Verified RealEstate™

RE REGULATORY RECORD

# RERA Document

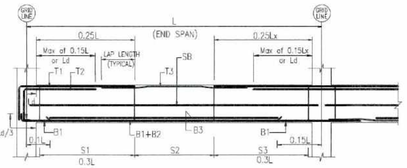
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Published for reference. The authority's own register is the operative record.

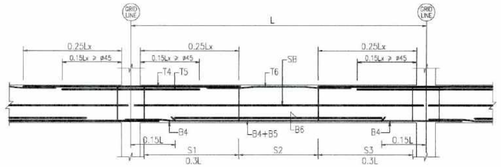
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OMR Thoraipakkam,
Chennai 600 097, India

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+91 9996 12 9996
verified.realestate

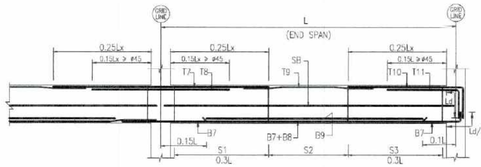
DIGITALLY VERIFIED RECORD



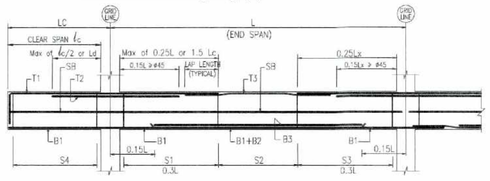

END SPAN BEAM [LHS] (1)




INTERMEDIATE SPAN BEAM (2)




END SPAN BEAM [RHS] (3)

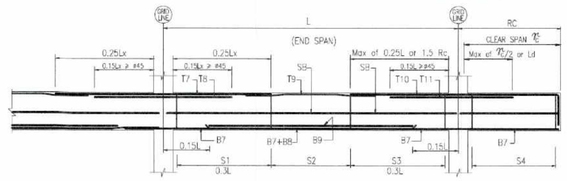



END SPAN BEAM [LHS] WITH CANTILEVER (4)

LEGEND

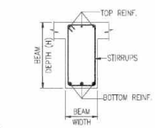
L —— LENGTH OF SPAN UNDER CONSIDERATION
La —— LENGTH OF ADJACENT SPAN TO THE SPAN UNDER CONSIDERATION
Lc —— LENGTH OF LEFT END CANTILEVER
Rc —— LENGTH OF RIGHT END CANTILEVER
(1) —— CATEGORY

Lx = Length of span under consideration or Length of adjacent span whichever is greater

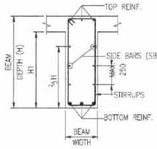



END SPAN BEAM [RHS] WITH CANTILEVER (5)

| LOCATION | | | SIZE | | SPAN | | | REINFORCEMENT | | | | | | | | | | | | | | | | | | SIDE BAR | STIRRUPS | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BEAM MARKING | CATEGORY | GRID LINE OR BEAM MARK | WIDTH (mm) | DEPTH (mm) | LEFT END CANTILEVER Lc | SPAN (APPROX) L | RIGHT END CANTILEVER Rc | LEFT END SPAN | | | | | | INTERMEDIATE SPAN | | | | | | RIGHT END SPAN | | | | | | | | | | | | | | |
| | | | | | | | | T1 | T2 | T3 | B1 | B2 | B3 | T4 | T5 | T6 | B4 | B5 | B6 | T7 | T8 | T9 | T10 | T11 | B7 | B8 | B9 | SB | S1 | S2 | S3 | S4 | TYPE | |
| 1VB20 | 1 | – | 1250 | 500 | – | 11050 | – | 10T25 | – | 10T25 | 10T25 | – | 2T25 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–150 | T8–200 | T8–150 | – | 4 | – |
| 1VB21 | 3 | – | 1250 | 500 | – | 10550 | – | – | – | – | – | – | – | – | – | – | – | – | – | 10T32 | 2T32 | 10T25 | 10T25 | – | 10T25 | – | 2T25 | – | T8–200 | T8–200 | T8–200 | – | 4 | – |
| 1VB22 | 1 | – | 200 | 600 | – | 4450 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T10–125 | T10–200 | T10–125 | – | 1 | – |
| 1VB23 | 2 | – | 200 | 600 | – | 4800 | – | – | – | – | – | – | – | 2T20 | 2T16 | 2T16 | 2T16 | – | 2T12 | – | – | – | – | – | – | – | – | – | T8–125 | T8–200 | T8–125 | – | 1 | – |
| 1VB24 | 3 | – | 200 | 600 | – | 6200 | – | – | – | – | – | – | – | – | – | – | – | – | – | 2T20 | 2T16 | 2T16 | 2T16 | – | 2T25 | 2T16 | – | – | T8–125 | T8–200 | T8–125 | – | 1 | – |
| 1VB25 | 1 | | 1250 | 500 | | 11050 | | 10T25 | | 10T25 | 10T25 | | | | | | | | | | | | | | | | | | T8 200 | T8 200 | T8 200 | | 4 | |
| 1VB26 | 3 | – | 1250 | 500 | – | 11250 | – | – | – | – | – | – | – | – | – | – | – | – | – | 10T32 | 2T32 | 10T25 | 10T25 | – | 10T25 | – | – | – | T8–200 | T8–200 | T8–200 | – | 4 | – |
| 1VB29 | 1 | – | 1000 | 500 | – | 10800 | – | 10T20 | 2T20 | 10T16 | 10T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 4 | – |
| 1VB30 | 3 | – | 1000 | 500 | – | 10600 | – | – | – | – | – | – | – | – | – | – | – | – | – | 10T20 | – | 10T16 | 10T20 | 2T20 | 10T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 4 | – |
| 1VB31 | 1 | – | 300 | 800 | – | 4750 | – | 3T16 | – | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| 1VB32 | 2 | – | 300 | 800 | – | 4800 | – | – | – | – | – | – | – | 3T16 | – | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| 1VB33 | 3 | – | 300 | 800 | – | 6200 | – | – | – | – | – | – | – | – | – | – | – | – | – | 3T16 | – | 3T16 | 3T16 | 2T16 | 3T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| 1VB34 | 1 | – | 1000 | 500 | – | 10900 | – | 10T20 | 2T20 | 10T16 | 10T16 | – | 2T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 4 | – |
| 1VB35 | 3 | – | 1000 | 500 | – | 11000 | – | – | – | – | – | – | – | – | – | – | – | – | – | 10T20 | – | 10T16 | 10T20 | – | 10T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 4 | – |
| MARKING BEAM | CATEGORY | BEAM MARK OR GRID LINE | (mm) WIDTH | (mm) DEPTH | Lc CANTILEVER LEFT END | L (APPROX) SPAN | Rc CANTILEVER RIGHT END | T1 | T2 | T3 | B1 | B2 | B3 | T4 | T5 | T6 | B4 | B5 | B6 | T7 | T8 | T9 | T10 | T11 | B7 | B8 | B9 | SB | S1 | S2 | S3 | S4 | TYPE | REMARKS |
| LOCATION | | | SIZE | | SPAN | | | LEFT END SPAN | | | | | | INTERMEDIATE SPAN | | | | | | RIGHT END SPAN | | | | | | | | BAR SIDE | STIRRUPS | | | | | |
| | | | | | | | | REINFORCEMENT | | | | | | | | | | | | | | | | | | | | | | | | | | |



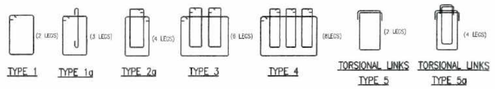

TYP. BEAM SECTION




TYP. SIDE BARS DETAIL FOR H1 > 750

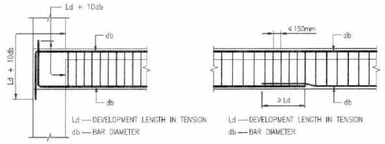
NOTES :

1. FOR GENERAL NOTES REFER TO BE1820_/S-/NT/---/01
2. FOR STANDARD DETAILS REFER TO BE1820_/S-/SD/---/01
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE KEY PLAN AND ALL OTHER RELEVANT DRAWINGS.
4. IF THE REINFORCEMENT IS PROVIDED IN TWO LAYERS OR MORE, THEN SPACER BARS BETWEEN THE LAYERS NEED TO BE PROVIDED
5. SPACER BARS TO BE T25 OR MAIN BAR SIZE (WHICHEVER IS GREATER) AT 900c/c BETWEEN EACH LAYER OF MAIN STEEL.
6. THE SPAN LENGTH INDICATED ARE NOT TO BE USED FOR SETTING OUT OR MEASUREMENT.
7. IF SAME SIZE OF THE REINFORCEMENT BARS IS INDICATED THROUGHOUT FOR BOTTOM OR TOP REINFORCEMENT, THE LAP PROVIDED FOR THE REINFORCEMENT CAN BE OMITTED BY PROVIDING STRAIGHT BARS FOR THE WHOLE LENGTH OF THE BEAM.
8. LAP LENGTH FOR BARS SHOULD BE SAME AS TENSION ANCHORAGE LENGTH BASED UPON THE LARGER BAR DIAMETER FOR UNEQUAL SIZE OF BARS.
9. FIRST STIRRUP OF BEAM SHOULD BE 50mm (MAXIMUM) FROM THE COLUMN FACE.
10. NOT MORE THAN SIDE BARS (EITHER TOP OR BOTTOM BARS) SHALL BE SPLICED AT ANY ONE SECTION.
11. AT LAP ZONE, MAXIMUM SPACING OF THE LINKS SHALL NOT EXCEED 150MM.




TYPE 1 TYPE 1a TYPE 2a TYPE 3 TYPE 4 TORSIONAL LINKS TYPE 5 TORSIONAL LINKS TYPE 5a

## STIRRUPS TYPE

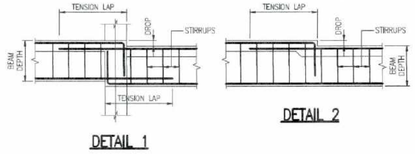



ANCHORAGE OF BEAM BARS AT BEAM AND COLUMN JUNCTION (EXTERNAL JOINT)

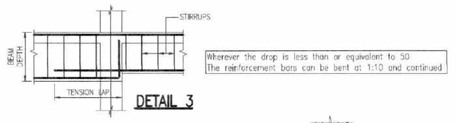
NOTE:
IN AN INTERNAL JOINT, BOTH TOP & BOTTOM BARS OF THE BEAM SHALL BE TAKEN CONTINUOUSLY THROUGH THE COLUMN

LAP/SPLICE IN BEAM

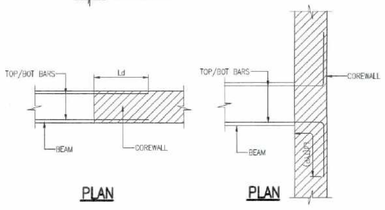
NOTE:
NOT MORE THAN 50 PERCENT OF THE BARS SHALL BE SPLICED AT ONE SECTION



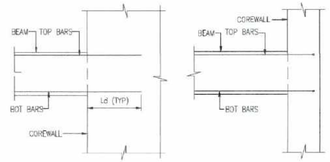

DETAIL 1 DETAIL 2




DETAIL 3




PLAN PLAN




ELEVATION ELEVATION

TYPICAL DETAIL AT CORE WALL LOCATION

ALL SETTING OUT DIMENSION SHOWN IN THE STRUCTURAL DRAWINGS, SHALL BE VERIFIED WITH THE LATEST ARCHITECTURAL DRAWINGS BEFORE COMMENCEMENT OF CONSTRUCTION. IF THERE IS ANY DISCREPANCY, IT SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. THE CONSTRUCTION CAN ONLY PROCEED UPON RECEIVING THE CONFIRMATION FROM THE ARCHITECT ON THE DIMENSIONS.

DATE OF ISSUE
23 JAN 2025
BURO ENGINEERS (I) PRIVATE LTD.

| NO. | AMENDMENTS | BY | DATE |
|---|---|---|---|
| – | ISSUE FOR CONSTRUCTION | MANI | 23/01/2025 |

**CONSTRUCTION DRAWING**
**STRUCTURAL**

Client
M/S.ARIHANT FOUNDATIONS & HOUSING LTD.,
NO.3,OLD NO.25,
CANAPATHY COLONY,3RD LANE OFF.
CENOTAPH ROAD
CHENNAI 600004

Architect
M/S.NATARAJ & VENKAT ARCHITECTS
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Civil & Structural Engineer :
**Buro Engineers (I) Private Ltd.,**
CIVIL & STRUCTURAL CONSULTANTS
NEW #31, OLD #14, BESANT AVENUE ROAD,
ADAYAR, CHENNAI-600020.
TEL: 42658573 / 74, FAX: 24662755

project title
**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

**STILT + 7TH FLOOR + ROOF FLOOR**

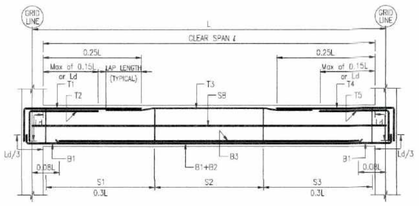
drawing title
**FIRST FLOOR BEAM DETAILS**

| | | | |
|---|---|---|---|
| scale | 1:100 | design by | ROHITH |
| drawn by | MANI | checked by | SIVA |
| date | DEC 2024 | approved by | PJ |
| drawing no. | BE1749_S-/BM/01-/---/03 | | revision |

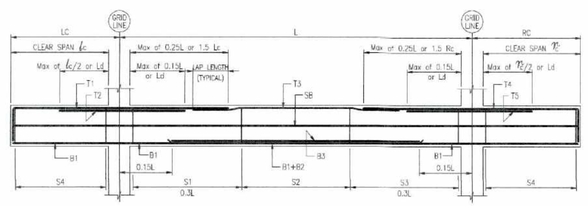
THIS DRAWING IS COPYRIGHT

XREF : BE0615_S-XREFA1_.dwg

CAD FILE NAME: BE1749_S-BM01---03_.dwg




TYPICAL DETAIL OF SINGLE SPAN BEAM (1)




TYPICAL DETAIL OF SINGLE SPAN BEAM WITH CANTILEVERS (2)

| LOCATION | | | SIZE | | SPAN | | | REINFORCEMENT | | | | | | | | SIDE BAR | STIRRUPS | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | SPAN | | | | | | | | | | | | | | |
| BEAM MARKING | CATEGORY | GRID LINE OR BEAM MARK | WIDTH (mm) | DEPTH (mm) | LEFT END CANTILEVER Lc | SPAN (APPROX) L | RIGHT END CANTILEVER Rc | T1 | T2 | T3 | T4 | T5 | B1 | B2 | B3 | SB | S1 | S2 | S3 | S4 | TYPE | |
| GHB5 | 1 | – | 600 | 800 | – | 4400 | – | 5T16 | – | 5T16 | 5T16 | – | 5T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 2a | – |
| GHB7 | 1 | – | 300 | 800 | – | 4650 | – | 3T16 | – | 3T16 | 3T16 | – | 3T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| GHB8 | 1 | – | 300 | 800 | – | 7700 | – | 3T20 | 2T20 | 3T16 | 3T20 | 2T16 | 3T20 | – | 2T16 | – | T8–150 | T8–200 | T8–150 | – | 1a | – |
| GHB9 | 1 | – | 200 | 600 | – | 4350 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| GHB12 | 1 | – | 300 | 600 | – | 5350 | – | 3T20 | – | 3T20 | 3T25 | 2T32 | 3T25 | – | 2T25 | – | T10–100 | T10–125 | T10–100 | – | 1a | – |
| GHB13 | 1 | – | 200 | 600 | – | 4350 | – | 2T16 | – | 2T16 | 2T16 | – | 2T20 | – | 2T16 | – | T8–175 | T8–200 | T8–175 | – | 1 | – |
| GHB14 | 1 | – | 300 | 600 | – | 4200 | – | 3T16 | 2T16 | 3T16 | 3T16 | – | 3T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| GHB15 | 1 | – | 300 | 600 | – | 7500 | – | 3T25 | 2T25 | 3T20 | 3T25 | 3T25 | 3T25 | – | 2T25 | – | T10–125 | T10–150 | T10–125 | – | 1a | – |
| GHB16 | 1 | – | 300 | 600 | – | 3300 | – | 3T16 | 2T16 | 3T16 | 3T16 | – | 3T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| GHB17 | 1 | – | 200 | 600 | – | 4350 | – | 2T16 | – | 2T16 | 2T16 | – | 2T20 | – | 2T16 | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| GHB22 | 1 | – | 200 | 450 | – | 2700 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | 2T16 | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| GHB23 | 1 | – | 450 | 500 | – | 5700 | – | 4T16 | – | 4T16 | 4T16 | – | 4T16 | – | 2T16 | – | T8–200 | T8–200 | T8–200 | – | 2a | – |
| GHB24 | 1 | – | 600 | 800 | – | 4400 | – | 5T16 | – | 5T16 | 5T16 | – | 5T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 2a | – |
| GHB25 | 1 | – | 600 | 800 | – | 4500 | – | 5T16 | – | 5T16 | 5T16 | – | 5T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 2a | – |
| GHB26 | 1 | – | 450 | 450 | – | 3700 | – | 4T16 | 2T16 | 4T16 | 4T16 | 2T20 | 4T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 2a | – |
| GHB27 | 1 | – | 300 | 800 | – | 4400 | – | 3T16 | – | 3T16 | 3T16 | 2T16 | 3T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| GHB28 | 1 | – | 300 | 800 | – | 4800 | – | 3T16 | 2T16 | 3T16 | 3T16 | 2T16 | 3T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| GHB29 | 1 | – | 300 | 800 | – | 4500 | – | 3T16 | 2T16 | 3T16 | 3T16 | – | 3T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| GHB30 | 1 | – | 450 | 450 | – | 3000 | – | 4T16 | 2T16 | 4T16 | 4T16 | 2T20 | 4T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 2a | – |
| GVB3 | 1 | – | 300 | 800 | – | 4200 | – | 3T20 | 2T16 | 3T16 | 3T20 | 2T16 | 3T16 | – | 2T16 | – | T8–150 | T8–200 | T8–150 | – | 1a | – |
| GVB4 | 1 | – | 300 | 800 | – | 4100 | – | 3T20 | 2T16 | 3T16 | 3T20 | 2T16 | 3T20 | – | – | – | T8–150 | T8–200 | T8–150 | – | 1a | – |
| GVB5 | 1 | – | 300 | 800 | – | 3950 | – | 3T20 | 2T16 | 3T16 | 3T20 | 2T16 | 3T16 | – | 2T16 | – | T8–150 | T8–200 | T8–150 | – | 1a | – |
| GVB8 | 1 | – | 200 | 450 | – | 2050 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| GVB9 | 1 | – | 200 | 600 | – | 2400 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| GVB16 | 1 | – | 200 | 600 | – | 3450 | – | 2T16 | – | 2T16 | 2T20 | 2T16 | 2T16 | – | – | – | T8–125 | T8–200 | T8–125 | – | 1 | – |
| MARKING BEAM | CATEGORY | BEAM MARK OR GRID LINE | (mm) WIDTH | (mm) DEPTH | Lc CANTILEVER LEFT END | L (APPROX) SPAN | Rc CANTILEVER RIGHT END | T1 | T2 | T3 | T4 | T5 | B1 | B2 | B3 | BAR SIDE | S1 | S2 | S3 | S4 | TYPE | REMARKS |
| LOCATION | | | SIZE | | SPAN | | | REINFORCEMENT | | | | | | | | | STIRRUPS | | | | | |

XREF : BEB615_S-XREFA1_.dwg

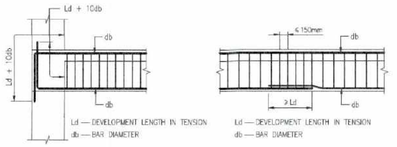
LEGEND

L —— LENGTH OF SPAN UNDER CONSIDERATION
Lc —— LENGTH OF LEFT END CANTILEVER
Rc —— LENGTH OF RIGHT END CANTILEVER
d —— EFFECTIVE DEPTH OF BEAM
db —— MINIMUM DIA OF BAR
(1) —— CATEGORY

Lx = Length of span under consideration or Length of adjacent span whichever is greater

NOTES :

1. FOR GENERAL NOTES REFER TO BE620_/S-/ST/--/01
2. FOR STANDARD DETAILS REFER TO BE620_/S-/SD/--/01
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE KEY PLAN AND ALL OTHER RELEVANT DRAWINGS.
4. IF THE REINFORCEMENT IS PROVIDED IN TWO LAYERS OR MORE, THEN SPACER BARS BETWEEN THE LAYERS NEED TO BE PROVIDED
5. SPACER BARS TO BE T25 OR MAIN BAR SIZE (WHICHEVER IS GREATER) AT 900c/c BETWEEN EACH LAYER OF MAIN STEEL.
6. THE SPAN LENGTH INDICATED ARE NOT TO BE USED FOR SETTING OUT OR MEASUREMENT.
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8. LAP LENGTH FOR BARS SHOULD BE SAME AS TENSION ANCHORAGE LENGTH BASED UPON THE LARGER BAR DIAMETER FOR UNEQUAL SIZE OF BARS
9. FIRST STIRRUP OF BEAM SHOULD BE 50mm (MAXIMUM) FROM THE COLUMN FACE
10. NOT MORE THAN 50% BARS (EITHER TOP OR BOTTOM BARS) SHALL BE SPLICED AT ANY ONE SECTION
11. AT LAP ZONE, MAXIMUM SPACING OF THE LINKS SHALL NOT EXCEED 150MM.



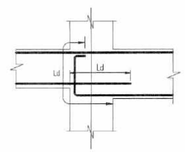

ANCHORAGE OF BEAM BARS AT BEAM AND COLUMN JUNCTION (EXTERNAL JOINT)

NOTE:
IN AN INTERNAL JOINT, BOTH TOP & BOTTOM BARS OF THE BEAM SHALL BE TAKEN CONTINUOUSLY THROUGH THE COLUMN

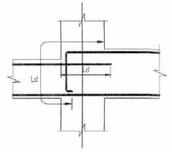



LAP/SPLICE IN BEAM

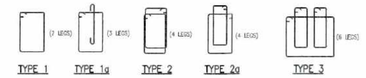
NOTE:
NOT MORE THAN 50 PERCENT OF THE BARS SHALL BE SPLICED AT ONE SECTION

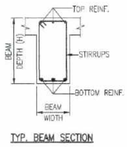



DETAIL OF BEAM COLUMN JUNCTION
( JUNCTION OF BEAMS OF VARYING DEPTH)

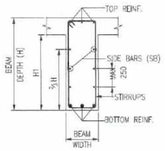



DETAIL OF BEAM COLUMN JUNCTION
( JUNCTION OF BEAMS OF VARYING DEPTH)



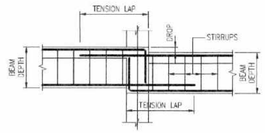




TYP. BEAM SECTION

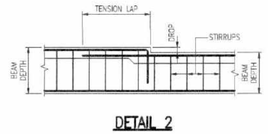



TYP. SIDE BARS DETAIL FOR H1 > 750

## STIRRUPS TYPE

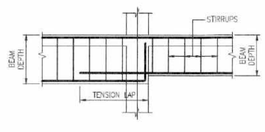



DETAIL 1

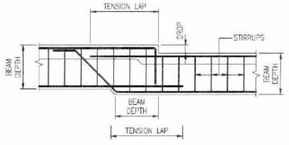



DETAIL 2

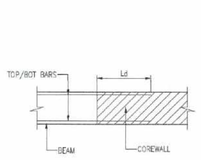
Wherever the drop is less than or equivalent to 50
The reinforcement bars can be bent at 1:10 and continued



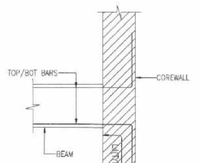

DETAIL 3



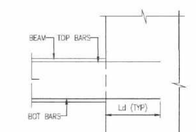

DETAIL 4



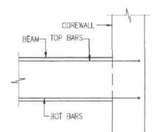

PLAN




PLAN




ELEVATION




ELEVATION

TYPICAL DETAIL AT CORE WALL LOCATION

ALL SETTING OUT DIMENSION SHOWN IN THE STRUCTURAL DRAWINGS, SHALL BE VERIFIED WITH THE LATEST ARCHITECTURAL DRAWINGS BEFORE COMMENCEMENT OF CONSTRUCTION. IF THERE IS ANY DISCREPANCY, IT SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. THE CONSTRUCTION CAN ONLY PROCEED UPON RECEIVING THE CONFIRMATION FROM THE ARCHITECT ON THE DIMENSIONS.

DATE OF ISSUE
26 DEC 2024
BURO ENGINEERS (I) PRIVATE LTD.

| NO. | AMENDMENTS | BY | DATE |
|---|---|---|---|
| – | ISSUE FOR CONSTRUCTION | MANI | 26/12/2024 |

**CONSTRUCTION DRAWING**
**STRUCTURAL**

Client
M/S.ARIHANT FOUNDATIONS & HOUSING LTD.,
NO.3,OLD NO.25,
CANAPATHY COLONY,3RD LANE OFF.
CENOTAPH ROAD
CHENNAI 600004

Architect
M/S.NATARAJ & VENKAT ARCHITECTS
18, 3RD SEAWARD RD,
VALMIKI NAGAR,
THIRUVANMIYUR,
CHENNAI 600 041
PH: 044-24572457

Civil & Structural Engineer :
**Buro Engineers (I) Private Ltd.,**
CIVIL & STRUCTURAL CONSULTANTS
NEW #31, OLD #14, RESANT AVENUE ROAD,
ADAYAR, CHENNAI–600020.
TEL: 42658573. / 74, FAX: 24662755

project title
**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

**STILT + 7TH FLOOR + ROOF FLOOR**

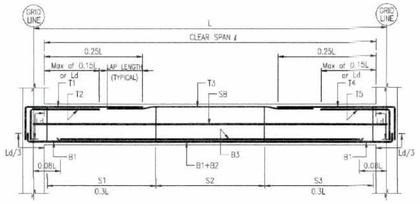
drawing title
**GROUND FLOOR BEAM DETAILS**

| scale | 1:100 | design by | ROHITH |
|---|---|---|---|
| drawn by | MANI | checked by | SIVA |
| date | DEC 2024 | approved by | PJ |
| drawing no. | BEJ749_S-/BM/G-/--//01 | revision | – |

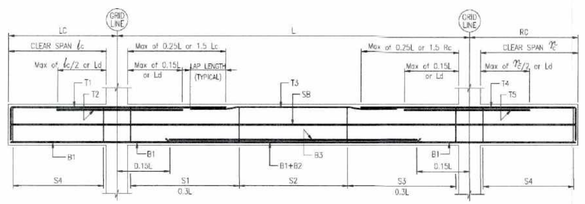
THIS DRAWING IS COPYRIGHT

CAD FILE NAME: BEJ749_S-BMG---01_.dwg

P.A. THEERTHAN, M.E., (Struct.)
APPROVED STRUCTURAL ENGINEER
GREATER CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY
REGISTRATION No.SE/GR-I/1/94/2021
"PRASANTH" (OLD No.14), RESANT AVENUE,
ADAYAR, CHENNAI - 600 020.




TYPICAL DETAIL OF SINGLE SPAN BEAM (1)




TYPICAL DETAIL OF SINGLE SPAN BEAM WITH CANTILEVERS (2)

| LOCATION | | | SIZE | | SPAN | | | REINFORCEMENT | | | | | | | | SIDE BAR | STIRRUPS | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BEAM MARKING | CATEGORY | GRID LINE OR BEAM MARK | WIDTH (mm) | DEPTH (mm) | LEFT END CANTILEVER Lc | SPAN (APPROX) L | RIGHT END CANTILEVER Rc | SPAN T1 | T2 | T3 | T4 | T5 | B1 | B2 | B3 | SB | S1 | S2 | S3 | S4 | TYPE | |
| GVB21 | 1 | – | 1250 | 500 | – | 10900 | – | 10T25 | – | 10T25 | 10T32 | – | 10T20 | – | 2T20 | – | T8–200 | T8–200 | T8–200 | – | 4 | – |
| GVB22 | 1 | – | 1250 | 500 | – | 10550 | – | 10T32 | – | 10T25 | 10T25 | – | 10T20 | – | 3T20 | – | T8–200 | T8–200 | T8–200 | – | 4 | – |
| GVB23 | 1 | – | 200 | 600 | – | 4600 | – | 2T16 | – | 2T16 | 2T16 | – | 2T20+ 2T20 | – | – | – | T10–100 | T10–200 | T10–100 | – | 1 | – |
| GVB26 | – | – | 200 | 600 | – | 2750 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| GVB27 | – | – | 1000 | 500 | – | 10800 | – | 10T25 | 4T25 | 10T20 | 10T25 | 5T25 | 10T20 | – | 4T20 | – | T8–150 | T8–200 | T8–150 | – | 4 | – |
| GVB28 | – | – | 1000 | 500 | – | 10400 | – | 10T25 | 5T25 | 10T20 | 10T25 | 5T25 | 10T20 | – | 4T20 | – | T8–150 | T8–200 | T8–150 | – | 4 | – |
| WHB1 | – | – | 300 | 600 | – | 4800 | – | 3T16 | 2T16 | 3T16 | 3T16 | – | 3T16 | – | 2T16 | – | T10–125 | T10–200 | T10–125 | – | 1a | – |
| WHB2 | – | – | 300 | 600 | – | 2900 | – | 3T16 | – | 3T16 | 3T16 | – | 3T16 | – | – | – | T8–150 | T8–200 | T8–150 | – | 1a | – |
| WHB3 | – | – | 300 | 600 | – | 4900 | – | 3T16 | 2T16 | 3T16 | 3T16 | – | 3T16 | – | – | – | T8–150 | T8–200 | T8–150 | – | 1a | – |
| MARKING BEAM | CATEGORY | BEAM MARK OR GRID LINE | (mm) WIDTH | (mm) DEPTH | Lc CANTILEVER LEFT END | L (APPROX) SPAN | Rc CANTILEVER RIGHT END | T1 | T2 | T3 | T4 | T5 | B1 | B2 | B3 | SB | S1 | S2 | S3 | S4 | TYPE | REMARKS |
| LOCATION | | | SIZE | | SPAN | | | REINFORCEMENT | | | | | | | | BAR SIDE | STIRRUPS | | | | | |

XREF : BE1615_S-XREFA1_.dwg

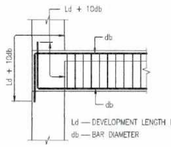
LEGEND

L ——LENGTH OF SPAN UNDER CONSIDERATION
Lc ——LENGTH OF LEFT END CANTILEVER
Rc ——LENGTH OF RIGHT END CANTILEVER
d ——EFFECTIVE DEPTH OF BEAM
db——MINIMUM DIA OF BAR
(1)——CATEGORY

Lx = Length of span under consideration or Length of adjacent span whichever is greater

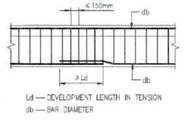
NOTES :-

1. FOR GENERAL NOTES REFER TO BE1620_/S-/NT/--/01
2. FOR STANDARD DETAILS REFER TO BE1620_/S-/SD/--/01
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE KEY PLAN AND ALL OTHER RELEVANT DRAWINGS.
4. IF THE REINFORCEMENT IS PROVIDED IN TWO LAYERS OR MORE, THEN SPACER BARS BETWEEN THE LAYERS NEED TO BE PROVIDED
5. SPACER BARS TO BE T25 OR MAIN BAR SIZE (WHICHEVER IS GREATER) AT 900c/c BETWEEN EACH LAYER OF MAIN STEEL.
6. THE SPAN LENGTH INDICATED ARE NOT TO BE USED FOR SETTING OUT OR MEASUREMENT.
7. IF SAME SIZE OF THE REINFORCEMENT BARS IS INDICATED THROUGHOUT FOR BOTTOM OR TOP REINFORCEMENT, THE LAP PROVIDED FOR THE REINFORCEMENT CAN BE OMITTED BY PROVIDING STRAIGHT BARS FOR THE WHOLE LENGTH OF THE BEAM.
8. LAP LENGTH FOR BARS SHOULD BE SAME AS TENSION ANCHORAGE LENGTH BASED UPON THE LARGER BAR DIAMETER FOR UNEQUAL SIZE OF BARS
9. FIRST STIRRUP OF BEAM SHOULD BE 50mm (MAXIMUM) FROM THE COLUMN FACE
10. NOT MORE THAN 50% BARS (EITHER TOP OR BOTTOM BARS) SHALL BE SPLICED AT ANY ONE SECTION
11. AT LAP ZONE, MAXIMUM SPACING OF THE LINKS SHALL NOT EXCEED 150MM.



