

Table 2.11: Laboratory Test Result on the Soil Sample Collected from BH-11

Depth of Sample below E.G.L. (m)	SPT of Sample	Type of Sample	Engineering Description of Soil	NMC(%)	Clay				Specific Gravity, G	Void Ratio, e	Bulk Density, kN/m ³	Dry Density, kN/m ³	Free Swell (%)	Swelling Pressure (kPa)	Relative Density/ Consistency	Sieve Analysis						Direct Shear		IS-Classification
					LL (%)	PL (%)	PI	Consistency, I _c								Gravel (%)	Coarse (%)	Medium (%)	Fine (%)	Silt (%)	Clay (%)	c (kN/m ²)	φ (Deg.)	
0.00 to 0.50	-	DS	Silty Sandy Gravels	-	-	-	-	-	2.66	-	19.7	-	-	-	Dense	56	0	13	22	9	0	-	-	GP
0.50 to 3.00	>100	SS	Weathered Rock	-	-	-	-	-	2.65	-	20.4	-	-	-	V.Dense	44	17	16	21	2	0	0.80	42.20	SDR

Table 2.12: Laboratory Test Result on the Soil Sample Collected from BH-12

Depth of Sample below E.G.L. (m)	SPT of Sample	Type of Sample	Engineering Description of Soil	NMC(%)	Clay				Specific Gravity, G	Void Ratio, e	Bulk Density, kN/m ³	Dry Density, kN/m ³	Free Swell (%)	Swelling Pressure (kPa)	Relative Density/ Consistency	Sieve Analysis						Direct Shear		IS-Classification
					LL (%)	PL (%)	PI	Consistency, I _c								Gravel (%)	Coarse (%)	Medium (%)	Fine (%)	Silt (%)	Clay (%)	c (kN/m ²)	φ (Deg.)	
0.00 to 0.60	-	DS	Silty Clay	48	89	21	68	0.6	2.68	1.3	14	-	80	-	Soft	0	0	0	0	15	85	-	-	CH
0.60 to 1.60	57	SS	Silty Clayey Fine Sand mixed with Lime Nodules	-	-	-	-	-	2.65	-	20.3	-	-	-	Dense	19	0	0	56	10	15	10.00	42.05	SM
1.60 to 3.00	>100	SS	Weathered Rock	-	-	-	-	-	2.64	-	21.1	-	-	-	V.Dense	34	14	21	20	11	0	4.40	42.20	SDR

Table 2.13: Laboratory Test Result on the Soil Sample Collected from BH-13

Depth of Sample below E.G.L. (m)	SPT of Sample	Type of Sample	Engineering Description of Soil	NMC(%)	Clay				Specific Gravity, G	Void Ratio, e	Bulk Density, kN/m ³	Dry Density, kN/m ³	Free Swell (%)	Swelling Pressure (kPa)	Relative Density/ Consistency	Sieve Analysis						Direct Shear		IS-Classification
					LL (%)	PL (%)	PI	Consistency, I _c								Gravel (%)	Coarse (%)	Medium (%)	Fine (%)	Silt (%)	Clay (%)	c (kN/m ²)	φ (Deg.)	
0.00 to 1.40	9	SS	Silty Clay	29	80	16	64	0.8	2.67	0.8	17	-	80	-	Stiff	0	0	0	0	20	80	60.00	8.00	CH
1.40 to 2.80	73	SS	Silty Fine Sand mixed with kankars	-	-	-	-	-	2.65	-	20.3	-	-	-	V.Dense	28	0	0	58	14	0	5.60	42.00	SM
2.80 to 4.00	>100	SS	Weathered Rock	-	-	-	-	-	2.63	-	21.1	-	-	-	V.Dense	39	11	16	28	6	0	2.40	42.30	SDR

Table 2.14: Laboratory Test Result on the Soil Sample Collected from BH-14

Depth of Sample below E.G.L. (m)	SPT of Sample	Type of Sample	Engineering Description of Soil	NMC(%)	Clay				Specific Gravity, G	Void Ratio, e	Bulk Density, kN/m ³	Dry Density, kN/m ³	Free Swell (%)	Swelling Pressure (kPa)	Relative Density/ Consistency	Sieve Analysis						Direct Shear		IS-Classification
					LL (%)	PL (%)	PI	Consistency, I _c								Gravel (%)	Coarse (%)	Medium (%)	Fine (%)	Silt (%)	Clay (%)	c (kN/m ²)	φ (Deg.)	
0.00 to 0.40	-	DS	Filled Up Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
0.40 to 0.90	-	DS	Silty Clay mixed with lime	41	90	16	74	0.7	2.68	1.1	13	-	85	-	Soft	22	0	0	0	11	67	-	-	CH
0.90 to 3.50	>100	SS	Weathered Rock	-	-	-	-	-	2.65	-	21.1	-	-	-	V.Dense	45	19	11	17	8	0	3.20	42.50	SDR

Table 2.15: Laboratory Test Result on the Soil Sample Collected from BH-15

Depth of Sample below E.G.L. (m)	SPT of Sample	Type of Sample	Engineering Description of Soil	NMC(%)	Clay				Specific Gravity, G	Void Ratio, e	Bulk Density, kN/m ³	Dry Density, kN/m ³	Free Swell (%)	Swelling Pressure (kPa)	Relative Density/ Consistency	Sieve Analysis						Direct Shear		IS-Classification
					LL (%)	PL (%)	PI	Consistency, I _c								Gravel (%)	Coarse (%)	Medium (%)	Fine (%)	Silt (%)	Clay (%)	c (kN/m ²)	φ (Deg.)	
0.00 to 0.30	-	DS	Silty Sandy Gravels	-	-	-	-	-	2.66	-	19.1	-	-	-	Dense	61	0	10	25	4	0	-	-	GP
0.30 to 2.50	>100	SS	Weathered Rock	-	-	-	-	-	2.65	-	20.5	-	-	-	V.Dense	41	15	17	24	3	0	1.20	42.50	SDR

Table 2.16: Chemical Analysis Results conducted on Water/Soil Samples collected from BH-01 to BH-15

