

# Proposed site : Soil Test Report

Geotechnical Engineering Division  
 North India Engineers' Lab & Consultants  
 Shed No. 62, Industrial Estate, M.N.N.I.T. Allahabad

## BORE LOG CHART

Site: U.P.A.V.P., Lucknow

Structure: EWS, Multi Storeyed Building

Bore Hole No.: 2

Depth metre	SPT Value	Soil Description	Classification	Particle Size Distribution				Natural Moisture Content %	Bulk Unit Weight gm/cc	Dry Unit Weight gm/cc	Specific Gravity	Atterberg's Limits in %			Shear Strength Parameters		Compression Index (C <sub>c</sub> )
				%								L.L.	P.L.	P.I.	C <sub>u</sub> kg/cm <sup>2</sup>	Ψ <sub>o</sub> Degree	
				Gravel	Sand	Silt	Clay										
15.0	28	Non-Plastic Silty Soil	ML	16.62	8.92	65.76	8.70	17.2	1.77	1.51	2.64	Non-Plastic	0.14	15	---		
16.5	33																
18.0	35																
19.5	38																
21.0	40																
22.0	40	Non-Plastic Silty Soil	ML	3.18	35.02	61.80	0.00	18.3	1.97	1.67	2.64	Non-Plastic	0.02	21	---		
22.5	26																
24.0	29																
25.5	30																
27.0	33																
28.5	35	---	---	---	---	---	---	---	---	---	---	---	---	---			
30.0	38																

Water Table: 14.00 m

Results checked by  
 [Signature]  
 7/3/12



[Signature]



[Signature]  
 Testing Officer

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 North India Engineers' Lab & Consultants  
 Shed No. 62, Industrial Estate, M.N.N.I.T. Allahabad

## BORE LOG CHART

Site: U.P.A.V.P., Lucknow

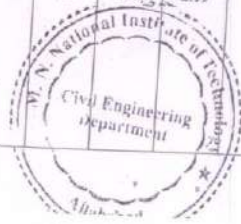
Structure: EWS, Multi Storeyed Building

Bore Hole No.: 3

Depth metre	SPT Value	Soil Description	Classification	Particle Size Distribution							Natural Moisture Content %	Bulk Unit Weight gm/cc	Dry Unit Weight gn/cc	Specific Gravity	Atterberg's Limits in %			Shear Strength Parameters		Compression Index (Cc)
				%				L.L.	P.L.	P.I.					C <sub>u</sub> kg/cm <sup>2</sup>	φ <sub>u</sub> Degree				
				Gravel	Sand	Silt	Clay													
0.0																				
1.5	13	Non-Plastic Silty Soil	ML	1.54	19.72	78.74	0.00	9.3	1.89	1.73	2.64	Non-Plastic	0.02	21	---					
3.0	14																			
4.5 4.8	17																			
6.0	19	Non-Plastic Silty Soil	ML	0.06	7.00	82.09	10.85	19.6	2.10	1.76	2.64	Non-Plastic	0.15	15	---					
7.5	25																			
9.0	18																			
10.5 11.0	26																			
12.0	18	Non-Plastic Silty Soil	ML	0.22	9.42	87.47	2.89	23.6	2.19	1.77	2.64	Non-Plastic	0.03	23	---					
13.5	25																			
15.0	29																			
16.5	35																			
18.0	42																			
19.5	47																			
20.0																				

Water Table: 14.00 m

*Results checked by  
Hensan  
7/3/17*



*Utkarsh*



*Testing Officer*



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**BORE LOG CHART**

Site: U.P.A. V.P., Lucknow      Structure: LIG, Multi Storeyed Building      Bore Hole No.: 4

Depth metre	SPT Value	Soil Description	Classification	Particle Size Distribution				Natural Moisture Content %	Bulk Unit Weight gm/cc	Dry Unit Weight gm/cc	Specific Gravity	Atterberg's Limits in %			Shear Strength Parameters		Compression Index (Cc)
				%								L.L.	P.L.	P.I.	C <sub>u</sub> kg/cm <sup>2</sup>	φ <sub>v</sub> Degree	
				Gravel	Sand	Silt	Clay										
0.0																	
1.5	11	Clay with Medium Compressibility	CI	1.03	3.68	75.49	19.80	17.1	2.34	2.00	2.70	36	20	16	0.69	8	0.171
2.5																	
3.0	13	Non-Plastic Silty Soil	ML	0.15	7.23	83.74	8.88	18.2	2.24	1.90	2.64	Non-Plastic			0.13	17	---
4.5	15																
6.0	34																
7.5	31																
9.0	35																
10.5	39	Clay with Medium Compressibility	CI	2.01	4.49	65.56	27.94	24.5	2.05	1.65	2.72	43	21	21	0.89	7	0.320
12.0	42																
44																	
>50																	
>50																	


Results checked by  
*Hemant*  
7/3/13

*Utkarsh*

Contd...

