Verified RealEstate™

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 WING,
TAMILNADU URBAN HABITAT
DEVELOPMENT BOARD,
KAMARAJAR SALAI, CHENNAI-05.

STABILITY CERTIFICATE

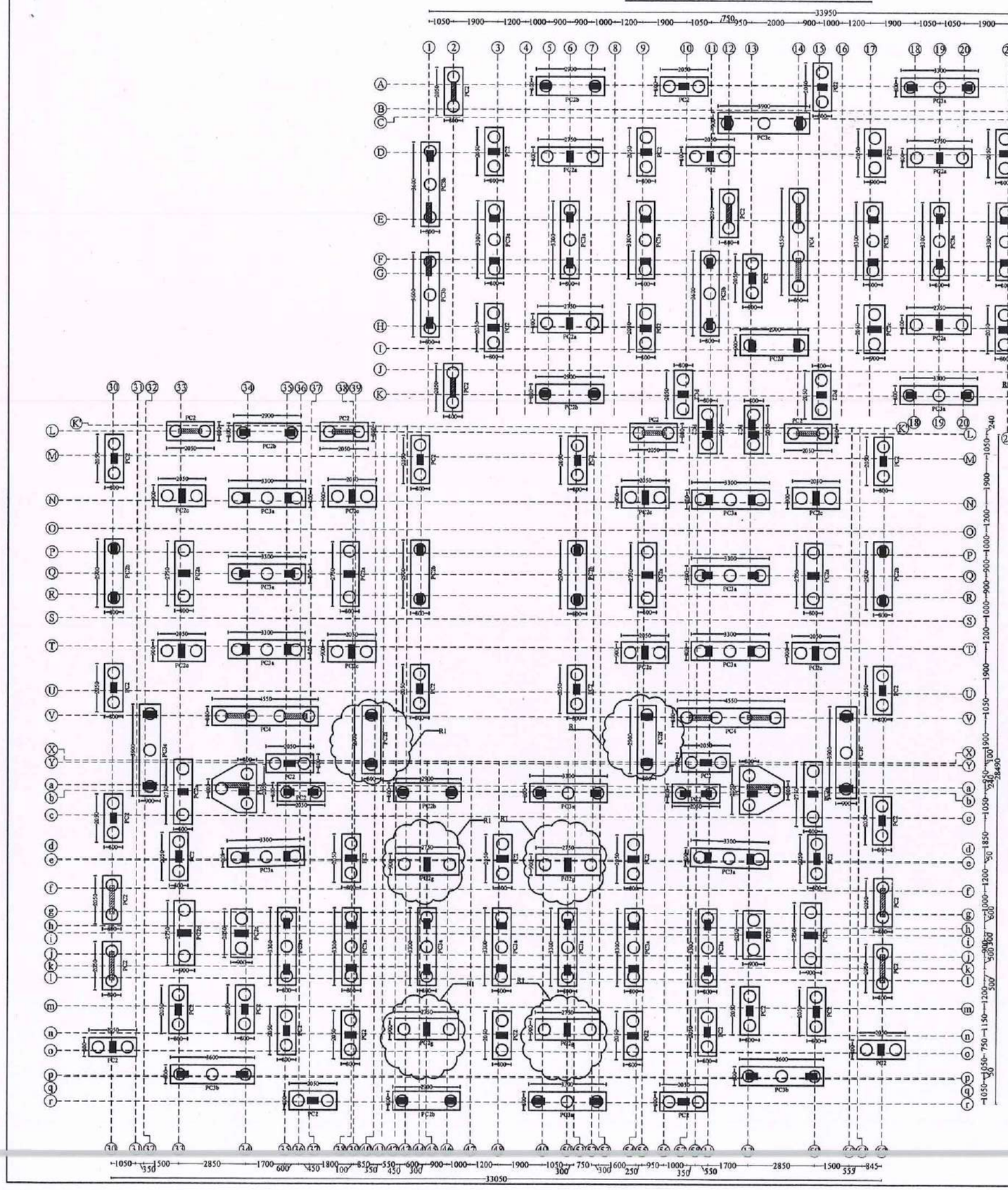
This is to Certify that the registration Reconstruction of 250+2 tenements consisting of 1 block adopting partially (S+9) at Nattanthottam scheme R.S.No. 1821/pt, 1816/1pt / Block 37 in Chennai Corpn. Dn. No.124 under HFA/AHP/PMAY, MylaporeTaluk, Chennai District, Tamil Nadu which is structurally designed 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 all structural members. The structure is also designed for the Seismic zone as per IS code. The structure design is Safe, Good, and Sound.

30/7/2024
Executive Engineer

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.

Scanned with OKEN Scanner

PLAN AT PILECAP LEVEL



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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

TRUE COPY

8/7/2024

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

E.N
8/7/24

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
PLAN AT PILECAP LEVEL.

TYPE DESIGN NO.: 104/2022

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

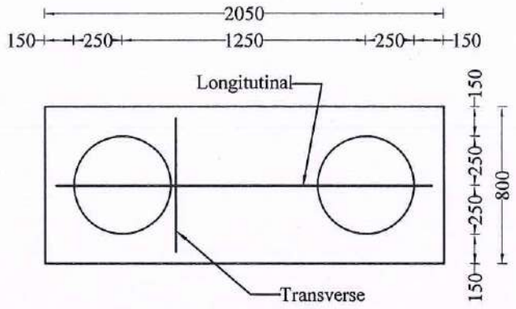
REVISION NO.: R1

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

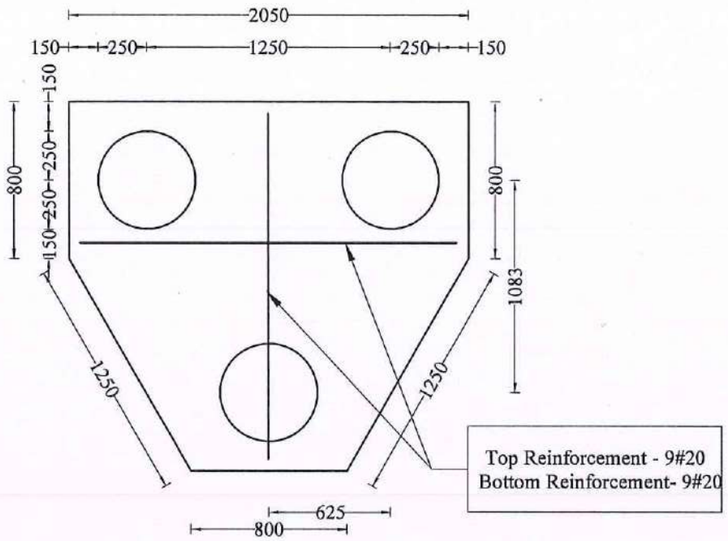
sd.xxxx 05.07.2024
Chief Engineer-I

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

TYPICAL PLAN OF PILE CAP



PC2



PC3

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	1100	6#16	5#20	#16 @120c/c	#12 @150c/c
PC2a	2750x800	1100	6#16	6#20	#16 @120c/c	#12 @150c/c
PC2b	2900x800	1100	6#16	6#16	#16 @120c/c	#12 @150c/c
PC2c	2050x900	1100	6#16	6#20	#16 @120c/c	#12 @150c/c
PC2d	2900x900	1100	6#16	6#16	#16 @120c/c	#12 @150c/c
PC2e	2750x900	1100	7#16	9#20	#16 @120c/c	#12 @150c/c
PC2f	2900x800	1100	7#20	7#20	#16 @120c/c	#12 @150c/c
PC2g	2750x900	1100	6#16	7#16	#16 @120c/c	#12 @150c/c
PC3	Refer Drawing	1100	9#20	9#20	Refer Drawing	#12 @150c/c
PC3a	3300x800	1100	6#16	6#16	#16 @120c/c	#12 @150c/c
PC3b	3600x800	1100	7#16	7#16	#16 @120c/c	#12 @150c/c
PC3c	3900x900	1100	5#20	7#16	#16 @120c/c	#12 @150c/c
PC4	4550x800	1100	6#16	7#16	#16 @120c/c	#12 @150c/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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

TRUE COPY
8/7/2024
EXECUTIVE ENGINEER (A/c)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
F:10
8/7/24

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
TYPICAL PLAN OF PILE CAP & DETAILS.

TYPE DESIGN NO.: 104/2022

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

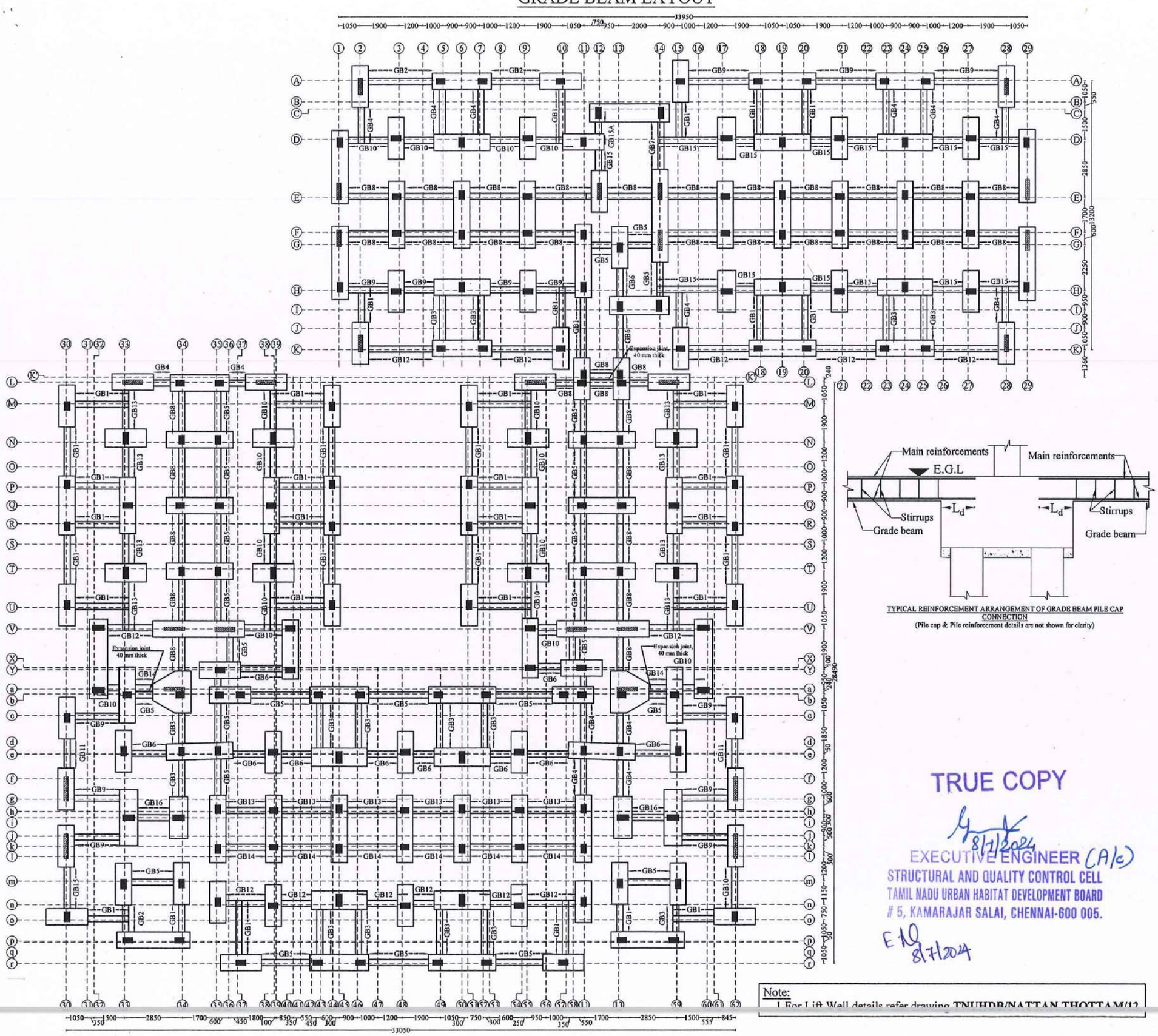
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 05.07.2024
Chief Engineer-I

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

GRADE BEAM LAYOUT



TYPICAL REINFORCEMENT ARRANGEMENT OF GRADE BEAM PILE CAP CONNECTION

(Pile cap & Pile reinforcement details are not shown for clarity)

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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

TRUE COPY

8/7/2024

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

E 10 8/7/2024

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
GEADE BEAM LAYOUT.

TYPE DESIGN NO.: 104/2022

DWG.NO.: TNUHDB / NATTAN THOTTAM / 04.

REVISION NO.:

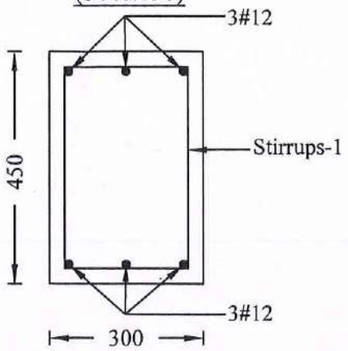
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 05.07.2024
Chief Engineer-I

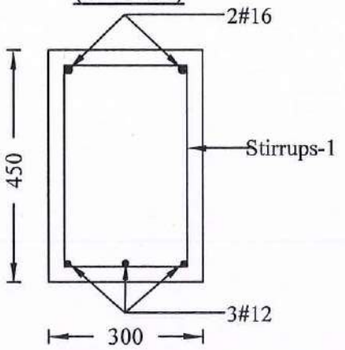
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
CHENNAI - 600 005.

GRADE BEAM DETAILS

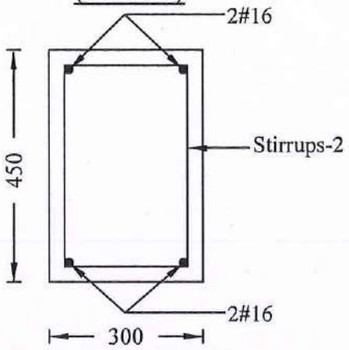
GB1 (300x450)



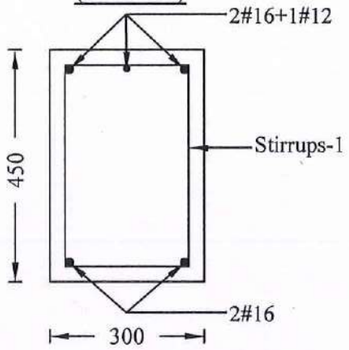
GB2 (300x450)



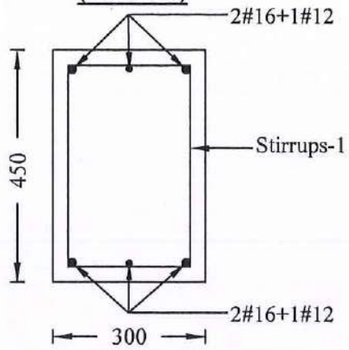
GB3 (300x450)



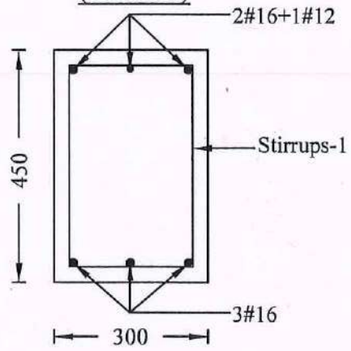
GB4 (300x450)



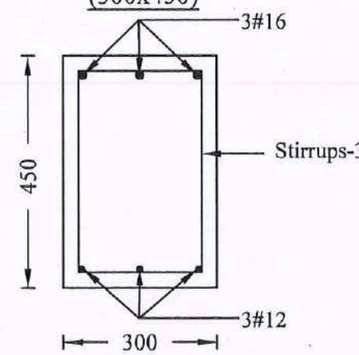
GB5 (300x450)



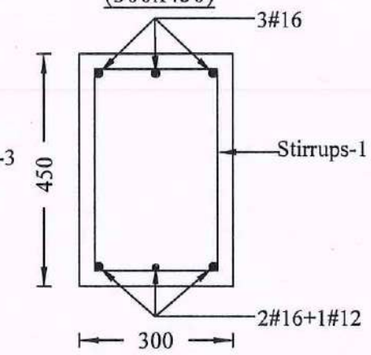
GB6 (300x450)



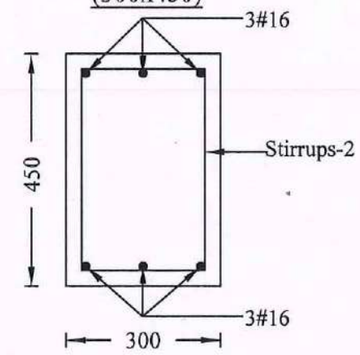
GB7 (300x450)



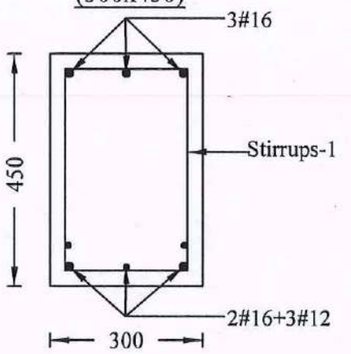
GB8 (300x450)



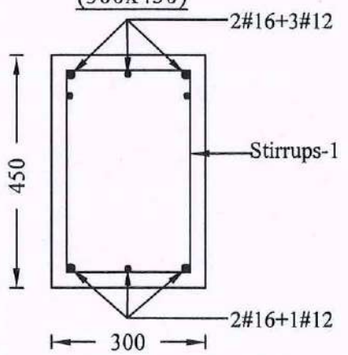
GB9 (300x450)



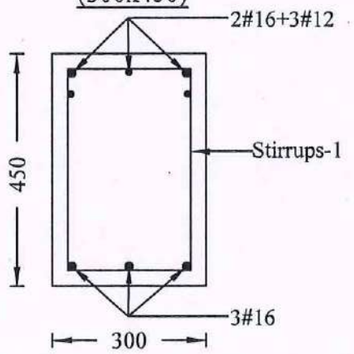
GB10 (300x450)



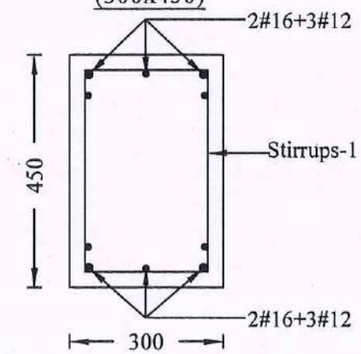
GB11 (300x450)



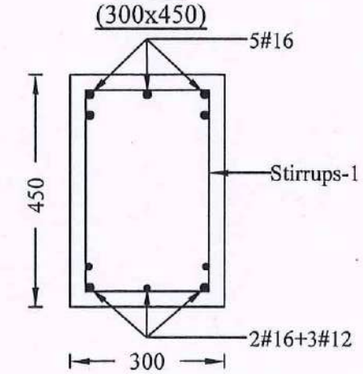
GB12 (300x450)



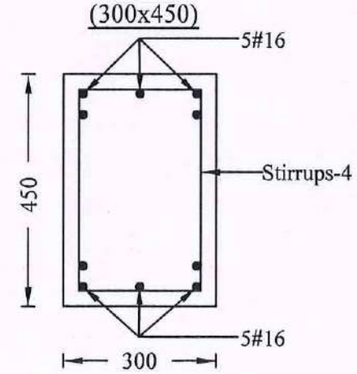
GB13 (300x450)



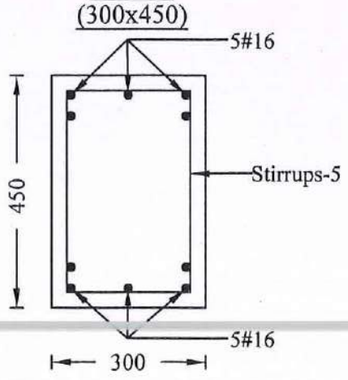
GB14 (300x450)



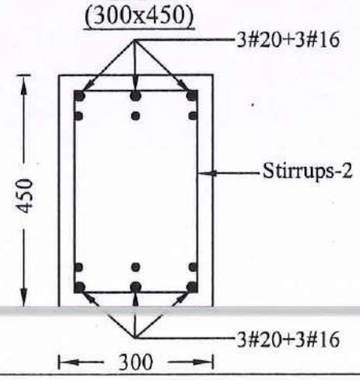
GB15 (300x450)



GB15A (300x450)



GB16 (300x450)



NOTE :

1) Stirrups-1 - 2L#10mm Stirrups @ 75mm c/c for 900 mm length on all side from pilecap face and the rest at 2L#10 @ 150mm c/c.
2) Stirrups-2 - 2L#10mm Stirrups @ 100mm c/c for 900 mm length on all side from pilecap face and the rest at 2L#10 @ 150mm c/c.
3) Stirrups-3 - 2L#10mm Stirrups @ 70mm c/c for 900 mm length on all side from pilecap face and the rest at 2L#10 @ 150mm c/c.
4) Stirrups-4 - 2L#10mm Stirrups @ 75mm c/c for 900 mm length on all side from pilecap face and the rest at 2L#10 @ 130mm c/c.
5) Stirrups-5 - 2L#10mm Stirrups @ 75mm c/c for 900 mm length on all side from pilecap face and the rest at 2L#10 @ 95mm 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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

TRUE COPY
8/7/2024
EXECUTIVE ENGINEER (A/c)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
F.10 8/7/24

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
GRADE BEAM DETAILS.

TYPE DESIGN NO.: 104/2022

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

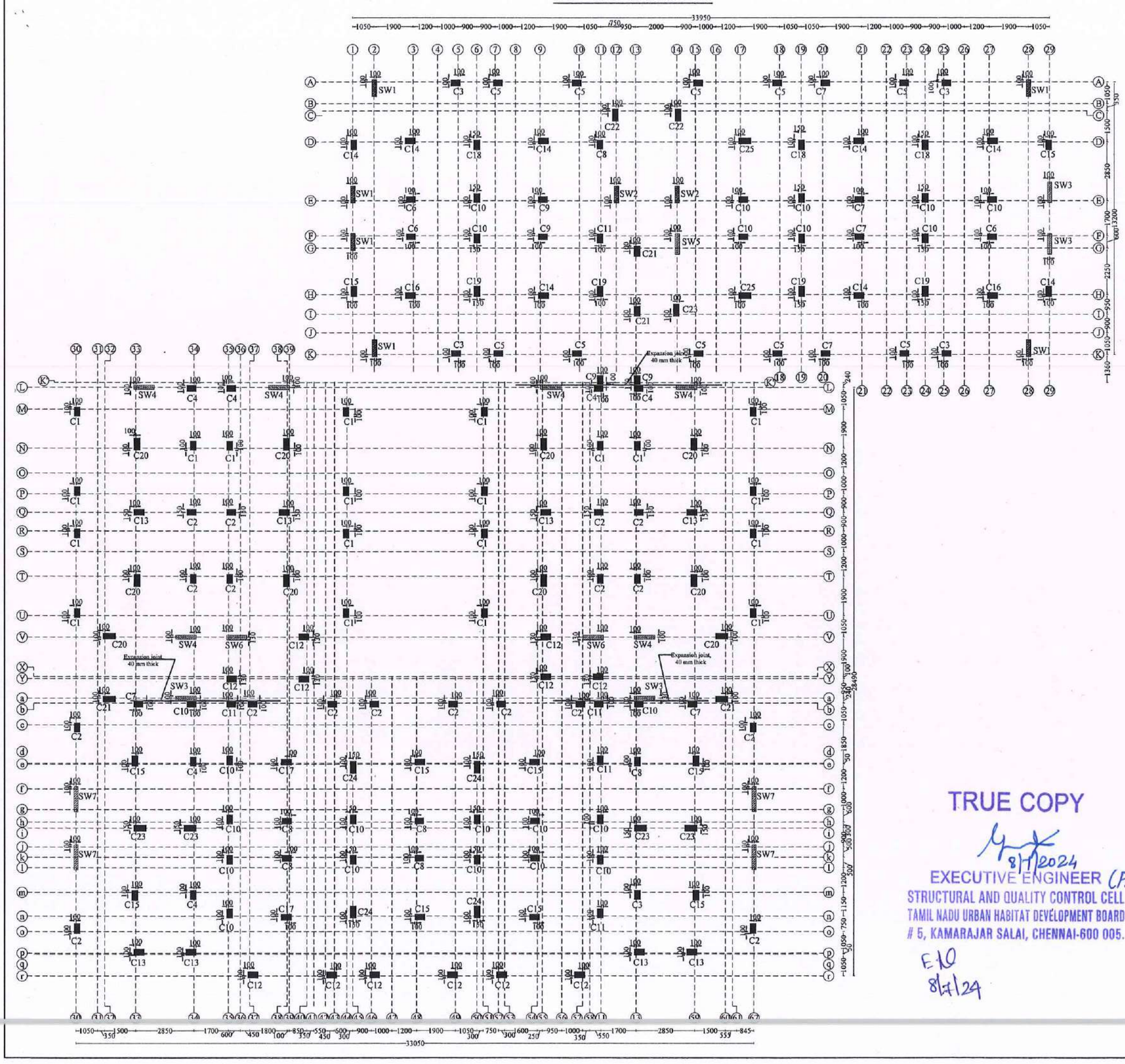
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 05.07.2024
Chief Engineer-I

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

COLUMN 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 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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

TRUE COPY

8/7/2024

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

E10
8/7/24

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
COLUMN LAYOUT.