Location	Depth of Sample below E.G.L. (m)	pH	Chlorides (ppm)	Sulphates (ppm)
BH-01	3.00	7.71	299.19	336.58
BH-02	3.00	7.71	303.64	341.59
BH-03	3.00	7.71	308.41	346.96
BH-04	3.00	7.71	305.47	343.65
BH-05	3.00	7.71	299.11	336.49
BH-06	3.00	7.71	296.18	333.20
BH-07	3.00	7.71	301.24	338.89
BH-08	3.00	7.71	295.33	332.24
BH-09	3.00	7.71	286.44	322.24
BH-10	3.00	7.71	285.61	321.31
BH-11	3.00	7.71	291.55	327.99
BH-12	3.00	7.71	311.28	350.19
BH-13	1.40	7.71	296.18	333.20
BH-14	3.00	7.71	311.47	350.40
BH-15	3.00	7.71	315.68	355.14

SUB-SURFACE STRATIFICATION

3.0 Preamble

The sub surface stratification at borehole locations, with respect to foundation/geotechnical engineering application are derived based on the visual identification, laboratory classification tests and field in-situ strength tests. Further, the strength parameters are estimated based on the in-situ strength test results as per the following correlation.

- * **For Coarse Grained Samples, Ref. Fig.1, IS: 6403 to estimate Angle of Shearing Resistance.**
- * **For Fine Grained Samples, Ref. Terzaghi & Peck, 1948, to estimate Unconfined Compressive Strength.**

3.1 Sub Surface Stratification:

**3.1.1 Soil Profile at BH-01 Location
(At BH-01 Location, as presented in Site plan)**

- * **Layer-1 (from E.G.L to 0.50m depth)**

Type of Strata	Soft Disintegrated Rock
Colour	-
Thickness of Layer	0.50m
SPT of the layer	-
Relative Density	Dense
Angle of Shearing Resistance,	□□□□□□□□□□-
- * **Layer-2 (from 0.50m to 3.00m depth)**

Type of Strata	Weathered Rock
Colour	-
Thickness of Layer	2.50m
SPT of the layer	>100
Relative Density	Very Dense
Angle of Shearing Resistance,	□□□□□□□□□□42.50°

Ground Water

No ground water table was encountered within the explored depth of investigation in the second week of September 2018.

**3.1.2 Soil Profile at BH-02 Location
(At BH-02 Location, as presented in Site plan)**

* Layer-1 (from E.G.L to 1.95m depth)	
Type of Strata	Soft Disintegrated Rock
Colour	-
Thickness of Layer	0.70m
SPT of the layer	-
Relative Density	Dense
Angle of Shearing Resistance,	□□□□□□□□□□-
* Layer-2 (from 0.70m to 3.50m depth)	
Type of Strata	Weathered Rock
Colour	-
Thickness of Layer	2.80m
SPT of the layer	>100
Relative Density	Very Dense
Angle of Shearing Resistance,	□□□□□□□□□□42.50°

Ground Water

No ground water table was encountered within the explored depth of investigation in the second week of September 2018.

**3.1.3 Soil Profile at BH-03 Location
(At BH-03 Location, as presented in Site plan)**

* Layer-1 (from E.G.L to 0.50m depth)	
Type of Strata	Silty Sandy Clay
Colour	Brownish
Thickness of Layer	0.50m
SPT of the layer	-
Consistency	Soft
Un-drained Cohesion, Cu	-
* Layer-2 (from 0.50m to 0.90m depth)	
Type of Strata	Silty Clayey Fine Sand mixed with lime
Colour	Greyish to Whitish
Thickness of Layer	0.40m
SPT of the layer	-
Relative Density	Dense
Angle of Shearing Resistance,	□□□□□□□□□□-
* Layer-3 (from 0.90m to 3.50m depth)	
Type of Strata	Weathered Rock
Colour	-
Thickness of Layer	2.60m
SPT of the layer	>100
Relative Density	Very Dense
Angle of Shearing Resistance,	□□□□□□□□□□42.50°
* Layer-4 (from 3.50m to 4.50m depth)	
Type of Strata	Soft Rock
Colour	-
Thickness of Layer	1.00m
SPT of the layer	>100

Relative Density Very Dense
 Angle of Shearing Resistance, ○○○○○○○○○○○○○○○○○○○○42.50°

Ground Water

No ground water table was encountered within the explored depth of investigation in the second week of September 2018.

**3.1.4 Soil Profile at BH-04 Location
 (At BH-04 Location, as presented in Site plan)**

- * **Layer-1 (from E.G.L to 0.30m depth)**
 Type of Strata Silty Sandy Gravels
 Colour Brownish to Reddish
 Thickness of Layer 0.30m
 SPT of the layer -
 Relative Density Dense
 Angle of Shearing Resistance, ○○○○○○○○○○○○-
- * **Layer-2 (from 0.30m to 2.00m depth)**
 Type of Strata Weathered Rock
 Colour -
 Thickness of Layer 1.70m
 SPT of the layer >100
 Relative Density Very Dense
 Angle of Shearing Resistance, ○○○○○○○○○○○○○○○○○○○○42.50°
- * **Layer-3 (from 2.00m to 3.00m depth)**
 Type of Strata Soft Rock
 Colour -
 Thickness of Layer 1.00m
 SPT of the layer >100
 Relative Density Very Dense
 Angle of Shearing Resistance, ○○○○○○○○○○○○○○○○○○○○42.50°

Ground Water

No ground water table was encountered within the explored depth of investigation in the second week of September 2018.

**3.1.5 Soil Profile at BH-05 Location
 (At BH-05 Location, as presented in Site plan)**

- * **Layer-1 (from E.G.L to 0.50m depth)**
 Type of Strata Soft Disintegrated Rock
 Colour -
 Thickness of Layer 0.50m
 SPT of the layer -
 Relative Density Dense
 Angle of Shearing Resistance, ○○○○○○○○○○○○-
- * **Layer-2 (from 0.50m to 2.50m depth)**
 Type of Strata Weathered Rock
 Colour -
 Thickness of Layer 2.00m
 SPT of the layer >100

Relative Density Very Dense
 Angle of Shearing Resistance, ████████████████████42.50°

Ground Water

No ground water table was encountered within the explored depth of investigation in the first week of September 2018.

