10500:2012, for test conducted, indicating that it is fit for drinking purpose with respect to tested parameters.

For ANACON LABORATORIES PVT. LTD.

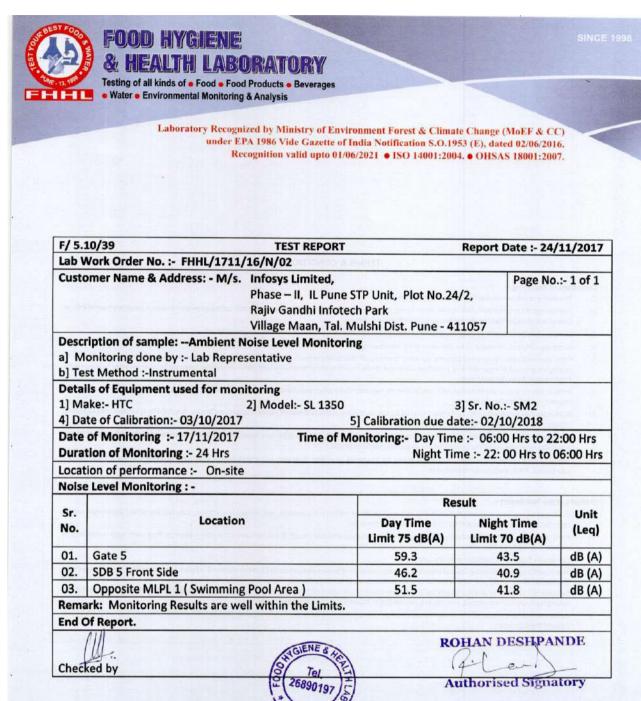
**Authorized Signatory** 

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#### **Annexure III – Noise Monitoring Report**



Registered Address: A - 512/513, Megacenter, Pune - Solapur Road, Hadapsar, Pune - 411013, India.

Laboratory operating locations: A-512/513, A-511, A-607 to 613, F407 to 409 & K-501 to 505, Megacenter, Pune-Solapur Road, Hadapear, Pune 411013, India.

Tel.No.: +91-20-2689 0197, +91-20-2689 0347, Mob.: +91-9881237321.

Email: envirofhhl@gmail.com, Website: www.foodtestlab.com

\* Please turn over for applicable terms & conditions.

Air Quality Index

#### **AIR QUALITY INDEX**

	PM10	PM2.5	SO <sub>2</sub>	NO <sub>2</sub>	CO	Ozone	NH3		
Locations	μg/m³	μg/m³	μg/m³	μg/m³	mg/m <sup>3</sup>	μg/m³	μg/m³	AQI	Air Quality
			Averag	je Conce	entration				
Project Site (SDB 12)	48.9	23.0	7.8	13.2	0.266	11.1	8.5	49	Good
Project Site(CC)	47.3	22.6	9.1	13.0	0.254	11.5	8.3	47	Good
Project Site(MLCP 4)	57.5	29.7	9.3	13.9	0.234	10.0	8.3	58	Satisfactory
Hinjewadi	67.2	29.7	13.3	22.8	0.365	16.3	11.9	67	Satisfactory
Dattawadi	68.5	30.7	17.0	21.2	0.436	18.0	11.0	69	Satisfactory
Murunji	58.9	27.9	12.9	22.7	0.370	15.5	11.1	59	Satisfactory
Man	53.8	26.5	11.7	23.5	0.382	17.3	11.6	54	Satisfactory
Waked	62.5	23.1	12.9	19.4	0.366	11.7	11.5	63	Satisfactory
Susgaon	60.6	28.7	11.3	17.8	0.377	9.1	10.3	61	Satisfactory

Good	Minimal Impact	Poor (201–300)	Breathing discomfort to people on prolonged exposure
(0–50) Satisfactory	Minor breathing discomfort to sensitive people	Very Poor	Respiratory illness to the people on prolonged exposure
(51–100)		(301–400)	Description of the sta
Madagata	Breathing discomfort to the people with lung,		Respiratory effects even on healthy
Moderate	heart disease, children	Severe	people
(101–200)	and older adults	(>401)	

Report on ECBC compliance

#### **Annexure 4 - Report on ECBC compliance**

Platinum Certification of Phase II of Infosys Limited, Hinjewadi, Pune under LEED EB O&M v.3 of 2009 rating system of U.S. Green Building Council (U.S. Green Building Council).

#### Largest Campus In the world to have Achieved LEED EB O&M Platinum certification from USGBC.

- 1. Why LEED USGBC: All the buildings under consideration are existing buildings and operational from 5-15 years. Over a period of time, since the commissioning of these buildings, the facilities and the GI team have taken lot of efforts to create new benchmarks for Energy and water efficiency. We have adopted the best of technologies to provide comfort and better working facilities to our employees. Year after year the teams have set new goals for energy efficiency and water conservation and achieved the same. While, all these were happening, Infosys was looking out for a tool which could test the performance of campus and various buildings at large, at a globally recognised platform and hence decided to pursue the Campus certification under LEED EB program of USGBC. During the same, option of IGCB Pilot version for EB was available. Well, among the industry of Green buildings experts, LEED EB is considering as one of the toughest rating tool and achieving Platinum certification (which is highest level in LEED) in EB was a real challenge. But Infosys was confident and geared up for the same.
- 2. Approach adopted: Considering the massive scale of project and the different categories of various building viz, Software Development Block, Employee Care Centre and food courts, Infosys decided to pursue certification under campus approach. Infosys was confident that, this was the best approach to deal with project of such a scale. However the only concern was, no immediate precedent for Campus approach was available in India for LEED EB. However at international level, there have been selected projects who had adopted the Campus approach. The Campus approach enables the project to get Master Site related credits approved at Master site level and same then can be used for Individual buildings or group of Buildings.
- 3. Considering the different categories of building and their operational pattern, the buildings under consideration were grouped under three Types as Office (SDB), Hotel (ECC+TC+SC) and Restaurant (food courts).
- 4. The work for Green Certification started sometime in Feb 2015 and project was registered with USGBC in Sept 2015.
- 5. Infosys along with LEED consultants reviewed the complete campus in context of LEED EB requirement. Since phase II campus had been already working on energy and water efficiency measures, project demonstrated compliance for various LEED requirements in first place. However, with the aspiration of Infosys Limited to be the best globally, Infosys decided to implement certain operational measures to meet the additional LEED norms and also few low cost and moderate cost measures as recommended by LEED consultant. While doing all this, Infosys has set aggressive timelines for achieving the set goal before Sept 2016.

#### 6. Innovative Green Features

Following are some of the innovative Green features project has implemented:

- 1. Extensive Energy metering, around 2000 Energy meters installed to capture the energy consumption of smallest application for better monitoring.
- 2. More than 90% of energy metres are integrated with state of the art Building Management Systems (BMS) for real time monitoring and periodic report generation.
- 3. Extensive Water Metering to monitor the water consumption at building level and various applications and detect the losses, if any. Integration of the same with BMS.
- 4. Conductivity meter installed on Cooling Tower to decide the Blow Down based on TDS level of recalculating water.
- 5. Adopted APPA (Associated Physical Plant Administrator) Custodial Effectiveness Audit practices to check the cleanliness
- 6. Develop and implemented on an ongoing basis an IAQ management program based on the EPA Indoor Air Quality Building Education and Assessment Model.
- 7. Procurement of material as per Sustainable purchasing policies which covers ongoing materials.
- 8. Timer and Daylight sensors for lighting operation.
- 9. 100% of the roof area is covered with Solar Reflective paint to reduce the heat ingress.
- 10. Use of only treated waste water for irrigation.
- 11. Part of flushing water requirement is met through treated waste water.
- 12. Installation of Solar PV System to generate power onsite to meet part of energy requirement.
- 13. Project has demonstrated Exemplary performance over the LEED requirement for Sustainable Purchase, Solid Waste Mgt, Water Use reduction and off-course Energy Efficiency.

#### Infosys Pune – Salient features

#### Site

- Building exterior and hardscape management plan is in place for the Infosys Pune campus.
   About 50% of the Equipments used for building exterior and hardscape management meet the sustainability criteria of USGBC.
- 100% of the exterior cleaning chemicals used in the campus are Green Seal Certified
- 100% of the paints used in the campus are low VOC paints.
- An Integrated Waste Management, Erosion Control, and Landscape Management Plan is in place in the campus to preserve the ecological integrity, enhance natural diversity and protect wildlife while supporting high-performance building operations and integration into the surrounding landscape.
- More than 75% of the employees use alternative modes of transport including walk, cycles, public transportation, company shuttle, carpooling to reduce pollution and land development impacts from automobile use for commuting.
- About 50% of the land at Infosys campus has been protected and restored as open habitat.

- Rain water harvesting in done in the campus via provision of two ponds and recharge pits.
- More than 50% of the parking in the campus is located under cover in the two MLCP structures so as to help mitigate Heat Island Effect arising due to open/surface parking.
- All the exposed terrace surfaces have been painted with high SRI paints to reduce heat islands thereby minimizing impacts on microclimates and human and wildlife habitats.
- Light pollution reduction has been achieved for the complete campus by use of exterior lighting fixtures that are properly shielded. All interior non-emergency luminaries with direct line of sight to openings are automatically controlled to turn off during all after hours by use of timers.

#### Water

- Rainwater is completely harvested within the site, with zero discharge from site
- 100% Sewage is treated on-site and completely used for irrigation and flushing
- Campus is moving towards complete elimination mercury in lighting fixtures
- Accounting carbon footprint across all the campuses and reduce it subsequently in coming years

#### **Materials**

- All durable goods, ongoing consumables and Food items were procured as per the
  Environmentally preferable purchasing policy. Energy star rated products have been
  purchased during the performance period. Food items procured were produced within 100
  miles radius from the site.
- 2. Waste Audits were performed for each of the buildings during the PP to keep a check on the proper waste management and disposal.
- 3. More than 90% of waste generated on site has been diverted from landfills and disposed in a responsible way.
- 4. Low VOC paints, CRI Green Label Plus certified carpets and ceiling tiles with high recycled content were procured for the facility alterations that were carried out during the performance period.

#### **Green Building Energy Features:-**

- Energy Audit- ASHRAE Level-I & Level –II Carried Out- part of the ECM's are already implemented.
- Energy savings of 8-10% in each building with the implementation of Energy Conservation Measures.
- A separate Building operational Plan was made for each building –specific to the type & use of the building (which includes- Building set points, design conditions, Equipments run-time)
- Energy Analysis & Breakdown of the Energy Uses- to verify the optimum energy uses of different segments of building consumption-i.e.- Ventilation, Air conditioning, Raw Power, lighting load, critical load, UPS load etc.
- Cost- Benefit Analysis of each Proposal, Low cost/No cost & Capital cost proposals.

- Complete Training Programme for –O&M team, vendors, contractors & In-house
   Maintenance team. (training includes the existing systems & the new systems proposed to install of newly installed)
- Ongoing Commissioning- As a part of the regular O&M- each & every equipment is checked & verified for its ongoing operation. (HVAC/lighting/Metering-calibration protocols-ongoing plan includes-system testing, performance verification of system, corrective action plan, ongoing measurement & addressing operating problems)
- BAS- integration of HVAC system, energy metering, and water metering, separate timer based lighting controls for exterior lighting & Timer + Occupancy sensor based controls for interior lighting.
- Energy metering for almost 98% of the end uses which are further sub-metered- almost each & every major/minor loads is metered & sub metered to monitor & verify the energy use pattern.
- Minimum fresh air requirements for each building are met as per AHSRAE-62.1.2007 even applicable for naturally ventilated buildings.
- Indoor Air Quality Management Programme in Place IAQ Audit at regular intervals to the IAQ parameters & occupant's comfort.
- Infosys campus procures offsite wind energy. Onsite solar photovoltaic systems have been installed. Onsite biogas plant is in place to process food waste from food courts.
- ECC building has achieved Energy Star score of 100, SDBs have achieved the Energy Star score of 99.