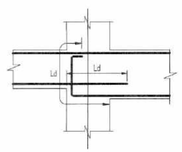

ANCHORAGE OF BEAM BARS AT BEAM AND COLUMN JUNCTION (EXTERNAL JOINT)

NOTE:
IN AN INTERNAL JOINT, BOTH TOP & BOTTOM BARS OF THE BEAM SHALL BE TAKEN CONTINUOUSLY THROUGH THE COLUMN

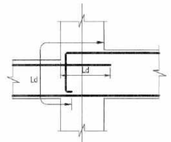



LAP/SPLICE IN BEAM

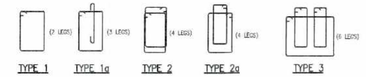
NOTE:
NOT MORE THAN 50 PERCENT OF THE BARS SHALL BE SPLICED AT ONE SECTION




DETAIL OF BEAM COLUMN JUNCTION
( JUNCTION OF BEAMS OF VARYING DEPTH)



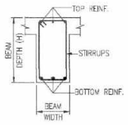

DETAIL OF BEAM COLUMN JUNCTION
( JUNCTION OF BEAMS OF VARYING DEPTH)



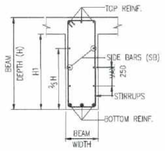

TYPE 1 TYPE 1a TYPE 2 TYPE 2a TYPE 3




TYPE 4 TORSIONAL LINKS TYPE 5 TORSIONAL LINKS TYPE 5a

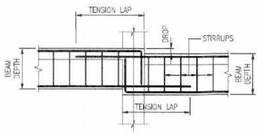



TYP. BEAM SECTION

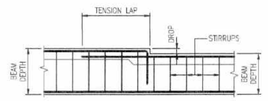



TYP. SIDE BARS DETAIL FOR H1 > 750

## STIRRUPS TYPE

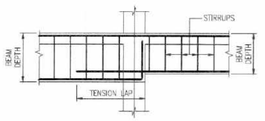



DETAIL 1

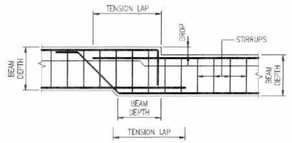



DETAIL 2

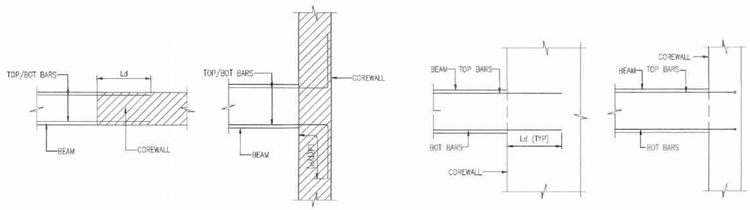
Wherever the drop is less than or equivalent to 50 The reinforcement bars can be bent at 1:10 and continued




DETAIL 3




DETAIL 4




PLAN PLAN ELEVATION ELEVATION

TYPICAL DETAIL AT CORE WALL LOCATION

ALL SETTING OUT DIMENSION SHOWN IN THE STRUCTURAL DRAWINGS, SHALL BE VERIFIED WITH THE LATEST ARCHITECTURAL DRAWINGS BEFORE COMMENCEMENT OF CONSTRUCTION. IF THERE IS ANY DISCREPANCY, IT SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. THE CONSTRUCTION CAN ONLY PROCEED UPON RECEIVING THE CONFIRMATION FROM THE ARCHITECT ON THE DIMENSIONS.

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**CONSTRUCTION DRAWING**
**STRUCTURAL**

Client
M/S.ARIHANT FOUNDATIONS & HOUSING LTD.,
NO.3,OLD NO.25,
GANAPATHY COLONY,3RD LANE OFF.
CENOTAPH ROAD
CHENNAI 600004

Architect
M/S.NATARAJ & VENKAT ARCHITECTS
18, 3RD SEAWARD RD,
VALMIKI NAGAR,
THIRUVANMIYUR,
CHENNAI 600 041
PH: 044-24572457

Civil & Structural Engineer :
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ADAYAR, CHENNAI-600020.
TEL: 42658573 / 74, FAX: 24662755

project title
**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

**STILT + 7TH FLOOR + ROOF FLOOR**

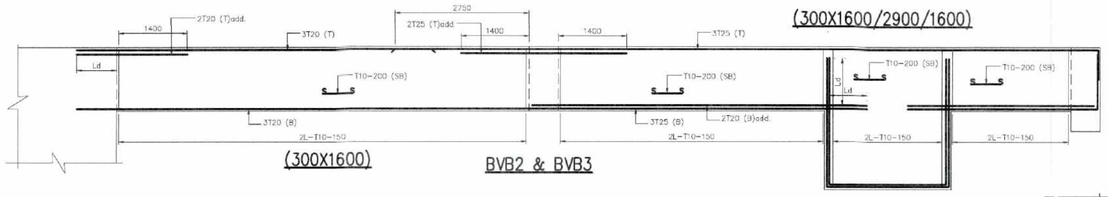
drawing title
**GROUND FLOOR BEAM DETAILS**

| | | | |
|---|---|---|---|
| scale | 1:100 | design by | ROHITH |
| drawn by | MANI | checked by | SMA |
| date | DEC 2024 | approved by | PJ |
| drawing no. | BE1749_S-/BM/G-/--//02 | revision | – |

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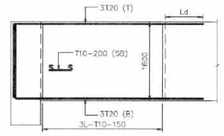
CAD FILE NAME: BE1749_S-BMG---02_.dwg

S.GAJENDRA GANESAN, M.E., (Struct.)
APPROVED STRUCTURAL ENGINEER
CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY
REGISTRATION No.SE/CHN/01/STR/2007
VALID UPTO 31.12.2021
Door No.31, (OLD No.14), BESANT AVENUE ROAD,
ADYAR, CHENNAI - 600 020.

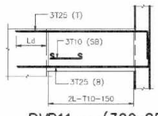



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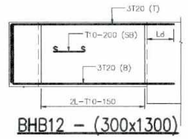
BVB2 & BVB3



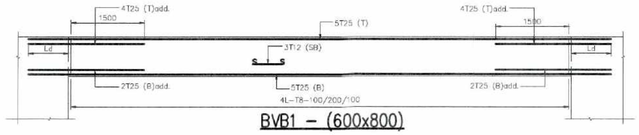

BHB9 – (300x1600)



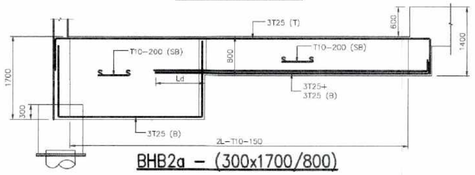

BVB11 – (300x850)



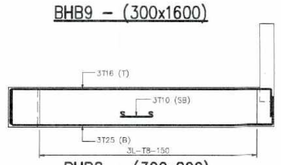

BHB12 – (300x1300)



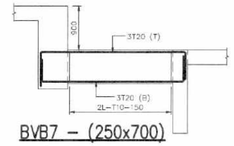

BVB1 – (600x800)



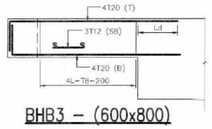

BHB2a – (300x1700/800)



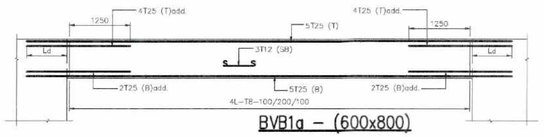

BHB8 – (300x800)



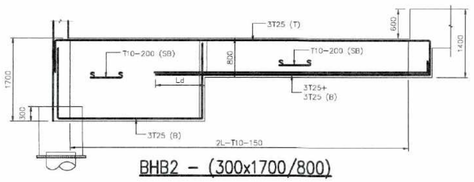

BVB7 – (250x700)



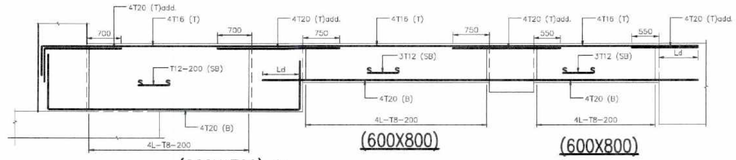

BHB3 – (600x800)




BVB1a – (600x800)




BHB2 – (300x1700/800)

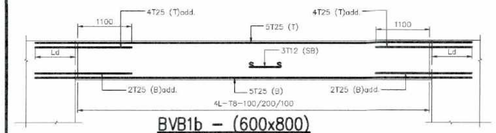



(600X1700) & (600X1300)

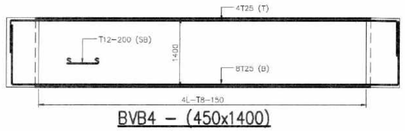
BHB4,BHB5 & BHB6

(600X800)

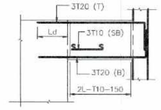
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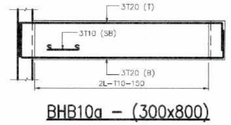

BVB1b – (600x800)



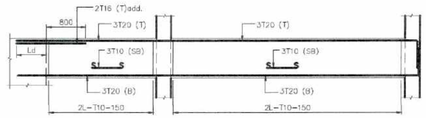

BVB4 – (450x1400)



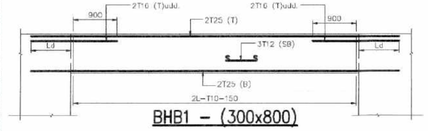

BVB8 – (300x800)



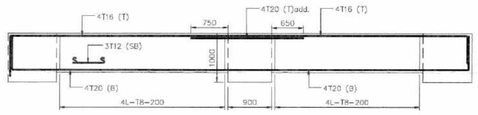

BHB10a – (300x800)



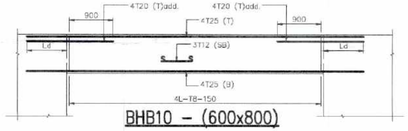

BVB9 & BVB10 – (300x800)



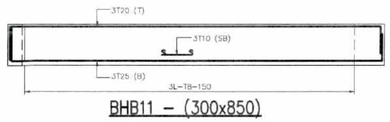

BHB1 – (300x800)



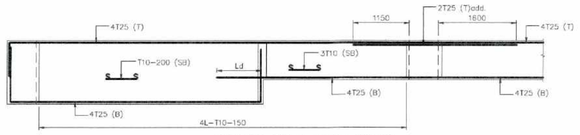

BVB5 & BVB6 – (600x800)



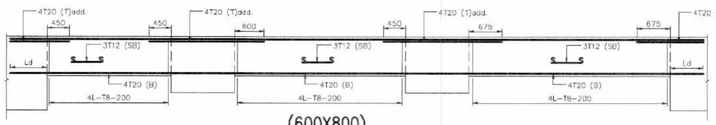

BHB10 – (600x800)




BHB11 – (300x850)



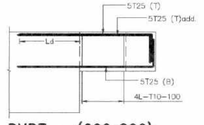

BVB13 (600x1300/800)



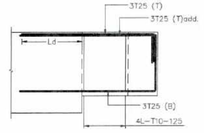

(600X800)

BVB12,BVB12a & BVB12b

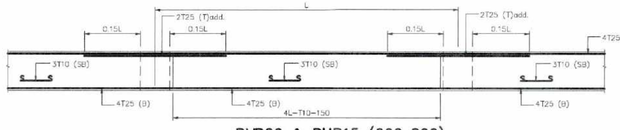
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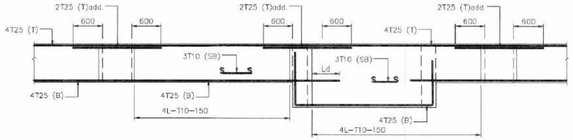

BHB7 – (600x800)




BHB7a – (300x1300)

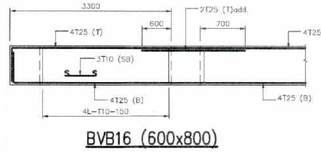



BVB20 & BHB15 (600x800)
TYPICAL BEAM DETAIL

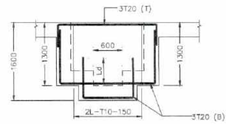



BVB20 (600x800)

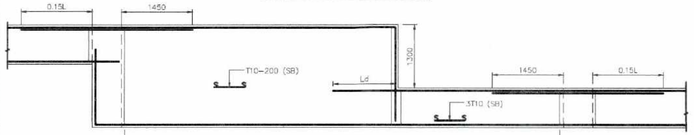
BVB17 (600x1300)



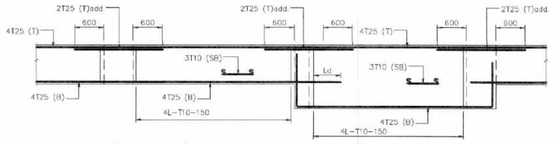

BVB16 (600x800)




BVB12a (600x1300/1600/1300)

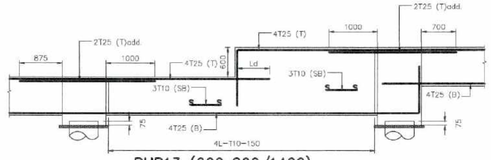



BVB14 600x2100/800

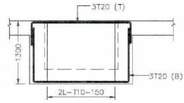



BVB20 (600x800)

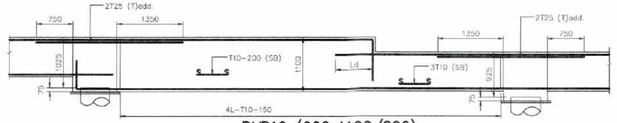
BVB18 (600x1300)




BHB13 (600x800/1400)




BVB12b (600x1300)




BVB19 (600x1100/800)

XREF : BEI615_S-XREFA1_.dwg

* PILECAP LAYOUT PLAN REFER CAD FILE NAME: BEI749_S-PL-----02_.dwg
* BASEMENT BEAM DETAILS REFER CAD FILE NAME: BEI749_S-PL-----07_.dwg
* BASEMENT SLAB DETAILS REFER CAD FILE NAME: BEI749_S-PL-----05_.dwg
* BASEMENT & STP, SUMP WALL SECTION DETAILS REFER CAD FILE NAME: BEI749_S-PL-----06_.dwg

ALL SETTING OUT DIMENSION SHOWN IN THE STRUCTURAL DRAWINGS, SHALL BE VERIFIED WITH THE LATEST ARCHITECTURAL DRAWINGS BEFORE COMMENCEMENT OF CONSTRUCTION. IF THERE IS ANY DISCREPANCY, IT SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. THE CONSTRUCTION CAN ONLY PROCEED UPON RECEIVING THE CONFIRMATION FROM THE ARCHITECT ON THE DIMENSIONS.

DATE OF ISSUE
23 JAN 2025
BURO ENGINEERS (I) PRIVATE LTD.

| NO. | AMENDMENTS | BY | DATE |
|---|---|---|---|
| - | ISSUE FOR CONSTRUCTION | GUNA | 23/01/2025 |

**CONSTRUCTION DRAWING**
**STRUCTURAL**

Client
M/S.ARIHANT FOUNDATIONS & HOUSING LTD.,
NO.3,OLD NO.25,
GANAPATHY COLONY,3RD LANE OFF.
CENOTAPH ROAD
CHENNAI 600004

Architect
M/S. NATARAJ & VENKAT ARCHITECTS
18, 3RD SEAWARD RD,
VALMIKI NAGAR,
THIRUVANMIYUR,
CHENNAI 600 041
PH. 044-24572457

Civil & Structural Engineer :
**Buro Engineers (I) Private Ltd.,**
CIVIL & STRUCTURAL CONSULTANTS
NEW #31, OLD #14, BESANT AVENUE ROAD,
ADAYAR, CHENNAI-600020.
TEL: 42658573 / 74, FAX: 24662755

project title
**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

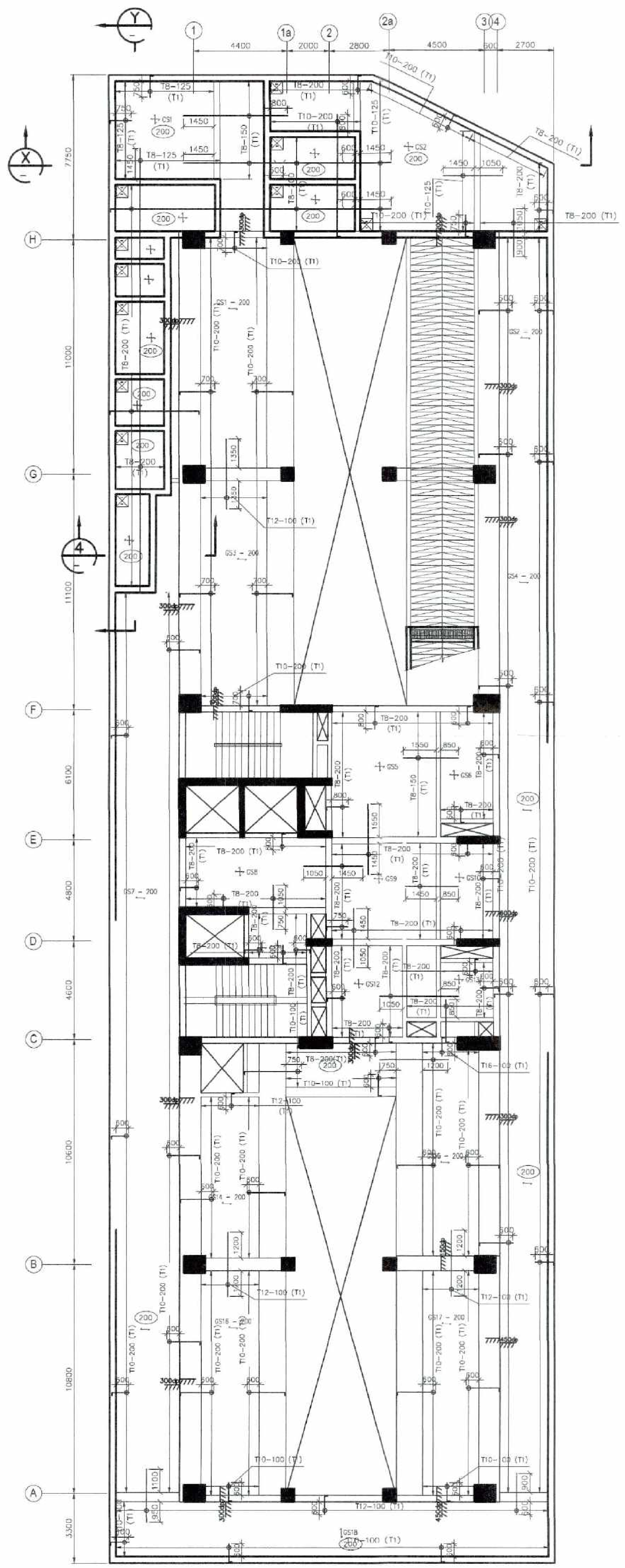
**STILT + 7TH FLOOR + ROOF FLOOR**

drawing title
**BASEMENT BEAM DETAILS**

| | | | |
|---|---|---|---|
| scale | 1:125 | design by | YOGA |
| drawn by | GUNA | checked by | SIVA |
| date | JUNE 2023 | approved by | PJ |
| drawing no. | BEI749_S-/PL/--/--/07 | revision | - |

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CAD FILE NAME: BEI749_S-PL-----07_.dwg




## GROUND FLOOR SLAB DETAIL TOP REINFT.

SCALE 1:125

NOTES

UNLESS OTHERWISE SPECIFIED

1. GRADE OF CONCRETE
   a. COLUMNS AND RC WALL– M40
   b. ALL OTHER ELEMENTS – M35
2. GRADE OF STEEL Fe 550
3. ALL THE BEAMS SIZES ARE TO BE (200x600)
4. ALL THE PT SLABS SIZES ARE TO BE REFER PLAN
5. ALL THE RC SLABS ARE TO BE 150mm THICK
6. ALL THE COLUMNS SIZES ARE TO BE REFER PLAN

**NOTES**

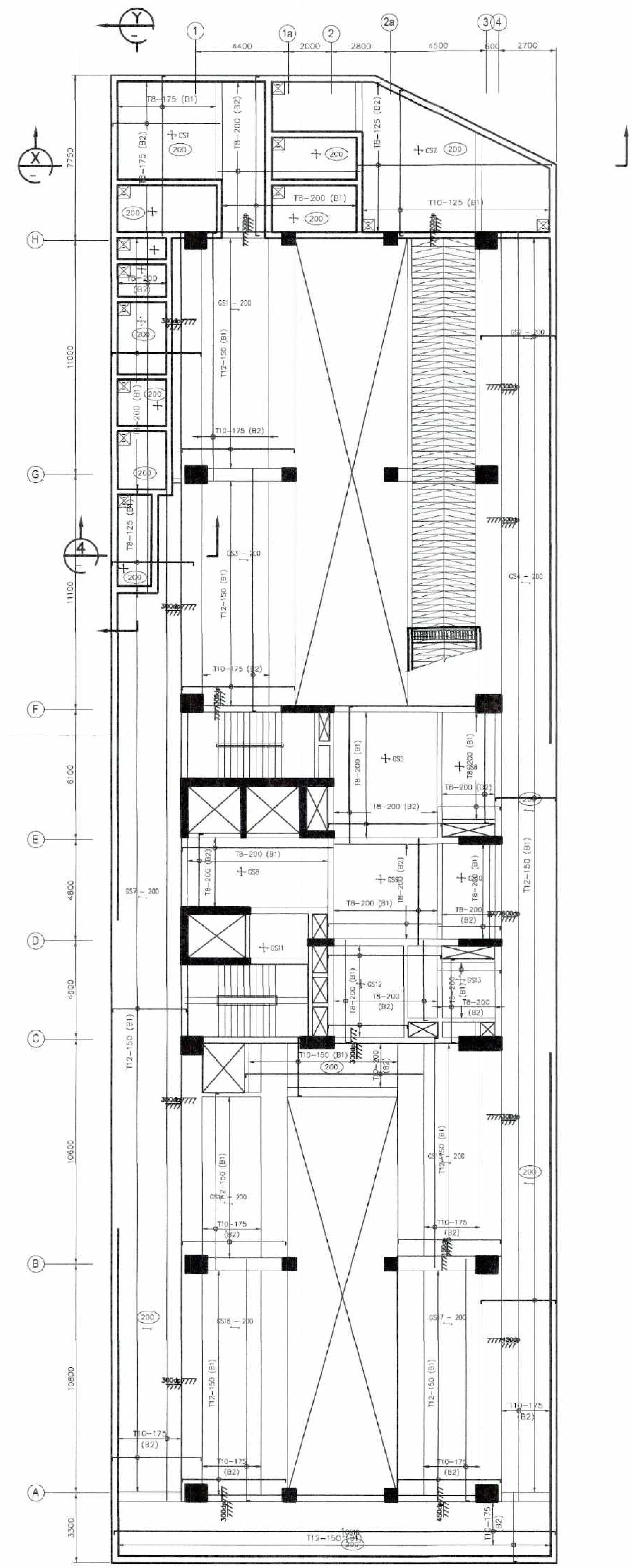
FOR CLARITY PURPOSE DISTRIBUTION BARS NOT SHOWN. THE DISTRIBUTION BARS ARE TO BE T8–200 (T2&B2) UNLESS OTHERWISE INDICATED

LEGEND:

—— TOP REINFORCEMENT

—— BOTTOM REINFORCEMENT

**BAR LAYING SEQUENCE** (T1) (T2) (B1) (B2)




## GROUND FLOOR BOTTOM REINFT.

SCALE 1:125

NOTES

UNLESS OTHERWISE SPECIFIED

1. GRADE OF CONCRETE
   a. COLUMNS AND RC WALL– M40
   b. ALL OTHER ELEMENTS – M35
2. GRADE OF STEEL Fe 550
3. ALL THE BEAMS SIZES ARE TO BE (200x600)
4. ALL THE PT SLABS SIZES ARE TO BE REFER PLAN
5. ALL THE RC SLABS ARE TO BE 150mm THICK
6. ALL THE COLUMNS SIZES ARE TO BE REFER PLAN

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DATE OF ISSUE

23 JAN 2025

BURO ENGINEERS (I) PRIVATE LTD.

| NO. | AMENDMENTS | BY | DATE |
|---|---|---|---|
| – | ISSUE FOR CONSTRUCTION | GUNA | 23-01-2025 |

**CONSTRUCTION DRAWING**

**STRUCTURAL**

Client

M/S.ARIHANT FOUNDATIONS & HOUSING LTD.,
NO.3,OLD NO.25,
GANAPATHY COLONY,3RD LANE OFF.
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Civil & Structural Engineer :

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ADAYAR, CHENNAI-600020.
TEL: 42658573 / 74, FAX: 24662755

project title

**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

**STILT + 7TH FLOOR + ROOF FLOOR**

drawing title

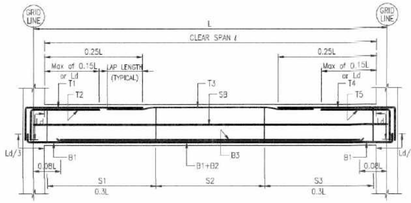
**GROUND FLOOR SLAB DETAIL**
TOP & BOTTOM REINFT.

| scale | 1:100 | design by | ROHIT |
|---|---|---|---|
| drawn by | GUNA | checked by | SIVA |
| date | JUNE 2023 | approved by | PJ |
| drawing no. | BEI749_S–/SB/G–/––//01 | revision | – |

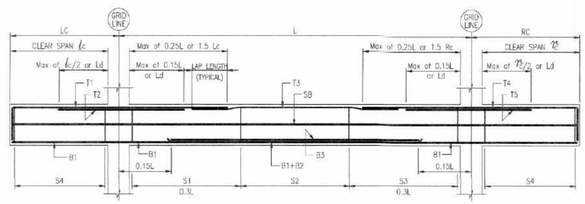
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XREF : BEI615_S–XREFA1_.dwg

CAD FILE NAME: BEI749_S–SBG–––01_.dwg




ROOFDETAIL OF SINGLE SPAN BEAM (1)




ROOFDETAIL OF SINGLE SPAN BEAM WITH CANTILEVERS (2)

| LOCATION | | | SIZE | | SPAN | | | REINFORCEMENT | | | | | | | | SIDE BAR | STIRRUPS | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | SPAN | | | | | | | | | | | | | | |
| BEAM MARKING | CATEGORY | GRID LINE OR BEAM MARK | WIDTH (mm) | DEPTH (mm) | LEFT END CANTILEVER Lc | SPAN (APPROX) L | RIGHT END CANTILEVER Rc | T1 | T2 | T3 | T4 | T5 | B1 | B2 | B3 | SB | S1 | S2 | S3 | S4 | TYPE | |
| RHB3 | 1 | – | 200 | 600 | – | 4350 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | T8-200 | T8-200 | T8-200 | – | 1 | – |
| RHB6 | 1 | – | 300 | 600 | – | 6350 | – | 3T25 | – | 3T25 | 3T32 | 2T32 | 3T32 | – | 2T20 | – | T10-100 | T10-100 | T10-100 | – | 1a | – |
| RHB8 | 1 | – | 300 | 600 | – | 4200 | – | 3T20 | 2T20 | 3T16 | 3T16 | – | 3T16 | – | – | – | T8-200 | T8-200 | T8-200 | – | 1a | – |
| RHB7 | 1 | – | 200 | 600 | – | 4350 | – | 2T16 | – | 2T16 | 2T16 | – | 2T20 | – | 2T16 | – | T8-150 | T8-200 | T8-150 | – | 1 | – |
| RHB9 | 1 | – | 300 | 600 | – | 7500 | – | 3T25 | 3T25 | 3T25 | 3T32 | 3T25 | 3T25 | – | 2T20 | – | T10-100 | T10-125 | T10-100 | – | 1a | – |
| RHB10 | 1 | – | 300 | 600 | – | 3350 | – | 3T20 | 3T20 | 3T20 | 3T20 | – | 3T16 | – | – | – | T8-200 | T8-200 | T8-200 | – | 1a | – |
| RHB11 | 1 | – | 200 | 600 | – | 4350 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | 2T16 | – | T8-200 | T8-200 | T8-200 | – | 1 | – |
| RVB1 | 1 | – | 300 | 800 | – | 4200 | – | 3T20 | 2T25 | 3T16 | 3T20 | 2T25 | 3T20 | – | – | – | T8-175 | T8-200 | T8-175 | – | 1a | – |
| RVB2 | 1 | – | 300 | 800 | – | 4100 | – | 3T25 | 2T25 | 3T20 | 3T25 | 2T25 | 3T25+ 2T20 | – | – | – | T8-100 | T8-125 | T8-100 | – | 1a | – |
| RVB3 | 1 | – | 300 | 800 | – | 3950 | – | 3T25 | 2T20 | 3T20 | 3T20 | 2T20 | 3T20 | – | – | – | T8-175 | T8-200 | T8-175 | – | 1a | – |
| RVB4 | 1 | – | 200 | 600 | – | 2400 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | T8-200 | T8-200 | T8-200 | – | 1 | – |
| RVB7 | 1 | – | 200 | 600 | – | 3450 | – | 2T20 | 2T16 | 2T16 | 2T16 | – | 2T16 | – | – | – | T8-100 | T8-200 | T8-100 | – | 1 | – |
| RVB15 | 1 | – | 200 | 600 | – | 2050 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | T8-200 | T8-200 | T8-200 | – | 1 | – |
| RVB16 | 1 | – | 200 | 600 | – | 2800 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | T8-200 | T8-200 | T8-200 | – | 1 | – |
| MARKING BEAM | CATEGORY | BEAM MARK OR GRID LINE | (mm) WIDTH | (mm) DEPTH | Lc CANTILEVER LEFT END | L (APPROX) SPAN | Rc CANTILEVER RIGHT END | T1 | T2 | T3 | T4 | T5 | B1 | B2 | B3 | BAR SIDE | S1 | S2 | S3 | S4 | TYPE | REMARKS |
| LOCATION | | | SIZE | | SPAN | | | REINFORCEMENT | | | | | | | | | STIRRUPS | | | | | |

XREF : BE1615_S-XREFA1_.dwg

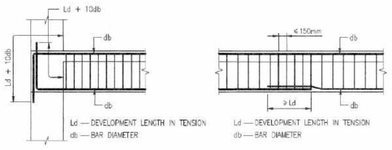
LEGEND

L ——LENGTH OF SPAN UNDER CONSIDERATION
Lc ——LENGTH OF LEFT END CANTILEVER
Rc ——LENGTH OF RIGHT END CANTILEVER
d ——EFFECTIVE DEPTH OF BEAM
db——MINIMUM DIA OF BAR
(1)——CATEGORY

Lx = Length of span under consideration or Length of adjacent span whichever is greater

NOTES :

1. FOR GENERAL NOTES REFER TO BE1620_/S-/M1/--/01
2. FOR STANDARD DETAILS REFER TO BE1620_/S-/SD/--/01
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE KEY PLAN AND ALL OTHER RELEVANT DRAWINGS.
4. IF THE REINFORCEMENT IS PROMPTED IN TWO LAYERS OR MORE, THEN SPACER BARS BETWEEN THE LAYERS NEED TO BE PROVIDED
5. SPACER BARS TO BE T25 OR MAIN BAR SIZE (WHICHEVER IS GREATER) AT 900c/c BETWEEN EACH LAYER OF MAIN STEEL
6. THE SPAN LENGTH INDICATED ARE NOT TO BE USED FOR SETTING OUT OR MEASUREMENT.
7. IF SAME SIZE OF THE REINFORCEMENT BARS IS INDICATED THROUGHOUT FOR BOTTOM OR TOP REINFORCEMENT, THE LAP PROVIDED FOR THE REINFORCEMENT CAN BE OMITTED BY PROVIDING STRAIGHT BARS FOR THE WHOLE LENGTH OF THE BEAM
8. LAP LENGTH FOR BARS SHOULD BE SAME AS TENSION ANCHORAGE LENGTH BASED UPON THE LARGER BAR DIAMETER FOR UNEQUAL SIZE OF BARS
9. FIRST STIRRUP OF BEAM SHOULD BE 50mm (MAXIMUM) FROM THE COLUMN FACE
10. NOT MORE THAN 50% BARS (EITHER TOP OR BOTTOM BARS) SHALL BE SPLICED AT ANY ONE SECTION
11. AT LAP ZONE, MAXIMUM SPACING OF THE LINKS SHALL NOT EXCEED 150MM.