# Proposed site : Soil Test Report

Geotechnical Engineering Division  
 North India Engineers' Lab & Consultants  
 Shed No. 62, Industrial Estate, M.N.N.I.T. Allahabad

## BORE LOG CHART

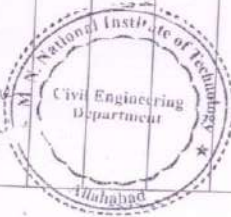
Site: U.P.A.V.P., LIG, Lucknow

Structure: Multi Storeyed Building

Bore Hole No.: 4

Depth metre	SPT Value	Soil Description	Classification	Particle Size Distribution							Natural Moisture Content %	Bulk Unit Weight gm/cc	Dry Unit Weight gm/cc	Specific Gravity	Atterberg's Limits in %			Shear Strength Parameters		Compression Index (Cc)
				%				L.L.	P.L.	P.L.					C <sub>u</sub> kg/cm <sup>2</sup>	φ <sub>c</sub> Degree				
				Gravel	Sand	Silt	Clay													
18.0	32	Non-Plastic Silty Soil	ML	4.16	3.55	83.96	8.33	26.3	1.87	1.48	2.64	Non-Plastic	0.14	17	---					
19.5	30																			
21.0	28																			
22.5	34	Clay with Medium Compressibility	CI	7.36	4.33	68.43	19.88	20.6	1.99	1.65	2.70	38	17	21	0.70	8	0.186			
24.0	43																			
25.5	>50																			
27.0	>50																			
28.5	>50																			
30.0	>50																			

*Results checked for  
 Reason  
 7/3/12*



*Uttrak*



*Dinesh*  
 Testing Officer

Water Table: 14.00 m

# Proposed site : Soil Test Report

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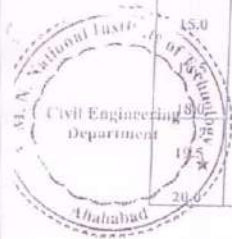
## BORE LOG CHART

Site: U.P.A.V.P., Lucknow

Structure: LIG, Multi Storeyed Building

Bore Hole No.: 5

Depth metre	SPT Value	Soil Description	Classification	Particle Size Distribution				Natural Moisture Content %	Bulk Unit Weight gm/cc	Dry Unit Weight gm/cc	Specific Gravity	Atterberg's Limits in %			Shear Strength Parameters		Compression Index (C <sub>c</sub> )
				%								L.L.	P.L.	P.I.	C <sub>u</sub> kg/cm <sup>2</sup>	φ <sub>v</sub> Degree	
				Gravel	Sand	Silt	Clay										
0.0																	
1.5	11	Non-Plastic Silty Soil	ML	0.41	7.67	81.63	10.29	5.29	1.53	1.45	2.64	Non-Plastic			0.17	14	---
3.0	12																
4.5	13																
6.0	15																
7.5	17	Clay with Low Compressibility	CI	9.83	3.21	70.34	16.62	26.0	1.99	1.58	2.68	34	18	16	0.53	10	0.157
9.0	20																
10.5	24																
12.0	32																
13.5	17																
15.0	21	Non-Plastic Silty Soil	ML	0.07	26.00	68.02	5.91	16.8	2.21	1.90	2.64	Non-Plastic			0.06	19	---
16.5	26																
18.0	25																
19.5	35	Clay with Medium Compressibility	CI	2.36	3.38	59.91	34.35	28.8	1.89	1.47	2.72	42	20	22	0.93	7	0.214
20.0																	



Water Table: 14.00 m

*Results checked by  
 P. S. Singh  
 7/3/17*

*Utkarsh*



*Dinesh*  
 Testing Officer

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 North India Engineers' Lab & Consultants  
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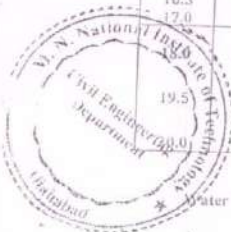
## BORE LOG CHART

Site: U.P.A.V.P., Lucknow

Structure: LIG, Multi Storeyed Building

Bore Hole No.: 6

Depth metre	SPT Value	Soil Description	Classification	Particle Size Distribution				Natural Moisture Content %	Bulk Unit Weight gm/cc	Dry Unit Weight gm/cc	Specific Gravity	Atterberg's Limits in %			Shear Strength Parameters		Compression Index (C <sub>c</sub> )
				%								L.L.	P.L.	P.I.	C <sub>u</sub> kg/cm <sup>2</sup>	φ <sub>s</sub> Degree	
				Gravel	Sand	Silt	Clay										
0.0																	
1.5	8	Non-Plastic Silty Soil	ML	0.22	6.22	90.57	2.99	12.1	1.89	1.69	2.64	Non-Plastic			0.03	21	---
3.0	12																
4.5	13																
6.0	15																
7.5	18	Non-Plastic Silty Soil	ML	0.96	3.68	81.87	13.49	16.6	1.94	1.66	2.64	Non-Plastic			0.17	13	---
9.0	20																
10.5	22																
12.0	19																
13.0		Non-Plastic Silty Sand	SM	49.50	9.59	37.44	3.47	25.4	1.99	1.59	2.62	Non-Plastic			0.03	25	---
13.5	32																
15.0	39																
16.5	39																
17.0		Non-Plastic Silty Soil	ML	3.22	4.94	81.11	10.73	25.7	2.14	1.70	2.64	Non-Plastic			0.15	15	---
19.5	50																
20.0																	



