#### **Housing grant disbursed to Housing Service Finacial Year 2017-18:**

During the financial year 2017-18 a total sum of Rs.2,56,56,232/- was disbursed to Housing Service for the following projects:-

i)	Human Scape-1.A.	Rs.1,56,91,793-00
ii)	Human Scape-1.B.	5,50,000-00
iii)	Youth Housing Project->	X 30,34,364-00
iv)	Youth Housing project-\	7 34,70,685-00
v)	Human Scape-1A-	28,94,890-00
vi)	Vibrance Housing.	14,500-00

#### **Reflections on utilization of funds for Humanscape Project:**

1. As per CPWD Works Manual for construction works costing between Rs.2 to 5 crores the charges for preparation of detailed estimate (BOQ) the charges are ½ % while for works more that Rs.5 Croes the charges are only ¼ % of the total cost.

Since, the total cost of project is going to exceed more than 5 Crores and several buildings are repetitive in design, it would have been wise to adhere to the specified norms of service charges. Detailed study shall be conducted in this regard.

However, Dr.Kothandaraman, of Pondicherry Engineering College (PEC) has approved the charges for BOQ preparation as 1%.

## 2. Structural Design.

As per CPWD Works Manual for structural design the charges are 0.75% for the works between Rs.2 to 5 Crores. As per the statement received from Housing Service, the approved RA Bills were for Rs.4,35,02,503/- While total fee claimed and approved by Dr. Kothandaraman for the Human Scape Project, is Rs.3.45 lakhs, out

of which Rs.2/-lakhs was paid to AVDC for structural drawings and 1.45 lakhs was towards structural Engineering Fees.

However, the total expenditure on this account cannot exceed more than 0.75% of Rs.4,35,02,503/- which is equal to Rs.3,26,269/-. Thus there is excess payment of Rs.18,731/-.

It is important to verify the repetitive number of buildings because only 0.5% is to be charged towards the repetitions.

Since, the total cost of project is going to exceed more than 5 Crores and several buildings are repetitive in design, it would have been wise to adhere to the specified norms of service charges. Detailed study shall be conducted in this regard.

It is also important to check whether the service charges against the Architectural Design, Structural Design and preparation of Drawings and preparation of BOQ for same buildings are being charged for the financial year 2018-19 or not??

Before opening this topic we shall wait for the closure of accounts of the financial year ending March 2019 for a better clarity on this misappropriation.

## Dr. S. KOTHANDARAMAN, M.E., Ph.D., F.I.E.,

Professor of Civil Engineering Pondicherry Engineering College Pondicherry - 605 014.



To

Date: 23.04.2018

Ms. Suhasini Ayer, Executive. Auroville Design Consultants, Auroshilpam. Auroville - 605 101.

> Sub: Completion Certificate of the Building Construction Project: Humanscapes Residential Project Phase 1A, Auroville.

Dear Madam,

This is to certify that the Building Construction Project "Humanscapes Residential Project Phase 1A, Auroville" has been visually inspected on 19.04.2018 and the technical details as provided in Annexure I has been verified in relation with the approved drawing of the project.

General details for the Project (as per the information given to me):

1. Name of the construction Project

2. Purpose of the building construction

3. Estimated cost of the Project

4. Actual cost of the Project

5. Name & Address of the funding agency

6. Amount Financed/Funded

7. Matching fund & other source

8. Name & Address of the Construction Project In-charge

9. Name & Address of the

Architect/Engineer

Structural Engineer

- HUMANSCAPES RESIDENTIAL PROJECT PHASE-IA

- RESIDENTIAL UNITS

- Rs. 4, 80, 31,282/-

- Rs. 4, 66, 31,077/-

- AUROVILLE UNITY FUND - GOVT OF INDIA GRANT

- Rs.4, 63, 70, 540/-

- NONE

- AUROVILLE HOUSING SERVICES, AUROVILLE

- Ms. Suhasini Ayer - AUROVILLE DESIGN CONSULTANTS,

CSR, Auroshilpam, Auroville

- Dr. S. Kothandaraman, Professor,

Pondicherry Engineering College, Pondicherry.