#### **Indoor Environment**

- Smoking is prohibited in the entire campus interiors and exteriors except for 3 designated smoking zones.
- Fresh air has been provided in the all the building spaces by provision of Fresh air fans.
- All the housekeeping chemicals, paper products used in the campus are Green Seal Certified.
- All the interior maintenance equipments meet the respective sustainability criteria like CRI Green Label.
- Entry way mats have been placed in all building entrances to reduce the dust from entering the interiors.

### **Annexure 5**

Copies of MIDC Agreements for Water Supply

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#### MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION

( A Government of Maharashtra Undertaking )

#### Water Supply

### AGREEMENT FORM

essued to: MI Infasys Technology limited, PhID RGIBP Hingawadi (Fea SEZ Axea) 05/05/2008

ADDRESS 1

AREA

PLOT NO

Th MI	e Executive Engineer, DC Division	_	
	Sub.	- RGIP, Phase - TE	Industrial Area
		Application for water supply connecting No.	Supply connection.
Sir	,		
in E	Ind Ind	ot No. / Shed No. 24 II. Area vide letter No 1500 (Fifteen)	
1 ar	n enclosing the following sidered by you.	documents so that water	supply connection can t
1)	Xerox copy of Lease Ag	reement.	
2)	Xerox copy of possession	on receipt.	
3)	Xerox copy of possession	on plan.	
4).	Xerox copy of letter of a	pproved building plans	
5)	Water supply agreement	l in triplicate	

Xerox copy of No objection Certificate of MIDC issued by Chief Executive 8) Officer MIDC, Bombay - 93.

The consent from Maharashtra Pollution Control Board.

I am also ready to get the drainage plans prepared by Licensed Architect and get them approved from your office within a period of three months from the date of this letter.

Water supply connection plan signed by me, licensed Architect / Licensed Plumber in triplicate.

Thanking you,

6)

Yours faithfully,

Signature with Rubber Stamp.

### YALLET OOMISEOTION

		ANUTELL ADMINESTIALS
1)	Applicants Full Name	: Infosus Technologies Ud.
•	Applicants Full Address	Plat No 24 Party Gandul Intotech Party
2)	Application	chase I village - Maan, Tal - Mulshi,
		Pune = 57.
3)	Plot No. & Block where connection is required.	: Plot No. 24 RSIP Ph-II VIII - Maan, Tal- mutshir
4)	Area of Plot	: 461264 Sq. MVT.
5)	Whether applicant is th	e: Lessee
_,	owner of the plot or his	
6)	representative. Owner's full name &	Infosys Technologies 49
-,	Address	Electronics city Mosar Road Bamgalore - 100
7)	Date of Possession	20-10-2003 & 15-06-2006.
8)	Date on which the plan	18: B.C.C. Provided on 06:0f-200f.
-,	are approved by the LA.	·
	Engineer, MIDC (Civil)	o - O: - akaise
9	) Size of connection	: 150 mm dia or above
	required	: 1500 m3 (hetter Ref) 17 UNJW (PAC  9A 07-07/294 Dt.
1	0) Daily requirement of	270HOT
. 1	water in litres.  1) Required Connection	: Non - Domestic
	domestic / non-dome	511c. 7500 m <sup>3</sup>
	(2) Future Demand.	: 24,000 people in the next year.
	13) No. of Person to be employed	: software Development for Exports.
		: Soltware receptions to san b.
	15) What arrangements	you: sewage Treatment plant.
	are going to provide disposal of industria	<b>!&amp;</b>
	domestic effluent (Ser	tic .
	tank, soak pit, efflue	ni
	16) Details of internal w	ater: N/A. Water will be distributed through the ump!
. •	supply in the plot St	imp/
	Pump etc. if you are going to provide.	
	17) Additional informati	on: Nil
	18) Date of Application	
j	(eg.Lo)	
18		
. 1		PERCUTIVE EHEIDER
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	•	· · · · · · · · · · · · · · · · · · ·

(A GOVERNMENT OF MAHARASHTRA UNDERTAKING)

An agreement made the FFTH day of the month of MAY one thouse sand nine hundred string between MIDC on the one hand and Shri.M/s. Turcsys

(hereinafter called as consumer which expression shall unless it is excluded by of repugnant to the context include any person holding a power of attorney to conduct the business on behalf of the Consumer) on the other hand.

Whereas the consumer on or about the FFR day of the month of one Two
Thousand Nine Hundred Ninety Applied to the Executive Engineer. MIDC,

Now this indenture witnessable that in consideration of the conditions herinafter contained and on the part of the consumer to be performed that Executive Engineer hereby grants to the consumer permission to draw water on the following conditions:

- 1. The consumer shall pay in advance a sum of Rs. 25.67.05.67.

  (Rs. 25.67.55.67.9) towards the water charges for three months for the quantity applied at the current rates as a standing security deposit with MIDC which will bear a simple interest at 5% p.a.
- The consumer shall abide by all the terms & conditions of the MIDC water supply Regulations 1973 as amended from time which are attached to this agreement.
- 3. The consumer shall take care of the water meter and see that it is in working condition at all the times. If the meter is found out of order at the time of reading the assessment will be charged as under:

This date from which the meter has gone out of order will be arrived at on the basis of average consumption per day calculated on the basis of consumption of last month's for all working days.

The assessment for the said period will be charged on the basis of last 3 full months average or the last month's assessment, or the subsequent three months assessment for the immediately after the meter is put in working condition or the last year's assessment for The corresponding period whichever is higher. The penalties as per regulation No. 24 from the 3rd to 6th months will be charged on the basis of the first two months bill, if the water bill is charged incorrectly will be revised at any time later and the consumer will be liable to pay charges as revised. Water meter shall be provided within 3 months, from the connection point.

4. If the meter goes out of order frequently the assessment will be charged at the discretion of the Executive Engineer after referring the case to the SuperIntending Engineer whose decision will be final and binding on the consumer.

The consumer shall pay the monthly water charges as per bill within 15 days from the date of the bill and will be allowed a further grace period of one month charging interest @ 17.52% p.a. If the bill alongwith previous arrears is not paid fully before the expiry of this grace period, the consumer's water supply will be liable for discon-

5.

the consumer.

- The payment of water charges by cheque will be made in favour of the Bank with 7. which the office of the Dy. Engineer, MIDC of the local area is having account. In all other cases the bank commission charges will be borne by the consumer.
- The consumer shall pay the water bill at the rates of MIDC as may be amended from 8. time to time. Any upward revision of rates will be given after one month's notice to the consumer.
- The arrears of water charges are liable to be recovered from the consumer as 9. arrears of land revenue through the Collector if they are not paid in time.  $\pm$
- The consumer shall bear the cost of preparation, stamping and execution of 10. this agreement.

In witness where of the Executive Engineer for and on behalf of the MIDC hath set his hand and the seal of his office here to and shr \( \lambda r \) ie Thems hath herein to set his hand the day, month and year first above written.

Divnehmend in	presence of-		-	
1) Shri				
2) Shri	_			•
Signed sealed & delivere	ed by Shri Sหกัโ	Advani	⊶in	
1) ShriRup esh k	imar shah			

Seal/Registered Address

two. 24 RSIP. PK-II

MIDC Water Supply Regulation 1973

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NAME introduction and the second seco	Western Maharashira	भारत 04330	STECHT HELLINE
	Development Corporation Ltd. 2nd Floor, Kubera	111605	APR 17 2008
THE UGH MAHARASHTRA IN	COUSTRIBL DEVELOPA	VENT GORRGI	RATION 15:11
RECEIPT No. 99 (A GOVE	PRINCIPLE OF SMAHARASHTA	RAGOG	7 <b>\$\$0/-</b> 186588
	<i>l</i>	INDIA STAMP DO	Adheasive STAMP
MIDC Plot No. 24	Special Adhesive	stamp of Rs. 20/- shall	be allixed
Phase 1	Ballard Estale, Bo	updt, office Gr. Floor, Tov ombay or Tri	vn Hall easury office.
Indl. Atequo	RUSED SIGNATORY	<b>⊢</b>	*

- In these regulation unless the context otherwise requires:
  - 1) Defination: Consumer shall mean any person or persons applied for applying for supply of water from any works of the corporation or any person or persons otherwise liable for payment of water charges.
  - Corporation shall mean the Maharashtra Industrial Development Corporation constituted under the Maharashtra Industrial Development ACt, 1961 (Mah. III of 1962)
  - 3) The Chief Engineer, The Superintending Engineer & the Executive Engineer shall mean the Chief Engineer, Superintending Engineer and the Executive Engineer appointed by the Corporation.
  - 4) Communication pipe shall mean & refer to the pipe which extends from the corporation's main upto valve nearest the corporation main.
  - 5) Supply pipe shall mean and refer to the pipe which extends from the corporation stopcock or sluice valve upto the ball cock of the storage tank, if any and any consumer's pipe subject to the water pressure from the corporation's main.
  - 6) Distribution pipe shall mean and referred by consumer's pipe which is not subject to water pressure from the corporation main.
  - 7) Corporation stopcock or stuice valve shall mean and refer to the stopcock or the sluice valve on the communication pipe nearest the corporation main controlling the supply of water from any corporation separetely with the water charges.
  - 8) Consumer's pipes and consumer's fittings shall include and refer to all pipes & fittings respectively used in connection with the supply of water from Corporation's water works which are not the property of the corporation.
  - 9) The terms and expressions used in section 2 of the Maharashtra Industrial Development Act, 1961 (Mah-III of 1962) shall have the same meaning in so far as the interpretation of these Regulations are concerned.
- 3. Application for Supply: Before commencing the laying, alteration or extension or extension of any consumer's pipe or otherwise the consumer shall fill up, sign and deliver in the office of the Executive Engineer in charge of the area, the form prescribed in Schedule 'A' atteched to these Regulations.
- 4. Connection to Mains: All consumer's pipes and filtings shall be laid in accordance with the terms prescribed by the Executive Engineer and shall be perfectly sound and water tight before the water supply is commissioned. Water will not be supplied to any factory or premises so long as such non-compliance remains.
  - Alteration or Removel of consumer's pipes & Fittings:- No consumer's pipes shall be removed, altered or extended except in accordance with the these regulations.
  - Prevention of Waste or Misuse of Water:- Every consumer shall prevent waste

s: Ma jointing etc. or any other type of littings & accessories upic retrue of stopological approved by the Executive Engineer shall be provided by the consumer at his cost. Laying of the communication pipe up to the boundry of the consumer's plot will have to be done by the consumer through a licensed plumber under the suppervision of MIDC's authorised representative over & above this the consumer will have to pay the connection attachment fee as per provision in clause 20 This will include cost of labour that has to be incurred by MIDC.

8. Size of communication pipes:- Water supplied to any premises for which water charges are paid or for which water charges are payable shall be supplied through a terrule & Communication pipe of the size specified.