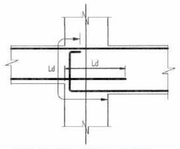

ANCHORAGE OF BEAM BARS AT BEAM AND COLUMN JUNCTION (EXTERNAL JOINT)

NOTE:
IN AN INTERNAL JOINT, BOTH TOP & BOTTOM BARS OF THE BEAM SHALL BE TAKEN CONTINUOUSLY THROUGH THE COLUMN.

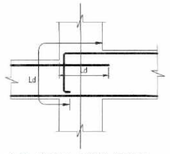



LAP/SPLICE IN BEAM

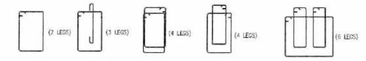
NOTE:
NOT MORE THAN 50 PERCENT OF THE BARS SHALL BE SPLICED AT ONE SECTION




DETAIL OF BEAM COLUMN JUNCTION
( JUNCTION OF BEAMS OF VARYING DEPTH)

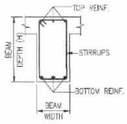



DETAIL OF BEAM COLUMN JUNCTION
( JUNCTION OF BEAMS OF VARYING DEPTH)

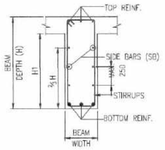



TYPE 1 TYPE 1a TYPE 2 TYPE 2a TYPE 3

TYPE 4 TORSIONAL LINKS TYPE 5 TORSIONAL LINKS TYPE 5a

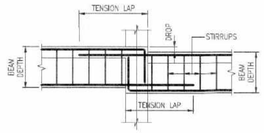



TYP. BEAM SECTION

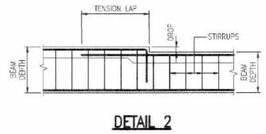



TYP. SIDE BARS DETAIL FOR H1 > 750

## STIRRUPS TYPE

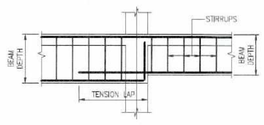



DETAIL 1

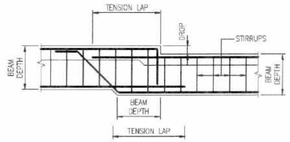



DETAIL 2

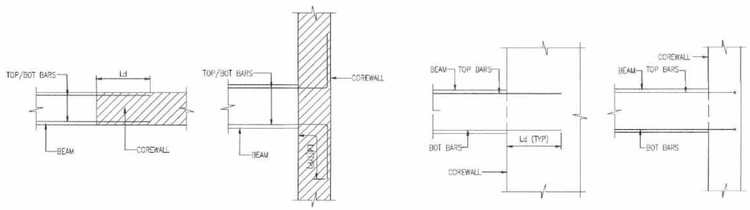
Wherever the drop is less than or equivalent to 50 The reinforcement bars can be bent at 1:10 and continued




DETAIL 3




DETAIL 4




PLAN PLAN ELEVATION ELEVATION

ROOFDETAIL AT CORE WALL LOCATION

ALL SETTING OUT DIMENSION SHOWN IN THE STRUCTURAL DRAWINGS, SHALL BE VERIFIED WITH THE LATEST ARCHITECTURAL DRAWINGS BEFORE COMMENCEMENT OF CONSTRUCTION. IF THERE IS ANY DISCREPANCY, IT SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. THE CONSTRUCTION CAN ONLY PROCEED UPON RECEIVING THE CONFIRMATION FROM THE ARCHITECT ON THE DIMENSIONS.

DATE OF ISSUE
26 DEC 2024
BURO ENGINEERS (I) PRIVATE LTD.

| NO. | AMENDMENTS | BY | DATE |
|---|---|---|---|
| – | ISSUE FOR CONSTRUCTION | MANI | 26/12/2024 |

**CONSTRUCTION DRAWING**

**STRUCTURAL**

Client
M/S.ARIHANT FOUNDATIONS & HOUSING LTD.,
NO.3,OLD NO.25,
GANAPATHY COLONY,3RD LANE OFF.
CENOTAPH ROAD
CHENNAI 600004

Architect
M/S.NATARAJ & VENKAT ARCHITECTS
18, 3RD SEAWARD RD,
VALMIKI NAGAR,
THIRUVANMIYUR,
CHENNAI 600 041
PH: 044-24572457

Civil & Structural Engineer :
**Buro Engineers (I) Private Ltd.,**
CIVIL & STRUCTURAL CONSULTANTS
NEW #31, OLD #14, BESANT AVENUE ROAD,
ADAYAR, CHENNAI-600020.
TEL: 42658573 / 74, FAX: 24662755

project title
**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

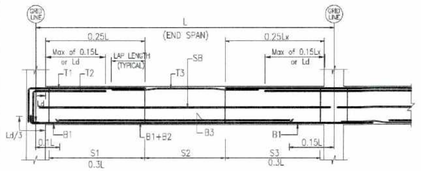
**STILT + 7TH FLOOR + ROOF FLOOR**

drawing title
**ROOF FLOOR BEAM DETAILS**

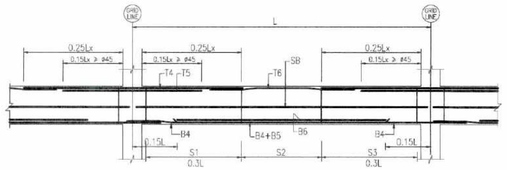
| | | | |
|---|---|---|---|
| scale | 1:100 | design by | ROHITH |
| drawn by | MANI | checked by | SIVA |
| date | DEC 2024 | approved by | PJ |
| drawing no. | BE1749_S-/BM/R-/--//01 | revision | – |

THIS DRAWING IS COPYRIGHT

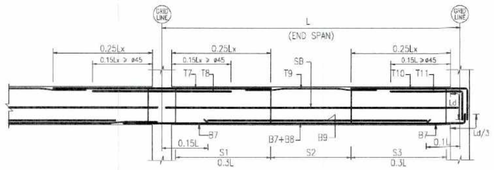
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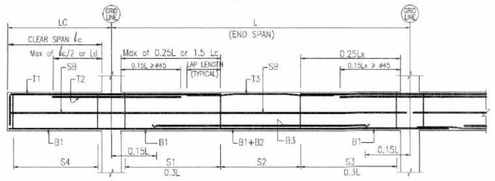

END SPAN BEAM [LHS] (1)




INTERMEDIATE SPAN BEAM (2)




END SPAN BEAM [RHS] (3)

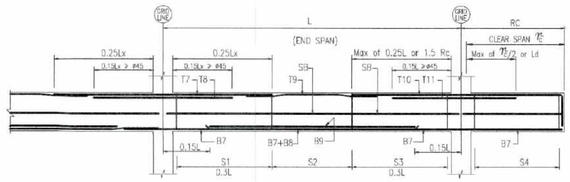



END SPAN BEAM [LHS] WITH CANTILEVER (4)

LEGEND

L —— LENGTH OF SPAN UNDER CONSIDERATION
La —— LENGTH OF ADJACENT SPAN TO THE SPAN UNDER CONSIDERATION
Lc —— LENGTH OF LEFT END CANTILEVER
Rc —— LENGTH OF RIGHT END CANTILEVER
(1) —— CATEGORY

Lx = Length of span under consideration or Length of adjacent span whichever is greater



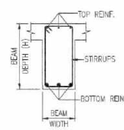

END SPAN BEAM [RHS] WITH CANTILEVER (5)

| LOCATION | | | SIZE | | SPAN | | | REINFORCEMENT | | | | | | | | | | | | | | | | | | SIDE BAR | STIRRUPS | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BEAM MARKING | CATEGORY | GRID LINE OR BEAM MARK | WIDTH (mm) | DEPTH (mm) | LEFT END CANTILEVER Lc | SPAN (APPROX) L | RIGHT END CANTILEVER Rc | LEFT END SPAN | | | | | | INTERMEDIATE SPAN | | | | | | RIGHT END SPAN | | | | | | | | | | | | | | |
| | | | | | | | | T1 | T2 | T3 | B1 | B2 | B3 | T4 | T5 | T6 | B4 | B5 | B6 | T7 | T8 | T9 | T10 | T11 | B7 | B8 | B9 | SB | S1 | S2 | S3 | S4 | TYPE | |
| RHB1 | 1 | – | 300 | 800 | – | 5575 | – | 3T20 | – | 3T20 | 3T25 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–175 | T8–200 | T8–175 | – | 1a | – |
| RHB2 | 3 | – | 300 | 800 | – | 8125 | – | – | – | – | – | – | – | – | – | – | – | – | – | 3T25 | 2T25 | 3T20 | 3T25 | 2T25 | 3T20 | – | – | – | T8–125 | T8–150 | T8–125 | – | 1a | – |
| RHB4 | 1 | – | 200 | 600 | – | 2800 | – | 2T16 | – | 2T16 | 2T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| RHB5 | 3 | – | 200 | 600 | – | 2950 | – | – | – | – | – | – | – | – | – | – | – | – | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| RHB12 | 1 | – | 300 | 800 | – | 5925 | – | 3T20 | – | 3T20 | 3T20 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| RHB13 | 3 | – | 300 | 800 | – | 7675 | – | – | – | – | – | – | – | – | – | – | – | – | – | 3T20 | 2T25 | 3T20 | 3T25 | 2T20 | 3T20 | – | – | – | T8–150 | T8–200 | T8–150 | – | 1a | – |
| RVB5 | 1 | – | 200 | 600 | – | 4800 | – | 2T20 | 2T20 | 2T16 | 2T20 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–100 | T8–200 | T8–100 | – | 1 | – |
| RVB6 | 3 | – | 200 | 600 | – | 1500 | – | – | – | – | – | – | – | – | – | – | – | – | – | 2T20 | – | 2T20 | 2T20 | – | 2T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| RVB8 | 1 | – | 300 | 600 | – | 4450 | – | 3T16 | – | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| RVB9 | 2 | – | 300 | 600 | – | 5100 | – | – | – | – | – | – | – | 3T16 | – | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| RVB10 | 2 | – | 300 | 600 | – | 2450 | – | – | – | – | – | – | – | 3T20 | 2T16 | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| RVB11 | 3 | – | 200 | 600 | – | 3450 | – | – | – | – | – | – | – | – | – | – | – | – | – | 3T16/ 2T16 | 2T16 | 2T16 | 2T16 | – | 2T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| RVB12 | 1 | – | 200 | 600 | – | 4450 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T10–125 | T10–200 | T10–125 | – | 1 | – |
| RVB13 | 2 | – | 200 | 600 | – | 4800 | – | – | – | – | – | – | – | 2T20 | 2T16 | 2T16 | 2T16 | – | 2T16 | – | – | – | – | – | – | – | – | – | T8–125 | T8–200 | T8–125 | – | 1 | – |
| RVB14 | 3 | – | 200 | 600 | – | 6200 | – | – | – | – | – | – | – | – | – | – | – | – | – | 2T20 | 2T16 | 2T16 | 2T16 | – | 2T25 | – | 2T16 | – | T8–125 | T8–200 | T8–125 | – | 1 | – |
| RVB17 | 1 | – | 300 | 800 | – | 4750 | – | 3T16 | 2T16 | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| RVB18 | 2 | – | 300 | 800 | – | 4800 | – | – | – | – | – | – | – | 3T16 | – | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| RVB19 | 3 | – | 300 | 800 | – | 6200 | – | – | – | – | – | – | – | – | – | – | – | – | – | 3T16 | – | 3T16 | 3T16 | 2T16 | 3T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| MARKING BEAM | CATEGORY | BEAM MARK OR GRID LINE | (mm) WIDTH | (mm) DEPTH | Lc CANTILEVER LEFT END | L (APPROX) SPAN | Rc CANTILEVER RIGHT END | T1 | T2 | T3 | B1 | B2 | B3 | T4 | T5 | T6 | B4 | B5 | B6 | T7 | T8 | T9 | T10 | T11 | B7 | B8 | B9 | BAR SIDE | S1 | S2 | S3 | S4 | TYPE | REMARKS |
| LOCATION | | | SIZE | | SPAN | | | LEFT END SPAN | | | | | | INTERMEDIATE SPAN | | | | | | RIGHT END SPAN | | | | | | | | STIRRUPS | | | | | |
| | | | | | | | | REINFORCEMENT | | | | | | | | | | | | | | | | | | | | | | | | | | |

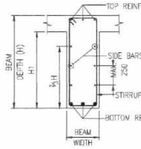
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NOTES :-

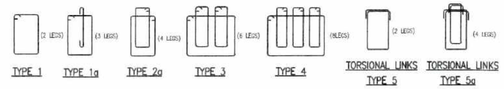
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5. SPACER BARS TO BE T25 OR MAIN BAR SIZE (WHICHEVER IS GREATER) AT 900c/c BETWEEN EACH LAYER OF MAIN STEEL.
6. THE SPAN LENGTH INDICATED ARE NOT TO BE USED FOR SETTING OUT OR MEASUREMENT.
7. IF SAME SIZE OF THE REINFORCEMENT BARS IS INDICATED THROUGHOUT FOR BOTTOM OR TOP REINFORCEMENT, THE LAP PROVIDED FOR THE REINFORCEMENT CAN BE OMITTED BY PROVIDING STRAIGHT BARS FOR THE WHOLE LENGTH OF THE BEAM
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10. NOT MORE THAN 50% BARS (EITHER TOP OR BOTTOM BARS) SHALL BE SPLICED AT ANY ONE SECTION
11. AT LAP ZONE, MAXIMUM SPACING OF THE LINKS SHALL NOT EXCEED 150MM.




TYP. BEAM SECTION

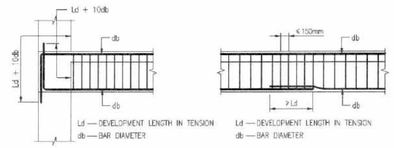



TYP. SIDE BARS DETAIL FOR H1 > 750




TYPE 1 TYPE 1a TYPE 2a TYPE 3 TYPE 4 TORSIONAL LINKS TYPE 5 TORSIONAL LINKS TYPE 5a

## STIRRUPS TYPE

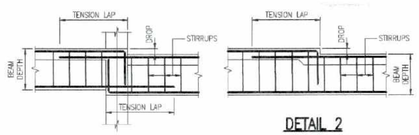



ANCHORAGE OF BEAM BARS AT BEAM AND COLUMN JUNCTION (EXTERNAL JOINT)

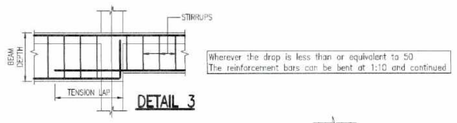
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LAP/SPLICE IN BEAM

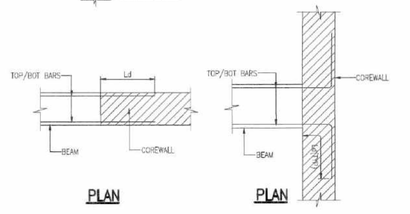
NOTE:
NOT MORE THAN 50 PERCENT OF THE BARS SHALL BE SPLICED AT ONE SECTION



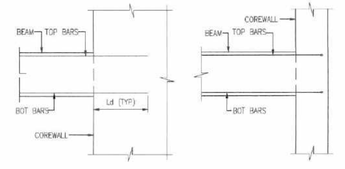

DETAIL 1 DETAIL 2




DETAIL 3




PLAN PLAN




ELEVATION ELEVATION

ROOFDETAIL AT CORE WALL LOCATION

ALL SETTING OUT DIMENSION SHOWN IN THE STRUCTURAL DRAWINGS, SHALL BE VERIFIED WITH THE LATEST ARCHITECTURAL DRAWINGS BEFORE COMMENCEMENT OF CONSTRUCTION. IF THERE IS ANY DISCREPANCY, IT SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. THE CONSTRUCTION CAN ONLY PROCEED UPON RECEIVING THE CONFIRMATION FROM THE ARCHITECT ON THE DIMENSIONS.

DATE OF ISSUE
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BURO ENGINEERS (I) PRIVATE LTD.

| NO | AMENDMENTS | BY | DATE |
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| – | ISSUE FOR CONSTRUCTION | MANI | 26/12/2024 |

**CONSTRUCTION DRAWING**
**STRUCTURAL**

Client
M/S.ARIHANT FOUNDATIONS & HOUSING LTD.,
NO.3,OLD NO.25,
CANAPATHY COLONY,3RD LANE OFF.
CENOTAPH ROAD
CHENNAI 600004

Architect
M/S.NATARAJ & VENKAT ARCHITECTS
18, 3RD SEAWARD RD,
VALMIKI NAGAR,
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TEL: 42658573 / 74, FAX: 24662755

project title
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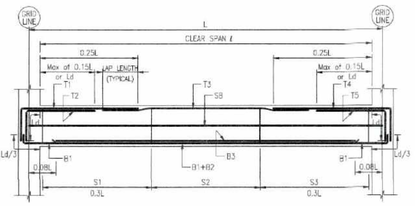
**STILT + 7TH FLOOR + ROOF FLOOR**

drawing title
**ROOF FLOOR BEAM DETAILS**

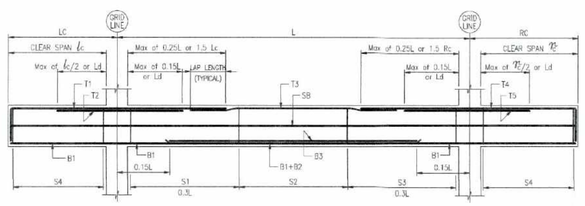
| scale | 1:100 | design by | ROHITH |
|---|---|---|---|
| drawn by | MANI | checked by | SIVA |
| date | DEC 2024 | approved by | PJ |
| drawing no. | BE1749_S-/BM/R-/--//02 | revision | – |

THIS DRAWING IS COPYRIGHT

CAD FILE NAME: BE1749_S-BMR---02_.dwg




TYPICAL DETAIL OF SINGLE SPAN BEAM (1)




TYPICAL DETAIL OF SINGLE SPAN BEAM WITH CANTILEVERS (2)

| LOCATION | | | SIZE | | SPAN | | | REINFORCEMENT | | | | | | | | SIDE BAR | STIRRUPS | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | SPAN | | | | | | | | | | | | | | |
| BEAM MARKING | CATEGORY | GRID LINE OR BEAM MARK | WIDTH (mm) | DEPTH (mm) | LEFT END CANTILEVER Lc | SPAN (APPROX) L | RIGHT END CANTILEVER Rc | T1 | T2 | T3 | T4 | T5 | B1 | B2 | B3 | SB | S1 | S2 | S3 | S4 | TYPE | |
| THB3 | 1 | – | 200 | 600 | – | 4350 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | T8-200 | T8-200 | T8-200 | – | 1 | – |
| THB5 | 1 | – | 300 | 600 | – | 6350 | – | 3T25 | – | 3T25 | 3T32 | 2T32 | 3T32 | – | 2T20 | – | T10-100 | T10-100 | T10-100 | – | 1a | – |
| THB8 | 1 | – | 300 | 600 | – | 4200 | – | 3T20 | 2T20 | 3T16 | 3T16 | – | 3T16 | – | – | – | T8-200 | T8-200 | T8-200 | – | 1a | – |
| THB7 | 1 | – | 200 | 600 | – | 4350 | – | 2T16 | – | 2T16 | 2T16 | – | 2T20 | – | 2T16 | – | T8-150 | T8-200 | T8-150 | – | 1 | – |
| THB9 | 1 | – | 300 | 600 | – | 7500 | – | 3T25 | 3T25 | 3T25 | 3T32 | 3T25 | 3T25 | – | 2T20 | – | T10-100 | T10-125 | T10-100 | – | 1a | – |
| THB10 | 1 | – | 300 | 600 | – | 3350 | – | 3T20 | 3T20 | 3T20 | 3T20 | – | 3T16 | – | – | – | T8-200 | T8-200 | T8-200 | – | 1a | – |
| THB11 | 1 | – | 200 | 600 | – | 4350 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | 2T16 | – | T8-200 | T8-200 | T8-200 | – | 1 | – |
| TVB1 | 1 | – | 300 | 800 | – | 4200 | – | 3T20 | 2T25 | 3T16 | 3T20 | 2T25 | 3T20 | – | – | – | T8-175 | T8-200 | T8-175 | – | 1a | – |
| TVB2 | 1 | – | 300 | 800 | – | 4100 | – | 3T25 | 2T25 | 3T20 | 3T25 | 2T25 | 3T25+ 2T20 | – | – | – | T8-100 | T8-125 | T8-100 | – | 1a | – |
| TVB3 | 1 | – | 300 | 800 | – | 3950 | – | 3T25 | 2T20 | 3T20 | 3T20 | 2T20 | 3T20 | – | – | – | T8-175 | T8-200 | T8-175 | – | 1a | – |
| TVB4 | 1 | – | 200 | 600 | – | 2400 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | T8-200 | T8-200 | T8-200 | – | 1 | – |
| TVB7 | 1 | – | 200 | 600 | – | 3450 | – | 2T20 | 2T16 | 2T16 | 2T16 | – | 2T16 | – | – | – | T8-100 | T8-200 | T8-100 | – | 1 | – |
| TVB15 | 1 | – | 200 | 600 | – | 2050 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | T8-200 | T8-200 | T8-200 | – | 1 | – |
| TVB16 | 1 | – | 200 | 600 | – | 2800 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | T8-200 | T8-200 | T8-200 | – | 1 | – |
| MARKING BEAM | CATEGORY | BEAM MARK OR GRID LINE | (mm) WIDTH | (mm) DEPTH | Lc CANTILEVER LEFT END | L (APPROX) SPAN | Rc CANTILEVER RIGHT END | T1 | T2 | T3 | T4 | T5 | B1 | B2 | B3 | SB | S1 | S2 | S3 | S4 | TYPE | REMARKS |
| LOCATION | | | SIZE | | SPAN | | | SPAN | | | | | | | | BAR SIDE | STIRRUPS | | | | | |
| | | | | | | | | REINFORCEMENT | | | | | | | | | | | | | | |

XREF : BE1815_S-XREFA1_.dwg

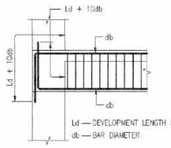
LEGEND

L ——LENGTH OF SPAN UNDER CONSIDERATION
Lc ——LENGTH OF LEFT END CANTILEVER
Rc ——LENGTH OF RIGHT END CANTILEVER
d ——EFFECTIVE DEPTH OF BEAM
db——MINIMUM DIA OF BAR
(1)——CATEGORY

Lx = Length of span under consideration or Length of adjacent span whichever is greater

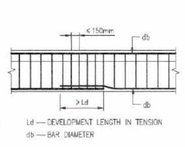
NOTES :-

1. FOR GENERAL NOTES REFER TO BE1820_/S-/NT/--/01
2. FOR STANDARD DETAILS REFER TO BE1820_/S-/SD/--/01
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE KEY PLAN AND ALL OTHER RELEVANT DRAWINGS.
4. IF THE REINFORCEMENT IS PROVIDED IN TWO LAYERS OR MORE, THEN SPACER BARS BETWEEN THE LAYERS NEED TO BE PROVIDED
5. SPACER BARS TO BE T25 OR MAIN BAR SIZE (WHICHEVER IS GREATER) AT 900c/c BETWEEN EACH LAYER OF MAIN STEEL.
6. THE SPAN LENGTH INDICATED ARE NOT TO BE USED FOR SETTING OUT OR MEASUREMENT.
7. IF SAME SIZE OF THE REINFORCEMENT BARS IS INDICATED THROUGHOUT FOR BOTTOM OR TOP REINFORCEMENT, THE LAP PROVIDED FOR THE REINFORCEMENT CAN BE OMITTED BY PROVIDING STRAIGHT BARS FOR THE WHOLE LENGTH OF THE BEAM.
8. LAP LENGTH FOR BARS SHOULD BE SAME AS TENSION ANCHORAGE LENGTH BASED UPON THE LARGER BAR DIAMETER FOR UNEQUAL SIZE OF BARS
9. FIRST STIRRUP OF BEAM SHOULD BE 50mm (MAXIMUM) FROM THE COLUMN FACE
10. NOT MORE THAN SIX BARS (EITHER TOP OR BOTTOM BARS) SHALL BE SPLICED AT ANY ONE SECTION
11. AT LAP ZONE, MAXIMUM SPACING OF THE LINKS SHALL NOT EXCEED 150MM.



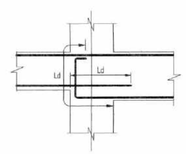

ANCHORAGE OF BEAM BARS AT BEAM AND COLUMN JUNCTION (EXTERNAL JOINT)

NOTE:
IN AN INTERNAL JOINT, BOTH TOP & BOTTOM BARS OF THE BEAM SHALL BE TAKEN CONTINUOUSLY THROUGH THE COLUMN

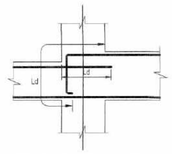



LAP/SPLICE IN BEAM

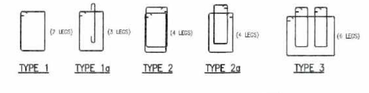
NOTE:
NOT MORE THAN 50 PERCENT OF THE BARS SHALL BE SPLICED AT ONE SECTION




DETAIL OF BEAM COLUMN JUNCTION
( JUNCTION OF BEAMS OF VARYING DEPTH)

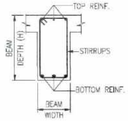



DETAIL OF BEAM COLUMN JUNCTION
( JUNCTION OF BEAMS OF VARYING DEPTH)

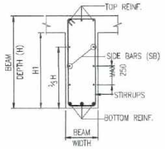



TYPE 1 TYPE 1a TYPE 2 TYPE 2a TYPE 3

TYPE 4 TORSIONAL LINKS TYPE 5 TORSIONAL LINKS TYPE 5a

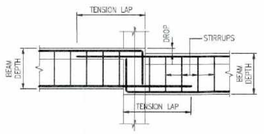



TYP. BEAM SECTION

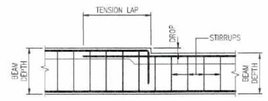



TYP. SIDE BARS DETAIL FOR H1 > 750

STIRRUPS TYPE

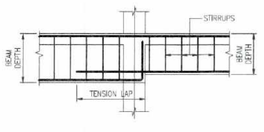



DETAIL 1

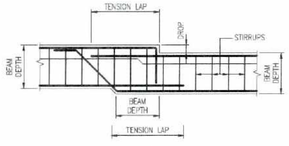



DETAIL 2

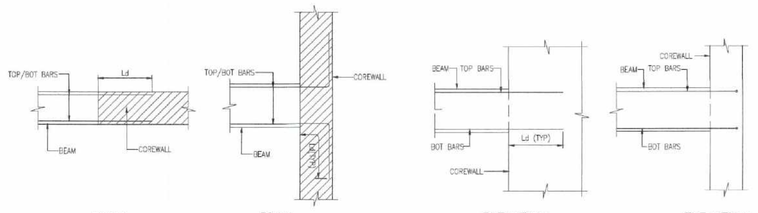
Wherever the drop is less than or equivalent to 50 The reinforcement bars can be bent at 1:10 and continued




DETAIL 3




DETAIL 4




PLAN PLAN ELEVATION ELEVATION

TYPICAL DETAIL AT CORE WALL LOCATION

ALL SETTING OUT DIMENSION SHOWN IN THE STRUCTURAL DRAWINGS, SHALL BE VERIFIED WITH THE LATEST ARCHITECTURAL DRAWINGS BEFORE COMMENCEMENT OF CONSTRUCTION. IF THERE IS ANY DISCREPANCY, IT SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. THE CONSTRUCTION CAN ONLY PROCEED UPON RECEIVING THE CONFIRMATION FROM THE ARCHITECT ON THE DIMENSIONS.

DATE OF ISSUE
26 DEC 2024
BURO ENGINEERS (I) PRIVATE LTD

| NO | AMENDMENTS | BY | DATE |
|---|---|---|---|
| – | ISSUE FOR CONSTRUCTION | MANI | 26/12/2024 |

**CONSTRUCTION DRAWING**
**STRUCTURAL**

Client
M/S.ARIHANT FOUNDATIONS & HOUSING LTD.,
NO.3,OLD NO.25,
GANAPATHY COLONY,3RD LANE OFF.
CENOTAPH ROAD
CHENNAI 600004

Architect
M/S.NATARAJ & VENKAT ARCHITECTS
18, 3RD SEAWARD RD,
VALMIKI NAGAR,
THIRUVANMIYUR,
CHENNAI 600 041
PH. 044-24572457

Civil & Structural Engineer :
**Buro Engineers (I) Private Ltd.,**
CIVIL & STRUCTURAL CONSULTANTS
NEW #31, OLD #14, BESANT AVENUE ROAD,
ADAYAR, CHENNAI-600020.
TEL: 42658573 / 74, FAX: 24662755

project title
**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

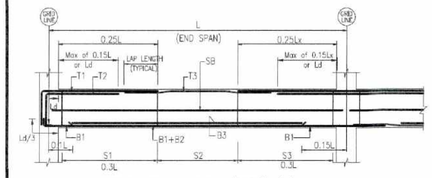
**STILT + 7TH FLOOR + ROOF FLOOR**

drawing title
**TYPICAL FLOOR BEAM DETAILS**
(2nd,3rd,4th,5th,6th & 7th) FLOORS

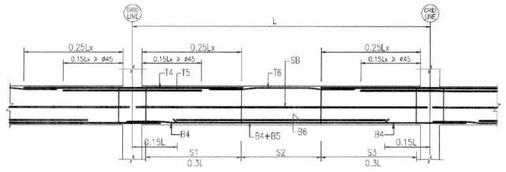
| | | | |
|---|---|---|---|
| scale | 1:100 | design by | ROHITH |
| drawn by | MANI | checked by | SIVA |
| date | DEC 2024 | approved by | PJ |
| drawing no. | BE1749_S-/BM/T-/--//01 | revision | – |

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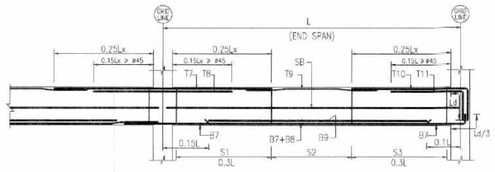
CAD FILE NAME: BE1749_S-BMT---01_.dwg



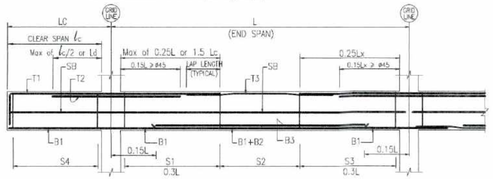

END SPAN BEAM [LHS] (1)




INTERMEDIATE SPAN BEAM (2)




END SPAN BEAM [RHS] (3)

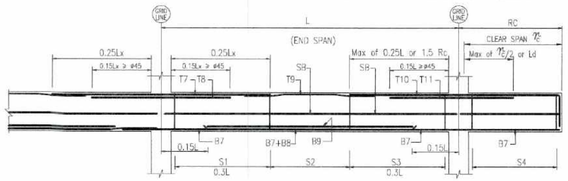



END SPAN BEAM [LHS] WITH CANTILEVER (4)

LEGEND

L —— LENGTH OF SPAN UNDER CONSIDERATION
La —— LENGTH OF ADJACENT SPAN TO THE SPAN UNDER CONSIDERATION
Lc —— LENGTH OF LEFT END CANTILEVER
Rc —— LENGTH OF RIGHT END CANTILEVER
(1) —— CATEGORY

Lx = Length of span under consideration or Length of adjacent span whichever is greater