10. Name & Address of the constructor - AURO PRIYA CONSTRUCTIONS, AUROVILLE

As per the information given to me, the date of start of the project is 28.01.2017 and this building is handed over to the client on 13.01.2018. I hereby declare that,

The information furnished in Annexure I is true and correct to the best of my knowledge and (a) belief:

I have no direct or indirect interest in the property inspected; (b)

I have personally inspected the property on 19.04.2018; (c)

I have not been convicted of any offence and sentenced to a term of imprisonment; and (d)

I have not been found guilty of misconduct in my professional capacity. (e)

Date: 23.04.2018 Place: Puducherry

Or S. KOTHANDARAMAN, ME PHO PROFESSOR IN CIVIL ENGINEERING PONDICHERRY ENGINEERING COLLEGE

PONDICHERRY 605014

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No. 4, Second Cross - East, Ezhil Nagar - South, Pondicherry - 605003

Email: skramane@gmail.com

# Dr. S. KOTHANDARAMAN, M.E., Ph.D., F.I.E.,

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	Annexure	- I
Tech	nical details:	
1.	No. of floors and height of each floor	: Building-1 to 3 G+ 2 floors with floor to floor height of 3.20 m Building-4 GF- 3.20 m Building-5 GF-3.28 m Parking shed- GF- 1.87/2.14m height.
2.	Plinth area floor-wise (As per IS: 3861-1966)	: Building-1 GF- 161.12 Sqm FF- 165.10 Sqm SF- 165.10 Sqm Building-2 GF- 167.66 Sqm FF- 169.56 Sqm SF- 169.56 Sqm
		Building-3 GF- 125.05 Sqm FF- 125.70 Sqm SF- 125.70 Sqm Building-4 GF- 96.59 Sqm Building-5 (MPH) GF-167.56 Sqm. Parking shed- GF- 114.91 Sqm
3.	Year of construction	:2016 - 2018
4.	Estimated future life	: 75 Years, if maintained well
5.	Types of construction -load bearing walls/ RCC frame/Steel frame	: RCC framed Structure
6.	Type of foundations	: Isolated footing
7.	Walls: (a) Basement and plinth	: RCC plinth beam and brick walls
	(b) Ground Floor	: Combination of Cuddapah stone wall, Bri

Superstructure above sill level (c)

8. **Partitions** 

ick wall & Poured Earth Concrete wall

: Combination of Cuddapah stone wall, Brick wall & Poured Earth Concrete wall

: Half brick work

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PONDICHERRY 605 014 Cell: 9443468876

## Jr. S. KOTHANDARAMAN, M.E., Ph.D., F.I.E.,

Professor of Civil Engineering Pondicherry Engineering College Pondicherry - 605 014.

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#### 9. Doors and windows (Floor wise):

(a) Ground floor

: For Building 1 to 5 – Old Kaliyamaridhu wood frames for doors, Windows and Ventilators, MS door shutters with safety grills, mosquito proof SS mesh and glass, Flush door shutters for rooms & Toilets, Louvered glass ventilators,

For parking shed- MS sheet door, Grill with welded mesh

ventilators.

(b) First floor

: For Building 1 to 3 - same as in GF.

(C) Second floor

: For Building 1 to 3 - same as in GF.

#### 10. Flooring (Floor wise)

(a) Ground floor

: Rough & Polished Tandoor stone flooring, IPS flooring with polished Cuddapah stone as border, Rough /polished

polished Cuddapan stone as border, Rough / polish

(b) First floor

: For Building 1 to 3 - same as in GF.

(C) Second floor

: For Building 1 to 3 - same as in GF.

#### 11. Finishing (Floor wise)

(a) Ground floor

: For Building 1 to 5 - Ceiling - Exposed RCC natural finish, Brick vault with pointing

Interior walls – Exposed RCC natural finish, Natural finish of Poured Earth concrete walls, Cement plastered walls finished with Apex paint and IPS dadoing at Toilet & room walls.

Exterior walls – Exposed RCC natural finish, Natural finish of Poured Earth concrete walls, Pointing on Cuddapah stone strip.

Doors & windows- Natural wood polishing, MRF paint for flush door shutters, Cupboard shutters and steel work.

(b) First floor

: For Building 1 to 3 - same as in GF.

(C) Second floor

: For Building 1 to 3 - same as in GF.

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...3/-

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## Dr. S. KOTHANDARAMAN, M.E., Ph.D., F.I.E.,

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:3:

12. Roofing and terracing:

For Building 1 to 3 - RCC flat Roof slab and curved Brick vault roofing and RCC roofing. Terracing finished with Ceramic tile flooring over Aerocon blocks, screed concrete with Chicken mesh.

