

DPR No.1

Ray Nagar Federation, Solapur

Pradhan Mantri Awas Yojana (PMAY)



RAY Nagar - Urban Community Development
Solapur, Maharashtra

Maharashtra Housing & Development Authority

DPR

format 7B



AHP 30,000 Houses for RAY Nagar Federation, Solapur

1.	Name of the State	:	MAHARASHTRA
2.	Name of the ULB / City	:	Kumbhari, Solapur, Fringe area of Solapur Municipal Corporation.
3.	Project Name- (Locality of Project with Address)	:	Construction of 30,000 Houses for RAY Nagar Federation (Worlds Largest Affordable Housing Project)
4.	Project Code* (To be filled by State)	:	27000030013N0
5.	State Level Nodal Agency	:	MHADA
6.	Name of implementing Agency (Urban Local Body / Development Authority/Developer)	:	RAY Nagar Housing Co-operative Society's Federation Ltd. South Solapur

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7.	Date of approval by State level Sanctionary and Monitorial committee (SLMC)(To be filled by state)	:				
8.	Project Cost (Rs . in lakhs)		Housing	Infra	Other	Total
			150000 Lakhs	31133.58 Lakhs	--	181133.58 Lakhs
9.	No. of EWS beneficiaries covered or proposed in the project		30,000 DU			
10.	Project Completion period(in months)	:	48 Months (We propose to handover 20000 Houses by Hon'le PM on of before Dec. 2018 i.e. before next General Elections Code of Conduct)			
11.	Whether sale price is approved by states (To be filled by State)	:	To be filled by State			



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12.	Sale price of per EWS unit (Rs in Lakhs)	:	Rs. 6,03,778/- (Excluding land cost)
13.	No. of houses proposed in the project No of EWS units &%	:	30,000 T/N EWS (100 %)
14.	Whether open and transparent procedure has been envisages to select private partner, if private partner has been considered?Give in brief how the partner is selected.	:	Society will execute the Project
15.	No. of EWS houses eligible for Central Assistances	:	30,000 Houses
16.	I) GoI grant required for eligible EWS beneficiries, a) Rs. 1.5 Lakhs for House (Under PMAY) b) Rs. 0.5189 Lakhs for Infra (Under AMRUT)		Rs. 1.5 Lakhs X 30,000= 45,000 Lakhs Rs. 0.5189 Lakhs X 30,000= 15566.83 Lakhs



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16.	II) State grant (GoM) for eligible EWS beneficiaries a) Rs. 1.0 Lakhs for House (Under PMAY) b) Rs. 0.2595 Lakhs for Infra (Under AMRUT)	: : :	Rs. 1 Lakhs X 30,000= 30,000 Lakhs Rs. 0.2595 Lakhs X 30,000= 7783.41 Lakhs
	III) Implementing Agency share (Rs in lakhs per house & total)	:	Beneficiary is Implementing Agency
	IV) Beneficiary share a) Self Contribution (0.5 Lakh) b) Housing Loan including Infrastructure share (Rs 2.2595 Lakh)	: :	a) Rs 0.5 Lakh X 30,000 = Rs.15000 Lakhs b) Rs 2.2595 Lakh X 30,000 = Rs.67,783.41 Lakhs* ----- TOTAL = Rs. 82783.41 Lakhs
	Total of I) to IV) (Rs in lakhs)	:	181133.6 Lakhs

*Letter From Union Bank of India, Tata Capital, Gruh Finance (Subsidiary of HDFC Bank), expressing willingness to give housing loan



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17.	Whether technical specification /design for housing have been ensured as per Indian Standard/NBC/State norms?	:	Yes
18.	Whether the provision of civil infrastructure has been made as per applicable state norms/central public health and Environment engineering Organisation (CPHEEO) norms/ IS Code/ National Building Code (NBC)?	:	Yes
19.	(i) Whether adequate, social infrastructure facilities covered in the project) (ii) If yes, give details. (iii) If no, whether the same are available in vicinity ? Give details in brief	:	Yes, Amenities have been considered in the planning. Required land space is allocated. However, cost of amenities is not considered in DPR as it will be claimed in future under various Gov. Schemes such as NUHM, NULM, SSA, SBM etc.. Anganwadi – 60 Nos Primary School – 30 Nos Secondary School – 12 Nos Community Hall – 10 Nos ShopingCentres – 30 Nos

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20.	Whether disaster like earthquake , flood, cyclone, land-slide etc. resident feature have been adopted in concept design and implementation of the project	:	Yes. All Indian standard codes applied while designing project.
21.	(i) Whether Quality Assurance is part of the project, (ii) If no, how it is proposed to be ensured? give brief details	:	Yes NA
22.	Whether O&M is part of project, If yes for how many years	:	No. It is not included in Project Cost. Society will bear the cost by contribution of beneficiary.
23.	Whether project is included in Housing for all plan of Action (HFAPoA) If no, whether it will be included in next year plan	:	No. It will be included in next years plan.
24.	Eligibility of beneficiaries	:	List to be verified at time of handing over by competent authority. Sample form filled by Beneficiary is attached for perusal