TYPE DESIGN NO.: 104/2022

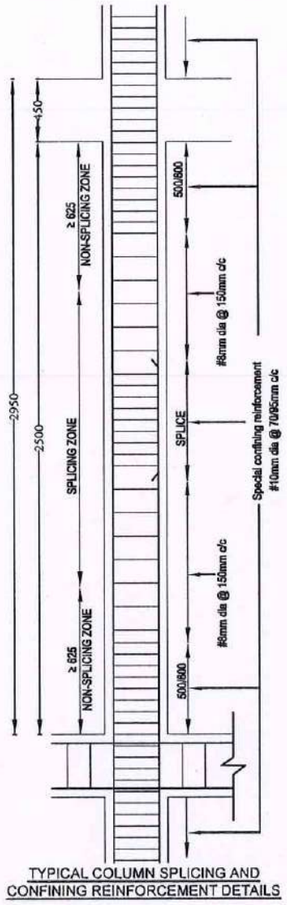
DWG.NO.: TNUHDB / NATTAN THOTTAM / 06.

REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - East I**

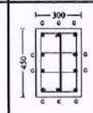
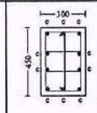
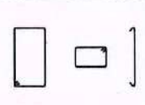
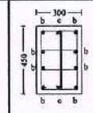
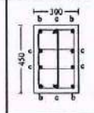
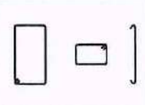
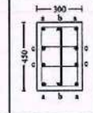
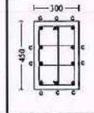
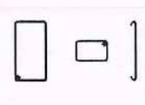
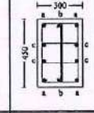
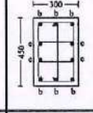
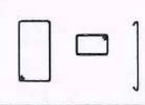
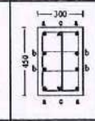
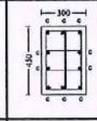
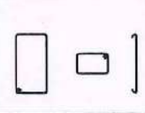
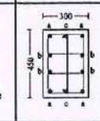
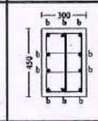
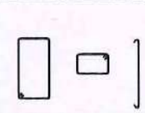
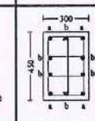
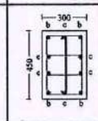
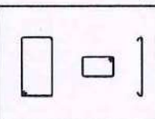
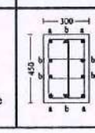
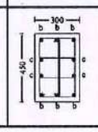
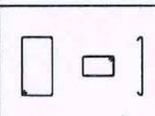
sd.xxxx 05.07.2024
Chief Engineer-I

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
CHENNAI - 600 005.

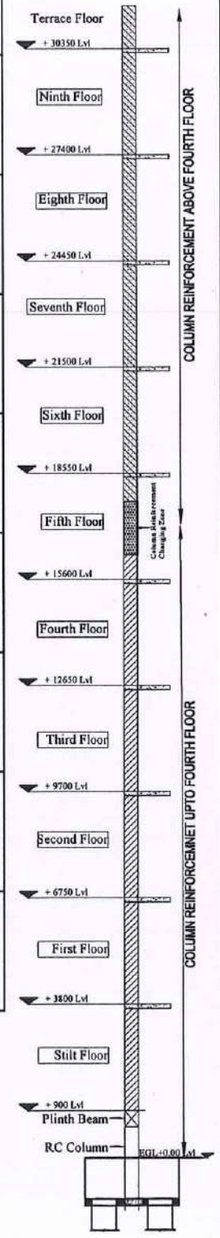


TYPICAL COLUMN SPLICING AND CONFINING REINFORCEMENT DETAILS

SCHEDULE OF COLUMNS

Sl.No.	Column Marking	No of Columns	Size	E.G.L to 4th Floor Column Reinforcement Details			Above 5th Floor Column Reinforcement Details			Ties Profile	Remarks
				Column Verticals	Lateral Ties	Cross Section	Column Verticals	Lateral Ties	Cross Section		
1.	C1	20	300 x 450	# 12 - 10 Nos	1) Upto Stilt floor slab: #10 @ 70 mm c/c 2) Stilt to Fourth 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		# 12 - 10 Nos	Above Fifth 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 5th floor
2.	C2	18	300 x 450	# 16 - 8 Nos + # 12 - 2 Nos	1) Upto Stilt floor slab: #10 @ 70 mm c/c 2) Stilt to Fourth 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		# 12 - 6 Nos + # 16 - 4 Nos.	Above Fifth 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 5th floor
3.	C3	05	300 x 450	# 20 - 4Nos + #16 - 2Nos + #12 - 4Nos.	1) Upto Stilt floor slab: #10 @ 70 mm c/c 2) Stilt to Fourth 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		# 12 - 10 Nos	Above Fifth 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 5th floor
4.	C4	06	300 x 450	# 20 - 4Nos + #16 - 2Nos + #12 - 4Nos.	1) Upto Stilt floor slab: #10 @ 70 mm c/c 2) Stilt to Fourth 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 Fifth 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 5th floor
5.	C5	10	300 x 450	# 20 - 4Nos + #16 - 4Nos + #12 - 2Nos.	1) Upto Stilt floor slab: #10 @ 70 mm c/c 2) Stilt to Fourth 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		# 12 - 10 Nos	Above Fifth 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 5th floor
6.	C6	03	300 x 450	# 20 - 4Nos + #16 - 4Nos + #12 - 2Nos.	1) Upto Stilt floor slab: #10 @ 70 mm c/c 2) Stilt to Fourth 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 - 10 Nos	Above Fifth 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 5th floor
7.	C7	06	300 x 450	# 20 - 4 Nos + # 16 - 6 Nos	1) Upto Stilt floor slab: #10 @ 95 mm c/c 2) Stilt to Fourth 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 - 4 Nos + # 12 - 6 Nos	Above Fifth 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 5th floor
8.	C8	06	300 x 450	# 20 - 4 Nos + # 16 - 6 Nos	1) Upto Stilt floor slab: #10 @ 95 mm c/c 2) Stilt to Fourth 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 Fifth 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 5th floor

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



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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

TRUE COPY

8/7/2024
EXECUTIVE ENGINEER (A/c)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005

E-10 8/7/24

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
SCHEDULE OF COLUMNS

TYPE DESIGN NO.: 104/2022

DWG.NO.: TNUHDB / NATTAN THOTTAM / 07

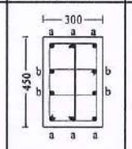
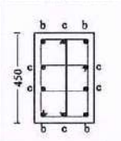
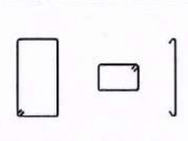
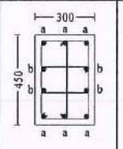
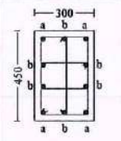
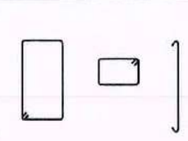
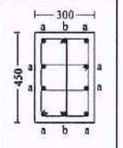
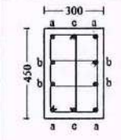
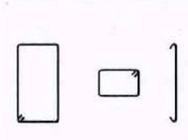
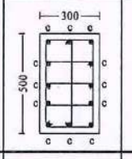
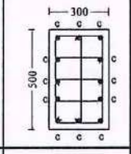
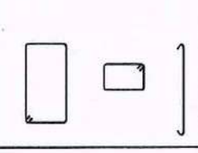
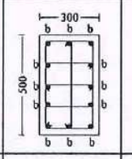
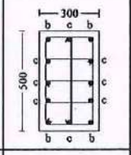
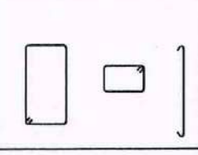
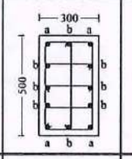
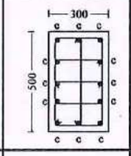
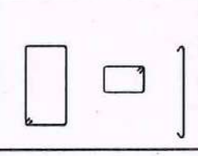
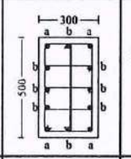
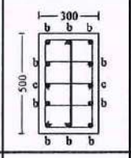
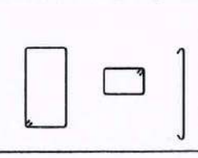
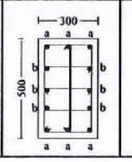
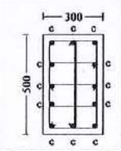
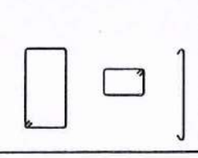
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 05.07.2024
Chief Engineer-I

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 4th Floor Column Reinforcement Details			Above 5th Floor Column Reinforcement Details			Ties Profile	Remarks
				Column Verticals	Lateral Ties	Cross Section	Column Verticals	Lateral Ties	Cross Section		
9.	C9	04	300 x 450	# 20 - 6 Nos + #16 - 4 Nos	1) Upto Stilt floor slab: #10 @ 95 mm c/c 2) Stilt to Fourth 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 - 4 Nos + # 12 - 6 Nos	Above Fifth 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 5th floor
10.	C10	23	300 x 450	# 20 - 6 Nos + #16 - 4 Nos	1) Upto Stilt floor slab: #10 @ 95 mm c/c 2) Stilt to Fourth 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 - 6 Nos.	Above Fifth 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			Curtailment at 5th floor
11.	C11	05	300 x 450	# 20 - 8 Nos + #16 - 2 Nos	1) Upto Stilt floor slab: #10 @ 95 mm c/c 2) Stilt to Fourth 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 - 4Nos + #16 - 4Nos + #12 - 2Nos.	Above Fifth 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 5th floor
12.	C12	12	300 x 500	#12 - 12Nos	1) Upto Stilt floor slab: #8 @ 70 mm c/c 2) Stilt to Fourth floor slab: #8 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		#12 - 12Nos	Above Fifth floor slab: #8 @ 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 5th floor
13.	C13	08	300 x 500	# 16 - 12 Nos	1) Upto Stilt floor slab: #8 @ 75 mm c/c 2) Stilt to Fourth floor slab: #8 @ 75 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		# 16 - 4 Nos + # 12 - 8 Nos	Above Fifth floor slab: #8 @ 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 5th floor
14.	C14	08	300 x 500	# 20 - 4 Nos + #16 - 8 Nos	1) Upto Stilt floor slab: #8 @ 75 mm c/c 2) Stilt to Fourth floor slab: #8 @ 75 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		#12 - 12Nos	Above Fifth floor slab: #8 @ 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 5th floor
15.	C15	10	300 x 500	# 20 - 4 Nos + #16 - 8 Nos	1) Upto Stilt floor slab: #8 @ 75 mm c/c 2) Stilt to Fourth floor slab: #8 @ 75 mm c/c for 500 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 Fifth floor slab: #8 @ 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 5th floor
16.	C16	02	300 x 500	# 20 - 6 Nos + #16 - 6 Nos	1) Upto Stilt floor slab: #8 @ 70 mm c/c 2) Stilt to Fourth floor slab: #8 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		#12 - 12Nos	Above Fifth floor slab: #8 @ 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 5th floor

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

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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

TRUE COPY

8/7/2024

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

E.10 8/7/24

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
SCHEDULE OF COLUMNS

TYPE DESIGN NO.: 104/2022

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

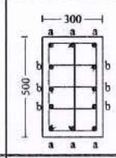
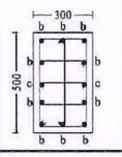
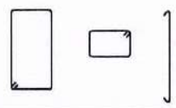
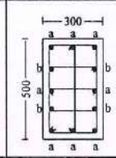
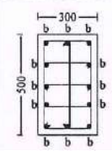
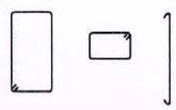
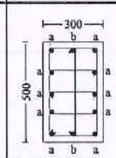
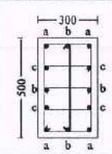
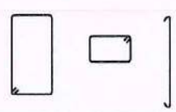
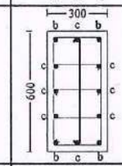
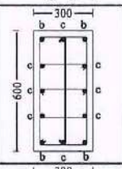
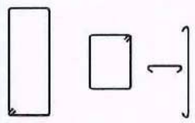
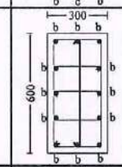
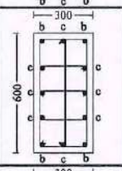
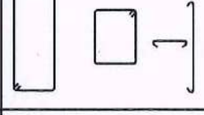
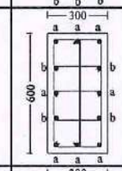
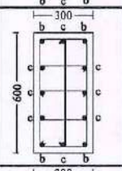
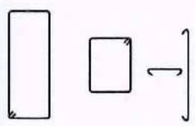
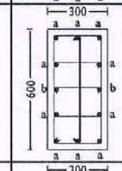
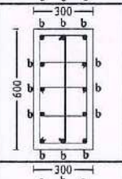
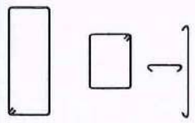
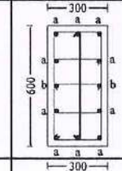
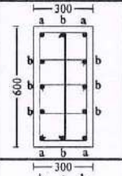
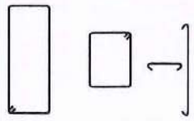
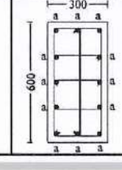
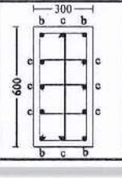
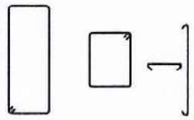
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 05.07.2024
Chief Engineer-I

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 4th Floor Column Reinforcement Details			Above 5th Floor Column Reinforcement Details			Ties Profile	Remarks
				Column Verticals	Lateral Ties	Cross Section	Column Verticals	Lateral Ties	Cross Section		
17.	C17	02	300 x 500	# 20 - 6 Nos + #16 - 6 Nos	1) Upto Stilt floor slab: #8 @ 70 mm c/c 2) Stilt to Fourth floor slab: #8 @ 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 - 10 Nos + # 12 - 2 Nos	Above Fifth floor slab: #8 @ 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 5th floor
18.	C18	03	300 x 500	# 20 - 8 Nos + #16 - 4 Nos	1) Upto Stilt floor slab: #8 @ 70 mm c/c 2) Stilt to Fourth floor slab: #8 @ 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 - 12Nos	Above Fifth floor slab: #8 @ 75 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 5th floor
19.	C19	04	300 x 500	# 20 - 10 Nos + #16 - 2 Nos	1) Upto Stilt floor slab: #8 @ 70 mm c/c 2) Stilt to Fourth floor slab: #8 @ 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 - 4Nos + #16 - 4Nos + #12 - 4Nos.	Above Fifth floor slab: #8 @ 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 5th floor
20.	C20	10	300 x 600	# 16 - 4 Nos + #12 - 8 Nos	1) Upto Stilt floor slab: #8 @ 70 mm c/c 2) Stilt to Fourth floor slab: #8 @ 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 - 4 Nos + #12 - 8 Nos	Above Fifth floor slab: #8 @ 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 5th floor
21.	C21	04	300 x 600	# 16 - 12 Nos	1) Upto Stilt floor slab: #8 @ 65 mm c/c 2) Stilt to Fourth floor slab: #8 @ 65 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		# 16 - 4 Nos + #12 - 8 Nos	Above Fifth floor slab: #8 @ 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 5th floor
22.	C22	02	300 x 600	# 20 - 8 Nos + #16 - 4 Nos	1) Upto Stilt floor slab: #8 @ 65 mm c/c 2) Stilt to Fourth floor slab: #8 @ 65 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		# 16 - 4 Nos + #12 - 8 Nos	Above Fifth floor slab: #8 @ 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 5th floor
23.	C23	05	300 x 600	# 20 - 10 Nos + #16 - 2 Nos	1) Upto Stilt floor slab: #8 @ 65 mm c/c 2) Stilt to Fourth floor slab: #8 @ 65 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		#16 - 12Nos	Above Fifth floor slab: #8 @ 65 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 5th floor
24.	C24	04	300 x 600	# 20 - 10 Nos + #16 - 2 Nos	1) Upto Stilt floor slab: #8 @ 65 mm c/c 2) Stilt to Fourth floor slab: #8 @ 65 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		# 20 - 4 Nos + #16 - 8 Nos	Above Fifth floor slab: #8 @ 65 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 5th floor
25.	C25	02	300 x 600	# 20 - 12 Nos	1) Upto Stilt floor slab: #8 @ 65 mm c/c 2) Stilt to Fourth floor slab: #8 @ 65 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		# 16 - 4 Nos + #12 - 8 Nos	Above Fifth floor slab: #8 @ 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 5th floor

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

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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

TRUE COPY
8/7/2024
EXECUTIVE ENGINEER (AK)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
E:10 8/7/24

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
SCHEDULE OF COLUMNS.

TYPE DESIGN NO.: 104/2022

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

REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - East I**

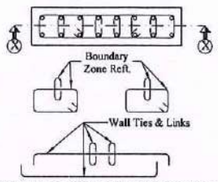
sd.xxxx 05.07.2024
Chief Engineer-I

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
CHENNAI - 600 005.

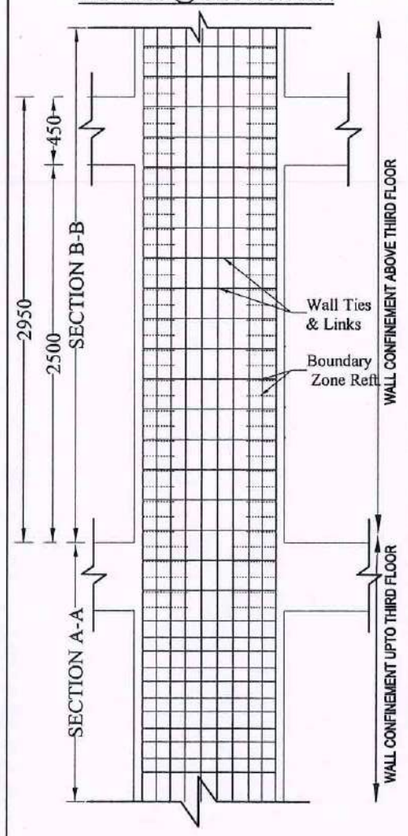
SHEAR WALL REINFORCEMENT DETAILS

TYPICAL SHEAR WALL CONFINING REINFORCEMENT DETAILS

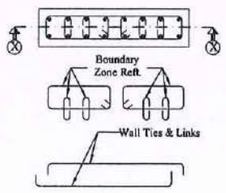
SECTION B-B



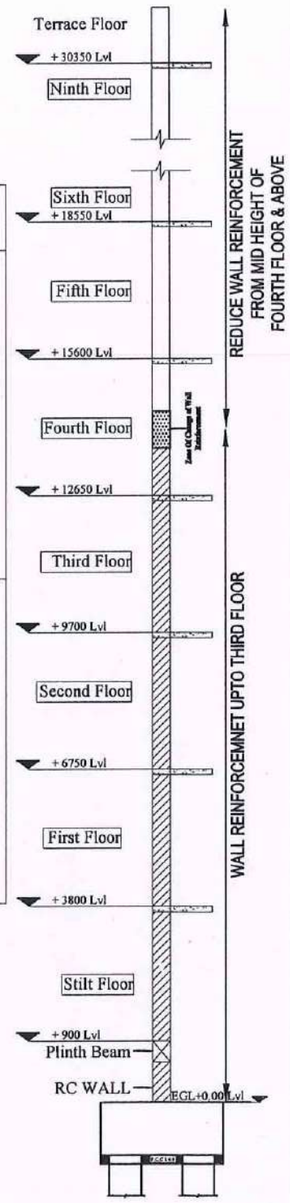
DETAILS @ SECTION X-X



SECTION A-A



Curtailments Levels	SW1 (6 Nos)	SW2 (2 Nos)	SW3 (4 Nos)	SW4 (6 Nos)
Above 3rd Floor level (Bar Curtailment at mid height of 4rd floor)	800, 120, 120, 200; o - 12mm (16 Nos); 8@65 c/c; 8@130 c/c	800, 120, 120, 200; o - 12mm (16 Nos); 8@65 c/c; 8@130 c/c	1000, 120, 120, 200; o - 12mm (20 Nos); 8@65 c/c; 8@130 c/c	1000, 120, 120, 200; o - 12mm (20 Nos); 8@65 c/c; 8@130 c/c
Upto 3rd Floor level (Bar Curtailment at mid height of 4rd floor)	800, 200; • - 16mm (16 Nos); 10@95 c/c	800, 200; • - 20mm (16 Nos); 10@95 c/c	1000, 200; • - 20mm (8 Nos); o - 16mm (12 Nos); 10@95 c/c	1000, 200; • - 16mm (20 Nos); 10@95 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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
SHEAR WALL REINFORCEMNET DETAILS.

TYPE DESIGN NO.: 104/2022

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

REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 05.07.2024
Chief Engineer-I

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

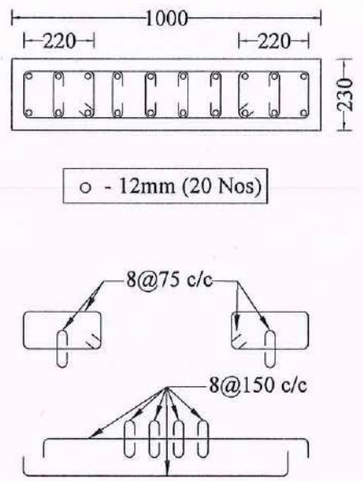
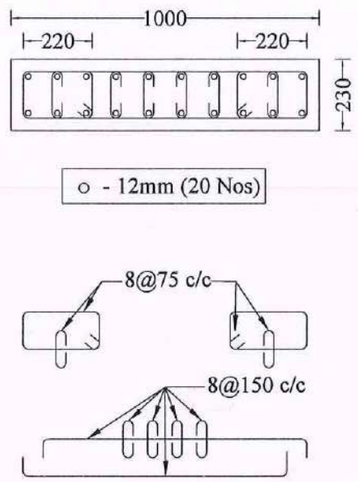
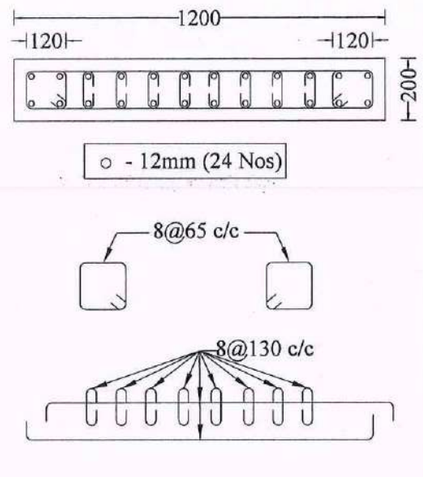
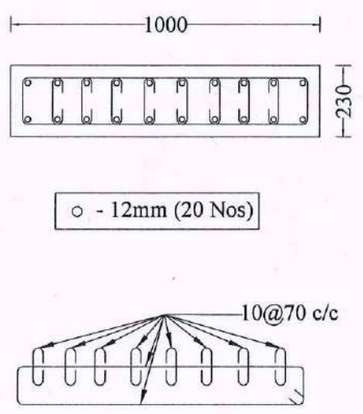
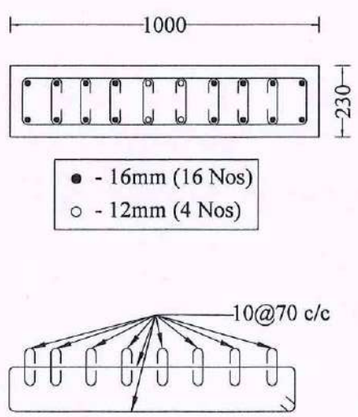
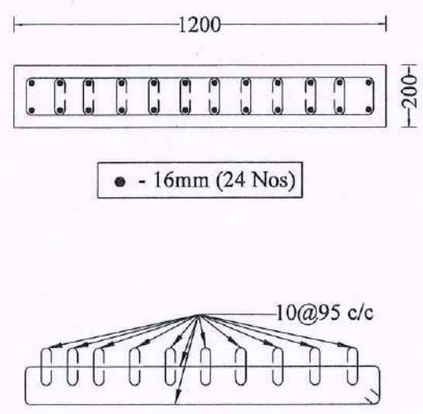
TRUE COPY

8/7/2024

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

8/7/24

SHEAR WALL REINFORCEMENT DETAILS

Curtailments Levels	SW5 (1 Nos)	SW6 (2 Nos)	SW7 (4 Nos)
Above 3rd Floor level (Bar Curtailment at mid height of 4rd floor)			
Upto 3rd Floor level (Bar Curtailment at mid height of 4rd 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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
SHEAR WALL REINFORCEMNET DETAILS.