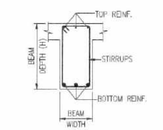

END SPAN BEAM [RHS] WITH CANTILEVER (5)

| LOCATION | | | SIZE | | SPAN | | | REINFORCEMENT | | | | | | | | | | | | | | | | | | SIDE BAR | STIRRUPS | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BEAM MARKING | CATEGORY | GRID LINE OR BEAM MARK | WIDTH (mm) | DEPTH (mm) | LEFT END CANTILEVER Lc | SPAN (APPROX) L | RIGHT END CANTILEVER Rc | LEFT END SPAN | | | | | | INTERMEDIATE SPAN | | | | | | RIGHT END SPAN | | | | | | | | | | | | | |
| | | | | | | | | T1 | T2 | T3 | B1 | B2 | B3 | T4 | T5 | T6 | B4 | B5 | B6 | T7 | T8 | T9 | T10 | T11 | B7 | B8 | B9 | SB | S1 | S2 | S3 | S4 | TYPE | |
| TVB1 | 1 | – | 300 | 800 | – | 5575 | – | 3T20 | – | 3T20 | 3T25 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–175 | T8–200 | T8–175 | – | 1a | – |
| TVB2 | 3 | – | 300 | 800 | – | 8125 | – | – | – | – | – | – | – | – | – | – | – | – | – | 3T25 | 2T25 | 3T20 | 3T25 | 2T25 | 3T20 | – | – | – | T8–125 | T8–150 | T8–125 | – | 1a | – |
| TVB4 | 1 | – | 200 | 600 | – | 2800 | – | 2T16 | – | 2T16 | 2T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| TVB5 | 3 | – | 200 | 600 | – | 2950 | – | – | – | – | – | – | – | – | – | – | – | – | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| TVB12 | 1 | – | 300 | 800 | – | 5925 | – | 3T20 | – | 3T20 | 3T20 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| TVB13 | 3 | – | 300 | 800 | – | 7675 | – | – | – | – | – | – | – | – | – | – | – | – | – | 3T20 | 2T25 | 3T20 | 3T25 | 2T20 | 3T20 | – | – | – | T8–150 | T8–200 | T8–150 | – | 1a | – |
| TVB5 | 1 | – | 200 | 600 | – | 4600 | – | 2T20 | 2T20 | 2T16 | 2T20 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–100 | T8–200 | T8–100 | – | 1 | – |
| TVB6 | 3 | – | 200 | 600 | – | 1500 | – | – | – | – | – | – | – | – | – | – | – | – | – | 2T20 | – | 2T20 | 2T20 | – | 2T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| TVB8 | 1 | – | 300 | 600 | – | 4450 | – | 3T16 | – | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| TVB9 | 2 | – | 300 | 600 | – | 5100 | – | – | – | – | – | – | – | 3T16 | – | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| TVB10 | 2 | – | 300 | 600 | – | 2450 | – | – | – | – | – | – | – | 3T20 | 2T16 | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| TVB11 | 3 | – | 200 | 600 | – | 3450 | – | – | – | – | – | – | – | – | – | – | – | – | – | 3T16/ 2T16 | 2T16 | 2T16 | 2T16 | – | 2T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| TVB12 | 1 | – | 200 | 600 | – | 4450 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T10–125 | T10–200 | T10–125 | – | 1 | – |
| TVB13 | 2 | – | 200 | 600 | – | 4800 | – | – | – | – | – | – | – | 2T20 | 2T16 | 2T16 | 2T16 | – | 2T16 | – | – | – | – | – | – | – | – | – | T8–125 | T8–200 | T8–125 | – | 1 | – |
| TVB14 | 3 | – | 200 | 600 | – | 6200 | – | – | – | – | – | – | – | – | – | – | – | – | – | 2T20 | 2T16 | 2T16 | 2T16 | – | 2T25 | – | 2T16 | – | T8–125 | T8–200 | T8–125 | – | 1 | – |
| TVB17 | 1 | – | 300 | 800 | – | 4750 | – | 3T16 | 2T16 | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| TVB18 | 2 | – | 300 | 800 | – | 4800 | – | – | – | – | – | – | – | 3T16 | – | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| TVB19 | 3 | – | 300 | 800 | – | 6200 | – | – | – | – | – | – | – | – | – | – | – | – | – | 3T16 | – | 3T16 | 3T16 | 2T16 | 3T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| MARKING BEAM | CATEGORY | BEAM MARK OR GRID LINE | (mm) WIDTH | (mm) DEPTH | Lc CANTILEVER LEFT END | L (APPROX) SPAN | Rc CANTILEVER RIGHT END | T1 | T2 | T3 | B1 | B2 | B3 | T4 | T5 | T6 | B4 | B5 | B6 | T7 | T8 | T9 | T10 | T11 | B7 | B8 | B9 | SB | S1 | S2 | S3 | S4 | TYPE | REMARKS |
| LOCATION | | | SIZE | | SPAN | | | LEFT END SPAN | | | | | | INTERMEDIATE SPAN | | | | | | RIGHT END SPAN | | | | | | | | BAR SIDE | STIRRUPS | | | | | |
| | | | | | | | | REINFORCEMENT | | | | | | | | | | | | | | | | | | | | | | | | | | |

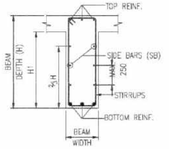
XREF : BEI615_S-XREFA1_.dwg

NOTES:-

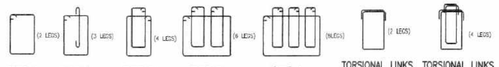
1. FOR GENERAL NOTES REFER TO BEI620_/S-/NT/---/01
2. FOR STANDARD DETAILS REFER TO BEI620_/S-/SD/---/01
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE KEY PLAN AND ALL OTHER RELEVANT DRAWINGS.
4. IF THE REINFORCEMENT IS PROVIDED IN TWO LAYERS OR MORE, THEN SPACER BARS BETWEEN THE LAYERS NEED TO BE PROVIDED
5. SPACER BARS TO BE T25 OR MAIN BAR SIZE (WHICHEVER IS GREATER) AT 900c/c BETWEEN EACH LAYER OF MAIN STEEL.
6. THE SPAN LENGTH INDICATED ARE NOT TO BE USED FOR SETTING OUT OR MEASUREMENT.
7. IF SAME SIZE OF THE REINFORCEMENT BARS IS INDICATED THROUGHOUT FOR BOTTOM OR TOP REINFORCEMENT, THE LAP PROVIDED FOR THE REINFORCEMENT CAN BE OMITTED BY PROVIDING STRAIGHT BARS FOR THE WHOLE LENGTH OF THE BEAM
8. LAP LENGTH FOR BARS SHOULD BE SAME AS TENSION ANCHORAGE LENGTH BASED UPON THE LARGER BAR DIAMETER FOR UNEQUAL SIZE OF BARS.
9. FIRST STIRRUP OF BEAM SHOULD BE 50mm (MAXIMUM) FROM THE COLUMN FACE
10. NOT MORE THAN 50% BARS (EITHER TOP OR BOTTOM BARS) SHALL BE SPLICED AT ANY ONE SECTION
11. AT LAP ZONE, MAXIMUM SPACING OF THE LINKS SHALL NOT EXCEED 150MM.




TYP. BEAM SECTION

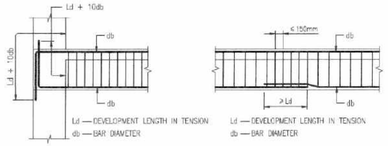



TYP. SIDE BARS DETAIL FOR H1 > 750




TYPE 1 TYPE 1a TYPE 2a TYPE 3 TYPE 4 TORSIONAL LINKS TYPE 5 TORSIONAL LINKS TYPE 5a

## STIRRUPS TYPE

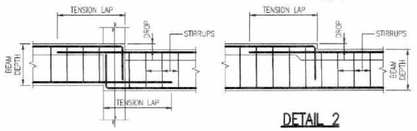



ANCHORAGE OF BEAM BARS AT BEAM AND COLUMN JUNCTION (EXTERNAL JOINT)

NOTE:
IN AN INTERNAL JOINT, BOTH TOP & BOTTOM BARS OF THE BEAM SHALL BE TAKEN CONTINUOUSLY THROUGH THE COLUMN

LAP/SPLICE IN BEAM

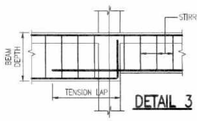
NOTE:
NOT MORE THAN 50 PERCENT OF THE BARS SHALL BE SPLICED AT ONE SECTION




DETAIL 1

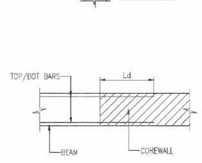



DETAIL 2

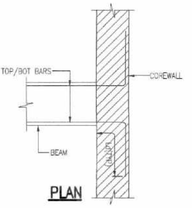



Wherever the drop is less than or equivalent to 50 The reinforcement bars can be bent at 1:10 and continued

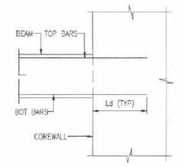
DETAIL 3



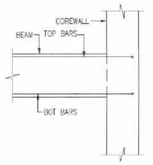

PLAN




PLAN




ELEVATION




ELEVATION

TYPICAL DETAIL AT CORE WALL LOCATION

ALL SETTING OUT DIMENSION SHOWN IN THE STRUCTURAL DRAWINGS, SHALL BE VERIFIED WITH THE LATEST ARCHITECTURAL DRAWINGS BEFORE COMMENCEMENT OF CONSTRUCTION. IF THERE IS ANY DISCREPANCY, IT SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. THE CONSTRUCTION CAN ONLY PROCEED UPON RECEIVING THE CONFIRMATION FROM THE ARCHITECT ON THE DIMENSIONS.

DATE OF ISSUE
28 DEC 2024
BURO ENGINEERS (I) PRIVATE LTD.

| NO. | AMENDMENTS | BY | DATE |
|---|---|---|---|
| – | ISSUE FOR CONSTRUCTION | MANI | 26/12/2024 |

**CONSTRUCTION DRAWING**
**STRUCTURAL**

Client
M/S.ARIHANT FOUNDATIONS & HOUSING LTD.,
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CANAPATHY COLONY,3RD LANE OFF.
CENOTAPH ROAD
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ADAYAR, CHENNAI-600020.
TEL: 42658573 / 74, FAX: 24662755

project title
**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

**STILT + 7TH FLOOR + ROOF FLOOR**

drawing title
**TYPICAL FLOOR BEAM DETAILS**
(2nd,3rd,4th,5th,6th & 7th) FLOORS

| | | | |
|---|---|---|---|
| scale | 1:100 | design by | ROHITH |
| drawn by | MANI | checked by | SIVA |
| date | DEC 2024 | approved by | PJ |
| drawing no. | BEI749_S-/BM/T-/---//02 | revision | – |

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CAD FILE NAME: BEI749_S-BMT---02_.dwg

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ROOF LEVEL TO UPPER ROOF LEVEL | M40 : Fe500 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T8 @ 100/200/100 | | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T10 @ 100/200/100 | M40 : Fe500 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T8 @ 100/200/100 | 6TH FLOOR LEVEL TO ROOF LEVEL | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>24-T12 + 10-T10 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @100/250/100<br>32-T20 | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>18-T20 + 8-T12 | M40:Fe550 (M):Fe415 (S),COVER = 40MM<br>14-T12 + 4-T10 | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>20-T12 + 8-T10 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @ 100/250/100<br>12-T20 + 14-T16 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @ 100/250/100<br>32-T20 |
| 7TH FLOOR LEVEL TO ROOF LEVEL | M40 : Fe500 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T10 @ 100/200/100 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T10 @ 100/200/100 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T8 @ 100/200/100 | | 5TH FLOOR LEVEL TO 6TH FLOOR LEVL | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>24-T12 + 10-T10 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @100/250/100<br>32-T20 | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>18-T20 + 8-T12 | M40:Fe550 (M):Fe415 (S),COVER = 40MM<br>14-T12 + 4-T10 | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>20-T12 + 8-T10 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @ 100/250/100<br>12-T20 + 14-T16 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @ 100/250/100<br>32-T20 |
| 6TH FLOOR LEVEL TO 7TH FLOOR LEVEL | M40 : Fe500 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T8 @ 100/200/100 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T10 @ 100/200/100 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T8 @ 100/200/100 | | 4TH FLOOR LEVEL TO 5TH FLOOR LEVEL | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>24-T12 + 10-T10 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @100/250/100<br>32-T20 | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>18-T20 + 8-T12 | M40:Fe550 (M):Fe415 (S),COVER = 40MM<br>14-T12 + 4-T10 | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>20-T12 + 8-T10 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @ 100/250/100<br>12-T20 + 14-T16 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @ 100/250/100<br>32-T20 |
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| 4TH FLOOR LEVEL TO 5TH FLOOR LEVEL | M40 : Fe500 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T8 @ 100/200/100 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T10 @ 100/200/100 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T8 @ 100/200/100 | | 2ND FLOOR LEVEL TO 3RD FLOOR LEVEL | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>24-T12 + 10-T10 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @100/250/100<br>32-T20 | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>18-T20 + 8-T12 | M40:Fe550 (M):Fe415 (S),COVER = 40MM<br>14-T12 + 4-T12 | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>20-T12 + 8-T10 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @ 100/250/100<br>12-T20 + 14-T16 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @ 100/250/100<br>32-T20 |
| 3RD FLOOR LEVEL TO 4TH FLOOR LEVEL | M40 : Fe500 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T8 @ 100/200/100 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T10 @ 100/200/100 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T8 @ 100/200/100 | | 1ST FLOOR LEVEL TO 2ND FLOOR LEVEL | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>24-T12 + 10-T10 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @100/250/100<br>32-T20 | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>18-T20 + 8-T12 | M40:Fe550 (M):Fe415 (S),COVER = 40MM<br>14-T12 + 4-T12 | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>20-T12 + 8-T10 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @ 100/250/100<br>12-T20 + 14-T16 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @ 100/250/100<br>32-T20 |
| 2ND FLOOR LEVEL TO 3RD FLOOR LEVEL | M40 : Fe500 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T8 @ 100/200/100 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T10 @ 100/200/100 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T8 @ 100/200/100 | | GROUND FLOOR LEVEL TO 1ST FLOOR LEVEL | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>24-T12 + 10-T10 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @100/250/100<br>32-T20 | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>18-T20 + 8-T12 | M40:Fe550 (M):Fe415 (S),COVER = 40MM<br>14-T25 + 4-T12 | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>20-T12 + 8-T10 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @ 100/250/100<br>12-T20 + 14-T16 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @ 100/250/100<br>32-T20 |
| 1ST FLOOR LEVEL TO 2ND FLOOR LEVEL | M40 : Fe500 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T8 @ 100/200/100 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T10 @ 100/200/100 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T8 @ 100/200/100 | | GROUND FLOOR LEVEL TO 1ST FLOOR LEVEL | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>24-T12 + 10-T10 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @100/250/100<br>32-T20 | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>20-T20 + 8-T16 | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>14-T32 + 4-T25 | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>(12T16+8T12) + 8-T10 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @ 100/250/100<br>12-T20 + 14-T16 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @ 100/250/100<br>32-T20 |
| GROUND FLOOR LEVEL TO 1ST FLOOR LEVEL | M40 : Fe500 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T8 @ 100/200/100 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T8 @ 200 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T10 @ 100/200/100 | M40 : Fe500 (M) : Fe415 (S) , COVER = 40MM<br>LINKS<br>T8 @ 100/200/100 | BASEMENT FLOOR TO GROUND FLOOR LEVEL | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>24-T12 + 10-T10 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T10 @100/250/100<br>4-(2#132) + 22-T32 | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>20-T20 + 8-T16 | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>14-T32 + 4-T25 | M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM<br>MAIN LINKS: T8 @ 100 / OTHER LINKS: T8@ 150<br>(12T16+8T12) + 8-T10 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @ 100/250/100<br>12-T20 + 14-T16 | M40 : Fe550 (M) : Fe415 (S) , COVER = 40MM<br>LINKS: T8 @ 100/250/100<br>32-T20 |
| COLUMN MARKED | C1, C2, C9, C10, | FC1,FC2,FC3,FC4 FC5,FC6,FC7,FC8, | C3, C4, C7, C8, | C5, C6 | COLUMN MARKED | P1, | P2, | P8, | P12, | P13, | P14, | P15, |

ALL SETTING OUT DIMENSION SHOWN IN THE STRUCTURAL DRAWINGS, SHALL BE VERIFIED WITH THE LATEST ARCHITECTURAL DRAWINGS BEFORE COMMENCEMENT OF CONSTRUCTION. IF THERE IS ANY DISCREPANCY, IT SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. THE CONSTRUCTION CAN ONLY PROCEED UPON RECEIVING THE CONFIRMATION FROM THE ARCHITECT ON THE DIMENSIONS.

DATE OF ISSUE
23 JAN 2025
BURO ENGINEERS (I) PRIVATE LTD.

| NO. | AMENDMENTS | BY | DATE |
|---|---|---|---|
| | ISSUE FOR CONSTRUCTION | MANI | 23-01-2025 |

**CONSTRUCTION DRAWING**
**STRUCTURAL**

Client
M/S.ARIHANT FOUNDATIONS & HOUSING LTD.,
NO.3,OLD NO.25,
CANAPATHY COLONY,3RD LANE OFF.
CENOTAPH ROAD
CHENNAI 600004

Architect
M/S.NATARAJ & VENKAT ARCHITECTS
18, 3RD SEAWARD RD,
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TEL: 42658573 / 74, FAX: 24662755

project title
**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

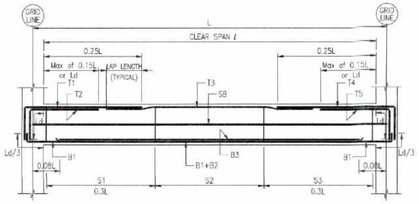
**STILT + 7TH FLOOR + ROOF FLOOR**

drawing title
**SHEAR WALL DETAILS**

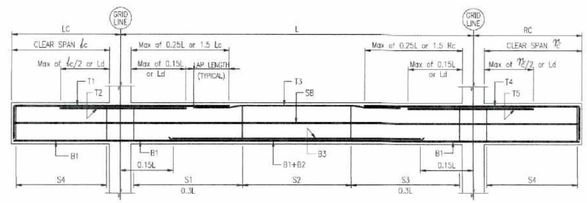
| | | | |
|---|---|---|---|
| scale | 1:100 | design by | JOSHI |
| drawn by | MANI | checked by | SIVA |
| date | DEC 2024 | approved by | PJ |
| drawing no. | BEI749_S-/SW/DT/--/01 | revision | - |

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CAD FILE NAME: BEI749_S-SW-DT--01_.dwg




TYPICAL DETAIL OF SINGLE SPAN BEAM (1)




TYPICAL DETAIL OF SINGLE SPAN BEAM WITH CANTILEVERS (2)

| LOCATION | | | SIZE | | SPAN | | | REINFORCEMENT | | | | | | | | SIDE BAR | STIRRUPS | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | SPAN | | | | | | | | | | | | | | |
| BEAM MARKING | CATEGORY | GRID LINE OR BEAM MARK | WIDTH (mm) | DEPTH (mm) | LEFT END CANTILEVER Lc | SPAN (APPROX) L | RIGHT END CANTILEVER Rc | T1 | T2 | T3 | T4 | T5 | B1 | B2 | B3 | SB | S1 | S2 | S3 | S4 | TYPE | |
| 1HB9 | 1 | – | 200 | 600 | – | 4350 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | T8-200 | T8-200 | T8-200 | – | 1 | – |
| 1HB12 | 1 | – | 300 | 600 | – | 6350 | – | 3T25 | – | 3T25 | 3T32 | 2T32 | 3T32 | – | 2T20 | – | T10-100 | T10-100 | T10-100 | – | 1a | – |
| 1HB13 | 1 | – | 300 | 600 | – | 4200 | – | 3T20 | 2T16 | 3T16 | 3T16 | – | 3T16 | – | – | – | T8-200 | T8-200 | T8-200 | – | 1a | – |
| 1HB14 | 1 | – | 200 | 600 | – | 4350 | – | 2T16 | – | 2T16 | 2T16 | – | 2T20 | – | 2T16 | – | T8-150 | T8-200 | T8-150 | – | 1 | – |
| 1HB15 | 1 | – | 300 | 600 | – | 7500 | – | 3T25 | 3T25 | 3T20 | 3T25 | 3T25 | 3T25 | – | 2T20 | – | T10-100 | T10-125 | T10-100 | – | 1a | – |
| 1HB16 | 1 | – | 300 | 600 | – | 3350 | – | 3T20 | 2T16 | 3T20 | 3T20 | – | 3T16 | – | – | – | T8-200 | T8-200 | T8-200 | – | 1a | – |
| 1HB16a | 1 | – | 200 | 600 | – | 4350 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | 2T16 | – | T8-200 | T8-200 | T8-200 | – | 1 | – |
| 1VB3 | 1 | – | 300 | 800 | – | 4200 | – | 3T20 | 2T16 | 3T16 | 3T20 | 2T16 | 3T16 | – | – | – | T8-200 | T8-200 | T8-200 | – | 1a | – |
| 1VB4 | 1 | – | 300 | 800 | – | 4100 | – | 3T25 | 2T25 | 3T20 | 3T25 | 2T25 | 3T25+ 2T20 | – | – | – | T8-125 | T8-125 | T8-125 | – | 1a | – |
| 1VB5 | 1 | – | 300 | 800 | – | 3950 | – | 3T20 | 2T20 | 3T20 | 3T20 | 2T20 | 3T16 | – | – | – | T8-200 | T8-200 | T8-200 | – | 1a | – |
| 1VB8 | 1 | – | 200 | 600 | – | 2400 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | T8-200 | T8-200 | T8-200 | – | 1 | – |
| 1VB15 | 1 | – | 200 | 800 | – | 3450 | – | 2T20 | – | 2T20 | 2T25 | 2T20 | 2T16 | – | – | – | T8-100 | T8-175 | T8-100 | – | 1 | – |
| 1VB27 | 1 | – | 200 | 600 | – | 2050 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | T8-200 | T8-200 | T8-200 | – | 1 | – |
| 1VB28 | 1 | – | 200 | 600 | – | 2800 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | T8-200 | T8-200 | T8-200 | – | 1 | – |
| MARKING BEAM | CATEGORY | BEAM MARK OR GRID LINE | (mm) WIDTH | (mm) DEPTH | Lc CANTILEVER LEFT END | L (APPROX) SPAN | Rc CANTILEVER RIGHT END | T1 | T2 | T3 | T4 | T5 | B1 | B2 | B3 | BAR SIDE | S1 | S2 | S3 | S4 | TYPE | REMARKS |
| LOCATION | | | SIZE | | SPAN | | | REINFORCEMENT | | | | | | | | | STIRRUPS | | | | | |

XREF : BEI615_S-XREF#1_.dwg

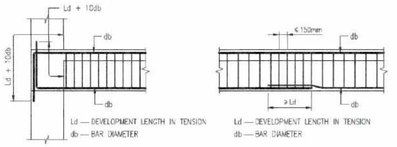
LEGEND

L ——LENGTH OF SPAN UNDER CONSIDERATION
Lc ——LENGTH OF LEFT END CANTILEVER
Rc ——LENGTH OF RIGHT END CANTILEVER
d ——EFFECTIVE DEPTH OF BEAM
db——MINIMUM DIA OF BAR
(1)——CATEGORY

Lx = Length of span under consideration or Length of adjacent span whichever is greater

NOTES :

1. FOR GENERAL NOTES REFER TO BEI620_/S-/NT/--/01
2. FOR STANDARD DETAILS REFER TO BEI620_/S-/SD/--/01
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE KEY PLAN AND ALL OTHER RELEVANT DRAWINGS.
4. IF THE REINFORCEMENT IS PROVIDED IN TWO LAYERS OR MORE, THEN SPACER BARS BETWEEN THE LAYERS NEED TO BE PROVIDED
5. SPACER BARS TO BE T25 OR MAIN BAR SIZE (WHICHEVER IS GREATER) AT 900c/c BETWEEN EACH LAYER OF MAIN STEEL
6. THE SPAN LENGTH INDICATED ARE NOT TO BE USED FOR SETTING OUT OR MEASUREMENT.
7. IF SAME SIZE OF THE REINFORCEMENT BARS IS INDICATED THROUGHOUT FOR BOTTOM OR TOP REINFORCEMENT, THE LAP PROVIDED FOR THE REINFORCEMENT CAN BE OMITTED BY PROVIDING STRAIGHT BARS FOR THE WHOLE LENGTH OF THE BEAM
8. LAP LENGTH FOR BARS SHOULD BE SAME AS TENSION ANCHORAGE LENGTH BASED UPON THE LARGER BAR DIAMETER FOR UNEQUAL SIZE OF BARS
9. FIRST STIRRUP OF BEAM SHOULD BE 50mm (MAXIMUM) FROM THE COLUMN FACE
10. NOT MORE THAN 50% BARS (EITHER TOP OR BOTTOM BARS) SHALL BE SPLICED AT ANY ONE SECTION
11. AT LAP ZONE, MAXIMUM SPACING OF THE LINKS SHALL NOT EXCEED 150MM.



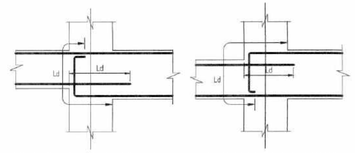

ANCHORAGE OF BEAM BARS AT BEAM AND COLUMN JUNCTION (EXTERNAL JOINT)

NOTE:
IN AN INTERNAL JOINT, BOTH TOP & BOTTOM BARS OF THE BEAM SHALL BE TAKEN CONTINUOUSLY THROUGH THE COLUMN




LAP/SPLICE IN BEAM

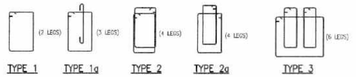
NOTE:
NOT MORE THAN 50 PERCENT OF THE BARS SHALL BE SPLICED AT ONE SECTION




DETAIL OF BEAM COLUMN JUNCTION
( JUNCTION OF BEAMS OF VARYING DEPTH)

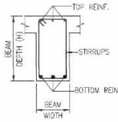



DETAIL OF BEAM COLUMN JUNCTION
( JUNCTION OF BEAMS OF VARYING DEPTH)

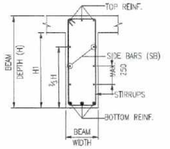



TYPE 1 TYPE 1a TYPE 2 TYPE 2a TYPE 3

TYPE 4 TORSIONAL LINKS TYPE 5 TORSIONAL LINKS TYPE 5a

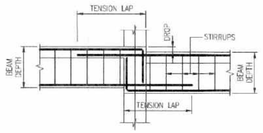



TYP. BEAM SECTION

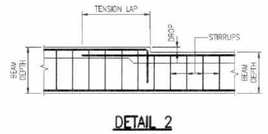



TYP. SIDE BARS DETAIL FOR H1 > 750

## STIRRUPS TYPE

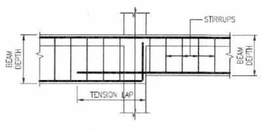



DETAIL 1

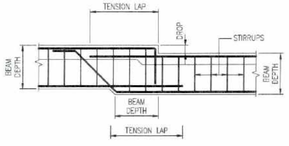



DETAIL 2

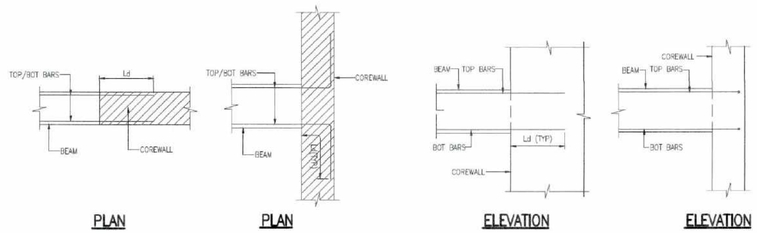
Wherever the drop is less than or equivalent to 50
The reinforcement bars can be bent at 1:10 and continued




DETAIL 3




DETAIL 4




PLAN PLAN ELEVATION ELEVATION

TYPICAL DETAIL AT CORE WALL LOCATION

ALL SETTING OUT DIMENSION SHOWN IN THE STRUCTURAL DRAWINGS, SHALL BE VERIFIED WITH THE LATEST ARCHITECTURAL DRAWINGS BEFORE COMMENCEMENT OF CONSTRUCTION. IF THERE IS ANY DISCREPANCY, IT SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. THE CONSTRUCTION CAN ONLY PROCEED UPON RECEIVING THE CONFIRMATION FROM THE ARCHITECT ON THE DIMENSIONS.

DATE OF ISSUE
26 DEC 2024
BURO ENGINEERS (I) PRIVATE LTD.

| NO. | AMENDMENTS | BY | DATE |
|---|---|---|---|
| – | ISSUE FOR CONSTRUCTION | MANI | 26/12/2024 |

**CONSTRUCTION DRAWING**
**STRUCTURAL**

Client
M/S.ARIHANT FOUNDATIONS & HOUSING LTD.,
NO.3,OLD NO.25,
GANAPATHY COLONY,3RD LANE OFF.
CENOTAPH ROAD
CHENNAI 600004

Architect
M/S.NATARAJ & VENKAT ARCHITECTS
18, 3RD SEAWARD RD,
VALMIKI NAGAR,
THIRUVANMIYUR,
CHENNAI 600 041
PH. 044-24572457

Civil & Structural Engineer :
**Buro Engineers (I) Private Ltd.,**
CIVIL & STRUCTURAL CONSULTANTS
NEW #31, OLD #14, BESANT AVENUE ROAD,
ADAYAR, CHENNAI-600020.
TEL: 42658573 / 74, FAX: 24662755

project title
**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

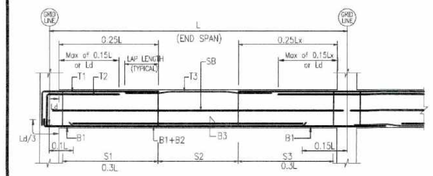
**STILT + 7TH FLOOR + ROOF FLOOR**

drawing title
**FIRST FLOOR BEAM SCHEDULE**

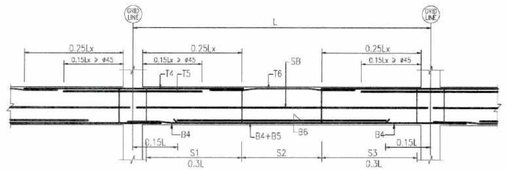
| | | | |
|---|---|---|---|
| scale | 1:100 | design by | ROHITH |
| drawn by | MANI | checked by | S/A |
| date | DEC 2024 | approved by | PJ |
| drawing no. | BEI749_S-/BM/01-/---//0 | revision | – |

THIS DRAWING IS COPYRIGHT

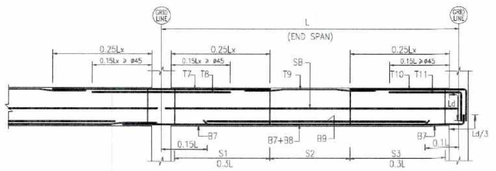
CAD FILE NAME: BEI749_S-BM01----01_.dwg



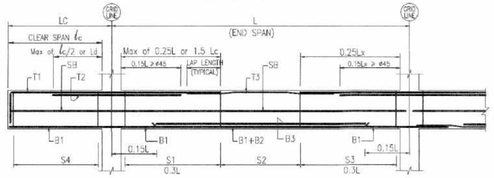

END SPAN BEAM [LHS] (1)




INTERMEDIATE SPAN BEAM (2)




END SPAN BEAM [RHS] (3)




END SPAN BEAM [LHS] WITH CANTILEVER (4)

LEGEND

L —— LENGTH OF SPAN UNDER CONSIDERATION

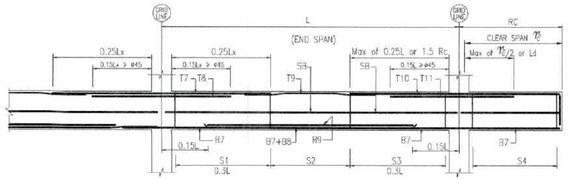
La —— LENGTH OF ADJACENT SPAN TO THE SPAN UNDER CONSIDERATION

Lc —— LENGTH OF LEFT END CANTILEVER

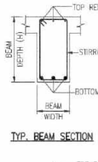
Rc —— LENGTH OF RIGHT END CANTILEVER

(1) —— CATEGORY

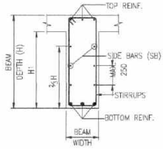
Lx = Length of span under consideration or Length of adjacent span whichever is greater




END SPAN BEAM [RHS] WITH CANTILEVER (5)



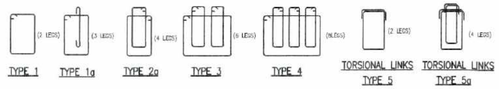

TYP. BEAM SECTION




TYP. SIDE BARS DETAIL FOR H1 > 750

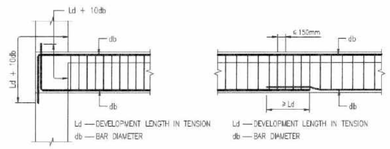
NOTES :-

1. FOR GENERAL NOTES REFER TO BEI620_/S-_/NT/--/01
2. FOR STANDARD DETAILS REFER TO BEI620_/S-/SD/--/01
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE KEY PLAN AND ALL OTHER RELEVANT DRAWINGS.
4. IF THE REINFORCEMENT IS PROVIDED IN TWO LAYERS OR MORE, THEN SPACER BARS BETWEEN THE LAYERS NEED TO BE PROVIDED
5. SPACER BARS TO BE T25 OR MAIN BAR SIZE (WHICHEVER IS GREATER) AT 800c/c BETWEEN EACH LAYER OF MAIN STEEL.
6. THE SPAN LENGTH INDICATED ARE NOT TO BE USED FOR SETTING OUT OR MEASUREMENT.
7. IF SAME SIZE OF THE REINFORCEMENT BARS IS INDICATED THROUGHOUT FOR BOTTOM OR TOP REINFORCEMENT, THE LAP PROVIDED FOR THE REINFORCEMENT CAN BE OMITTED BY PROVIDING STRAIGHT BARS FOR THE WHOLE LENGTH OF THE BEAM
8. LAP LENGTH FOR BARS SHOULD BE SAME AS TENSION ANCHORAGE LENGTH BASED UPON THE LARGER BAR DIAMETER FOR UNEQUAL SIZE OF BARS
9. FIRST STIRRUP OF BEAM SHOULD BE 50mm (MAXIMUM) FROM THE COLUMN FACE.
10. NOT MORE THAN 50% BARS (EITHER TOP OR BOTTOM BARS) SHALL BE SPLICED AT ANY ONE SECTION
11. AT LAP ZONE, MAXIMUM SPACING OF THE LINKS SHALL NOT EXCEED 150MM.