25.	<p>Details of various permission</p> <p>i) Whether the layout plan of land under project is approved</p> <p>ii) Details of building plan approved by competent Authority.</p>	:	<p>Layout plan, Building Plan is submitted for approval to Subdivision officer (Prant), Collector Office, Solapur.</p> <p>.</p>
	<p>iii) Whether project requires environment clearance.</p>	:	<p>Following Layouts a) 722 & 723, b) 845, c) 874/3 and d) 1053 (part I) do not need Environmental clearance . For other layouts which need Environmental clearance, commencement will happen only after obtaining environmental clearance</p>
26.	<p>Details of inspection carries out by a competent officer of ULB/implementing Agency</p>	:	<p>MHADA Chief office – Ashok Kakde, Exe. Engg.- VivekPatil, Dy. Engg. – Ramtirth&Deysle, Estate Manager- ShriTakur, Dy. Engg. MilindAtkale (Solapur)</p>



27.

Status of Land

- (i) Whether free from encroachment. If no suggest solution
- (ii) Whether free from flood area If no, suggest solution
- (iii) Whether land is fit for building construction. If no suggest solution
- (iv) Is any possibility of water stagnation if yes suggest solution
- (v) Whether land is abutting to burial cremation ground, cliff having chance of land slide or chemical hazardous factories If yes suggest solution
- (vi) Whether High Tension Power line passing through project If yes suggest solution

:

- i) Free from encroachment
- ii) Free from flood area
- iii) Fit for building construction
- iv) No
- v) No
- vi) HT line is passing through only 2 out of 21 Layouts of the project. Required distance is maintained while planning the buildings as per norms.



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28.	Availability of off-site infrastructural for project site (i) Approach Road with width (ii) Water supply details in brief (iii) Power details (iv) Drainage details in	:	(i) Road Widths available at site - 18, 24, 30 and 60 meter D.P road (ii) Letter of MJP is attached Annexure-11 (iii) Letter of MahaVitaran Annexure-12 (iv) Self Sustaining with provision of STP
29.	Please State any Innovative technologies or green building concept	:	Innovative Technology Precast (Wall and Slab) technology proposed in project Green Technology i) Use of recycle water from sewerage treatment plant for FLUSHING AND GARDENING and ii) Rainwater harvesting iii) Wind direction and sunpath analysis considered for all layouts

Brief History



- Society formed in 2009
- Collection of Beneficiary contribution for Land purchase since 2011
- Pilot Project of 4100 houses Submitted under “Pilot Project under Rajeev Awas Yojna” in May 2013
- Pilot Project recommended and forwarded by state to Center for consideration
- Project considered in CSMC held on 31 May 2013
- Clarification on State Contribution was sought
- No clarification was given by Previous Government
- Post Election , Hon’le CM Devendra Fadanvis ji reinitiated the proposal and sent it Centre for consideration
- As new policy was being devised, Centre replied by asking to resubmit the Proposal under “ Housing for All”
- 26th June 2015 New scheme was launched
- Hon’le CM conducted meeting for on 7 August to understand our bottlenecks for obtaining clearance under the new scheme
- Crucial bottlenecks such as allowing houses in green zone and allowing projects in Fringe areas are already solved
- Project for entire 30000 houses Submitted to Pune MHADA on 4th March for final approval

Journey Till Date



26th June 2015



18th Aug 2015



20/03/2013



08/09/11



08/09/11

Housing Federation



Organisation into Slum Federation – RAY Nagar Housing cooperative societies Federation Ltd. is formed by 5 Cooperative Housing Societies have come together to form the Federation. *Federation and all societies are registered under Cooperative Act of Maharashtra.*

- Hutama Kurbaan Hussain Alpasankhyank Mahila Kamgar Sahakari Grihnirman Sanstha Maryadit, Kumbhari
- Com. Meenakshi Sane Mahila Bidi Kamgar Sahakari Grihnirman Sanstha Maryadit, Kumbhari
- Hutatma Readymade & Shilai Kamgar Sahakari Grihnirman Sanstha Maryadit, Kumbhari
- Com. M.K. Pandhe Yantramag Kamgar Sahakari Grihnirman Sanstha Maryadit, Kumbhari
- Jammuni Mochi Samaj Magas Vargiya Sahakari Grihnirman Sanstha Maryadit, Kumbhari



Broad Outline of Project

- **30,000 Houses with Infrastructure**
 - **Worlds Largest Affordable Housing Project on PPP basis**
- **Submitted under “Verticle 3” of PMAY**
 - **Affordable housing in partnership**
- **Land for 30,000 Houses already Acquired by RAY Federation**
- **Society comprising of unorganised urban workers, self employed, etc...**
- **These slum dwellers have been contributing the funds for purchase of land since 2011.**
- **Construction with time line of 42 months with Precast Technology**
- **Proposed to hand over 20000 houses by Dec 2018 by Hon’le PM Narendra Modi ji (before next General Election)**



