



Your trusted partner for buying, selling, and managing property,
ensuring hassle-free service with 100% transparency.

3/350/2 Mettukuppam,
OMR Thoraipakkam,
Chennai, India

hello@verified.realestate

+91 9996 12 9996

Official Property Record

Digitally Verified Record - Powered by Verified  RealEstate™





OFFICE OF THE EXECUTIVE ENGINEER,
STRUCTURAL QUALITY CONTROL CELL,
TAMILNADU URBAN HABITAT DEVELOPMENT
BOARD,
KAMARAJAR SALAI,
CHENNAI – 05.

STRUCTURAL STABILITY CERTIFICATE

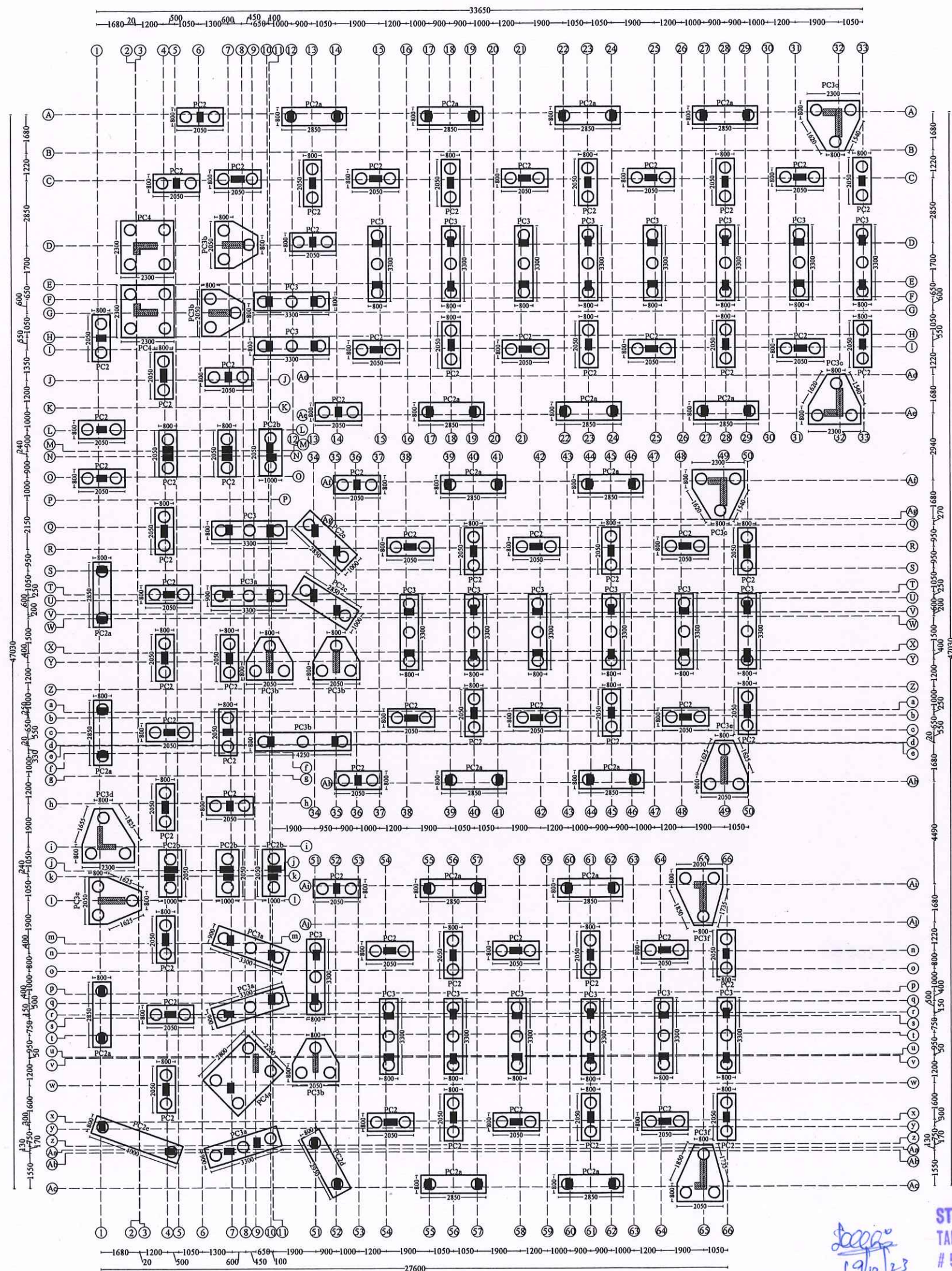
This is to Certify that the Reconstruction of 242 tenements plus one refuge unit at Chettythottam in R.S.No.96/1 of, Block No.5, of Tondiarpet Village, Tondiarpet, Royapuram, Chennai District, Tamil Nadu which is structurally designed for S+9 Floors assuming the live load of **200 Kg/ Sq.m** as per IS 875 are designed as per IS 456 Grade of Concrete will be M30 for sub structure and Super Structure members. The structure is also designed for the Seismic zone as per IS code. The structure design is Safe, Good, and Sound.

Yours Faithfully


24/10/2024

G. MAHENDIRAN, M.E.,
ASSISTANT EXECUTIVE ENGINEER
REGISTRATION No: SE/I/2024/4/0071
Registered Structural Engineer Grade-I (SE-I)
Tamil Nadu Urban Habitat Development Board
No. 5, Kamarajar Salai, Chennai-600 005.

PILE AND PILECAP LAYOUT



NOTE :

- All the dimensions are in mm unless noted otherwise.
- All structural drawings shall be read in conjunction with the relevant Architectural drawings.
- All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
- All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
- The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
- Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
- Structure is designed for (S+9) floors only.
- Design of the structure carried out with Limit State Method.
- Bored Cast-in-situ piles of 500 mm diameter shall be adopted with the length of pile of 31 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1250 KN and the lateral capacity is 103.70 KN (Fixed) as recommended in Soil Report.
- Analysis of the structure done with ETABS.
- Clear cover for reinforcement are as follows:
 - Pile & Pile Cap - 60 mm
 - Column / Shear Wall - 40 mm
 - Floor and roof beam - 30 mm
 - Slab - 25 mm
 - Water Tank Walls & Slab - 30 mm
- Design mix report should be got approved by the Anna University/IIT Madras/PWD.
- All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
- Cut lintels to be provided in all floors.
- Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
- Anchorage of column bars into the footings shall not be less than 50 Ø.
- Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer at once for review.
- Ground water quality has to be conformed for suitability to construction work.
- The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
- Dimensions and levels are to unfinished surface excluding finishes, coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
- The Recommendations in the Soil Report done by ANNA UNIVERSITY, Chennai Job. No.:SM&FE 209/Consultancy/2022, Dt:17.01.2022 should be followed scrupulously.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:

PILE & PILECAP LAYOUT.

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.:TNUHDB/CHETTI THOTTAM/01.

REVISION NO.:

Assistant Engineer

Asst. Exe. Engineer

Executive Engineer

Sd.xxxx 13.12.2023.
SE - PMU

Sd.xxxx.
SE - North II

Sd.xxxx 16.12.2023.
CE - North

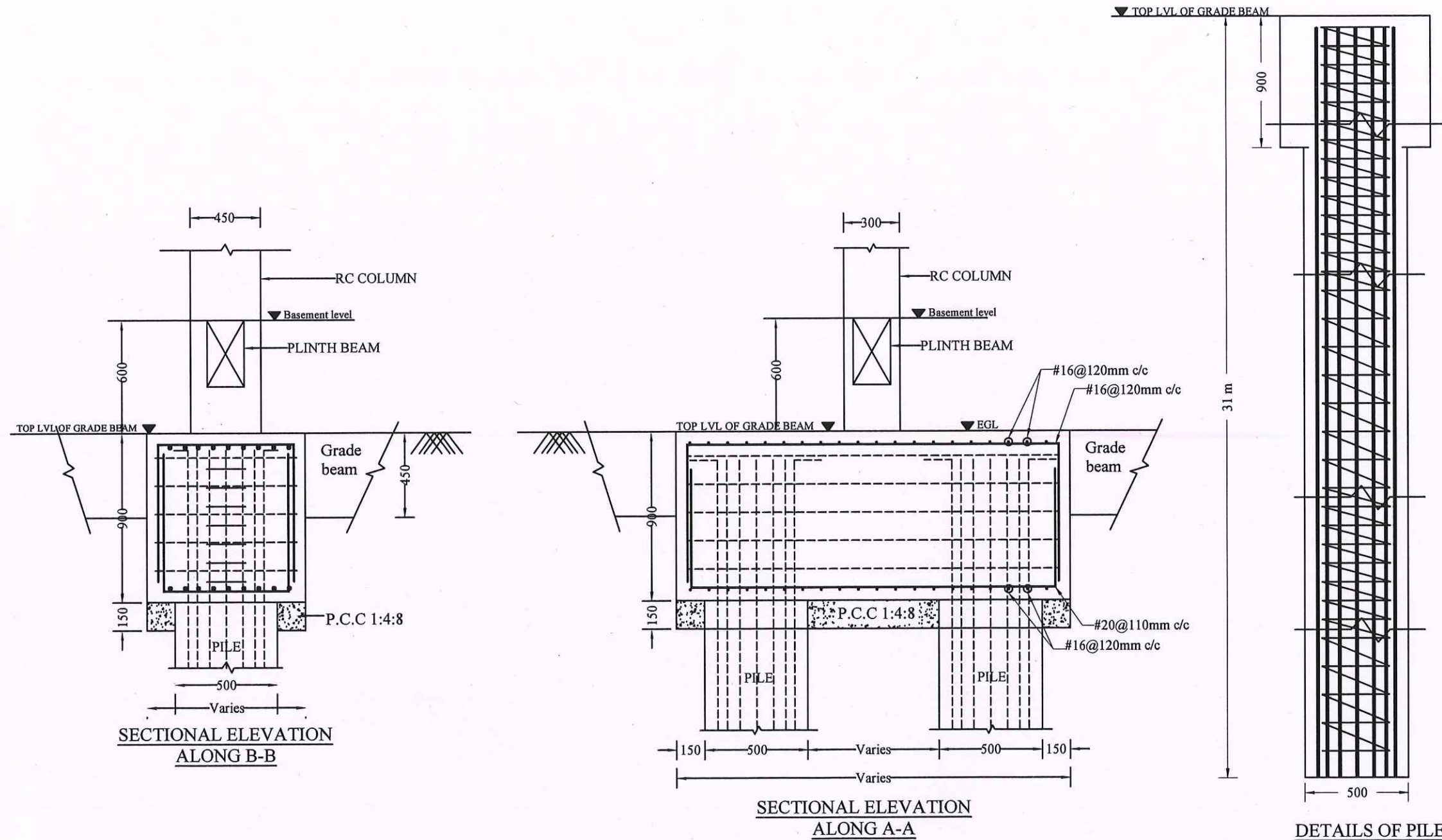


STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

PILE CAP CROSS SECTIONAL DETAILS (TYPICAL) & DETAILS OF PILE.



NOTE :

- All the dimensions are in mm unless noted otherwise.
- All structural drawings shall be read in conjunction with the relevant Architectural drawings.
- All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
- All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
- The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
- Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
- Structure is designed for (S+9) floors only.
- Design of the structure carried out with Limit State Method.
- Bored Cast-in-situ piles of 500 mm diameter shall be adopted with the length of pile of 31 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1250 KN and the lateral capacity is 103.70 KN (Fixed) as recommended in Soil Report.
- Analysis of the structure done with ETABS.
- Clear cover for reinforcement are as follows:
 - Pile & Pile Cap - 60 mm
 - Column / Shear Wall - 40 mm
 - Floor and roof beam - 30 mm
 - Slab - 25 mm
 - Water Tank Walls & Slab - 30 mm
- Design mix report should be got approved by the Anna University/IIT Madras/PWD.
- All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
- Cut lintels to be provided in all floors.
- Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
- Anchorage of column bars into the footings shall not be less than 50 Ø.
- Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer at once for review.
- Ground water quality has to be conformed for suitability to construction work.
- The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
- Dimensions and levels are to unfinished surface excluding finishes, coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
- The Recommendations in the Soil Report done by ANNA UNIVERSITY, Chennai Job. No.:SM&FE 209/Consultancy/2022, Dt:17.01.2022 should be followed scrupulously.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:
PILE CAP CROSS SECTIONAL DETAILS (TYPICAL) & DETAILS OF PILE.

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.:TNUHDB/CHETTI THOTTAM/02.

REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	Sd.xxxx 13.12.2023. SE - PMU
Sd.xxxx. SE - North II	Sd.xxxx 16.12.2023. CE - North

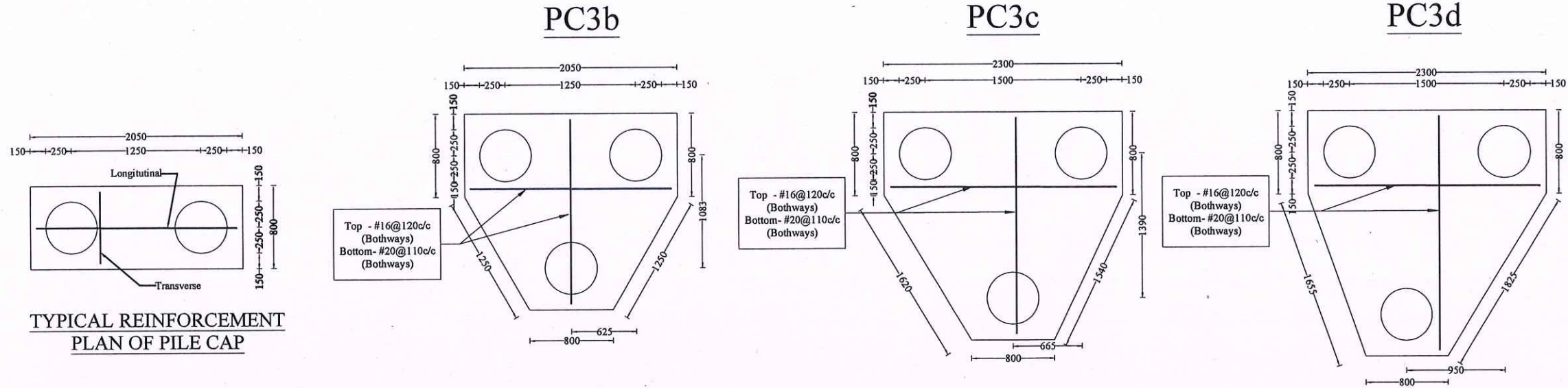
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

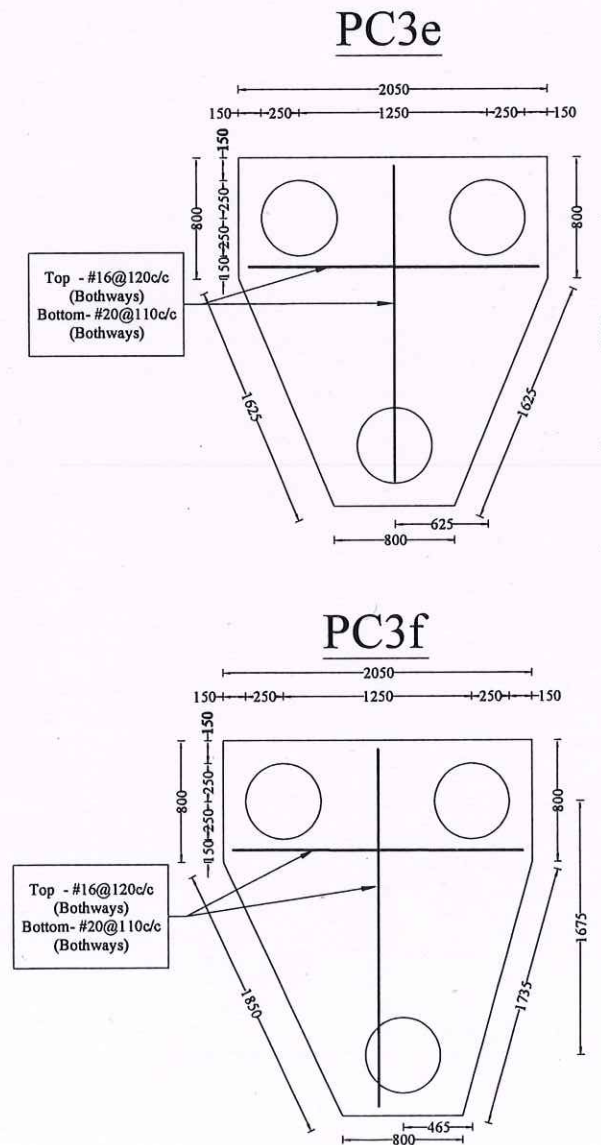
19/12/23

PILE CAP DETAILS



TYPICAL REINFORCEMENT
PLAN OF PILE CAP

PILE CAP SCHEDULE						
PILE CAP ID	SIZE (mm)	DEPTH (mm)	REINFORCEMENT DETAILS @ TOP LONGITUDINAL	REINFORCEMENT DETAILS @ BOTTOM LONGITUDINAL	REINFORCEMENT DETAILS @ TRANSVERSE	BURSTING REINFORCEMENT
PC2	2050x800	900	#16 @120c/c	#20 @110c/c	#16 @120c/c	#12 @150c/c
PC2a	2850x900	900	#16 @120c/c	#20 @110c/c	#16 @120c/c	#12 @150c/c
PC2b	2050x1000	900	#16 @120c/c	#20 @110c/c	#16 @120c/c	#12 @150c/c
PC2c	2850x1000	900	#16 @120c/c	#20 @110c/c	#16 @120c/c	#12 @150c/c
PC2d	2950x800	900	#16 @120c/c	#20 @110c/c	#16 @120c/c	#12 @150c/c
PC2e	4000x800	900	#16 @120c/c	#20 @110c/c	#16 @120c/c	#12 @150c/c
PC3	3300x800	900	#16 @120c/c	#20 @110c/c	#16 @120c/c	#12 @150c/c
PC3a	3300x900	900	#16 @120c/c	#20 @110c/c	#16 @120c/c	#12 @150c/c
PC3b	Refer Drawing	900	Refer Drawing	Refer Drawing	Refer Drawing	#12 @150c/c
PC3c	Refer Drawing	900	Refer Drawing	Refer Drawing	Refer Drawing	#12 @150c/c
PC3d	Refer Drawing	900	Refer Drawing	Refer Drawing	Refer Drawing	#12 @150c/c
PC3e	Refer Drawing	900	Refer Drawing	Refer Drawing	Refer Drawing	#12 @150c/c
PC3f	Refer Drawing	900	Refer Drawing	Refer Drawing	Refer Drawing	#12 @150c/c
PC4	2300x2300	900	#16 @120c/c	#20 @110c/c	#16 @120c/c	#12 @150c/c
PC4a	2800x2200	900	#16 @120c/c	#20 @110c/c	#16 @120c/c	#12 @150c/c



NOTE :

- All the dimensions are in mm unless noted otherwise.
- All structural drawings shall be read in conjunction with the relevant Architectural drawings.
- All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
- All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
- The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
- Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
- Structure is designed for (S+9) floors only.
- Design of the structure carried out with Limit State Method.
- Bored Cast-in-situ piles of 500 mm diameter shall be adopted with the length of pile of 31 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1250 KN and the lateral capacity is 103.70 KN (Fixed) as recommended in Soil Report.
- Analysis of the structure done with ETABS.
- Clear cover for reinforcement are as follows:
 - Pile & Pile Cap - 60 mm
 - Column / Shear Wall - 40 mm
 - Floor and roof beam - 30 mm
 - Slab - 25 mm
 - Water Tank Walls & Slab - 30 mm
- Design mix report should be got approved by the Anna University/IIT Madras/PWD.
- All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
- Cut lintels to be provided in all floors.
- Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
- Anchorage of column bars into the footings shall not be less than 50 Ø.
- Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer at once for review.
- Ground water quality has to be conformed for suitability to construction work.
- The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
- Dimensions and levels are to unfinished surface excluding finishes, coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
- The Recommendations in the Soil Report done by ANNA UNIVERSITY, Chennai Job. No..SM&FE 209/Consultancy/2022, Dt:17.01.2022 should be followed scrupulously.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:
PILE CAP DETAILS.