TYPE 1 TYPE 1a TYPE 2a TYPE 3 TYPE 4 TORSIONAL LINKS TYPE 5 TORSIONAL LINKS TYPE 5a

## STIRRUPS TYPE

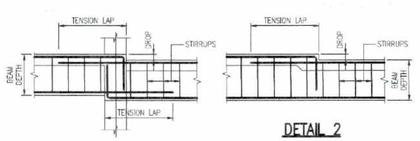



ANCHORAGE OF BEAM BARS AT BEAM AND COLUMN JUNCTION (EXTERNAL JOINT)

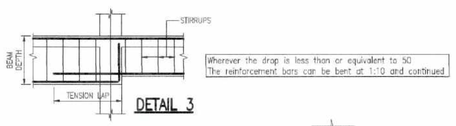
NOTE:
IN AN INTERNAL JOINT, BOTH TOP & BOTTOM BARS OF THE BEAM SHALL BE TAKEN CONTINUOUSLY THROUGH THE COLUMN

LAP/SPLICE IN BEAM

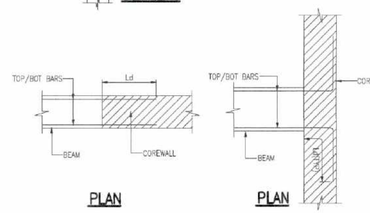
NOTE:
NOT MORE THAN 50 PERCENT OF THE BARS SHALL BE SPLICED AT ONE SECTION



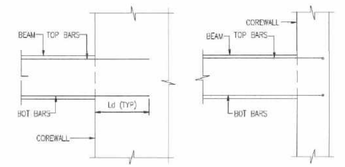

DETAIL 1 DETAIL 2




DETAIL 3




PLAN PLAN




ELEVATION ELEVATION

TYPICAL DETAIL AT CORE WALL LOCATION

| LOCATION | | | SIZE | | SPAN | | | REINFORCEMENT | | | | | | | | | | | | | | | | | | SIDE BAR | STIRRUPS | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BEAM MARKING | CATEGORY | GRID LINE OR BEAM MARK | WIDTH (mm) | DEPTH (mm) | LEFT END CANTILEVER Lc | SPAN (APPROX) L | RIGHT END CANTILEVER Rc | LEFT END SPAN | | | | | | INTERMEDIATE SPAN | | | | | | RIGHT END SPAN | | | | | | | | | | | | | |
| | | | | | | | | T1 | T2 | T3 | B1 | B2 | B3 | T4 | T5 | T6 | B4 | B5 | B6 | T7 | T8 | T9 | T10 | T11 | B7 | B8 | B9 | SB | S1 | S2 | S3 | S4 | TYPE | |
| 1HB1 | 1 | – | 300 | 800 | – | 4400 | – | 3T16 | 2T16 | 3T16 | 3T20 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| 1HB2 | 2 | – | 300 | 800 | – | 4800 | – | – | – | – | – | – | – | 3T16 | 2T16 | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| 1HB3 | 3 | – | 300 | 800 | – | 4500 | – | – | – | – | – | – | – | – | – | – | – | – | – | 3T16 | 2T16 | 3T16 | 3T16 | 2T16 | 3T25 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| 1HB4 | 1 | – | 600 | 800 | – | 4400 | – | 6T16 | – | 6T16 | 6T20 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 2a | – |
| 1HB5 | 2 | – | 600 | 800 | – | 4800 | – | – | – | – | – | – | – | 6T16 | – | 6T16 | 6T16 | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 2a | – |
| 1HB6 | 3 | – | 600 | 800 | – | 4500 | – | – | – | – | – | – | – | – | – | – | – | – | – | 6T16 | – | 6T16 | 6T16 | – | 6T20 | – | – | – | T8–200 | T8–200 | T8–200 | – | 2a | – |
| 1HB7 | 1 | – | 300 | 800 | – | 5575 | – | 3T20 | – | 3T20 | 3T20 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| 1HB8 | 3 | – | 300 | 800 | – | 8125 | – | – | – | – | – | – | – | – | – | – | – | – | – | 3T25 | 2T25 | 3T20 | 3T25 | 3T25 | 3T20 | – | 2T25 | – | T10–125 | T10–150 | T10–125 | – | 1a | – |
| 1HB10 | 1 | – | 200 | 600 | – | 2800 | – | 2T12 | – | 2T12 | 2T12 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| 1HB11 | 3 | – | 200 | 600 | – | 2950 | – | – | – | – | – | – | – | – | – | – | – | – | – | 2T12 | – | 2T12 | 2T12 | – | 2T12 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| 1HB17 | 1 | – | 300 | 800 | – | 5525 | – | 3T20 | – | 3T20 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| 1HB18 | 3 | – | 300 | 800 | – | 7675 | – | – | – | – | – | – | – | – | – | – | – | – | – | 3T25 | 2T25 | 3T20 | 3T25 | 3T25 | 3T20 | – | 2T20 | – | T8–100 | T8–125 | T8–160 | – | 1a | – |
| 1HB19 | 1 | – | 600 | 800 | – | 4400 | – | 6T16 | – | 6T16 | 6T20 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 2a | – |
| 1HB20 | 2 | – | 600 | 800 | – | 4800 | – | – | – | – | – | – | – | 6T16 | – | 6T16 | 6T16 | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 2a | – |
| 1HB21 | 3 | – | 600 | 800 | – | 4500 | – | – | – | – | – | – | – | – | – | – | – | – | – | 6T16 | – | 6T16 | 6T16 | – | 6T20 | – | – | – | T8–200 | T8–200 | T8–200 | – | 2a | – |
| 1HB22 | 1 | – | 300 | 800 | – | 4400 | – | 3T16 | 2T16 | 3T16 | 3T20 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| 1HB23 | 2 | – | 300 | 800 | – | 4800 | – | – | – | – | – | – | – | 3T16 | 2T16 | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| 1HB24 | 3 | – | 300 | 800 | – | 4500 | – | – | – | – | – | – | – | – | – | – | – | – | – | 3T16 | 2T16 | 3T16 | 3T16 | 2T16 | 3T25 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| 1VB1 | 1 | – | 1000 | 500 | – | 10800 | – | 10T20 | 2T20 | 10T16 | 10T16 | – | 2T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 4 | – |
| 1VB2 | 3 | – | 1000 | 500 | – | 10600 | – | – | – | – | – | – | – | – | – | – | – | – | – | 10T20 | 2T20 | 10T16 | 10T20 | 2T20 | 10T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 4 | – |
| 1VB6 | 1 | – | 1000 | 500 | – | 10800 | – | 10T20 | 2T20 | 10T16 | 10T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 4 | – |
| 1VB7 | 3 | – | 1000 | 500 | – | 11000 | – | – | – | – | – | – | – | – | – | – | – | – | – | 10T20 | 2T20 | 10T16 | 10T20 | 2T20 | 10T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 4 | – |
| 1VB9 | 1 | – | 1250 | 500 | – | 11050 | – | 10T25 | – | 10T25 | 10T25 | – | 3T25 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–150 | T8–200 | T8–150 | – | 4 | – |
| 1VB10 | 3 | – | 1250 | 500 | – | 10550 | – | – | – | – | – | – | – | – | – | – | – | – | – | 10T32 | 2T32 | 10T25 | 10T25 | – | 10T20 | – | 2T20 | – | T8–200 | T8–200 | T8–200 | – | 4 | – |
| 1VB11 | 1 | – | 1250 | 500 | – | 11050 | – | 10T25 | – | 10T25 | 10T20 | – | 3T20 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 4 | – |
| 1VB12 | 3 | – | 1250 | 500 | – | 11250 | – | – | – | – | – | – | – | – | – | – | – | – | – | 10T32 | 2T32 | 10T25 | 10T25 | – | 10T25 | – | 2T25 | – | T8–175 | T8–200 | T8–175 | – | 4 | – |
| 1VB13 | 1 | – | 200 | 600 | – | 4800 | – | 2T25 | 2T25 | 2T20 | 2T20 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T10–125 | T10–200 | T10–125 | – | 1 | – |
| 1VB14 | 3 | – | 200 | 600 | – | 1500 | – | – | – | – | – | – | – | – | – | – | – | – | – | 2T20 | – | 2T20 | 2T20 | – | 2T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| 1VB16 | 1 | – | 300 | 600 | – | 4450 | – | 3T16 | – | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| 1VB17 | 2 | – | 300 | 600 | – | 5100 | – | – | – | – | – | – | – | 3T16 | – | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| 1VB18 | 1 | – | 300 | 600 | – | 2450 | – | – | – | – | – | – | – | 3T16 | 2T16 | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| 1VB19 | 3 | – | 200 | 600 | – | 3450 | – | – | – | – | – | – | – | – | – | – | – | – | – | 3T16/ 2T16 | 2T16 | 2T16 | 2T16 | – | 2T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| MARKING BEAM | CATEGORY | BEAM MARK OR GRID LINE | (mm) WIDTH | (mm) DEPTH | Lc CANTILEVER LEFT END | L (APPROX) SPAN | Rc CANTILEVER RIGHT END | T1 | T2 | T3 | B1 | B2 | B3 | T4 | T5 | T6 | B4 | B5 | B6 | T7 | T8 | T9 | T10 | T11 | B7 | B8 | B9 | BAR SIDE | S1 | S2 | S3 | S4 | TYPE | REMARKS |
| LOCATION | | | SIZE | | SPAN | | | LEFT END SPAN | | | | | | INTERMEDIATE SPAN | | | | | | RIGHT END SPAN | | | | | | | | | STIRRUPS | | | | | |
| | | | | | | | | REINFORCEMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | |

XREF : BEI619_S-XREFA1_.dwg

| NO. | AMENDMENTS | BY | DATE |
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| – | ISSUE FOR CONSTRUCTION | MANI | 23/01/2025 |

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DATE OF ISSUE
23/01/2025
BURO ENGINEERS (I) PRIVATE LTD.

**CONSTRUCTION DRAWING**

**STRUCTURAL**

Client
M/S.ARIHANT FOUNDATIONS & HOUSING LTD.,
NO.3,OLD NO.25,
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CENOTAPH ROAD
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VALMIKI NAGAR,
THIRUVANMIYUR,
CHENNAI 600 041
PH. 044-24572457

Civil & Structural Engineer :
**Buro Engineers (I) Private Ltd.,**
CIVIL & STRUCTURAL CONSULTANTS
NEW #31, OLD #14, BESANT AVENUE ROAD,
ADAYAR, CHENNAI–600020.
TEL: 42658573 / 74, FAX: 24662755

project title
**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

**STILT + 7TH FLOOR + ROOF FLOOR**

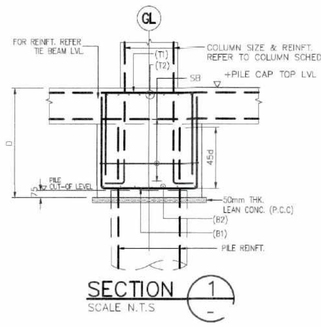
drawing title
**FIRST FLOOR BEAM DETAILS**

| scale | 1:100 | design by | ROHITH |
|---|---|---|---|
| drawn by | MANI | checked by | SIVA |
| date | DEC 2024 | approved by | PJ |
| drawing no. | BEI749_S-/BM/01-/--//02 | | revision – |

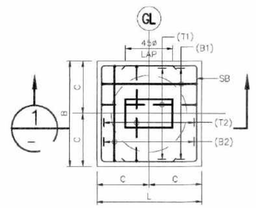
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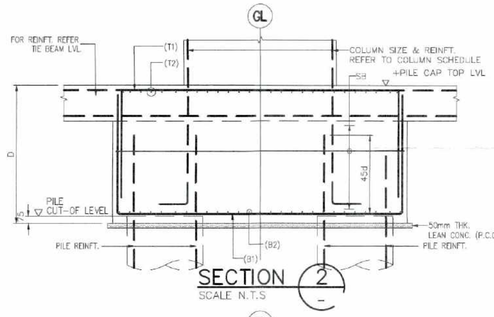
GAITHEESAN, M.E. (Str.)
REGISTERED STRUCTURAL ENGINEER
CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY
REGISTRATION No.SE/CRE/1149/3/D/27
31 (OLD No.14), BESANT AVENUE
ADYAR, CHENNAI 600 020.



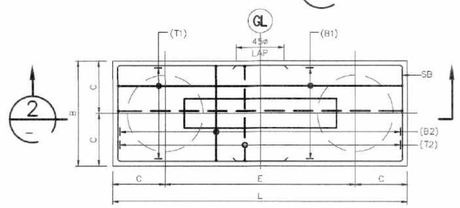

SECTION 1
SCALE N.T.S



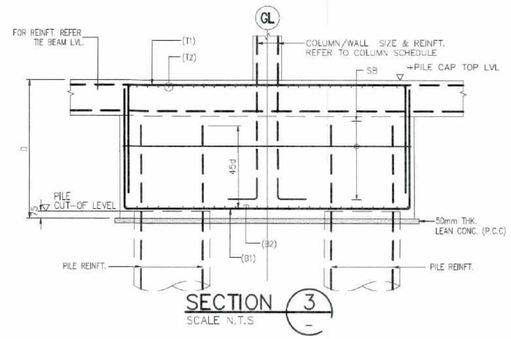

PLAN OF ONE-PILE GROUP



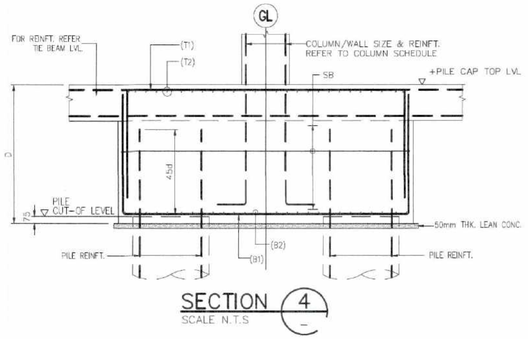

SECTION 2
SCALE N.T.S



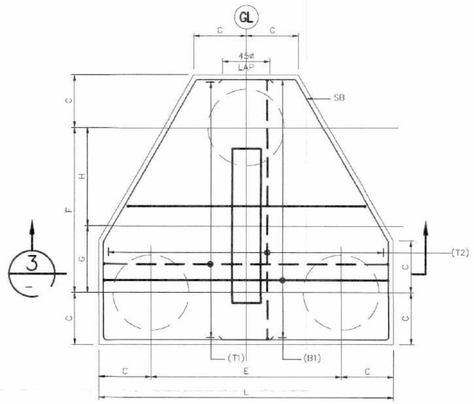

PLAN OF TWO-PILE GROUP



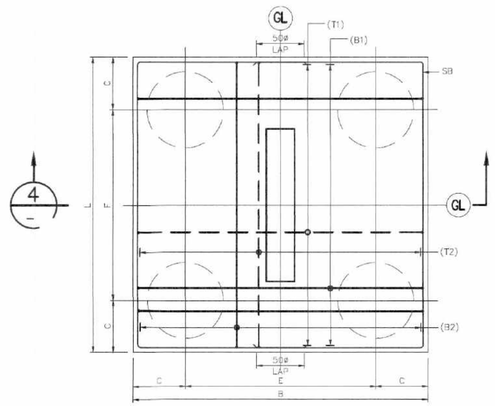

SECTION 3
SCALE N.T.S




SECTION 4
SCALE N.T.S




PLAN OF THREE-PILE GROUP (TYPE-1)




PLAN OF FOUR-PILE GROUP (TYPE-1)

## PILE CAP REINFORCEMENT DETAILS FOR ONE, TWO, THREE & FOUR PILE GROUP

| TYPE OF PILE | TYPE OF PILE CAP | PILECAP DIMENSIONS | | | | | | | | | PILECAP REINFORCEMENTS | | | | | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | L | B | D | C | E | F | G | H | J | BOTTOM REINFORCEMENT | | | | | | TOP REINFORCEMENT | | SIDE BAR | |
| | | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | B1 | B2 | B3 | B4 | B1a | B2a | T1 | T2 | SB | |
| ONE-PILE GROUP | | | | | | | | | | | | | | | | | | | | |
| BP1C | PC1C1 | 900 | 900 | 1000 | 450 | – | – | – | – | – | T32-100 | T32-100 | – | – | – | – | T10-200 | T10-200 | T10-200 | |
| BP1C1/1 | PC1C1 | 900 | 900 | 2300 | 450 | – | – | – | – | – | T32-100 | T32-100 | – | – | – | – | T10-200 | T10-200 | T10-200 | |
| BP1C1/2 | PC1C1 | 900 | 900 | 1600 | 450 | – | – | – | – | – | T32-100 | T32-100 | – | – | – | – | T10-200 | T10-200 | T10-200 | |
| BP1C1/3 | PC1C1 | 900 | 900 | 1300 | 450 | – | – | – | – | – | T32-100 | T32-100 | – | – | – | – | T10-200 | T10-200 | T10-200 | |
| BP1C | PC1C2 | 900 | 900 | 1000 | 450 | – | – | – | – | – | T16-100 | T16-100 | – | – | – | – | T10-200 | T10-200 | T10-200 | |
| BP1B | PC1B | 1050 | 1050 | 1000 | 525 | – | – | – | – | – | T16-100 | T16-100 | – | – | – | – | T10-200 | T10-200 | T10-200 | |
| BP1B | PC1B/1 | 1050 | 1050 | 1400 | 525 | – | – | – | – | – | T16-100 | T16-100 | – | – | – | – | T10-200 | T10-200 | T10-200 | |
| BP1B | PC1B/2 | 1050 | 1300 | 1400 | 525 | – | – | – | – | – | T16-100 | T16-100 | – | – | – | – | T10-200 | T10-200 | T10-200 | |
| TWO-PILE GROUP | | | | | | | | | | | | | | | | | | | | |
| BP2A | PC2A | 3800 | 1300 | 1150 | 650 | 2500 | – | – | – | – | T25-100 | T25-100 | – | – | – | – | T10-200 | T10-200 | T10-200 | |
| THREE-PILE GROUP | | | | | | | | | | | | | | | | | | | | |
| BP3A | PC3A1 | 3800 | – | 1650 | 650 | 2500 | 2165 | – | – | – | T32-100 | T32-100 | – | – | – | – | T10-200 | T10-200 | T10-150 | |
| BP3A | PC3A2 | 3800 | – | 1600 | 650 | 2500 | 2165 | – | – | – | T32-100 | T32-100 | – | – | – | – | T10-200 | T10-200 | T10-150 | |
| BP3A | PC3A3 | 3800 | – | 1600 | 650 | 2500 | 2165 | – | – | – | T32-100 | T32-100 | – | – | – | – | T10-200 | T10-200 | T10-200 | |
| FOUR-PILE GROUP | | | | | | | | | | | | | | | | | | | | |
| BP4A | PC4A/1 | 3800 | 3800 | 1850 | 650 | 2500 | 2500 | – | – | – | T32-100 | T32-100 | – | – | – | – | T10-200 | T10-200 | T10-175 | |
| TYPE OF PILE | TYPE OF PILE CAP | L | B | D | C | E | F | G | H | J | B1 | B2 | B3 | B4 | B1a | B2a | T1 | T2 | SB | REMARKS |
| | | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | BOTTOM REINFORCEMENT | | | | | | TOP REINFORCEMENT | | SIDE BAR | |
| | | PILECAP DIMENSIONS | | | | | | | | | PILECAP REINFORCEMENTS | | | | | | | | | |

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BURO ENGINEERS (I) PRIVATE LTD.

| NO. | AMENDMENTS | BY | DATE |
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| | ISSUE FOR CONSTRUCTION | GUNA | 23/01/2025 |

**CONSTRUCTION DRAWING**
**STRUCTURAL**

Client
M/S.ARIHANT FOUNDATIONS & HOUSING LTD.,
NO.3,OLD NO.25,
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project title
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**STILT + 7TH FLOOR + ROOF FLOOR**

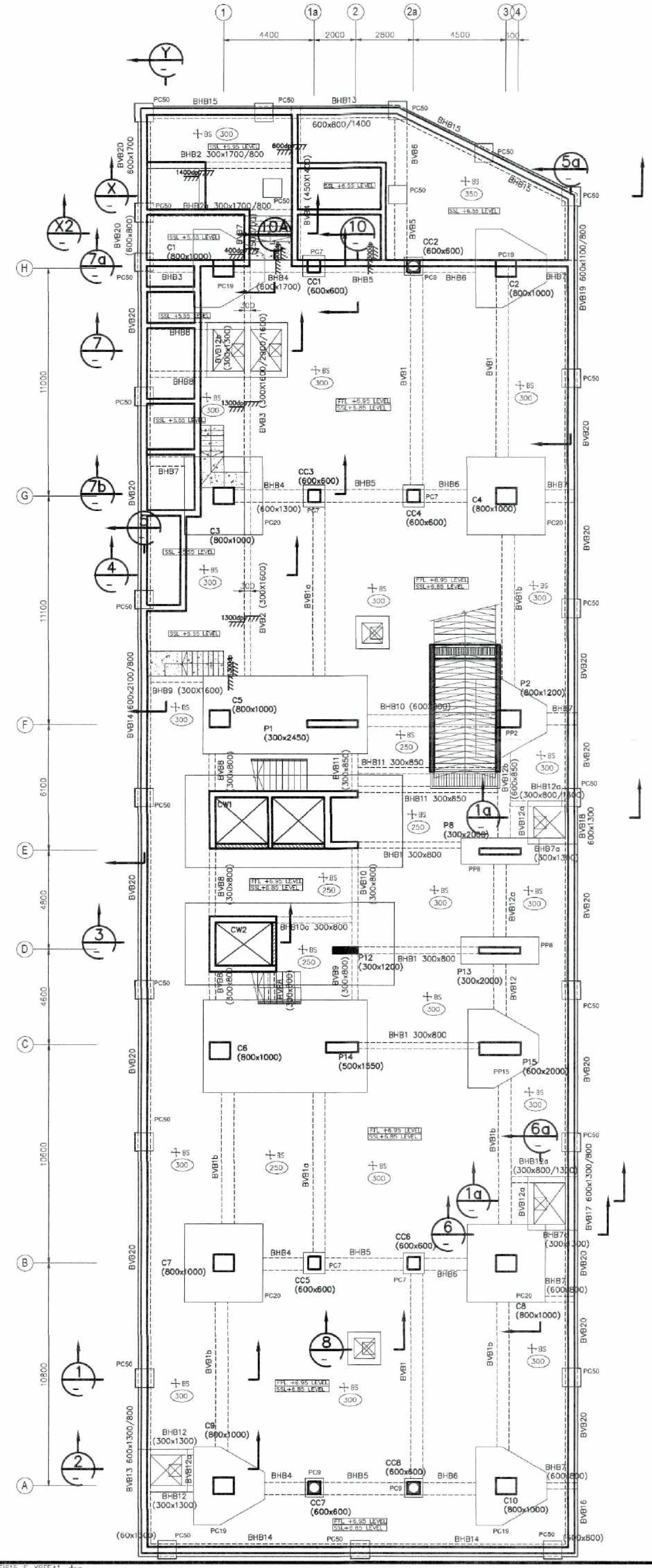
drawing title
**PILE CAP DETAILS**

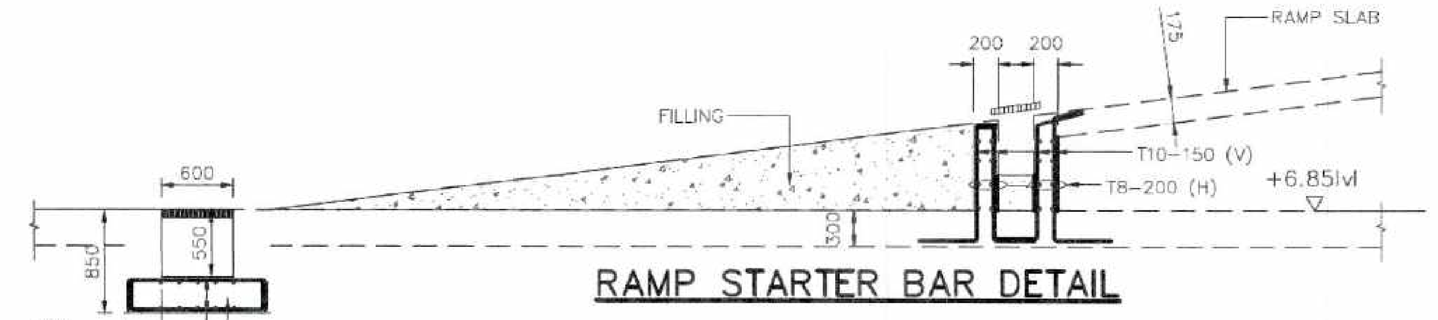
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| scale | 1:125 | design by | YOGA |
| drawn by | GUNA | checked by | SIVA |
| date | JUNE 2023 | approved by | PJ |
| drawing no. | BE1749_S-/PL/--/--/03 | revision | - |

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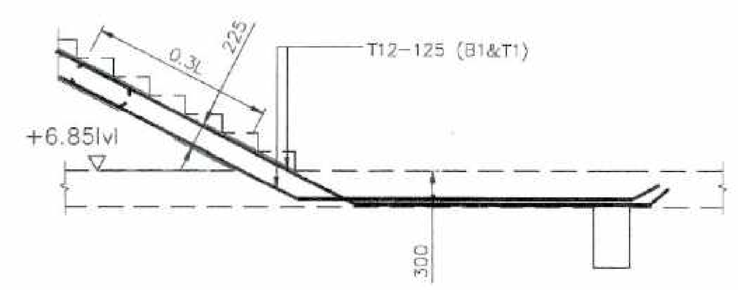
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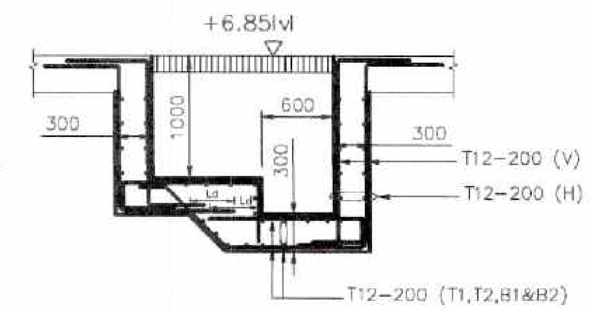




RAMP STARTER BAR DETAIL



TYP. STAIR STARTER BAR DETAIL



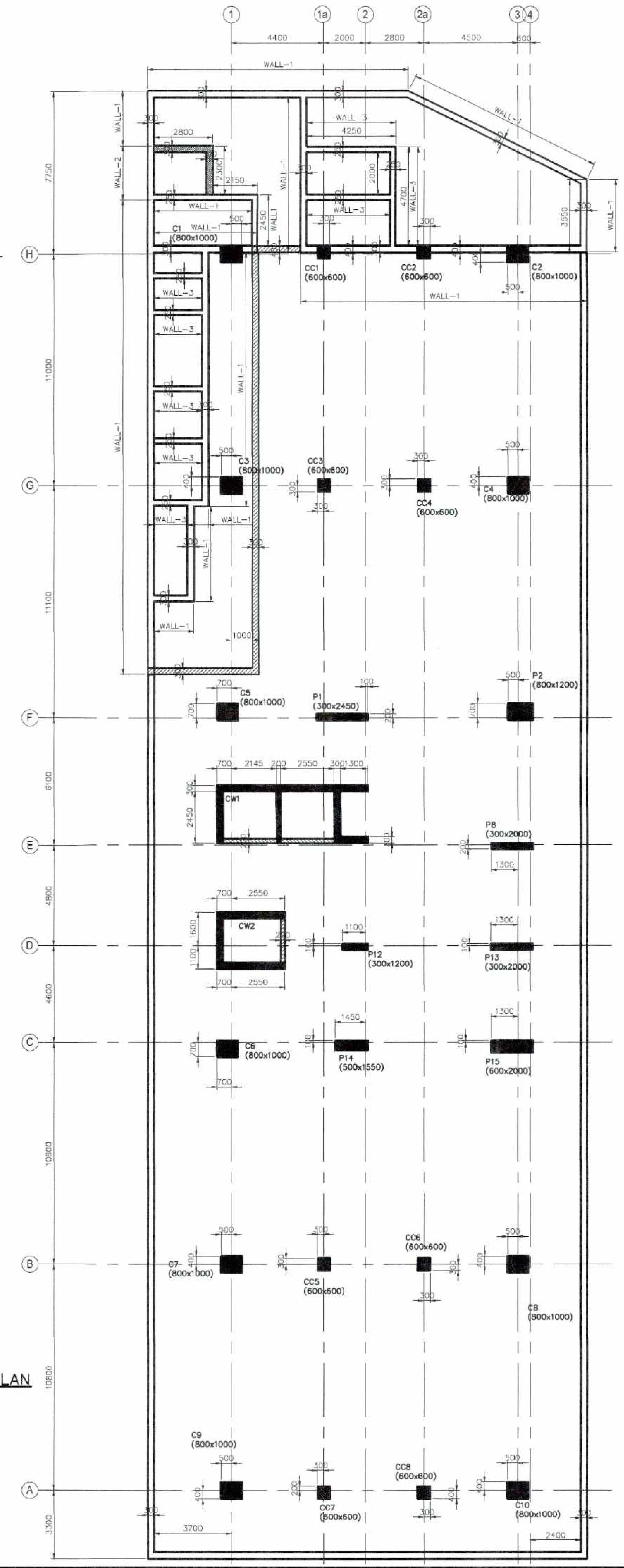
TYP. STORM WATER SUMP SECTION

SECTION 8
SCALE 1:50

BASEMENT LAYOUT PLAN
SCALE 1:125

NOTES

UNLESS OTHERWISE SPECIFIED
1. GRADE OF CONCRETE M30
2. GRADE OF STEEL Fe 550
3. ALL THE BEAMS SIZES ARE TO BE 600X800mm
4. ALL THE RC SLABS ARE TO BE 300mm THICK
5. ALL THE BASEMENT AND WATER TANKS WALLS ARE 300mm THICK.