Broad Outline of Project

- **Cost per DU – Rs 5,00,000/- with 27.94 sq mt carpet area comprising of living, kitchen, bed, individual toilet and WC facility with water supply connection**
- **Cost of Infrastructure per DU – Rs. 1,03,770/-**
- **Infrastructure – Rain water harvesting , CC Road, Storm water drains, Water supply, WTP, ESR/GSR, Sewerage, STP, external electrification, street lights , solid waste bins etc..**
- **Green Technology**
 - **Use of recycle water from sewerage treatment plant for FLUSHING AND GARDENING**
 - **Rainwater harvesting**
 - **Wind direction and Sunpath analysis considered for all layouts**
 - **Zero use of Natural Sand and**
 - **Minimum use of Water**
 - **Solar Street Light**



Financial Institutes

- **Many Banks expressing willingness to give housing loan for RAY Nagar Federation Project**

Following are Financial Institutes -

- 1) Tata Capital**
- 2) Union Bank of India**
- 3) Gruh Finance (subsidiary of HDFC Bank)**
- 4. Micro Housing Finance Institution**



Presentation Outlay

Google Map of Location

Site Photographs

Master Planning

Sample Layout

Floor Plan and Single dwelling unit plan

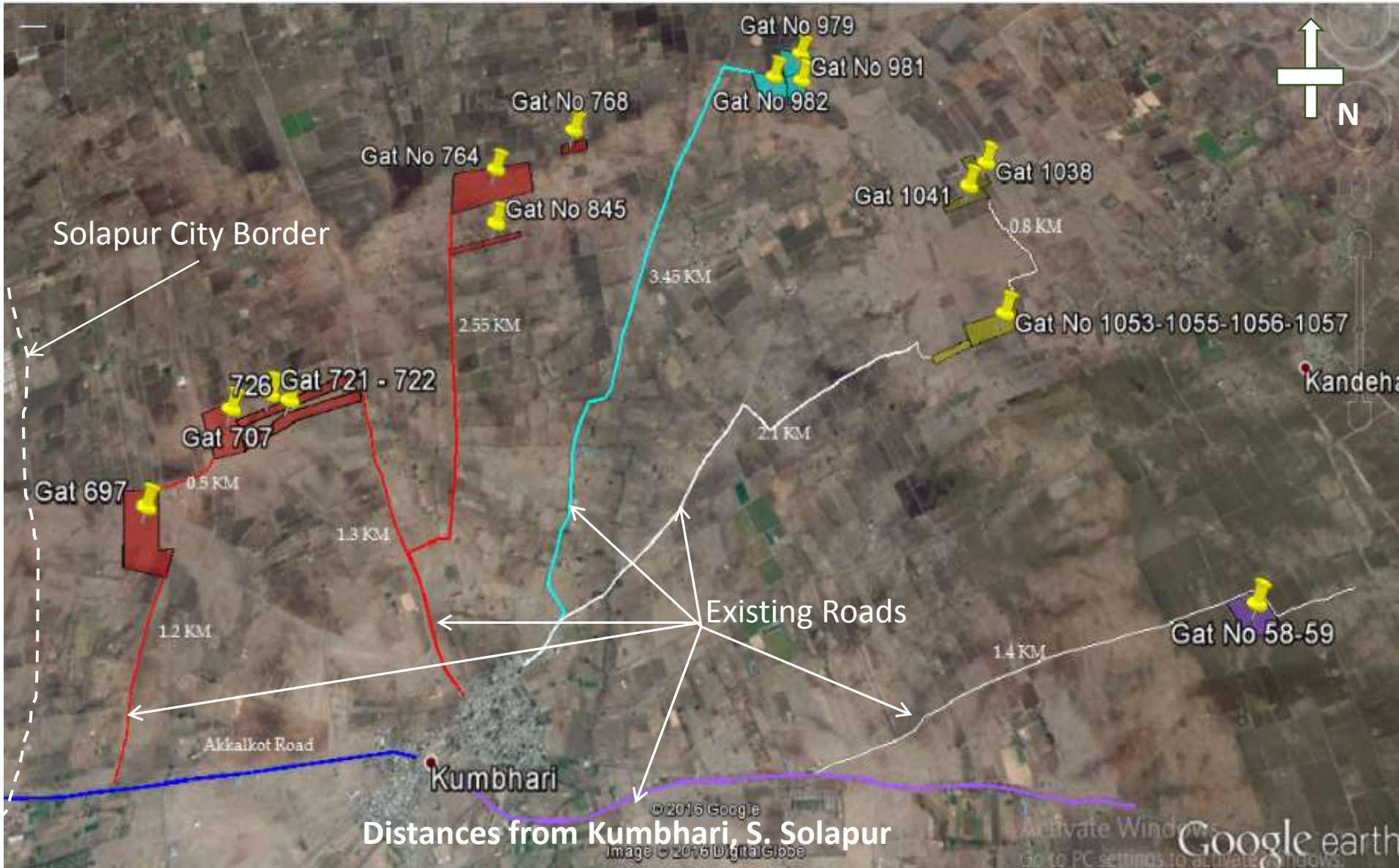
Precast Technology

Environmental Analysis

Checklist



Google Map of all Proposed Sites (Gats)