**3.1.6 Soil Profile at BH-06 Location
 (At BH-06 Location, as presented in Site plan)**

- * **Layer-1 (from E.G.L to 0.40m depth)**
 - Type of Strata Soft Disintegrated Rock
 - Colour -
 - Thickness of Layer 0.40m
 - SPT of the layer -
 - Relative Density Dense
 - Angle of Shearing Resistance, ████████████████████-
- * **Layer-2 (from 0.40m to 2.80m depth)**
 - Type of Strata Weathered Rock
 - Colour -
 - Thickness of Layer 2.40m
 - SPT of the layer >100
 - Relative Density Very Dense
 - Angle of Shearing Resistance, ████████████████████42.50°

Ground Water

No ground water table was encountered within the explored depth of investigation in the first week of September 2018.

**3.1.7 Soil Profile at BH-07 Location
 (At BH-07 Location, as presented in Site plan)**

- * **Layer-1 (from E.G.L to 0.50m depth)**
 - Type of Strata Soft Disintegrated Rock
 - Colour -
 - Thickness of Layer 0.50m
 - SPT of the layer -
 - Relative Density Dense
 - Angle of Shearing Resistance, ████████████████████-
- * **Layer-2 (from 0.50m to 2.50m depth)**
 - Type of Strata Weathered Rock
 - Colour -
 - Thickness of Layer 2.00m
 - SPT of the layer >100
 - Relative Density Very Dense
 - Angle of Shearing Resistance, ████████████████████42.50°

Ground Water

No ground water table was encountered within the explored depth of investigation in the first week of September 2018.

3.1.8 Soil Profile at BH-08 Location (At BH-08 Location, as presented in Site plan)

* Layer-1 (from E.G.L to 0.70m depth)	
Type of Strata	Silty Sandy Gravels
Colour	Brownish
Thickness of Layer	0.70m
SPT of the layer	-
Relative Density	Dense
Angle of Shearing Resistance,	□□□□□□□□□□-
* Layer-2 (from 0.70m to 3.00m depth)	
Type of Strata	Weathered Rock
Colour	-
Thickness of Layer	2.30m
SPT of the layer	>100
Relative Density	Very Dense
Angle of Shearing Resistance,	□□□□□□□□□□42.50°

Ground Water

No ground water table was encountered within the explored depth of investigation in the second week of September 2018.

3.1.9 Soil Profile at BH-09 Location (At BH-09 Location, as presented in Site plan)

* Layer-1 (from E.G.L to 0.60m depth)	
Type of Strata	Silty Clay
Colour	Brownish to Greyish
Thickness of Layer	0.60m
SPT of the layer	-
Consistency	Soft
Un-drained Cohesion, Cu	-
* Layer-2 (from 0.60m to 0.90m depth)	
Type of Strata	Silty Clayey Fine Sand mixed with kankars
Colour	Greyish to Whitish
Thickness of Layer	0.30m
SPT of the layer	-
Relative Density	Dense
Angle of Shearing Resistance,	□□□□□□□□□□-
* Layer-3 (from 0.90m to 3.00m depth)	
Type of Strata	Weathered Rock
Colour	-
Thickness of Layer	2.10m
SPT of the layer	>100
Relative Density	Very Dense
Angle of Shearing Resistance,	□□□□□□□□□□42.50°

Ground Water

No ground water table was encountered within the explored depth of investigation in the second week of September 2018.

3.1.10 Soil Profile at BH-10 Location (At BH-10 Location, as presented in Site plan)

* Layer-1 (from E.G.L to 0.80m depth)	
Type of Strata	Silty Sandy Gravels
Colour	Brownish to Reddish
Thickness of Layer	0.80m
SPT of the layer	-
Relative Density	Dense
Angle of Shearing Resistance,	□□□□□□□□□□-
* Layer-2 (from 0.80m to 3.60m depth)	
Type of Strata	Weathered Rock
Colour	-
Thickness of Layer	2.80m
SPT of the layer	>100
Relative Density	Very Dense
Angle of Shearing Resistance,	□□□□□□□□□□42.50°

Ground Water

No ground water table was encountered within the explored depth of investigation in the second week of September 2018.



3.1.11 Soil Profile at BH-11 Location (At BH-11 Location, as presented in Site plan)

* Layer-1 (from E.G.L to 0.50m depth)	
Type of Strata	Silty Sandy Gravels
Colour	Brownish to Reddish
Thickness of Layer	0.50m
SPT of the layer	-
Relative Density	Dense
Angle of Shearing Resistance,	□□□□□□□□□□-
* Layer-2 (from 0.50m to 3.00m depth)	
Type of Strata	Weathered Rock
Colour	-
Thickness of Layer	2.50m
SPT of the layer	>100
Relative Density	Very Dense
Angle of Shearing Resistance,	□□□□□□□□□□42.50°

Ground Water

No ground water table was encountered within the explored depth of investigation in the second week of September 2018.

3.1.12 Soil Profile at BH-12 Location
(At BH-12 Location, as presented in Site plan)

* Layer-1 (from E.G.L to 0.60m depth)	
Type of Strata	Silty Clay
Colour	Brownish
Thickness of Layer	0.60m
SPT of the layer	-
Consistency	Soft
Un-drained Cohesion, Cu	-
* Layer-2 (from 0.60m to 1.60m depth)	
Type of Strata	Silty Clayey Fine Sand mixed with lime nodules
Colour	Brownish to Greyish
Thickness of Layer	1.00m
SPT of the layer	-
Relative Density	Dense
Angle of Shearing Resistance,	 -
* Layer-3 (from 1.60m to 3.00m depth)	
Type of Strata	Weathered Rock
Colour	-
Thickness of Layer	1.40m
SPT of the layer	>100
Relative Density	Very Dense
Angle of Shearing Resistance,	 42.50°

Ground Water

No ground water table was encountered within the explored depth of investigation in the second week of September 2018.

3.1.13 Soil Profile at BH-13 Location
(At BH-13 Location, as presented in Site plan)

* Layer-1 (from E.G.L to 1.40m depth)	
Type of Strata	Silty Clay
Colour	Brownish to Greyish
Thickness of Layer	1.40m
SPT of the layer	09
Consistency	Stiff
Un-drained Cohesion, Cu	60.00kPa
* Layer-2 (from 1.40m to 2.80m depth)	
Type of Strata	Silty Fine Sand mixed with Kankars
Colour	Greyish to Whitish
Thickness of Layer	1.40m
SPT of the layer	-
Relative Density	Dense
Angle of Shearing Resistance,	 -
* Layer-3 (from 2.80m to 4.00m depth)	
Type of Strata	Weathered Rock
Colour	-
Thickness of Layer	1.20m

SPT of the layer	>100
Relative Density	Very Dense
Angle of Shearing Resistance,	████████████████████42.50°

Ground Water

Ground water table was encountered at a depth of 1.40m below the existing ground level during the second week of September 2018.

