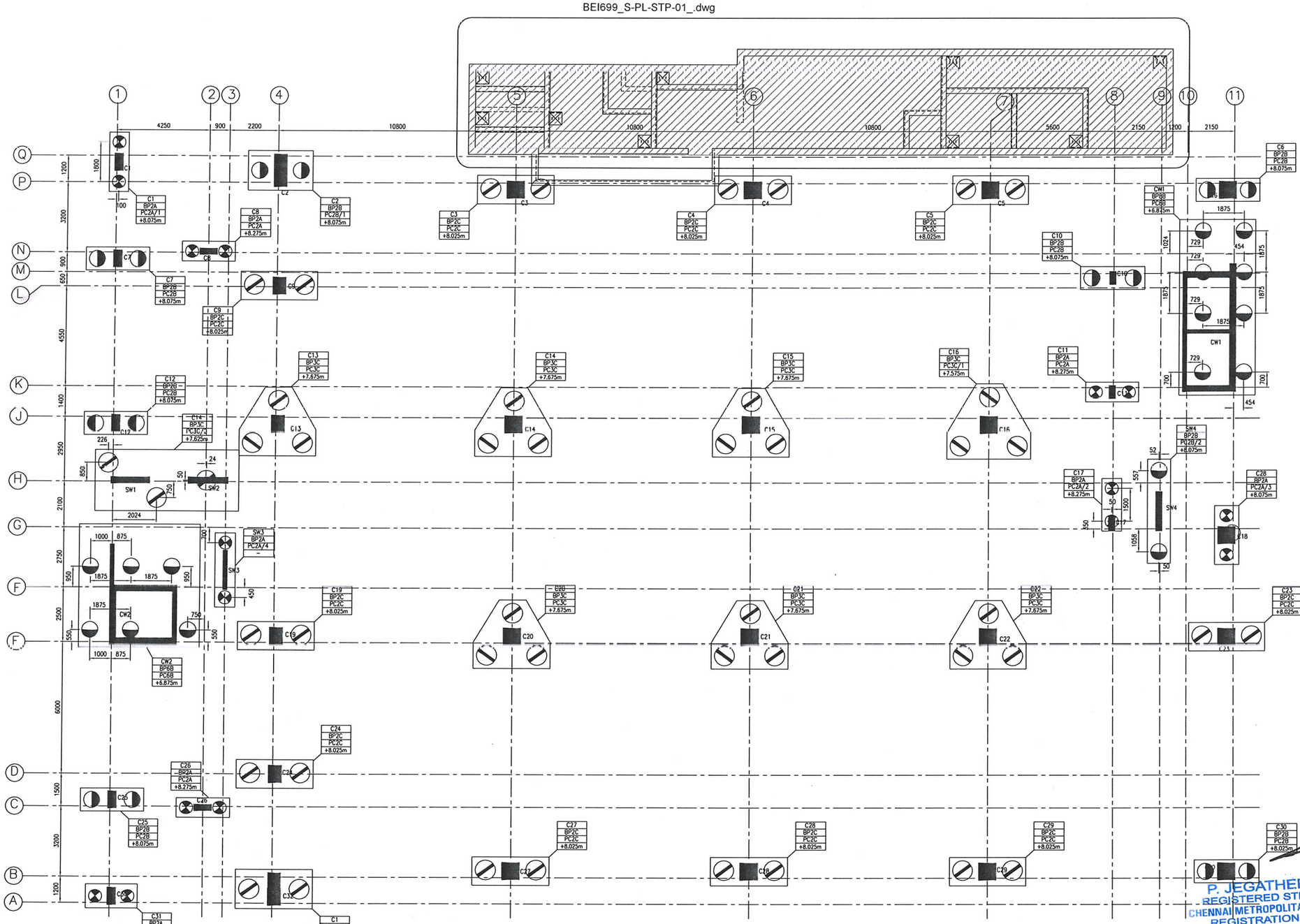
STP PILE DETAILS REFER DRAWING NO
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PILE & PILECAP LAYOUT PLAN