Site Photographs



Sample Flat



Environmental Analysis

Optimum Orientation (Wind and Sun-path Analysis)

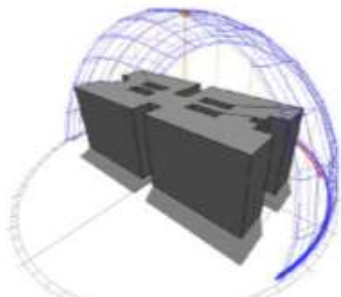


Environmental Analysis

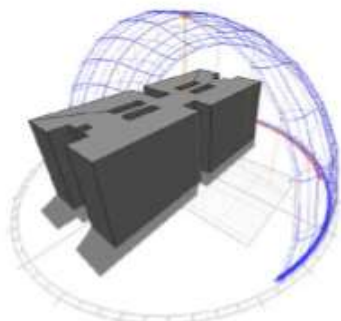
Optimum Orientation

Optimum Orientation

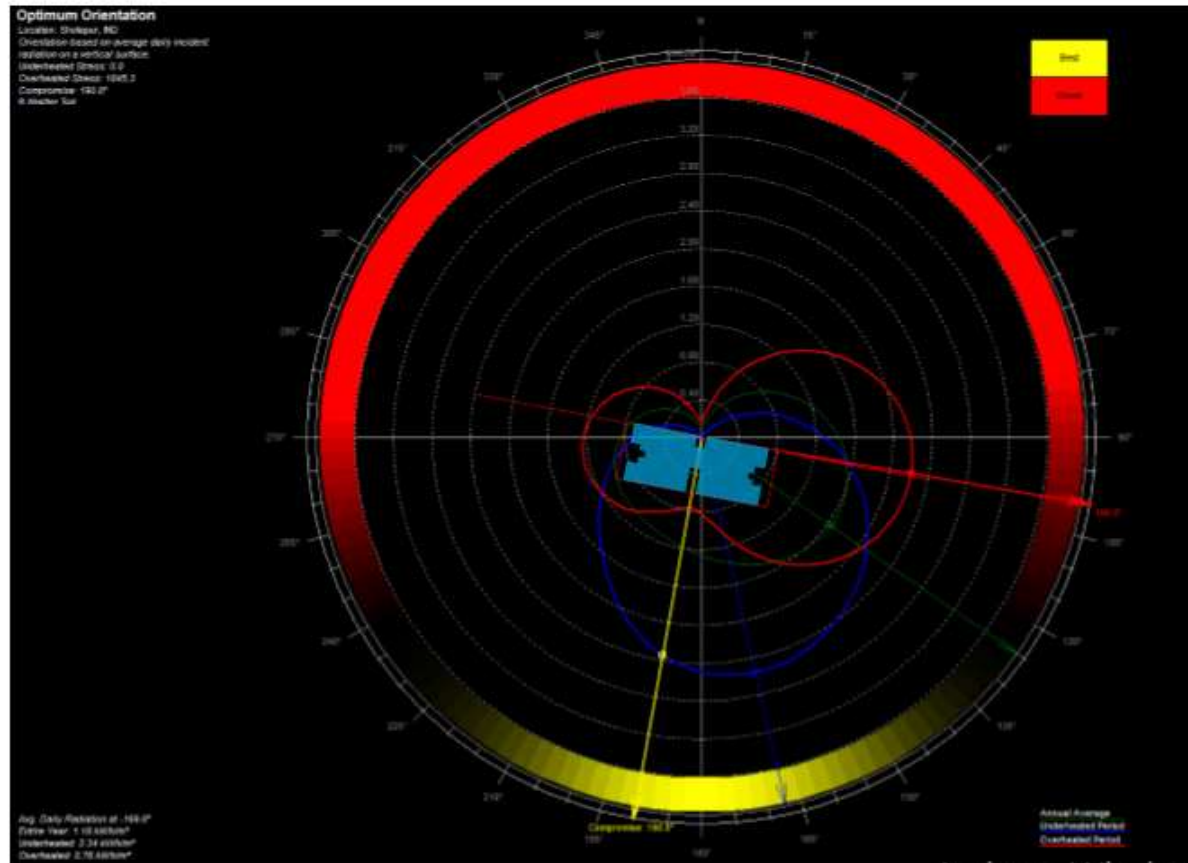
- Majority of the buildings orient E-W long plan.
- E-W long plan - Most favourable orientation with respect to sunpath
- Less number of East and West facing windows to minimise heat gain due to low altitude sun during morning and evening and winter months
- Windows to the south can be shaded efficiently with overhangs and shading devices against the high altitude summer sun
- North facing windows receive pleasant northlight through out the year. Larger overhangs and shading devices therefore not required



EAST-WEST LONGPLAN ORIENTATION



NORTH-SOUTH LONGPLAN ORIENTATION



ENVIRONMENTAL STUDY INDICATES OPTIMUM ORIENTATION OF BUILDING ON SITE

Environmental Analysis

Optimum Orientation (Wind and Sun-path Analysis)