For Building 4 - RCC flat Roof slab

For Building 5 - RCC sloped Roof slab and Terracing finished with Ceramic tile flooring over Aerocon blocks, screed concrete with Chicken mesh, Poly carbonate sheet roofing over MS tubular frames at sit out.

For Parking shed - Curved GI sheet roofing over MS tubular truss with Aluminum sheet gutters.

13. Special architectural or decorative features, if any

- : a) Brick vault roofing, Cuddapah stone strip wall, Poured Earth Concrete walls, Folded type staircase.
- b) Sloped roofing for air ventilation.
- c) Rain water harvesting system cum amphitheater arrangements.
- d) Rain water gutter chains for rain water disposal.
- e) Rammed earth wall compound wall design, entrance gate.
- f) Painted Ply wood Cupboards at rooms & Kitchen
- g) Optical Fiber cable provided for Telephone and internet facility for all the buildings.
- h) For water supply CP brass taps & fittings provided.
- i) Water supply and sewage pipes are covered with cement bonded sheet and perforated sheet arrangements.
- j) Solar Panel installed for renewable energy production

14.(i) Internal wiring-surface or conduit

: Concealed wiring with separate panel board for each buildings housed in the Utility building (Building-4)

(ii) Class of fittings superior/ordinary/poor

: superior - Plate type switches

15. Sanitary installations:

> (a) (i) No. of water closets (EWC)

: Building -1(6 Nos), Building -2 (6 Nos), Building -3(6 Nos), Building -4 (1 No.) and Building -5(1 No.)

(ii) No. of lavatory basins

(Wash basin oval shaped): Building -1(6 Nos), Building -2 (2 Nos),

Building -3(2 Nos), Building -4 (1 No.) and Building -5(1 No.)

(iii) No. of urinals

: NIL

(iv) No. of sinks

(SS sink with drain board)

: Building -1(3 Nos), Building -2 (6 Nos), Building -3(3 Nos), and Building -5(1 No.)

(v) No. of bath tubs

: NIL

(vi) No. of bidets (vii) No. of geysers : NIL : NIL

(b) Class of fittings-superior coloured/superior white/ordinary: Superior White

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:4:

16. Compound wall

: Rammed earth wall compound wall with Coping slab at top, entrance gate and cow gate

arrangements.

(i) Height and length

: 75.34 m length and 1.55 m height.

(ii) Type of construction

: Brick work in Foundation, Rammed earth wall with Coping slab at top, entrance gate and cow

gate arrangements.

17. No. of lifts and capacity

: NIL

18. Underground pump-capacity and type of construction : NIL

19. Over ground tank

: For water supply Connected with existing

community OHT

(i) Where located

(ii) Capacity

(iii) Type of construction

20. Pump-No. and their horse power

: NIL

21. Roads and paving within the compound

: RCC precast slab pavement and earthen

road

22. Sewage disposal-whether connected to public sewers – or onsite septic tank / sewage treatment system and con

or onsite septic tank / sewage treatment system and capacity: will be connected with dewats

sewage system with in the

Community

This is to certify that the work has been completed as per the approved drawings.

Date: 23.04.2018 Place: Puducherry

mosson

Dr S. KOTHANDARAMAN, M.E. Ph.D.
PROFESSOR IN CIVIL ENGINEERING
PONDICHERRY ENGINEERING COLLEGE
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HUMANSCAPE HABITAT PROJECT- PHASE 1A - APPROVED ESTIMATE, STAGE PAYMENTS, PAYMENTS AND BALANCE DUE - 03:04:2018 (revised) - PREPARED

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	Aurinoco - AV	The New Dawn - Av		A.Shanker - Plumbing contractor - pvt	nook up charges	pipes, valves and meters.	external plumbing including	Auroville Water service	Pest Management & consultant India Pyt LTD	As per estimate	Auroville Telephone service - Av	external electrical	wire pulling and fixing	electrification work	Electrical Works-cnipping	fixtures	Auroville Electrical service		R.Ravindrakumar(pvt)- parking shed	Steel fabrication works	Painting & waxing	finishing- civil, hard landscaping, grey water treatment system	Main building	Auro priya construction (PVT)	Ashhirwaad analytical laboratory (pvt) - soil test	(AV)	
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PV panels and electrical boards Auroville Design Consultants Architecture Contribution 3%.