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.: TNUHDB/CHETTI THOTTAM/03.

REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	Sd.xxxx 13.12.2023. SE - PMU
Sd.xxxx. SE - North II	Sd.xxxx 16.12.2023. CE - North



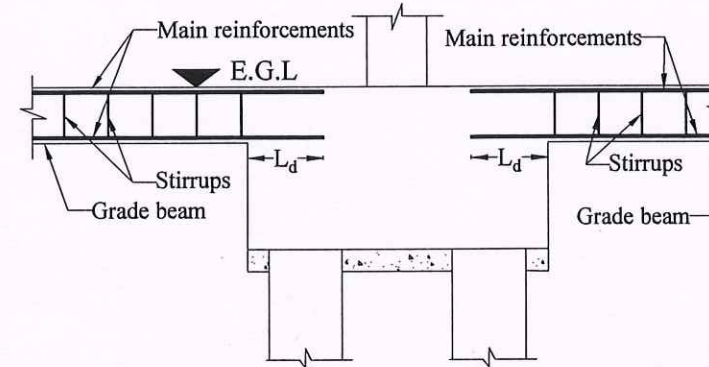
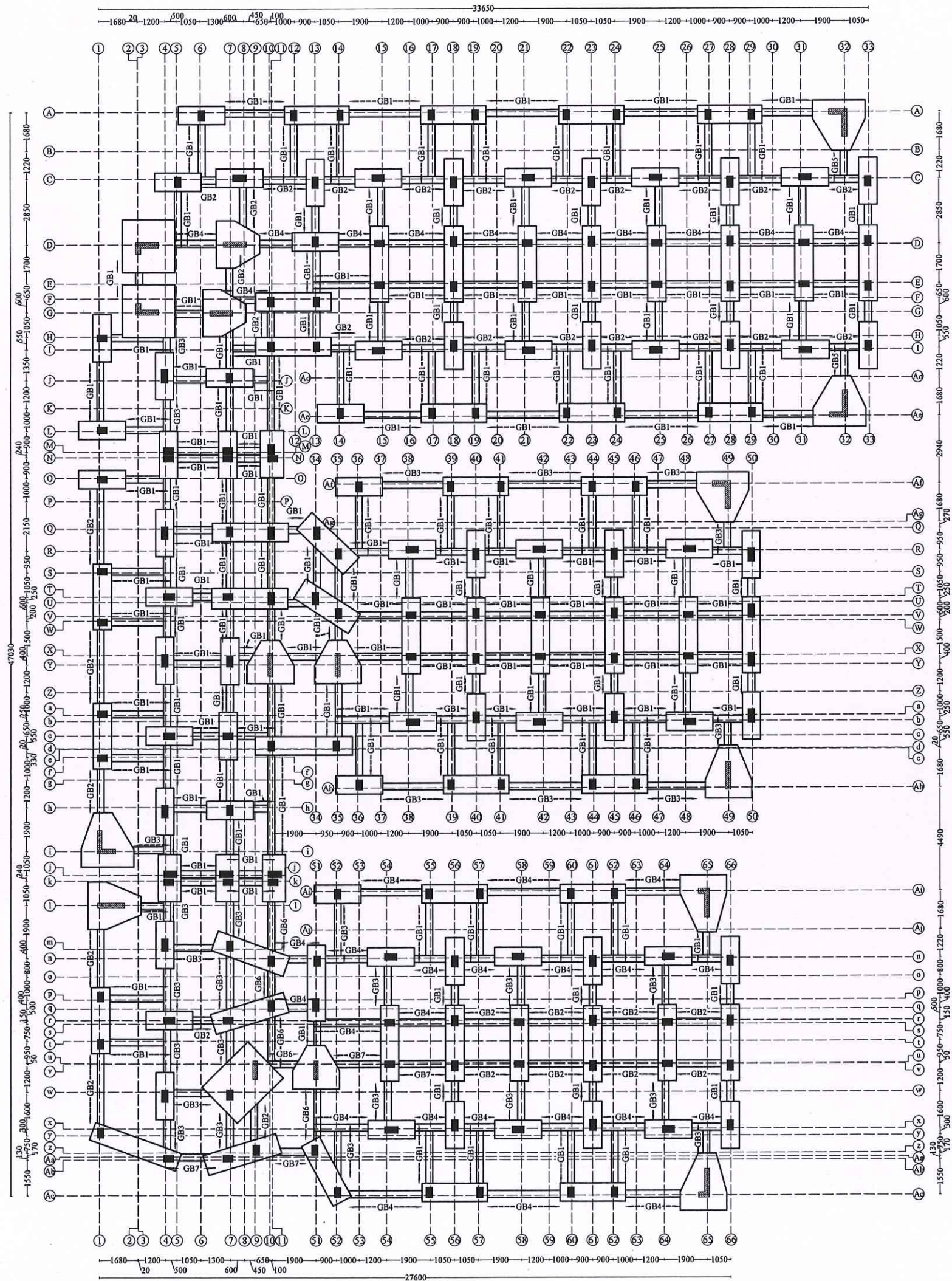
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI, CHENNAI - 600 005.

TRUE COPY

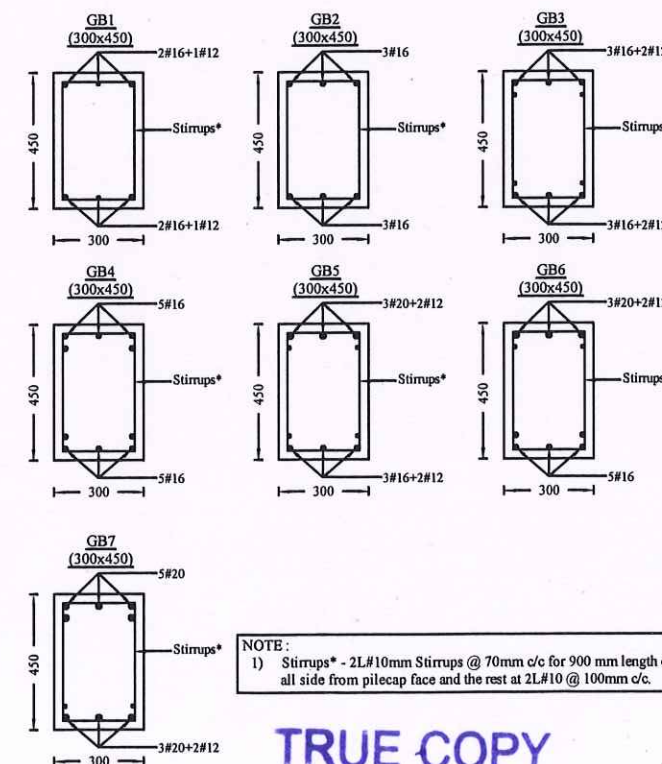
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

19/12/23

GRADE BEAM LAYOUT & DETAILS



TYPICAL REINFORCEMENT ARRANGEMENT OF GRADE BEAM PILE CAP CONNECTION
(Pile cap & Pile reinforcement details are not shown for clarity)



NOTE:
1) Stirrups - 2L#10mm Stirrups @ 70mm c/c for 900 mm length on all side from pilecap face and the rest at 2L#10 @ 100mm c/c.

TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

NOTE:

- All the dimensions are in mm unless noted otherwise.
- All structural drawings shall be read in conjunction with the relevant Architectural drawings.
- All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
- All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
- The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
- Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
- Structure is designed for (S+9) floors only.
- Design of the structure carried out with Limit State Method.
- Bored Cast-in-situ piles of 500 mm diameter shall be adopted with the length of pile of 31 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1250 KN and the lateral capacity is 103.70 KN (Fixed) as recommended in Soil Report.
- Analysis of the structure done with ETABS.
- Clear cover for reinforcement are as follows:
(a) Pile & Pile Cap - 60 mm
(b) Column / Shear Wall - 40 mm
(c) Floor and roof beam - 30 mm
(d) Slab - 25 mm
(e) Water Tank Walls & Slab - 30 mm
- Design mix report should be got approved by the Anna University/IIT Madras/PWD.
- All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
- Cut lintels to be provided in all floors.
- Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
- Anchorage of column bars into the footings shall not be less than 50 Ø.
- Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer at once for review.
- Ground water quality has to be conformed for suitability to construction work.
- The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
- Dimensions and levels are to unfinished surface excluding finishes, coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
- The Recommendations in the Soil Report done by ANNA UNIVERSITY, Chennai Job. No.:SM&FE 209/Consultancy/2022, Dt:17.01.2022 should be followed scrupulously.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

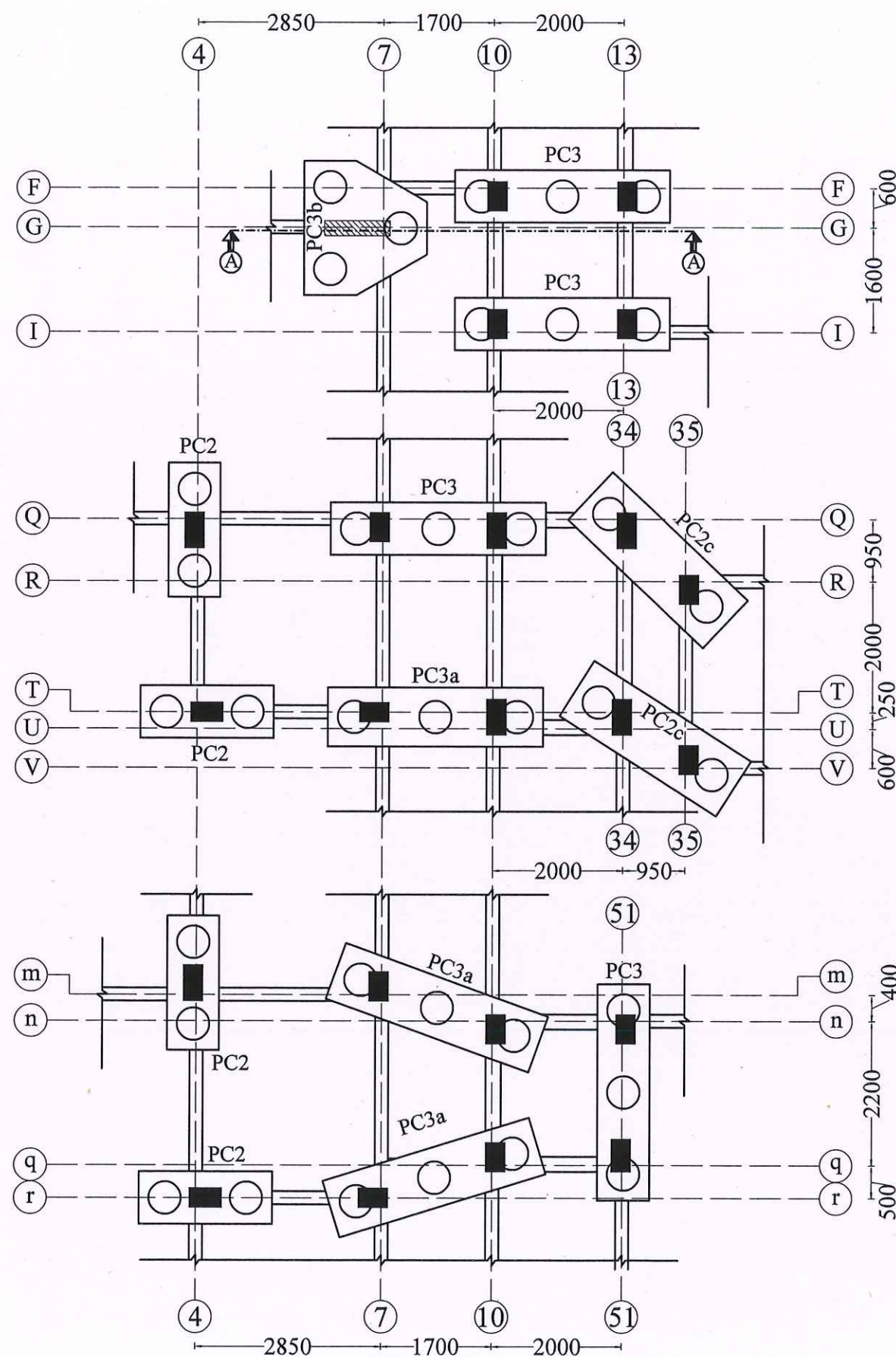
TITLE:
GRADE BEAM LAYOUT & DETAILS.
TYPE DESIGN NO.: 29(R1)/2021
DWG.NO.:TNUHDB/CHETTI THOTTAM/04.
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	Sd.xxxx 13.12.2023. SE - PMU
Sd.xxxx. SE - North II	Sd.xxxx 16.12.2023. CE - North

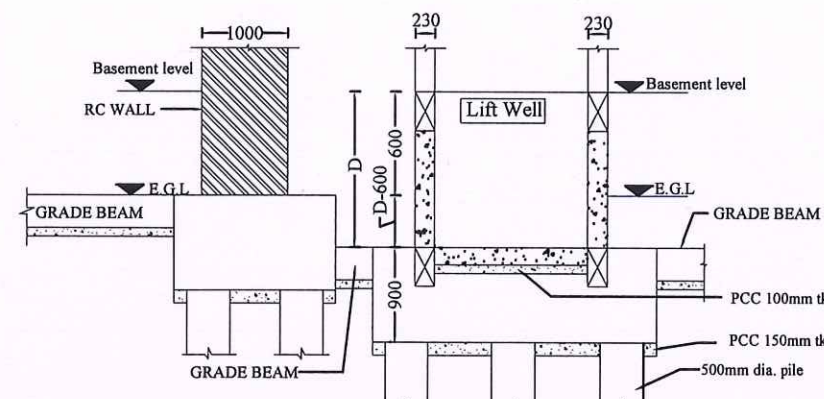


STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

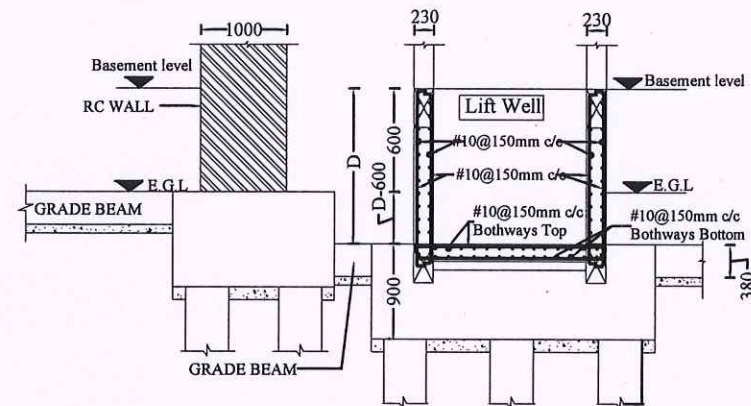
LAYOUT AND RC DETAILS OF LIFT WELL



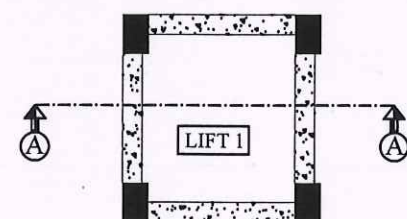
GENERAL PILECAP & GRADE BEAM LAYOUT
BELOW THE LIFT PIT AREA - LIFT 1, 2 & 3



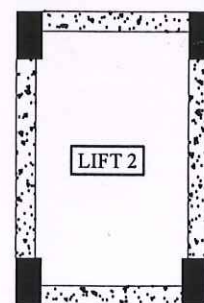
SECTION ON A-A (GENERAL ARRANGEMENT)



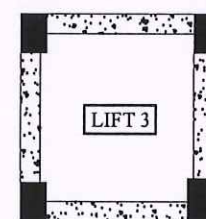
SECTION ON A-A (REINFORCEMENT DETAILS)



PLAN OF LIFT 1 WELL -TYPICAL



PLAN OF LIFT 2 WELL -TYPICAL



PLAN OF LIFT 3 WELL -TYPICAL

NOTE:
* D - Depth of lift pit below basement level should be confirmed with manufacturer. Any deviation from drawing should be confirmed with structural consultant.

TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

NOTE :

- All the dimensions are in mm unless noted otherwise.
- All structural drawings shall be read in conjunction with the relevant Architectural drawings.
- All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
- All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
- The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
- Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
- Structure is designed for (S+9) floors only.
- Design of the structure carried out with Limit State Method.
- Bored Cast-in-situ piles of 500 mm diameter shall be adopted with the length of pile of 31 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1250 KN and the lateral capacity is 103.70 KN (Fixed) as recommended in Soil Report.
- Analysis of the structure done with ETABS.
- Clear cover for reinforcement are as follows:
 - Pile & Pile Cap - 60 mm
 - Column / Shear Wall - 40 mm
 - Floor and roof beam - 30 mm
 - Slab - 25 mm
 - Water Tank Walls & Slab - 30 mm
- Design mix report should be got approved by the Anna University/IIT Madras/PWD.
- All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
- Cut lintels to be provided in all floors.
- Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
- Anchorage of column bars into the footings shall not be less than 50 Ø.
- Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer at once for review.
- Ground water quality has to be confirmed for suitability to construction work.
- The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
- Dimensions and levels are to unfinished surface excluding finishes, coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
- The Recommendations in the Soil Report done by ANNA UNIVERSITY, Chennai Job. No.:SM&FE 209/Consultancy/2022, Dt:17.01.2022 should be followed scrupulously.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:
LAYOUT AND RC DETAILS OF LIFT WELL.