9. Consumer's Fittings Testing and Approval:- All consumer's fittings of whatever kind shall conform to the particulars prescribed & specifications or to such further standards as may from time to time be prescribed by the Corporation and whether so specified or not shall be submitted for approval to the Executive Engineer before being fixed All such fittings, shall be maintained, repaired and renewed at the consumer's expense, to the satisfaction of the Executive Engineer. All consumer's fitting or apparatus used in connection with the water supply of the Corporation shall be got approved by the Executive Engineer.

10. Consumers pipe & fittings: All consumer's pipes & fittings shall be provided and laid at the consumer's cost and no consumer shall be entitled to supply of water unless & until such pipes & fittings and laying & fixing thereof are approved by the Executive Engineer and unless proper drainage arrangements are made for the disposal of waste water and approved by the Executive Enlineer.

11. Errection of water closets to be approved:- No connection shall be granted for the supply of water to any water closets, latrine or urinal unless its errection is approved by the Executive Engineer & unless sufficient short storage is provided.

Material of consumer's pipe: All consumer's pipes shall be of lead, galvanised/ iron/castiron brass or copper and shall confirm in every respect to the particulars prescribed and specifications as approved by the Executive Engineer. No pipe except such existing pipes as shall be sound and do not permit waste or except when and as otherwise authorised by those rules shall be laid used or fixed in or about any premises for conveyance of or in connection with the water supplied by the Corporation unless such pipe to be as hereafter prescribed.

13. Joints:- Whenever lead pipes are used, every lead joint there of shall be of the kind called a plumbing or wiped joint except such existing joints as shall be sound and do not permit waste. All connections between lead & iron pipes shall be made with a brass union.

14. Method of laying consumer's pipe: All consumer's pipes shall be laid in the ground & not less than fortyfive centimeters below the surface unless laid inside a building and all consumer's pipes shall be so laid or fixed as not be exposed to the heat of the sun not shall any consumer's pipe & fitting be laid in any position or manner which would involve risk or injury to the pipe or fitting or waste or contamination of water. All consumer's pipes hereafter laid or fixed inside any building shall be accessible and not embedded in the plaster, stone or brick work of any wall. In every case the consumer shall carry out the reasonable requirments of the Executive Engineer to this end. The position at which the connection of the supply pipes to the communication pipe shall be fixed by the Executive Engineer.

15. Pipes to be laid through drain etc:- No pipe shall be used for the conveyance of or in connection with water supplied by the corporation which is laid or fixed through, in or into any drain or any place where the water conveyed through such pipe may be liable to become fouled or where pipe become unsound except where such usels unavoidable. In every such unavoidable case, such pipe shall be passed through an exterior air tight and water tight pipe or jacket of cast from or other cast

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iron or other material approved by the Corporation of sufficient length and strength and of such construction as to afford due to protection to the water pipe to the satisfaction of the Executive Engineer so as to bring any leakage therefrom within easy observation. Any existing pipe or pipes laid, affixed which do not compty with this, shall be removed unless the written consent of the Executive Engineer obtained for its retention.

- 16. Position of Stopcock on communication pipes: The stop-cock or sluice valves, with the guard box on the communication pipe shall be placed in a position to be selected by the Executive Engineer. The corporation shall have exclusive control of this stopcock or sluice value and to this end require that it will be fitted with a crutch or spindle head of special design to suit a key kept by the Executive Engineer.
- 17. Consumer's taps not be fixed in certain places: No Consumer's taps shall be fixed in any courtyard passage or outside any premises, so as to be available for use by the public or any other party without special permission in written from the Executive Engineer. If In the judgement of the Executive Engineer any such tap either directly or indirectly conduct to or be so used or delt with as to cause waste or misuse of the water of the corporation such tap shall be removed by the consumer within 7 days of the receipt of a written order to that Effect from the Executive Engineer.
- 18. Character of Cisterns & ball cocks: Every existing cistern, if not sound or efficient or is such as causes waste or is such as can not be efficiently repaired and every future cistern, reservoir or storage tank shall be of the prescribed kind and shall at all times be made and at all times maintained water tight and shall by properly covered with a close fitting dust tight mosquito proof lid fitted with an approved lock and key and shall be provided with a sound and suitable ball cock of the prescribed kind securely fixed to the cistern independently of the supply pipe and set that the ball will not become submerged when the level of the water in the cistern is below the warning pipe or allow the Water to rise to within 2.5 c.m. of the lower side of the over flow or warning pipe. A stopcock or sluice valve shall be provided on the outlet pipes of all cisterns and fixed as near the cistern as possible.
- 19. Cisterns to be accessible: Every cistern, reservoir or storage tank hereafter used or fixed in connection with water supplied by the Corporation must be easily accessible and placed in such a position as to admit of through inspection and cleaning, and if placed within the house or building shall have a clear space of not less than two feet between its top and celling rafter or roof. No cistern reservoir or storage tank except those supplying clostes, latrines or urinals only shall be fixed in any water closet, latrins or urinals or in any place in which injurious gases are likely to be produced and as far as practical shall not be placed immediately over any water closet, latrine or urinal.
- Application for water Supply connection: The application for water supply
  connection must be accompanied with the attachment fees as per Schedule given
  below.

Nearest Diameter of the	Registration Connection
Size of connection	Fees
1/2" (15 mm.)	Rs.
3/4" (20 mm)	Rs.
1" (25 mm)	Rs.
1 1/2" (40 mm)	As.

Beyond 1 1/2" or 38 mm Size connection, a seperate estimate determining the connection fees will be prepared by the Executive Engineer.

Note:- Connection fees is payable every time connection is reconnected is after it is cut off under any of the clauses of this agreement.

The above mentioned fees will also be recovered in advance from the parties in



time)

3)

Soil Rs. 5/- per sq.m. 1)

W.B.M. Surface Rs. 10/- per Sq.m. 2)

- Asphalted surface Rs. 20/- per Sq.m. Including W.B.M.
- Concrete surface Rs. 25/- per Sq.m. 4) -
- Fixing tested water meter: The consumer shall at his own cost fix the tested meter within his premises over which the water shall be measured. The meter before it is fixed to the connection pipe, shall be tested in a testing laboratory approved by the corporation. The test certificate from the officer in charge of the laboratory shall be produced by the consumer. It shall be the duty of the consumer to maintain in good condition the water meter so fixed.
- Arragngements for housing meter :- After the water meter is properly fixed on 22: the connection a brick masonry stone masonry or concrete chamber with lockable C.I. or other approved pattern of frame and cover shall be constructed by the consumer. The meter and it's coupling on consumer's pipes should be sealed by the consumer in the manner approved by the Executive Engineer and should bear the stamp of the corporation if at any particular point of times the seal is found to be broken the consumer will be charged a penal rate of 50% of the previous month's water bill over and above the normal bill for the month. The responsibility of maintaining the seal shall squarely rest with the consumer. In special case, Executive Engineer may direct that a lock shall be provided by the consumer's own cost and the keys of this lock will rest with the Executive Engineer or his duly authorised agent. The consumer shall be responsible for safety and maintenance in good order of the meter and the cover in his own premises.
- Testing of Water meter: If at any time after the installation of the water meter, it is 23, indicated that the meter was running slow. The Execuitve Engineer, shall take action in getting the meter was tested for its correctness. In case this test indicates that the meter was running slow, he shall take action in revising the bills suitably with restrospective effect and his decision in the matter shall be final.
- Penalty for unmetered water :- If the water meter fixed by the consumer is found 24. to be lost damage, unrepaired, or not in working condition, the consumer shall be charged water charges on the basis of three month's average consumption for the first two month's of the meter being not repaired whereafter shall be charged a penalty at the rate of 50 percent of the water charges for next two months and at 100 percent of the water charges for the fifth and sixth months provided that the total period of unmetered supply is not more than six months.
- Disconnection for unmetered water supply :- If the water supply remains 25. unmetered for more than six months the water supply disconnected after giving seven days notice.
- Payment of security deposit for water charges :- The consumer shall deposit 26. with the Ex. Engr. a sum of equivalent to the estimated water charges for the three month's advance as a security deposit against failure of payment of water charges and maintainance of water supply consumed, including the water meter in proper condition and good repair. This will be worked out on the basis of the daily requirement (A) and the current water charges. The amount of deposit shall be suitably increased or decreased if the actual consumption is found to vary from the one quoted at the time of submission of the application
- (i) The amount of deposit which is to be related to the actual consumption of water 26 shall be suitably increased or decreased from 1st April of a financial year based on average consumption of water for 10 months from 1st April to 31st January of the preceding financial year.

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26. (ii) On the deposit collected as above simple interest at 5% per annum shall be allowed at the end of every year by giving a proportionate credit in the water charges bill for the months of March.

Note: Deposit paid on or before the 5th of a month shall only qualify for payment of interest for the that month in a year.

- 26. (iii) The maximum amount or deposit will be limited to Rs. 5 lakhs (Rupees five lakhs) where the consumer's deposit is likely to be exceeded Rs. 4 lakhs. However the power is vested with the Engineer, M.I.D.C. to recover the security deposit in excess of Rs. 5/- lakhs whose the amount of water bills for three months is more than Rs. 5/- lakhs and whose payment of bills are not found to be regular.
- 27. Water Rate: The charges for water shall be fixed by the Corporation from time to time. The Corporation shall increase or decrease the water charges in its discretion after giving notice of one month to the consumer. The rates of water charges so fixed or altered shall be conclusive and be binding on the consumers.
- 28. Arrears to be recovered as arrears of Land Revenue: The arrears on account of water charges or any other expenses incurred by the corporation in connection water supply to the consumer shall be recoverable as arrears of land revenue. It shall also be open to the corporation to disconnect water supply for to comply with these regulations.
- 29. Detachment fees: In case the consumer wants the water supply to be closed, he shall have to make an application in this regard to the Executive Engineer alongwith the detachment fee, which should be 50 percent of the fees mentioned in the table under Regulations 20-A Minimum notice of 10 days must be given to the Executive Engineer in this case.
- 30. Shortage of Water: While the Corporation will endeavour to supply full quantity of water required by consumer it does not bind itself to supply water to the extent of booked demand for reasons beyond the control of the Corporation such as shortage of water at source, damage to the conveyance system failure of power etc. in order to take into accounts such non-water supply periods, consumer shall provide their own storage equal to their requirement of 24 hours in their premises.
- 31. Boosters not allowed: In no case shall direct boosting be allowed on the Corporation mains or on the connections.
- 32. Supply Pressure not Guaranteed: Water supply at pressures is not guaranteed. The Corporation would however make arrangements that the water is delivered at the average ground level of the plot of consumers and that a day's requirement of water would be normally made with at this level.
- 33. Hrs. of Water Supply:- The hours of water supply to the consumer shall be regulated by the Executive Engineer.
- 34. Quality of Water :- The Corporation would normally supply potable water.
- 35. Bills for Water Charges: The bills on account of water charges, as for as possible will be presented in the first week of every month for the water consumed in the proceeding month. The consumer shall pay the bill in full within 15 days from the date of issue of the bill to the Executive Engineer. The payment of bills shall not be withheld on any account.
- 36. Failure to pay bills: In case of failure on the part of the consumer to pay his bill within 15 days from the date of its presentation, interest at 17.52% per annum shall be charged to him from the 16th day onwards upto a further period of one month. If the consumer fails to pay the bill along with the interest paybale within a grace period of one month stated herein above, water connection shall be sereved.



to action under clause 36 above if he refuses to make payment of the bill on grounds of any disputes whatever on the bill furnished to him by the Executive Engineer.