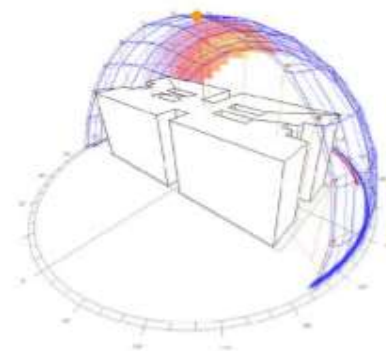
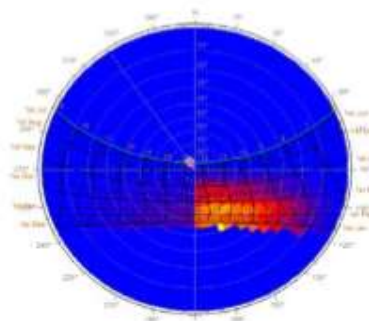
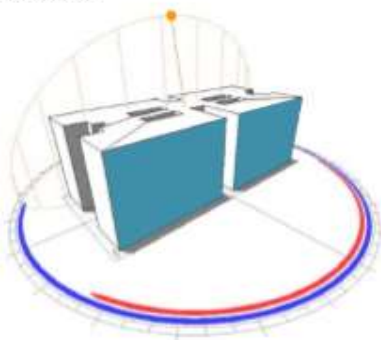


Environmental Analysis

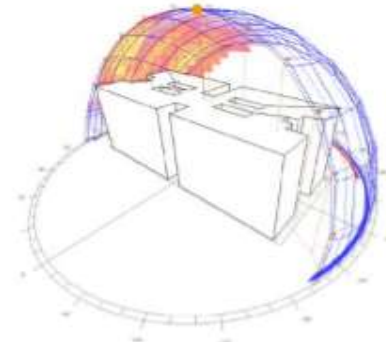
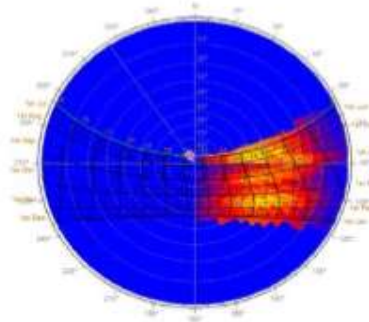
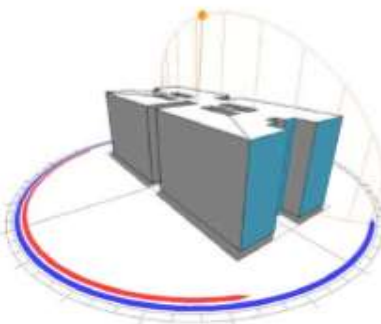
Sunpath and Solar exposure

ENVIRONMENTAL STUDY INDICATES EAST AND WEST FACES OF BUILDING ARE EXPOSED TO LONGEST HOURS OF DIRECT INCIDENT SOLAR RADIATION. SOUTH FACE RECEIVES HIGH ANGLE RADIATION WHICH CAN BE MITIGATED USING CHAJJAS AND WEATHERSHADING

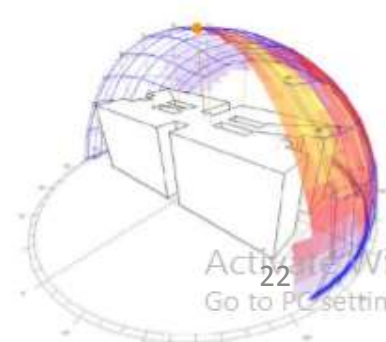
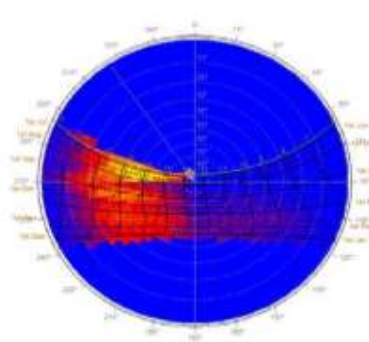
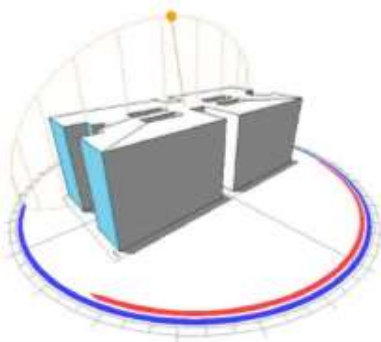
SOUTH FACE OF BUILDING