TYPE DESIGN NO.: 104/2022

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

REVISION NO.:

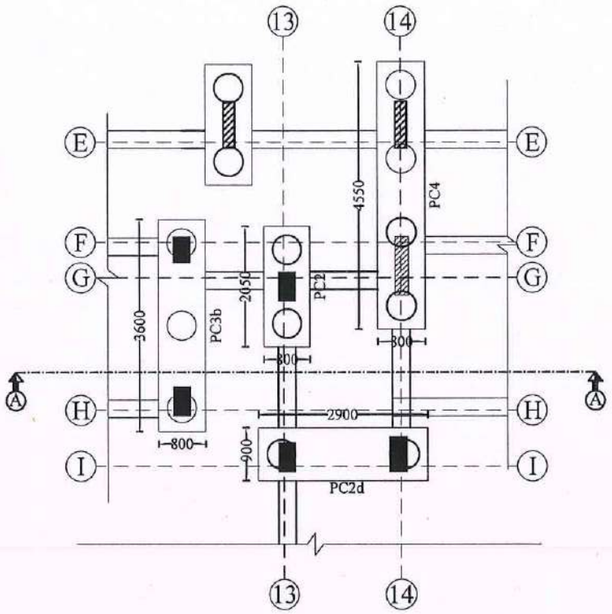
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 05.07.2024
Chief Engineer-I

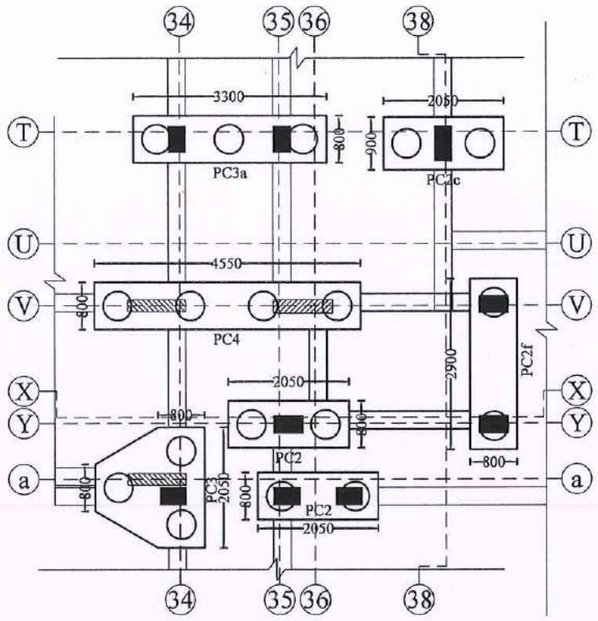
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TRUE COPY
8/7/2024
EXECUTIVE ENGINEER (A/c)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
8/7/24

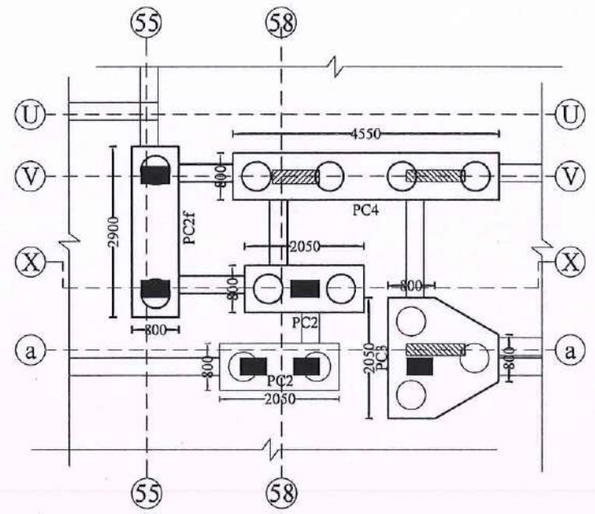
LAYOUT AND RC DETAILS OF LIFT WELL



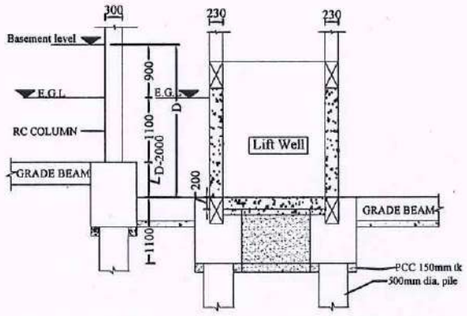
GENERAL PILECAP & GRADE BEAM LAYOUT
BELOW THE LIFT PIT AREA - LIFT-1



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

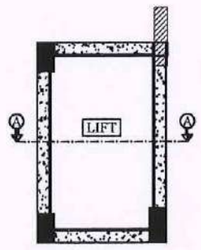


GENERAL PILECAP & GRADE BEAM LAYOUT
BELOW THE LIFT PIT AREA - LIFT 3

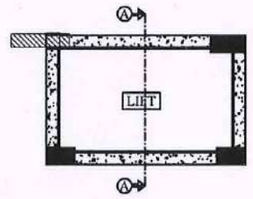


SECTION ON A-A (GENERAL ARRANGEMENT)

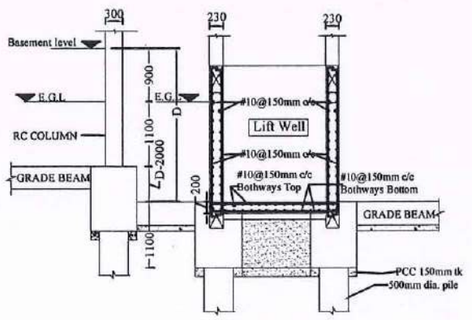
NOTE:
* D - Depth of lift pit below basement level should be confirmed with manufacturer. Any deviation from drawing should be confirmed with structural consultant.



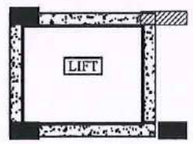
PLAN OF LIFT WELL-1 --TYPICAL



PLAN OF LIFT WELL-2 --TYPICAL



SECTION ON A-A (REINFORCEMENT DETAILS)



PLAN OF LIFT WELL-3 --TYPICAL

TRUE COPY
8/7/2024
EXECUTIVE ENGINEER (A/c)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
E.U 8/7/24

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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
LAYOUT & RC DETAILS OF LIFT WELL.

TYPE DESIGN NO.: 104/2022

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

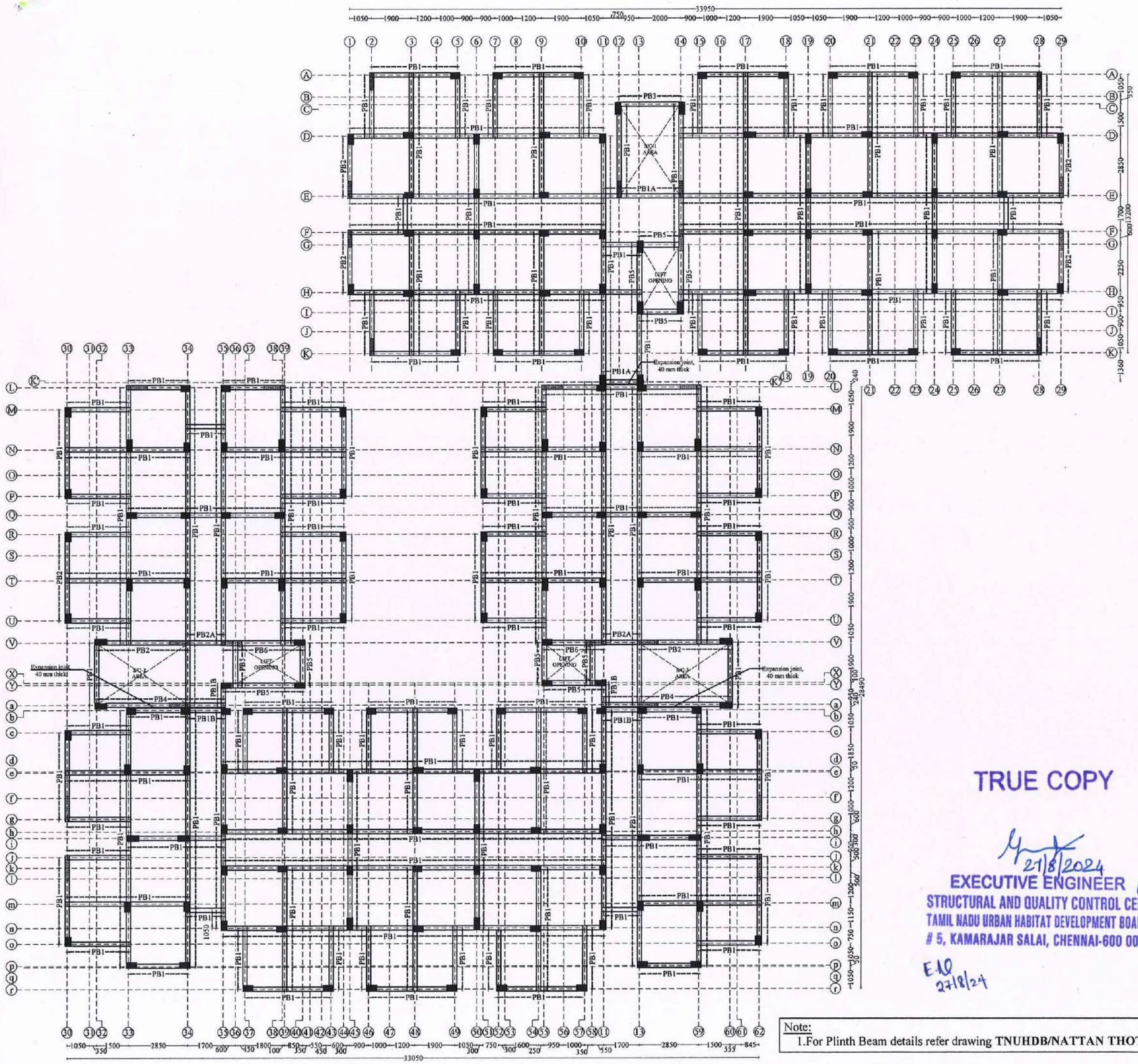
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - East I**

sd.xxxx 05.07.2024
Chief Engineer-I

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

PLINTH 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 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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

TRUE COPY

27/8/2024
EXECUTIVE ENGINEER (A/c)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

E.10
27/8/24

Note:
1.For Plinth Beam details refer drawing **TNUHDB/NATTAN THOTTAM/14.**

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
PLINTH BEAM LAYOUT.

TYPE DESIGN NO.: 104/2022

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

REVISION NO.:

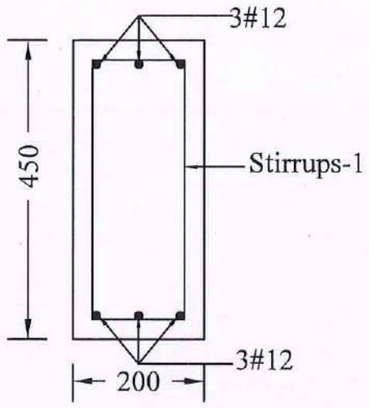
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 22.08.2024
Chief Engineer-I

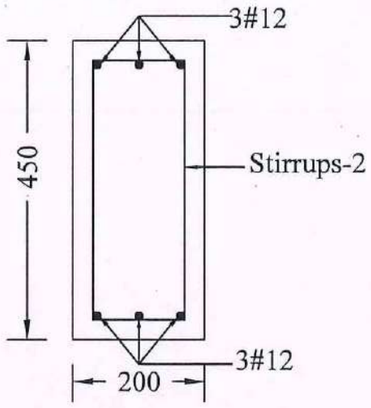
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

PLINTH BEAM DETAILS

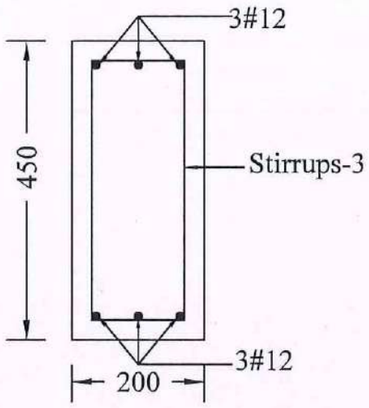
PB1
(200 x 450)



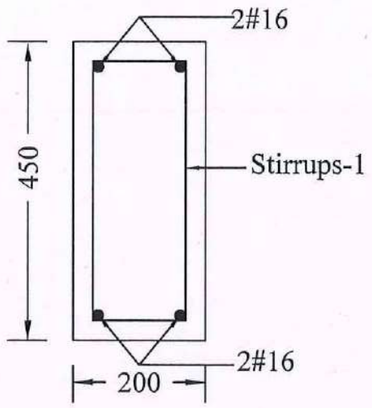
PB1A
(200 x 450)



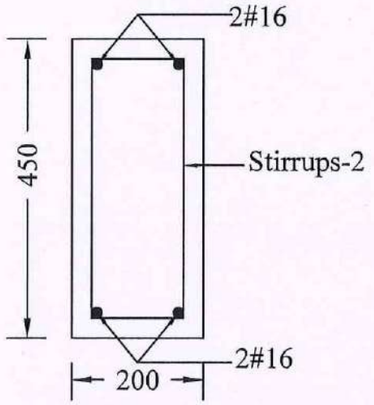
PB1B
(200 x 450)



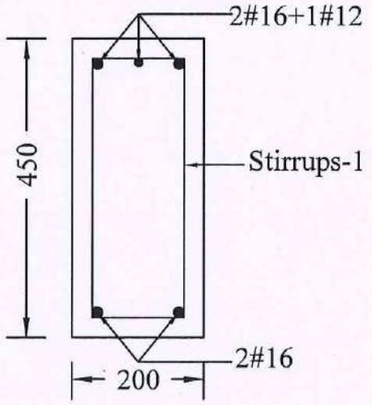
PB2
(200 x 450)



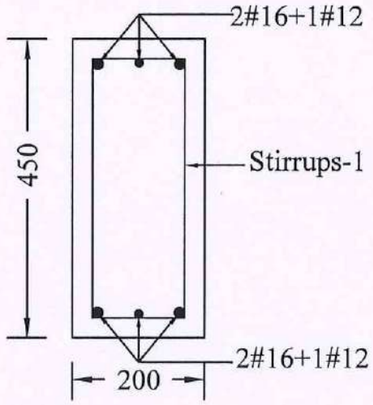
PB2A
(200 x 450)



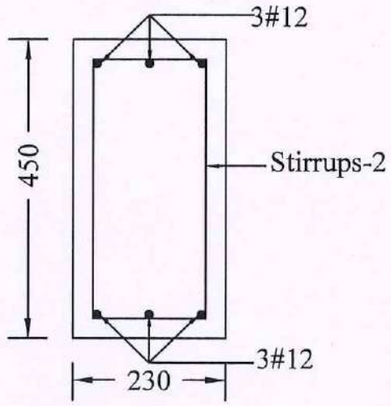
PB3
(200 x 450)



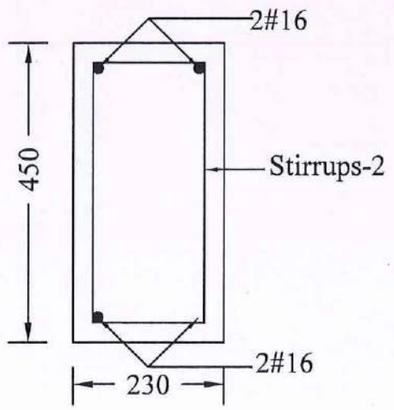
PB4
(200 x 450)



PB5
(230 x 450)



PB6
(230 x 450)



NOTE:

1. **Stirrups-1 :** 2 Legged # 8 mm stirrups at 75 mm c/c for 900 mm length on all sides near Beam - Column junctions and the rest at 150 mm c/c.
2. **Stirrups-2 :** 2 Legged # 8 mm stirrups at 75 mm c/c for 900 mm length on all sides near Beam - Column junctions and the rest at 125 mm c/c.
3. **Stirrups-3 :** 2 Legged # 8 mm stirrups at 75 mm c/c for 900 mm length on all sides near Beam - Column junctions and the rest at 100 mm c/c.

TRUE COPY

27/8/2024
EXECUTIVE ENGINEER (A/c)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

27/8/24

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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
PLINTH BEAM DETAILS.

TYPE DESIGN NO.: 104/2022

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

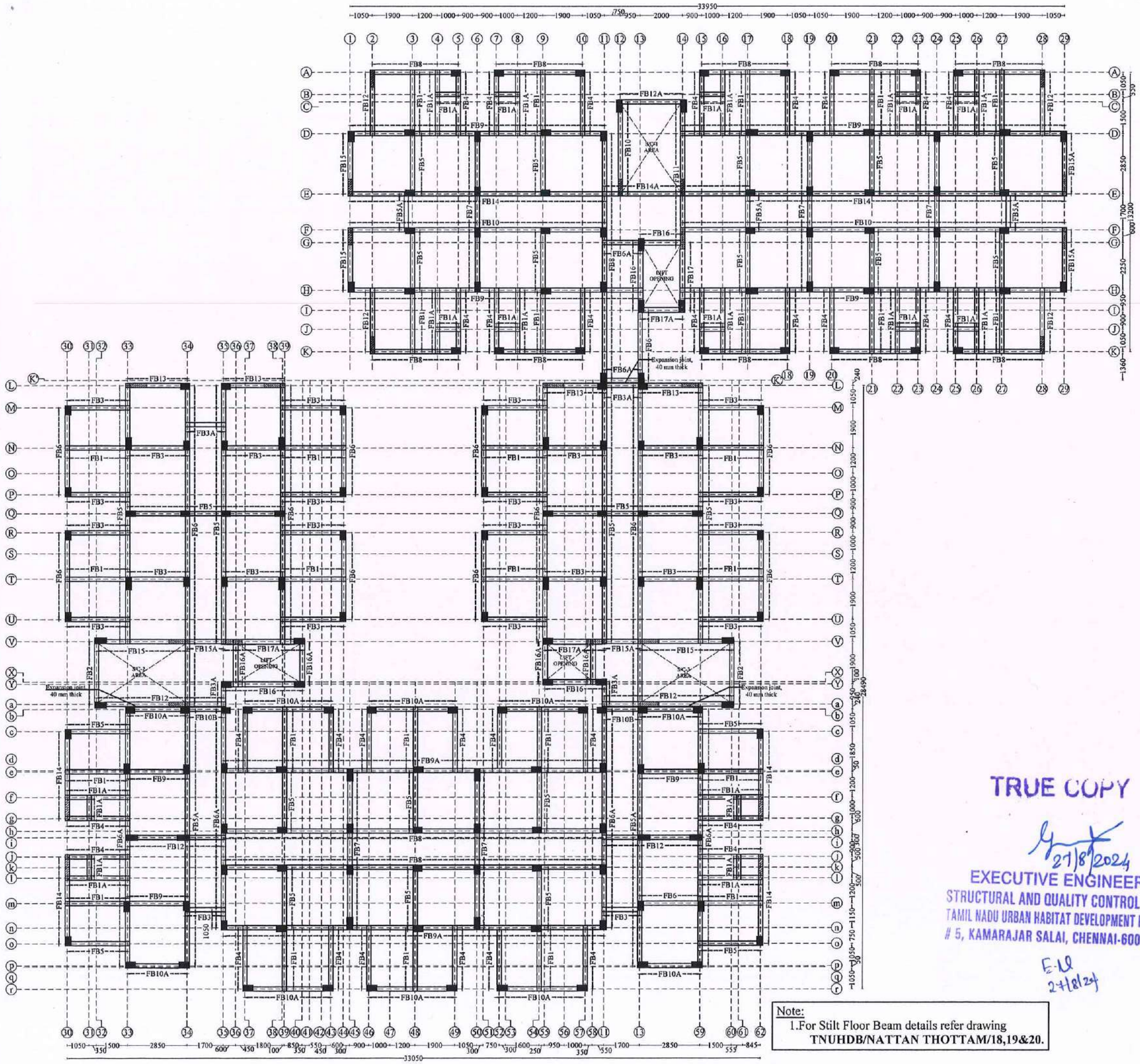
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 22.08.2024
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 :

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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

TRUE COPY

27/8/2024

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

E.E
27/8/24

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
STILT FLOOR BEAM LAYOUT.

TYPE DESIGN NO.: 104/2022

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

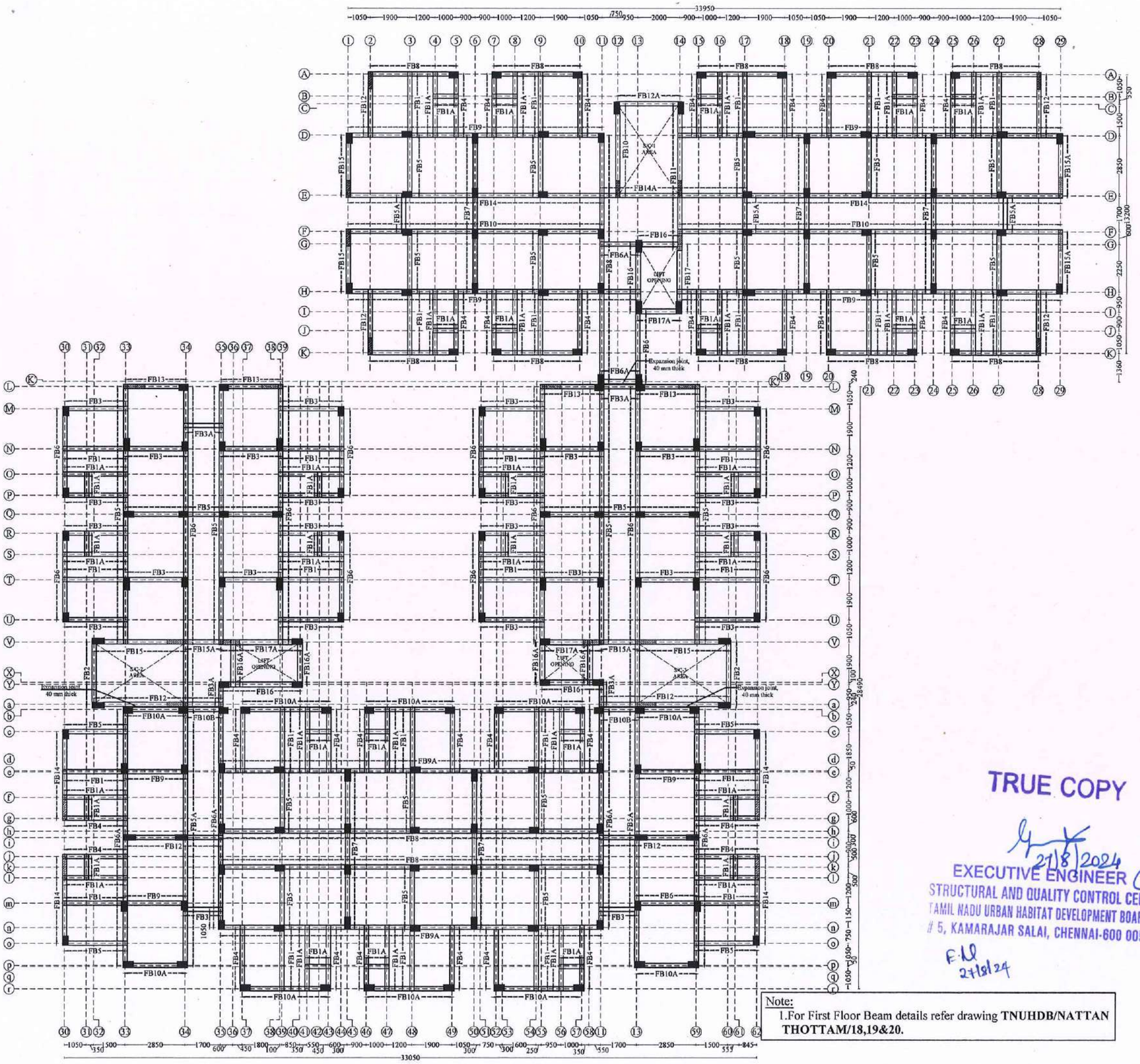
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - East I**

sd.xxxx 22.08.2024
Chief Engineer-I

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

FIRST 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 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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

TRUE COPY

27/8/2024

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

27/8/24

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
FIRST FLOOR BEAM LAYOUT.