Water Table: 14.00 m

*Results checked OK.*  
*Person*  
 7/3/17

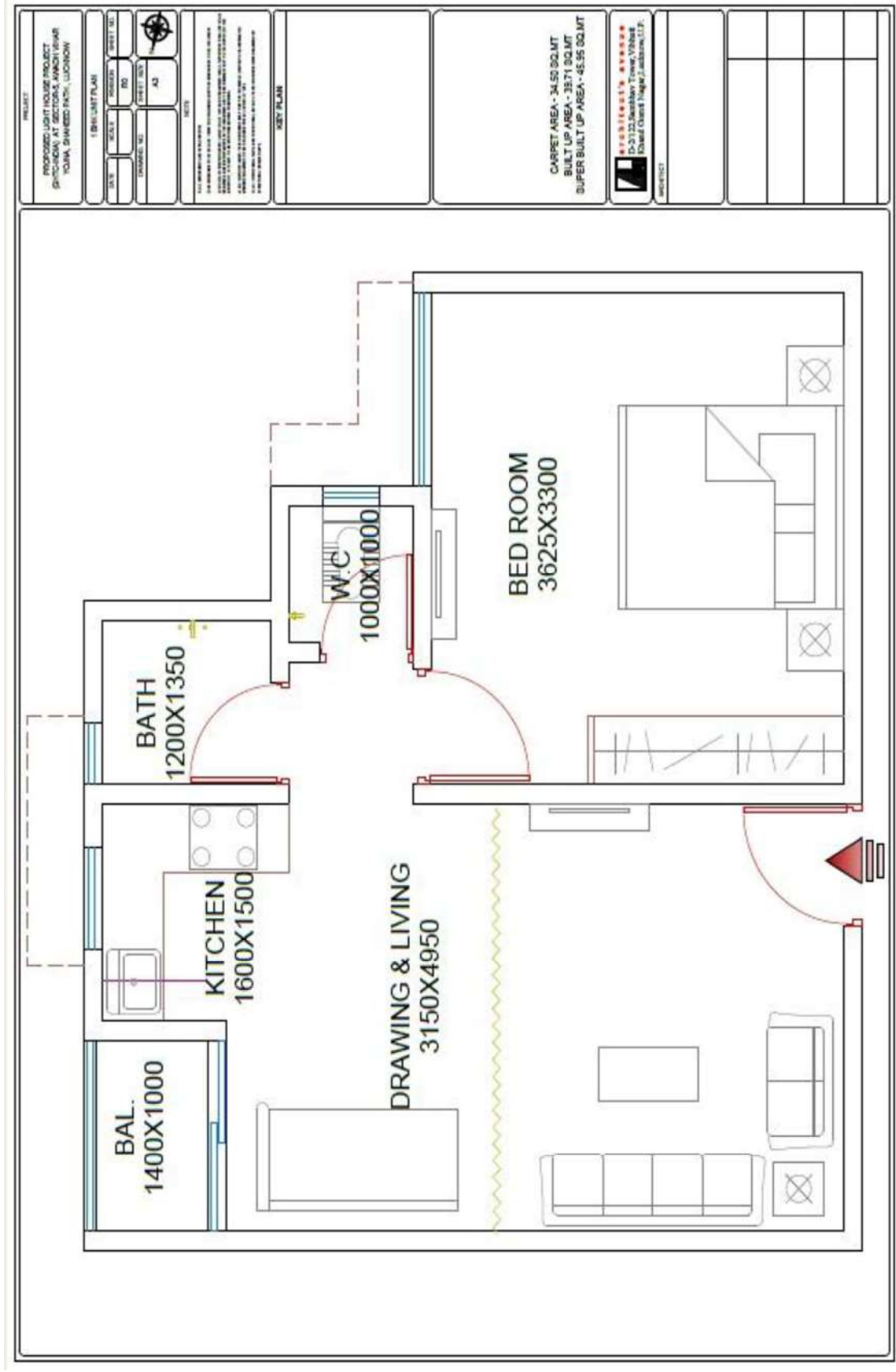
*Utkarsh*

*Testing Officer*

## 2.4.4 Layout Plan



## 2.4.5 Unit Plan

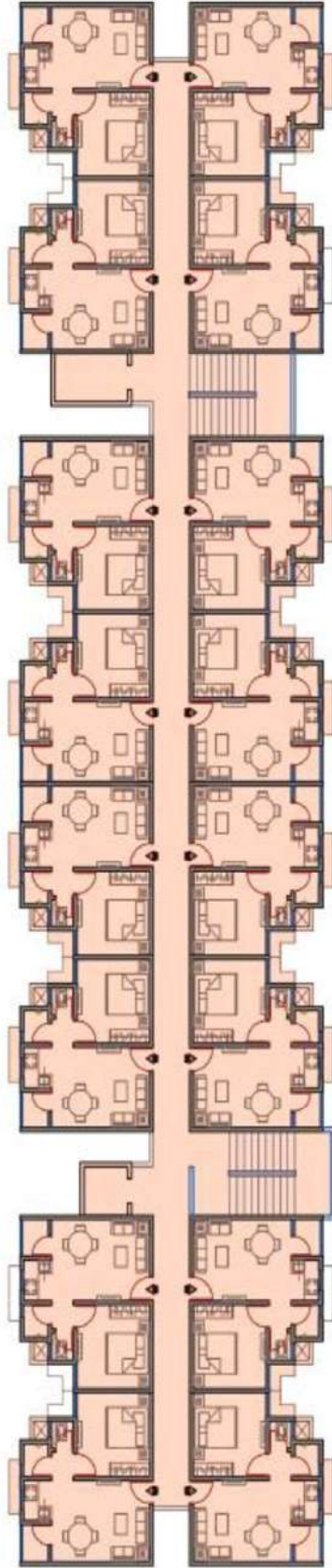




## 2.4.6 Floor Plans

### Tower (E.W.S.)

Stilt + 13  
(16 units on typical floor)



## 2.4.7 Physical Infrastructure Drawings

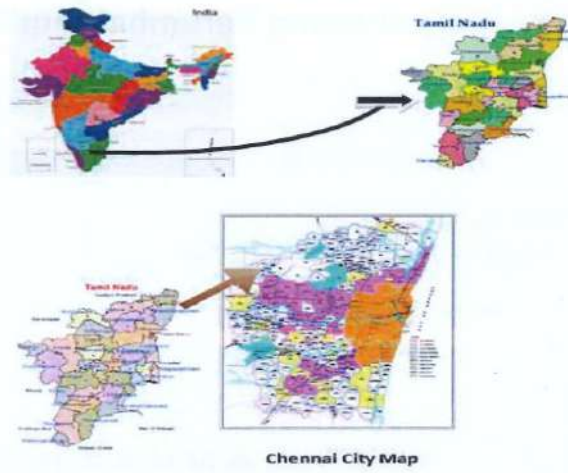
<p><b>NOTE:-</b></p> <p>1.) THE DRAWING HAS BEEN REVISED DUE TO THE PROPOSED CHANGES IN THE T.L.P. AND AS PER THE SITE VISIT AND THE DISCUSSION HELD BETWEEN S.E./HQ. E.E. AND THE CONSULTANTS ON 10.02.13.</p> <p>2.) THE LEVELS WRITTEN IN GREEN COLOR ARE ROAD PATRI LVL. AND WRITTEN IN RED COLOR ARE INVERT LVL.</p> <p>3.) S.T.P. FOR THE POCKET-1 &amp; POCKET -2 SHALL BE LOCATED AT JOINT L.</p> <p>4.) LEGENDS:-          000.000 ROAD PATRI LEVEL          000.000 INVERT LVL.</p> <p>5.) DROP MAN HOLE SHALL BE PROVIDED AT 15 M BEFORE MALA ALONG THE LINE FROM HODE H2 TO H.</p> <p>6.) MAN HOLE SHALL BE PROVIDED AT 30M/C FOR SEWER BELOW 900MM AND @ 90M/C FOR THE DIA ABOVE 900MM.</p>	