- 38. Subjetting or renting out connection: In case the consumer is allowed by the Corporation to subjet or rent out his premises, he shall produce such letter to the Executive Engineer and furnished in writting details of the parties to whom it is subjet. In case thre are any arrears recoverable from the consumer the arrears shall be cleared by the consumer before subjetting or renting out the premises to any other party.
- 39. Penalty for excess use of water :- A) In areas where supply quotas are fixed penal charges for excess consumption of water over and above the quota fixed shall be charged, as bellow.
  - a) When the consumption of water is known to exceed the allowable consumption the penalty will be charged on the entire excess consumption at double the normal MIDC rates. In case the excess continues beyond a period of 30 days from the date noting the first excess, the connection would be sereved after giving 10 days notice to the consumer.
  - Note: 1) Although the quota fixed will be for quantity per day, the counting period will be month of billing on which the average quantity per day consumed during the billed months should not exceed the quota fixed.
  - b) In case when meters are lost, damage removed or out of order, the gap will be settled according to regulation 24 and the penalty will be charged for the execess consumption.
  - c) In case of fire in a industry, water used for fire fitting will be worked out and no penalty shall be charged on this quantity.
- 39. B) Where a fixed quantity of bulk supply is from Govt. A Municipality or any local authority & where beyond a fixed quota the bulk supplier levies or would levy penal charges for consumption in excess of the fixed quota, these penal charges would be passed on to the (Retail) consumers proportionately and after taking into account the transmission losses, establishment charges etc.
- 40. Disconnection of Water Supply: The Executive Engineer shall disconnect the service pipe in any of the following events, after giving a written notice to that effect and act after 10 days of date of such notice received by the consumer.
  - a) In default of payment of water charges including the delayed payment charges.
  - In case unmetered water supply continues beyond six months.
  - c) In case of consumption of water supply in excess of fixed limits (Regulation 39)
  - d) If any leakages of defects in the water supply arrangements within the premises of the consumer are likely to cause losses to the corporation.
  - e) If the consumer allows water to run to waste and does not carry out the repairs within seven days of receipt of written letter from Executive Engineer in this behalf.
  - f) In case of refusal allow the Executive Engineer or any authorised agents of the Corporation to enter on premises for purpose of inspection of water supply.

Signature with Rubber Stamp

- g) If the consumer fails to provide suitable arrangement to the satisfaction of the Executive Engineer for the proper disposal of waste water which is likely to cause insanitary and injurious conditions.
- h) If it is noticed that attempt has been made to temper with the meter or the supply connection.
- i) In case of breach of any of the rules contained herein.
- 41. Case of marginal adjustments in these regulations, involving an amount upto Rs.100/- per consumer may be determined at the direction of the Executive Engineer. Such cases involving an amount upto Rs. 1000 per consumer may be determined at the discretion of the Superintending Engineer.
- 42. For disputes arising out of the interpretation or otherwise of these regulations the decision of the Chief Engineer, MIDC shall be final and binding on the conusmer.
- 43. Modification of the regulation: The Corporation shall have the power to add, to amend. Vary or rescind any provision of these Regulations, from time to time as it may deem fit provided the main purposes of the Regulations are not prejudiciously affected:

We the undersigned solemnly promise to abide the rules laid down as above by the Maharashtra Industrial Development Corporation.

Plot No. 24, RGIP Ph - II

VIII - Magn Tod - Muls Wi, fung - 5 t.

Seal of Company/ Registered Address

Stamp

Connection of size	mm dia by providing mm
dia water meter sanctioned subject to Regu	ulations and provisions there in all respects.
This agreement signed, accepted a	and sealed in my presence on this day

EXECUTIVE FORM DIVISION PUNE 41101

Applicant With Rubi er

shinitin Dattatraya Derrekar
of Ws. Alibh Destarage Derre Kar Bearing Licence of Municipal Corporation of Pimpri - Chinchward
Licence of Municipal Corporation of Pimpy) - Chinchward
Municipal Council No456
For the year 20 .0.2 have appointed as a licenced plumber to carry
out the plumbing work for the water supply and sanitary arrangement for the
building On plot No Road No
Phase in MIDC RG P Industrial area
at survey No. of village  Maan Taluka Mulshi District Pyne  Registered office address Plot No. 24, RG II Ph- TI.  Vill Maan, Tal-Mulshi, Pane 57
Registered office address Plot No. 24, RG II, Ph - TJ.

I/We have carefully read and understood the water supply regulations 1973 and agreed to abide by the provisions made therein and amendments, carried out in the Regulations from the time to time and water supply to and water supply to my /our promises will be governed by the Regulations fully, finally and will be legally binding upon me/us.

Plot No. 24, RGIP, Ph II, William an, Tal-mulshing

Seal of Company / Registered Address

SASSSIgnature of

Applicant with Rubber Stamp

<u>Norekar</u> Lic

Signature of licenced plumber with Rubber Stamp with licence No.

Executive England
M.I.D.C., E. & M. Division
PUNE-411 013.

#### Pimpri Chinchwad Municipal Corporation

456 No. 1327

#### License for A Plumber

License to act as a plumber granted under section 372 of the Bombay Provincial Municipal Corporations Act. 1949

No. 457 of 19-2003-2008 Municipal Office

To Shri Nitin Dattatryn Darekar.
Bhalakan Magar Amale geral -27.

Under Section 372 of the Bombay Provincial Municipal Corporation Act. 1949 (hereinafter referred to as the Act) I hereby grant you this licence to act as a Plumber for the purposes of the Act for the period of one year from 05/06/2003 to the 04/06/2008 subject to the following restrictions and conditions:

That the provisions of the several orders for the guidance of the licensed plumber for the time being issued by the Commissioner with the approval of the Standing Committee under 373 (1) of the Act. shall be deemed to be incorporated herein as conditions of this licence and Section that every matter in which you may be professionally consulted or concerned during the period for which this licence is granted, you shall, at all times and in all respects, odserve and be bound by and, to the best of your ability, give effect to and carry out the several such orders aforesaid or of them as applicable.

and can be inspected at all reasonable times at such office, it must be borne in mind that under ascarding 356 of the Act. This licence may, at any time be suspended or revoked by the Commissioner if any of the above restrictions or conditions is infringed or evaded by you or if you are convicted of any triggement of any of the provisions of the Act. or of any rule, bye-law or standing order made in the first under in any matter to which this licence relates and in case this licence is suspended or revoked as aforesaid or when the period for which it is granted has expired, you will for all purposes of the Act. be deemed to be without a licence until the order for suspending, or revoking the licence is cancelled or until the licence is renewed, as the case may be and further you must at all reasonable times, while this licence remains in force produce the same, it so required, by the Commissioner or by any Municipal Officer empowered by the Commissioner on that behalf under Section 69 of the Act.

The fee which has been fixed by the Commissioner with the sanction of the Corporation under Section 386 (2) of the Act. (chargeable in respect of this licence is rupees two hundred only)

<u>Novekar</u> Signature of the Licensed Plumber Pimpri Chinchwad Municipal Corporation

NOTE - please note that the licence expires, on 4 6 8 and if you wish to renew the licence for further period you must apply before the date of expiry 4 6 8 Also please note that no further intimation will be given to you for the renewal of licence and until an application for the renewal of the licence is made, you cannot do the work of a plumber. Please also note that if the renewal of the licence is refused you will not be entitled to Act as a plumber. (P.T.O)

### ORDERS FOR THE GUIDANCE OF LICENSED PLUMBERS

ders Issued under Section 373 of the Bombay Provincial Municial Corporation Act. 1949 :-

- Every licensed plumber shall be under the control of the Municipal Commissioner and shall ry out all lawful direction of the Municipal Commissioner.
- Every licenced plumber shall notify the Municipal Commissioner of any change of his iress or place of business.
- 3) Every licensed plumber shall, before commencing any work under Chaptor tX or X of the obtain permission from the Municipal Commissioner or other officer appointed in that behalf an ill report completion of the work to the officer concerned within a reasonable time.
- Every licensed plumber shall afford all reasonable facility to the Municipal Commissioner, of er officer appointed in that behalf, for the purpose of making inspection of any work done by such mber, or his place of business if deemed necessary.
- 5) Every licensed plumber shall proceed with any work undertaken by him diligently end in per workmanlike manner and shall not cause any delay in the execution thereof without sufficient use therefor.
- No licensed plumber shall make any water connection or carry out any other work or with mence to public streets, pipes sewers or drains without obtaining and sanction of the Municipal memioner or other officer as aforesaid empowered in that behalf.
- 7) In carrying out any work under Chapter IX or X of the Act. no pipes, fittings, appliances of terials shall be used, unless the same have been duly approved by the Municipal Commissione other officer outhorised in that behalf.
- 3) Every licensed plumber shall pay all lawful demands made by the Municipal Commissione
  - (a) repairs to roads, drains, pipes, mains or any fittings or appliances connected there with or any other property whatsoever whether belonging to the Corporation or not:
  - (b) damages or losses caused to any person or property by or through neglect or want of sufficient care or precaution on the part of himself or his servents or workmen:
  - (c) trade and other licenses now in force or which may be in force at any future time.
- Every licensed plumber shall comply with the provisions of the Bombay Provinical Municipal Provinical Municipal Provinical Municipal Province Act. and the bye-laws, rules & standing order which may from time to time be made equipped.

NOTE: Every licensed plumber is requested to report to the Municipal Commissioner and lect noticed by him in any premises in connection with any water pipes, fittings or other plances causing waste of water, or in connection with any drains, water-closets, privies of mals or any fittings or applicance connected therewith, rendering such drain, privy or urinaticient or other wise objectionable for sanitary reasons.



### MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION

(A Government of Maharashtra Undertaking)

### **WATER SUPPLY**

# AGREEMENT FORM

ISSUED TO:

ADDRESS:

AREA:

PLOT NO.:

	), e Executive Engineer, DC Division
	Sub.: RGIL Masc—IL Industrial Area  Application for water supply connection. Water supply connection to Plot / Shed No.
Sir,	
Му	I have been allotted Plot No. / Shed No
by y	
1)	Xerox copy of Lease Agreement.
2)	Xerox copy of possession receipt.
3)	Xerox copy of possession plan.
4)	Xerox copy of letter of approved building plan
5)	Water supply agreement in triplicate.
6)	Water supply connection plan signed by me, licensed Architect / Licensed Plumber in triplicate.
7)	The consent from Maharashtra Pollution Control Board.
8)	Xerox copy of No objection Certificate of MIDC issued by Chief Executive Officer; MIDC, Bombay - 93.
9}	I am also ready to get the drainage plans prepared by Licensed Architect and get them approved from your office within a period of three months from the date of this letter.

Thanking you,

Yours faithfully,

Signature with Rubber Stamp.

# MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION

(A Government of Maharashtra Undertaking)

WATER CONNECTION
------------------

		WATER CONNECTION
1) 2)	Applicants Full Name Applicants Full Address	Plot NO. 24 RADIV Grandhi Infotech park, Phase-II VIII - Maan Tal-Muls! pune - HILOST
3)	Plot No. & Block where connection is required.	: Not NO. 24 Ragiv Gandhi Infotech Par 461264=00 Sq. mtr.
4)	Area of Plot	
5)	Whether applicant is the owner of the plot or his representative.	: Lessee
6)	Owner's full name & Address	: Intosys Technologies 49 Electronics city Hosyr Road Bangabres
7)	Date of Possession	: 20-10-2003 8 15-06-2006
8)	Date on which the plans are approved by the Ex. Engineer, MIDC (Civil) Dn.	: B.C.C. frovided on o6.07.2007?
9)	Size of connection required	: 150 mm dia
10)	Daily requirement of water in litres.	: 1500 mg (letter Ref: 154 WIW For 19A 107-07/29 ot-27th July 07.
11)	Required Connection domestic / non-domestic	: NON-Domestic
12)	Future Demand.	: 1500 m <sup>3</sup>
13)	No. of Person to be employed	: 24000 people in the next oneyear.
14)	) Nature of Production	: Software Development for exports. : Sewage Treatment plant.
15	What arrangements you are going to provide for disposal of Industrials domestic effluent (Seption tank, soak pit, effluent treatment Plant etc.)	<b>;</b>
16	Details of internal water supply in the plot Sump/ Pump etc. if you are going to provide.	
17	7) Additional information	: NIL
18	B) Date of Application	
	Source with	Executive Engineer.
	Rubber Stamp	MIDÇ_Division

Rubber Stamp

(A GOVERNMENT OF MAHARASHTRA UNDERTAKING)
An agreement made the 23 day of the month of November two thousand Seven between MIDC on the one hand and Shri.M/s. In 1854s Technologies Ud.
(hereinafter called as consumer which expression shall unless it is excluded by of repugnant to the context include any person holding a power of attorney to conduct the business on behalf of the Consumer) on the other hand.
Whereas the consumer on or about the 23 day of the month of November two thousand Leven Applied to the Executive Engineer.  MIDC, Divn
(hereinafter referred to as Executive Engineer) for permission to supply water for the purpose of construction of Factory Building and/or for the regular requirement of water for the Factory on plot No. 24 in a R.G.J.V. Industrial Area premises along road in village Make on water supply scheme. And where as the Executive Engineer has agreed to grant such permission herinafter mentioned,
Now this indenture witnessable-that in consideration of the conditions herinafter contained and on the part of the consumer to be performed that Executive Engineer hereby grants to the consumer permission to draw water on the following Conditions
1. The consumer shall pay in advance a sum of Rs. 15 20,800 200

2. The consumer shall abide by all the terms & conditions of the MIDC water supply Regulations 1973 as amended from time which are attached to this agreement.

MIDC which will bear a simple interest at 5% p.a.

months for the quantity applied at the current rates as a standing security deposit with

3. The consumer shall take care of the water meter and see that it is in working condition at all the times. If the meter is found out of order at the time of reading the assessment will be charged as under:

This date from which the meter has gone out of order will be arrived at on the basis of average consumption per day calculated on the basis of consumption of last month's for all working days.

The assessment for the said period will be charged on the basis of last 3 full months average or the last month's assessment, or the subsequent three months assessment for the immediately after the meter is put in working condition or the last year's assessment for The corresponding period whichever is higher. The penalties as per regulation No. 24 from the 3rd to 6th months will be charged on the basis of the first two months bill, If the water bill is charged incorrectly will be revised at any time later and the consumer will be liable to pay charges as revised. Water meter shall be provided within 3 months, from the connection point.

- 4. If the meter goes out of order frequently the assessment will be charged at the discretion of the Executive Engineer after referring the case to the Superintending Engineer whose decision will be final and binding on the consumer.
- 5. The consumer shall pay the monthly water charges as per bill within 15 days from the date of the bill and will be allowed a further grace period of one month .charging interest @ 17.52% p.a. If the bill alongwith previous arrears is not paid fully before the expiry of this grace period, the consumer's water supply will be liable for disconnection and the interest will be continued to be charged until the arrears are paid fully
- In case of payment by cheque, the date of payment will be the actual date of realisation of the cheque and not the date of cheque. Any in payment of charges or other delay penalties as a result of this delay in realisation of the cheque will have to be paid by the consumer.

Signature with Rubber Stamp

- 7. The payment of water charges by cheque will be made in favour of the Bank with which the office of the Dy. Engineer, MIDC of the local area is having account. In all other cases the bank commission charges will be borne by the consumer.
- 8. The consumer shall pay the water bill at the rates of MIDC as may be amended from time to time. Any upward revision of rates will be given after one month's notice to the
- The arrears of water charges are liable to be recovered from the consumer as arrears
  of land revenue through the Collector if they are not paid in time.
- 10. The consumer shall bear the cost of preparation, stamping and execution of this agreement.

In witness where of the Executive Engineer for and on behalf of the MIDC hath set his hand and the seal of his office here to and shricker lie Thomas hath herein to set his hand the day, month and year first above written.

his hand the day, month and year first above written.	the Executive Engineer MIDC,(£.
Signed & delivered by Shri in presence of	
1) Shri	
2) Shri	
Signed sealed & delivered by ShriSUNIFAD	s <u>vカツリ</u> in シー
1) Shri Rusesh Kymar shah	

2) Shri \_\_\_\_\_

Plot No. 24, RAIL, Phase-II,
VIII- Maan, Tal-Mulshin Punc-IT.

Megistered Address
INFOSYS TECHNOLOGIES LTD.

PLOT NO. 24, RAJIV GANDHI INFOTECH FARK.
PHASE II. VILLAGE MAN, TALUKA - MULSHI.
PUNE - 411 057

Annexure:-

MIDC Water Supply

Regulation 1973

Executive Engineer
M.I.D.C. Division

with Rubber Stamp

Intesys Technologies Ud	THE A 100 St. of	COST-7 & L. AND CONTROL OF THE PARTY OF THE
ESS : Matola 14 RG 11 Phose I Bevelopment Corporation Last 2 and Floor, Kabera	भारत 74731 इंडिके 180036	NOV 28 2007
TURE MYAHARASHTRA IN <b>DUSTRIAL</b> DEVE	ELORMENT CO	APPORATION
TA GOVERNMENT OF MAHARAS WATER SUPPLY REGU	HER UNDERTAI	LLA MONDEMANDE LINE I
		Adheasive STAMP
THORNIBC Plot No. 24 RGIC Phase II.  Phase II.		p of Rs. 20/- shall be affixed Office Gr Floor Town Hall or Treasury office.
Pyne Indl, Area.	4	·
1 Shri/M/s. Intosys Technologie	ttd	preamble

- 2. In these regulation unless the context otherwise requires:
  - 1) Definition: Consumer shall mean any person or persons applied for applying for supply of water from any works of the corporation or any person or persons otherwise liable for payment of water charges.
  - 2) Corporation shall mean the Maharashtra industrial Development Corporation constituted under the Maharashtra industrial Development Act, 1961 (Mah. III of 1962)
  - 3) The Chief Engineer, The Superintending Engineer & the Executive Engineer shall mean the Chief Engineer, Superintending Engineer and the Executive Engineer appointed by the Corporation.
  - 4) Communication pipe shall mean & refer to the pipe which extends from the corporation's main upto valve nearest the corporation main.
  - 5) Supply pipe shall mean and refer to the pipe which extends from the corporation stopcock or sluice valve upto the ball cock of the storage, tank, if any and any consumer's pipe subject to the water pressure from the corporation's main.
  - 6) Distribution pipe shall mean and referred by consumer's pipe which is not subject to water pressure from the corporation main.
  - 7) Corporation stopcock or siuice valve shall mean and refer to the stopcock or the sluice valve on the communication pipe nearest the corporation main controlling the supply of water from any corporation separately with the water charges.
  - 8) Consumer's pipes and consumer's fittings shall include and refer to all pipes & fittings respectively used in connection with the supply of water from Corporation's water works which are not the property of the corporation.
  - 9) The terms and expressions used in section 2 of the Maharashtra Industrial Development Act, 1961 (Mah-III of 1962) shall have the same meaning in so far as the interpretation of these Regulations are concerned.
- 3. Application for Supply: Before commencing the laying, alteration or extension or extension of any consumer's pipe or otherwise the consumer shall fill up, sign and deliver in the office of the Executive Engineer in charge of the area, the form prescribed in Schedule 'A' attached to these Regulations.
- 4. Connection to Mains: All consumer's pipes and fittings shall be laid in accordance with the terms prescribed by the Executive Engineer and shall be perfectly sound and water tight before the water supply is commissioned. Water will not be supplied to any factory or premises so long as such non-compliance re-mains.
- 5. Alteration or Removes of consumer's pipes & Fittings:- No consumer's pipes shall be removed, altered or extended except in accordance with the these regulations.
- 6. Prevention of Waste or Misuse of Water:- Every consumer shall prevent waste and or misuse of water of the Corporation.

Signature with Rubber Stamp

- 7. Communication pipe to be laid or removed by the Corporation:- Communication:pipes and fittings which include ferrule G.I. pipes & specials fittings, materials for jointing
  etc. or any other type of fittings & accessories upto ferrule or stopcock approved by the
  Executive Engineer shall be provided by the consumer at his cost. Laying of the
  communication pipe up to the boundry of the consumer's plot will have to be done by
  the consumer through a licensed plumber under the supervision of MIDC's authorised
  representative over & above this the consumer will have to pay the connection attachment
  fee as per provision in clause 20 This will include cost of labour that has to be incurred
  by MIDC.
- 8. Size of communication pipes:- Water supplied to any premises for which water charges are paid or for which water charges are payable shall be supplied through a ferrule & Communication pipe of the size specified.
- 9. Consumer's Fittings Testing and Approval:- AH consumer's fittings of whatever kind shall conform to the particulars prescribed & specifications or to such further standards as may from time to time be prescribed by the Corporation and whether so specified or not shall be submitted for approval to the Executive Engineer before being fixed All such fittings, shall be maintained, repaired and renewed at the consumer's expense, to the satisfaction of the Executive Engineer. All consumer's fitting or apparatus used in connection with the water supply of the Corporation shall be got approved by the Executive Engineer.
- 10. Consumers pipe & fittings: All consumer's pipes & fittings shall be provided and laid at the consumer's cost and no consumer shall be entitled to supply of water unless & until such pipes & fittings and laying & fixing thereof are approved by the Executive Engineer and unless proper drainage arrangements are made for the disposal of waste water and approved by the Executive Engineer.
- 11. Erection of water closets to be approved: No connection shall be granted for the supply of water to any water closets, latrine or urinal unless its erection is approved by the Executive Engineer & unless sufficient short storage is provided.
- 12 , Material of consumer's pipe: All consumer's pipes shall be of lead, galvanised/ iron/ castiron brass or copper and shall confirm in every respect to the particulars prescribed and specifications as approved by the Executive Engineer. No pipe ex-cept such existing pipes as shall be sound and do not permit waste or except when and as otherwise authorised by those rules shall be laid used or fixed in or about any premises for conveyance of or in connection with the water supplied by the Corporation unless such pipe to be as hereafter prescribed.
- 13. Joints:- Whenever lead pipes are used, every lead joint there of shall be of the kind called a plumbing or wiped joint except such existing joints as shall be sound and do not permit waste. All connections between lead & iron pipes shall be made with a brass union.
- 4. Method of laying consumer's pipe:- All consumer's pipes shall be laid in the ground & not less than fortyfive centimeters below the surface unless laid inside a building and all consumer's pipes shall be so laid or fixed as not be exposed to the heat of the sun not shall any consumer's pipe & fitting be laid in any position or manner which would involve risk or injury to the pipe or fitting or waste or contami-nation of water. All consumer's pipes hereafter laid or fixed inside any building shall be accessible and not embedded in the plaster, stone or brick work of any wall. In every case the consumer shall carry out the reasonable requirements of the Executive Engineer to this end. The position at which the connection of the supply pipes to the communication pipe shall be fixed by the Executive Engineer.