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.:TNUHDB/CHETTI THOTTAM/05.

REVISION NO.:

Assistant Engineer	Asst. Exc. Engineer
Executive Engineer	Sd.xxxx 13.12.2023. SE - PMU
Sd.xxxx. SE - North II	Sd.xxxx 16.12.2023. CE - North



STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.


19/12/23
EXECUTIVE ENGINEER *on*
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (S+9) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 500 mm diameter shall be adopted with the length of pile of 31 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1250 KN and the lateral capacity is 103.70 KN (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with ETABS.
11. Clear cover for reinforcement are as follows:
 - (a) Pile & Pile Cap - 60 mm
 - (b) Column / Shear Wall - 40 mm
 - (c) Floor and roof beam - 30 mm
 - (d) Slab - 25 mm
 - (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer at once for review.
18. Ground water quality has to be conformed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
20. Dimensions and levels are to unfinished surface excluding finishes, coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
21. The Recommendations in the Soil Report done by ANNA UNIVERSITY, Chennai Job. No.:SM&FE 209/Consultancy/2022, Dt:17.01.2022 should be followed scrupulously.

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.:TNUHDB/CHETTI THOTTAM/06.

REVISION NO.:

Assistant Engineer

Asst. Exe. Engineer

Executive Engineer

Sd. 13.12.2023.
SE - PMU

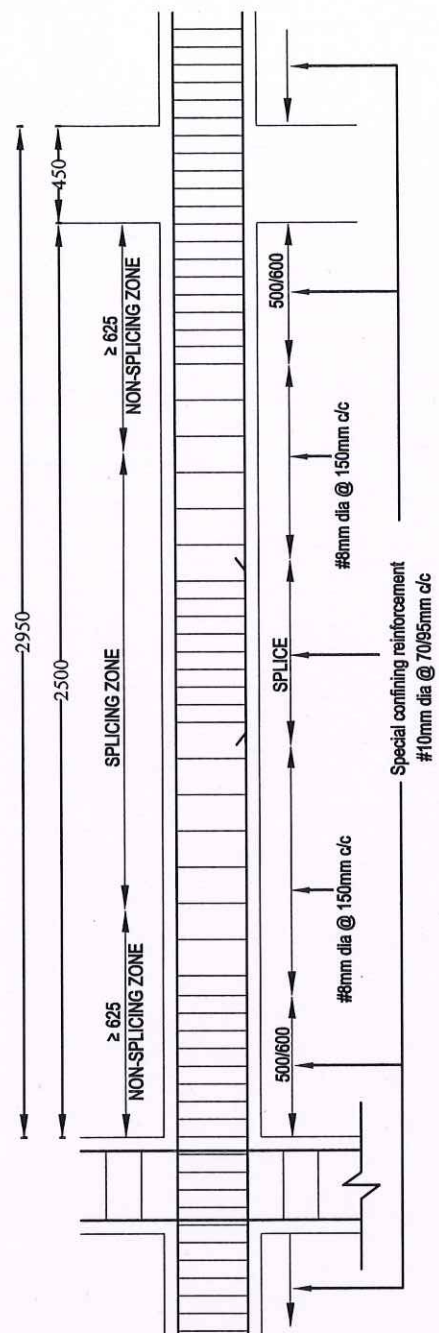
Sd.xxxxx.
SE - North II

Sd.xxxx 16.12.2023.
CE - North



STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

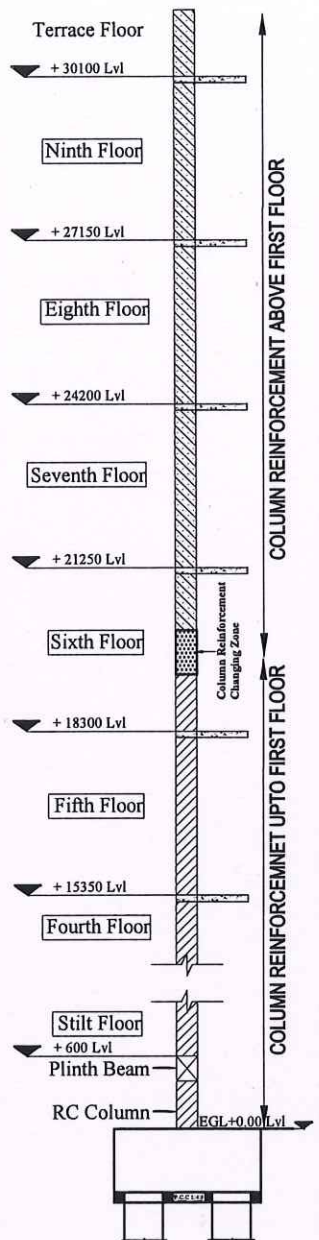
SCHEDULE OF COLUMNS



TYPICAL COLUMN SPLICING AND CONFINING REINFORCEMENT DETAILS

Sl.No.	Column Marking	No of Columns	Size	E.G.L to 5 th Floor Column Reinforcement Details			6 th to Terrace Column Reinforcement Details			Ties Profile	Remarks
				Column Verticals	Lateral Ties	Cross Section	Column Verticals	Lateral Ties	Cross Section		
1.	C1	100	300 x 450	# 16 - 6 Nos + # 12 - 4 Nos	1) Upto Stilt floor slab: #10 @ 70 mm c/c 2) Above Stilt floor slab: #10 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		# 16 - 6 Nos + # 12 - 4 Nos.	Above First floor slab: #10 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			Curtaiment at 6 th floor
2.	C2	12	300 x 450	# 16 - 10 Nos	1) Upto Stilt floor slab: #10 @ 70 mm c/c 2) Above Stilt floor slab: #10 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		# 16 - 6 Nos + # 12 - 4 Nos.	Above First floor slab: #10 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			Curtaiment at 6 th floor
3.	C3	09	300 x 450	# 20 - 4 Nos + # 16 - 4 Nos + # 12 - 2 Nos	1) Upto Stilt floor slab: #10 @ 70 mm c/c 2) Above Stilt floor slab: #10 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		# 16 - 6 Nos + # 12 - 4 Nos.	Above First floor slab: #10 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			Curtaiment at 6 th floor
4.	C4	02	300 x 450	# 20 - 4 Nos + # 16 - 4 Nos + # 12 - 2 Nos	1) Upto Stilt floor slab: #10 @ 70 mm c/c 2) Above Stilt floor slab: #10 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		# 20 - 4 Nos + # 16 - 4 Nos + # 12 - 2 Nos	Above First floor slab: #10 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			Curtaiment at 6 th floor
5.	C5	02	300 x 450	# 20 - 6 Nos + # 16 - 4 Nos	1) Upto Stilt floor slab: #10 @ 95 mm c/c 2) Above Stilt floor slab: #10 @ 95 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		# 16 - 6 Nos + # 12 - 4 Nos	Above First floor slab: #10 @ 95 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			Curtaiment at 6 th floor
6.	C6	01	300 x 450	# 20 - 6 Nos + # 16 - 4 Nos	1) Upto Stilt floor slab: #10 @ 70 mm c/c 2) Above Stilt floor slab: #10 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		# 20 - 4 Nos + # 16 - 4 Nos + # 12 - 2 Nos	Above First floor slab: #10 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			Curtaiment at 6 th floor

Notes: In Cross Section a - # 20 mm b - # 16 mm c - # 12 mm



NOTE :

- All the dimensions are in mm unless noted otherwise.
- All structural drawings shall be read in conjunction with the relevant Architectural drawings.
- All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
- All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
- The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
- Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
- Structure is designed for (S+9) floors only.
- Design of the structure carried out with Limit State Method.
- Bored Cast-in-situ piles of 500 mm diameter shall be adopted with the length of pile of 31 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1250 KN and the lateral capacity is 103.70 KN (Fixed) as recommended in Soil Report.
- Analysis of the structure done with ETABS.
- Clear cover for reinforcement are as follows:
 - Pile & Pile Cap - 60 mm
 - Column / Shear Wall - 40 mm
 - Floor and roof beam - 30 mm
 - Slab - 25 mm
 - Water Tank Walls & Slab - 30 mm
- Design mix report should be got approved by the Anna University/IIT Madras/PWD.
- All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.

- Cut lintels to be provided in all floors.
- Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
- Anchorage of column bars into the footings shall not be less than 50 Ø.
- Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer at once for review.
- Ground water quality has to be conformed for suitability to construction work.
- The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
- Dimensions and levels are to unfinished surface excluding finishes, coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
- The Recommendations in the Soil Report done by ANNA UNIVERSITY, Chennai Job. No.:SM&FE 209/Consultancy/2022, Dt:17.01.2022 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:
SCHEDULE OF COLUMNS (1 OF 2)

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.: TNUHDB / CHETTI THOTTAM / 07.

REVISION NO.:

TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

Assistant Engineer

Asst. Exe. Engineer

Executive Engineer

Sd.xxxx 13.12.2023.
SE - PMU

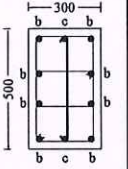
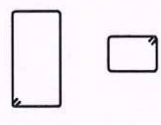
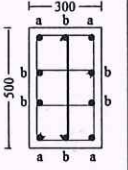
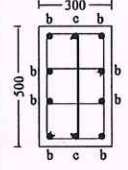
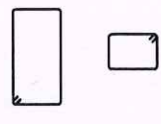
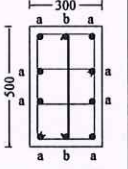
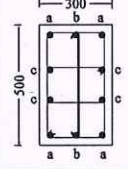
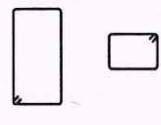
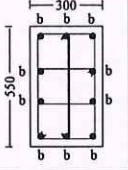
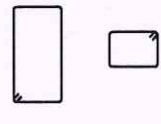
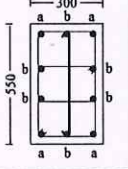
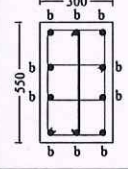
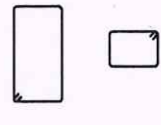
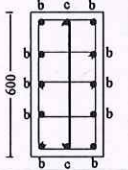
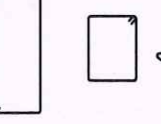
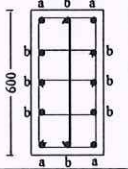
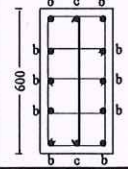
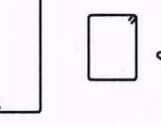
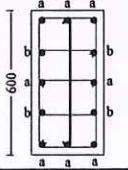
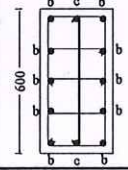
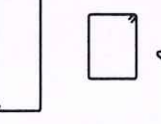
Sd.xxxx.
SE - North II

Sd.xxxx 16.12.2023.
Chief Engineer - North



STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

SCHEDULE OF COLUMNS

Sl.No.	Column Marking	No of Columns	Size	E.G.L to 5 th Floor Column Reinforcement Details			6 th to Terrace Column Reinforcement Details			Ties Profile	Remarks
				Column Verticals	Lateral Ties	Cross Section	Column Verticals	Lateral Ties	Cross Section		
7.	C7	10	300 x 500	# 16 - 8 Nos + # 12 - 2 Nos	1) Upto Stilt floor slab: #10 @ 70 mm c/c 2) Above Stilt floor slab: #10 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		# 16 - 8 Nos + # 12 - 2 Nos	Above First floor slab: #10 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c	--		Curtailment at 6 th floor
8.	C8	09	300 x 500	# 20 - 4 Nos + # 16 - 6 Nos	1) Upto Stilt floor slab: #10 @ 95 mm c/c 2) Above Stilt floor slab: #10 @ 95 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		# 16 - 8 Nos + # 12 - 2 Nos	Above First floor slab: #10 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			Curtailment at 6 th floor
9.	C9	01	300 x 500	# 20 - 8 Nos + # 16 - 2 Nos	1) Upto Stilt floor slab: #10 @ 95 mm c/c 2) Above Stilt floor slab: #10 @ 95 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		# 20 - 4 Nos + # 16 - 2 Nos + # 12 - 4 Nos	Above First floor slab: #10 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			Curtailment at 6 th floor
10.	C10	20	300 x 550	# 16 - 10 Nos	1) Upto Stilt floor slab: #10 @ 95 mm c/c 2) Above Stilt floor slab: #10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		# 16 - 10 Nos	Above First floor slab: #10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c	--		Curtailment at 6 th floor
11.	C11	03	300 x 550	# 20 - 4 Nos + # 16 - 6 Nos	1) Upto Stilt floor slab: #10 @ 95 mm c/c 2) Above Stilt floor slab: #10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		# 16 - 10 Nos	Above First floor slab: #10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			Curtailment at 6 th floor
12.	C12	08	300 x 600	# 16 - 10 Nos + # 12 - 2 Nos	1) Upto Stilt floor slab: #10 @ 70 mm c/c 2) Above Stilt floor slab: #10 @ 70 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		# 16 - 10 Nos + # 12 - 2 Nos	Above First floor slab: #10 @ 70 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c	--		Curtailment at 6 th floor
13.	C13	02	300 x 600	# 20 - 4 Nos + # 16 - 8 Nos	1) Upto Stilt floor slab: #10 @ 95 mm c/c 2) Above Stilt floor slab: #10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		# 16 - 10 Nos + # 12 - 2 Nos	Above First floor slab: #10 @ 70 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			Curtailment at 6 th floor
14.	C14	01	300 x 600	# 20 - 8 Nos + # 16 - 4 Nos	1) Upto Stilt floor slab: #10 @ 95 mm c/c 2) Above Stilt floor slab: #10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		# 16 - 10 Nos + # 12 - 2 Nos	Above First floor slab: #10 @ 70 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			Curtailment at 6 th floor

NOTE :

- All the dimensions are in mm unless noted otherwise.
- All structural drawings shall be read in conjunction with the relevant Architectural drawings.
- All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
- All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
- The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
- Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
- Structure is designed for (S+9) floors only.
- Design of the structure carried out with Limit State Method.
- Bored Cast-in-situ piles of 500 mm diameter shall be adopted with the length of pile of 31 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1250 KN and the lateral capacity is 103.70 KN (Fixed) as recommended in Soil Report.
- Analysis of the structure done with ETABS.
- Clear cover for reinforcement are as follows:
 - Pile & Pile Cap - 60 mm
 - Column / Shear Wall - 40 mm
 - Floor and roof beam - 30 mm
 - Slab - 25 mm
 - Water Tank Walls & Slab - 30 mm
- Design mix report should be got approved by the Anna University/IIT Madras/PWD.
- All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
- Cut lintels to be provided in all floors.
- Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
- Anchorage of column bars into the footings shall not be less than 50 Ø.
- Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
- Ground water quality has to be conformed for suitability to construction work.
- The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
- Dimensions and levels are to unfinished surface excluding finishes, coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
- The Recommendations in the Soil Report done by ANNA UNIVERSITY, Chennai Job. No.:SM&FE 209/Consultancy/2022, Dt:17.01.2022 should be followed scrupulously.

TRUE COPY

[Signature]
EXECUTIVE ENGINEER
 STRUCTURAL AND QUALITY CONTROL CELL
 TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
 # 5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:
SCHEDULE OF COLUMNS (2 OF 2)

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.: TNUHDB/CHETTI THOTTAM/08.

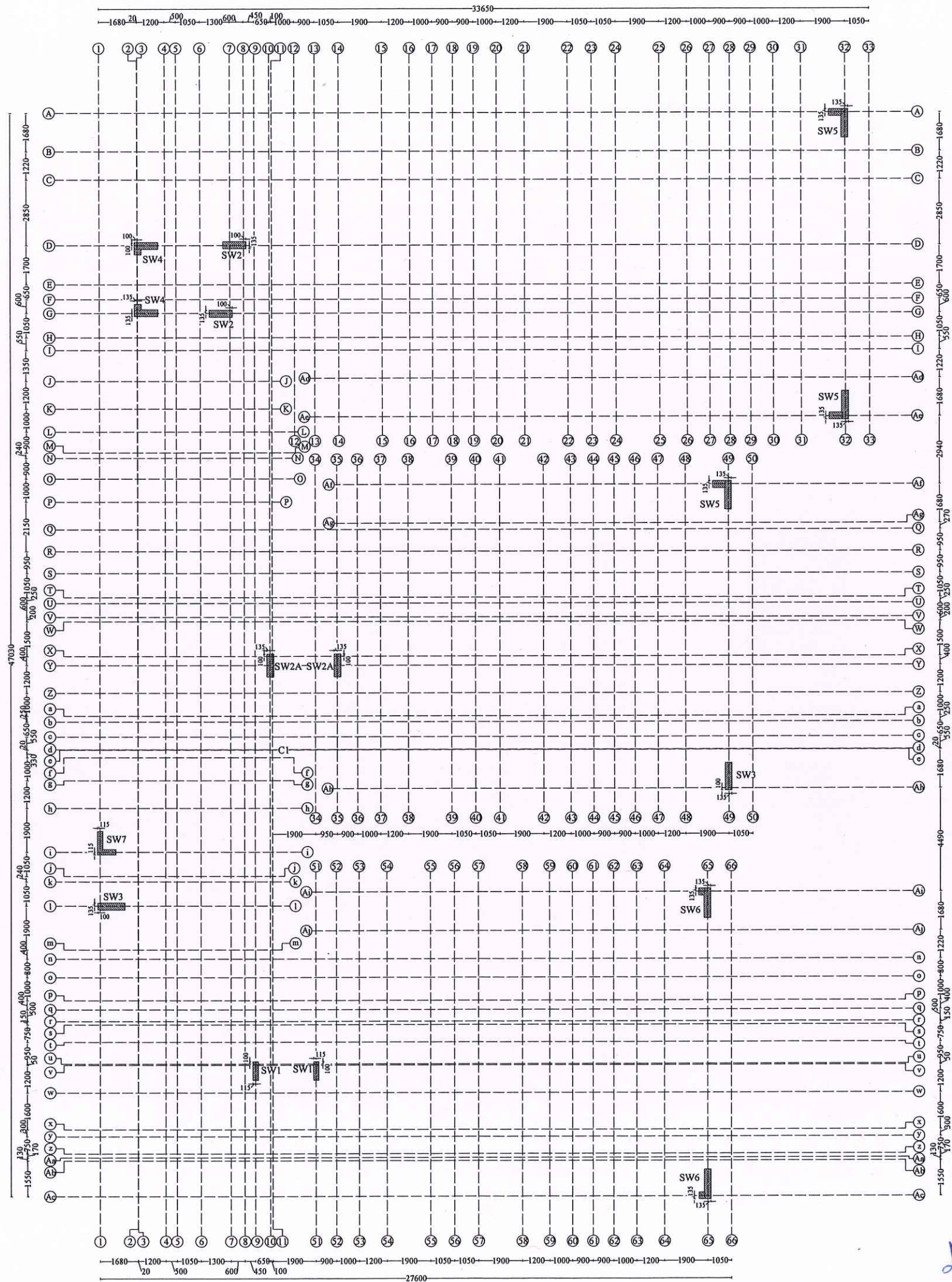
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	Sd.xxxx 13.12.2023. SE - PMU
Sd.xxxx. SE - North II	Sd.xxxx 16.12.2023. CE - North



STRUCTURAL & QUALITY CONTROL CELL
 TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
 NO.5, KAMARAJAR SALAI
 CHENNAI - 600 005.