TYPE DESIGN NO.: 104/2022

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

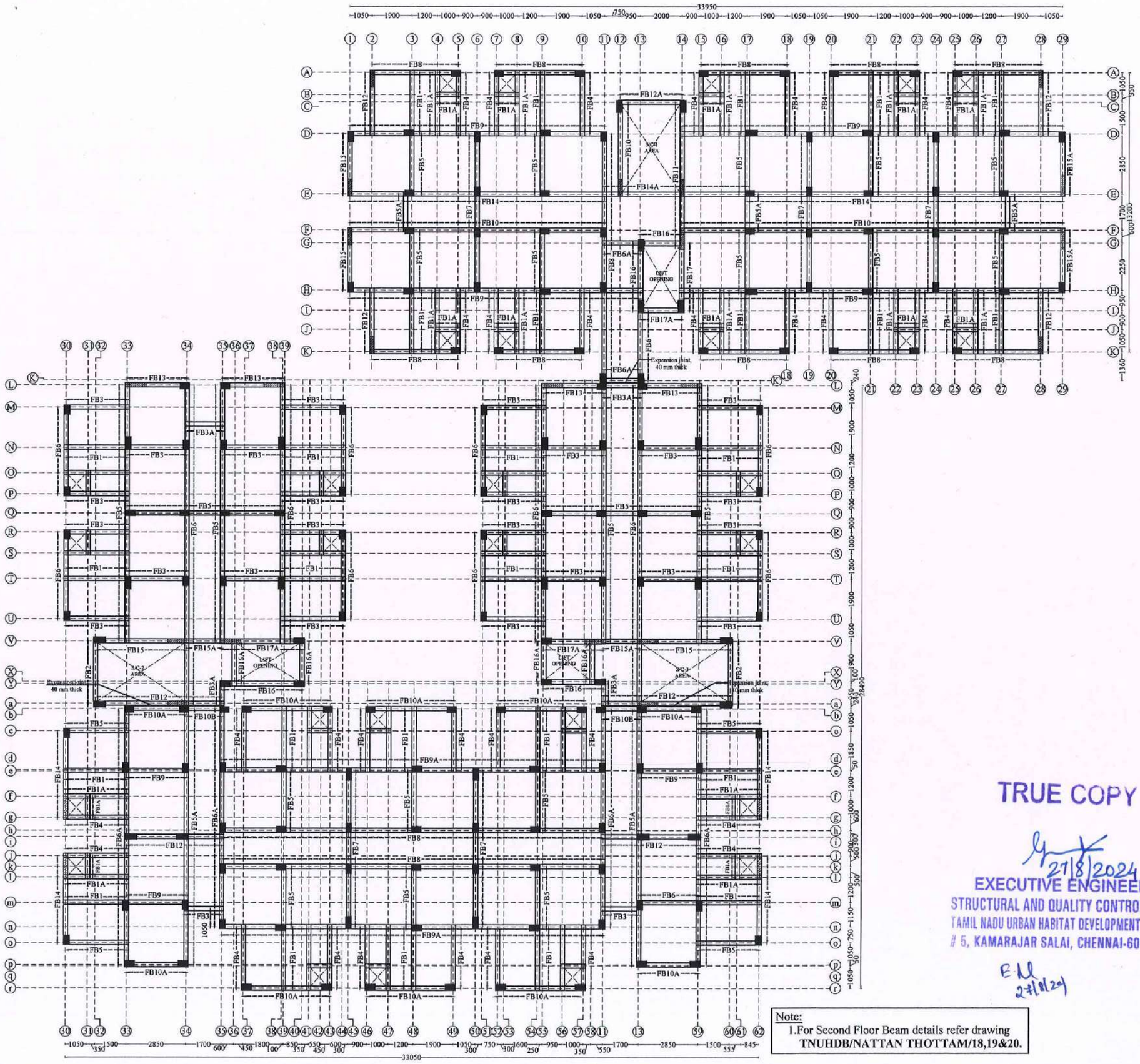
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - East I**

sd.xxxx 22.08.2024
Chief Engineer-I

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

SECOND FLOOR BEAM LAYOUT



Note:
1. For Second Floor Beam details refer drawing TNUHDB/NATTAN THOTTAM/18,19&20.

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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

TRUE COPY

27/8/2024
EXECUTIVE ENGINEER (A/c)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

27/8/24

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
SECOND FLOOR BEAM LAYOUT.

TYPE DESIGN NO.: 104/2022

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

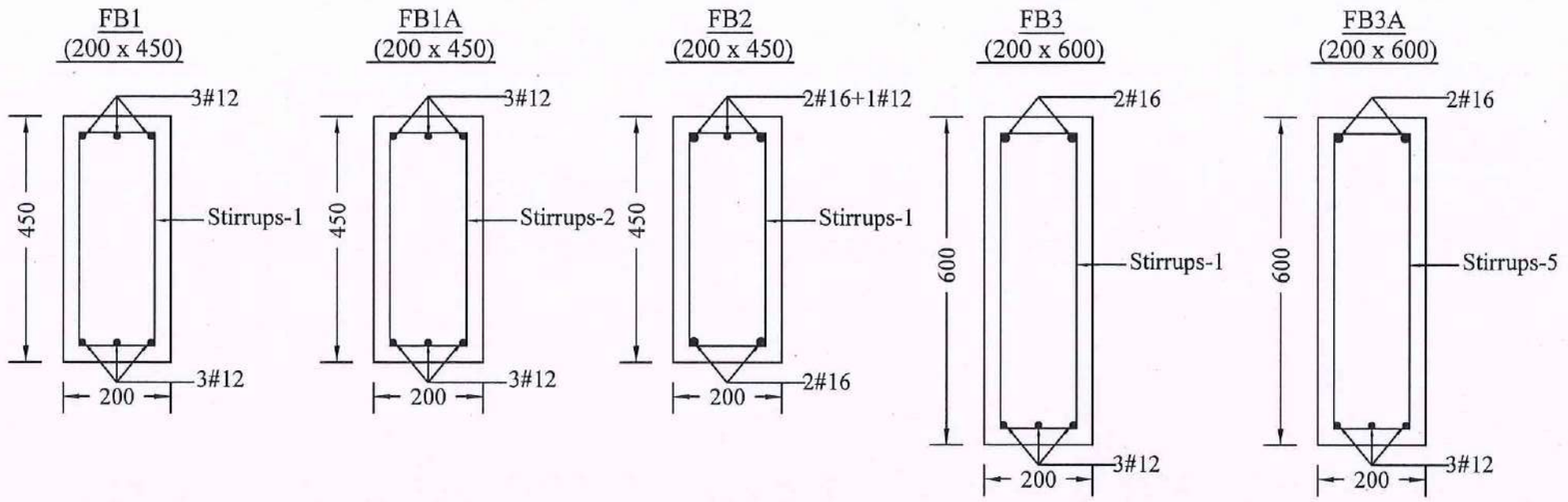
REVISION NO.:

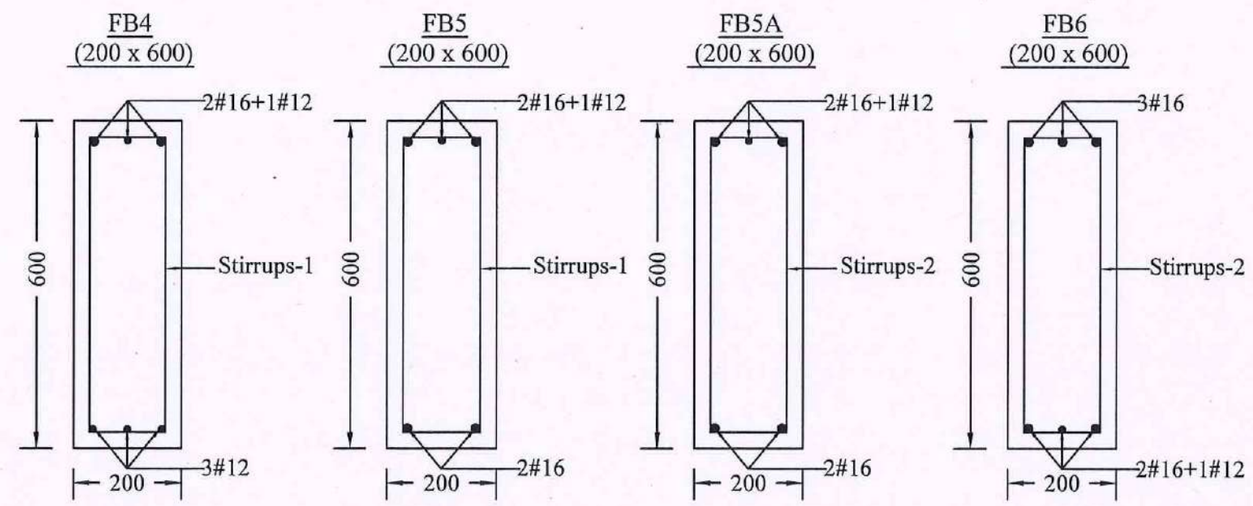
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 22.08.2024
Chief Engineer-I

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

STILT ,FIRST & SECOND FLOOR BEAM DETAILS-1





NOTE :

1) Stirrups-1 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 150mm c/c.
2) Stirrups-2 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 125mm c/c.
3) Stirrups-3 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 100mm c/c.
4) Stirrups-4 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 90mm c/c.
5) Stirrups-5 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 80mm c/c.
6) Stirrups-6 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 75mm c/c.
7) Stirrups-7 >- 2L#10mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 90mm c/c.

Note:

1. 2d - 2 x depth of beams.
2. 2d Distance is from the face of support & varies for different beam depth.
3. Beam Depth is Inclusive of Slab Thickness.
4. This Drawing shall be read along with TNUHDB/NATTAN THOTTAM / GEN -01.

21/8/2024
EXECUTIVE ENGINEER (A/c)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
21/8/24

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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
STILT,FIRST & SECOND FLOOR BEAM DETAILS-1.

TYPE DESIGN NO.: 104/2022

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

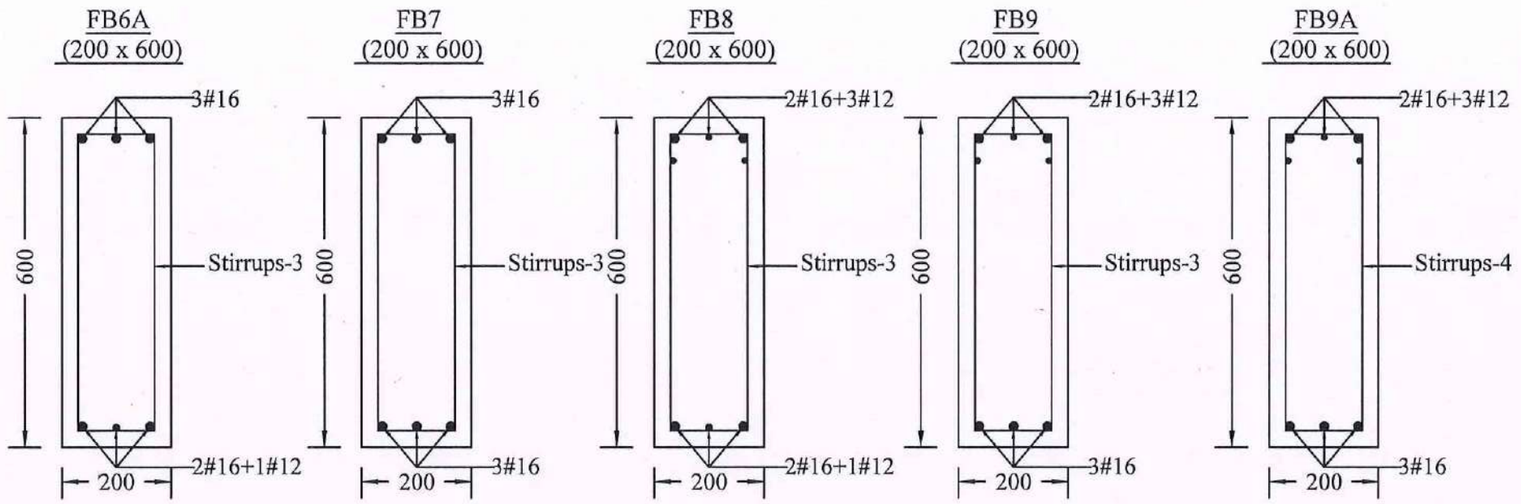
REVISION NO.:

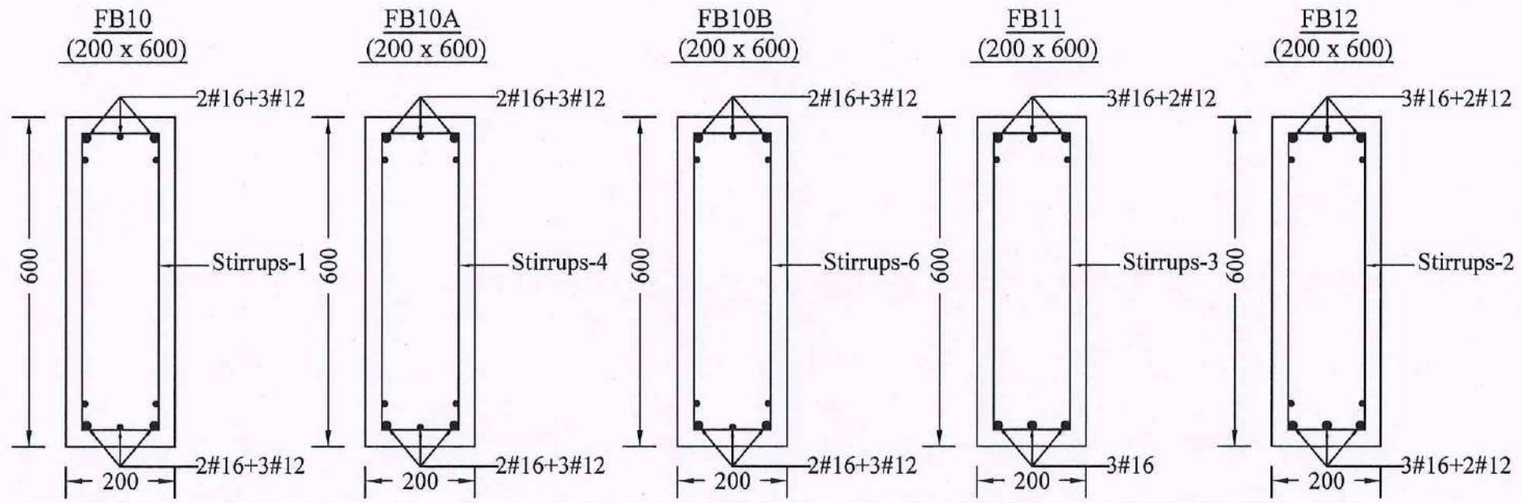
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 22.08.2024
Chief Engineer-I

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

STILT ,FIRST & SECOND FLOOR BEAM DETAILS-2





NOTE :

1) Stirrups-1 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 150mm c/c.
2) Stirrups-2 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 125mm c/c.
3) Stirrups-3 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 100mm c/c.
4) Stirrups-4 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 90mm c/c.
5) Stirrups-5 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 80mm c/c.
6) Stirrups-6 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 75mm c/c.
7) Stirrups-7 >- 2L#10mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 90mm c/c.

Note:

1. 2d - 2 x depth of beams.
2. 2d Distance is from the face of support & varies for different beam depth.
3. Beam Depth is Inclusive of Slab Thickness.
4. This Drawing shall be read along with TNUHDB/NATTAN THOTTAM / GEN -01.

TRUE COPY

27/8/2024

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

EN 27/8/24

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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
STILT,FIRST & SECOND FLOOR BEAM DETAILS-2.

TYPE DESIGN NO.: 104/2022

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

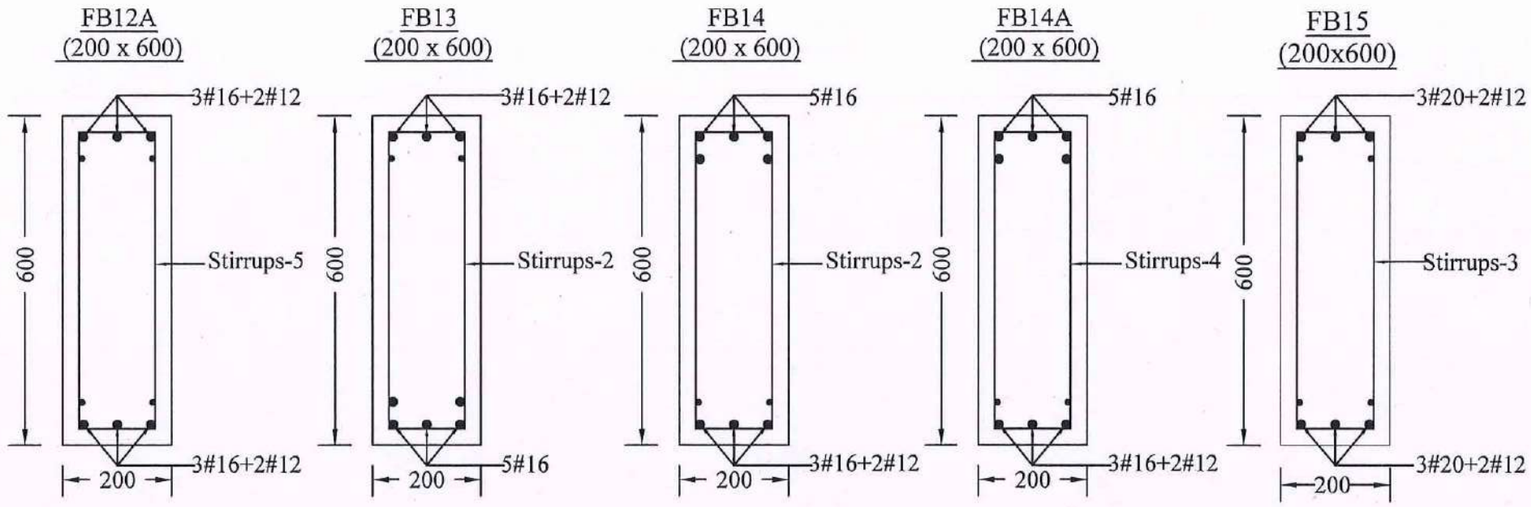
REVISION NO.:

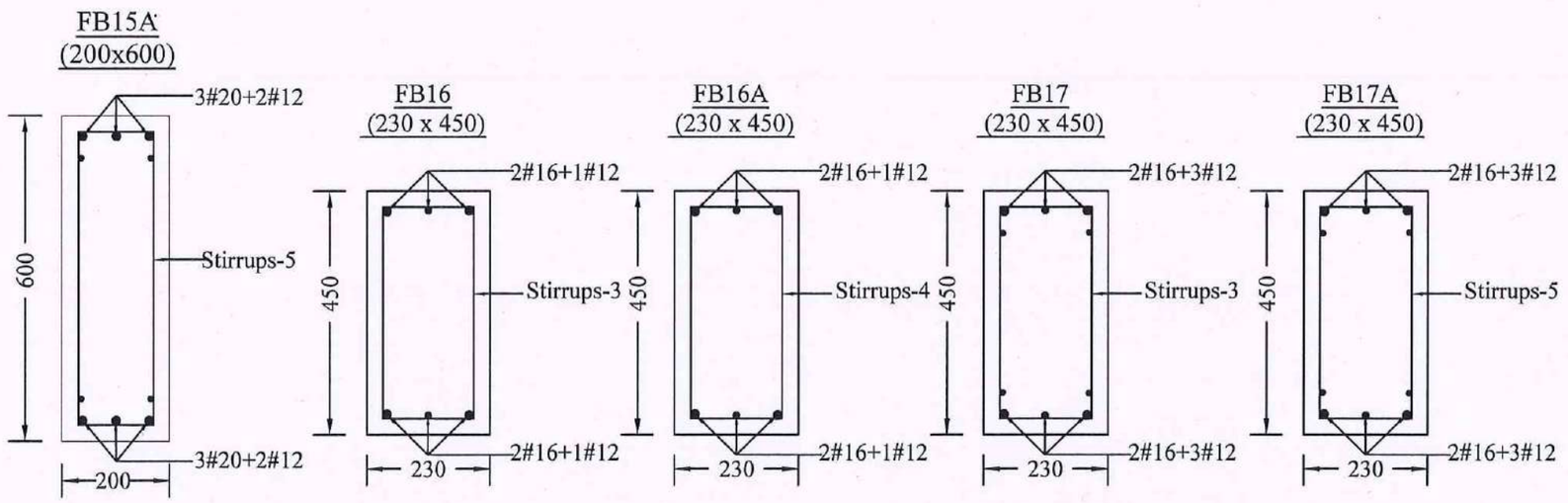
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 22.08.2024
Chief Engineer-I

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

STILT ,FIRST & SECOND FLOOR BEAM DETAILS-3





NOTE :

1) Stirrups-1 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 150mm c/c.
2) Stirrups-2 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 125mm c/c.
3) Stirrups-3 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 100mm c/c.
4) Stirrups-4 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 90mm c/c.
5) Stirrups-5 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 80mm c/c.
6) Stirrups-6 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 75mm c/c.
7) Stirrups-7 >- 2L#10mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 90mm c/c.

Note:

1. 2d - 2 x depth of beams.
2. 2d Distance is from the face of support & varies for different beam depth.
3. Beam Depth is Inclusive of Slab Thickness.
4. This Drawing shall be read along with TNUHDB/NATTAN THOTTAM / GEN -01.

TRUE COPY

27/8/2024

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

E.No 27/8/24

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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
STILT,FIRST & SECOND FLOOR BEAM DETAILS-3.

TYPE DESIGN NO.: 104/2022

DWG.NO.: TNUHDB / NATTAN THOTTAM / 20.