**3.1.14 Soil Profile at BH-14 Location
(At BH-14 Location, as presented in Site plan)**

* Layer-1 (from E.G.L to 0.40m depth)	
Type of Strata	Filled Up Soil
Colour	-
Thickness of Layer	0.40m
* Layer-2 (from 0.40m to 0.90m depth)	
Type of Strata	Silty Clay mixed with lime
Colour	Brownish to Greyish
Thickness of Layer	0.50m
SPT of the layer	-
Consistency	Soft
Un-drained Cohesion, Cu	-
* Layer-3 (from 0.90m to 3.50m depth)	
Type of Strata	Weathered Rock
Colour	-
Thickness of Layer	2.60m
SPT of the layer	>100
Relative Density	Very Dense
Angle of Shearing Resistance,	████████████████████42.50°

Ground Water

No ground water table was encountered within the explored depth of investigation in the second week of September 2018.

**3.1.15 Soil Profile at BH-15 Location
(At BH-15 Location, as presented in Site plan)**

* Layer-1 (from E.G.L to 0.30m depth)	
Type of Strata	Silty Sandy Gravels
Colour	Brownish to Reddish
Thickness of Layer	0.30m
SPT of the layer	-
Relative Density	Dense
Angle of Shearing Resistance,	██████████████████-
* Layer-2 (from 0.30m to 2.50m depth)	
Type of Strata	Weathered Rock
Colour	-
Thickness of Layer	2.20m
SPT of the layer	>100
Relative Density	Very Dense
Angle of Shearing Resistance,	████████████████████42.50°

Ground Water

No ground water table was encountered within the explored depth of investigation in the second week of September 2018.

Table 4.0-Safe Bearing Capacities of Open Foundation System located at different depths below present existing ground level at different investigation Locations

Borehole No	Type of Bearing Strata	Depth of Open Excavations below Existing Ground Level (m)	Recommended Thickness of CNS Back-Fill (m)	Depth of Isolated Column Footing below Existing Ground Level (m)	Safe Bearing Capacity (t/m^2)	Elastic Settlements (mm)
BH-01	Weathered Rock	2.00	0.00	2.00	30	15
BH-02	Weathered Rock	2.00	0.00	2.00	30	15
BH-03	Weathered Rock	2.00	0.00	2.00	30	15
BH-04	Soft Rock	2.00	0.00	2.00	40	15
BH-05	Weathered Rock	2.00	0.00	2.00	30	15
BH-06	Weathered Rock	2.00	0.00	2.00	30	15
BH-07	Weathered Rock	2.00	0.00	2.00	30	15
BH-08	Weathered Rock	2.00	0.00	2.00	30	15
BH-09	Weathered Rock	2.00	0.00	2.00	30	15
BH-10	Weathered Rock	2.00	0.00	2.00	30	15
BH-11	Weathered Rock	2.00	0.00	2.00	30	15
BH-12	Weathered Rock	2.00	0.00	2.00	30	15
BH-13	Silty Fine Sand	2.00	0.00	2.00	30	15
BH-14	Weathered Rock	2.00	0.00	2.00	30	25
BH-15	Weathered Rock	2.00	0.00	2.00	30	25

Notes

1. Settlements are restricted to a maximum of 25mm for Isolated Column Footings.
2. Excavated highly plastic fine-grained soil encountered at shallow depths shall be in no case used for back filling purposes (Ref. BH-13 & BH-14).
3. It is recommended to connect the grade beams for the entire structure to act as a single unit against any differential settlements in between the individual footings.

4. No structural units can be in direct contact of highly plastic fine-grained soil encountered at isolated borehole locations. A 0.30m thick well compacted CNS (cohesive non-swelling) soil cushion is recommended to be sand-witched in between.

5. CNS can be clean river sand or M-Sand or Sand-Gravels mix of 1:2.

**CONCLUSIONS &
RECOMMENDATIONS**

1. Open Foundation system presented in Table 4.0, Page No. 45 & 46 can be adopted for foundation design purposes.

Open Foundation System

2. Safe bearing capacity of open foundation system is computed considering any rise in the ground water table up to or above the level of footing.
3. In case, ground water table is encountered within recommended depth of foundation system, provision shall be made to continuously bail the water out of the foundation pits to keep the surfaces of pit consolidated dry.

Usage of Excavated Earth

4. **Excavated highly plastic fine-grained soil encountered at shallow depths shall be in no case used for back filling purposes (Ref. BH-13 & BH-14).**
5. **No structural units can be in direct contact of medium plastic fine-grained soil strata encountered at shallow depths. A 0.30m thick well compacted CNS (cohesive non-swelling) soil cushion is recommended to be sand-witched in between.**

Type of CNS to Use

6. **CNS can be well graded coarse-grained M-Sand or quarry dust or clean river sand or sand: gravels mix (1:2) or fly-ash.**

Other Recommendations

7. It is recommended to connect the grade beams for the entire structure to act as a single unit against any differential settlements in between the individual footings.
8. As the chlorides and sulphates present in water/soil samples are within the permissible limits, no special steel or cement is recommended to be used for foundation construction purposes.

2.1.4 Layout Plan

PROPOSED E.W.S -II TYPE HOUSING AT F.P.- 63 /10 , T.P.-32(RAIYA), DIST.-:RAJKOT.