15. Pipes to be laid through drain etc:- No pipe shall be used for the conveyance of or in commention with water supplied by the corporation which is laid or fixed through, in or

Signature will Rubber stand

into any drain or any place where the water conveyed through such pipe may be liable to become fouled or where pipe become unsound except where such use is unavoidable. In every such unavoidable case, such pipe shall be passed through an exterior air tight and water tight pipe or jacket of cast iron or other cast iron or other material approved by the Corporation of sufficient length and strength and of such construction as to afford due to protection to the water pipe to the satisfaction of the Executive Engineer so as to bring any leakage therefrom within easy observation. Any existing pipe or pipes laid, affixed which do not comply with this, shall be removed unless the written consent of the Executive Engineer ob-tained for its retention.

- 16. Position of Stopcock on communication pipes:- The stopcock or sluice valves, with the guard box on the communication pipe shall be placed in a position to be selected by the Executive Engineer. The corporation shall have exclusive control of this stopcock or sluice value and to this end require that it will be fitted with a crutch or spindle head of special design to suit a key kept by the Executive Engineer.
- 17. Consumer's taps not be fixed in certain places: No Consumer's taps shall be fixed in any courtyard passage or outside any premises, so as to be available for use by the public or any other party without special permission in written from the Executive Engineer. If in the judgement of the. Executive Engineer any such tap either directly or indirectly conduct to or be so used or dealt with as to cause waste or misuse of the water of the corporation such tap shall be removed by the consumer within 7 days of the receipt of a written order to that Effect from the Executive Engineer.
- 18. Character of Cisterns & ball cocks: Every existing cistern, if not sound or efficient or is such as causes waste or is such as can not be efficiently repaired and every future cistern, reservoir or storage tank shall be of the prescribed kind and shall at all times be made and at all times maintained water tight and shall by properly covered with a close fitting dust tight mosquito proof lid fitted with an approved lock and key and shall be provided with a sound and suitable ball cock of the pre-scribed kind securely fixed to the cistern independently of the supply pipe and set that the ball will not become submerged when the level of the water in the cistern is below the warning pipe or allow the Water to rise to within 2.5 c.m. of the lower side of the over flow or warning pipe. A stopcock or sluice valve shall be provided on the outlet pipes of all cisterns and fixed as near the cistern as possible.
- 19. Cisterns to be accessible: Every cistern, reservoir or storage tank hereafter used or fixed in connection with water supplied by the Corporation must be easily accessible and placed in such a position as to admit of through inspection and cleaning, and if placed within the house or building shall have a clear space of not less than two feet between its top and celling rafter or roof. No cistern reservoir or, storage tank except those supplying clostes, latrines or urinals only shall be fixed in any water closet, latrins or urinals or in any place in which injurious gases are likely to be produced and as far as practical shall not be placed immediately over any water closet, latrine or urinal.
- 20. Application for water Supply connection: The application for water supply connection must be accompanied with the attachment fees as per Schedule given below.

Nearest Diameter of the
Size of connection
Fees 1/2" (15 mm.)
3/4" (20 mm)
Rs.
1" (25 mm)
Rs.
1 1/2" (40 mm)
Rs.

Beyond 1½" or 38 mm Size connection, a separate estimate determining the connection fees will be prepared by the Executive Engineer.

Note:-Connection fees is payable every time connection is reconnected is after it is cut off properties any of the clauses of this agreement.

The above mentioned fees will also be recovered in advance from the parties in case of reopening water supply after it is cut off for any reasons in addition to the connection fee, charges for reinstatement of the road surface or the MIDC's land should be paid by the consumer as under:-

(The road instatement or road crossing charges are subject to revision from time to time)

- 1) Soil Rs. 5/- per sq.m.
- 2) W.B.M. Surface Rs. 10/- per Sq.m.
- 3) Asphalted surface Rs. 20/- per Sq.m. Including W.B.M.
- 4) Concrete surface Rs. 25/- per Sq.m.
- 21. Fixing tested water meter: The consumer shall at his own cost fix the tested meter within his premises over which the water shall be measured. The meter before it is fixed to the connection pipe, shall be tested in a testing laboratory ap-proved by the corporation. The test certificate from the officer in charge of the laboratory shall be produced by the consumer. It shall be the duty of the consumer to maintain in good condition the water meter so fixed.
- 22. Arrangements for housing meter:- After the water meter is properly fixed on the connection a brick masonry stone masonry or concrete chamber with lockable C.I. or other approved pattern of frame and cover shall be constructed by the consumer. The meter and it's coupling on consumer's pipes should be sealed by the consumer in the manner approved by the Executive Engineer and should bear the stamp of the corporation if at any particular point of times the seal is found to be broken the consumer will be charged a penal rate of 50% of the previous month's water bill over and above the normal bill for the month. The responsibility of main-training the seal shall squarely rest with the consumer. In special case, Executive Engineer may direct that a lock shall be provided by the consumer's own cost and the keys of this lock will rest with the Executive Engineer or his duly authorised agent. The consumer shall be responsible for safety and maintenance in good or-der of the meter and the cover in his own premises.
- 23. Testing of Water meter: If at any time after the installation of the water meter, it is indicated that the meter was running slow. The Executive Engineer, shall take action in getting the meter was tested for its correctness. In case this test indicates that the meter was running slow, he shall take action in revising the bills suitably with restrospective effect and his decision in the matter shall be final.
- 24. Penalty for unmetered water:- If the water meter fixed by the consumer is found to be lost damage, unrepaired, or not in working condition, the consumer shall be charged water charges on the basis of three month's average consumption for the first two month's of the meter being not repaired whereafter shall be charged a penalty at the rate of 50 percent of the water charges for next two months and at 100 percent of the water charges for the fifth and sixth months provided that the total period of unmetered supply is not more than six months.
- 25. Disconnection for unmetered water supply: If the water supply remains unmetered for more than six months the water supply disconnected after giving seven days notice-
- 26. Payment of security deposit for water charges: The consumer shall deposit with the Ex. Engr. a sum of equivalent to the estimated water charges for the three month's advance as a security deposit against failure of payment of water charges and maintenance of water supply consumed, including the water meter in proper condition and good repair. This will be worked out on the basis of the daily requirement (A) and the current water charges. The amount of deposit shall be suitably increased or decreased if the actual consumption is found to vary from the one quoted at the time of submission of the application



- 26. (i) The amount of deposit which is to be related to the actual consumption of water shall be suitably increased or decreased from 1st April of a financial year based on average consumption of water for 10 months from 1st April to 31st January of the preceding financial year.
- 26. (ii) On the deposit collected as above simple interest at 5% per annum shall be allowed at the end of every year by giving a proportionate credit in the water charges bill for the months of March.
  - Note:- Deposit paid on or before the 5th of a month shall only qualify for payment of interest for the that month in a year.
- 26. (iii) The maximum amount or deposit will be limited to Rs. 5 lakhs (Rupees five lakhs) where the consumer's deposit is likely to be exceeded Rs. 4 lakhs. How-ever the power is vested with the Engineer, M.I.D.C. to recover the security deposit in excess of Rs. 5/- lakhs whose the amount of water bills for three months is more than Rs. 5/- lakhs and whose payment of bills are not found to be regular.
- 27. Water Rate: The charges for water shall be fixed by the Corporation from time to time. The Corporation shall increase or decrease the water charges in its discretion after giving notice of one month to the consumer. The rates of water charges so fixed or altered shall be conclusive and be binding on the consumers.
- 28. Arrears to be recovered as arrears of Land Revenue: The arrears on account of water charges or any other expenses incurred by the corporation in connection water supply to the consumer shall be recoverable as arrears of land revenue. It shall also be open to the corporation to disconnect water supply for to comply with these regulations.
- 29. Detachment fees:- In case the consumer wants the water supply to be closed, he shall have to make an application in this regard to the Executive Engineer alongwith the detachment fee, which should be 50 percent of the fees mentioned in the table under Regulations 20-A Minimum notice of 10 days must be given to the Executive Engineer in this case.
- 30. Shortage of Water:- While the Corporation will endeavour to supply full quantity of water required by consumer it does not bind itself to supply water to the extent of booked demand for reasons beyond the control of the Corporation such as short age of water at source, damage to the conveyance system failure of power etc. in order to take into accounts such non-water supply periods, consumer shall provide their own storage equal to their requirement of 24 hours in their premises.
- 31. Boosters not allowed: In no case shall direct boosting be allowed on the Corporation mains or on the connections.
- 32. Supply Pressure not Guaranteed:- Water supply at pressures is not guaranteed. The Corporation would however make arrangements that the water is delivered at the average ground level of the plot of consumers and that a day's requirement of water would be normally made with at this level.
- 33. Mrs. of Water Supply:- The hours of water supply to the consumer shall be regulated by the Executive Engineer.
- 34. Quality of Water:- The Corporation would normally supply potable water.
- 35. Bills for Water Charges:- The bills on account of water charges, as for as possible will be presented in the first week of every month for the water consumed in the proceeding month. The consumer shall pay the bill in full within 15 days from the date of issue of the bill to the Executive Engineer. The payment of bills shall not be with-held on any account.
- 36. Failure to pay bills: In case of failure on the part of the consumer to pay his bill within 15 days from the date of its presentation, interest at 17.52% per annum shall be charged to him the 16th day onwards upto a further period of one month. If the consumer

Signatur yath/ Rubber Sigmp

- fails to pay the bill along with the interest payable within a grace period of one month stated herein above, water connection shall be served.
- 37. Correction of bill:- If the consumer disputes the contents of the bills he shall first pay the bill under protest and then lodge the complaint. The consumer shall be liable to action under clause 36 above if he refuses to make payment of the bill on grounds of any disputes whatever on the bill furnished to him by the Executive Engineer,
- 38. Subjetting or renting out connection: In case the consumer is allowed by the Corporation to sublet or rent out his premises, he shall produce such letter to the Executive Engineer and furnished in writing details of the parties to whom it is sublet. In case there are any arrears recoverable from the consumer the arrears shall be cleared by the consumer before subletting or renting out the premises to any other party.
- 39. Penalty for excess use of water:- A) In areas where supply quotas are fixed penal charges for excess consumption of water over and above the quota fixed shall be charged, as bellow.
  - a) When the consumption of water is known to exceed the allowable consumption the penalty will be charged on the entire excess consumption at double the normal MIDC rates. In case the excess continues beyond a period of 30-days from the date noting the first excess, the connection would be served after giving 10 days notice to the consumer.
  - Note:-1) Although the quota fixed will be for quantity per day, the counting period will be month of billing on which the average quantity per day consumed during the billed months should not exceed the quote fixed.
  - b) In case when meters are: lost, damage removed or out of order, the gap will be settled according to regulation 24 and the penalty will be charged for the execess consumption.
  - c) In case of fire in a industry, water used for fire fitting will be worked out and no penalty shall be charged on this quantity.
- 39. B) Where a fixed quantity of bulk supply is from Govt. A Municipality or any local authority & where beyond a fixed quota the bulk supplier levies or would levy penal charges for consumption in excess of the fixed quota, these penal charges would be passed on to the (Retail) consumers proportionately and after taking into ac-count the transmission losses, establishment charges etc.
- 40. Disconnection of Water Supply:- The Executive Engineer shall disconnect the service pipe in any of the following events, after giving a Written notice to that effect and act after 10 days of date of such notice received by the consumer.
  - a) In default of payment of water charges including the delayed payment charges.
  - b) In case unmetered water supply continues beyond six months.
  - c) in case of consumption of water supply in excess of fixed limits (Regulation 39)
  - d) If any leakages of defects in the water supply arrangements, within the premises of the consumer are likely to cause losses to the corporation.
  - e) If the consumer allows water to run to waste and does not carry out the repairs within seven days of receipt of written letter from Executive Engineer in this behalf.
  - f) In case of refusal allow the Executive Engineer or any authorised agents of the Corporation to enter on premises for purpose of inspection of water supply.
  - g) If the consumer fails to provide suitable arrangement to the satisfaction of the





Executive Engineer for the proper disposal of waste water which is likely to cause insanitary and injurious conditions.