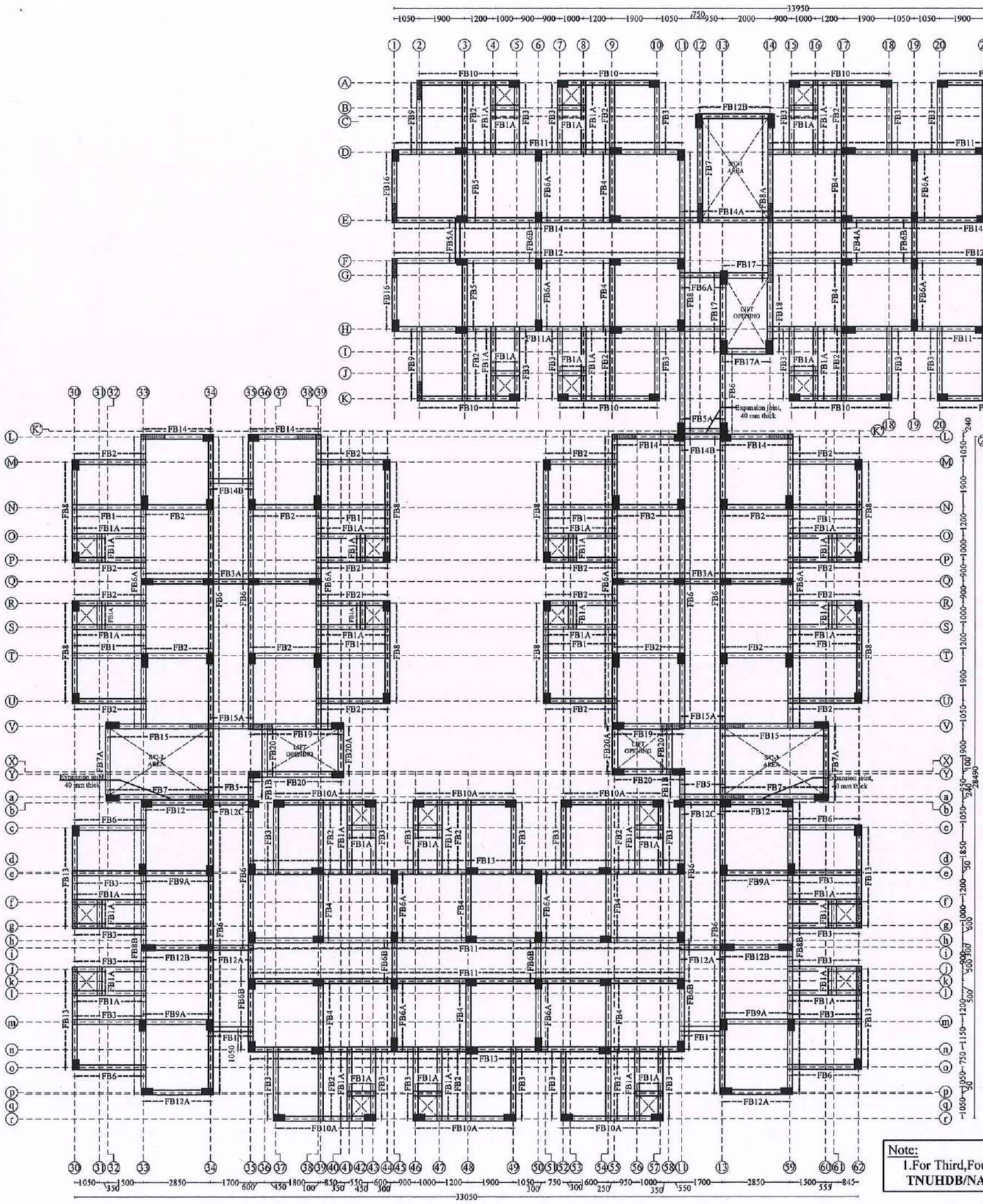
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 22.08.2024
Chief Engineer-I

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

THIRD ,FOURTH , FIFTH & SIXTH FLOOR BEAM LAYOUT



Note:
1. For Third,Fourth,Fifth & Sixth Floor Beam details refer drawing **TNUHDB/NATTAN THOTTAM/22,23&24.**

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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

TRUE COPY
27/8/2024
EXECUTIVE ENGINEER (A/C)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
27/8/24

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
THIRD,FOURTH,FIFTH & SIXTH FLOOR BEAM LAYOUT.

TYPE DESIGN NO.: 104/2022

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

REVISION NO.:

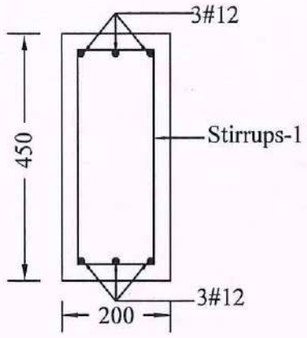
Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - East I**

sd.xxxx 22.08.2024
Chief Engineer-I

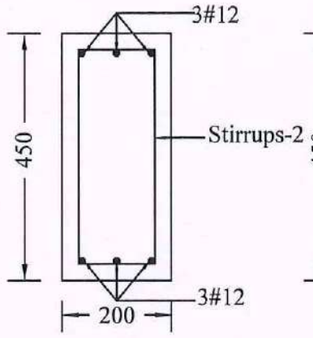
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

THIRD , FOURTH , FIFTH & SIXTH FLOOR BEAM DETAILS-1

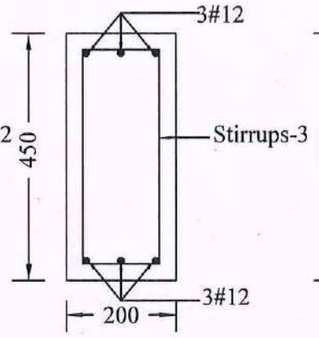
FB1
(200 x 450)



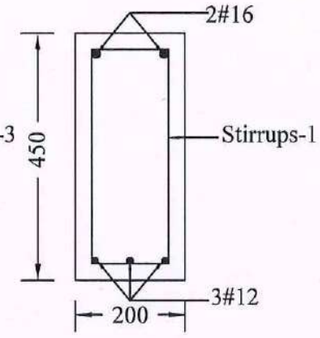
FB1A
(200 x 450)



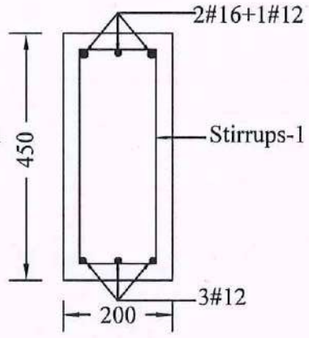
FB1B
(200 x 450)



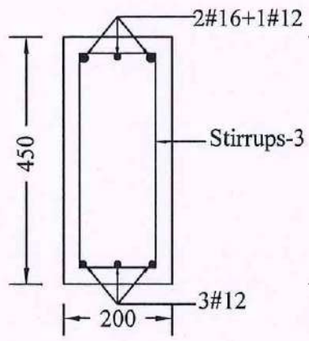
FB2
(200 x 450)



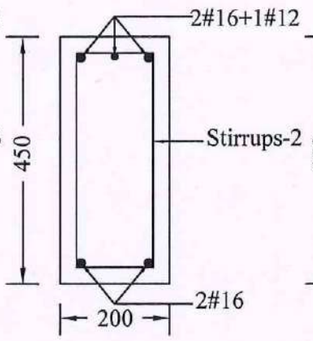
FB3
(200 x 450)



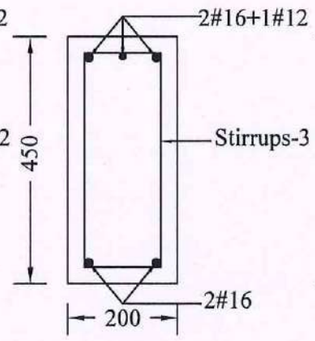
FB3A
(200 x 450)



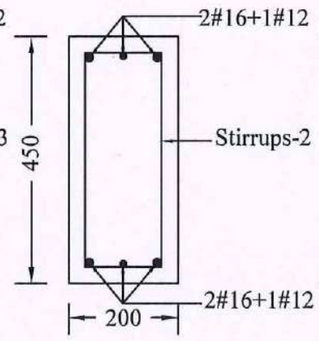
FB4
(200 x 450)



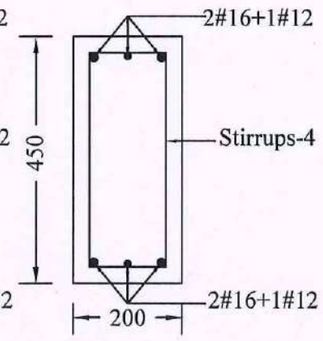
FB4A
(200 x 450)



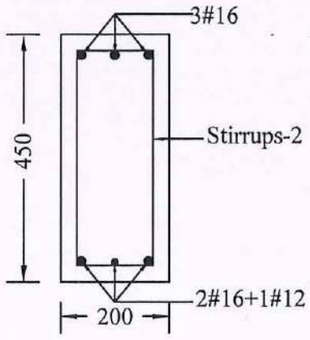
FB5
(200 x 450)



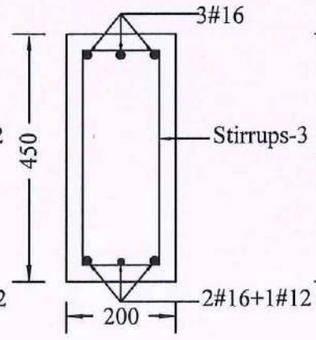
FB5A
(200 x 450)



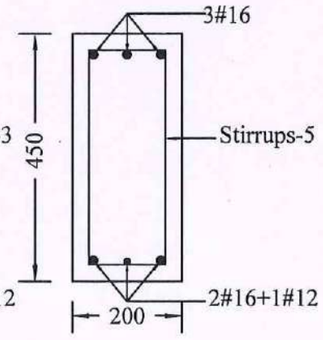
FB6
(200 x 450)



FB6A
(200 x 450)



FB6B
(200 x 450)



NOTE :

1) Stirrups-1 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 150mm c/c.
2) Stirrups-2 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 125mm c/c.
3) Stirrups-3 >- 2L#8mm Stirrups @ 75mm c/c for 2d mm length on all sides near beam column junction and the rest at 100mm c/c.
4) Stirrups-4 >- 2L#8mm Stirrups @ 75mm c/c for 2d mm length on all sides near beam column junction and the rest at 90mm c/c.
5) Stirrups-5 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 80mm c/c.
6) Stirrups-6 >- 2L#8mm Stirrups @ 75mm c/c for 2d mm length on all sides near beam column junction and the rest at 75mm c/c.
7) Stirrups-7 >- 2L#10mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 90mm c/c.

Note:

1. 2d - 2 x depth of beams.
2. 2d Distance is from the face of support & varies for different beam depth.
3. Beam Depth is Inclusive of Slab Thickness.
4. This Drawing shall be read along with TNUHDB/NATTAN THOTTAM / GEN -01.

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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
THIRD,FOURTH ,FIFTH &SIXTH FLOOR BEAM DETAILS-1.

TYPE DESIGN NO.: 104/2022

DWG.NO.: TNUHDB / NATTAN THOTTAM / 22.

REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

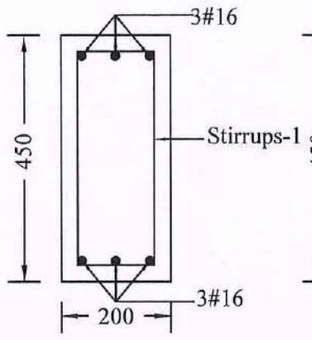
sd.xxxx 22.08.2024
Chief Engineer-I

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

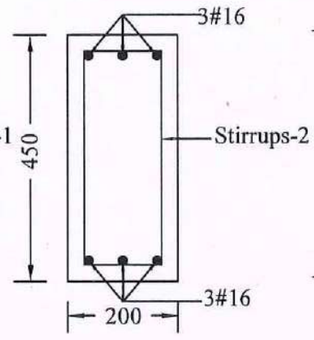
TRUE COPY
21/8/2024
EXECUTIVE ENGINEER (A/c)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
EE 27/8/24

THIRD , FOURTH , FIFTH & SIXTH FLOOR BEAM DETAILS-2

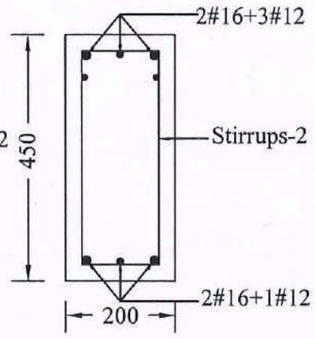
FB7
(200 x 450)



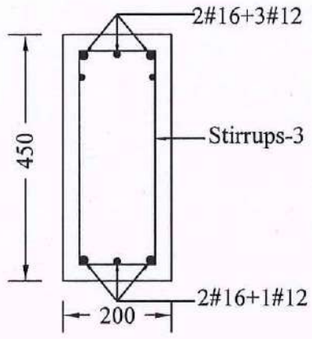
FB7A
(200 x 450)



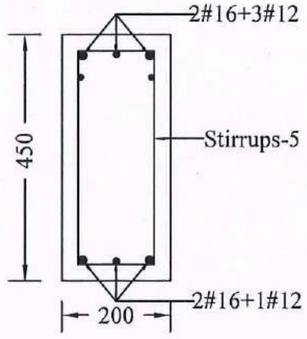
FB8
(200 x 450)



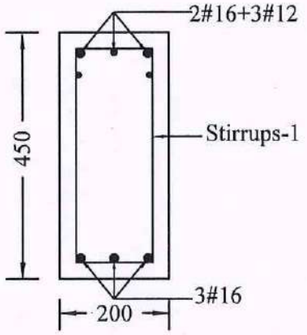
FB8A
(200 x 450)



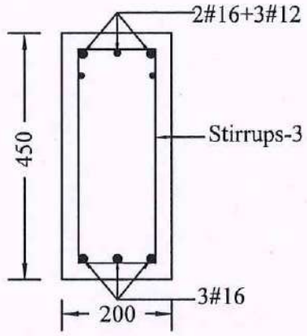
FB8B
(200 x 450)



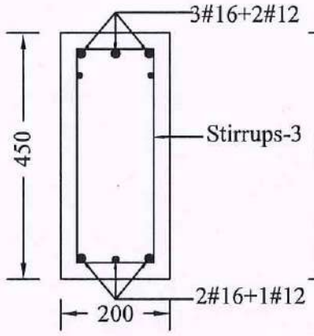
FB9
(200 x 450)



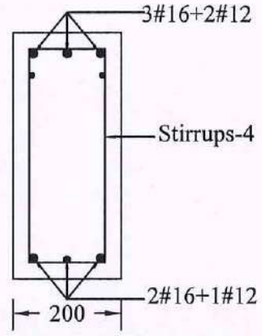
FB9A
(200 x 450)



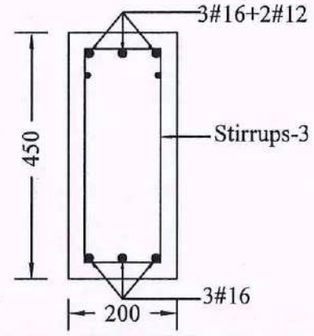
FB10
(200 x 450)



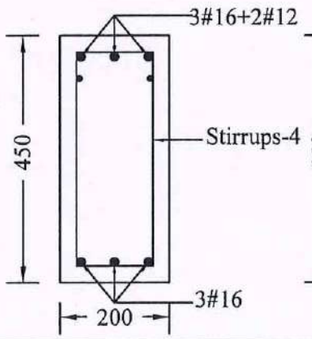
FB10A
(200 x 450)



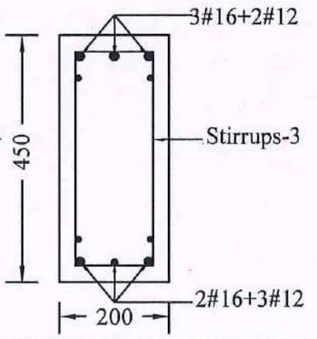
FB11
(200 x 450)



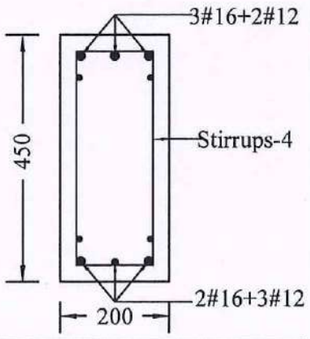
FB11A
(200 x 450)



FB12
(200 x 450)



FB12A
(200 x 450)



Note:
1. 2d - 2 x depth of beams.
2. 2d Distance is from the face of support & varies for different beam depth.
3. Beam Depth is Inclusive of Slab Thickness.
4. This Drawing shall be read along with TNUHDB/NATTAN THOTTAM / GEN -01.

NOTE :
1) Stirrups-1 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 150mm c/c.
2) Stirrups-2 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 125mm c/c.
3) Stirrups-3 >- 2L#8mm Stirrups @ 75mm c/c for 2d mm length on all sides near beam column junction and the rest at 100mm c/c.
4) Stirrups-4 >- 2L#8mm Stirrups @ 75mm c/c for 2d mm length on all sides near beam column junction and the rest at 90mm c/c.
5) Stirrups-5 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 80mm c/c.
6) Stirrups-6 >- 2L#8mm Stirrups @ 75mm c/c for 2d mm length on all sides near beam column junction and the rest at 75mm c/c.
7) Stirrups-7 >- 2L#10mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 90mm c/c.

TRUE COPY
27/8/2024
EXECUTIVE ENGINEER (A/c)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
END 27/8/24

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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
THIRD,FOURTH ,FIFTH &SIXTH FLOOR BEAM DETAILS-2.

TYPE DESIGN NO.: 104/2022

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

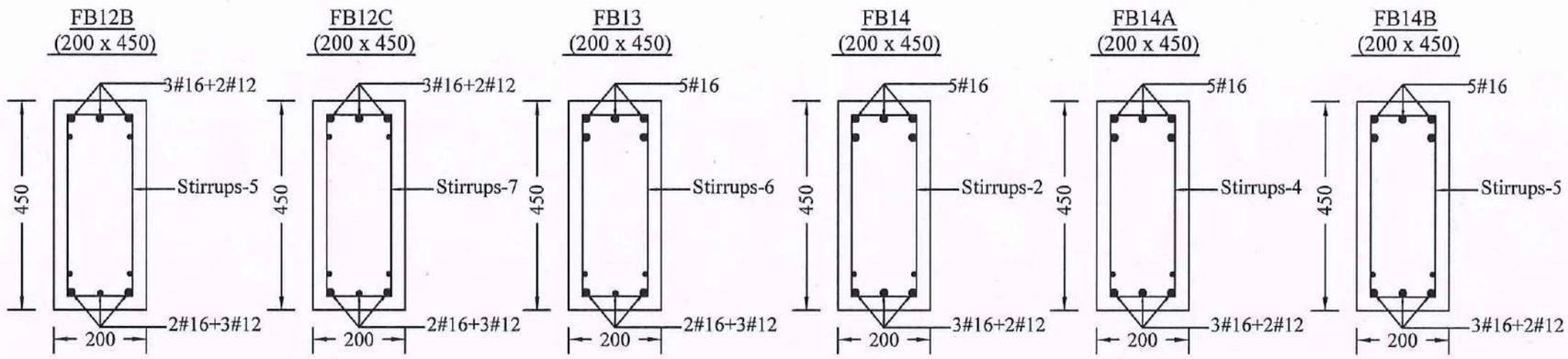
REVISION NO.:

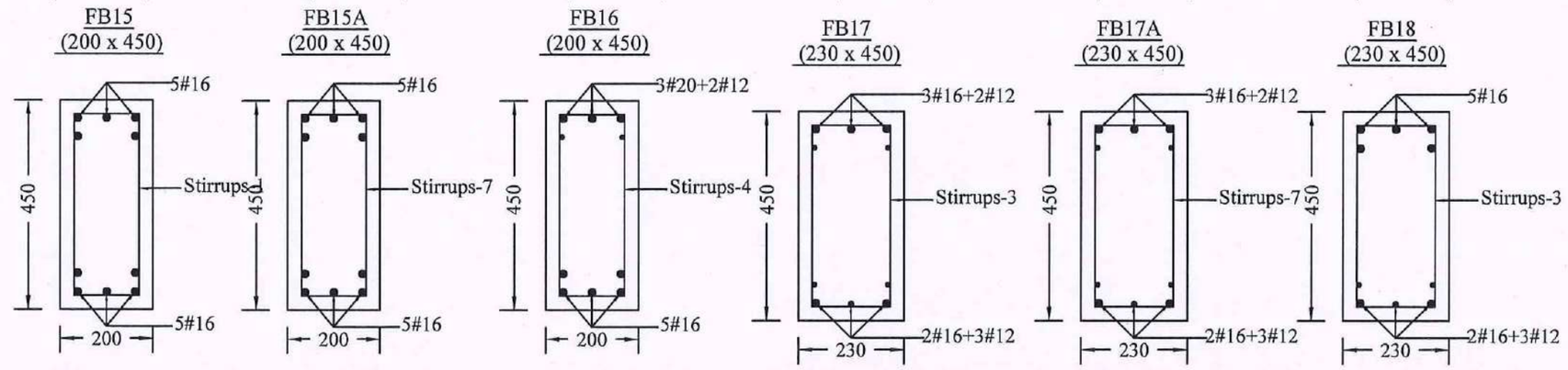
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

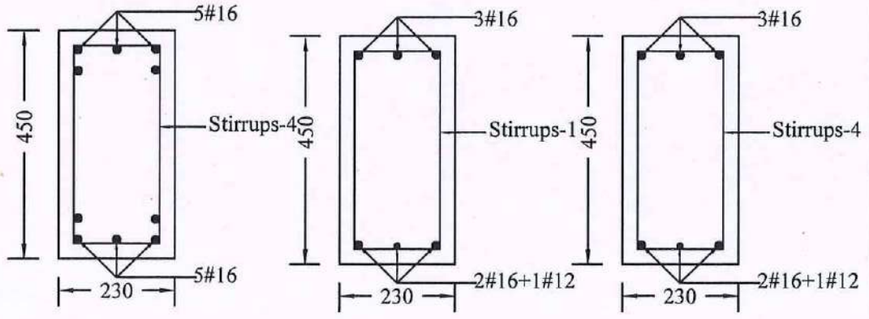
sd.xxxx 22.08.2024
Chief Engineer-I

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

THIRD , FOURTH , FIFTH & SIXTH FLOOR BEAM DETAILS-3







NOTE :

1) Stirrups-1 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 150mm c/c.
2) Stirrups-2 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 125mm c/c.
3) Stirrups-3 >- 2L#8mm Stirrups @ 75mm c/c for 2d mm length on all sides near beam column junction and the rest at 100mm c/c.
4) Stirrups-4 >- 2L#8mm Stirrups @ 75mm c/c for 2d mm length on all sides near beam column junction and the rest at 90mm c/c.
5) Stirrups-5 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 80mm c/c.
6) Stirrups-6 >- 2L#8mm Stirrups @ 75mm c/c for 2d mm length on all sides near beam column junction and the rest at 75mm c/c.
7) Stirrups-7 >- 2L#10mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 90mm c/c.

Note:

1. 2d - 2 x depth of beams.
2. 2d Distance is from the face of support & varies for different beam depth.
3. Beam Depth is Inclusive of Slab Thickness.
4. This Drawing shall be read along with TNUHDB/NATTAN THOTTAM / GEN -01.

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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
THIRD,FOURTH ,FIFTH &SIXTH FLOOR BEAM DETAILS-3.

TYPE DESIGN NO.: 104/2022

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

REVISION NO.:

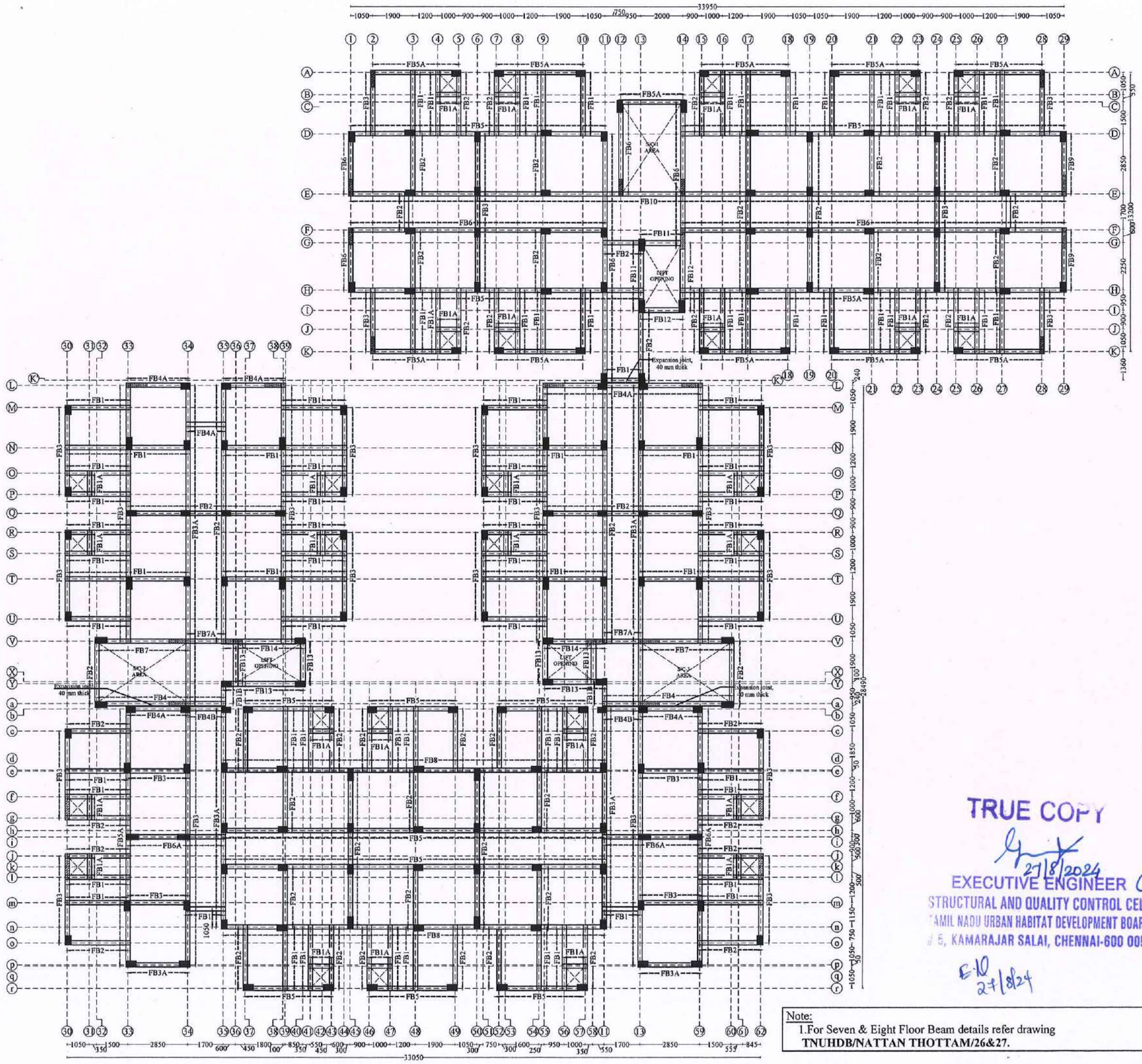
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 22.08.2024
Chief Engineer-I

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

TRUE COPY
27/8/2024
EXECUTIVE ENGINEER (A/c)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
EE 27/8/24

SEVEN & EIGHT FLOOR BEAM LAYOUT



Note:
1. For Seven & Eight Floor Beam details refer drawing **TNUHDB/NATTAN THOTTAM/26&27.**

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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

TRUE COPY
27/8/2024
EXECUTIVE ENGINEER (A/c)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
27/8/24

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
SEVEN & EIGHT FLOOR BEAM LAYOUT.