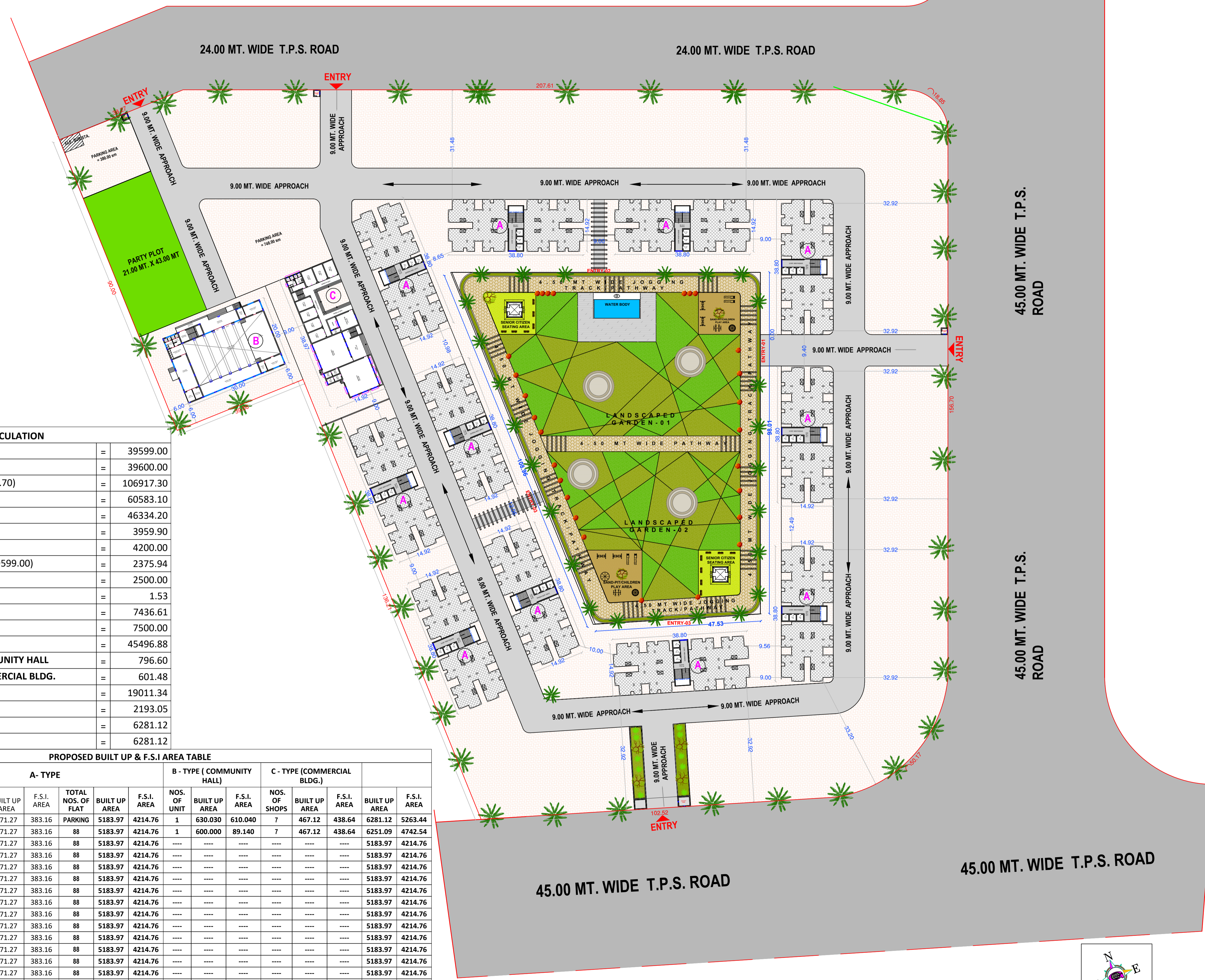
FOR DPR PURPOSE

LAYOUT PLAN

A - TYPE11.BLDG.....PARKING + 13FL.

TOTAL NO. OF UNIT'S = 1144

CARPET AREA = 39.77 SM.



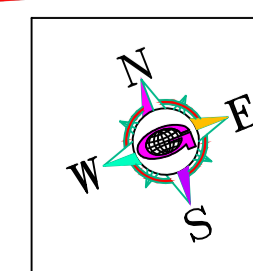
AREA CALCULATION

PLOT AREA	=	39599.00
NET PLOT AREA	=	39600.00
PERMISSIBLE F.S.I. AREA (39599.00 X 2.70)	=	106917.30
PROPOSED F.S.I. AREA	=	60583.10
BLANCE F.S.I. AREA	=	46334.20
REQUIRED C.P. AREA (10 % X39599.00)	=	3959.90
PROPOSED C.P. AREA	=	4200.00
REQUIRED GREEN BELT AREA (6 % X 39599.00)	=	2375.94
PROPOSED GREEN BELT AREA	=	2500.00
F.S.I. CONSUME	=	1.53
REQUIRED PARKING AREA	=	7436.61
PROPOSED PARKING AREA	=	7500.00
TOTAL CARRET AREA (A-TYPE)	=	45496.88
TOTAL CARRET AREA (B-TYPE) COMMUNITY HALL	=	796.60
TOTAL CARRET AREA (C-TYPE) COMMERCIAL BLDG.	=	601.48
TOTAL OPEN AREA	=	19011.34
TOTAL BALCONY AREA (A-TYPE)	=	2193.05
TOTAL COVERED AREA	=	6281.12
TOTAL GROUND COVERED AREA	=	6281.12

PROPOSED BUILT UP & F.S.I AREA TABLE

FLOOR	USE	A - TYPE					B - TYPE (COMMUNITY HALL)			C - TYPE (COMMERCIAL BLDG.)						
		NOS. OF UNIT	NOS. OF FLAT	BUILT UP AREA	F.S.I. AREA	TOTAL NOS. OF FLAT	BUILT UP AREA	F.S.I. AREA	NOS. OF UNIT	BUILT UP AREA	F.S.I. AREA	NOS. OF SHOPS	BUILT UP AREA	F.S.I. AREA	BUILT UP AREA	F.S.I. AREA
GR. FL.	RESI.	11	PARKING	471.27	383.16		5183.97	4214.76	1	630.030	610.004					
1ST FL.	RESI.	11		471.27	383.16	88	5183.97	4214.76	1	600.000	89.140	7	467.12	438.64	6281.12	5263.44
2nd FL.	RESI.	11		471.27	383.16	88	5183.97	4214.76							5183.97	4214.76
3rd FL.	RESI.	11		471.27	383.16	88	5183.97	4214.76							5183.97	4214.76
4th FL.	RESI.	11		471.27	383.16	88	5183.97	4214.76							5183.97	4214.76
5th FL.	RESI.	11		471.27	383.16	88	5183.97	4214.76							5183.97	4214.76
6th FL.	RESI.	11		471.27	383.16	88	5183.97	4214.76							5183.97	4214.76
7th FL.	RESI.	11		471.27	383.16	88	5183.97	4214.76							5183.97	4214.76
8th FL.	RESI.	11		471.27	383.16	88	5183.97	4214.76							5183.97	4214.76
9th FL.	RESI.	11		471.27	383.16	88	5183.97	4214.76							5183.97	4214.76
10th FL.	RESI.	11		471.27	383.16	88	5183.97	4214.76							5183.97	4214.76
11th FL.	RESI.	11		471.27	383.16	88	5183.97	4214.76							5183.97	4214.76
12th FL.	RESI.	11		471.27	383.16	88	5183.97	4214.76							5183.97	4214.76
13th FL.	RESI.	11		471.27	383.16	88	5183.97	4214.76							5183.97	4214.76
STAIRCABIN		11		76.48			841.28		1	24.65			31.53		897.46	
LMR & O.H.WT.		11		71.91			791.01		1	16.12			20.98		828.11	
TOTAL			104	6746.170	5364.240	1144	74207.87	59006.64	1	1270.800	699.18	14 SHOPS	986.75	877.28	76465.42	60583.10