<p><b>GRID SPACING = 50 X 50 M</b></p>	
<p><b>PROJECT:</b>          PROPOSED SULTANPUR ROAD          BHOOMI VIKAS EVAM          GRAHSTHAN YOJNA</p>	
<p><b>TITLE:</b>          DETAIL - SEWERAGE</p>	
SCALE: 1:5000	DATE: 23-2-2013
DRG. NO. 59H/S-31A	REV.NO. 03
<p><b>CLIENT:</b>          U.P.A.E.V.P.          104, M. G. MARG          LUCKNOW</p>	
<p><b>CONSULTANTS:</b>          SERTECH CONSULTANTS          C-146 KILOKRI          (NEAR MAHARANI BAGH XING)          NEW DELHI-110046          PH : 26343059, 9868848054</p>	



## 2.4.8 Social Infrastructure Building Drawings

## 2.5 LHP 5 Tamil Nadu

### 2.5.1 Location Map



**Figure 2.1 : Chennai Metropolitan Area Map**



Figure 2.3 - Satellite Imagery showing Perumbakkam Scheme



### 3.1 LOCATION OF SITE

The Perumbakkam land is located in the Perumbakkam village, Sholinganallur Taluk, Kancheepuram District and adjacent to OMR – IT corridor in South Chennai.