EAST FACE OF BUILDING

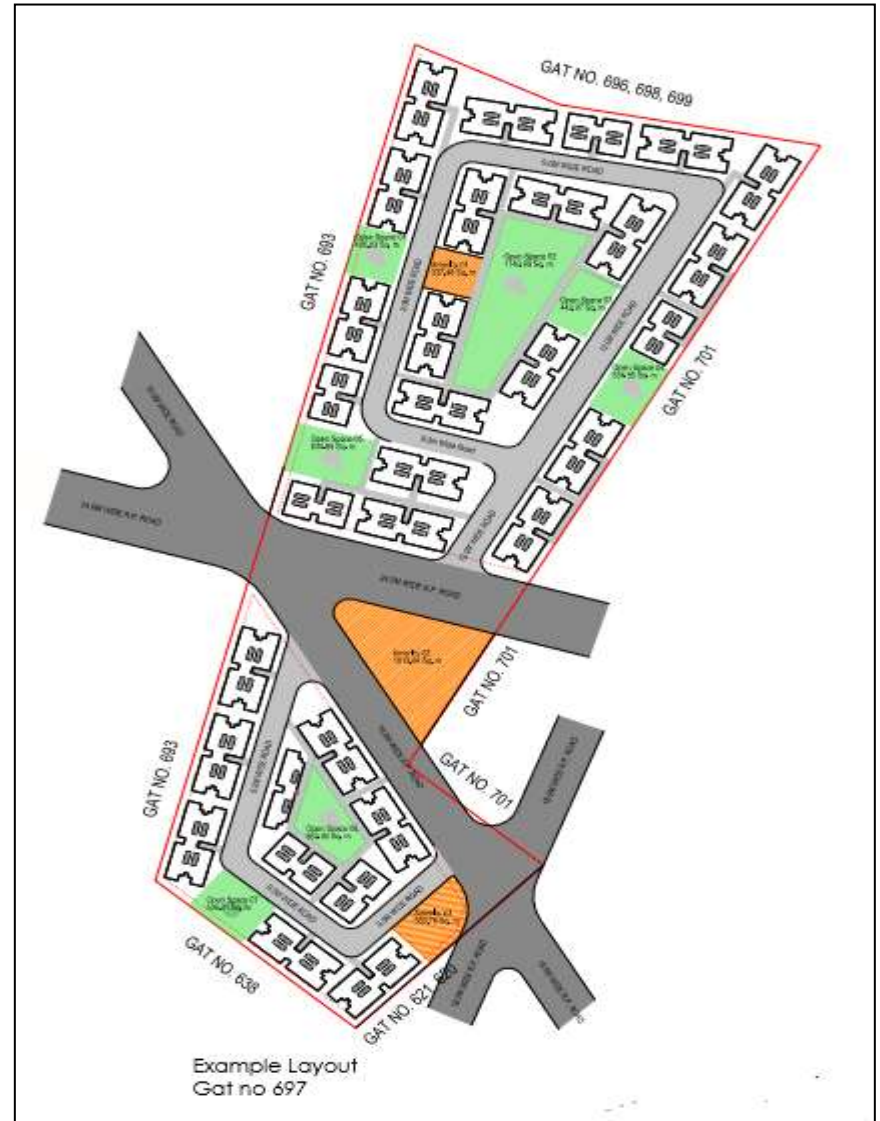
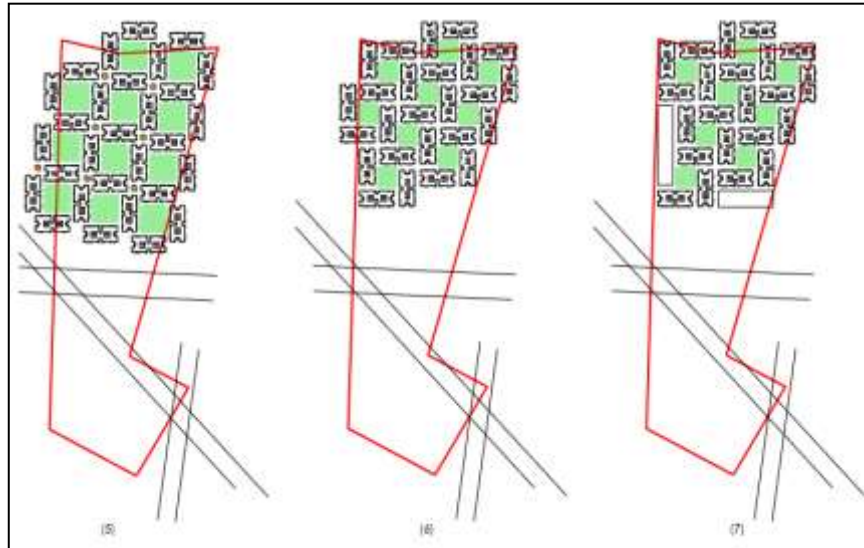
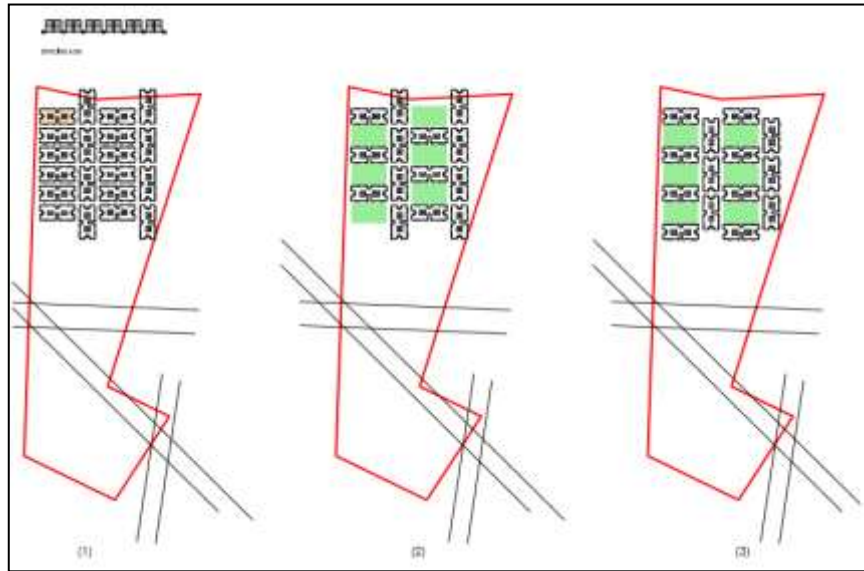