SHEAR WALL LAYOUT UP TO FIRST FLOOR



NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (S+9) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 500 mm diameter shall be adopted with the length of pile of 31 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1250 KN and the lateral capacity is 103.70 KN (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with ETABS.
11. Clear cover for reinforcement are as follows:
 - (a) Pile & Pile Cap - 60 mm
 - (b) Column / Shear Wall - 40 mm
 - (c) Floor and roof beam - 30 mm
 - (d) Slab - 25 mm
 - (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer at once for review.
18. Ground water quality has to be conformed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
20. Dimensions and levels are to unfinished surface excluding finishes, coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
21. The Recommendations in the Soil Report done by ANNA UNIVERSITY, Chennai Job. No.:SM&FE 209/Consultancy/2022, Dt:17.01.2022 should be followed scrupulously.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:
SHEAR WALL LAYOUT UP TO FIRST FLOOR.

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.:TNUHDB/CHETTI THOTTAM/09.

REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	Sd.xxxx 13.12.2023. SE - PMU
Sd.xxxx. SE - North II	Sd.xxxx 16.12.2023. CE - North

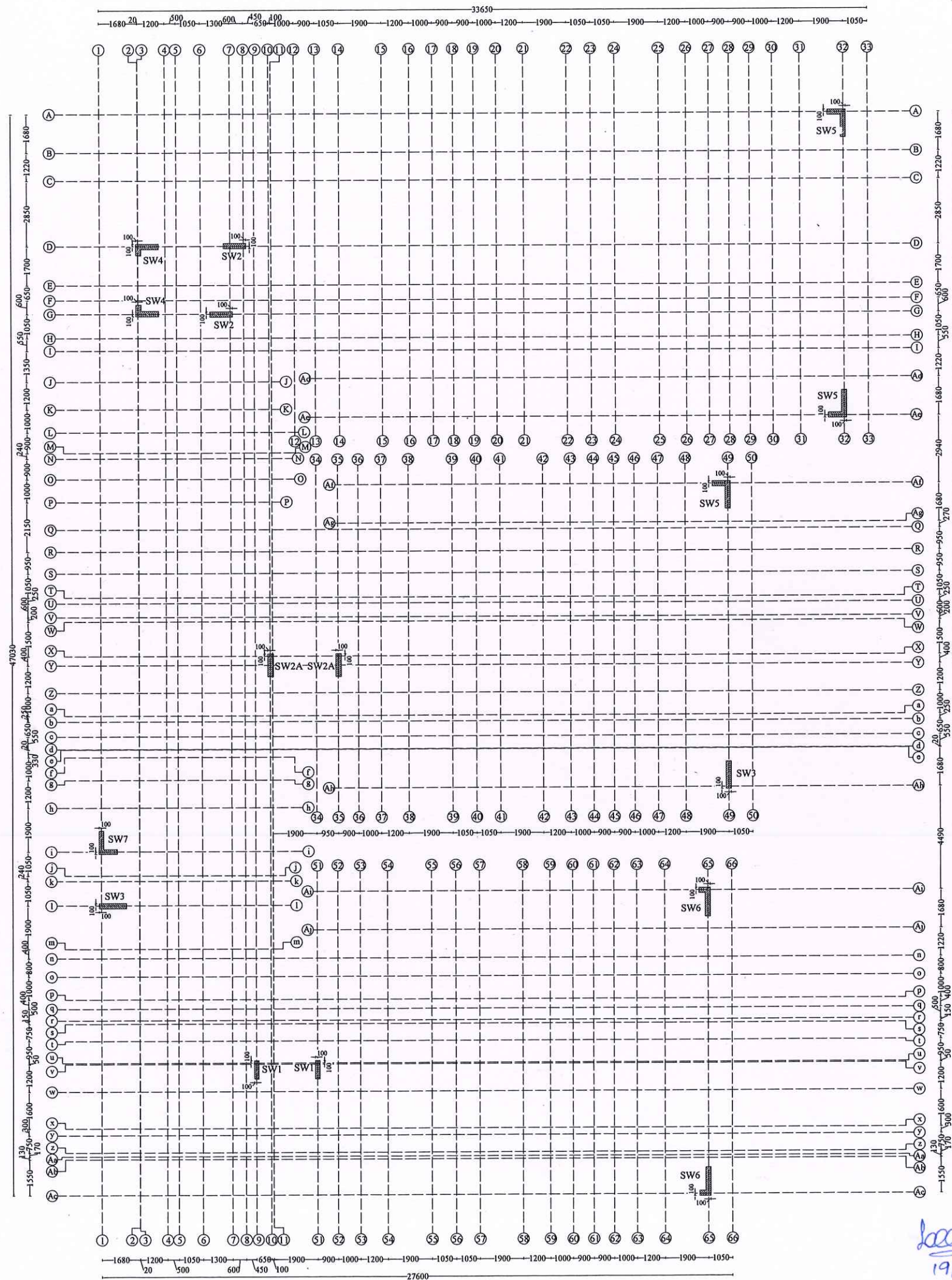


STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

SHEAR WALL LAYOUT ABOVE FIRST FLOOR



NOTE :

- All the dimensions are in mm unless noted otherwise.
- All structural drawings shall be read in conjunction with the relevant Architectural drawings.
- All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
- All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
- The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
- Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
- Structure is designed for (S+9) floors only.
- Design of the structure carried out with Limit State Method.
- Bored Cast-in-situ piles of 500 mm diameter shall be adopted with the length of pile of 31 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1250 KN and the lateral capacity is 103.70 KN (Fixed) as recommended in Soil Report.
- Analysis of the structure done with ETABS.
- Clear cover for reinforcement are as follows:
 - Pile & Pile Cap - 60 mm
 - Column / Shear Wall - 40 mm
 - Floor and roof beam - 30 mm
 - Slab - 25 mm
 - Water Tank Walls & Slab - 30 mm
- Design mix report should be got approved by the Anna University/IIT Madras/PWD.
- All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
- Cut lintels to be provided in all floors.
- Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
- Anchorage of column bars into the footings shall not be less than 50 Ø.
- Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer at once for review.
- Ground water quality has to be conformed for suitability to construction work.
- The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
- Dimensions and levels are to unfinished surface excluding finishes, coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
- The Recommendations in the Soil Report done by ANNA UNIVERSITY, Chennai Job. No.:SM&FE 209/Consultancy/2022, Dt:17.01.2022 should be followed scrupulously.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:
SHEAR WALL LAYOUT ABOVE FIRST FLOOR.

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.:TNUHDB/CHETTI THOTTAM/10.

REVISION NO.:

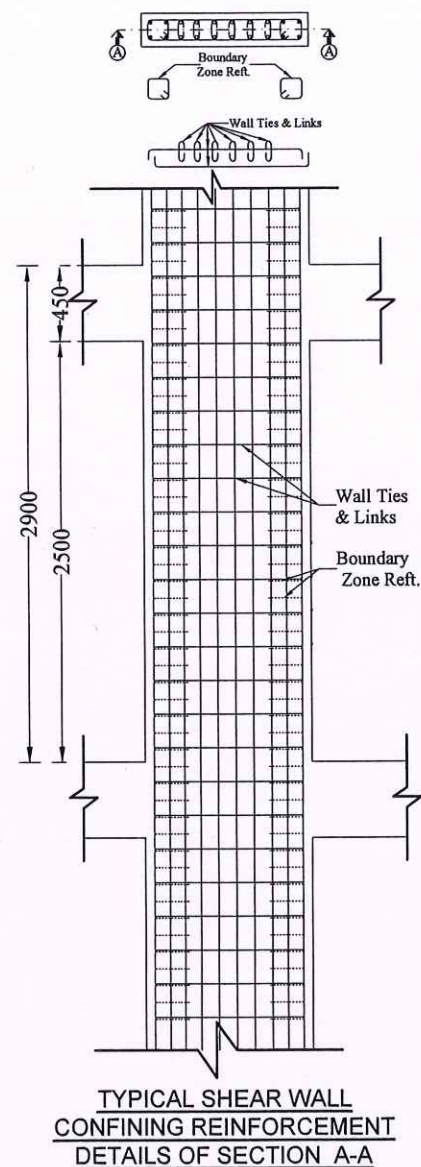
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	Sd.xxxx 13.12.2023. SE - PMU
Sd.xxxxx. SE - North II	Sd.xxxx 16.12.2023. CE - North

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

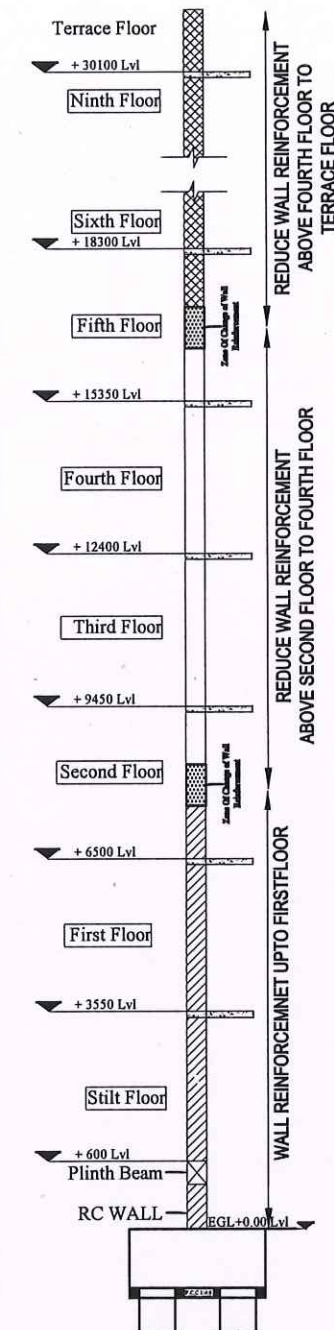
TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

SHEAR WALL REINFORCEMENT DETAILS



Curtailments Levels	SW1 (2 Nos)	SW2 (2 Nos)	SW2A (2 Nos)	SW3 (2 Nos)	SW4 (2 Nos)
From 5 th floor level to Terrace Floor level (Bar Curtailment at mid height of 5 th floor)					
2 nd floor level to 4 th Floor level (Bar Curtailment at mid height of 2 nd floor)					
Below first floor level					



NOTE :

- All the dimensions are in mm unless noted otherwise.
- All structural drawings shall be read in conjunction with the relevant Architectural drawings.
- All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
- All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
- The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
- Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
- Structure is designed for (S+9) floors only.
- Design of the structure carried out with Limit State Method.
- Bored Cast-in-situ piles of 500 mm diameter shall be adopted with the length of pile of 31 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1250 KN and the lateral capacity is 103.70 KN (Fixed) as recommended in Soil Report.
- Analysis of the structure done with ETABS.
- Clear cover for reinforcement are as follows:
 - Pile & Pile Cap - 60 mm
 - Column / Shear Wall - 40 mm
 - Floor and roof beam - 30 mm
 - Slab - 25 mm
 - Water Tank Walls & Slab - 30 mm
- Design mix report should be got approved by the Anna University/IIT Madras/PWD.
- All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.

- Cut lintels to be provided in all floors.
- Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
- Anchorage of column bars into the footings shall not be less than 50 Ø.
- Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer at once for review.
- Ground water quality has to be conformed for suitability to construction work.
- The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
- Dimensions and levels are to unfinished surface excluding finishes, coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
- The Recommendations in the Soil Report done by ANNA UNIVERSITY, Chennai Job. No.:SM&FE 209/Consultancy/2022, Dt:17.01.2022 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:
SHEAR WALL REINFORCEMENT DETAILS (1 OF 2)

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.: TNUHDB / CHETTI THOTTAM / 11.

REVISION NO.:

TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

Assistant Engineer

Asst. Exc. Engineer

Executive Engineer

Sd.xxxx 13.12.2023.
SE - PMU

Sd.xxxx.
SE - North II

Sd.xxxx 16.12.2023.
Chief Engineer - North



STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

SHEAR WALL REINFORCEMENT DETAILS

Curtailments Levels	SW5 (3 No)	SW6 (2 Nos)	SW7 (1 No)
From First floor level to Terrace Floor level (Bar Curtailment at mid height of 2 nd floor)			
Below first floor level			

NOTE :

- All the dimensions are in mm unless noted otherwise.
- All structural drawings shall be read in conjunction with the relevant Architectural drawings.
- All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
- All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
- The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
- Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
- Structure is designed for (S+9) floors only.
- Design of the structure carried out with Limit State Method.
- Bored Cast-in-situ piles of 500 mm diameter shall be adopted with the length of pile of 31 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1250 KN and the lateral capacity is 103.70 KN (Fixed) as recommended in Soil Report.
- Analysis of the structure done with ETABS.
- Clear cover for reinforcement are as follows:
 - Pile & Pile Cap - 60 mm
 - Column / Shear Wall - 40 mm
 - Floor and roof beam - 30 mm
 - Slab - 25 mm
 - Water Tank Walls & Slab - 30 mm
- Design mix report should be got approved by the Anna University/IIT Madras/PWD.
- All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
- Cut lintels to be provided in all floors.
- Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
- Anchorage of column bars into the footings shall not be less than 50 Ø.
- Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer at once for review.
- Ground water quality has to be conformed for suitability to construction work.
- The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
- Dimensions and levels are to unfinished surface excluding finishes, coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
- The Recommendations in the Soil Report done by ANNA UNIVERSITY, Chennai Job. No.:SM&FE 209/Consultancy/2022, Dt:17.01.2022 should be followed scrupulously.

TRUE COPY

[Signature]
EXECUTIVE ENGINEER
 STRUCTURAL AND QUALITY CONTROL CELL
 TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
 # 5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:
SHEAR WALL REINFORCEMENT DETAILS (2 OF 2)

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.: TNUHDB/CHETTI THOTTAM/12.

REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	Sd.xxxx 13.12.2023. SE - PMU
Sd.xxxx. SE - North II	Sd.xxxx 16.12.2023. CE - North

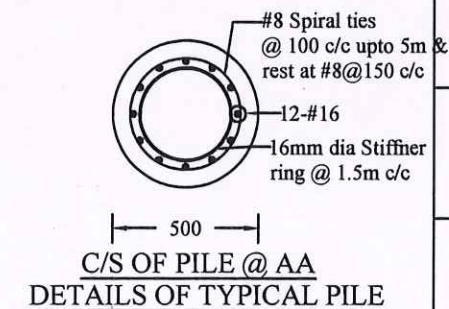


STRUCTURAL & QUALITY CONTROL CELL
 TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
 NO.5, KAMARAJAR SALAI
 CHENNAI - 600 005.

NOTE :

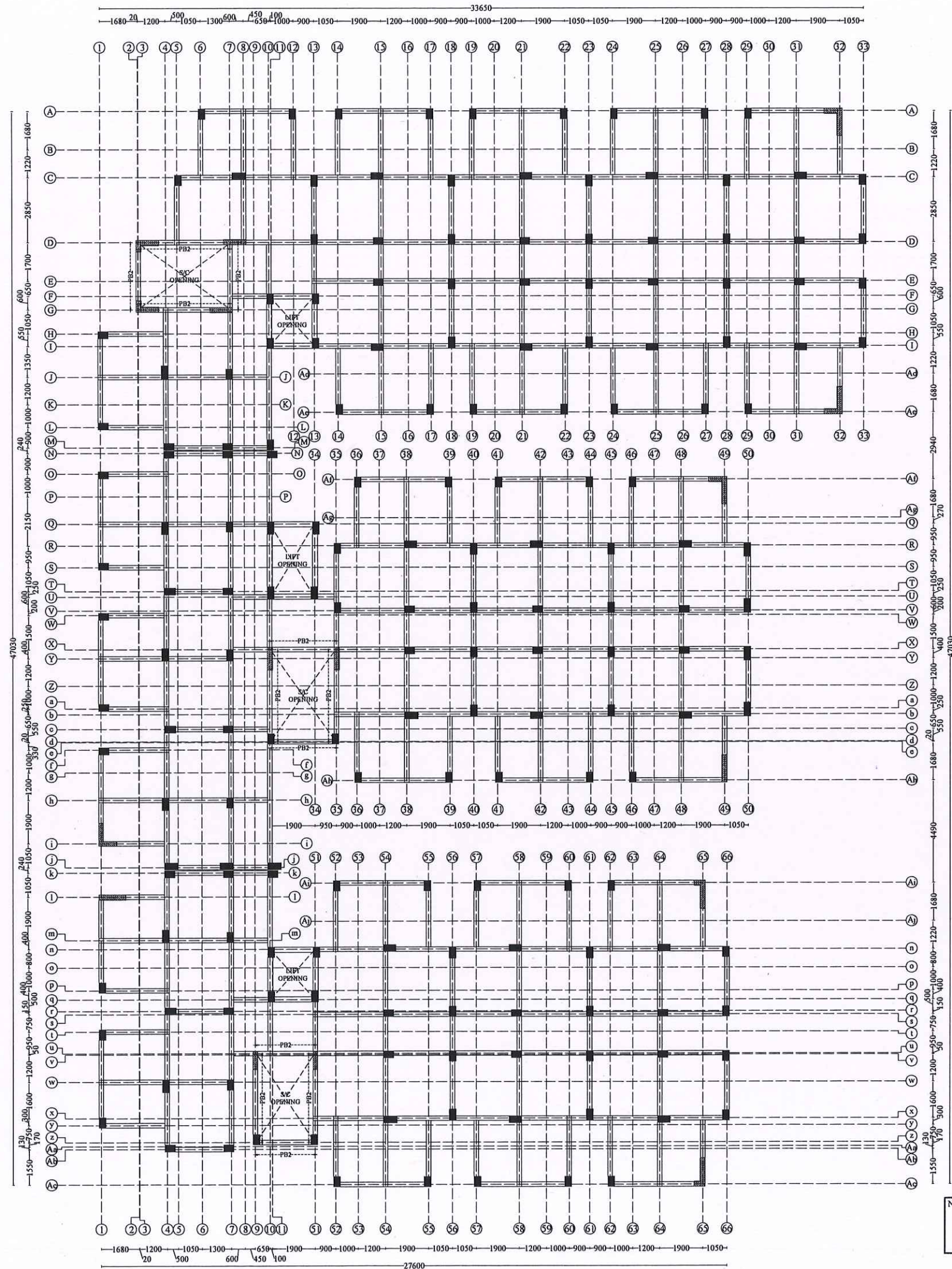
-
- The image contains three technical drawings related to a pile foundation system:
- SECTIONAL ELEVATION ALONG B-B:** This drawing shows a cross-section of a single pile. The pile has a diameter of 450 mm. Above the pile is a PLINTH BEAM, and above that is an RC COLUMN. The distance from the top of the RC COLUMN to the top of the PLINTH BEAM is 1050 mm. The PLINTH BEAM is located at the Basement level. The pile is embedded in a P.C.C 1:4:8 layer, which is 150 mm thick. The pile is surrounded by a Grade beam, which is 450 mm wide. The total height of the pile above the P.C.C layer is 900 mm. The pile is labeled "PILE" and the P.C.C layer is labeled "P.C.C 1:4:8". The section is labeled "SECTIONAL ELEVATION ALONG B-B".
 - SECTIONAL ELEVATION ALONG A-A:** This drawing shows a cross-section of a pile cap. The pile cap has a width of 300 mm. Above the pile cap is a PLINTH BEAM, and above that is an RC COLUMN. The distance from the top of the RC COLUMN to the top of the PLINTH BEAM is 1050 mm. The PLINTH BEAM is located at the Basement level. The pile cap is embedded in a P.C.C 1:4:8 layer, which is 150 mm thick. The pile cap is surrounded by a Grade beam, which is 450 mm wide. The total height of the pile cap above the P.C.C layer is 900 mm. The pile cap is labeled "PILE" and the P.C.C layer is labeled "P.C.C 1:4:8". The section is labeled "SECTIONAL ELEVATION ALONG A-A".
 - DETAILS OF PILE:** This drawing shows the reinforcement details of the pile. The pile has a diameter of 500 mm. The reinforcement consists of 16 bars of 12 mm diameter (#16@120mm c/c) and 20 bars of 11 mm diameter (#20@110mm c/c). The pile is surrounded by a Grade beam, which is 450 mm wide. The total height of the pile above the P.C.C layer is 900 mm. The pile is labeled "PILE" and the P.C.C layer is labeled "P.C.C 1:4:8". The section is labeled "DETAILS OF PILE".