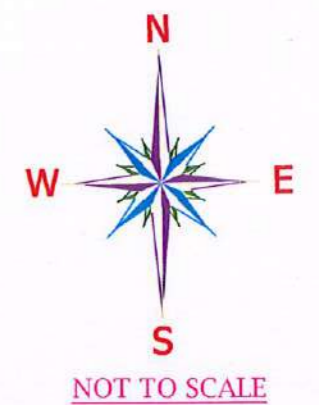
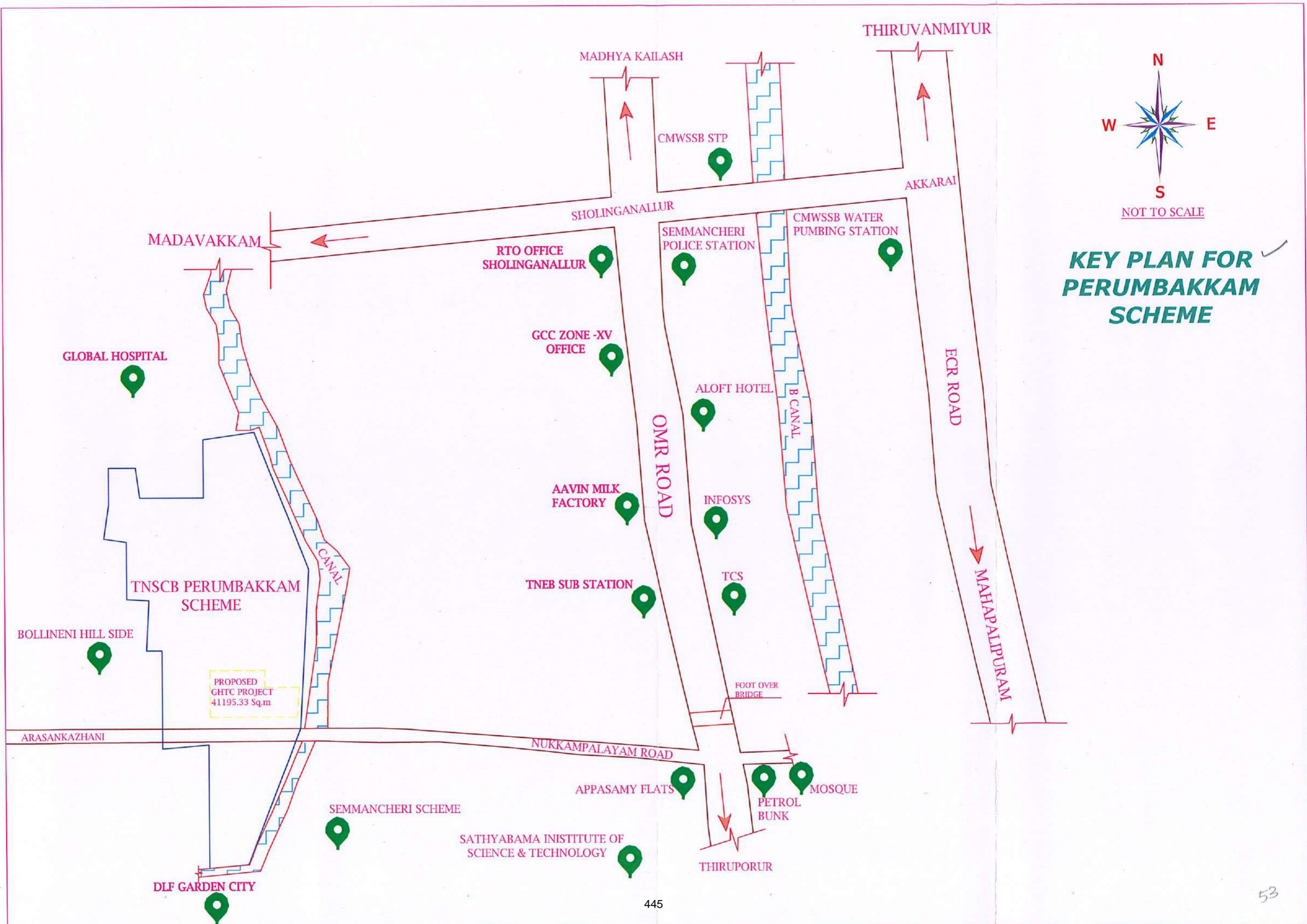
The Perumbakkam land has been alienated with an extent of 81.20 hectares (200.65 Acres) Classified as “Tharisu” in favour of Tamil Nadu Slum Clearance Board for Construction of Multi-Storied building for Tsunami affected people vide G.O.(Ms) No.346, Dt: 14.08.2014 and G.O.(Ms) No. 186, Dt: 27.04.2015.

In this land, 20376 tenements were constructed under JNNURM and this land has been developed with infrastructure facilities such as Approach Road of 18m wide, Ration shops, Milk booth, Primary health centre, Community Hall, Government Arts and Science College, Government High School, Government Primary schools, ICDS Bus terminus cum Bus depot, 100 feet Road, Water supply, Underground drainage system with treatment plant, Street lights, Burial ground, Parks, etc.