WEST FACE OF BUILDING



Environmental Analysis

Optimum Orientation (Wind and Sun-path Analysis)



Example Layout
Gat no 697

Typical Floor Plan



Ground Floor Plan - Residential

DU Plan



Total Carpet Area: 27.94 sq. mt.,

Living Room = 2.5m x 3.6m

Bath = 1.2m x 1.75m,

Balcony = 2.5m x 0.925m

Bedroom = 2.5m x 2.975m,

Kitchen = 2.5m x 2.1m

WC = 1.2m x 0.9m

Precast Technology for the Project

- **Precast is smart way to build any type of buildings, Safely, Speedily and affordably.**

PLANT – Precast Walls and Slabs

- Precast elements are manufactured in casting beds, 800 ft or more length. Structural elements are commonly reinforced with tightly stretched pre-tensioning steel strands, which provide increased structural efficiency.
- All the structural slabs, walls and beams are manufactured under controlled conditions and with all quality procedures.
- Latest Machineries like Battery Mould Walls, tilting tables, crawler cranes, RMC plants and highly skilled labours considered.



Manufacturing of Walls and Slabs

Hollow Core Slabs



Tilting Table (Hydraulic Jack)



Precast Technology for the Project

- **Erection Method - Rebar and Grout method used typically with walls , slabs, reinforcing bars spliced into slabs and grouted in place**