- h) If it is noticed that attempt has been made to temper with the meter or the supply connection.
- i) In case of breach of any of the rules contained herein.
- 41. Case of marginal adjustments in these regulations, involving an amount upto Rs.100/per consumer may be determined at the direction of the Executive Engineer. Such
  cases involving an amount upto Rs. 1000 per consumer may be determined at the
  discretion of the Superintending Engineer.
- 42 For disputes arising out of the interpretation or otherwise of these regulations the decision of the Chief Engineer, MIDC shall be final and binding on the conusmer.
- 43. **Modification of the regulation : -** The Corporation shall have the power to add, to amend. Vary or rescind any provision of these Regulations, from time to time as it may deem fit provided the main purposes of the Regulations are not prejudiciously affected.

We the undersigned solemnly promise to abide the rules laid down as above by the Maharashtra Industrial Development Corporation.

plot No. 24, R.G. II, Phase II, VIII - main, Pal-mulshi, of Company/ Registered Address INFOSYS TECHNOLOGIES LTD.

PLOT NO. 24. RAJIV GANDHLINFOTECH PARK.
PHASE II, VILLAGE MAN. TALUKA - MULSHI.
PUNE - 411 057

Signature of Applicant With Rubber Stamp

> Executive Engineer M.I.D.C. Division

# SCHEDULE "A" - The control of the second of

I/We undersigned hereby apply to the Executive Engineer, Maharashtra Industrial Development Corporation, Division <u>E &amp; M</u> to supply water at the premises and for the purpose described below and agree to pay such charges as the Corporation may charge from time to time and to confirm to the Maharashtra Industrial Development Act 1961 and the Rules and Regulations made thereunder, as per annexure - 1.  Shri Nith Dattatraya Dayekay,
of M/s NITO Deathy trays Dare ker Bearing Licence of Municipal Corporation of Pimpri chinchwal Municipal Council No. ———————————————————————————————————
Industrial area at
Purpose, which is required for construction/ process hereby undertake to give the Corporation due notice of any additions or alterations to the above mentioned supply which construction/ process may desire to take the quantity of water likely to be used per day would be C.U.M. at initial stage and   Loopy C.U.M. on later stage.  I/We have carefully read and understood the water supply regulations 1973 and agreed to abide by the provisions made therein and amendments, carried out in the Regulations from the time to time and water supply to and water supply to my /our promises will be governed
by the Regulations fully, finally and will be legally binding upon me/us.  Plot No 24, R4.1.8, Phase—II  Will—Maan Tat—Mulchi,  Inc.—54

INFOSYS TECHNOLOGIES LTD, PLOT NO. 24, FIAJIV GANDHI INFOTECH PAPK, PHASE II, VILLAGE MAN, TALUKA - MULSHI, PUNE - 411 057

Seal of Company / Registered Address

with Rubber Stamp

Signature of licenced plumber with Rubber Stamp with licence No.

त्रेमुतीं प्लबींग कॉन्ट्रॅक्टर ल. नं.: P.C M.C. ४५६, प्रो. प्रा. नितीन दतावय दरेकर

### Pimpri Chinchwad Municipal Corporation

456 No. 1322

### License for A Plumber

License to act as a plumber granted under section 372 of the Bombay Provincial Municipal Corporations Act. 1949

No. 456 of 19-2003-2008 Municipal Office
Pimpri

To Shri Nitin Datatryn Darekar.
Bhalakan Magar Ample garar - 27.

Under Section 372 of the Bombay Provincial Municipal Corporation Act. 1949 (hereinafter referred to as the Act) I hereby grant you this licence to act as a Plumber for the purposes of the Act for the period of one year from 05/06/2003 to the 04/06/2008 subject to the following restrictions and conditions:

That the provisions of the several orders for the guidance of the licensed plumber for the time being issued by the Commissioner with the approval of the Standing Committee under 373 (1) of the Act. shall be deemed to be incorporated herein as conditions of this licence and Section that every matter in which you may be professionally consulted or concerned during the period for which this licence is granted, you shall, at all times and in all respects, odserve and be bound by and, to the best of your ability, give effect to and carry out the several such orders aforesaid or of them as the applicable.

opies of all orders which have been issued are kept on sale at the Municipal Head Office and pe inspected at all reasonable times at such office, it must be borne in mind that under a fection 316 of the Act. this licence may, at any time be suspended or revoked by the Commissioner if any of the above restrictions or conditions is infringed or evaded by you or if you are convicted of any of the above restrictions of the Act. or of any rule, bye-law or standing order made are untifigement of any of the provisions of the Act. or of any rule, bye-law or standing order made where under in any matter to which this licence relates and in case this licence is suspended or revoked as aforesaid or when the period for which it is granted has expired, you will for all purposes of the Act. be deemed to be without a licence until the order for suspending, or revoking the licence is cancelled or until the licence is renewed, as the case may be and further you must at all reasonable times, while this licence remains in force produce the same, it so required, by the Commissioner or by any Municipal Officer empowered by the Commissioner on that behalf under Section 69 of the Act.

The fee which has been fixed by the Commissioner with the sanction of the Corporation under Section 386 (2) of the Act. (chargeable in respect of this licence is rupees two hundred only)

Navekar Signature of the Licensed Plumber Pimpri Chinchwad Municipal Corporation

NOTE - please note that the licence expires, on 4/6/02 and if you wish to renew the licence for further period you must apply before the date of expiry 4/6/08. Also please note that no further intimation will be given to you for the renewal of licence and until an application for the renewal of the licence is made, you cannot do the work of a plumber . Please also note that if the renewal of the licence is refused you will not be entitled to Act. as a plumber. (P.T.O)

## **Annexure 6**

Map of the Approach Roads to Infosys, Phase II in Periphery of 5 Km

Annexure 6
Route map of the Infosys, Phase II site with Mumbai – Bengaluru National Highway No. 4 and approach roads to Infosys, Phase II in periphery of 5 km

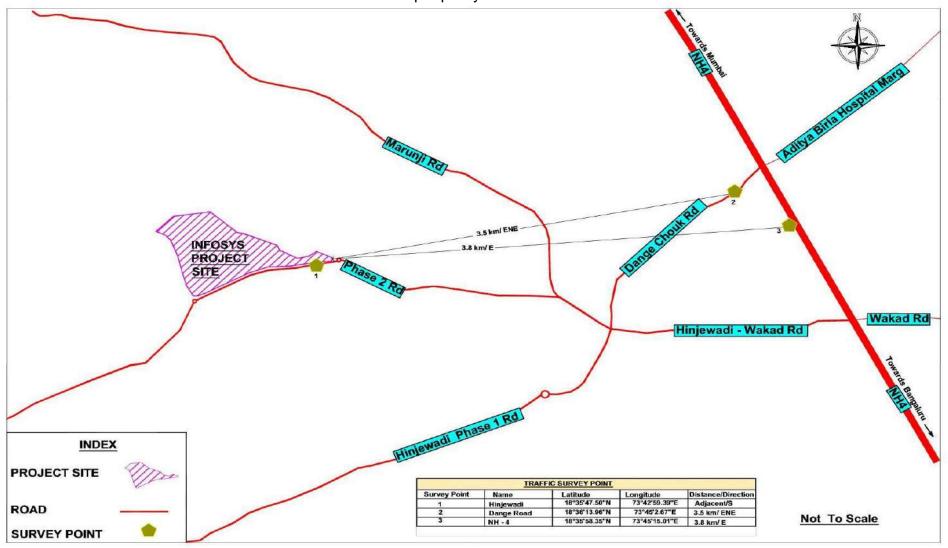


FIGURE: SURROUNDING ROAD NETWORK

### **Annexure 7**

Copy of existing agreement for 12 MVA with MSEDCL

12 SEP

12000 KYA

12014-9070440

Form 1-3

An AGREEMENT made at pune the

Day of

#### BETWEEN

THE MAHARASHTRA STATE ELECTRICITY DISTRIBUTION COMPANY LTD. hereinafter called The Supplier Which expression wherever the context so admit, shall include his successors and assigns) of one part AND MIS Trifisys Limited (SE2)

ph-II Hinsewasi LUIP MIPC hereinafter called "The consumer". The consumer shall disclose his full identify by disclosing his name and his corporate nature i.e. whether individual firm, corporation educational institution etc. which expression, wherever the context so admits, shall include his, executor. Administrators is successor or successors in business and permite passings of the other part.

Where as the request of the Consumer the Supplier has agreed to supply to the Consumer electrical energy for the purpose. The purpose for which power is required should be mentioned is specific details e.g. Flour, Ginning & Pressing Factory, Vegetable Oil Factory, Spinning & Weaving Mill etc. of TT Software 7 mon at the consumer's premises situated at Plot No 24, Pat PIND

Pume 57. Hinseway MEP (

upon the terms and subject to the conditions hereinafter contained.

NOW THIS AGREEMENT WITNESSETH as follows:

- In this agreement unless the context otherwise requires :
  - 'The act' shall mean the Indian Electricity Act, 2003, as amended from Definition time to time or such other enactment governing the supply and use of electrical energy as may be in force from time to time.

force from

- 'The Rules' shall mean the rules and regulations for the time being in
- time to time under the Act.
- Within a period of 15 days from the date of intimation from the Chief Engineer, Maharashtra State Electricity Dist. Co. Ltd. (hereinafter referred to as the 'Chief Engineer' which expression shall include any other officer authorised of the Supplier to perform the function to the Superintending Engineer specified in this agreement and any other officer or officers authorised by the Chief/Superintending Engineer that the Dist Co is in a position to commence supply and to make electrical energy available, the Consumers shall commence to take supply of the electrical energy under this agreement and the date of commencement of supply shall be the date of expiration of the said 15 days period or the date of actual commencement of supply whichever date as earlier and from such date consumer shall become liable to pay the Supplier the amount of minimum guarantee as hereinafter provided unless in the opinion of the Chief/Superintending of Engineer the consumer is unable to commence to take supply for causes beyond his control in which event the date absolute discreations by a period not exceeding six months.