A bit of land measuring an extent of 8.5 hectares is vacant and reserved for future development and still under possession of Tamil Nadu Slum Clearance Board. In this land an extent of 4.12 hectares has been proposed for Global Housing Technology Challenge –India, GHTC. This land will be more ideal for this project, since all infrastructure facilities are already available within the proposed scheme and also it is located at a distance of 2.20Km from the OMR Road where cluster of I.T. Parks and commercial complex, shopping malls, etc are existing.

**SATELLITE IMAGE SHOWING TNSCB SCHEMES  
PERUMBAKKAM**



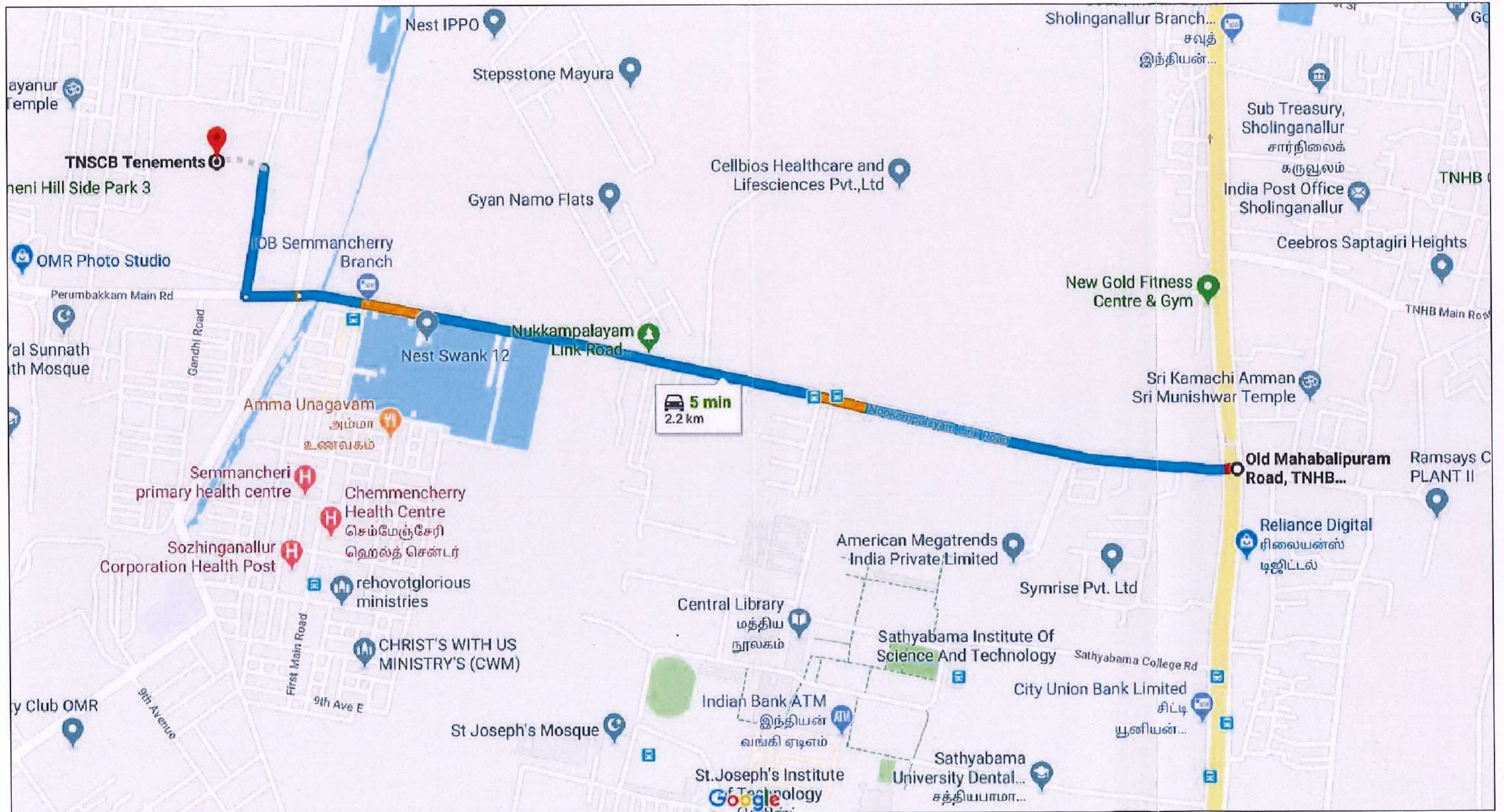


NOT TO SCALE

# KEY PLAN FOR PERUMBAKKAM SCHEME



# GOOGLE IMAGE SHOWING PERUMBAKKAM SCHEME FROM I.T.CORRIDOR



## 2.5.2 Total Station Survey Map

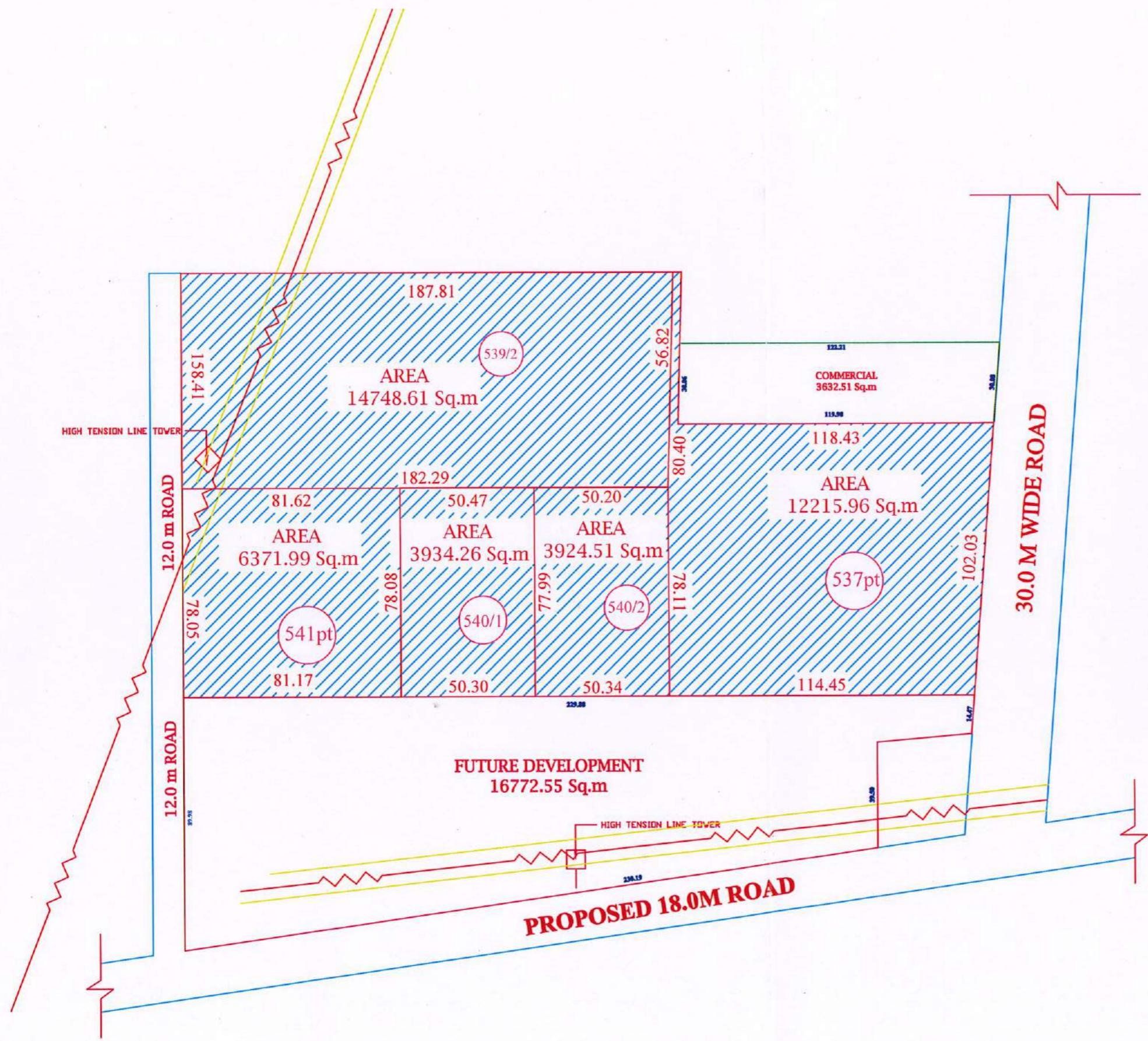
# SURVEY SKETCH OF THE PROPOSED SITE WITH MEASUREMENT