20/6/2024
EXECUTIVE ENGINEER (A/C)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.



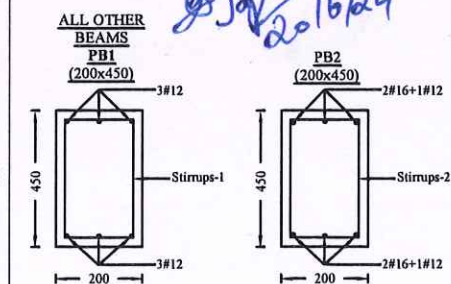
**STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.**

PLINTH BEAM LAYOUT



TRUE COPY

20/6/2024
EXECUTIVE ENGINEER (AD)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005



NOTE:
1. Stirrups-1 - 2L#8mm Stirrups @ 75mm c/c for 900 mm length on all side near beam column junction and the rest @ 150mm c/c.
2. Stirrups-2 - 2L#10mm Stirrups @ 75mm c/c for 900 mm length on all side near beam column junction and the rest @ 150mm c/c.

NOTE :

- All the dimensions are in mm unless noted otherwise.
- All structural drawings shall be read in conjunction with the relevant Architectural drawings.
- All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
- All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
- The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
- Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
- Structure is designed for (S+9) floors only.
- Design of the structure carried out with Limit State Method.
- Bored Cast-in-situ piles of 500 mm diameter shall be adopted with the length of pile of 31 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1250 KN and the lateral capacity is 103.70 KN (Fixed) as recommended in Soil Report.
- Analysis of the structure done with ETABS.
- Clear cover for reinforcement are as follows:
 - Pile & Pile Cap - 60 mm
 - Column / Shear Wall - 40 mm
 - Floor and roof beam - 30 mm
 - Slab - 25 mm
 - Water Tank Walls & Slab - 30 mm
- Design mix report should be got approved by the Anna University/IIT Madras/PWD.
- All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
- Cut lintels to be provided in all floors.
- Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
- Anchorage of column bars into the footings shall not be less than 50 Ø.
- Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
- Ground water quality has to be conformed for suitability to construction work.
- The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
- Dimensions and levels are to unfinished surface excluding finishes, coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
- The Recommendations in the Soil Report done by ANNA UNIVERSITY, Chennai Job. No.:SM&FE 209/Consultancy/2022, Dt:17.01.2022 should be followed scrupulously.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:

PLINTH BEAM LAYOUT.

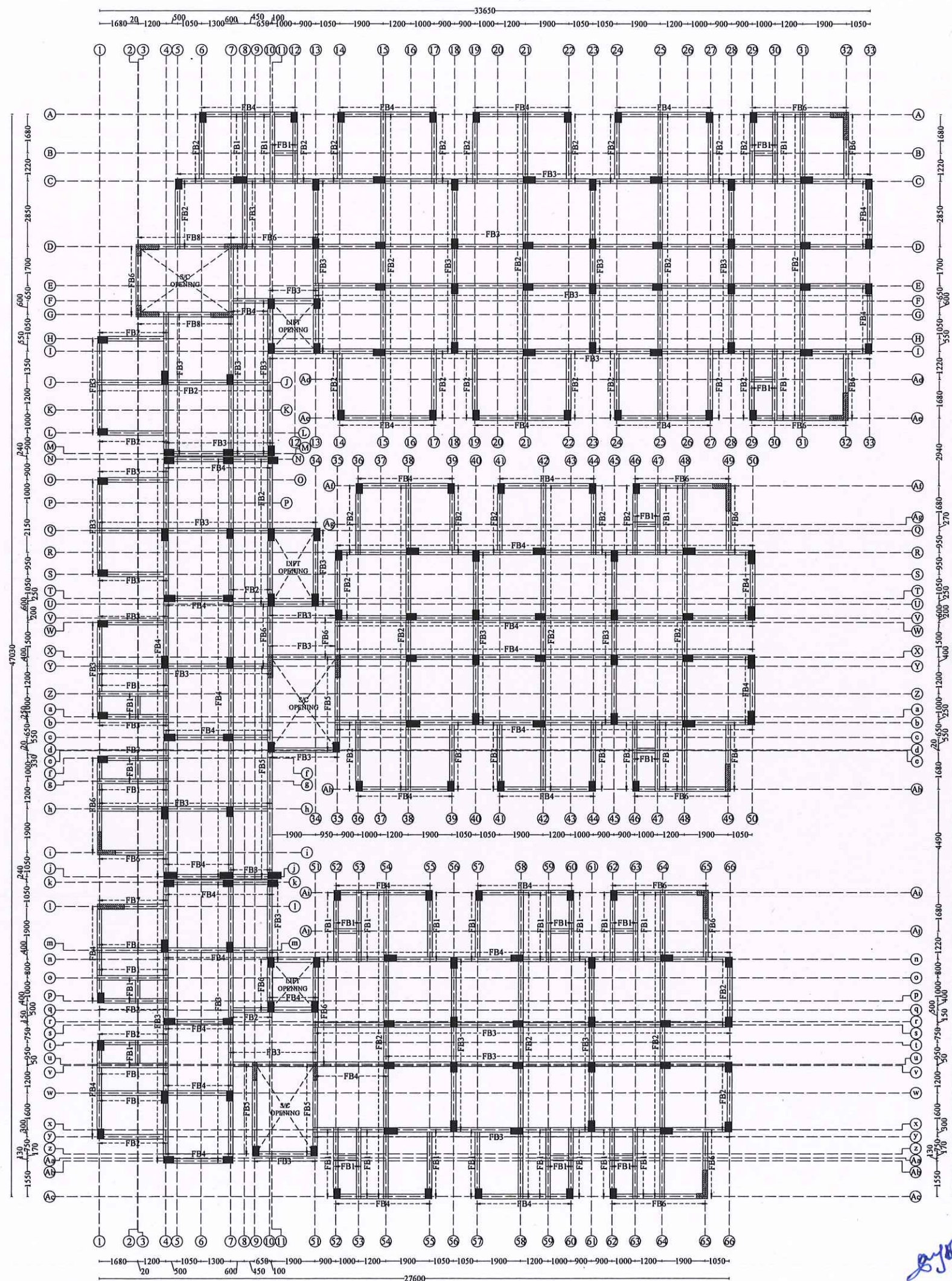
TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.:TNUHDB/CHETTI THOTTAM/13.

REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II
Sd. 20.06.2024. Chief Engineer - I	
 STRUCTURAL & QUALITY CONTROL CELL TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD NO.5, KAMARAJAR SALAI CHENNAI - 600 005.	

STILT FLOOR BEAM LAYOUT



NOTE :

- All the dimensions are in mm unless noted otherwise.
- All structural drawings shall be read in conjunction with the relevant Architectural drawings.
- All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
- All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
- The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS 13920:2016.
- Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
- Structure is designed for (S+9) floors only.
- Design of the structure carried out with Limit State Method.
- Bored Cast-in-situ piles of 500 mm diameter shall be adopted with the length of pile of 31 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1250 KN and the lateral capacity is 103.70 KN (Fixed) as recommended in Soil Report.
- Analysis of the structure done with ETABS.
- Clear cover for reinforcement are as follows:
 - Pile & Pile Cap - 60 mm
 - Column / Shear Wall - 40 mm
 - Floor and roof beam - 30 mm
 - Slab - 25 mm
 - Water Tank Walls & Slab - 30 mm
- Design mix report should be got approved by the Anna University/IIT Madras/PWD.
- All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
- Cut lintels to be provided in all floors.
- Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
- Anchorage of column bars into the footings shall not be less than 50 Ø.
- Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer at once for review.
- Ground water quality has to be conformed for suitability to construction work.
- The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
- Dimensions and levels are to unfinished surface excluding finishes, coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
- The Recommendations in the Soil Report done by ANNA UNIVERSITY, Chennai Job. No.:SM&FE 209/Consultancy/2022, Dt:17.01.2022 should be followed scrupulously.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:
STILT FLOOR BEAM LAYOUT.

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.:TNUHDB/CHETTI THOTTAM/14.

REVISION NO.:

Assistant Engineer

Asst. Exe. Engineer

Executive Engineer

SE - North II

Sd.xxxx 20.06.2024.
Chief Engineer - I



STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

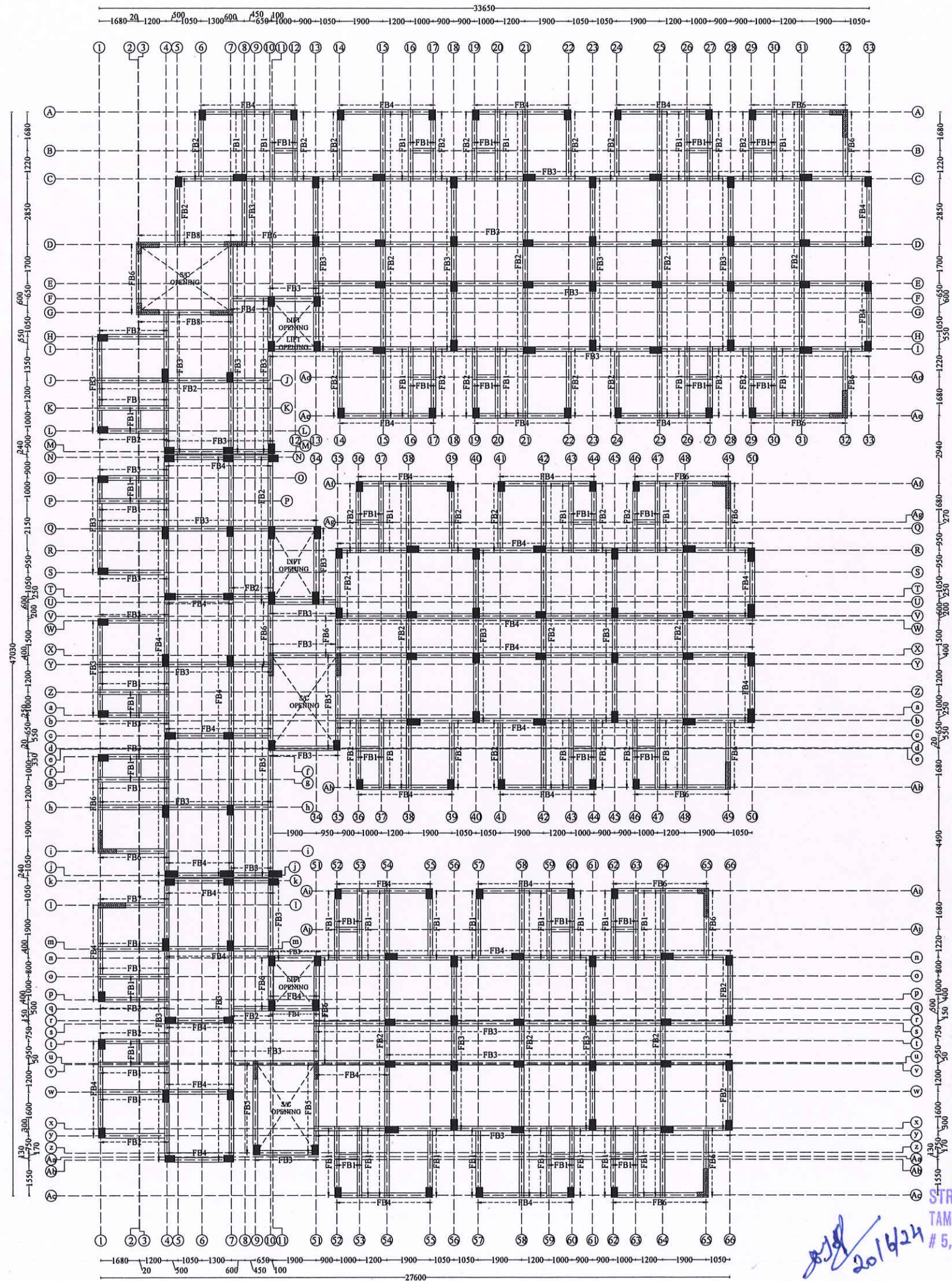
TRUE COPY

20/6/2024

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

20/6/24

FIRST & SECOND FLOOR BEAM LAYOUT



NOTE :

- All the dimensions are in mm unless noted otherwise.
- All structural drawings shall be read in conjunction with the relevant Architectural drawings.
- All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
- All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
- The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS 13920:2016.
- Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
- Structure is designed for (S+9) floors only.
- Design of the structure carried out with Limit State Method.
- Bored Cast-in-situ piles of 500 mm diameter shall be adopted with the length of pile of 31 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1250 KN and the lateral capacity is 103.70 KN (Fixed) as recommended in Soil Report.
- Analysis of the structure done with ETABS.
- Clear cover for reinforcement are as follows:
 - Pile & Pile Cap - 60 mm
 - Column / Shear Wall - 40 mm
 - Floor and roof beam - 30 mm
 - Slab - 25 mm
 - Water Tank Walls & Slab - 30 mm
- Design mix report should be got approved by the Anna University/IIT Madras/PWD.
- All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
- Cut lintels to be provided in all floors.
- Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
- Anchorage of column bars into the footings shall not be less than 50 Ø.
- Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer at once for review.
- Ground water quality has to be conformed for suitability to construction work.
- The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
- Dimensions and levels are to unfinished surface excluding finishes, coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
- The Recommendations in the Soil Report done by ANNA UNIVERSITY, Chennai Job. No.:SM&FE 209/Consultancy/2022, Dt:17.01.2022 should be followed scrupulously.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:

FIRST & SECOND FLOOR BEAM LAYOUT

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.:TNUHDB/CHETTI THOTTAM/15.

REVISION NO.:

Assistant Engineer

Asst. Exe. Engineer

Executive Engineer

SE - North II

Sd. 20.06.2024.
Chief Engineer - I

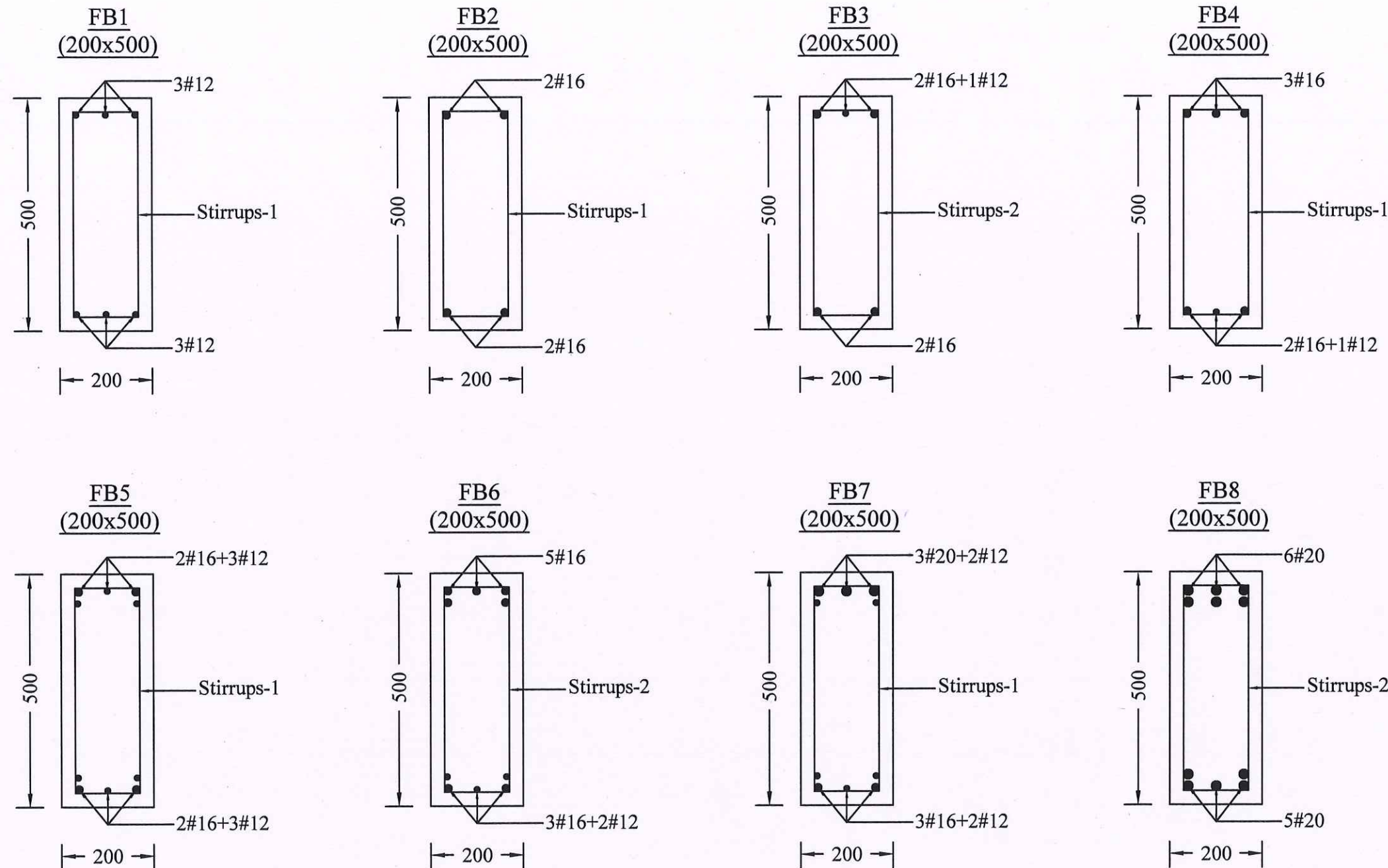


STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TRUE COPY

20/6/2024
EXECUTIVE ENGINEER (A/C)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

STILT FLOOR TO SECOND FLOOR BEAM DETAILS



NOTE :

1. Stirrups-1 - 2L#8mm Stirrups @ 75mm c/c for 1000 mm length on all side near beam column junction and the rest @ 110mm c/c.
2. Stirrups-2 - 2L#10mm Stirrups @ 75mm c/c for 1000 mm length on all side near beam column junction and the rest @ 120mm c/c.