COLUMN LAYOUT PLAN
SCALE 1:125

NOTES

UNLESS OTHERWISE SPECIFIED
1. GRADE OF CONCRETE M30
2. GRADE OF STEEL Fe 550

* PILECAP LAYOUT PLAN REFER CAD FILE NAME: BEI749_S-PL----02_.dwg
* BASEMENT BEAM DETAILS REFER CAD FILE NAME: BEI749_S-PL----07_.dwg
* BASEMENT SLAB DETAILS REFER CAD FILE NAME: BEI749_S-PL----05_.dwg
* BASEMENT & STP. SUMP WALL SECTION DETAILS REFER CAD FILE NAME: BEI749_S-PL----06_.dwg

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XREF : BEI615_S-XREFA1_.dwg

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project title
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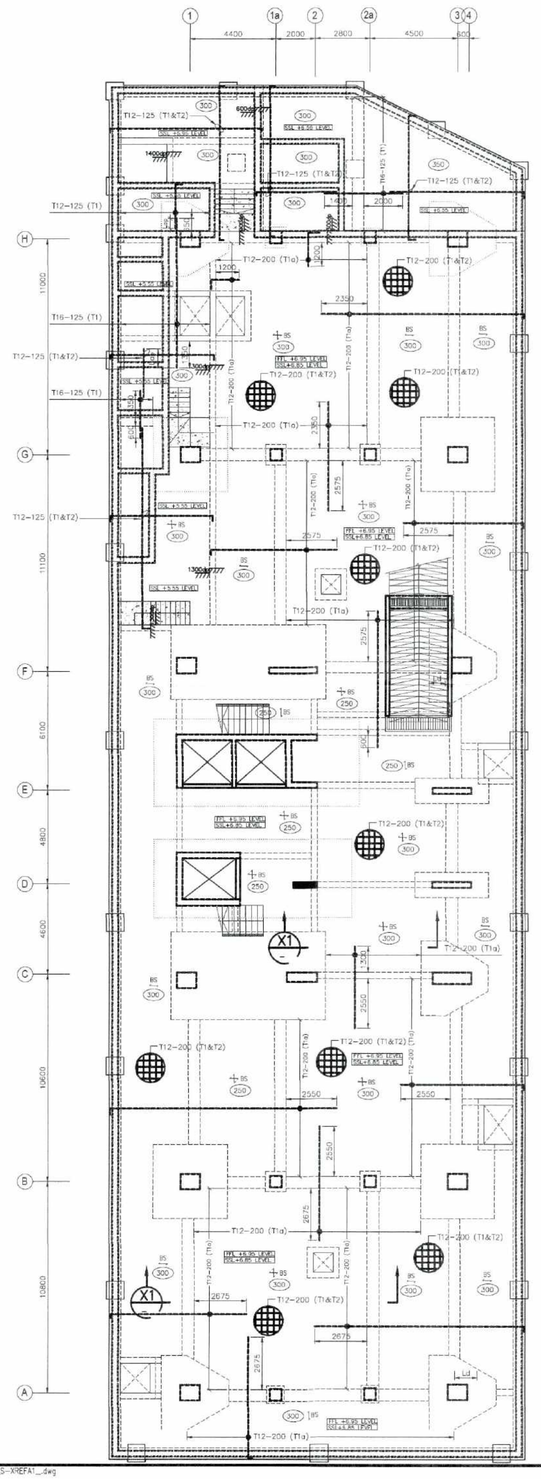
**STILT + 7TH FLOOR + ROOF FLOOR**

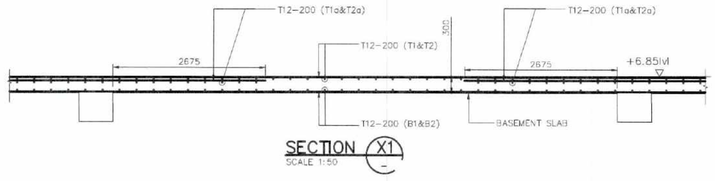
drawing title
**BASEMENT SLAB LAYOUT PLAN &**
COLUMN LAYOUT PLAN

| scale | 1:125 | design by | YOGA |
|---|---|---|---|
| drawn by | GUNA | checked by | SIVA |
| date | JUNE 2023 | approved by | PJ |
| drawing no. | BEI749_S-/PL/--/--/04 | revision | |

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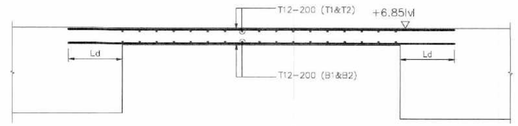
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SECTION X1
SCALE 1:50

FOR ADDITIONAL REINFT. SLAB (TYP.)




PILECAP–SLAB CONNECTION DETAIL (TYP.)

BASEMENT SLAB TOP REINFT. DETAIL
SCALE 1:125

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LEGEND:
—— BOTTOM REINFORCEMENT
– – – – TOP REINFORCEMENT

NOTE
1. FOR CLARITY PURPOSE DISTRIBUTION BARS NOT SHOWN. ALL DISTRIBUTION BARS ARE TO BE T12-200 (T2&T2a) UNLESS OTHERWISE INDICATED

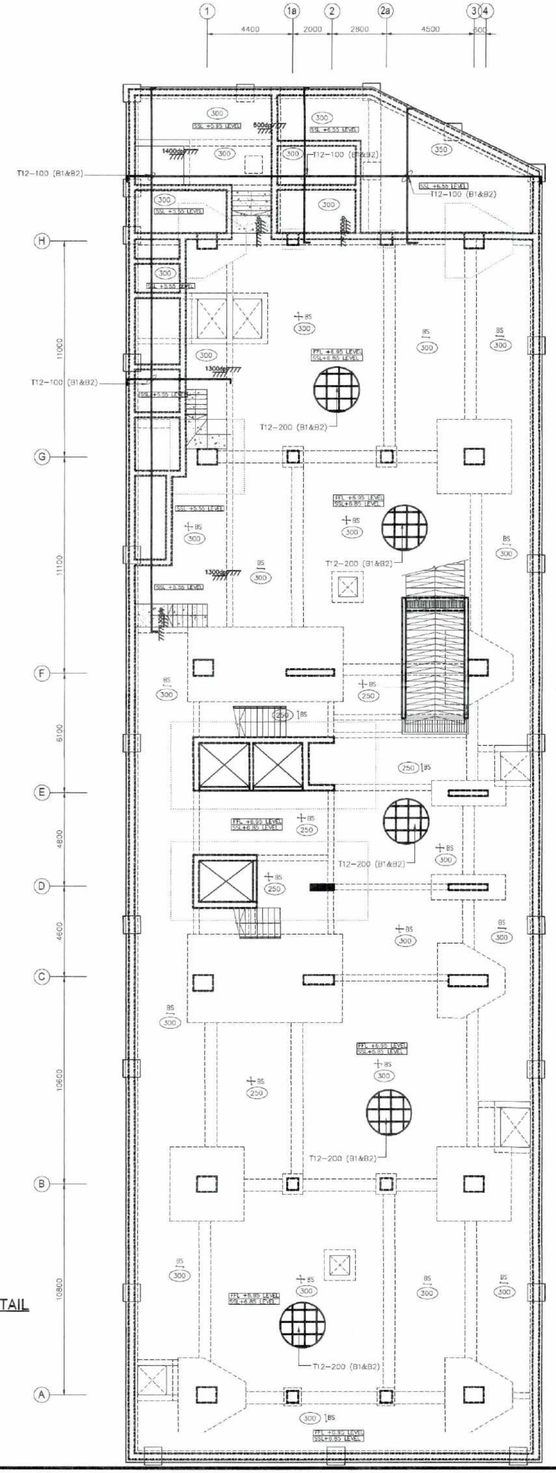
– UNLESS OTHER WISE SPECIFIED SLAB TOP MID T8-200 (T1&T2)

* BASEMENT BEAM DETAILS REFER CAD FILE NAME: BEI749_S-PL----07_dwg
* BASEMENT SLAB DETAILS REFER CAD FILE NAME: BEI749_S-PL----05_dwg
* BASEMENT & STP, SUMP WALL SECTION DETAILS REFER CAD FILE NAME: BEI749_S-PL----06_dwg

* PILECAP LAYOUT PLAN REFER CAD FILE NAME: BEI749_S-PL----02_dwg
* BASEMENT BEAM DETAILS REFER CAD FILE NAME: BEI749_S-PL----07_dwg
* BASEMENT SLAB DETAILS REFER CAD FILE NAME: BEI749_S-PL----05_dwg
* BASEMENT & STP, SUMP WALL SECTION DETAILS REFER CAD FILE NAME: BEI749_S-PL----06_dwg

BASEMENT SLAB BOTTOM REINFT. DETAIL
SCALE 1:125

NOTES
UNLESS OTHERWISE SPECIFIED
1. GRADE OF CONCRETE M30
2. GRADE OF STEEL Fe 550
3. ALL THE RC SLABS ARE TO BE 300mm THICK
4. ALL THE BASEMENT AND WATER TANKS WALLS ARE 300mm THICK.




ALL SETTING OUT DIMENSION SHOWN IN THE STRUCTURAL DRAWINGS, SHALL BE VERIFIED WITH THE LATEST ARCHITECTURAL DRAWINGS BEFORE COMMENCEMENT OF CONSTRUCTION. IF THERE IS ANY DISCREPANCY, IT SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. THE CONSTRUCTION CAN ONLY PROCEED UPON RECEIVING THE CONFIRMATION FROM THE ARCHITECT ON THE DIMENSIONS.

DATE OF ISSUE
23 JAN 2026
BURO ENGINEERS (I) PRIVATE LTD

| NO. | AMENDMENTS | BY | DATE |
|---|---|---|---|
| - | ISSUE FOR CONSTRUCTION | GUNA | 23/01/2025 |

**CONSTRUCTION DRAWING**
**STRUCTURAL**

Client
M/S.ARIHANT FOUNDATIONS & HOUSING LTD.,
NO.3,OLD NO.25,
GANAPATHY COLONY,3RD LANE OFF.
CENOTAPH ROAD
CHENNAI 600004

Architect
M/S.NATARAJ & VENKAT ARCHITECTS
18, 3RD SEAWARD RD,
VALMIKI NAGAR,
THIRUVANMIYUR,
CHENNAI 600 041
PH. 044-24572457

Civil & Structural Engineer :
**Buro Engineers (I) Private Ltd.,**
CIVIL & STRUCTURAL CONSULTANTS
NEW #31, OLD #14, RESANT AVENUE ROAD,
ADAYAR, CHENNAI–600020.
TEL: 42658573 / 74, FAX: 24662755

project title
**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

**STILT + 7TH FLOOR + ROOF FLOOR**

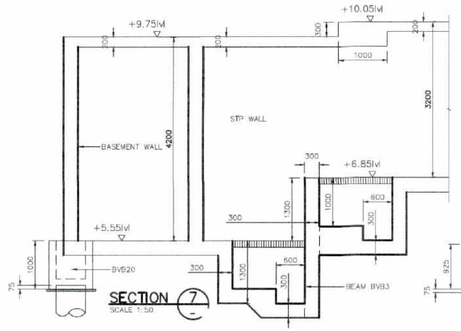
drawing title
**BASEMENT SLAB TOP & BOTTOM REINFT.**

| | | | |
|---|---|---|---|
| scale | 1:125 | design by | YOGA |
| drawn by | GUNA | checked by | SIVA |
| date | JUNE 2023 | approved by | PJ |
| drawing no. | BEI749_S-/PL/--/--/05 | revision | - |

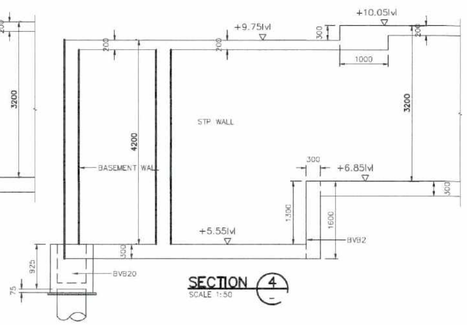
THIS DRAWING IS COPYRIGHT

CAD FILE NAME: BEI749_S-PL----05_dwg

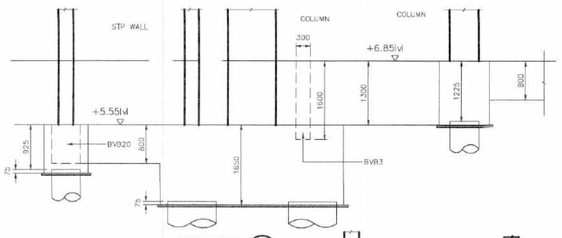
XREF : BE0615_S-XREFA1_.dwg



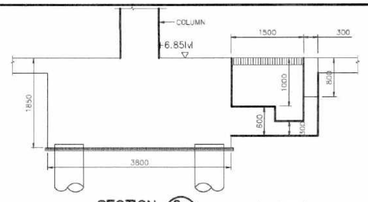

SECTION 7
SCALE 1:50



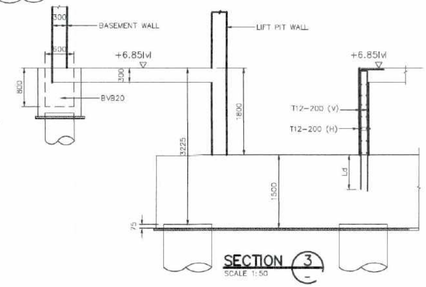

SECTION 4
SCALE 1:50



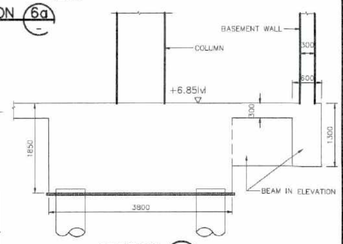

SECTION 7b
SCALE 1:50



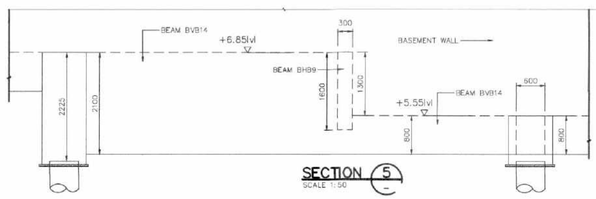

SECTION 6a
SCALE 1:50



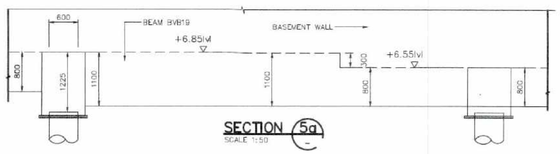

SECTION 3
SCALE 1:50



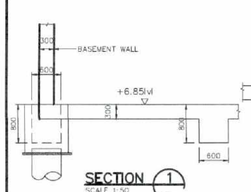

SECTION 6
SCALE 1:50



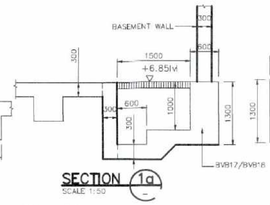

SECTION 5
SCALE 1:50



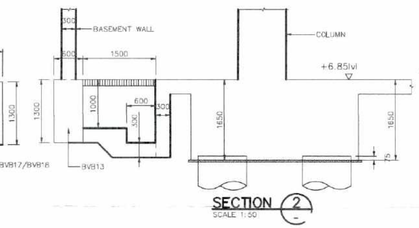

SECTION 5a
SCALE 1:50



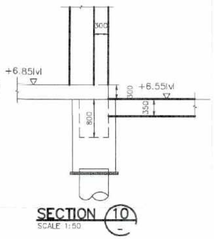

SECTION 1
SCALE 1:50



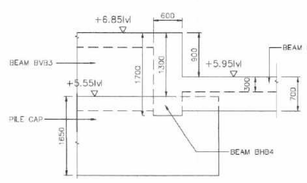

SECTION 1a
SCALE 1:50



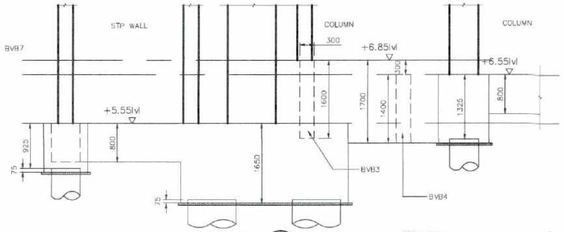

SECTION 2
SCALE 1:50



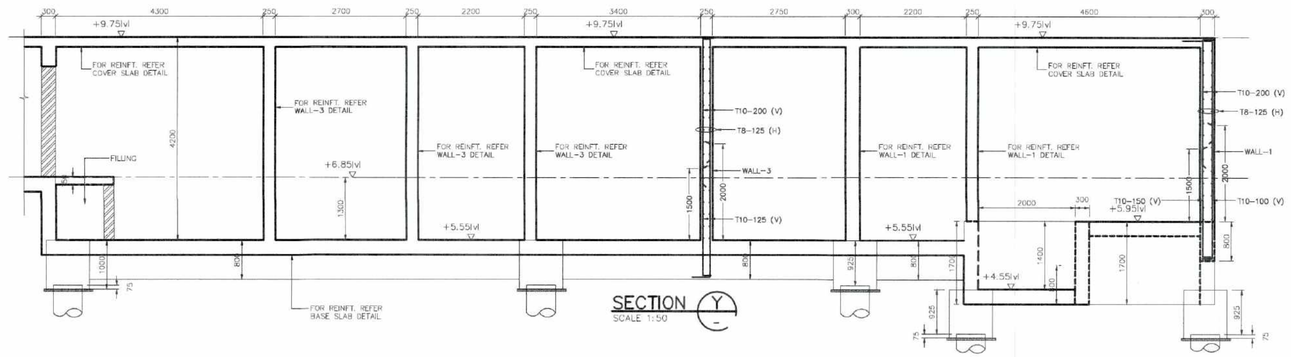

SECTION 10
SCALE 1:50



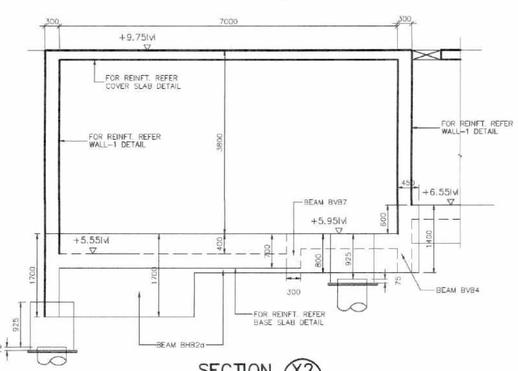

SECTION 10A
SCALE 1:50



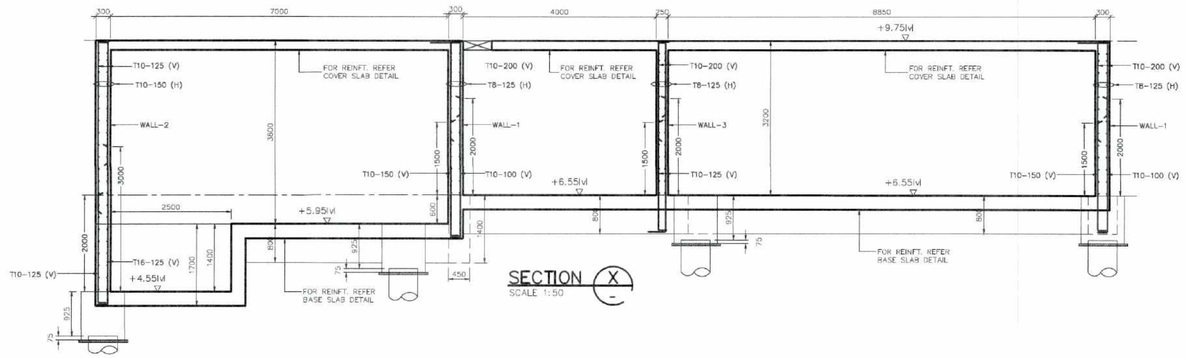

SECTION 7a
SCALE 1:50




SECTION Y
SCALE 1:50




SECTION X2
SCALE 1:50




SECTION X
SCALE 1:50

* PILECAP LAYOUT PLAN REFER CAD FILE NAME: BEI749_S-PL-----02_.dwg
* BASEMENT BEAM DETAILS REFER CAD FILE NAME: BEI749_S-PL-----07_.dwg
* BASEMENT SLAB DETAILS REFER CAD FILE NAME: BEI749_S-PL-----05_.dwg
* BASEMENT & STP, SUMP WALL SECTION DETAILS REFER CAD FILE NAME: BEI749_S-PL-----06_.dwg

XREF : BEI615_S-XREFA1_.dwg

ALL SETTING OUT DIMENSION SHOWN IN THE STRUCTURAL DRAWINGS, SHALL BE VERIFIED WITH THE LATEST ARCHITECTURAL DRAWINGS BEFORE COMMENCEMENT OF CONSTRUCTION. IF THERE IS ANY DISCREPANCY, IT SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. THE CONSTRUCTION CAN ONLY PROCEED UPON RECEIVING THE CONFIRMATION FROM THE ARCHITECT ON THE DIMENSIONS.

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**STRUCTURAL**

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project title
**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

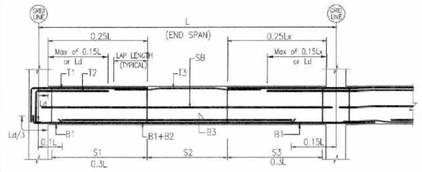
**STILT + 7TH FLOOR + ROOF FLOOR**

drawing title
**PILE LAYOUT PLAN SECTIONS**

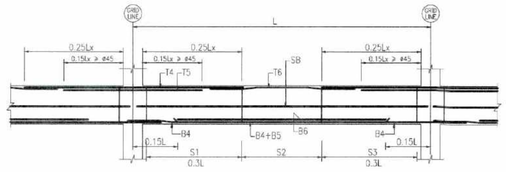
| | | | |
|---|---|---|---|
| scale | 1:125 | design by | YOGA |
| drawn by | GUNA | checked by | SIVA |
| date | JUNE 2023 | approved by | PJ |
| drawing no. | BEI749_S-/PL/--/--/06 | | revision |

THIS DRAWING IS COPYRIGHT

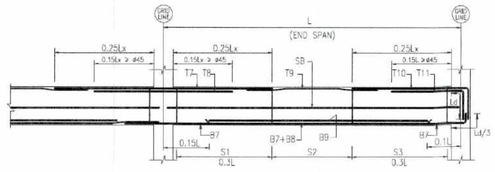
CAD FILE NAME: BEI749_S-PL-----06_.dwg



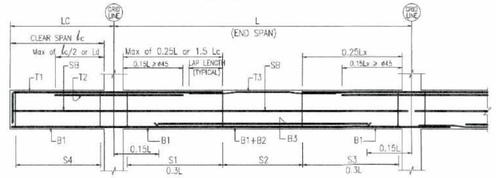

END SPAN BEAM [LHS] (1)




INTERMEDIATE SPAN BEAM (2)




END SPAN BEAM [RHS] (3)

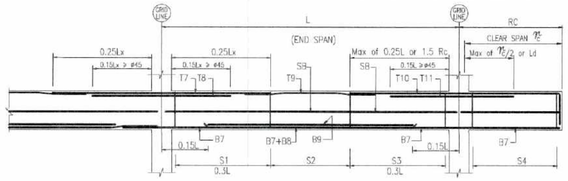



END SPAN BEAM [LHS] WITH CANTILEVER (4)

LEGEND

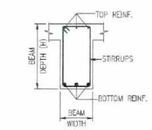
L —— LENGTH OF SPAN UNDER CONSIDERATION
La —— LENGTH OF ADJACENT SPAN TO THE SPAN UNDER CONSIDERATION
Lc —— LENGTH OF LEFT END CANTILEVER
Rc —— LENGTH OF RIGHT END CANTILEVER
(1) —— CATEGORY

Lx = Length of span under consideration or Length of adjacent span whichever is greater




END SPAN BEAM [RHS] WITH CANTILEVER (5)

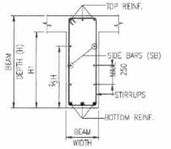
| LOCATION | | | SIZE | | SPAN | | | REINFORCEMENT | | | | | | | | | | | | | | | | | | SIDE BAR | STIRRUPS | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BEAM MARKING | CATEGORY | GRID LINE OR BEAM MARK | WIDTH (mm) | DEPTH (mm) | LEFT END CANTILEVER Lc | SPAN (APPROX) L | RIGHT END CANTILEVER Rc | LEFT END SPAN | | | | | | INTERMEDIATE SPAN | | | | | | RIGHT END SPAN | | | | | | | | | | | | | |
| | | | | | | | | T1 | T2 | T3 | B1 | B2 | B3 | T4 | T5 | T6 | B4 | B5 | B6 | T7 | T8 | T9 | T10 | T11 | B7 | B8 | B9 | SB | S1 | S2 | S3 | S4 | TYPE | |
| GHB1 | 1 | – | 300 | 800 | – | 4400 | – | 3T16 | 2T16 | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–125 | T8–200 | T8–125 | – | 1a | – |
| GHB2 | 2 | – | 300 | 800 | – | 4800 | – | – | – | – | – | – | – | 3T20 | 2T20 | 3T16 | 3T16 | – | 2T16 | – | – | – | – | – | – | – | – | – | T16–125 | T16–200 | T16–125 | – | 1a | – |
| GHB3 | 3 | – | 300 | 800 | – | 4500 | – | – | – | – | – | – | – | – | – | – | – | – | – | 3T20 | 2T20 | 3T16 | 3T16 | 2T16 | 3T16 | – | – | – | T10–125 | T10–200 | T10–125 | – | 1a | – |
| GHB10 | 1 | – | 200 | 600 | – | 2800 | – | 2T16 | – | 2T16 | 2T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| GHB11 | 3 | – | 200 | 600 | – | 2950 | – | – | – | – | – | – | – | – | – | – | – | – | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| GHB18 | 1 | – | 200 | 600 | – | 3450 | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| GHB19 | 3 | – | 200 | 600 | – | 4450 | – | – | – | – | – | – | – | – | – | – | – | – | – | 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | 2T16 | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| GHB20 | 1 | – | 300 | 800 | – | 5950 | – | 3T20 | – | 3T20 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| GHB21 | 3 | – | 300 | 800 | – | 7650 | – | – | – | – | – | – | – | – | – | – | – | – | – | 3T25 | 2T20 | 3T20 | 3T25 | 2T25 | 3T25 | – | 2T20 | – | T8–100 | T8–100 | T8–100 | – | 1a | – |
| GVB1 | 1 | – | 1000 | 500 | – | 10800 | – | 10T25 | 5T25 | 10T20 | 10T20 | – | 5T20 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–125 | T8–200 | T8–125 | – | 4 | – |
| GVB2 | 3 | – | 1000 | 500 | – | 10300 | – | – | – | – | – | – | – | – | – | – | – | – | – | 10T25 | 5T25 | 10T20 | 10T25 | 4T25 | 10T20 | – | 4T20 | – | T8–125 | T8–200 | T8–125 | – | 4 | – |
| GVB6 | 1 | – | 1000 | 500 | – | 10800 | – | 10T32 | 3T25 | 10T25 | 10T25 | – | 3T25 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T10–125 | T10–200 | T10–125 | – | 4 | – |
| GVB7 | 3 | – | 1000 | 500 | – | 11000 | – | – | – | – | – | – | – | – | – | – | – | – | – | 10T32 | 2T32 | 10T25 | 10T32 | 2T25 | 10T25 | – | 3T25 | – | T10–125 | T10–200 | T10–125 | – | 4 | – |
| GVB10 | 1 | – | 1250 | 500 | – | 11050 | – | 10T20 | – | 10T20 | 10T20 | – | 2T20 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 4 | – |
| GVB11 | 3 | – | 1250 | 500 | – | 10550 | – | – | – | – | – | – | – | – | – | – | – | – | – | 10T25 | 2T25 | 10T20 | 10T20 | – | 10T16 | – | 3T16 | – | T8–200 | T8–200 | T8–200 | – | 4 | – |
| GVB12 | 1 | – | 1250 | 500 | – | 11050 | – | 10T20 | – | 10T20 | 10T16 | – | 2T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 4 | – |
| GVB13 | 3 | – | 1250 | 500 | – | 11000 | – | – | – | – | – | – | – | – | – | – | – | – | – | 10T25 | 2T20 | 10T20 | 10T20 | – | 10T20 | – | 2T20 | – | T8–200 | T8–200 | T8–200 | – | 4 | – |
| GVB14 | 1 | – | 200 | 600 | – | 4600 | – | 2T25 | 2T20 | 2T20 | 2T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T10–150 | T10–200 | T10–150 | – | 1 | – |
| GVB15 | 3 | – | 200 | 600 | – | 1500 | – | – | – | – | – | – | – | – | – | – | – | – | – | 2T20 | – | 2T20 | 2T20 | – | 2T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| GVB17 | 1 | – | 300 | 600 | – | 4800 | – | 3T16 | | 3T16 | 3T16 | – | 2T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| GVB18 | 2 | – | 300 | 600 | – | 5100 | – | – | – | – | – | – | – | 3T16 | – | 3T16 | 3T16 | – | 2T16 | – | – | – | – | – | – | – | – | – | T10–125 | T10–200 | T10–125 | – | 1a | – |
| GVB19 | 2 | – | 300 | 600 | – | 2450 | – | – | – | – | – | – | – | 3T16 | – | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| GVB20 | 3 | – | 200 | 600 | – | 3450 | – | – | – | – | – | – | – | – | – | – | – | – | – | 3T16/ 2T16 | – | 2T16 | 2T16 | – | 2T16 | – | – | – | T8–200 | T8–200 | T8–200 | – | 1 | – |
| GVB24 | 1 | – | 200 | 600 | – | 4800 | – | 2T20 | – | 2T20 | 2T20 | – | 2T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–100 | T8–125 | T8–100 | – | 1 | – |
| GVB25 | 3 | – | 200 | 600 | – | 6200 | – | – | – | – | – | – | – | – | – | – | – | – | – | 2T25 | 2T16 | 2T20 | 2T20 | – | 2T25 | – | 2T16 | – | T8–100 | T8–125 | T8–100 | – | 1 | – |
| GVB29 | 1 | – | 300 | 800 | – | 4750 | – | 3T20 | 2T16 | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–150 | T8–200 | T8–150 | – | 1a | – |
| GVB30 | 2 | – | 300 | 800 | – | 4800 | – | – | – | – | – | – | – | 3T16 | 2T16 | 3T16 | 3T16 | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 1a | – |
| GVB31 | 3 | – | 300 | 800 | – | 6450 | – | – | – | – | – | – | – | – | – | – | – | – | – | 3T16 | 2T16 | 3T16 | 3T20 | 2T16 | 3T16 | – | – | – | T8–175 | T8–200 | T8–175 | – | 1a | – |
| GVB32 | 1 | – | 1000 | 500 | – | 10800 | – | 10T25 | 5T25 | 10T20 | 10T20 | – | 2T20 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | T8–200 | T8–200 | T8–200 | – | 4 | – |
| GVB33 | 3 | – | 1000 | 500 | – | 11000 | – | – | – | – | – | – | – | – | – | – | – | – | – | 10T25 | 3T20 | 10T20 | 10T25 | 2T20 | 10T20 | – | 2T20 | – | T8–200 | T8–200 | T8–200 | – | 4 | – |
| MARKING BEAM | CATEGORY | BEAM MARK OR GRID LINE | (mm) WIDTH | (mm) DEPTH | Lc CANTILEVER LEFT END | L (APPROX) SPAN | Rc CANTILEVER RIGHT END | T1 | T2 | T3 | B1 | B2 | B3 | T4 | T5 | T6 | B4 | B5 | B6 | T7 | T8 | T9 | T10 | T11 | B7 | B8 | B9 | SB | S1 | S2 | S3 | S4 | TYPE | REMARKS |
| LOCATION | | | SIZE | | SPAN | | | LEFT END SPAN | | | | | | INTERMEDIATE SPAN | | | | | | RIGHT END SPAN | | | | | | | | BAR SIDE | STIRRUPS | | | | | |
| | | | | | | | | REINFORCEMENT | | | | | | | | | | | | | | | | | | | | | | | | | | |



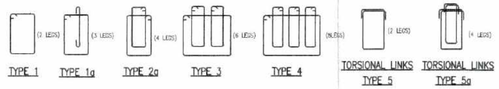

TYP. BEAM SECTION

NOTES:

1. FOR GENERAL NOTES REFER TO BE8320_/S-/NT/--/01
2. FOR STANDARD DETAILS REFER TO BE8320_/S-/SD/--/01
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE KEY PLAN AND ALL OTHER RELEVANT DRAWINGS.
4. IF THE REINFORCEMENT IS PROVIDED IN TWO LAYERS OR MORE, THEN SPACER BARS BETWEEN THE LAYERS NEED TO BE PROVIDED
5. SPACER BARS TO BE T25 OR MAIN BAR SIZE (WHICHEVER IS GREATER) AT 800c/c BETWEEN EACH LAYER OF MAIN STEEL.
6. THE SPAN LENGTH INDICATED ARE NOT TO BE USED FOR SETTING OUT OR MEASUREMENT.
7. IF SAME SIZE OF THE REINFORCEMENT BARS IS INDICATED THROUGHOUT FOR BOTTOM OR TOP REINFORCEMENT, THE LAP PROVIDED FOR THE REINFORCEMENT CAN BE OMITTED BY PROVIDING STRAIGHT BARS FOR THE WHOLE LENGTH OF THE BEAM
8. LAP LENGTH FOR BARS SHOULD BE SAME AS TENSION ANCHORAGE LENGTH BASED UPON THE LARGER BAR DIAMETER FOR UNEQUAL SIZE OF BARS.
9. FIRST STIRRUP OF BEAM SHOULD BE 50mm (MAXIMUM) FROM THE COLUMN FACE
10. NOT MORE THAN 50% BARS (EITHER TOP OR BOTTOM BARS) SHALL BE SPLICED AT ANY ONE SECTION
11. AT LAP ZONE, MAXIMUM SPACING OF THE LINKS SHALL NOT EXCEED 150MM.