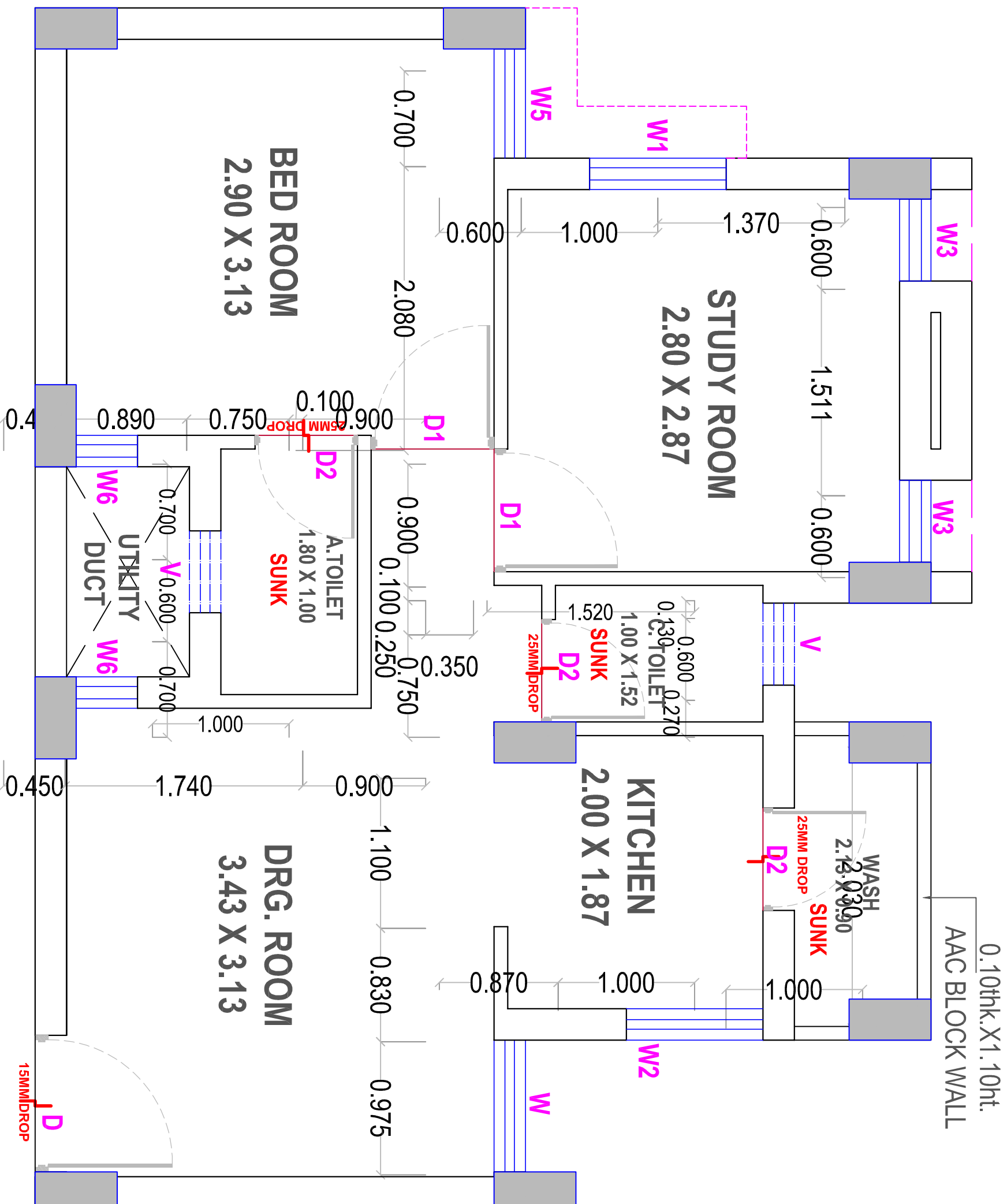
GROUND FL. LAYOUT PLAN



REVISION :	DATE :
SCALE : N.T.S	TYPE :
LAY OUT PLAN	
CLIENT :	RAJKOT MUNICIPAL CORPORATION
PROJECT :	PROPOSED E.W.S -II TYPE HOUSING AT F.P.-63/10 , T.P.-32(RAIYA), DIST.-:RAJKOT.
JAYESSH A DALAL PROJECT MANAGEMENT CONSULTANT	
DRAWN BY :	CHECK BY :
SHEET NO A-001	
28Y 19	

2.1.5 Unit Plan

PROPOSED E.W.S -II TYPE HOUSING AT F.P.-63/10 , T.P.-32(RAIYA), DIST.:-RAJKOT.



FOR DPR PURPOSE

UNIT PLAN

CARPET AREA = 39.36 SQ.MTS

BUILT UP AREA = 47.72 SQ.MTS

REVISION : DATE :

SCALE : N.T.S TYPE : A - TYPE

WORKING DRAWING

CLIENT: RAJKOT MUNICIPAL CORPORATION

PROJECT: PROPOSED E.W.S -II TYPE HOUSING AT F.P.-63/10 , T.P.-32(RAIYA), DIST.:-RAJKOT.