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (S+9) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 500 mm diameter shall be adopted with the length of pile of 31 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1250 KN and the lateral capacity is 103.70 KN (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with ETABS.
11. Clear cover for reinforcement are as follows:
 - (a) Pile & Pile Cap - 60 mm
 - (b) Column / Shear Wall - 40 mm
 - (c) Floor and roof beam - 30 mm
 - (d) Slab - 25 mm
 - (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer at once for review.
18. Ground water quality has to be conformed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
20. Dimensions and levels are to unfinished surface excluding finishes, coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
21. The Recommendations in the Soil Report done by ANNA UNIVERSITY, Chennai Job. No.:SM&FE 209/Consultancy/2022, Dt:17.01.2022 should be followed scrupulously.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:

STILT FLOOR TO SECOND FLOOR BEAM DETAILS

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.:TNUHDB/CHETTI THOTTAM/16.

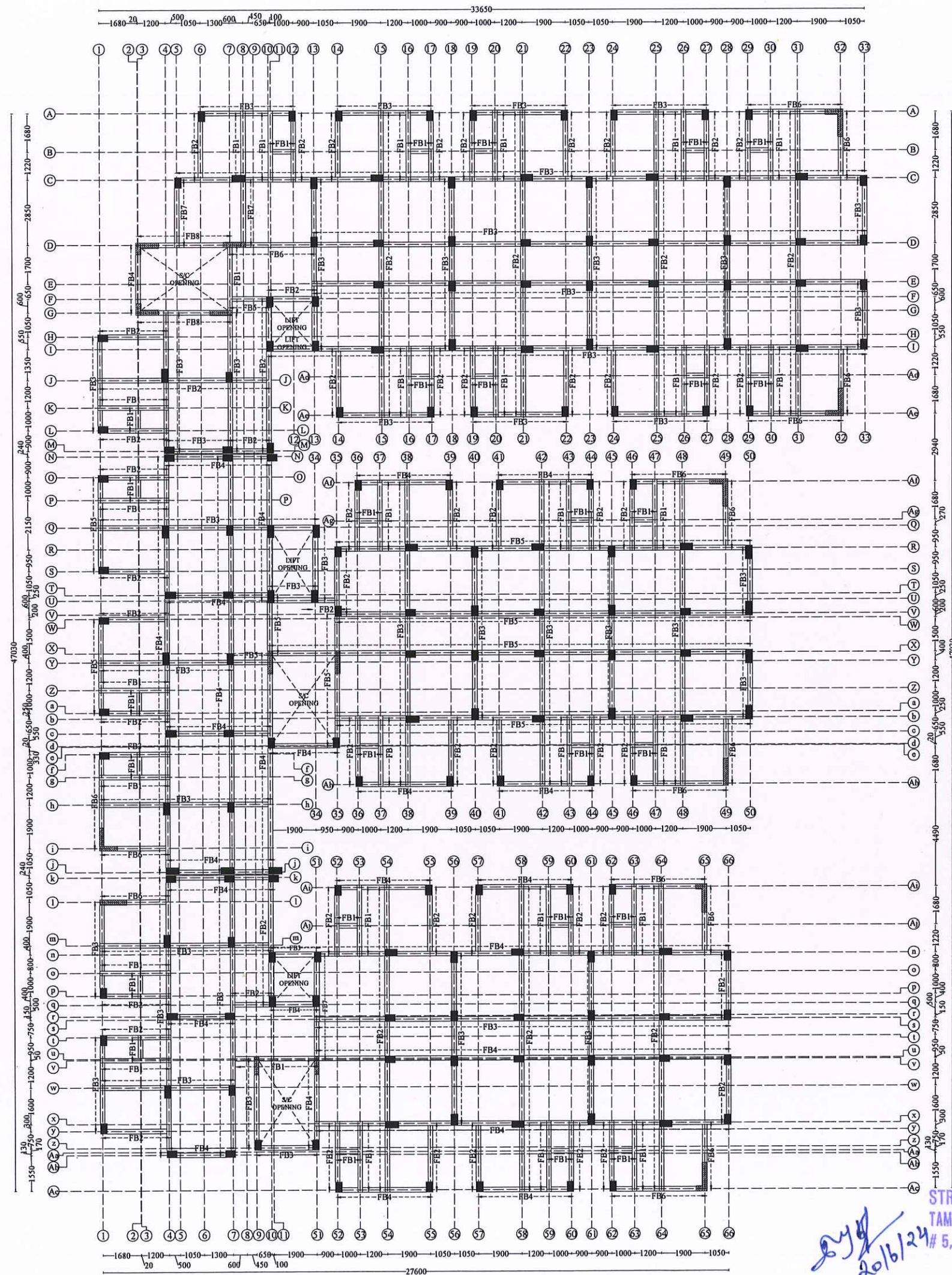
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II
Sd,xxxx 20.06.2024. Chief Engineer - I	
 STRUCTURAL & QUALITY CONTROL CELL TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD NO.5, KAMARAJAR SALAI CHENNAI - 600 005.	

TRUE COPY

20/6/2024
EXECUTIVE ENGINEER (A/c)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

THIRD, FOURTH & FIFTH FLOOR BEAM LAYOUT



NOTE:

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS 13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (S+9) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 500 mm diameter shall be adopted with the length of pile of 31 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1250 KN and the lateral capacity is 103.70 KN (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with ETABS.
11. Clear cover for reinforcement are as follows:
 - (a) Pile & Pile Cap - 60 mm
 - (b) Column / Shear Wall - 40 mm
 - (c) Floor and roof beam - 30 mm
 - (d) Slab - 25 mm
 - (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer at once for review.
18. Ground water quality has to be conformed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
20. Dimensions and levels are to unfinished surface excluding finishes, coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
21. The Recommendations in the Soil Report done by ANNA UNIVERSITY, Chennai Job No.:SM&FE 209/Consultancy/2022, Dt:17.01.2022 should be followed scrupulously.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:

TYPICAL FLOOR BEAM LAYOUT.

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.: TNUHDB/CHETTI THOTTAM/17.

REVISION NO.:

Assistant Engineer

Asst. Exe. Engineer

Executive Engineer

SE - North II

Sd.xxxx 20.06.2024.
Chief Engineer - I



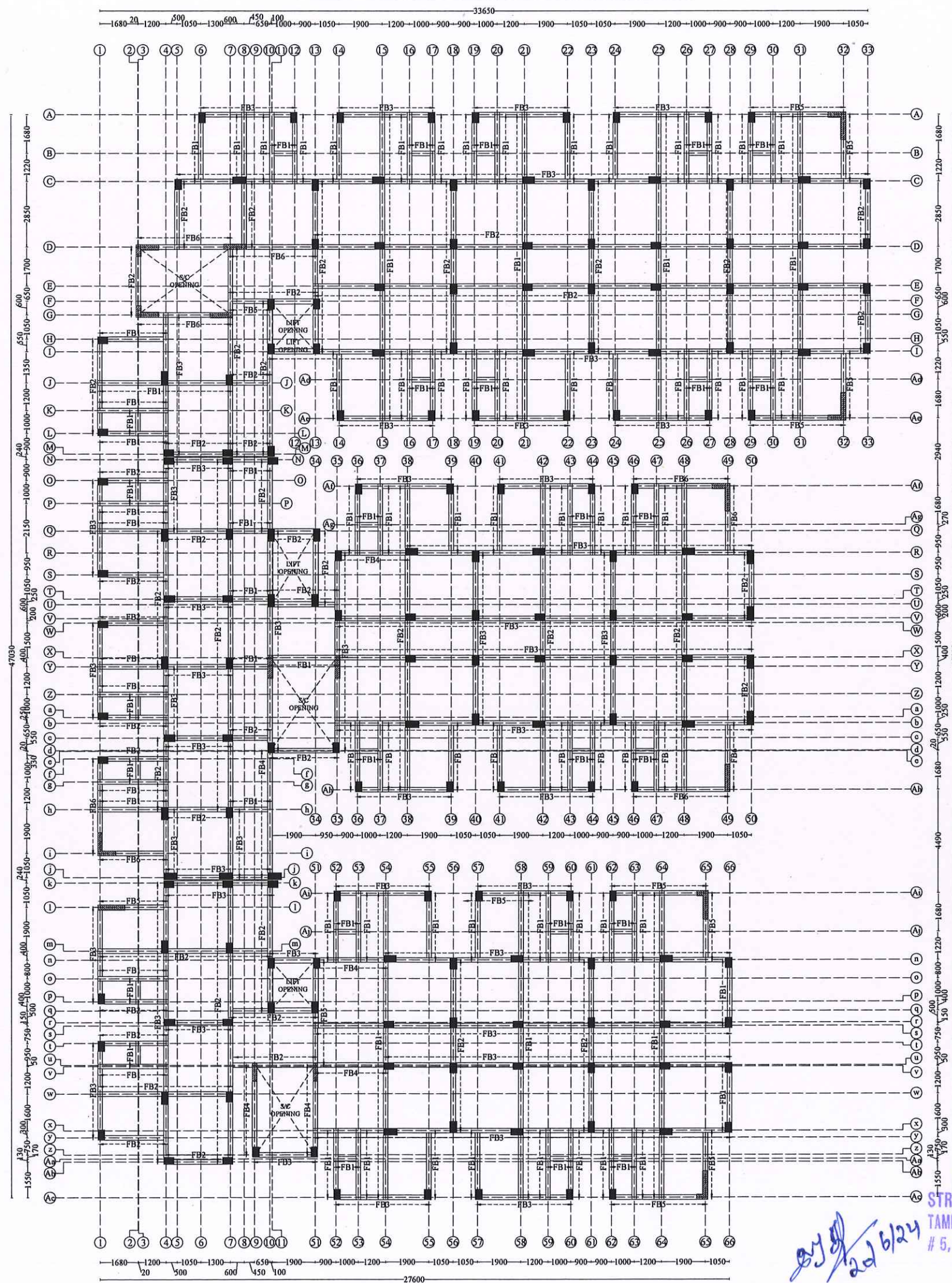
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TRUE COPY

20/6/2024
EXECUTIVE ENGINEER (A/C)

STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

SIXTH, SEVENTH & EIGHT FLOOR BEAM LAYOUT



NOTE:

- All the dimensions are in mm unless noted otherwise.
- All structural drawings shall be read in conjunction with the relevant Architectural drawings.
- All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
- All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
- The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS 13920:2016.
- Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
- Structure is designed for (S+9) floors only.
- Design of the structure carried out with Limit State Method.
- Bored Cast-in-situ piles of 500 mm diameter shall be adopted with the length of pile of 31 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1250 KN and the lateral capacity is 103.70 KN (Fixed) as recommended in Soil Report.
- Analysis of the structure done with ETABS.
- Clear cover for reinforcement are as follows:
 - Pile & Pile Cap - 60 mm
 - Column / Shear Wall - 40 mm
 - Floor and roof beam - 30 mm
 - Slab - 25 mm
 - Water Tank Walls & Slab - 30 mm
- Design mix report should be got approved by the Anna University/IIT Madras/PWD.
- All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
- Cut lintels to be provided in all floors.
- Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
- Anchorage of column bars into the footings shall not be less than 50 Ø.
- Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer at once for review.
- Ground water quality has to be conformed for suitability to construction work.
- The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
- Dimensions and levels are to unfinished surface excluding finishes, coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
- The Recommendations in the Soil Report done by ANNA UNIVERSITY, Chennai Job. No.:SM&FE 209/Consultancy/2022, Dt:17.01.2022 should be followed scrupulously.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:
SIXTH, SEVENTH & EIGHT FLOOR BEAM LAYOUT.

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.:TNUHDB/CHETTI THOTTAM/18.

REVISION NO.:

Assistant Engineer

Asst. Exe. Engineer

Executive Engineer

SE - North II

Sd,xxxx 20.06.2024.
Chief Engineer - I



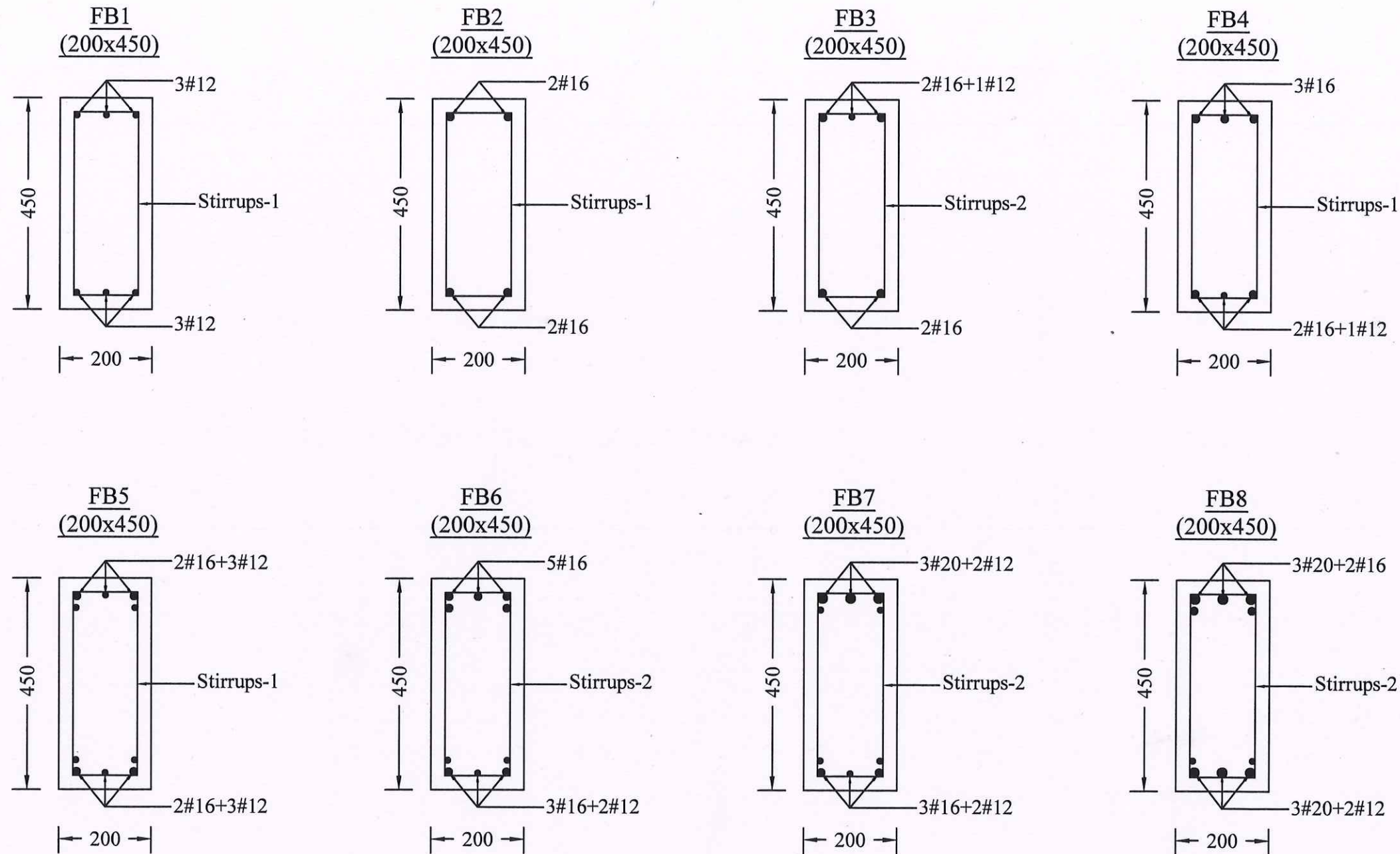
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TRUE COPY

20/6/2024
EXECUTIVE ENGINEER (A/C)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

22/6/24

THIRD FLOOR TO EIGHTH FLOOR BEAM DETAILS



NOTE :

1. Stirrups-1 - 2L#8mm Stirrups @ 75mm c/c for 1000 mm length on all side near beam column junction and the rest @ 110mm c/c.
2. Stirrups-2 - 2L#10mm Stirrups @ 75mm c/c for 1000 mm length on all side near beam column junction and the rest @ 150mm c/c.