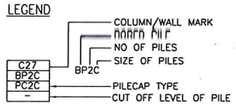
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NOTES

UNLESS OTHERWISE SPECIFIED

1. GRADE OF CONCRETE
   - (i) PILE – M30
   - (ii) PILE CAP – M30
2. GRADE OF STEEL– Fe550
3. PILE COVER 75mm.
4. PILE SECTION DETAILS REFER DWG NO : BEI699_S-/PL/--/02

LEGEND



PILE REINFORCEMENT DETAILS

BORED PILE MARK / TYPE	SIZE	WORKING COMPRESSION CAPACITY (TONS)	LONGITUDINAL REINFORCEMENT	LINKS		NOS. OF PILES
				S1	S2	
TYPE A	600ø	180	8T20	T8–150	T8–200	16
TYPE B	750ø	230	10T20	T8–150	T8–200	30
TYPE C	900ø	360	16T20	T8–150	T8–200	46

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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NATARAJ & VENKAT ARCHITECTS
18, 3rd SEAWARD RD, VALMIKI NAGAR
THIRUVANMIYUR, CHENNAI 600041
T/ + 91 44 2457 2457

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Civil & Structural Consultants
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CHENNAI 600004 INDIA TEL: 42658573 / 74, FAX: 24662755
email : buroindia@buroengr.com.sg,
buroindia@buroengineers.in

P. JEGATHEESAN, M.E., (Struct.)
REGISTERED STRUCTURAL ENGINEER
CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY
REGISTRATION No.SE/GR-I/19/03/027
NEW No.31 (OLD No.14), BESANT AVENUE,
ADYAR, CHENNAI - 600 020.
E-Mail : jegatheesan@buroengineers.in
Mobile : +91 9962545631

SUBMISSION DRAWING

STRUCTURAL

project title

OFFICE BUILDING
AT PERUNGUDI

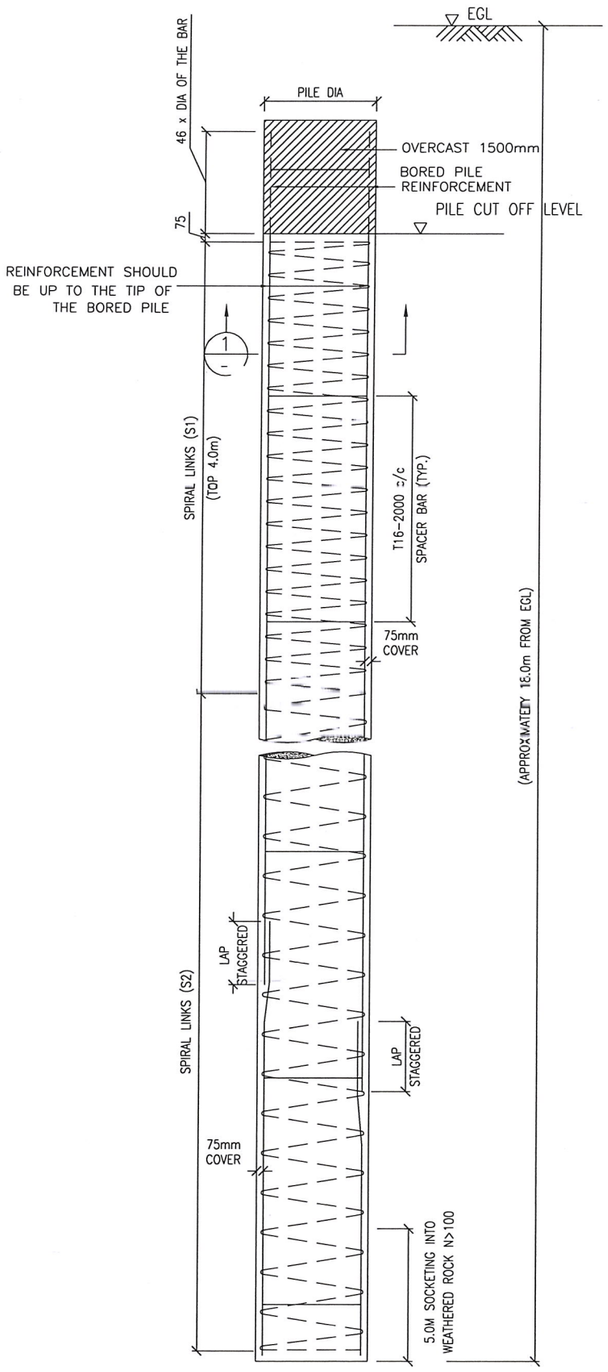
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PILE LAYOUT PLAN