1
Up to plinth Level
Conventional Method



2
Ground Floor Wall Panel Erection



3
Ground Floor Slab Panel Erection



4
Ground Floor Slab Panel Erection



5
Ground Floor Slab Panel Erection



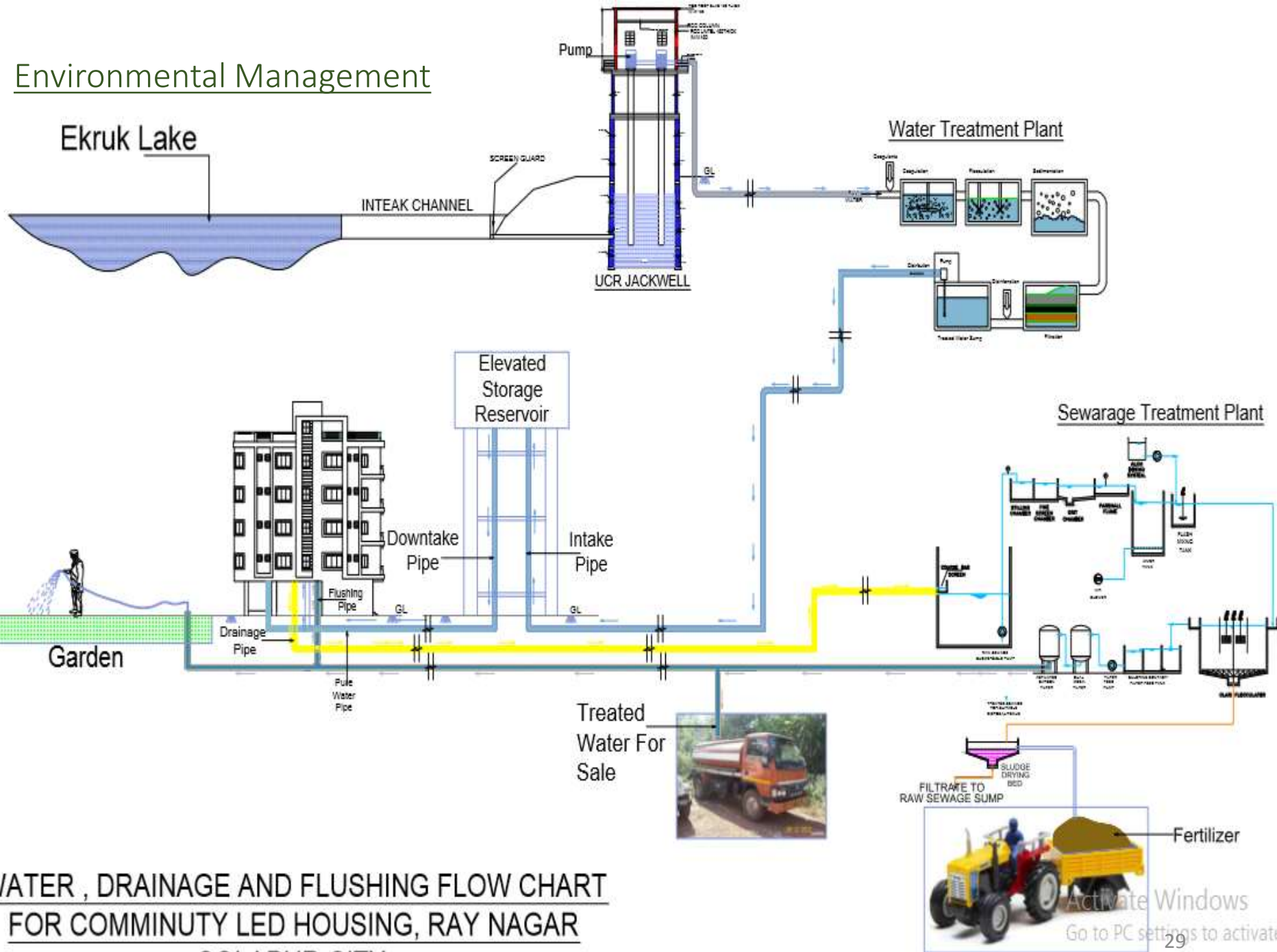
7
First Floor Wall Panel Erection



8
Two Floor Completed



Environmental Management



WATER , DRAINAGE AND FLUSHING FLOW CHART FOR COMMUNITY LED HOUSING, RAY NAGAR SOLAPUR CITY.

Environmental Management Plan For Proposed Project



Sr. No.	Description	Remarks
01	Water Supply Feasibility	<ol style="list-style-type: none"> 1. Water to be pumped from 'EkrukTalav' with dedicated supply arrangement of Jack Well, Rising mains, ESR s etc. 2. Qty required - Daily : 24.75 MLD Annually : 0.314 TMC 1. Permission obtained from MJP 2. Additional Supply arrangement: Through Gr. Water Abstraction including appropriate & adequate Rainwater Harvesting, Recharge and aquifer augmentation.
02	Domestic Wastewater (Sewage) Management	<ol style="list-style-type: none"> 1. Dedicated sewerage system comprising of primary, secondary and trunk sewers. 2. Centralized collection of the domestic wastewater 3. Treatment in dedicated STP to be provided on site. 4. Reuse of treated sewage for flushing of toilets and gardening in the premises.
03	Municipal Solid Waste (MSW) Management	<ol style="list-style-type: none"> 1. Dedicated MSW collection system (separate for Wet and Dry wastes) – House to house 2. Adequate and proper centralized MSW Community Facility for Collection, Handling, Storage, Segregation, Treatment and Disposal 3. For wet and organic wastes treatment & disposal through organic waste converter (OWC), onsite surface aerobic bio-composting, vermiculture followed by sale and reuse of the manure. 4. For dry wastes : Proper segregation followed by recycling and reuse, sanitary landfilling.

Environmental Management Plan For Proposed Project



Sr. No.	Description	Remarks
04	Rainwater Harvesting	<ol style="list-style-type: none"> 1. Properly contemplated & designed Roof Top as well as Land Rainwater Harvesting Plan comprising of Collection, Storage and Gr. Water Recharge measures. 2. Dedicated storm water management infrastructure. 3. Installation of Pizometers for monitoring of Gr. Water Table and Aquifer storage conditions.
05	Green Belt Development omestic Wastewater (Sewage) Management	<ol style="list-style-type: none"> 1. Properly planned and designed Green Belt implementation as per MoEF & CPCB guidelines from view point of management of noise and dust / air pollution as well as enhancing aesthetics of the project area.
06	Permissions and Approvals	<ol style="list-style-type: none"> 1. Necessary Consent to Establish and Operate from MPCB shall be procured. Also, Environmental Clearance as per applicability criteria according EIA Notification No. 1533 (E) dated 14.09.2006 shall be procured.



DPR No.2

Akola Municipal Corporation

Akola Municipal Corporation

Sr. No.	Item	Details
1)	Name of Scheme	BLC constructing New 1241 Houses and Enhancement 388 EWS houses in Akola.
2)	Name of I.A.	Akola Municipal Corporation
3)	Area of Land	--
4)	Ownership of Land	State Govt.
5)	Reservation on Land	Residential
6)	Project Cost	62.65 Cr.
7)	No. of Beneficiaries	1629

Akola Municipal Corporation

Contd....

Sr. No.	Item	Details
9)	Sale Price Per Tenement	Rs.04.12 to 04.59 Lakhs
10)	Grants	GoI : 22.20 Cr. GoM : 14.80 Cr.
11)	Infrastructure	
	1) Water Supply	Available
	2) Approach Road	Available
	3) Power Supply	Available
	4) Sewage facility	Available