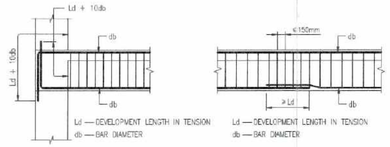



TYP. SIDE BARS DETAIL FOR H1 > 750




TYPE 1 TYPE 1a TYPE 2a TYPE 3 TYPE 4 TORSIONAL LINKS TYPE 5 TORSIONAL LINKS TYPE 5a

## STIRRUPS TYPE



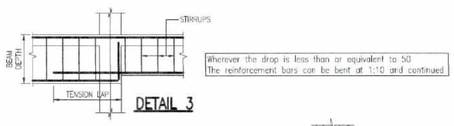

ANCHORAGE OF BEAM BARS AT BEAM AND COLUMN JUNCTION (EXTERNAL JOINT)

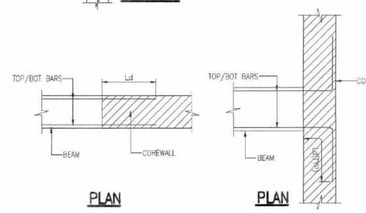
NOTE:
IN AN INTERNAL JOINT, BOTH TOP & BOTTOM BARS OF THE BEAM SHALL BE TAKEN CONTINUOUSLY THROUGH THE COLUMN.

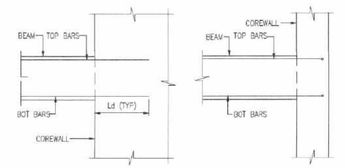
LAP/SPLICE IN BEAM

NOTE:
NOT MORE THAN 50 PERCENT OF THE BARS SHALL BE SPLICED AT ONE SECTION




TYPICAL DETAIL AT CORE WALL LOCATION

ALL SETTING OUT DIMENSION SHOWN IN THE STRUCTURAL DRAWINGS, SHALL BE VERIFIED WITH THE LATEST ARCHITECTURAL DRAWINGS BEFORE COMMENCEMENT OF CONSTRUCTION. IF THERE IS ANY DISCREPANCY, IT SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. THE CONSTRUCTION CAN ONLY PROCEED UPON RECEIVING THE CONFIRMATION FROM THE ARCHITECT ON THE DIMENSIONS.

DATE OF ISSUE
26 DEC 2024
BURO ENGINEERS (I) PRIVATE LTD.

| NO. | AMENDMENTS | BY | DATE |
|---|---|---|---|
| – | ISSUE FOR CONSTRUCTION | MANI | 26/12/2024 |

**CONSTRUCTION DRAWING**
**STRUCTURAL**

Client
M/S.ARIHANT FOUNDATIONS & HOUSING LTD.,
NO.3,OLD NO.25,
CANAPATHY COLONY,3RD LANE OFF.
DENOTAPH ROAD
CHENNAI 600004

Architect
M/S.NATARAJ & VENKAT ARCHITECTS
18, 3RD SEAWARD RD,
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THIRUVANMIYUR,
CHENNAI 600 041
PH. 044–24572457

Civil & Structural Engineer :
**Buro Engineers (I) Private Ltd.,**
CIVIL & STRUCTURAL CONSULTANTS
NEW #31, OLD #14, BESANT AVENUE ROAD,
ADAYAR, CHENNAI–600020.
TEL: 42658573 / 74, FAX: 24682755

project title
**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

**STILT + 7TH FLOOR + ROOF FLOOR**

drawing title
**GROUND FLOOR BEAM DETAILS**

| scale | 1:100 | design by | ROHITH |
|---|---|---|---|
| drawn by | MANI | checked by | SIVA |
| date | DEC 2024 | approved by | PJ |
| drawing no. | BE1749_S–/BM/G–/––//03 | revision | – |

THIS DRAWING IS COPYRIGHT

CAD FILE NAME: BE1749_S–BMG–––03_.dwg

XREF : BE1615_S–XREFA1_.dwg

M40 : Fc550 (MAIN) : Fe415 (SHEAR) , COVER = 30MM

1ST FLOOR LEVEL

TO

3RD FLOOR LEVEL

P7

| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P6

| MAIN LINKS | OTHER LINKS |
|---|---|
| T10-100 | T8-150 |

P5

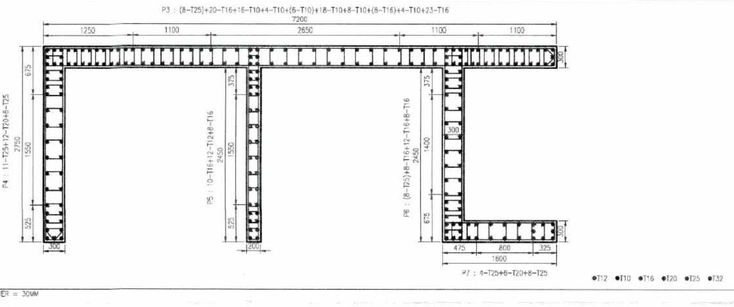
| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P4

| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P3

| MAIN LINKS | OTHER LINKS |
|---|---|
| T12-100 | T8-150 |




M40 : Fc550 (MAIN) : Fe415 (SHEAR) , COVER = 30MM

5TH FLOOR LEVEL

TO

6TH FLOOR LEVEL

P7

| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P6

| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P5

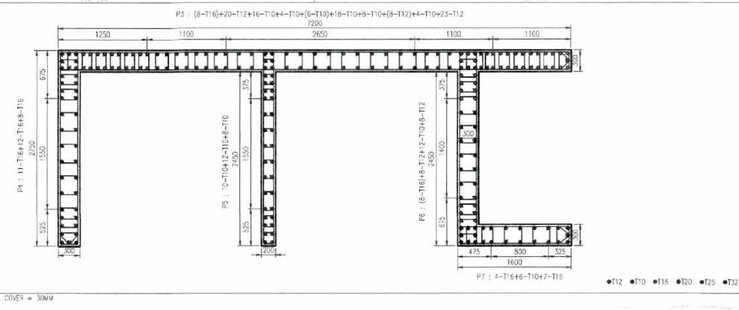
| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P4

| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P3

| MAIN LINKS | OTHER LINKS |
|---|---|
| T10-100 | T8-150 |




M40 : Fc550 (MAIN) : Fe415 (SHEAR) , COVER = 30MM

BASEMENT FLOOR

TO

1ST FLOOR LEVEL

P7 : 4-T20+6-T16+7-T20

P7

| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P6

| MAIN LINKS | OTHER LINKS |
|---|---|
| T12-100 | T8-150 |

P5

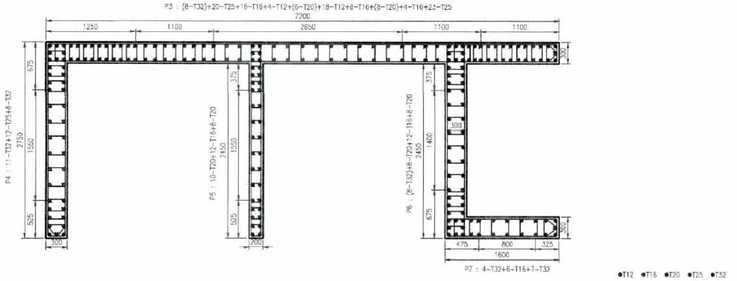
| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P4

| MAIN LINKS | OTHER LINKS |
|---|---|
| T10-100 | T8-150 |

P3

| MAIN LINKS | OTHER LINKS |
|---|---|
| T12-100 | T8-150 |




COLUMN MARKED

CW1.

M40 : Fc550 (MAN) : Fe415 (SHEAR) , COVER = 30MM

3RD FLOOR LEVEL

TO

5TH FLOOR LEVEL

P7

| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P6

| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P5

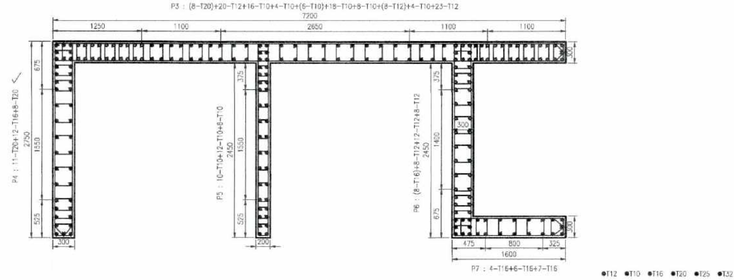
| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P4

| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P3

| MAIN LINKS | OTHER LINKS |
|---|---|
| T12-100 | T8-150 |




COLUMN MARKED

CW1.

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DATE OF ISSUE

23 JAN 2025

BURO ENGINEERS (I) PRIVATE LTD.

| NO. | AMENDMENTS | BY | DATE |
|---|---|---|---|
| | ISSUE FOR CONSTRUCTION | MANI | 23-01-2025 |

**CONSTRUCTION DRAWING**

**STRUCTURAL**

Client

M/S.ARIHANT FOUNDATIONS & HOUSING LTD.,
NO.3,OLD NO.25,
GANAPATHY COLONY,3RD LANE OFF.
CENOTAPH ROAD
CHENNAI 600004

Architect

M/S.NATARAJ & VENKAT ARCHITECTS
18, 3RD SEAWARD RD,
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NEW #31, OLD #14, BESANT AVENUE ROAD,
ADAYAR, CHENNAI-600020.
TEL: 42658573 / 74, FAX: 24662755

project title

**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

**STILT + 7TH FLOOR + ROOF FLOOR**

drawing title

**CORE WALL DETAILS**

| | | | |
|---|---|---|---|
| scale | 1:100 | design by | JOSHI |
| drawn by | MANI | checked by | SIVA |
| date | DEC 2024 | approved by | PJ |
| drawing no. | BE1749_S-/CW/DT/--/01 | revision | -- |

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CAD FILE NAME: BE1749_S-CW-DT---01_.dwg

GNANATHEESAN, M.E., (Struct.)
REGISTERED STRUCTURAL ENGINEER
CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY
REGISTRATION No.SE/STR/81/99/027
31 (OLD No.14), BESANT AVENUE ROAD,
ADAYAR, CHENNAI - 600 020.

7TH FLOOR LEVEL

TO

ROOF LEVEL

M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 30MM

P7

| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P6

| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P5

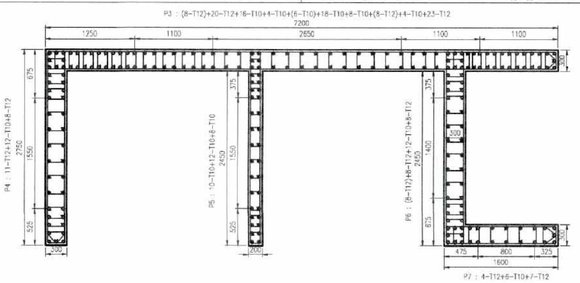
| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P4

| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P3

| MAIN LINKS | OTHER LINKS |
|---|---|
| T10-100 | T8-150 |




●T12 ●T10 ●T16 ●T20 ●T25 ●T32

1ST FLOOR LEVEL

TO

2ND FLOOR LEVEL

M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM

P9

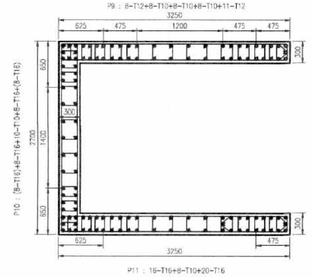
| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P10

| MAIN LINKS | OTHER LINKS |
|---|---|
| T12-100 | T8-150 |

P11

| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |




●T12 ●T10 ●T16 ●T12 ●T16

3RD FLOOR LEVEL

TO

ROOF LEVEL

M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM

P9

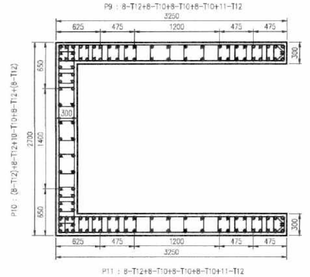
| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P10

| MAIN LINKS | OTHER LINKS |
|---|---|
| T10-100 | T8-150 |

P11

| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |




●T10 ●T12

6TH FLOOR LEVEL

TO

7TH FLOOR LEVEL

M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 30MM

P7

| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P6

| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P5

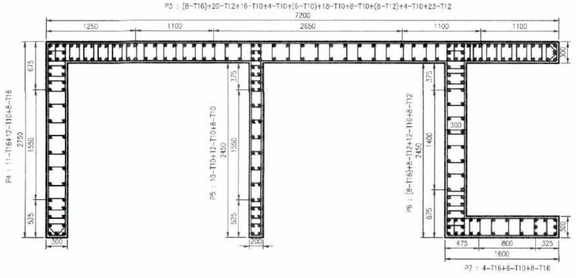
| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P4

| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P3

| MAIN LINKS | OTHER LINKS |
|---|---|
| T10-100 | T8-150 |




●T12 ●T10 ●T16 ●T20 ●T25 ●T32

BASEMENT FLOOR

TO

1ST FLOOR

M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM

P9

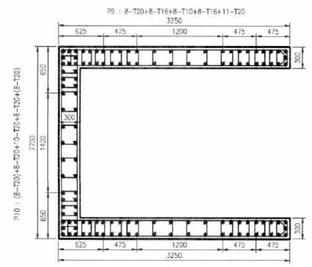
| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P10

| MAIN LINKS | OTHER LINKS |
|---|---|
| T12-100 | T8-150 |

P11

| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |




●T12 ●T10 ●T16 ●T20

2ND FLOOR LEVEL

TO

3RD FLOOR LEVEL

M40 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 40MM

P9

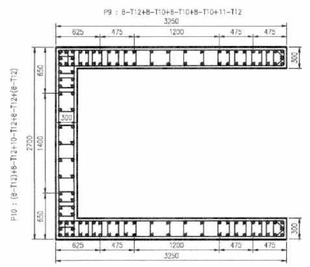
| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |

P10

| MAIN LINKS | OTHER LINKS |
|---|---|
| T12-100 | T8-150 |

P11

| MAIN LINKS | OTHER LINKS |
|---|---|
| T8-100 | T8-150 |




●T10 ●T12

COLUMN MARKED

DW1.

COLUMN MARKED

DW2.

COLUMN MARKED

DW2.

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DATE OF ISSUE

23 JAN 2025

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| NO. | AMENDMENTS | BY | DATE |
|---|---|---|---|
| | ISSUE FOR CONSTRUCTION | MANI | 23-01-2025 |

**CONSTRUCTION DRAWING**

**STRUCTURAL**

Client

M/S.ARIHANT FOUNDATIONS & HOUSING LTD.,
NO.3,OLD NO.25,
CANAPATHY COLONY,3RD LANE OFF.
CENOTAPH ROAD
CHENNAI 600004

Architect

M/S.NATARAJ & VENKAT ARCHITECTS
18, 3RD SEAWARD RD,
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ADAYAR, CHENNAI-600020.
TEL: 42658573 / 74, FAX: 24462755

project title

**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

**STILT + 7TH FLOOR + ROOF FLOOR**

drawing title

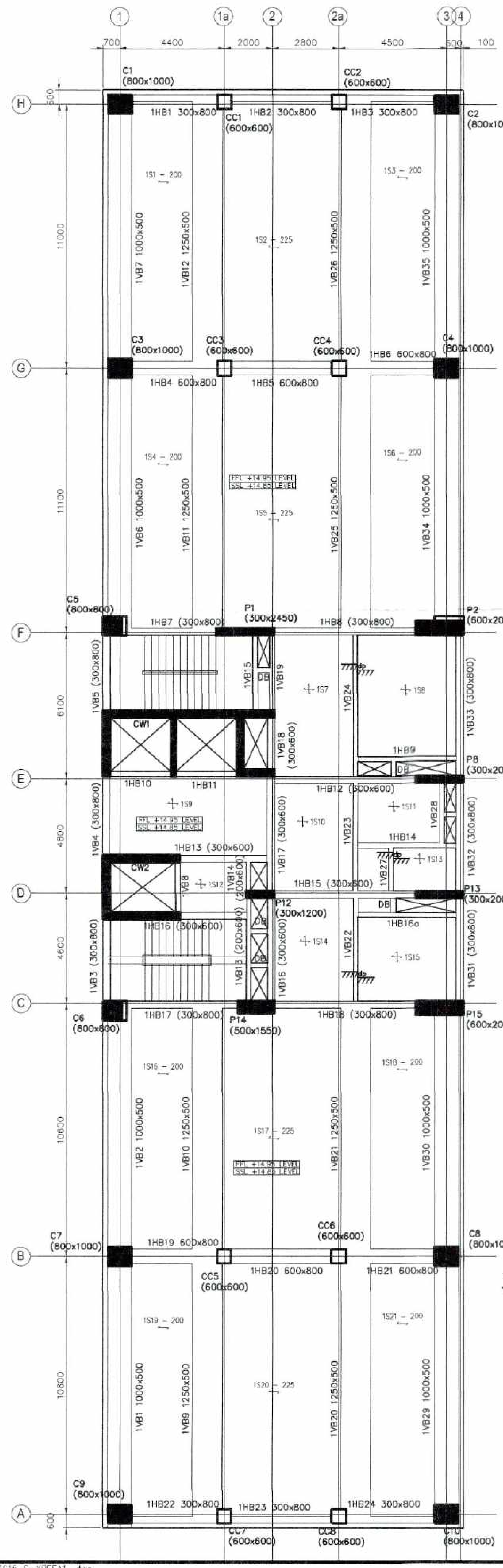
**CORE WALL DETAILS**

| | | | |
|---|---|---|---|
| scale | 1:100 | design by | PJ |
| drawn by | MANI | checked by | SIVA |
| date | DEC 2024 | approved by | PJ |
| drawing no. | BEI749_S-/CW/DT/--/02 | revision | -- |

P. JEGATHEESAN, M.E., (Struct.)
CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY
REGISTRATION No.SE/CR/1193/2021
(OLD No.14), BESANT AVENUE,
ADYAR, CHENNAI - 600 020.

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CAD FILE NAME: BEI749_S-CW-DT---02_dwg




## 1st FLOOR FRAMING PLAN

SCALE 1:125

NOTES

UNLESS OTHERWISE SPECIFIED

1. GRADE OF CONCRETE
   a. COLUMNS AND RC WALL– M40
   b. ALL OTHER ELEMENTS – M35
2. GRADE OF STEEL Fe 550
3. ALL THE BEAMS SIZES ARE TO BE (200x600)
4. ALL THE PT SLABS SIZES ARE TO BE REFER PLAN
5. ALL THE1SS ARE TO BE 150mm THICK
6. ALL THE COLUMNS SIZES ARE TO BE REFER PLAN

NOTES

FOR CLARITY PURPOSE DISTRIBUTION BARS NOT SHOWN. THE DISTRIBUTION BARS ARE TO BE T8–200 (T2&B2) UNLESS OTHERWISE INDICATED

LEGEND:

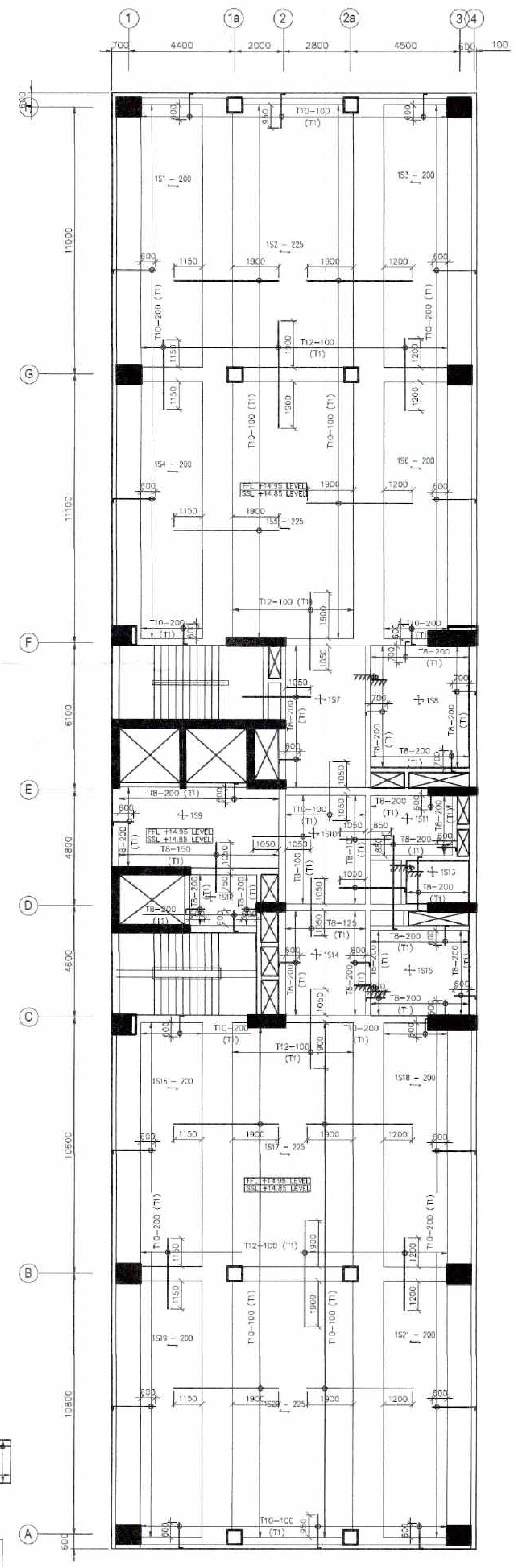
—— TOP REINFORCEMENT

—— BOTTOM REINFORCEMENT

BAR LAYING SEQUENCE

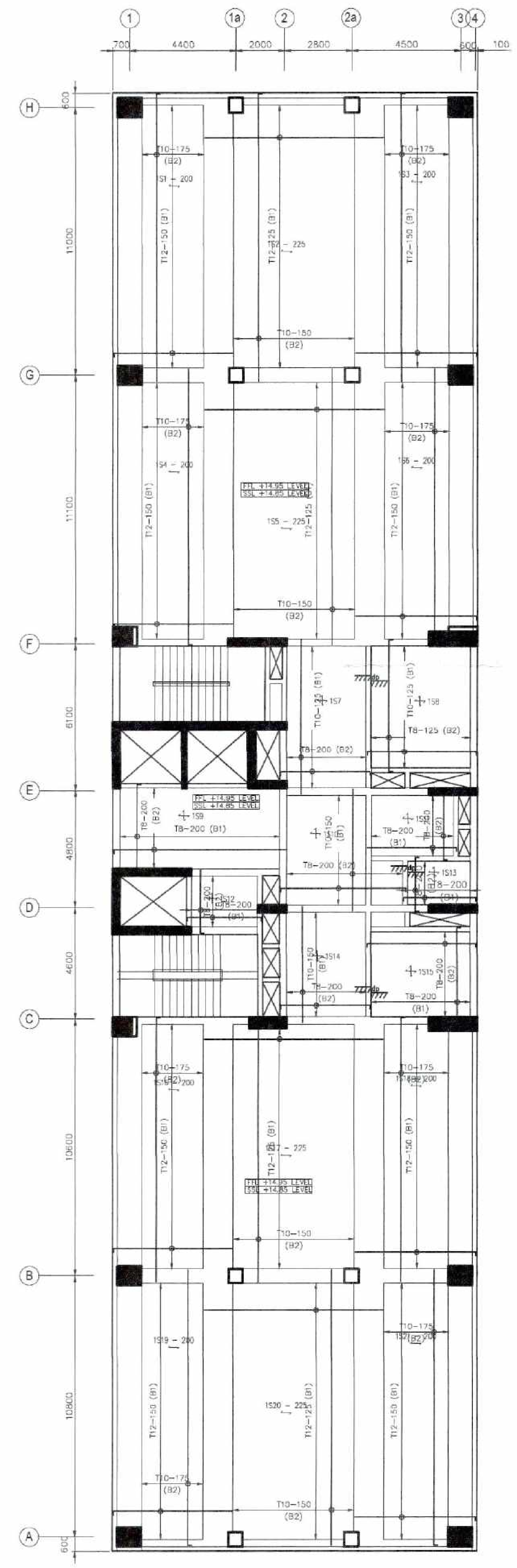
(T1) (T2) (B1) (B2)

ALL SETTING OUT DIMENSION SHOWN IN THE STRUCTURAL DRAWINGS, SHALL BE VERIFIED WITH THE LATEST ARCHITECTURAL DRAWINGS BEFORE COMMENCEMENT OF CONSTRUCTION. IF THERE IS ANY DISCREPANCY, IT SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. THE CONSTRUCTION CAN ONLY PROCEED UPON RECEIVING THE CONFIRMATION FROM THE ARCHITECT ON THE DIMENSIONS.




## 1st FLOOR SLAB DETAIL (TOP REINFT.)

SCALE 1:125




## 1st FLOOR SLAB DETAIL (BOTTOM REINFT.)

XREF : BEI615_S-XREFA1_.dwg

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DATE OF ISSUE

23 JAN 2025

BURO ENGINEERS (I) PRIVATE LTD.

| NO. | AMENDMENTS | BY | DATE |
|---|---|---|---|
| – | ISSUE FOR CONSTRUCTION | GUNA | 23-01-2025 |

# CONSTRUCTION DRAWING
## STRUCTURAL

Client

M/S.ARIHANT FOUNDATIONS & HOUSING LTD.,
NO.3,OLD NO.25,
GANAPATHY COLONY,3RD LANE OFF.
CENOTAPH ROAD
CHENNAI 600004

Architect

M/S.NATARAJ & VENKAT ARCHITECTS
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PH. 044-24572457

Civil & Structural Engineer :

**Buro Engineers (I) Private Ltd.,**
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NEW #31, OLD #14, BESANT AVENUE ROAD,
ADAYAR, CHENNAI-600020.
TEL: 42658573 / 74, FAX: 24662755

project title

**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

**STILT + 7TH FLOOR + ROOF FLOOR**

drawing title

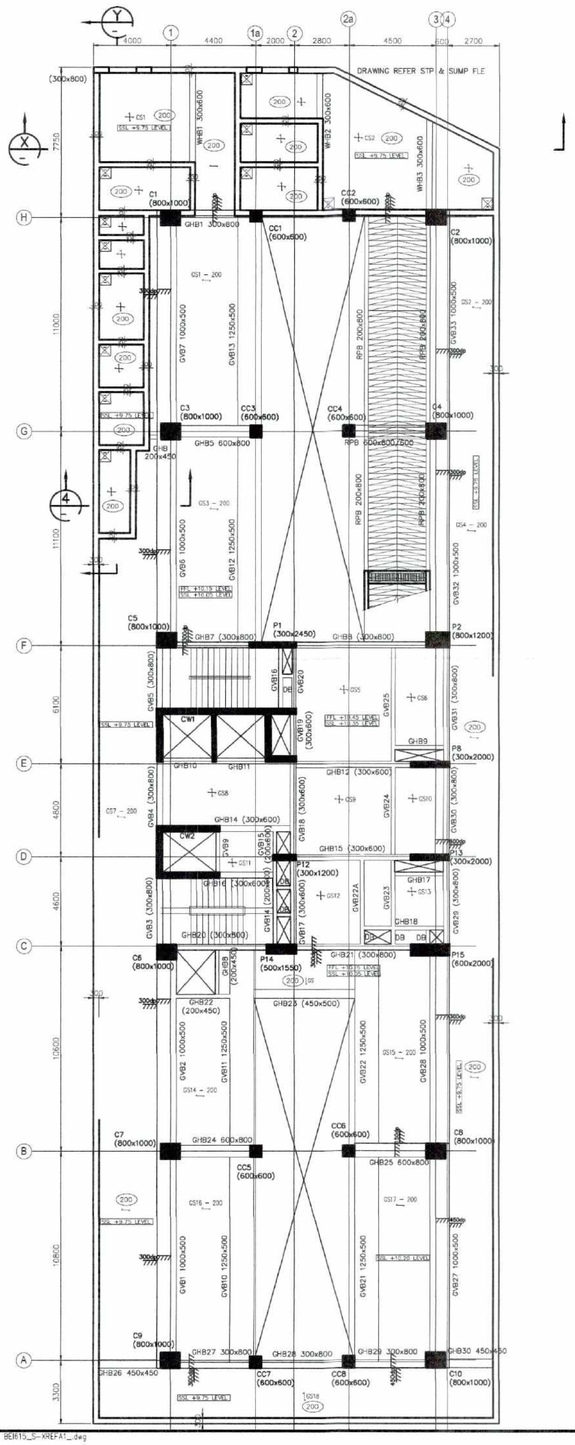
**1st FLOOR FRAMING PLAN & SLAB DETAIL**
TOP & BOTTOM REINFT.

| scale | 1:100 | design by | ROHIT |
|---|---|---|---|
| drawn by | GUNA | checked by | SIVA |
| date | JUNE 2023 | approved by | PJ |
| drawing no. | BEI749_S-/FP/01/--//01 | revision | – |

JEGATHEESAN, M.E. (Struc.)
REGISTERED STRUCTURAL ENGINEER
CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY
REGISTRATION No.SE/GR-I/19/03/027
No.31 (OLD No.14), BESANT AVENUE
ADYAR, CHENNAI - 600 020

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CAD FILE NAME: BEI749_S-FP01--01_.dwg




NOTES

UNLESS OTHERWISE SPECIFIED

1. GRADE OF CONCRETE
   a. COLUMNS AND RC WALL– M40
   b. ALL OTHER ELEMENTS – M35
2. GRADE OF STEEL Fe 550
3. ALL THE BEAMS SIZES ARE TO BE (300x600)
4. ALL THE PT SLABS SIZES ARE TO BE REFER PLAN
5. ALL THE RC SLABS ARE TO BE 150mm THICK
6. ALL THE COLUMNS SIZES ARE TO BE REFER PLAN
7. ALL STP,SUMP COVER SLAB SIZES ARE TO BE 200mm THICK.

* PILECAP LAYOUT PLAN REFER CAD FILE NAME: BE1749_S-PL----02_.dwg
* BASEMENT BEAM DETAILS REFER CAD FILE NAME: BE1749_S-PL----07_.dwg
* BASEMENT SLAB DETAILS REFER CAD FILE NAME: BE1749_S-PL----05_.dwg
* BASEMENT & STP, SUMP WALL SECTION DETAILS REFER CAD FILE NAME: BE1749_S-PL----06_.dwg

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**STRUCTURAL**

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project title
**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

**STILT + 7TH FLOOR + ROOF FLOOR**

drawing title
**GROUND FLOOR FRAMING PLAN**

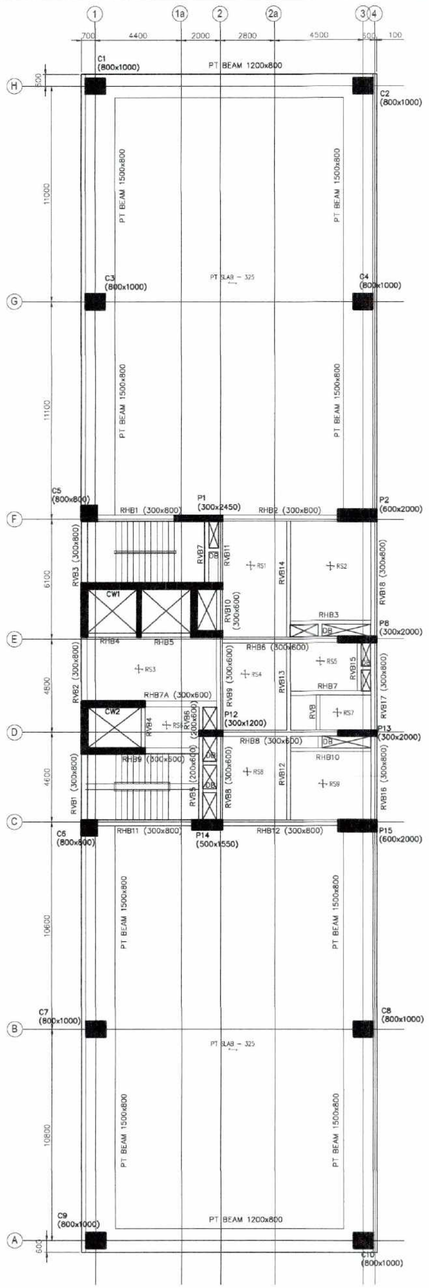
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| scale | 1:100 | design by | ROHIT |
| drawn by | GUNA | checked by | SIVA |
| date | JUNE 2023 | approved by | PJ |
| drawing no. | BE1749_S-/FP/G-/--//01 | | revision |

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DEGATHEESAN, M.E., (Str.)
REGISTERED STRUCTURAL ENGINEER
CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY
REGISTRATION No.BE/GR-ATH/MDDT/
No.31 (OLD No.14), BESANT AVENUE
ADYAR, CHENNAI - 600 020.