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (S+9) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 500 mm diameter shall be adopted with the length of pile of 31 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1250 KN and the lateral capacity is 103.70 KN (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with ETABS.
11. Clear cover for reinforcement are as follows:
 - (a) Pile & Pile Cap - 60 mm
 - (b) Column / Shear Wall - 40 mm
 - (c) Floor and roof beam - 30 mm
 - (d) Slab - 25 mm
 - (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer at once for review.
18. Ground water quality has to be conformed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
20. Dimensions and levels are to unfinished surface excluding finishes, coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
21. The Recommendations in the Soil Report done by ANNA UNIVERSITY, Chennai Job. No.:SM&FE 209/Consultancy/2022, Dt:17.01.2022 should be followed scrupulously.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:
THIRD FLOOR TO EIGHTH FLOOR BEAM DETAIL

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.: TNUHDB/CHETTI THOTTAM/19.

REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II
Sd. 20.06.2024. Chief Engineer - I	
 STRUCTURAL & QUALITY CONTROL CELL TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD NO.5, KAMARAJAR SALAI CHENNAI - 600 005.	

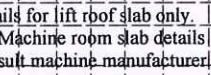
TRUE COPY

20/6/2024
EXECUTIVE ENGINEER (A/C)

STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

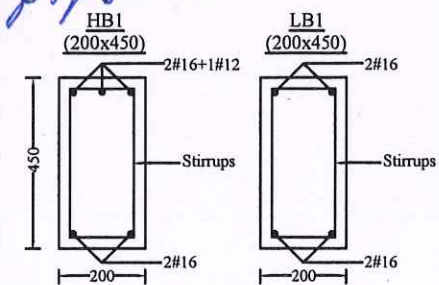
24/6/24
20/6/24

LOCATION OF OHT & SULLAGE/ RAIN /FIREFIGHTING TANK



—Details for lift roof slab only.
—For Machine room slab details
—Consult machine manufacturer

EXECUTIVE ENGINEER (A)
STRUCTURAL AND QUALITY CONTROL CELL
MIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.



NOTE :

1. Stirrups* - 2L#8mm Stirrups @ 75mm c/c for 900 mm length on all side near beam column junction and the rest @ 150mm c/c

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (S+9) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 500 mm diameter shall be adopted with the length of pile of 31 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1250 KN and the lateral capacity is 103.70 KN (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with ETABS.
11. Clear cover for reinforcement are as follows:
 - (a) Pile & Pile Cap - 60 mm
 - (b) Column / Shear Wall - 40 mm
 - (c) Floor and roof beam - 30 mm
 - (d) Slab - 25 mm
 - (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer at once for review.
18. Ground water quality has to be conformed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
20. Dimensions and levels are to be unfinished surface excluding finishes, coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
21. The Recommendations in the Soil Report done by ANNA UNIVERSITY, Chennai Job No.:SM&FE 209/Consultancy/2022, Dt:17.01.2022 should be followed scrupulously.

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.:TNUHDB/CETTI THOTTAM/21.

REVISION NO.:

Assistant Engineer

Asst. Exe. Engineer

Executive Engineer

SE - North II

Sd. 20.06.2024.
Chief Engineer - I



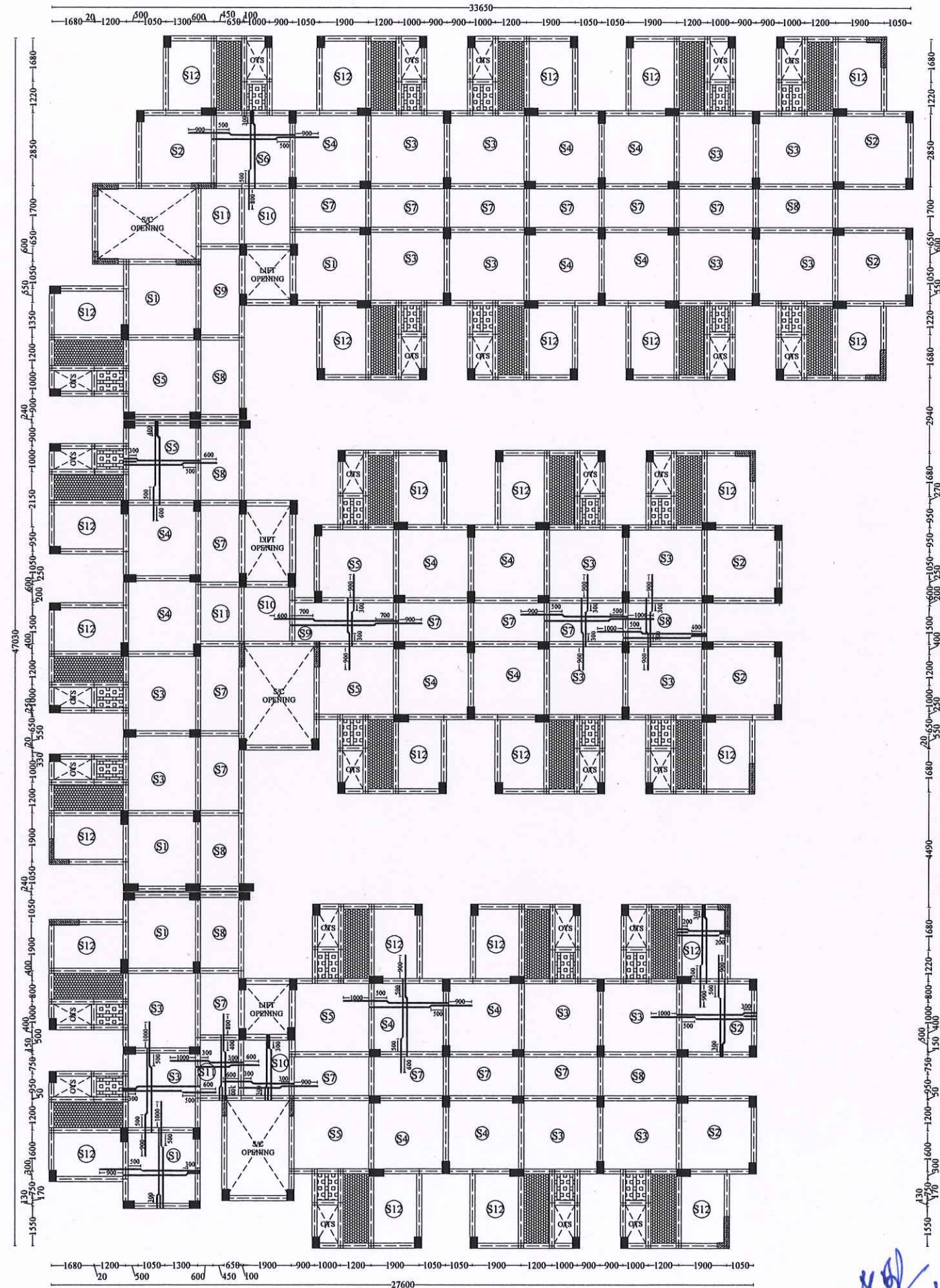
**STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.**

[illegible]

20/6/2024
EXECUTIVE ENGINEER CA/C
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL FLOOR SLAB DETAILS



SLAB SUNKEN BY
375mm/325mm

SLAB SUNKEN BY
400mm

Note:
1. SLAB 125mm THICK
2. ALL SLAB REINFORCEMENT ARE #8@180mm c/c

Note:
1. For Sunken Slab details refer
Drawing no: TNUHDB/CHETTI THOTTAM/GEN/01.

TRUE COPY

20/6/2024
EXECUTIVE ENGINEER (A/C)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

NOTE:

1. All the Dimensions are in mm.
2. M30 Concrete and Fe500D grade steel shall be adopted.
3. Slab Thickness is 125mm.
4. Clear cover to slab is 25mm.
5. Crank point distances are as shown.
6. "-----" denotes extra rods to be provided at top.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:
TYPICAL FLOOR SLAB DETAILS
TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.: TNUHDB/CHETTI THOTTAM/23.

REVISION NO.:

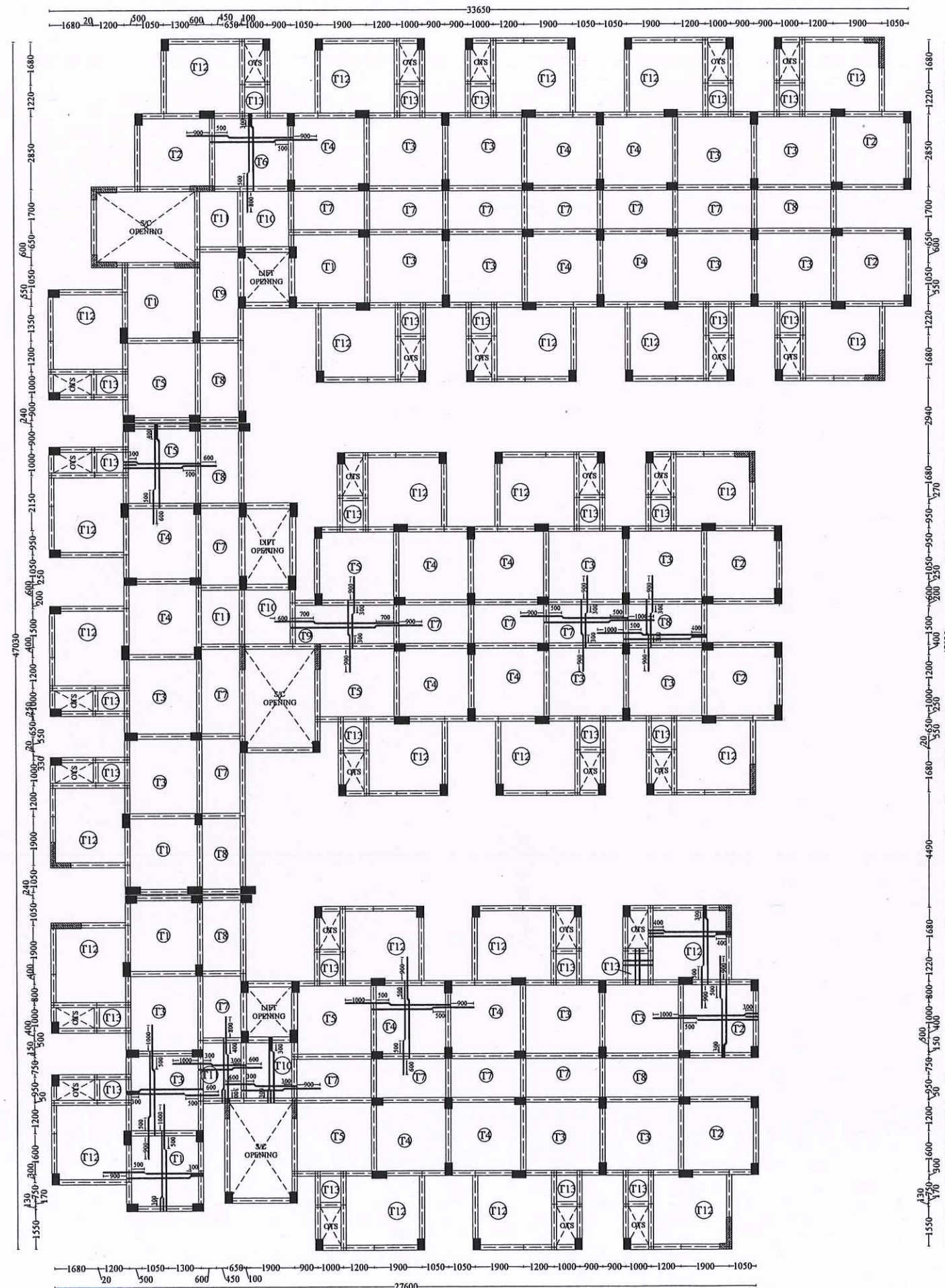
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

Sd.xxxx 20.06.2024.
Chief Engineer - I



STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TERRACE FLOOR SLAB DETAILS



TRUE COPY

20/6/2024
EXECUTIVE ENGINEER (A/C)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

Note:
1.SLAB 125mm THICK
2.ALL SLAB REINFORCEMENT ARE #8@180mm c/c

NOTE:

1. All the Dimensions are in mm.
2. M30 Concrete and Fe500D grade steel shall be adopted.
3. Slab Thickness is 125mm.
4. Clear cover to slab is 25mm.
5. Crank point distances are as shown.
6. "-----" denotes extra rods to be provided at top.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:

TERRACE FLOOR SLAB DETAILS

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.:TNUHDB/CHETTI THOTTAM/24.

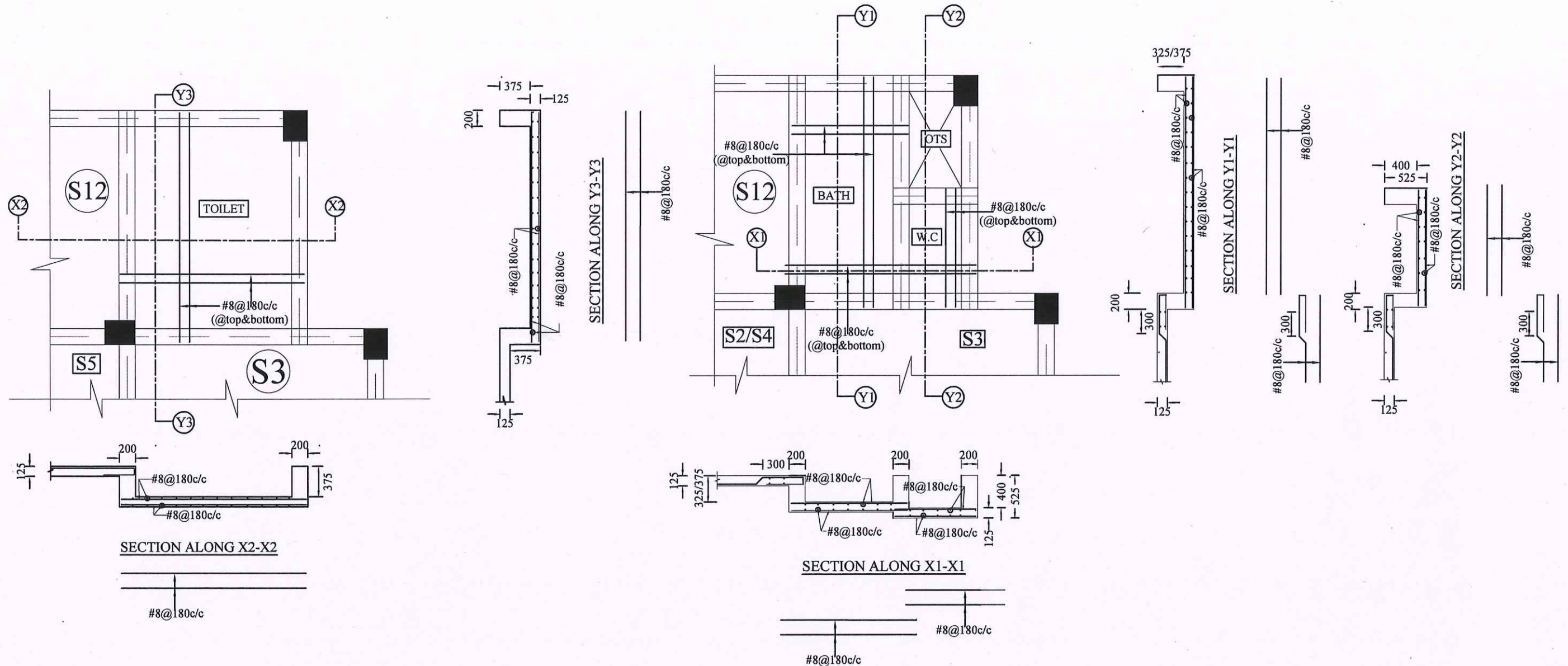
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II
Sd.xxxx 20.06.2024. Chief Engineer - I	



STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

SUNKEN SLAB DETAILS-TYPICAL



NOTE:

1. All the Dimensions are in mm.
2. M30 Concrete and Fe500D grade steel shall be adopted.
3. Slab Thickness is 125mm.
4. Clear cover to slab is 25mm.
5. Crank point distances are as shown.
6. "-----" denotes extra rods to be provided at top.

TRUE COPY

EXECUTIVE ENGINEER (A/c)

STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:
SUNKEN SLAB DETAILS-TYPICAL.

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.: TNUHDB/CHETTI THOTTAM/GEN/01.