TYPE DESIGN NO.: 104/2022

DWG.NO.: TNUHDB / NATTAN THOTTAM / 25.

REVISION NO.:

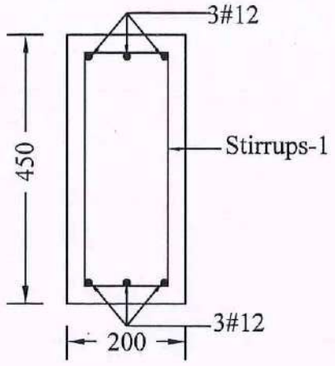
Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - East I**

sd.xxxx 22.08.2024
Chief Engineer-I

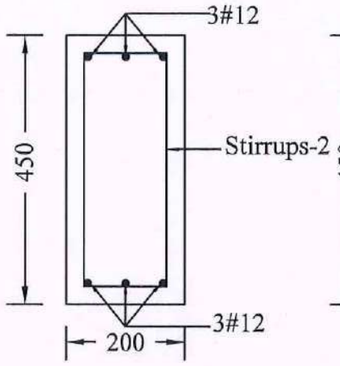
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

SEVEN & EIGHT FLOOR BEAM DETAILS-1

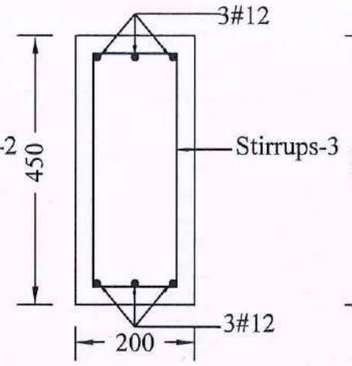
FB1
(200 x 450)



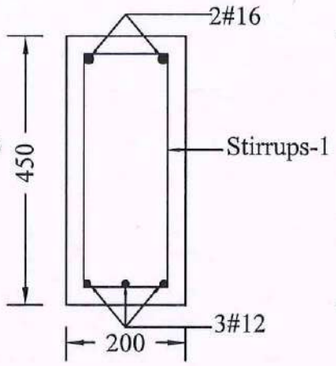
FB1A
(200 x 450)



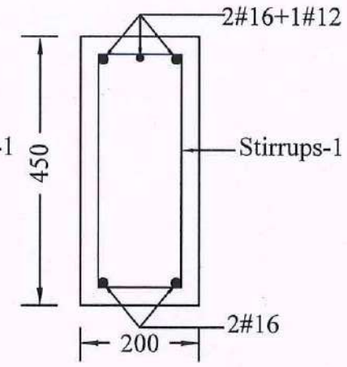
FB1B
(200 x 450)



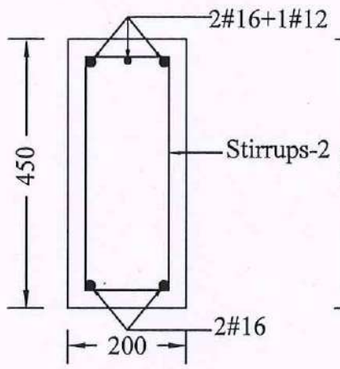
FB2
(200 x 450)



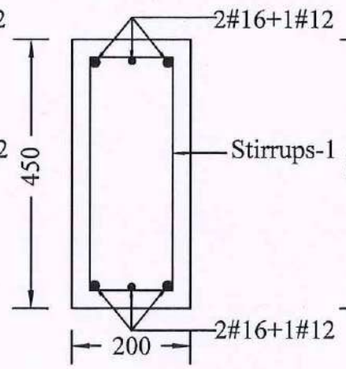
FB3
(200 x 450)



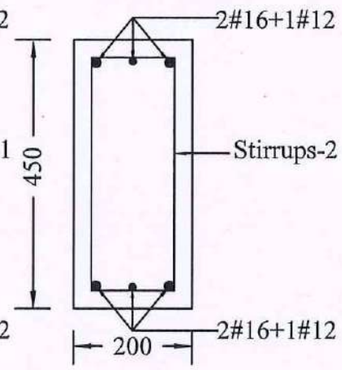
FB3A
(200 x 450)



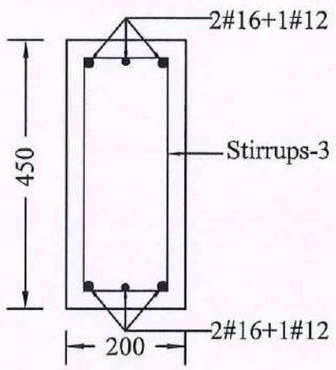
FB4
(200 x 450)



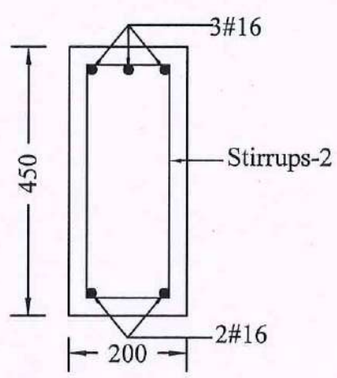
FB4A
(200 x 450)



FB4B
(200 x 450)



FB5
(200 x 450)



NOTE :

1) Stirrups-1 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 150mm c/c.
2) Stirrups-2 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 125mm c/c.
3) Stirrups-3 >- 2L#8mm Stirrups @ 75mm c/c for 2d mm length on all sides near beam column junction and the rest at 100mm c/c.
4) Stirrups-4 >- 2L#8mm Stirrups @ 75mm c/c for 2d mm length on all sides near beam column junction and the rest at 90mm c/c.

Note:

1. 2d - 2 x depth of beams.
2. 2d Distance is from the face of support & varies for different beam depth.
3. Beam Depth is Inclusive of Slab Thickness.
4. This Drawing shall be read along with TNUHDB/NATTAN THOTTAM / GEN -01.

TRUE COPY
27/8/2024
EXECUTIVE ENGINEER (A/c)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
27/8/24

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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
SEVEN & EIGHT FLOOR BEAM DETAILS-1.

TYPE DESIGN NO.: 104/2022

DWG.NO.: TNUHDB / NATTAN THOTTAM / 26.

REVISION NO.:

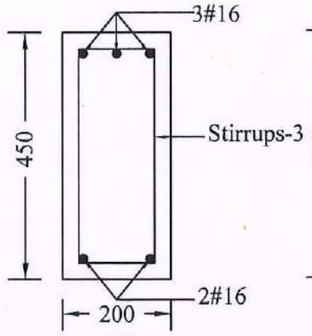
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 22.08.2024
Chief Engineer-I

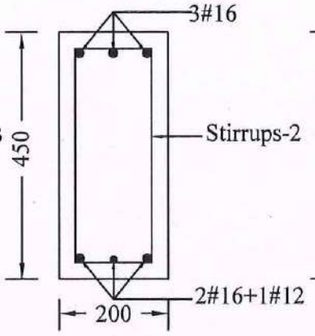
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

SEVEN & EIGHT FLOOR BEAM DETAILS-2

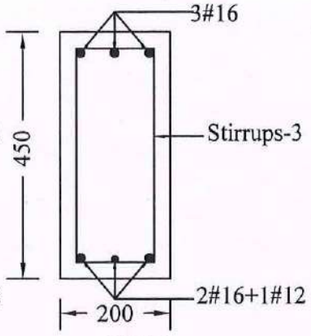
FB5A (200 x 450)



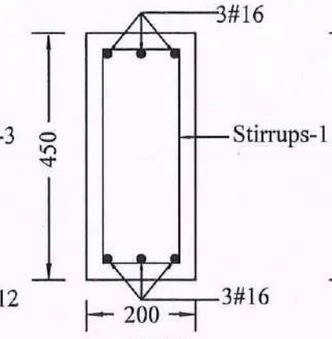
FB6 (200 x 450)



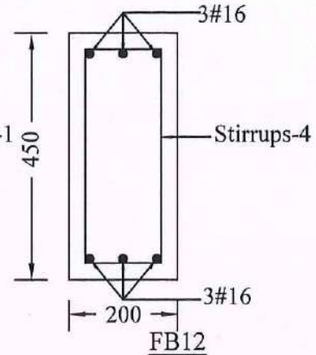
FB6A (200 x 450)



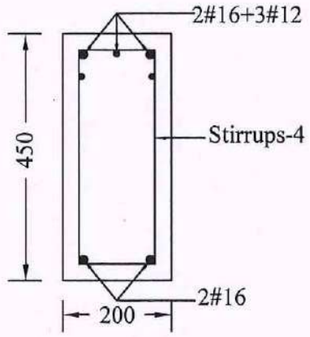
FB7 (200 x 450)



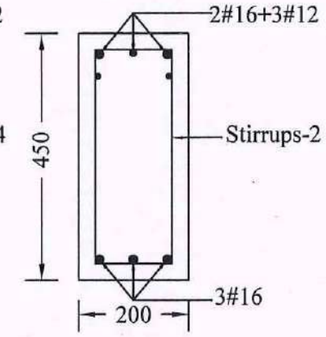
FB7A (200 x 450)



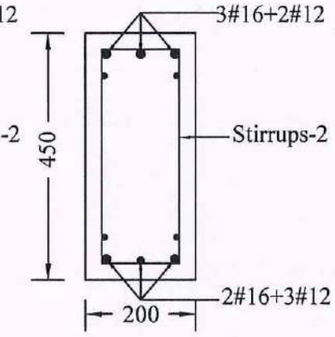
FB8 (200 x 450)



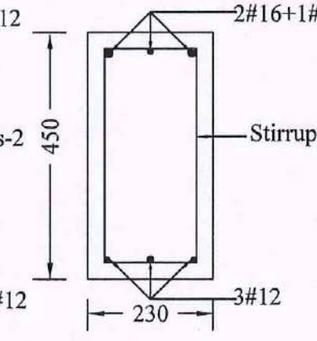
FB9 (200 x 450)



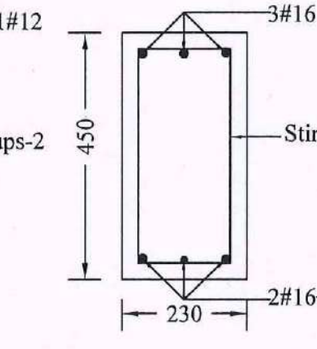
FB10 (200 x 450)



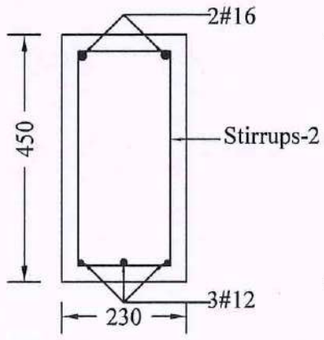
FB11 (230 x 450)



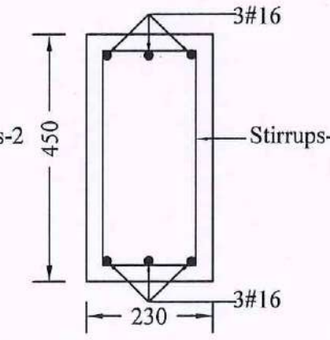
FB12 (230 x 450)



FB13 (230 x 450)



FB14 (230 x 450)



NOTE :

1) Stirrups-1 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 150mm c/c.
2) Stirrups-2 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 125mm c/c.
3) Stirrups-3 >- 2L#8mm Stirrups @ 75mm c/c for 2d mm length on all sides near beam column junction and the rest at 100mm c/c.
4) Stirrups-4 >- 2L#8mm Stirrups @ 75mm c/c for 2d mm length on all sides near beam column junction and the rest at 90mm c/c.

Note:

1. 2d - 2 x depth of beams.
2. 2d Distance is from the face of support & varies for different beam depth.
3. Beam Depth is Inclusive of Slab Thickness.
4. This Drawing shall be read along with TNUHDB/NATTAN THOTTAM / GEN -01.

TRUE COPY

2/8/2024

EXECUTIVE ENGINEER (A/C)

STRUCTURAL AND QUALITY CONTROL CELL

TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD

5, KAMARAJAR SALAI, CHENNAI-600 005.

E.N 21/8/24

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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
SEVEN & EIGHT FLOOR BEAM DETAILS-2.

TYPE DESIGN NO.: 104/2022

DWG.NO.: TNUHDB / NATTAN THOTTAM / 27.

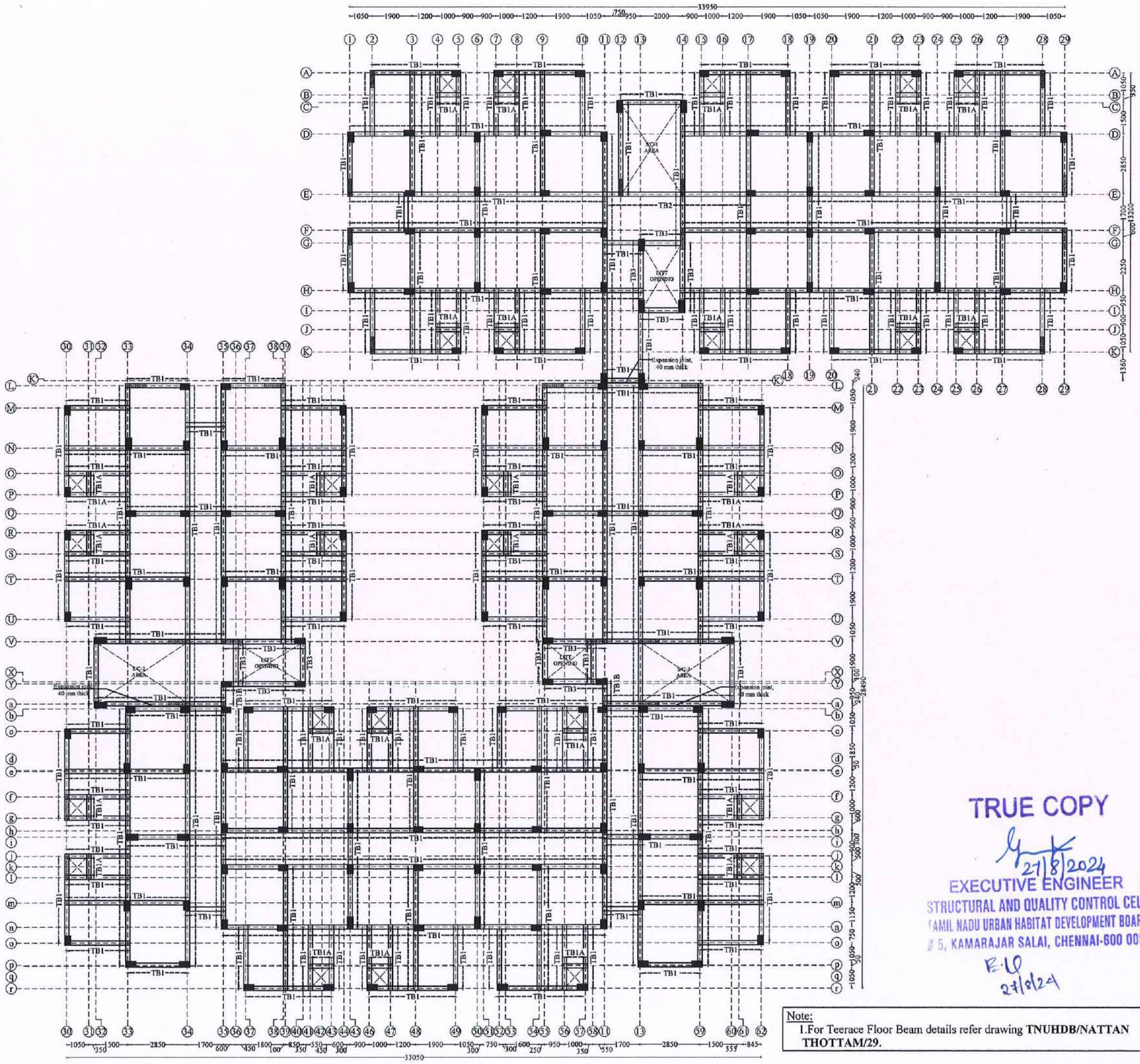
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 22.08.2024
Chief Engineer-I

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

TERRACE TLOOR 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 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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

TRUE COPY
27/8/2024
EXECUTIVE ENGINEER (A/c)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
27/8/24

Note:
1. For Teerace Floor Beam details refer drawing **TNUHDB/NATTAN THOTTAM/29.**

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
TERRACE TLOOR BEAM LAYOUT.

TYPE DESIGN NO.: 104/2022

DWG.NO.: TNUHDB / NATTAN THOTTAM / 28.

REVISION NO.:

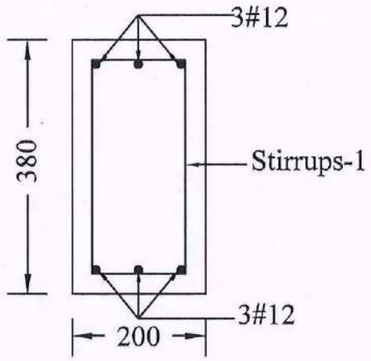
Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - East I**

sd.xxxx 22.08.2024
Chief Engineer-I

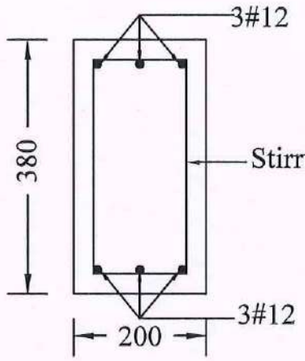
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TERRACE FLOOR BEAM DETAILS

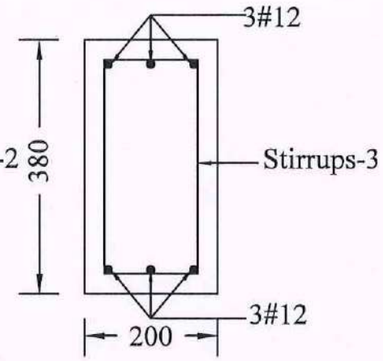
TB1
(200 x 380)



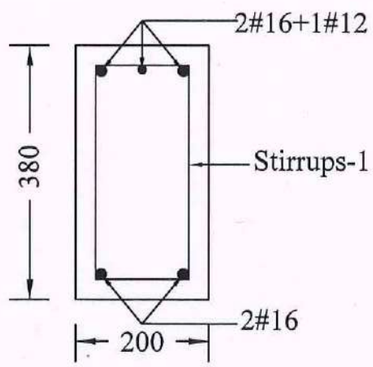
TB1A
(200 x 380)



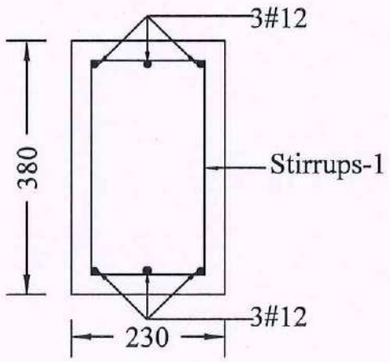
TB1B
(200 x 380)



TB2
(200 x 380)



TB3
(230 x 380)



NOTE :

1) Stirrups-1 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 150mm c/c.
2) Stirrups-2 >- 2L#8mm Stirrups @ 75mm c/c for 2d length on all sides near beam column junction and the rest at 125mm c/c.
3) Stirrups-3 >- 2L#8mm Stirrups @ 75mm c/c for 2d mm length on all sides near beam column junction and the rest at 100mm c/c.

Note:

1. 2d - 2 x depth of beams.
2. 2d Distance is from the face of support & varies for different beam depth.
3. Beam Depth is Inclusive of Slab Thickness.
4. This Drawing shall be read along with TNUHDB/NATTAN THOTTAM / GEN -01.

TRUE COPY
21/8/2024
EXECUTIVE ENGINEER (A/c)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
E10
27/8/24

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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
TERRACE FLOOR BEAM DETAILS.

TYPE DESIGN NO.: 104/2022

DWG.NO.: TNUHDB / NATTAN THOTTAM / 29.

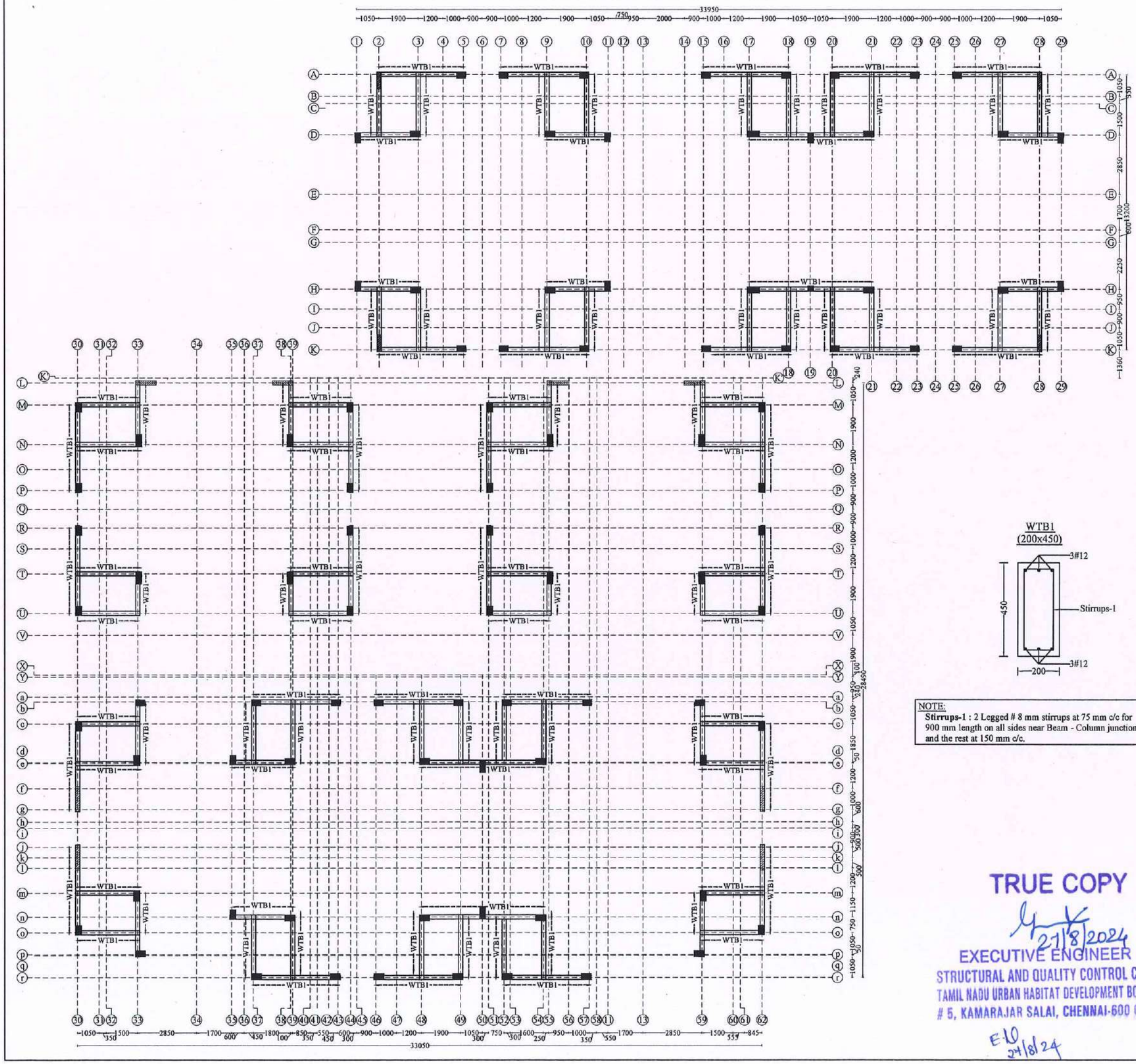
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 22.08.2024
Chief Engineer-I

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

WATER TANK BEAM LAYOUT & DETAILS



NOTE:
Stirrups-1 : 2 Legged # 8 mm stirrups at 75 mm c/c for 900 mm length on all sides near Beam - Column junctions and the rest at 150 mm c/c.