XREF : BE1615_S-XREFAT_.dwg

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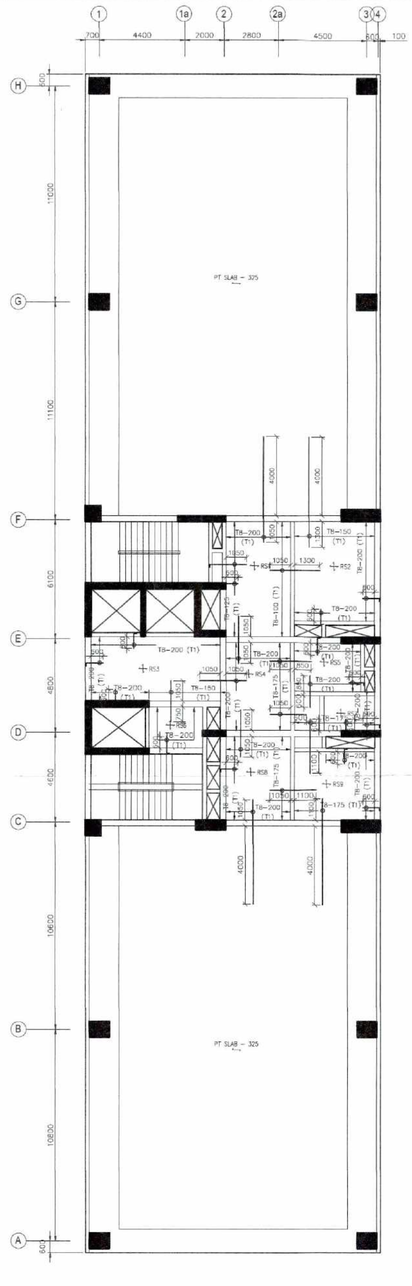

## ROOF FLOOR FRAMING PLAN

SCALE 1:125

NOTES

UNLESS OTHERWISE SPECIFIED

1. GRADE OF CONCRETE
   a. COLUMNS AND RC WALL– M40
   b. ALL OTHER ELEMENRS – M35
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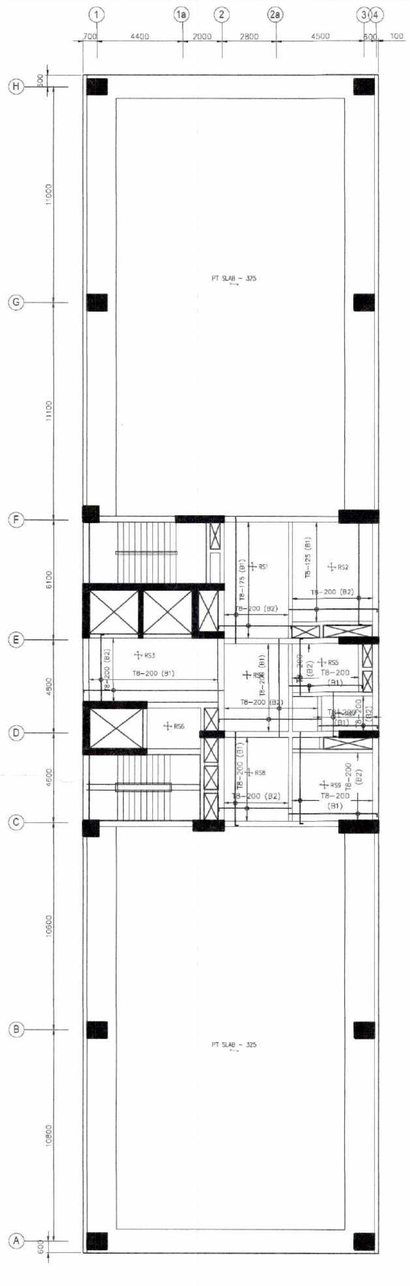

## ROOF FLOOR SLAB DETAIL (TOP REINFT.)

SCALE 1:125

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## ROOF FLOOR SLAB DETAIL (BOTTOM REINFT.)

SCALE 1:125

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NOTES

FOR CLARITY PURPOSE DISTRIBUTION BARS NOT SHOWN. THE DISTRIBUTION BARS ARE TO BE T8-200 (T2&B2) UNLESS OTHERWISE INDICATED

LEGEND:

TOP REINFORCEMENT

BOTTOM REINFORCEMENT

BAR LAYING SEQUENCE




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XREF : BEI915_S-XREFA1_.dwg

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**CONSTRUCTION DRAWING**

**STRUCTURAL**

Client

M/S.ARIHANT FOUNDATIONS & HOUSING LTD.,
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project title

**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

**STILT + 7TH FLOOR + ROOF FLOOR**

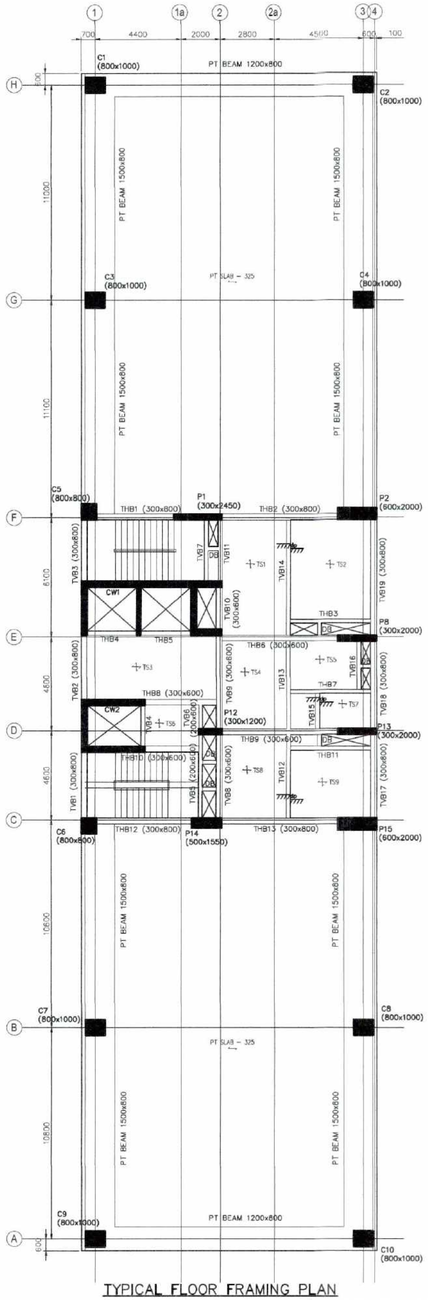
drawing title

**ROOF FLOOR FRAMING PLAN & SLAB DETAIL**
TOP & BOTTOM REINFT.

| | | | |
|---|---|---|---|
| scale | 1:100 | design by | ROHIT |
| drawn by | GUNA | checked by | SIVA |
| date | JUNE 2023 | approved by | PJ |
| drawing no. | BEI749_S-/FP/R-/--//01 | revision | – |

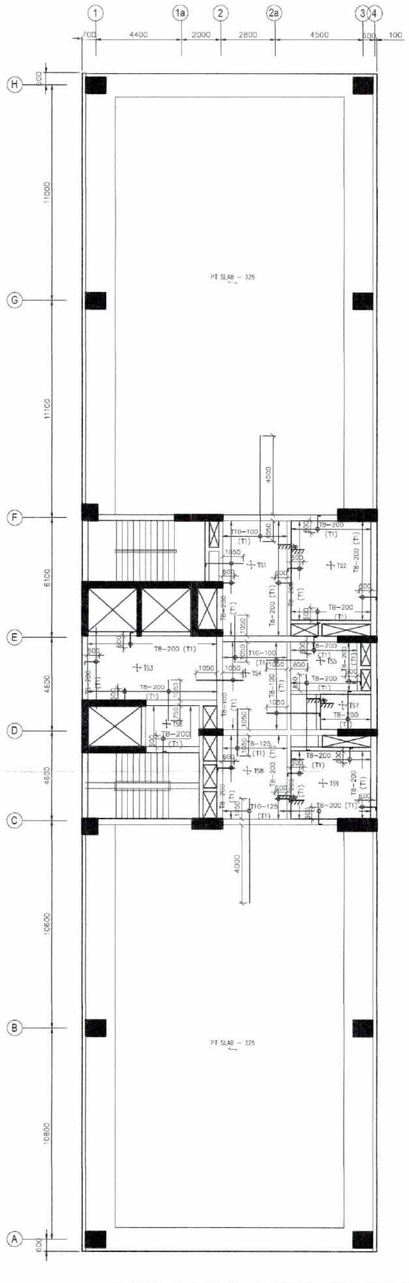
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CAD FILE NAME: BEI749_S-FPR---01_.dwg




TYPICAL FLOOR FRAMING PLAN
(2nd,3rd,4th,5th,6th & 7th) FLOOR FRAMING PLAN
SCALE 1:125

NOTES
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2. GRADE OF STEEL Fe 550
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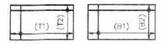


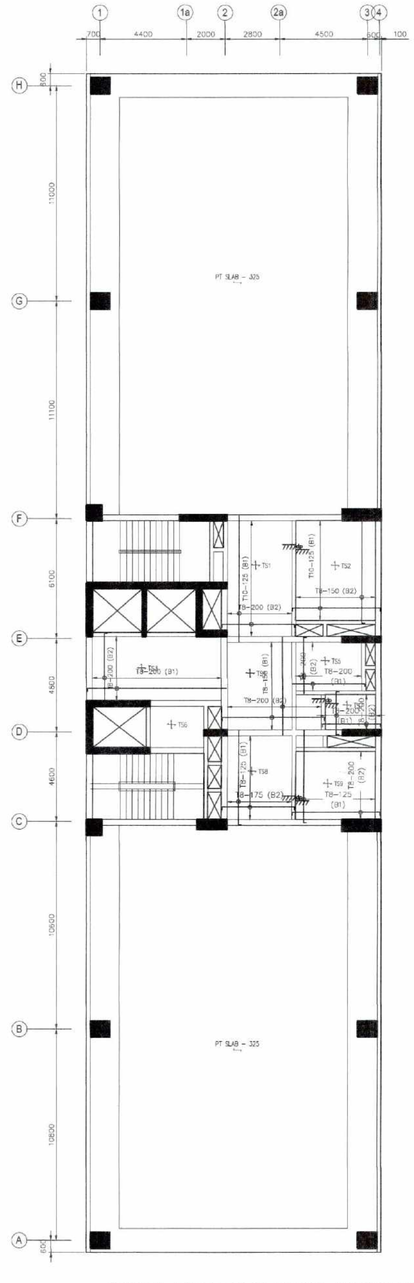

TYPICAL FLOOR SLAB DETAIL TOP REINFT.
(2nd,3rd,4th,5th,6th & 7th) FLOOR FRAMING PLAN
SCALE 1:125

NOTES
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**NOTES**
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LEGEND
TOP REINFORCEMENT
BOTTOM REINFORCEMENT
BAR LAYING SEQUENCE




TYPICAL FLOOR SLAB DETAIL BOTTOM REINFT.
(2nd,3rd,4th,5th,6th & 7th) FLOOR FRAMING PLAN
SCALE 1:125

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BURO ENGINEERS (I) PRIVATE LTD.

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**CONSTRUCTION DRAWING**
**STRUCTURAL**

Client
M/S.ARIHANT FOUNDATIONS & HOUSING LTD.,
NO.3,OLD NO.25,
GANAPATHY COLONY,3RD LANE OFF,
CENOTAPH ROAD
CHENNAI 600004

Architect
M/S.NATARAJ & VENKAT ARCHITECTS
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project title
**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

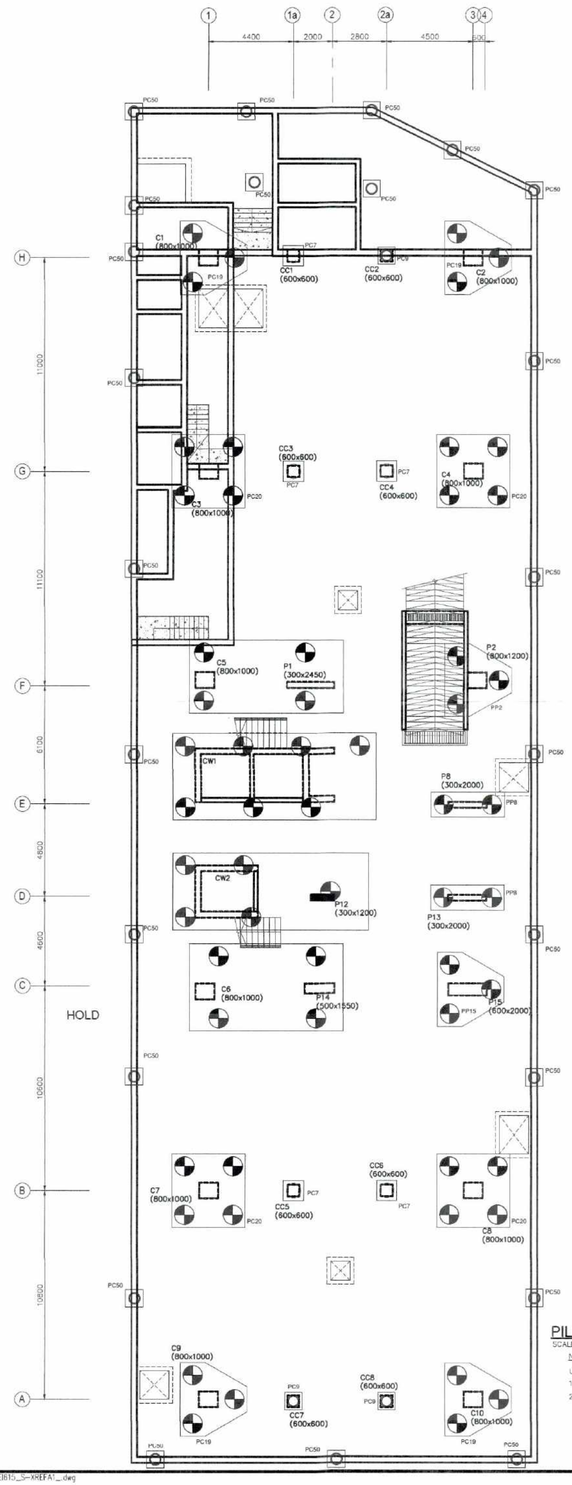
**STILT + 7TH FLOOR + ROOF FLOOR**

drawing title
**TYPICAL FLOOR FRAMING PLAN & SLAB DETAIL**
(2nd,3rd,4th,5th,6th & 7th) FLOORS

| | | | |
|---|---|---|---|
| scale | 1:100 | design by | ROHIT |
| drawn by | GUNA | checked by | SIVA |
| date | JUNE 2023 | approved by | PJ |
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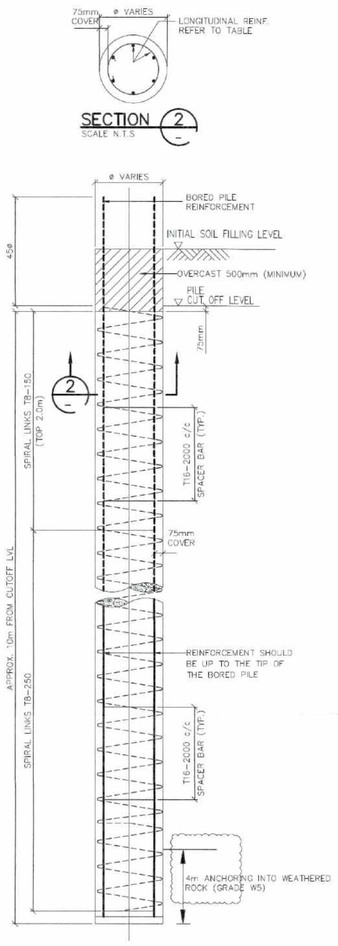
CAD FILE NAME: BEI749_S-FPT---01_.dwg




## PILE LAYOUT PLAN
SCALE 1:125

NOTES

UNLESS OTHERWISE SPECIFIED
1. GRADE OF CONCRETE M30
2. GRADE OF STEEL Fe 550




## PILE REINFORCEMENT DETAILS (BORED PILE SCHEDULE )

| BORED PILE MARK / TYPE | SIZE | WORKING COMPRESSION CAPACITY (TONS) | LONGITUDINAL REINFORCEMENT | LINKS | | NOS. OF PILES |
|---|---|---|---|---|---|---|
| | | | | S1 | S2 | |
| TYPE A | 1000ø | 400 | 14T20 | T8-150 | T8-250 | 58 |
| TYPE B | 750ø | 240 | 10T20 | T8-150 | T8-250 | 5 |
| TYPE C | 600ø | 160 | 8T16 | T8-150 | T8-250 | 30 |

## GENERAL NOTES FOR PILING WORKS

1. The contractor shall verify all dimensions and levels on site and resolve any discrepancy with the Architect or Engineer before commencement of work.
2. A copy of pile setting out plan prepared by a Licensed Surveyor shall be submitted by the contractor to Architect and Engineer prior to the commencement of the work.
3. Grade of concrete for pile shall be M30 (fcu = 30 N/mm2)
4. Reinforcement shall be high strength deformed bars (fy = 550 N/mm2)
   a) Longitudinal reinforcement shall be extended up to the tip of the pile (Base of the pile)
   b) any additional reinforcement bars required to stiffen the reinforcement cage shall be allowed in the tender.
5. All piles shall be installed to have an ultimate capacity of not less than 2.5 times the specified working capacity of pile.
6. The working piles shall be installed upon successful completion of preliminary load test.
7. Estimated Toe of the pile from the existing ground level shall be around 10m.
8. The maximum permissible deviation of the centre of each pile at cut-off level in a group from the correct centre point as approved by the engineer shall be 75mm(3") in any direction. Allowable deviation of the centre of piles for any single pile or single line of piles carrying structural load shall not be more than 40mm laterally from its correct position. All piles shall be installed using rotary piling rig only.
9. The format of the piling record shall be submitted to the Engineer's approval before commencement of work. Complete piling records shall be kept by the contractor during the installation of pile. The contractor shall submit the records of all piles as the work proceeds.
10. After the completion of the piling work, the contractor shall submit as-built drawing prepared by a Registered Licensed Surveyor which includes the size and type of piles, eccentricities and penetration depth from cutoff level. Eccentricity of pile is to be taken at cutoff level for the pile.
11. The stripping and cutting of pile to the required cutoff level is to be carried out by the piling contractor, when the excavation for construction of pilecap is completed by the other contractor. The contractor shall allow in his tender for the same.
12. Distance between centre to centre of the pile in a pile group shall be 2.5 times the diameter of the pile.
13. The contractor shall ensure and provide necessary protection, that the adjacent buildings are not affected and damaged during the installation of bored piles
14. Working load test to be carried out to a load of 1.5 times specified working capacity of pile
15. Ultimate load test to be carried out to a load of 2.5 times specified working capacity of pile.

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* PILECAP LAYOUT PLAN REFER CAD FILE NAME: BE749_S-PL----02_.dwg
* BASEMENT BEAM DETAILS REFER CAD FILE NAME: BE749_S-PL----07_.dwg
* BASEMENT SLAB DETAILS REFER CAD FILE NAME: BE749_S-PL----05_.dwg
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BURO ENGINEERS (I) PRIVATE LTD.

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**STRUCTURAL**

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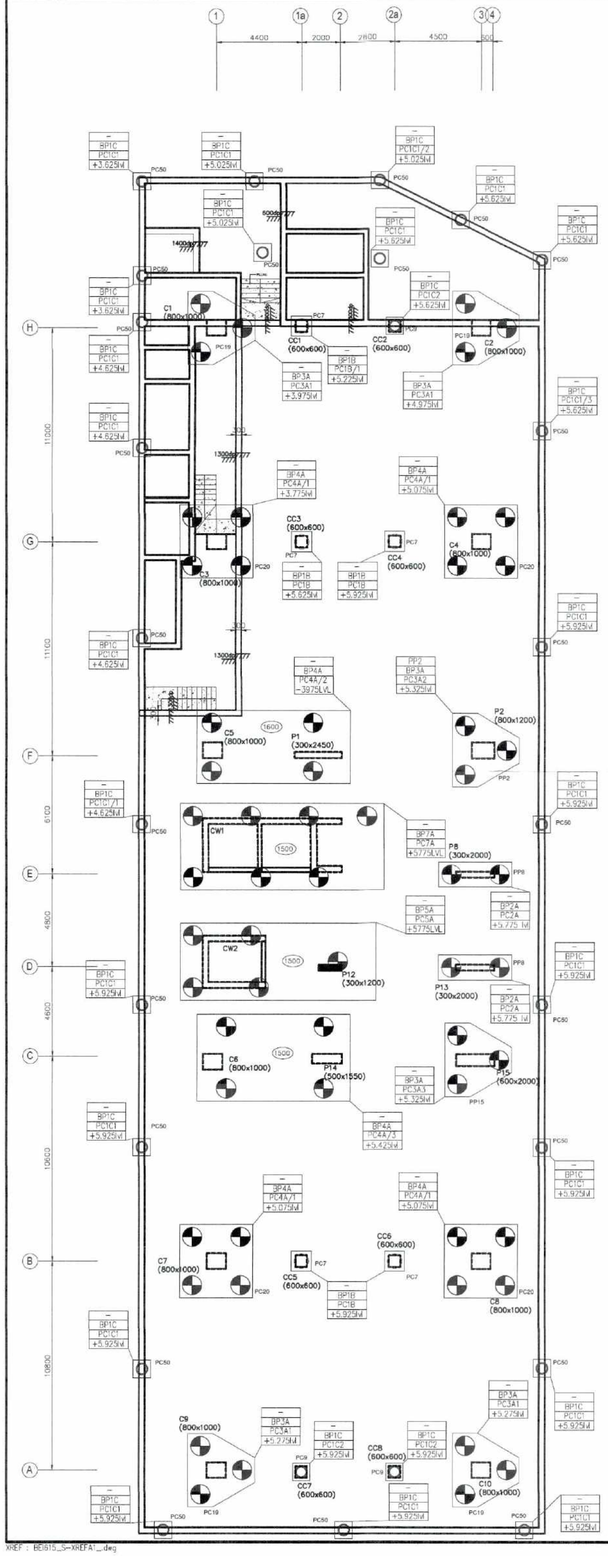
drawing title
**PILE LAYOUT PLAN**

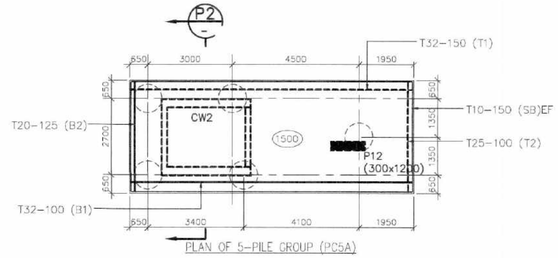
| | | | |
|---|---|---|---|
| scale | 1:125 | design by | YOGA |
| drawn by | GUNA | checked by | SIVA |
| date | JUNE 2023 | approved by | PJ |
| drawing no. | BE1749_S-/PL/--/--/01 | revision | |

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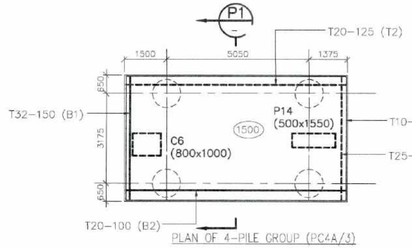
CAD FILE NAME: BE1749_S-PL----01_.dwg

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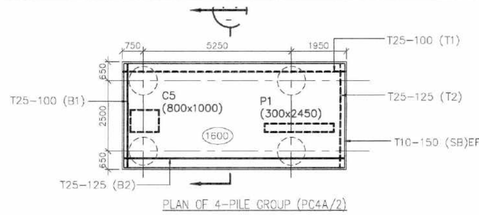


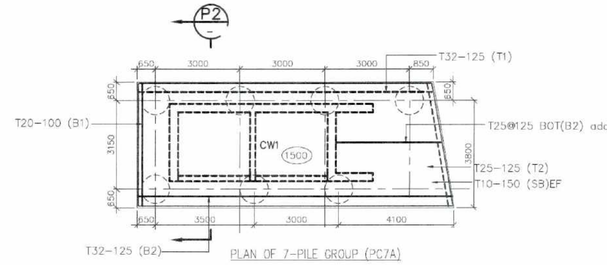

PLAN OF 5–PILE GROUP (PC5A)



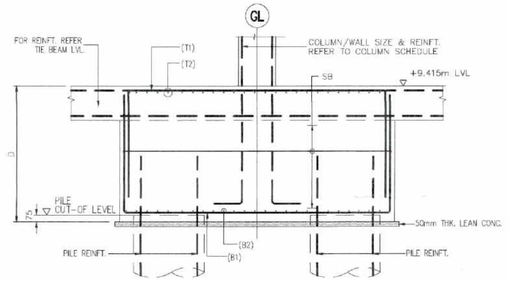

PLAN OF 4–PILE GROUP (PC4A/3)



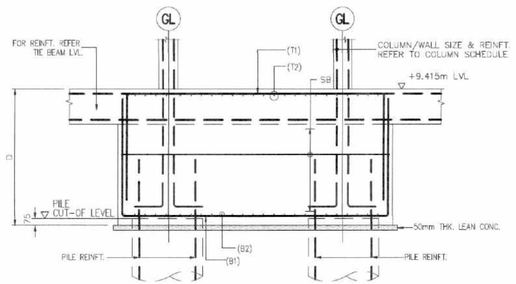

PLAN OF 4–PILE GROUP (PC4A/2)




PLAN OF 7–PILE GROUP (PC7A)




SECTION P1
SCALE N.T.S




SECTION P1
SCALE N.T.S

## PILECAP LAYOUT PLAN

SCALE 1:125

NOTES

UNLESS OTHERWISE SPECIFIED

1. GRADE OF CONCRETE M30
2. GRADE OF STEEL Fe 550
3. ALL THE BEAMS SIZES ARE TO BE 600X800mm
4. ALL THE RC SLABS ARE TO BE 300mm THICK
5. ALL THE BASEMENT AND WATER TANKS WALLS ARE 300mm THICK.

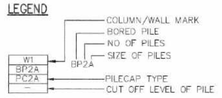
PILE CAP SCHEDULE

| PILE CAP MARK | PILES | DIMENSIONS | | | REINFORCEMENT | | | | SFR (SF) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | BOTTOM | | TOP | | |
| | | L | B | D | ALONG L | ALONG B | ALONG L | ALONG B | |
| PC19 | 3-1000 DIA | - | - | 1650 | T32@100 C/C | T32@100 C/C | T10@200 C/C | T10@200 C/C | T10-150 |
| PC9 | 1-600 DIA | 900 | 900 | 1000 | T16@100 C/C | T16@100 C/C | T10@200 C/C | T10@200 C/C | T10-200 |
| PC20 | 4-1000 DIA | 3800 | 3800 | 1850 | T32@100 C/C | T32@100 C/C | T10@200 C/C | T10@200 C/C | T10-175 |
| PC7 | 1-750 DIA | 1050 | 1050 | 1600 | T16@100 C/C | T16@100 C/C | T10@200 C/C | T10@200 C/C | T10-200 |
| PP2 | 3-1000 DIA | - | - | 1600 | T32@100 C/C | T32@100 C/C | T10@200 C/C | T10@200 C/C | T10-150 |
| PP8 | 2-1000 DIA | 1300 | 3800 | 1150 | T20@100 C/C | T16@100 C/C | T10@200 C/C | T10@200 C/C | T10-200 |
| PP15 | 3-1000 DIA | - | - | 1600 | T32@100 C/C | T32@100 C/C | T10@200 C/C | T10@200 C/C | T10-150 |
| PC50 | 1-600 DIA | 900 | 900 | 1600 | T32@100 C/C | T32@100 C/C | T10@200 C/C | T10@200 C/C | T10-200 |

## PILE REINFORCEMENT DETAILS

| BORED PILE MARK / TYPE | SIZE | WORKING COMPRESSION CAPACITY (TONS) | LONGITUDINAL REINFORCEMENT | LINKS | | NOS. OF PILES |
|---|---|---|---|---|---|---|
| | | | | S1 | S2 | |
| TYPE A | 1000ø | 400 | 14T20 | T8–150 | T8–250 | 58 |
| TYPE B | 750ø | 240 | 10T20 | T8–150 | T8–250 | 5 |
| TYPE C | 600ø | 160 | 8T16 | T8–150 | T8–250 | 30 |

LEGEND




* PILECAP LAYOUT PLAN REFER CAD FILE NAME: BEI749_S-PL----02_.dwg
* BASEMENT BEAM DETAILS REFER CAD FILE NAME: BEI749_S-PL----07_.dwg
* BASEMENT SLAB DETAILS REFER CAD FILE NAME: BEI749_S-PL----05_.dwg
* BASEMENT & STP, SUMP WALL SECTION DETAILS REFER CAD FILE NAME: BEI749_S-PL----05_.dwg

ALL SETTING OUT DIMENSION SHOWN IN THE STRUCTURAL DRAWINGS, SHALL BE VERIFIED WITH THE LATEST ARCHITECTURAL DRAWINGS BEFORE COMMENCEMENT OF CONSTRUCTION. IF THERE IS ANY DISCREPANCY, IT SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. THE CONSTRUCTION CAN ONLY PROCEED UPON RECEIVING THE CONFIRMATION FROM THE ARCHITECT ON THE DIMENSIONS.

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DATE OF ISSUE
23 JAN 2025
BURO ENGINEERS (I) PRIVATE LTD.

| NO. | AMENDMENTS | BY | DATE |
|---|---|---|---|
| - | ISSUE FOR CONSTRUCTION | GUNA | 23/01/2025 |

**CONSTRUCTION DRAWING**
**STRUCTURAL**

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project title
**PROPOSED OFFICE BUILDING AT THIRU VI KA INDUSTRIAL ESTATE EKKATUTHANGAL,CHENNAI. (G2)**

**STILT + 7TH FLOOR + ROOF FLOOR**

drawing title
**PILE CAP LAYOUT PLAN & DETAILS**

| | | | |
|---|---|---|---|
| scale | 1:125 | design by | YOGA |
| drawn by | GUNA | checked by | SIVA |
| date | JUNE 2023 | approved by | PJ |
| drawing no. | BEI749_S-/PL/--/--/02 | revision | |

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XREF : BEI615_S-XREFAT_.dwg

CAD FILE NAME: BEI749_S-PL----02_.dwg

THE LANDLENS SUITE

# Eight ways to know a piece of land before you pay for it.

This report covers one part of the picture. These cover the rest, drawn from the same government records, for any property in Tamil Nadu.

### LandLens One
Ask anything about a property and get an answer grounded in live government records, with the sources shown.
**/landlens/one**

### Verify My Land
Every record check run on one property and returned as a single report.
**/landlens/verify-my-land**

### Legal Opinion
An advocate's written opinion on the title, built on the records we pull for it.
**/landlens**

### One Map
Every layer on one map: the parcel, its boundary, zoning, water bodies and what sits around it.
**/landlens/one/map**

### PriceMap
What land actually changed hands for around this plot, taken from the registered deeds.
**/landlens/pricemap**

### Build Scope
What you are allowed to build here: floor space, height, coverage and setbacks.
**/landlens/build-scope**

### Property Tracker
Watch a property and hear about it when something new is registered against it.
**/landlens/property-tracker**

### Deal Room
Run the transaction in one place: documents, stamping, signatures and the parties.
**/landlens/deal-room**

FREE TOOLS · NO ACCOUNT NEEDED

# Twenty-four checks you can run yourself, at no cost.

## Records and verification

The registers themselves, read for you.

- Encumbrance Certificate
- Patta and Chitta
- Field Measurement Sketch
- EC Analyzer
- Bank charge check
- Court case search
- Seller background check
- Approval check by survey

## Value and duty

What it is worth and what it costs to register.

- Guideline value by street
- Guideline value by survey
- Stamp duty and registration fees
- Capital gains
- Floor space index
- Area unit converter

## Zoning and land use

What the plan says can happen on this land.

- Land use zone finder
- CMDA land use check
- Coastal regulation zone
- Master plan check
- Water bodies finder
- Airport height clearance

## Registers and directories

Who holds it, and which office keeps the record.

- Find your registering office
- Temple property check
- Waqf property check
- RERA register

**Every free tool**
/tools

**Services we run for you**
/services

**The LandLens suite**
/landlens/one

Verified RealEstate™

# Every claim in this document traces back to a government record.

- Legal opinions, due diligence and title verification
- Building plan, layout and sub-division approvals
- Completion and occupancy certificates, regularisation
- Escrow, negotiation and NRI property management
- Land survey, soil testing, architecture and construction

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Prepared from the registers named on the page each finding sits on. Where a register could not be read, this document says so in its place rather than leaving the gap to be read as a clean result.