Commenceof supply

The date of commencement of supply to be fixed by the Chief Engineers shall not be earlier than the date indicated by the consumer at the time of original application for supply. The Consumer shall complete all the arrangements for receiving supply and make available suitable accommodation for housing the Supplier's equipment and apparatus as per clause 6 hereunder at least three months prior to the date initially indicated by the Consumer for taking supply. If the Supplier is ready in all respects to commence supply save in respect of any work or works remaining to be done on the Consumer's premises due to noncompletion of sultable accommodation or incomplete work the Consumer to receive supply the Consumer shall be liable to pay the amount of minimum guarantee as hereinafter provided as if the supply is actually commenced from the date of expiration of said notice of 15 day unless the Chief Engineer has granted any extension of time as provided in Sub-clause (a) above.





During the period of supply hereinafter mentioned, the Supplier shall supply to the Consumer and the Consumer shall take from the Supplier all the electrical energy required by the Consumer for the purpose hereinabove recited at the consumer's premises located at \_\_\_\_ above . up to a maximum of 15833 kw/1200 km/kW/KVA (hereinafter called the Connected Load / Contract demand) subject to be the provisions of clause 7 hereof.

Location & Demand

The supply of electrical energy to Consumers shall be in the form of three phase alternating current at a frequency of 50 cycles per second and pressure of 220 Kilo-volts, subject to the tolerance limits permitted by the Act.

System of Supply



The Point of delivery for the supply of electrical energy shall be as Point of aì attached here to for the Delivery shown in Drawing No. : purpose of this Agreement maintenance by the Supplier of the electrical energy of the above stated voltage and frequency at the said point of delivery shall constitute the supply of electrical energy the supply shall be metered at the point of delivery on the HT side.



Metering on the L. T. Side

Where the metering is done on the low voltage side of supply either on the grounds of economy or account of non-availability of high voltage metering equipment of any other reason. The quantity of electricity consumed in any month on the high voltage side for billing. purposes will be computed by adding 2% to the demand registered on the low tensionside for determination of the billing demand & 5% to the consumption in units registered on LT side to determine the consumption on the HT side of the transformer.

The Consumer shall provide and continue to provide during the

continuance of this agreement without any charge accommodation to be

approved by the Chief Engineer for the housing of Supplier's equipment and apparatus necessary for the performance of this agreement. The Supplier shall be at liberty to bring upon the accommodations so provided at the Consumer's premises not only the cables required for the supply of electrical energy to the Consumer but also the cables. accessories and equipment necessary for giving connection to other Consumers through the cables and terminals situated on Consumer's premises, provided the supply to the Consumer shall in no way be interfered with or its continually jeopardised as a result of such action on



Accomodation for supplier's apparatus

Consumer's Increased requirements



The Consumer may from time request the Chief/Superintending 7. Engineer in writing for additional supply in excess of contract demand and the Supplier shall make such additional supply available within 10 days from the date of such written request, provided the Supplier has such additional electrical energy and the materials to make such additional electrical energy available for Supplier and provided further that having regard to the unexpired term of this agreement if would, in the opinion of the Chief/Superintending Engineer, be economic to the Supplier to make such additional supply "available the Consumer.

the part of the Supplier.

in the event of the Suppliers agreeing to make such additional supply available the consumer shall pay such amount subject to such terms and conditions as may be prescribed in clause 7 of the Board's conditions of supply. .

If such additional supply is made available by the Supplier the Contract Demand specified in clause 3 hereof shall be increased to the same extent.



The consumer shall pay to the Supplier every month at the office of the Chlef/Superintending Engineer or as may be otherwise required, charges including minimum charges mentioned in the Suppliers tariff schedule HTI (E)C referred to hereinalter for the electrical energy supplied to the Consumer during the proceeding month at the tariff specified in the Suppliers standard tariff Schedule applicable to the class of service and in force from time to time. If during the currency perintending Engineer of this agreement the tariffs are revised increased or decreased, sugha. State Elect. Dist. Co. Ltd. revised, increased or decreased tariffs including minimum charges highlind Urban Circle, Pune-16. from the date specified shall apply to the Consumer during and for the unexpired period of the present agreement. A copy of the lariff current Schedule applicable to this agreement is set out in the First Schedule allached hereto.

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Charges for supply -HT Inyuda EXPYOV Continuous

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The tariff set out in the Scheduled does not include any tax, duty or other direct or Indirect charges on electrical energy that may be payable in accordance With any law in force or which may increase the cost of production. Such charges will be payable by the Consumer In addition to the tariff charges.

Minimum

quarantee

9. In consideration of the special obligation assumed and/or investments made by the Supplier for the benefit of the Consumer, the Consumer hereby guarantees that total annual charges payable by him for the electrical energy consumed hereunder shall not be less than on the monthly minimum charges payable underclause 8 whichever is more. Although the Consumer will be billed for actual energy consumed every month subject to the monthly minimum, the difference between the guaranteed minimum charges and the actual charges paid (if the same are less than the guaranteed minimum) by the Consumer for each 12 months shall or presentation of a bill therefore at the end of each 12 months period be paid by the Consumer to the Supplier at the office of the Chlef/Superintending Engineer or as may be otherwise required within 15 days from the date of the bill.

Provided that in the event of any increase in contract demand under clause 7 hereof, the amount of minimum guarantee stated above shall be liable to be adequately increase to such extent as may be determined by the Chief/Superintending Engineer.

- The incidence of the coal adjustment clause shall be in addition to any minimum guarantee payable by the consumer.
- 10. a) Subject to the provisions of clause 12 hereof the period of supply under this agreement shall be minimum period of Two Years ending March/Sept. next after 2 years period from the date of commencement of supply and from year to year thereafter, etc. determinable by a six calendar, months notice on other side expliring at the end of the said minimum period of Two years of at the end of the any such subsequent year and upon the expiration of any such notice this agreement shall determine, but without prejudice to the rights and itabilities of the parties in respect of any-matter antecedent to such determination.

Period of

Agreement

This agreement for supply of electrical energy supersedes all previous contracts of supply of energy to the premises entered into and executed by the Supplier and consumer, namely.

11. If the event of the supply of electrical energy being discontinued by the Supplier in consequence of any breach or default on the part of the consumer entitling the Supplier so to do under the provisions of the Act and the Rules, the amount of charges for the electrical energy already supplied and all other moneys then payable under this agreement shall become due and recoverable forthwith provided always and it is hereby expressly agreed declared that during the period of such discontinuance the consumer shall continue to pay the minimum charges and minimum guarantee payable hereunder.

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12. If at any time during the continuance of this agreement the consumer shall:

Summary Termination of Agreement

- Being a limited company pass a resolution for winding up or be ordered to be "wound any act of insolvency commit or be adjudged insolvent.
- b) Execute or create any mortgage or other encumbrance on any properly or asset of the consumer so as prejudicially affect the Supplier electric meter's plant apparatus and equipment at the consumer's premises or any part thereof or any right exercisable by the Supplier in connection with said electric meters, plant apparatus and equipment.



- c) Commit any breach of or fail to observe and perform any of the conditions and provisions contained in this agreement and on his part to be observed and performed, the Supplier shall be at liberty to terminate this agreement by giving seven day's notice to the Consumer and upon such termination the Consumer shall forthwith pay to their Supplier at the office of the Chlef/Superintending
  - Consumer and upon such termination the Consumer shall forthwith pay to their Supplier at the office of the Chief/Superintending Engineer or as may be otherwise required at the moneys then due and payable under this agreement together with a future sum equal to the amount of the minimum guarantee for the unexpired minimum period of supply as and by way of iliquidated damages.



13. The Consumer shall not, without the previous consent in writing of the Supplier, assign, transfer or part with the benefit of this agreement not shall the consumer in any manner part with or create any partial of separate interest in it.

Assignment or Transfer of Agreement

14. a) Conditions and Miscellaneous Charges for supply of electrical energy of the Supplier for the time being in force and as amended by the Supplier from time to time as set out in the Second Schedule hereto shall be deemed to be part of the agreement and shall govern the parties hereto in so far as applicable. A copy of Current condition and Miscellaneous charges for supply is set out in the Schedule hereto.

supply of the board

Condition of

b) Nothing contained in this agreement or any amendment therefore shall restrict any rights, obligations and discretion which the Supplier may derive under any legislating relating to the supply of electricity enacted during the period of this agreement. N

15. In all matters herein not specifically provided for the provision of the Act and the rules for the time being in force the thereunder shall apply the stamp duty on the agreement shall borne by the Consumer. Application of India Electricty Act, 2003 a the Rules Stamp duty Marginal Notes

	ANTHORISED SIGNATORY L	
	1. Name of Etractor Suni Advant. Signature	•
	2. Name of Director 2. Signature	•
	Director of the Company who have set there	٠.
	respective hands there to In the	
	Presence of :	•
	1. Name Wigar Azim Khan 1. Signature of Witness	
	2. Name Ulhay Bhow 2. Signature of Wilness	
	Counter signed by the Managing Agent	
	NameSignature	
	1. Director Residential Address Plot # 24, RGIP, Phase-II - Hiyewash	Pune 57.
	2. Consumer's E-Mail ID Sunil _ advani @ infosys . Com	
	3. Consumer's PAN No. AAACI 4798L	<b>.</b>
	4. Consumer's Tel. No. & Mobile No. 9822036440.	•
(T)	Superior No SECURIX/T/HT/7044/FIND 1961/1-370/13-14/PIMMi/35/384 PORT FRANCE CORRIGMANM SECURIV/T/HT-7044/FIND 1961/1-370/13-14/PIMMi/AH/35 DOIN 2.18/12	-
<b>9</b> )	SE/anoy 17 pun 3,18/13.	
	paid pls 6958682=00 percipt no 9568880.  pun 2/19/13.	•
	ON THE STATE OF TH	-



pans payment pund on 13/09/13 Aut. 11436696L

 The Marginal Notes do not form part of this agreement and shall not be referred to for the construction and interpretation thereof. Interruptions in supply

a) The Supplier shall take all reasonable precautions to ensure continuity of supply of power to the consumers and shall not be responsible for or liable to the Consumer for any loss to him or damages to his Plant and equipment due to interruption in Supply of power due to damage to the Supplier's plant and equipment for reasons including but not limited to war mutiny, riot earthquake, cyclone, tempest, strike, civil commotion, lock out, lightning, fire, flood, accident or break-down or plant and machinery or caused beyond control of the Supplier. The Supplier shall give notice as early as possible of the probable duration of such interruptions is supply of power to the consumers.

The consumer hereby agrees to the supply of electricity under this agreement being curtailed or staggered cut off altogether by the Supplier if the power position or any other emergency in the power system warrants such a course of action.

c) The Supplier shall always be entitled for reasons of testing or outages or maintenance on any other cause for efficient working of the undertaking to temporarily discontinue the supply for such period as may be necessary, subject always to adequate advance notice being given in this behalf, with the object of causing minimum inconvenience to the consumer.

In witness whereof the parties hereto have executed this agreement on the day and year as written above.

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3igned an	delivered	by	Shri.
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Bhalchamara Khamdait

On behalf of the Maharashtra State

Electricity Dist. Co. Ltd. in the presence of :

Name Shri. 5 P. Rinke

Name Shri. M. Sayavittao

Superintending Engineer Maha, State Elect. Dist. Co. Lid. Ganesh Khind Urban Circle, Pune-16.

Signature \_\_\_\_(Sharad Rinke)

- ----

Executive Engineer (Admn.)

Signature

MSEDCL GKUC P

Signature

Common Seal of

has been affixed hereto present to resolution of the Board of Directors of the Company the Consumer shall disclose his full identity by stating whether individual, firm, Corporation of Educational institution passed at its meeting held.

On

day of

20