TRUE COPY
27/8/2024
EXECUTIVE ENGINEER (A/c)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
E10
24/8/24

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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
WATER TANK BEAM LAYOUT & DETAILS.

TYPE DESIGN NO.: 104/2022

DWG.NO.: TNUHDB / NATTAN THOTTAM / 30.

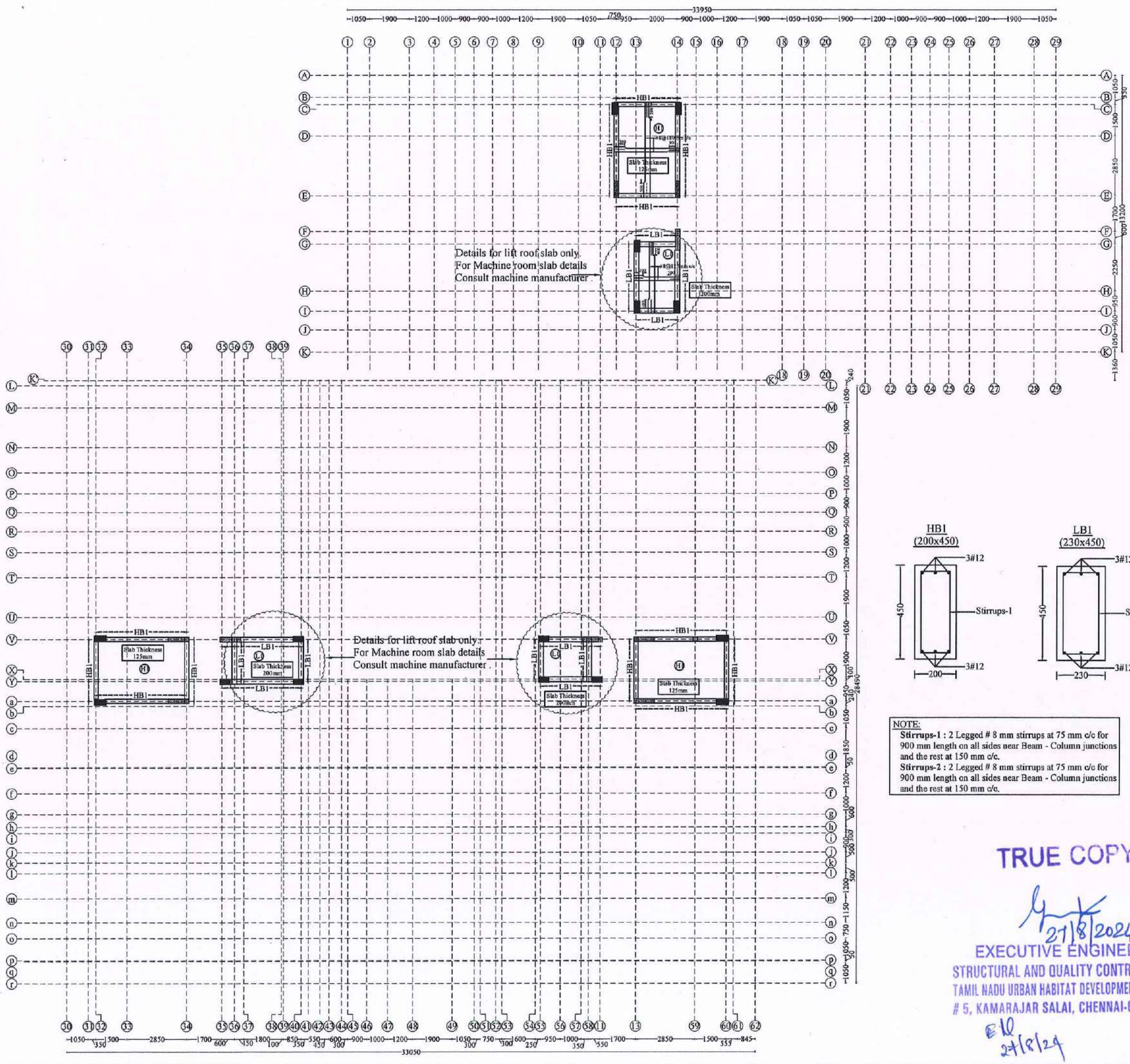
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 22.08.2024
Chief Engineer-I

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

HEAD ROOM & LIFT ROOF BEAM LAYOUT & DETAILS



NOTE:
Stirrups-1 : 2 Legged # 8 mm stirrups at 75 mm c/c for 900 mm length on all sides near Beam - Column junctions and the rest at 150 mm c/c.
Stirrups-2 : 2 Legged # 8 mm stirrups at 75 mm c/c for 900 mm length on all sides near Beam - Column junctions and the rest at 150 mm c/c.

TRUE COPY

27/8/2024
EXECUTIVE ENGINEER (A/C)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

27/8/24

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 minimum length of pile of 22 m to 24 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1300 KN and the lateral capacity is 103.7 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 atonce 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 Job No:SM&FE145/Consultancy/TNSCB/2019, Dt: 14.08.2019, ANNA UNIVERSITY & Job No:SM&FE142/Consultancy/Nattan Thottam/2022, Dt: 17.09.2022 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
HEAD ROOM & LIFT ROOM BEAM LAYOUT & DETAILS.

TYPE DESIGN NO.: 104/2022

DWG.NO.: TNUHDB / NATTAN THOTTAM / 31.

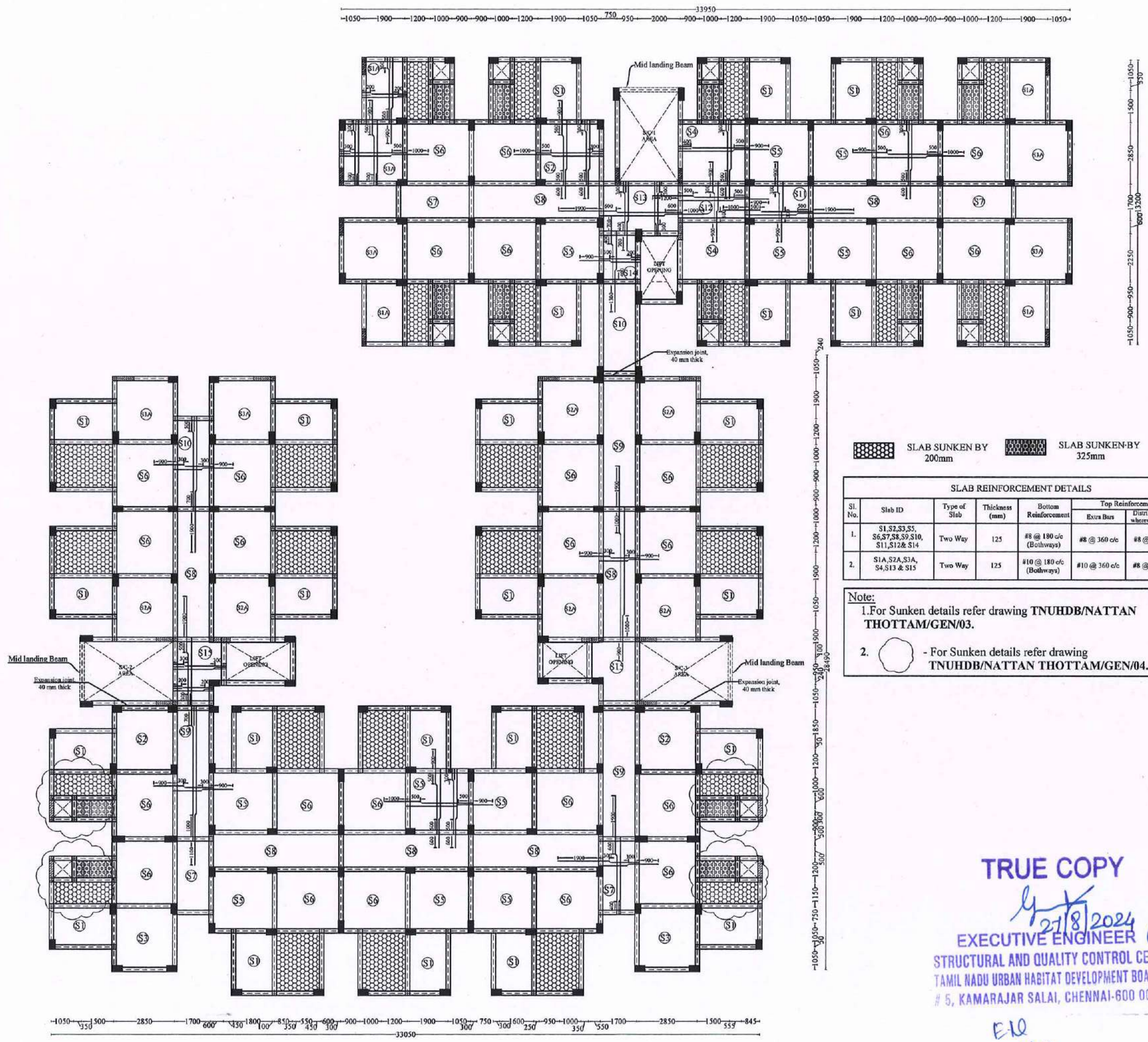
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - East I**

sd.xxxx 22.08.2024
Chief Engineer-I

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

STILT FLOOR SLAB DETAILS



SLAB SUNKEN BY 200mm

SLAB SUNKEN BY 325mm

SLAB REINFORCEMENT DETAILS

Sl. No.	Slab ID	Type of Slab	Thickness (mm)	Bottom Reinforcement	Top Reinforcement	
					Extra Bars	Distribution Bar wherever required
1.	S1,S2,S3,S5, S6,S7,S8,S9,S10, S11,S12& S14	Two Way	125	#8 @ 180 c/c (Bothways)	#8 @ 360 c/c	#8 @ 250 c/c
2.	S1A,S2A,S3A, S4,S13 & S15	Two Way	125	#10 @ 180 c/c (Bothways)	#10 @ 360 c/c	#8 @ 250 c/c

Note:
1. For Sunken details refer drawing **TNUHDB/NATTAN THOTTAM/GEN/03.**
2. - For Sunken details refer drawing **TNUHDB/NATTAN THOTTAM/GEN/04.**

TRUE COPY
21/8/2024
EXECUTIVE ENGINEER (A/C)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
E.E
21/8/24

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.
7. Bars in Shorter direction shall be placed below Bars placed in the Longer direction.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
STILT FLOOR SLAB DETAILS.

TYPE DESIGN NO.: 104/2022

DWG.NO.: TNUHDB / NATTAN THOTTAM / 32.

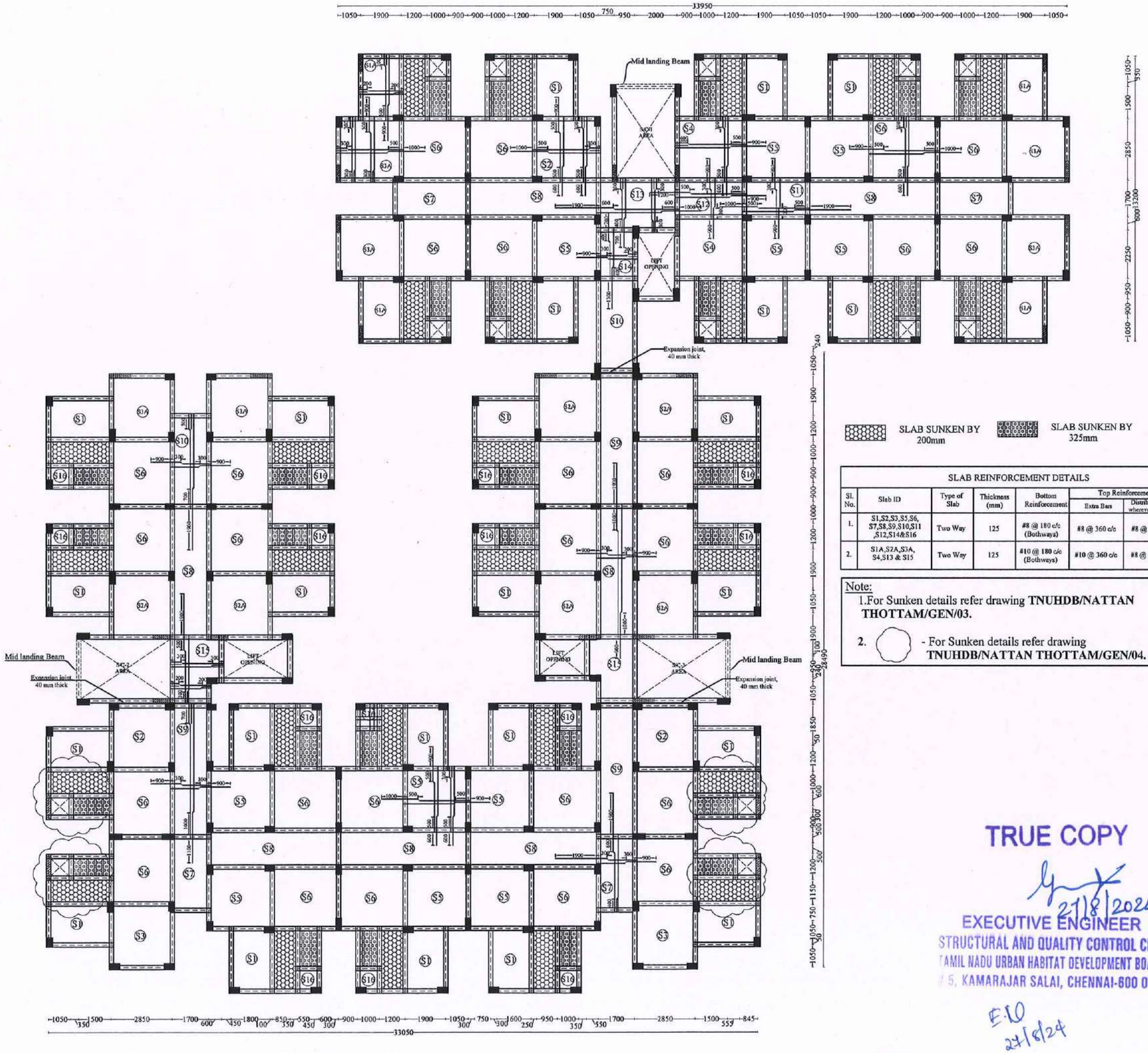
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 22.08.2024
Chief Engineer-I

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

FIRST FLOOR SLAB DETAILS



SLAB SUNKEN BY 200mm

SLAB SUNKEN BY 325mm

SLAB REINFORCEMENT DETAILS

Sl. No.	Slab ID	Type of Slab	Thickness (mm)	Bottom Reinforcement	Top Reinforcement	
					Extra Bars	Distribution Bar wherever required
1.	S1,S2,S3,S5,S6, S7,S8,S9,S10,S11 ,S12,S14&S16	Two Way	125	#8 @ 180 c/c (Bothways)	#8 @ 360 c/c	#8 @ 250 c/c
2.	S1A,S2A,S3A, S4,S13 & S15	Two Way	125	#10 @ 180 c/c (Bothways)	#10 @ 360 c/c	#8 @ 250 c/c

Note:

1. For Sunken details refer drawing **TNUHDB/NATTAN THOTTAM/GEN/03.**
2. - For Sunken details refer drawing **TNUHDB/NATTAN THOTTAM/GEN/04.**

TRUE COPY

21/8/2024

EXECUTIVE ENGINEER (A/C)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI, CHENNAI-600 005.

E.10
27/8/24

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.
7. Bars in Shorter direction shall be placed below Bars placed in the Longer direction.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
FIRST FLOOR SLAB DETAILS.

TYPE DESIGN NO.: 104/2022

DWG.NO.: TNUHDB / NATTAN THOTTAM / 33.

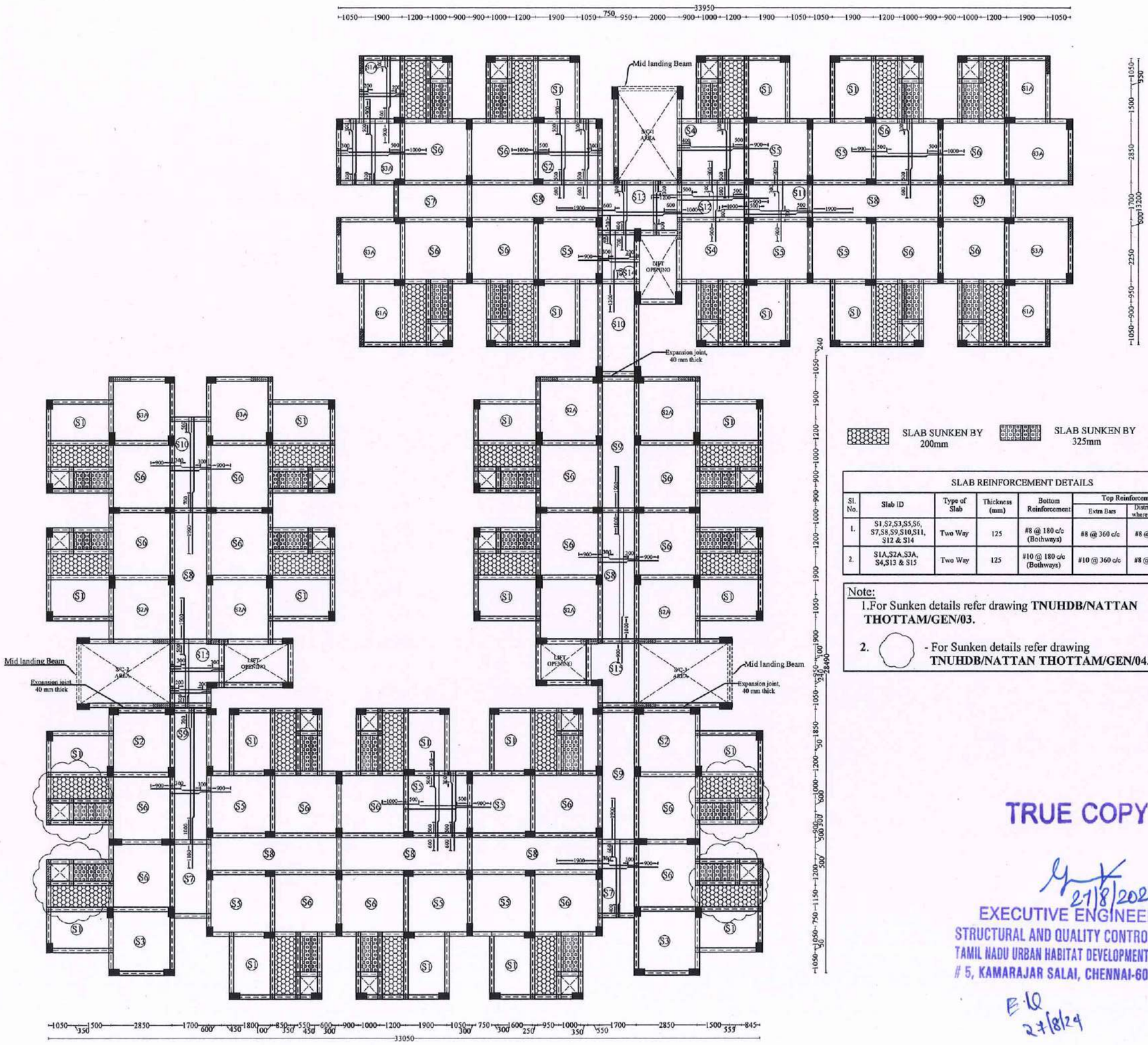
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - East I**

sd.xxxx 22.08.2024
Chief Engineer-I

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

TYPICAL FLOOR SLAB DETAILS



SLAB REINFORCEMENT DETAILS

Sl. No.	Slab ID	Type of Slab	Thickness (mm)	Bottom Reinforcement	Top Reinforcement	
					Extra Bars	Distribution Bar wherever required
1.	S1,S2,S3,S5,S6, S7,S8,S9,S10,S11, S12 & S14	Two Way	125	#8 @ 180 c/c (Bothways)	#8 @ 360 c/c	#8 @ 250 c/c
2.	S1A,S2A,S3A, S4,S13 & S15	Two Way	125	#10 @ 180 c/c (Bothways)	#10 @ 360 c/c	#8 @ 250 c/c

Note:

1. For Sunken details refer drawing **TNUHDB/NATTAN THOTTAM/GEN/03.**
2. - For Sunken details refer drawing **TNUHDB/NATTAN THOTTAM/GEN/04.**

TRUE COPY

21/8/2024
EXECUTIVE ENGINEER (A/C)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

E.10
27/8/24

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.
7. Bars in Shorter direction shall be placed below Bars placed in the Longer direction.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
TYPICAL FLOOR SLAB DETAILS.

TYPE DESIGN NO.: 104/2022

DWG.NO.: TNUHDB / NATTAN THOTTAM / 34.