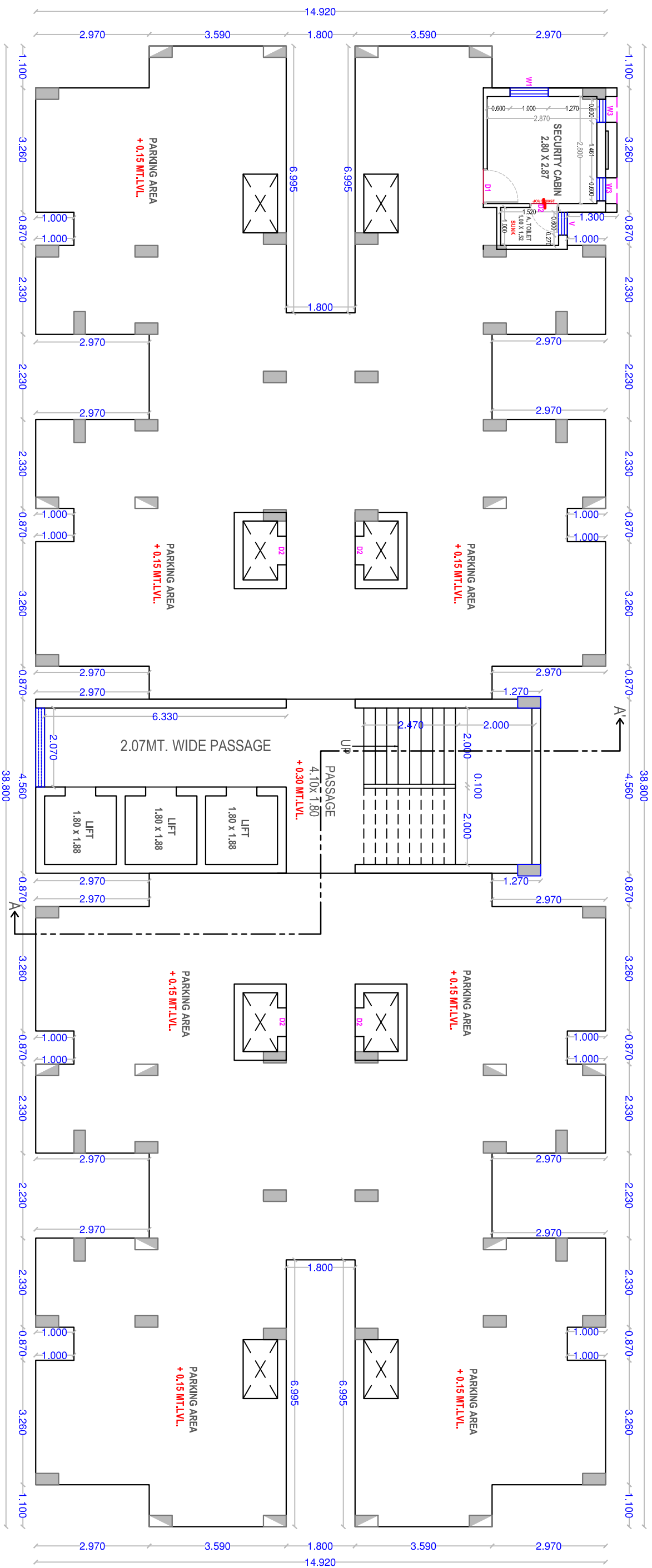
JAYESSH A DALAL
PROJECT MANAGEMENT
CONSULTANT



"JALARAM SHAKTI" BESIDE DHAWALGIRI APARTMENT, NR. LOURDS CONVENT SCHOOL, ATIRWAL, RAJKOT.

DRAWN BY SAGUNA CHECK BY SHEET NO 28Y 19

2.1.6 Floor Plans



GROUND FLOOR PLAN (PARKING + 13th.FL.)

FOR DPR PURPOSE
WORKING DRAWING

BLDG.PLAN GR+13FL.
A -TYPE ... (11.BLDG.)
GROUND FLOOR PLAN

SCHEDULE OF DOORS									
SR.NO.	NAME	SIZE (OPENING)	POSITION	GR. FL	TY. FL x 13TH FL.	TERR.FL	SILL.	LINTEL.	TOTAL GR.+TP+TER=
1.	D	1,000 X 2,425	DRG.RM.	0	8 x 13	2	-	2,425	0 + 104 + 2 = 106
2.	D1	0,900 X 2,425	BED ROOM	1	16 x 13	-	-	2,425	1 + 208 + 0 = 209
3.	D2	0,750 X 2,425	C.TOLET,A.TOLET WASH.	5	24 x 13	-	-	2,425	5 + 312 + 0 = 317
SCHEDULE OF WINDOW									
1.	W	0,965 X 1,525	DRG. ROOM	0	8 x 13	-	-	0,900	0 + 104 + 0 = 104
2.	W1	1,000 X 1,525	STUDY ROOM	1	8 x 13	-	-	0,900	1 + 104 + 0 = 105
3.	W2	1,000 X 1,225	KITCHEN	0	8 x 13	-	-	1,200	0 + 104 + 0 = 104
4.	W3	0,600 X 1,525	STUDY ROOM	2	16 x 13	-	-	0,900	2 + 208 + 0 = 210
5.	W4	0,870 X 1,525	BEDROOM	0	4 x 13	-	-	0,900	0 + 52 + 0 = 52
6.	W5	0,800 X 1,525	BEDROOM	0	4 x 13	-	-	0,900	0 + 52 + 0 = 52
7.	W6	0,450 X 1,525	BEDROOM	0	16 x 13	-	-	0,900	0 + 208 + 0 = 208
SCHEDULE OF VENTILATION									
1.	V	0,600 X 0,600	C.TOLET,A.TOLET	1	16 x 13	-	-	2,425	1 + 208 + 0 = 209