REVISION NO.:

Assistant Engineer

Asst. Exe. Engineer

Executive Engineer

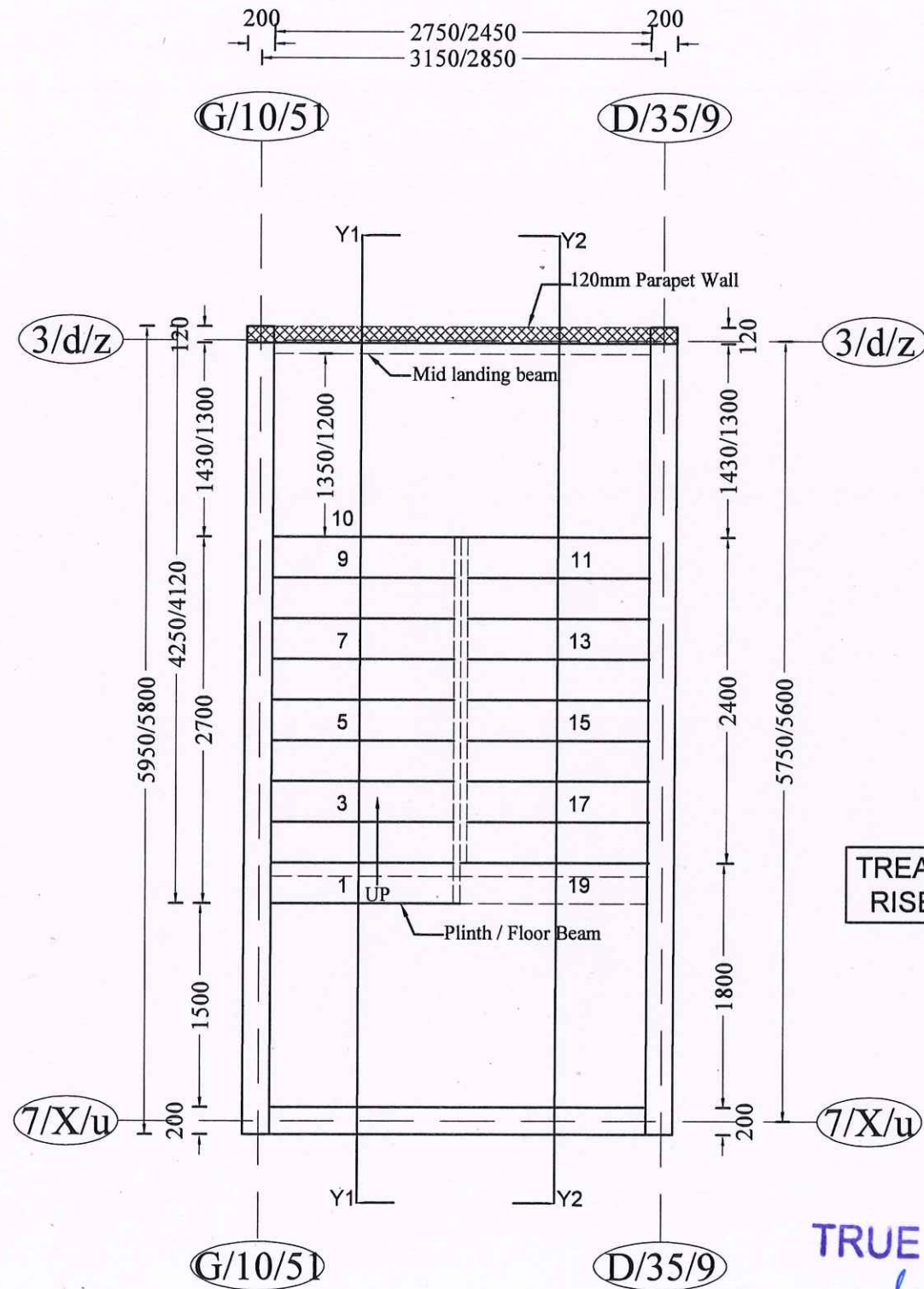
SE - North II

Sd.xxxx 20.06.2024.
Chief Engineer - I



STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL STAIRCASE DETAILS

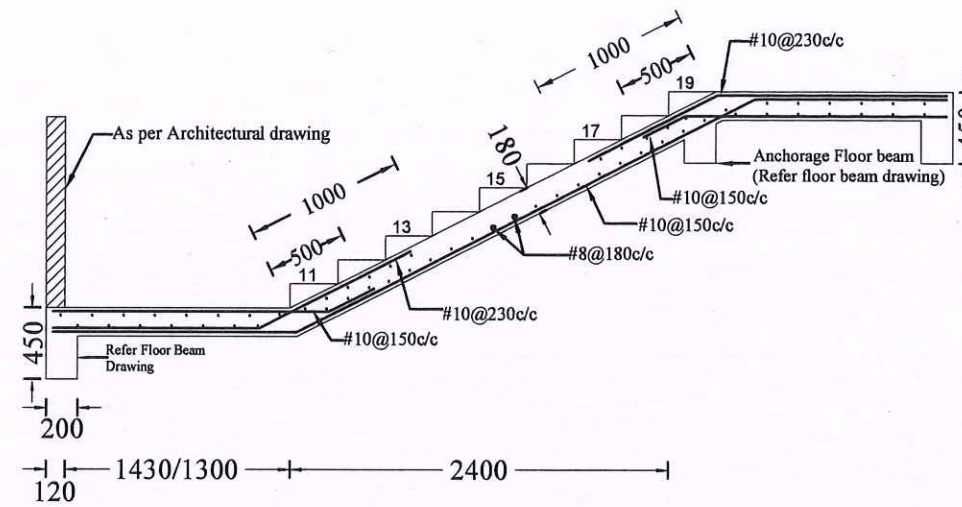


TYPICAL STAIRCASE PLAN

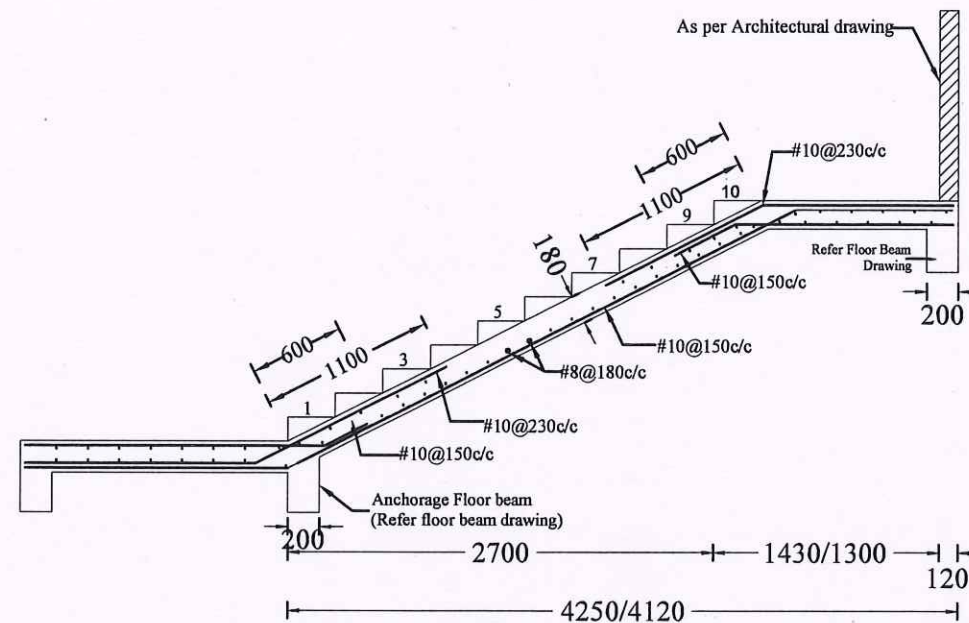
TRUE COPY

EXECUTIVE ENGINEER (A/C)

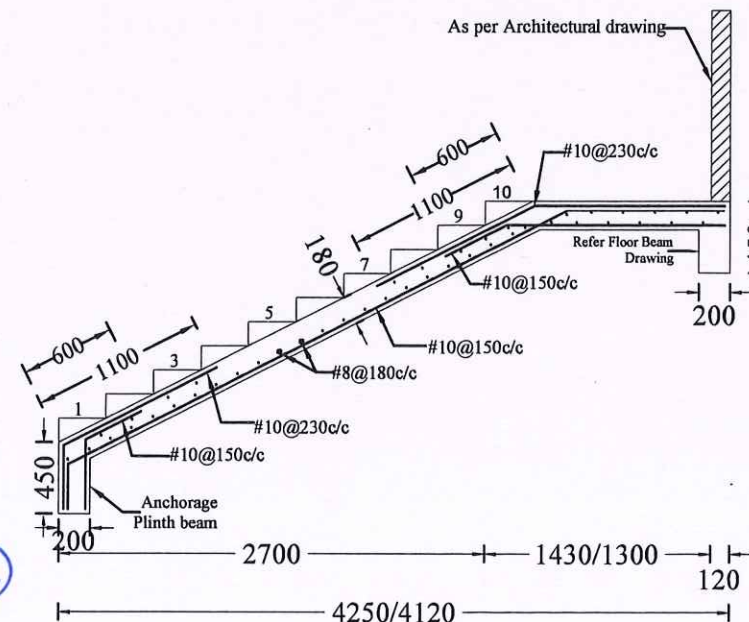
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005



TYPICAL SECTION ON Y2-Y2



TYPICAL SECTION ON Y1-Y1
(OTHER THAN STILT FLOOR)



TYPICAL SECTION ON Y1-Y1
(STILT FLOOR ONLY)

NOTE:

1. All the Dimensions are in mm.
2. M30 Concrete and Fe500D grade steel shall be adopted.
3. Waist Slab Thickness is 180mm.
4. Clear cover to slab is 25mm.
5. Crank point distances are as shown.
6. "-----" denotes extra rods to be provided at top.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:

PILE & PILECAP LAYOUT.

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.: TNUHDB/CHETTI THOTTAM/GEN/02.

REVISION NO.:

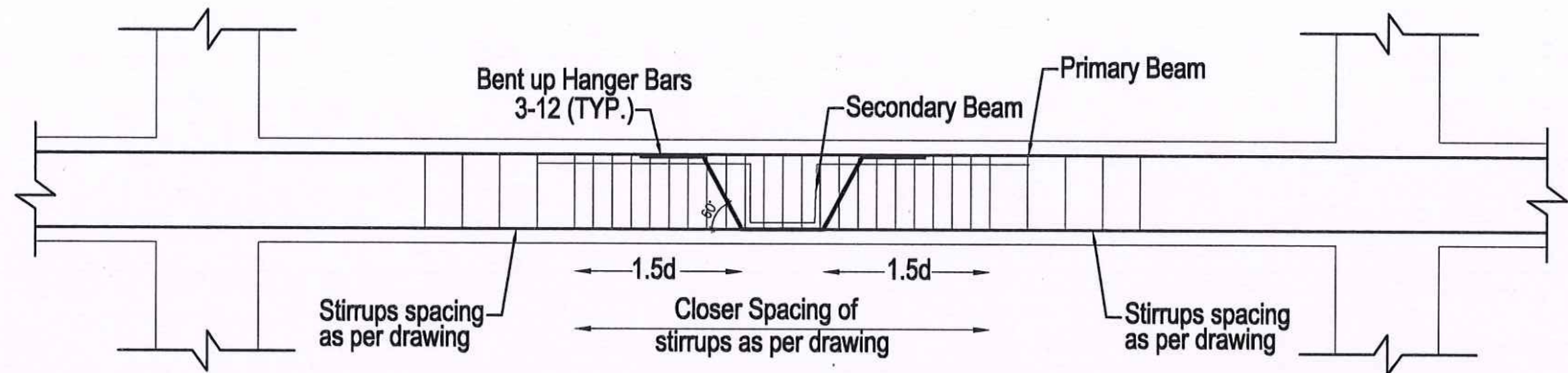
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

Sd. 20.06.2024.
CHIEF ENGINEER - I

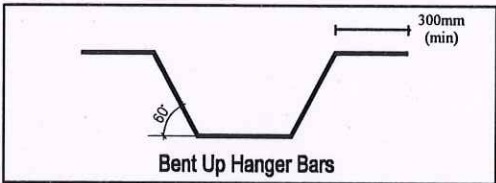


STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

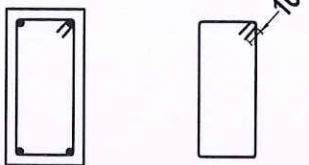
TYPICAL DETAILS FOR ALL THE FLOOR BEAMS



TYPICAL BENT UP HANGER BAR DETAILS AT MAIN AND SECONDARY BEAM JUNCTIONS



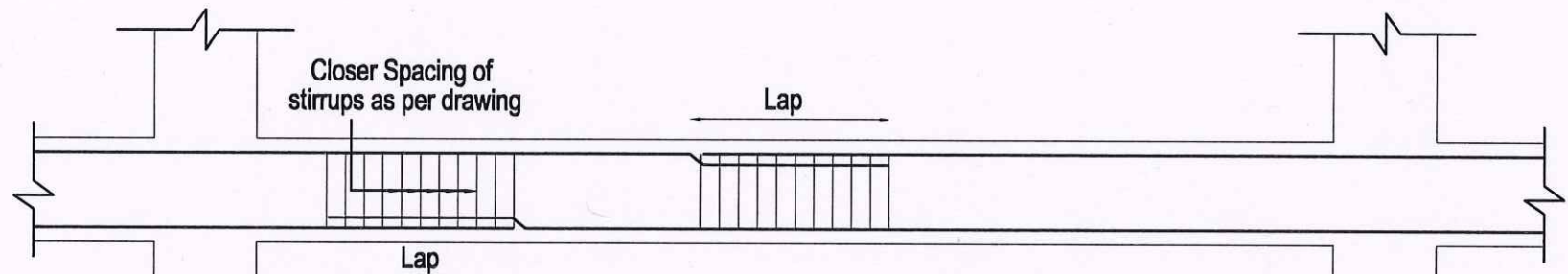
Hooks must be 135 degree



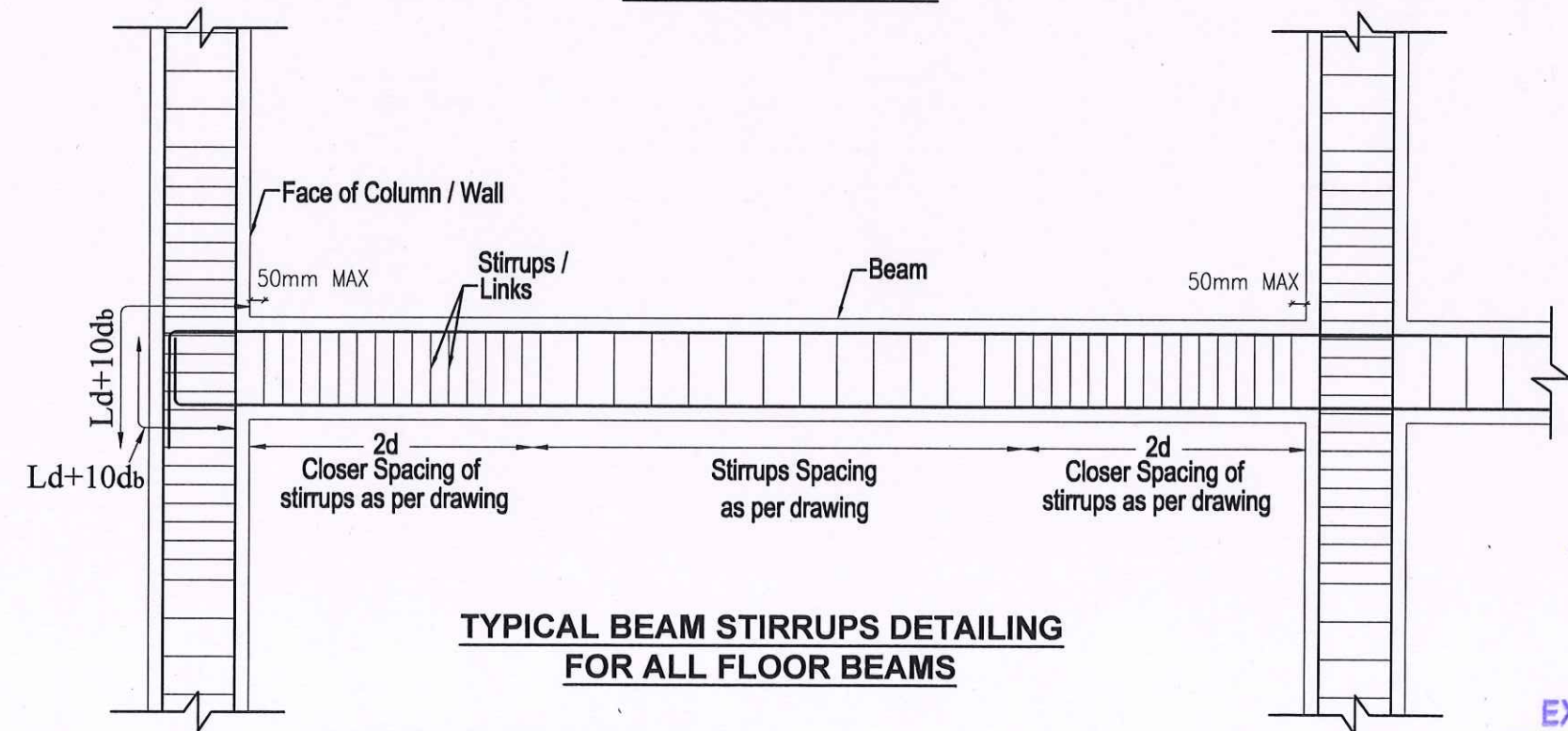
TYPICAL DETAILS OF TRANSVERSE REINFORCEMENT HOOKS IN BEAM.

TYPICAL SPECIAL CONFINING REINFORCEMENT DETAILS IN FOOTING

Dia of bar	Development length for Fe500bars in 'mm'			
	Tension bar		Compression bar	
	M25	M30	M25	M30
12	583	544	466	435
16	777	725	621	580
20	971	906	777	725



TYPICAL SPLICE DETAILS FOR ALL FLOOR BEAMS



TYPICAL BEAM STIRRUPS DETAILING FOR ALL FLOOR BEAMS

db - diameter of longitudinal bar
d - depth of beam

TRUE COPY

20/6/2024
EXECUTIVE ENGINEER (A/C)

STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

RECONSTRUCTION OF 243 NOS OF (S+9) RESIDENTIAL DWELLING UNITS AT CHETTY THOTTAM, TONDIARPET VILLAGE, GREATER CHENNAI CORPORATION.

TITLE:
TYPICAL DETAILS FOR ALL THE FLOOR BEAMS

TYPE DESIGN NO.: 29(R1)/2021

DWG.NO.:TNUHDB/CHETTI THOTTAM/GEN/03.

REVISION NO.:

Assistant Engineer

Asst. Exc. Engineer

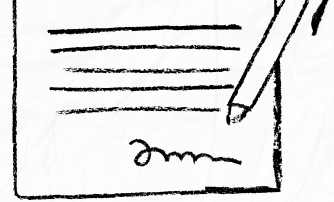
Executive Engineer

SE - North II

Sd.xxxx 20.06.2024.
CHIEF ENGINEER - I



STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.



our services doesn't just end there



Buying & Selling Services

Property Buying Assistance, Property Selling Support, Market Price Analysis, Owner Outreach and Negotiation.



Legal & Documentation Services

Certified EC, Patta, legal opinions, property verification, due diligence, litigation solutions, and legal heir certificates.



Property Development & Approvals

Building plan approvals, construction, layout and sub-division approvals, zone conversion, and occupancy certification.



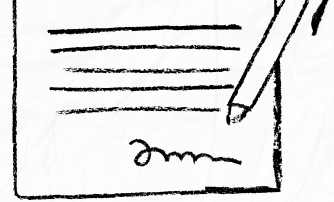
NRI & Investment Services

Escrow Services, Rentals, Litigation Solutions, Property Valuation and Property Management



Compliance & Special Services

Demolition, Vaasthu checks, regularization of unauthorized buildings, and office space solutions.



 **empowering your real estate decisions**
with smart tools



Property Valuation & Cost Estimation

Guideline Value, Apartment Composite Value, Stamp Duty & Registration Fees Calculator, Building Value Calculator, Capital Gains Calculator, Area Unit Converter, Length Unit Converter



Ownership, Compliance & Legal Verification

Encumbrance Certificate (EC) Search, Find Your SRO, Temple Property Check, WAQF Property Check, View Patta/Chitta, View FMB, Patta Analyzer, EC Analyzer



Zoning & Land Use Analysis

Land Use Zone Finder, CRZ Zone Check, Aquifer Zone Check, CBA Check, EWS Check, Road Width Check, Proposed Road Widening Check, FSI Calculator



Property Documentation & Workflow Tools

Forms & Templates, Document Generator, Document Translation, Dictionary



Vastu & Property Management Tools

Home Vastu Shastra, Plot Vastu Shastra, Property Management



We're honored to be part of your
real estate journey

3/350/2 Mettukuppam,
OMR Thoraipakkam,
Chennai, India

hello@verified.realestate
[+91 9996 12 9996](tel:+919996129996)
www.verified.realestate