BOQ preparation 1%.
Structural DRW.BOQ-AVDC
Structural engineering
BOQ Scrutiny Charges PEC
RAB Scrutiny Charges PEC TOTAL PROJECT COST Total 4,80,31,282.27 4,59,79,660.27 13,86,850.00 4,64,772.00 2,00,000.00 1,45,000.00 as per actual 8,90,940.00 87,000.00 1,53,730.00 2,00,000.00 2,32,386.00 1,20,000.00 3,96,000.00 48,100.00 2,00,000.00 1,85,908.80 60,000.00 43,500.00 46,000.00 3,97,194.00 40,800.00 2,00,000.00 46,477.20 20,000.00 3,22,017.00 5,300.00 TOTAL PROJECT COST 2,57,614.00 68,353.00 23,58,586.00 4,58,90,943.49 4,35,32,357.49 12,47,984.00 4,64,772.00 2,00,000.00 1,30,500.00 1,99,730.00 1,15,600.00 7,93,194.00 4,66,31,076.92 4,35,02,503,00 12,47,984.00 4,64,772.00 2,00,000.00 1,30,500.00 1,99,730.00 7,93,194.00 1,38,866.00 5,63,667.43 1,76,466.00 7,40,133.43 14,500.00 0.00 23,100.00 0.00 0.00 -24,69,657.27 -24,69,657.27 -97,746.00

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	Balance Sheet for 1 year (2015- 2016), no	yes	100	Yes	yes			IT Returns & Balance Sheet	1
	Courage 3 (75% completed)	No work in hand		No, Work in				yet to be executed is not more than 1	
	MM/VC- Exhibition, Kalki Boutiques, Care taker house-VC, Solar Kitchen ext., PTDC, Sri Aurobindo Auditorium BN., Courage 3	Maitreyee 2, Isambalam - kitchen, Farewell		Suaship				Oetails of any construction work executed within Auroville	construction companies out side Autovine (General Omits)
	No	Govt. Pondicherry		Savt Pondicherry		1		Of Company with	our side Aurov
	Yes	Partial		20	no		Stabilized rammed earth wall & foundation	X 3	vine facilier at
	Yes	Yes		S	no		Water proofing of terrace by shredded theromocol		Jims
	yes Y	8		20	no o		Segmental brick vaults under the floors	Experience	
2	Yes	30		partial .	20		Waste stone strips in walling	Experience with Innovative Technology	
	90% - is the most experienced in the required technology as well has the capacity to handle the works within the time line of the project. Moreover this company has worked the architects / housing service before.	35% Experience in technologies but has not implemented projects of the size required and scaling up with this project is not possible as there is limited time line		15%-grade. The land of prior experience in technologies is an handicap as Humanscapes needed skilled inputs to be able to fulfil the project goals.	0% - no experience in any of the required technologies		Remarks	Technology	
Balance Sheet			Balance Sheet 2014-2015		,	Balance sheet for 3 years		IT Returns & Balance Sheet	
		11 - 14 - 14 - 14 - 14 - 14 - 14 - 14 -						Work in hand yet to be executed is not more than 1 Crore	
CIS, Santé Clinic, Aikido, Pre Crèche, Crandanam Phase 3, White	3		Gallery, Dina AV House, Electrical Foundation/Katt room idakalai Trust			office and Ration shop, AVF Kitchen, Oil school, Alain House ext.,		Details of any construction work executed within Auroville	
AV Foundation/Katt			AV Foundation/Katt idakalai Trust			AV Foundation/Katt idakalai Trust	*	Registration With Av Foundation	Const
			Partial			Partial	Stabilized rammed earth wall & foundation		Construction of the registered with Parovine Foundation
			yes			no	Water proofing of terrace by shredded theromocol		Section of the least
			Yes			no	Segmental brick vaults under the floors	Experience	and the same
			no			no	Waste stone strips in walling	Experience with Impovative Technology	and the same
65% - is the experienc required technology as to handle the works wi project. This unit has who wish a service hefore		3 .	30% Experience in tech implemented projects scaling up with this pro there is limited time lin			15% -grade. The land of technologies is an han needed skilled inputs to project goals	Reg	ve Technology	