REVISION : _____ DATE : _____

SCALE : N.T.S TYPE : A - TYPE

WORKING DRAWING

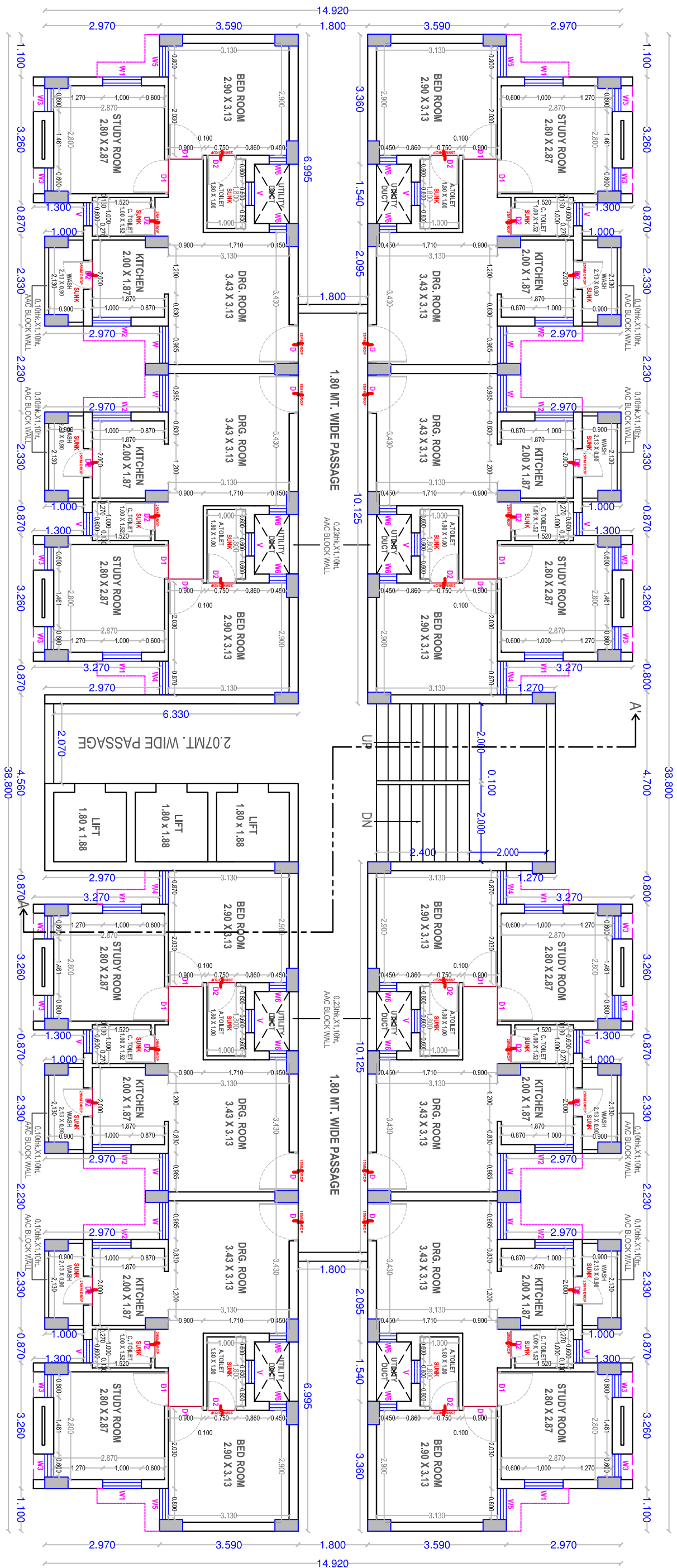
CLIENT: RAJKOT MUNICIPAL CORPORATION

PROJECT: PROPOSED E.W.S-II TYPE HOUSING AT F.P.-63/10, T.P.-32(RAIVA), DIST.:-RAJKOT.

JAYESSH A DALAL
PROJECT MANAGEMENT
CONSULTANT

"JALARAM SHIKTI" HSRIDE DHAWALGIRI APARTMENT, N.L.OLBORDS CONVENT SCHOOL, AHIMVALNES,SRINATI

DRAWN BY SAGUNA CHECK BY _____ SHEET NO 28Y 19



TYPICAL FLOOR PLAN
(1ST TO 13TH.FL.)

FOR DPR PURPOSE
WORKING DRAWING
BLDG.PLAN GR+13FL.
A -TYPE ..(11.BLDG.)
TYPICAL FLOOR PLAN

SCHEDULE OF DOORS									
SR.NO.	NAME	SIZE (OPENING)	POSITION	GR. FL	TY. FL X 13TH FL.	TERR.FL	SILL.	LINTEL.	TOTAL GR.+TY+TERR.=
1.	D	1.000 X 2.425	DRG.RM.	0	8 x 13	2	-	2.425	0 + 104 + 2 = 106
2.	D1	0.900 X 2.425	BED ROOM	1	16 x 13	-	-	2.425	1 + 208 + 0 = 209
3.	D2	0.750 X 2.425	C.TOILET.A.TOILET WASH.	5	24 x 13	-	-	2.425	5 + 312 + 0 = 317
SCHEDULE OF WINDOW									
1.	W	0.965 X 1.525	DRG. ROOM	0	8 x 13	-	0.900	2.425	0 + 104 + 0 = 104
2.	W1	1.000 X 1.525	STUDY ROOM	1	8 x 13	-	0.900	2.425	1 + 104 + 0 = 105
3.	W2	1.000 X 1.225	KITCHEN	0	8 x 13	-	1.200	2.425	0 + 104 + 0 = 104
4.	W3	0.600 X 1.525	STUDY ROOM	2	16 x 13	-	0.900	2.425	2 + 208 + 0 = 210
5.	W4	0.870 X 1.525	BEDROOM	0	4 x 13	-	0.900	2.425	0 + 52 + 0 = 52
6.	W5	0.800 X 1.525	BEDROOM	0	4 x 13	-	0.900	2.425	0 + 52 + 0 = 52
7.	W6	0.450 X 1.525	BEDROOM	0	16 x 13	-	0.900	2.425	0 + 208 + 0 = 208
SCHEDULE OF VENTILATION									
1.	V	0.600 X 0.600	C.TOILET.A.TOILET	1	16 x 13	-	-	2.425	1 + 208 + 0 = 209

REVISION : DATE :

SCALE : N.T.S TYPE : A - TYPE

WORKING DRAWING

CLIENT: RAJKOT MUNICIPAL CORPORATION

PROJECT: PROPOSED E.W.S -II TYPE HOUSING AT F.P.-63/10 , T.P.-32(RAINVA), DIST.-:RAJKOT.

JAYESSH A DALAL
PROJECT MANAGEMENT
CONSULTANT

THAKRAN SHAKTI, BESIDE BHAWALGIRI APARTMENT, NEAR DODDS CONVENT SCHOOL, ATIVVA, RAJKOT

DRAWN BY SAGUNA CHECK BY SHEET NO 28Y 19