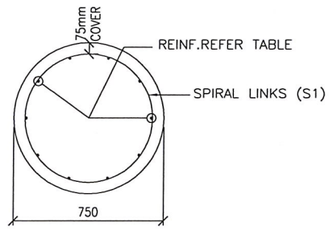
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date	APR 2024	approved by	SIVA
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TYPICAL DETAIL OF BORED PILE
SCALE 1:40



SECTION 1
SCALE 1:40

C/S OF BORED PILE

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 (fck = 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 provided.
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 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.
7. 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.
8. 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.
9. 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.
10. Distance between centre to centre of the pile in a pile group shall be 2.5 times the diameter of the pile.
11. The contractor shall ensure and provide necessary protection, that the adjacent buildings are not affected and damaged during the installation of bored piles
12. Routine load test to be carried out to a load of 1.5 times specified working capacity of pile.
13. The contractor shall visit and familiar himself with the site condition. The existing ground at the site is slopping. The contractor shall allow in his tender for the cutting of the existing ground and/or providing necessary temporary platform to facilitate installation of piles at the proposed locations.
14. The contractor shall propose the location of initial pile load test based on the site condition for the approval of the engineer. The contractor shall submit method statement and load test arrangement for the approval of the engineer before commencement of piling work.

P. JEGATHEESAN, M.E., (Struct.)
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REGISTRATION No.SE/GR-I/19/03/027
NEW No.31 (OLD No.14), BESANT AVENUE,
ADYAR, CHENNAI - 600 020.
E-Mail : jegatheesan@buroengineers.in
Mobile : +91 9962545631

NOTES:

CL - COLUMN CENTER LINE
REFER PILE/PILE CAP LAYOUT PLAN FOR FOR OTHER PILE CAP DIMENSIONS

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10, 3rd SEAWARD RD, VALMIKI NAGAR
THIRUVANMIYUR, CHENNAI 600041
T/ + 91 44 2457 2457

Civil & Structural Engineer :

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Civil & Structural Consultants
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SUBMISSION DRAWING

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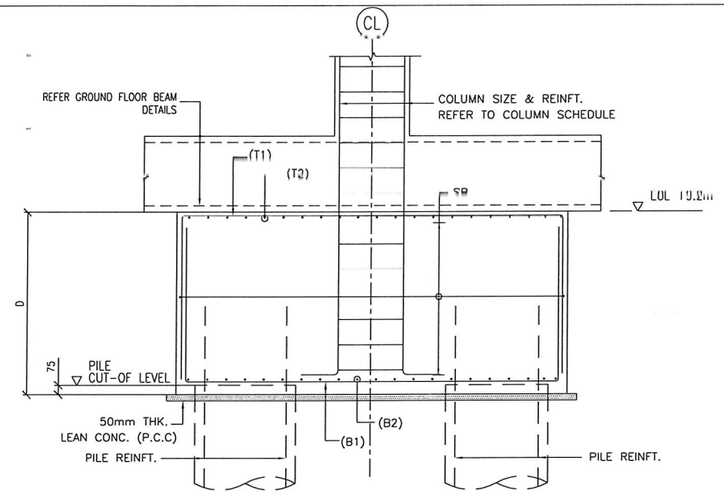
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PILE SECTION DETAIL