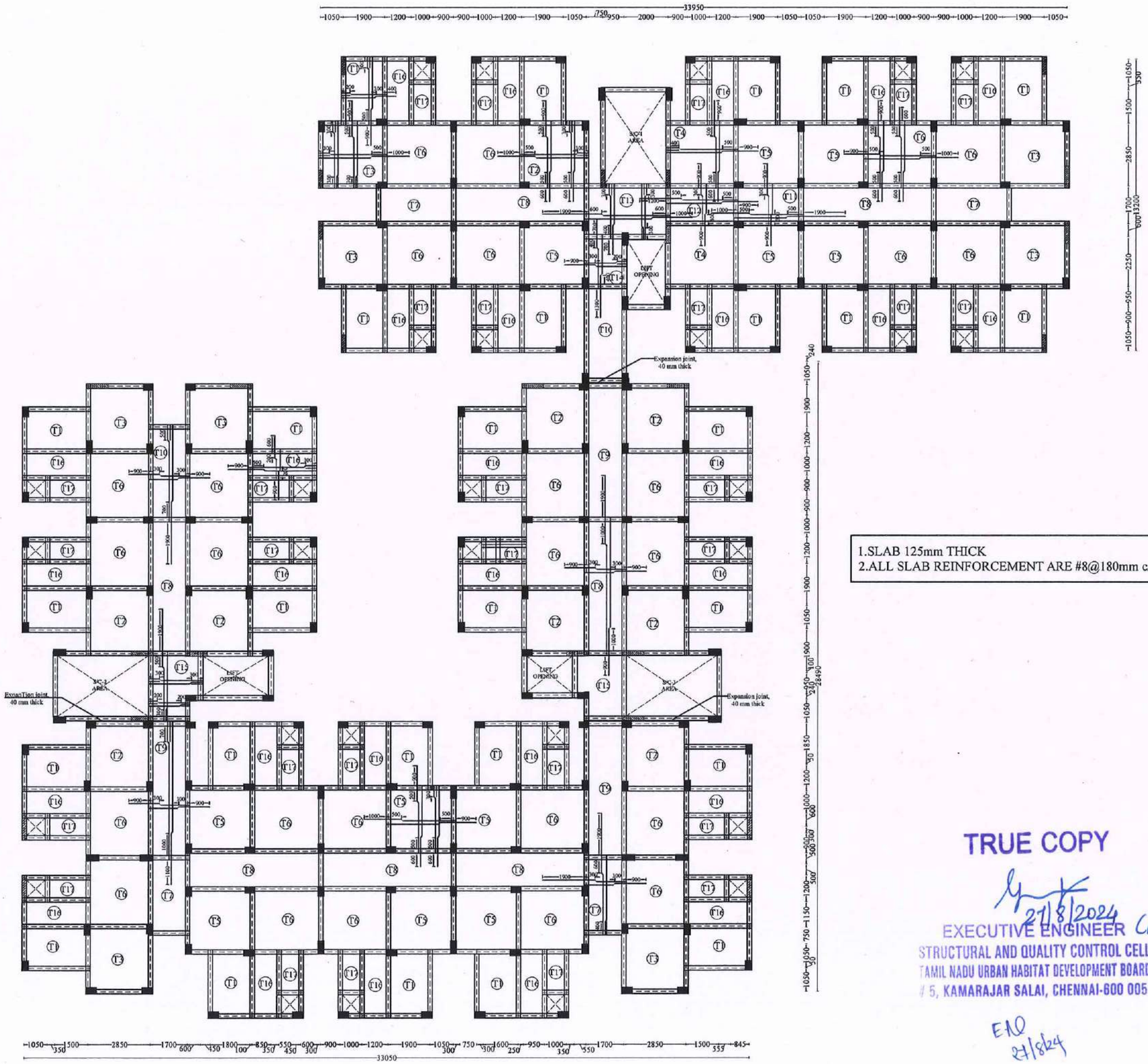
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - East I**

sd.xxxx 22.08.2024
Chief Engineer-I

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

TERRACE FLOOR SLAB DETAILS



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.
7. Bars in Shorter direction shall be placed below Bars placed in the Longer direction.

TRUE COPY

27/8/2024

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

EIC
27/8/24

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
TERRACE FLOOR SLAB DETAILS.

TYPE DESIGN NO.: 104/2022

DWG.NO.: TNUHDB / NATTAN THOTTAM / 35.

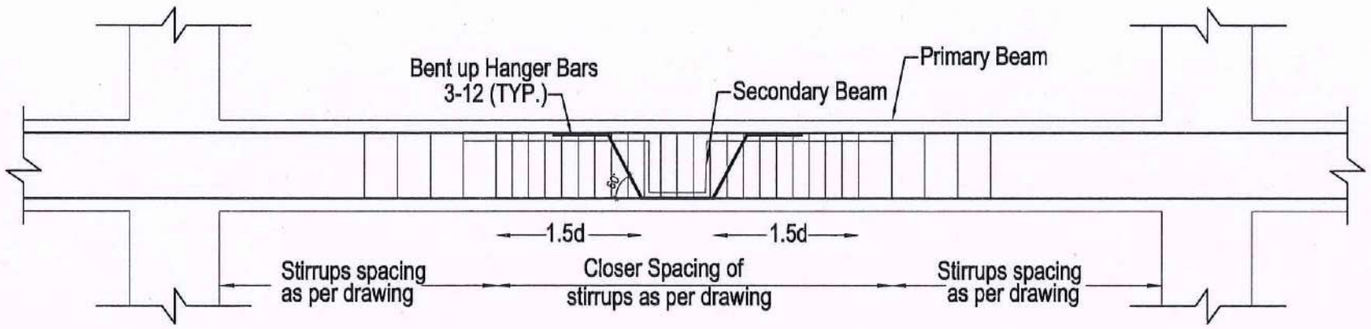
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

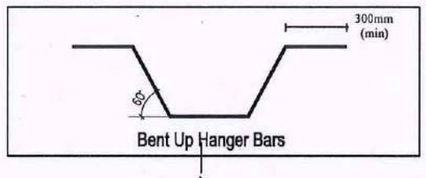
sd.xxxx 22.08.2024
Chief Engineer-I

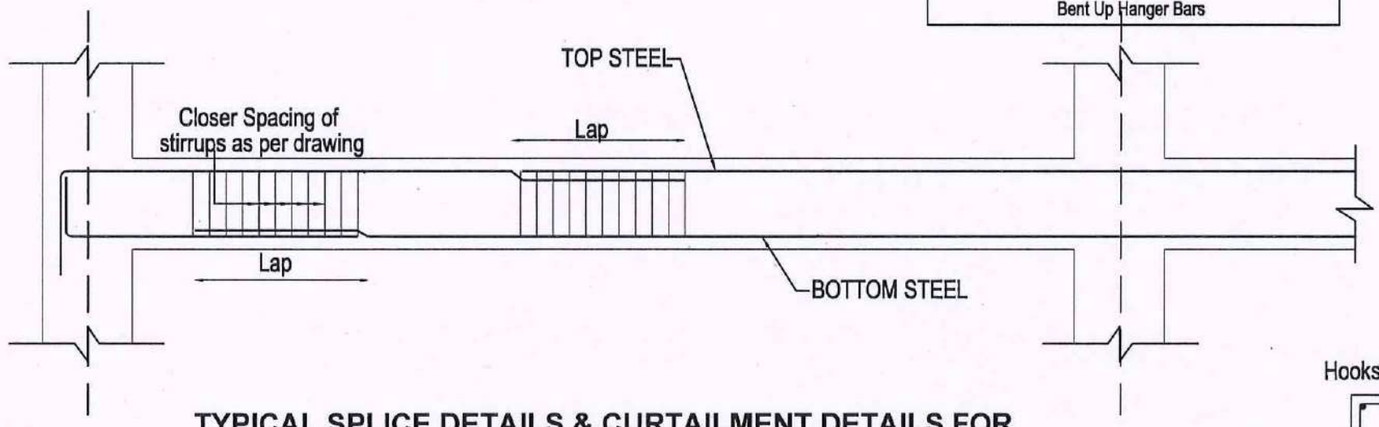
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL DETAILS FOR ALL THE FLOOR BEAMS



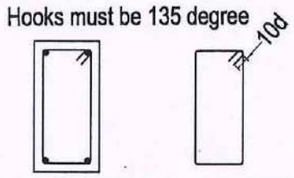
TYPICAL BENT UP HANGER BAR DETAILS AT MAIN AND SECONDARY BEAM JUNCTIONS



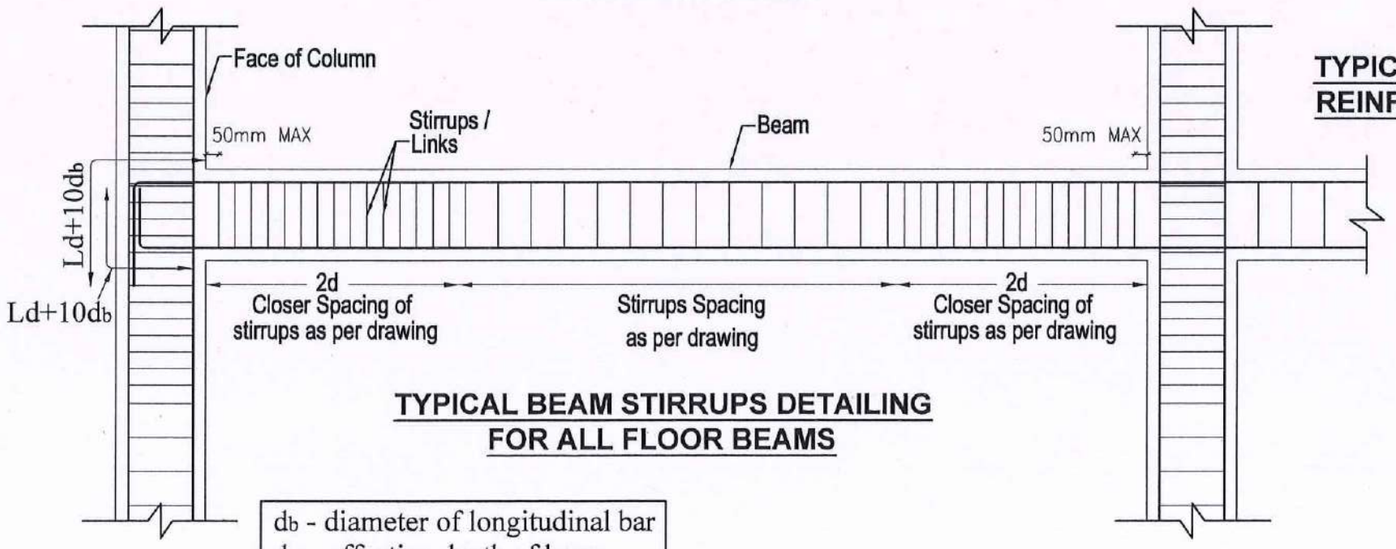


TYPICAL SPLICE DETAILS & CURTAILMENT DETAILS FOR ALL FLOOR BEAMS

Grade of Concrete	Development length of bars in Tension		Development length of bars in Compression	
	Grade of Steel		Grade of Steel	
	Fe 500	Fe 550	Fe 500	Fe 550
M20	57Ø	63Ø	46Ø	50Ø
M25	49Ø	54Ø	39Ø	43Ø
M30	46Ø	50Ø	37Ø	40Ø
M35	40Ø	44Ø	32Ø	36Ø
≥M40	36Ø	40Ø	29Ø	32Ø
Ø - Diameter of bar.				



TYPICAL DETAILS OF TRANSVERSE REINFORCEMENT HOOKS IN BEAM.



TYPICAL BEAM STIRRUPS DETAILING FOR ALL FLOOR BEAMS

db - diameter of longitudinal bar
d - effective depth of beam

TRUE COPY
21/8/2024 (A/C)
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
E.N 27/8/24

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
TYPICAL DETAILS FOR ALL THE FLOOR BEAMS

TYPE DESIGN NO.: 104/2022

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

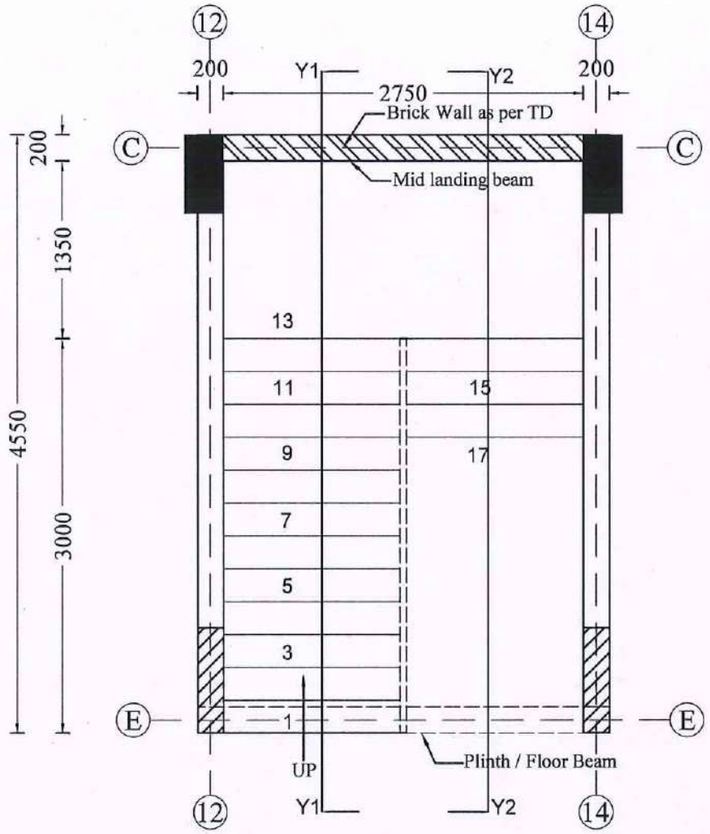
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 22.08.2024
Chief Engineer -I

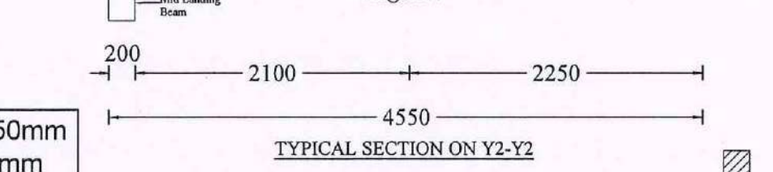
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABIAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL STAIRCASE DETAILS



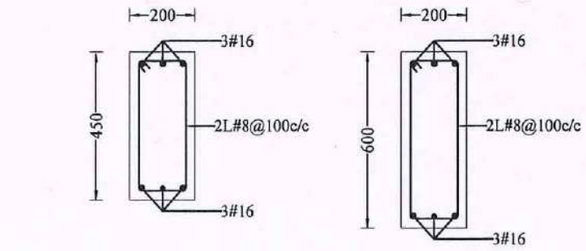
TYPICAL STAIRCASE PLAN

TREAD=250mm
RISE=173mm



TYPICAL SECTION ON Y1-Y1
OTHER THAN STILT FLOOR

TYPICAL SECTION ON Y2-Y2



C/S OF MID
LANDING BEAM UPTO
SECOND FLOOR

C/S OF MID
LANDING BEAM ABOVE
SECOND FLOOR

TYPICAL SECTION ON Y1-Y1
STILT FLOOR ONLY

TRUE COPY
21/8/2024
EXECUTIVE ENGINEER (A/c)
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

E-10
27/8/24

NOTE:

1. All the Dimensions are in mm.
2. M30 Concrete and Fe500D grade steel shall be adopted.
3. Waist slab thickness 180mm
4. Clear cover to waist slab is 25mm.
5. Steps over the waist slab are considered made of concrete in analysis.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM ,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
TYPICAL STAIRCASE DETAILS

TYPE DESIGN NO.: 104/2022

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

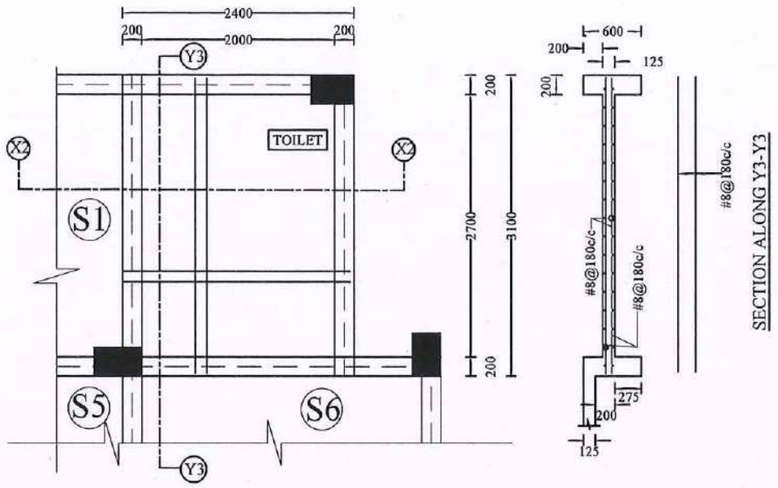
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

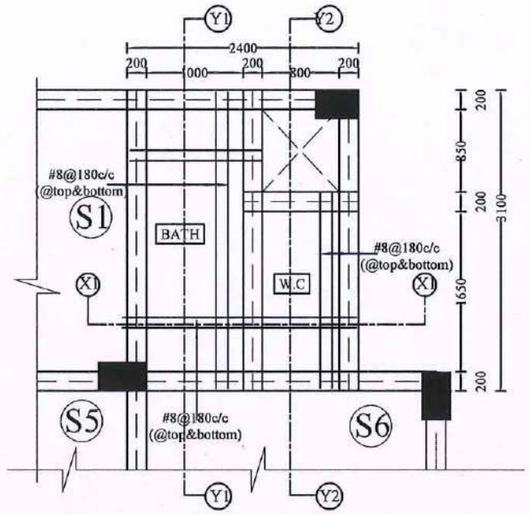
sd.xxxx 22.08.2024
Chief Engineer - I

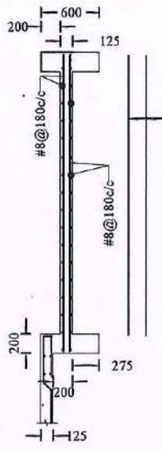
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL SUNKEN SLAB DETAILS - 1

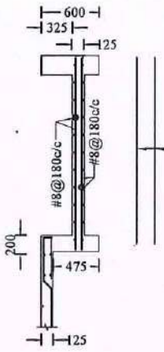


SECTION ALONG Y3-Y3

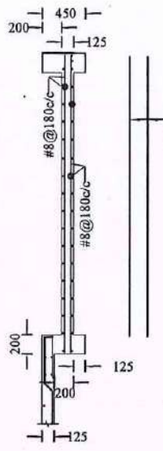




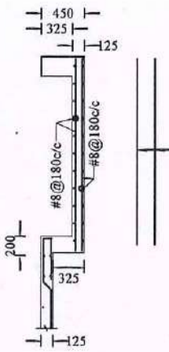
SECTION ALONG Y1-Y1 FOR STILT,FIRST & SECOND FLOOR



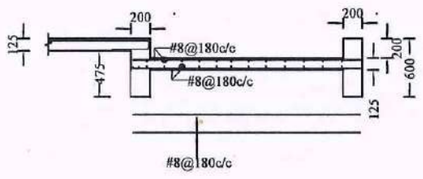
SECTION ALONG Y2-Y2 FOR STILT,FIRST & SECOND FLOOR



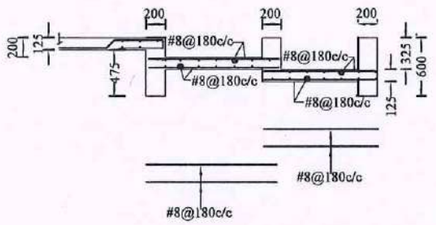
SECTION ALONG Y1-Y1 FOR OTHER THAN STILT,FIRST & SECOND FLOOR



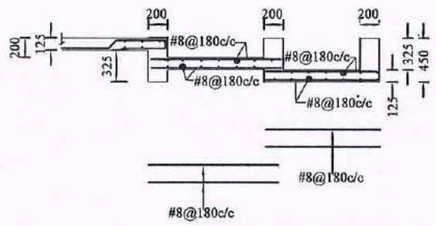
SECTION ALONG Y2-Y2 FOR OTHER THAN STILT,FIRST & SECOND FLOOR



SECTION ALONG X2-X2



SECTION ALONG X1-X1 FOR STILT,FIRST & SECOND FLOOR



SECTION ALONG X1-X1 FOR OTHER THAN STILT,FIRST & SECOND FLOOR

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.
7. Bars in Shorter direction shall be placed below Bars placed in the Longer direction.

TRUE COPY

21/8/2024

EXECUTIVE ENGINEER (A/C)

STRUCTURAL AND QUALITY CONTROL CELL

TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD

5, KAMARAJAR SALAI, CHENNAI-600 005.

E.E

21/8/24

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
TYPICAL SUNKEN SLAB DETAILS-1.

TYPE DESIGN NO.: 104/2022

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

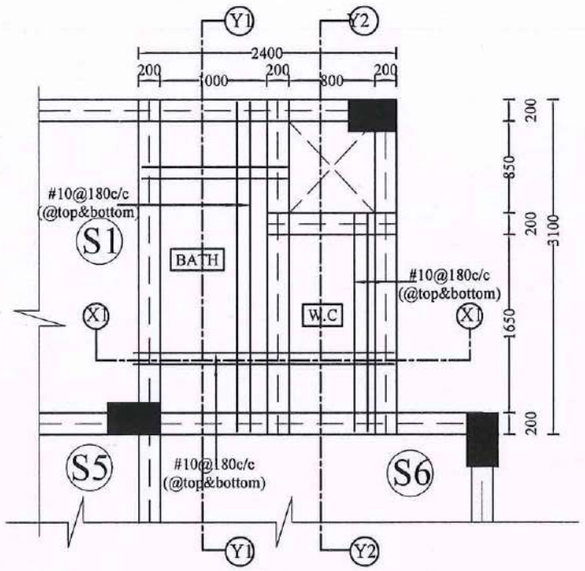
REVISION NO.:

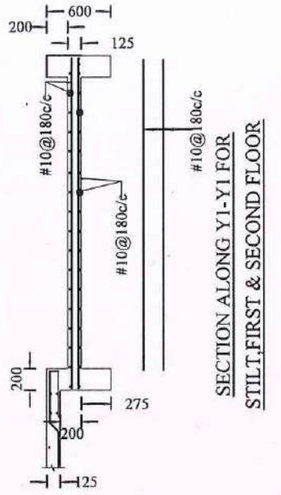
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 22.08.2024
Chief Engineer - I

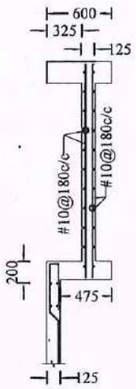
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL SUNKEN SLAB DETAILS - 2

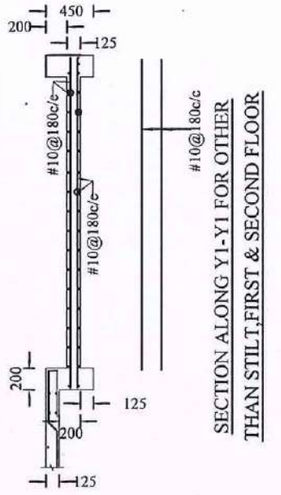




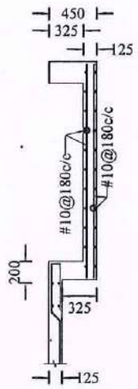
SECTION ALONG Y1-Y1 FOR STILT,FIRST & SECOND FLOOR



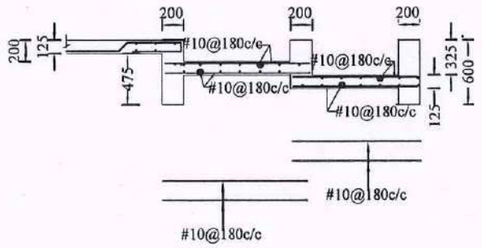
SECTION ALONG Y2-Y2 FOR STILT,FIRST & SECOND FLOOR



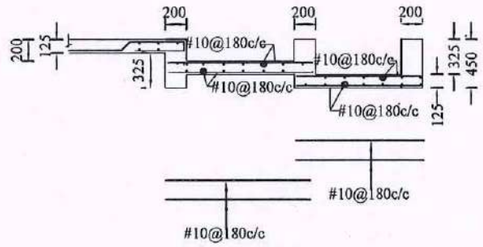
SECTION ALONG Y1-Y1 FOR OTHER THAN STILT,FIRST & SECOND FLOOR



SECTION ALONG Y2-Y2 FOR OTHER THAN STILT,FIRST & SECOND FLOOR



SECTION ALONG X1-X1 FOR STILT,FIRST & SECOND FLOOR



SECTION ALONG X1-X1 FOR OTHER THAN STILT,FIRST & SECOND FLOOR

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.
7. Bars in Shorter direction shall be placed below Bars placed in the Longer direction.

TRUE COPY

27/8/2024

EXECUTIVE ENGINEER (A/C)

STRUCTURAL AND QUALITY CONTROL CELL

TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD

5, KAMARAJAR SALAI, CHENNAI-600 005.

27/8/24

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 252 NOS OF (S+9) TENEMENTS AT NATTAN THOTTAM,MYLAPORE TALUK, GREATER CHENNAI CORPORATION.

TITLE:
TYPICAL SUNKEN SLAB DETAILS-2.

TYPE DESIGN NO.: 104/2022

DWG.NO.: TNUHDB/NATTAN THOTTAM/GEN/04.

REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - East I

sd.xxxx 22.08.2024
Chief Engineer - I

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

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

STABILITY CERTIFICATE

This is to Certify that the registration Reconstruction of 250+2 tenements consisting of 1 block adopting partially (S+9) at Nattanthottam scheme R.S.No. 1821/pt, 1816/1pt / Block 37 in Chennai Corpn. Dn. No.124 under HFA/AHP/PMAY, MylaporeTaluk, 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 all structural members. The structure is also designed for the Seismic zone as per IS code. The structure design is Safe, Good, and Sound.

30/7/2024
Executive Engineer

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.

Scanned with OKEN Scanner



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

Verified RealEstate™

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
www.verified.realestate