TAMIL NADU  
SLUM CLEARANCE BOARD

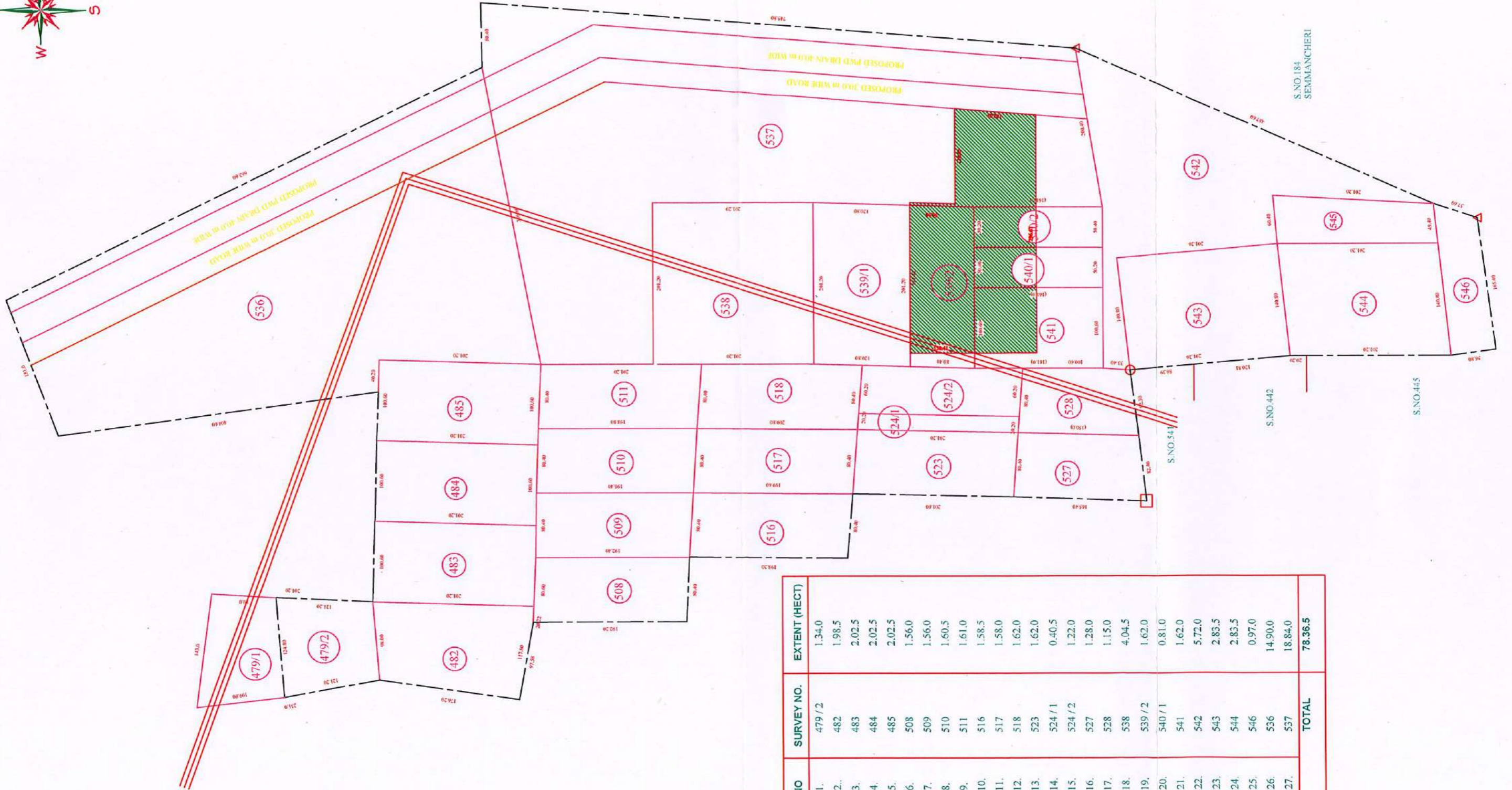
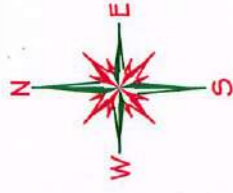
GLOBAL HOUSING TECHNOLOGY CHALLENGE:  
NUKKAMPALAYAM ROAD, PERUMBAKKAM,  
CHENNAI IN S.NOS. 537, 539/1&2, 540/1, 540/2 & 541  
PERUMBAKKAM VILLAGE, TAMBARAM TALUK,  
KANCHIPURAM DISTRICT.

**AREA STATEMENT:**

S.No.539/2	- 14748.61 sq.m.
S.No.541pt	- 6371.99 sq.m.
S.No.540/1	- 3934.26 sq.m.
S.No.540/2	- 3924.51 sq.m.
S.No.537pt	- 12215.96 sq.m.
<b>TOTAL AREA</b>	<b>- 41195.33 sq.m.</b>



**SURVEY SKETCH OF THE SITE  
WITH ALROUND DETAILS**



S.NO	SURVEY NO.	EXTENT (HECT)
1.	479 / 2	1.34.0
2.	482	1.98.5
3.	483	2.02.5
4.	484	2.02.5
5.	485	2.02.5
6.	508	1.56.0
7.	509	1.56.0
8.	510	1.60.5
9.	511	1.61.0
10.	516	1.58.5
11.	517	1.58.0
12.	518	1.62.0
13.	523	1.62.0
14.	524 / 1	0.40.5
15.	524 / 2	1.22.0
16.	527	1.28.0
17.	528	1.15.0
18.	538	4.04.5
19.	539 / 2	1.62.0
20.	540 / 1	0.81.0
21.	541	1.62.0
22.	542	5.72.0
23.	543	2.83.5
24.	544	2.83.5
25.	546	0.97.0
26.	536	14.90.0
27.	537	18.84.0
	<b>TOTAL</b>	<b>78.36.5</b>