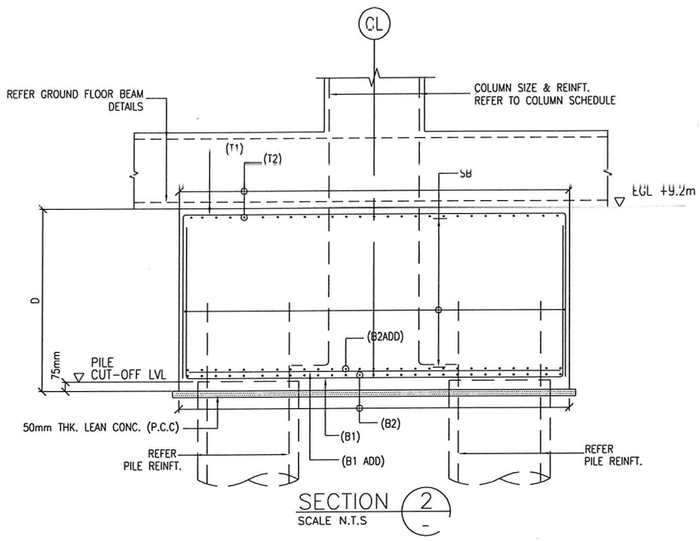
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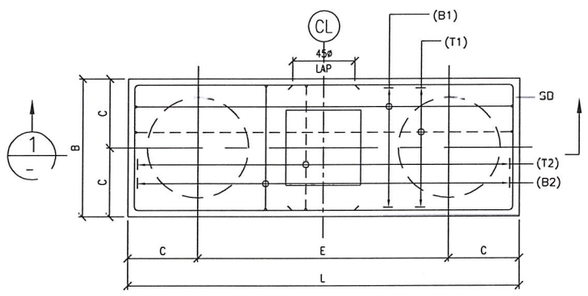
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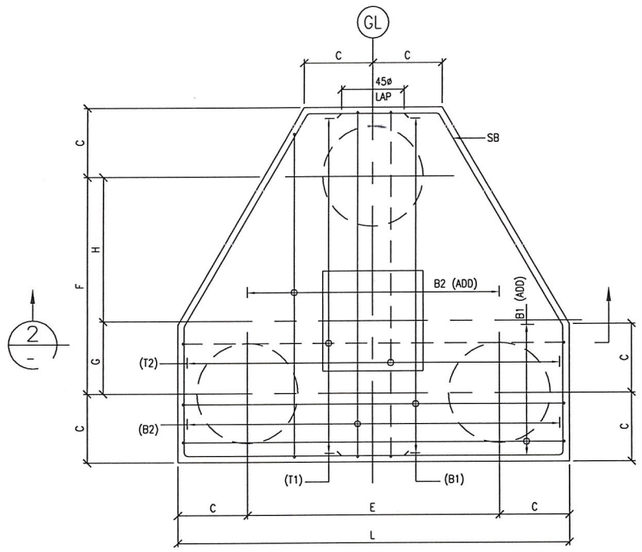
SECTION 1
SCALE N.T.S



SECTION 2
SCALE N.T.S



PLAN OF TWO-PILE GROUP
SCALE N.T.S



PLAN OF THREE-PILE GROUP
SCALE N.T.S

PILE CAP REINFORCEMENT DETAILS

TYPE OF PILE	TYPE OF PILE CAP	PILECAP DIMENSIONS									PILECAP REINFORCEMENTS					REMARKS
		L	B	D	C	C1	E	F	G	H	B1	B2	T1	T2	SB	
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)						
TWO PILE GROUP																
BP2A	PC2A	2400	900	1000	450	450	1500	–	–	–	T20-125	T16-100	T10-100	T10-100	T10-200	–
BP2A	PC2A/1	2700	900	1200	450	450	1800	–	–	–	T25-125	T20-125	T10-100	T10-100	T10-200	
BP2A	PC2A/2	2400	900	1000	450	450	1500	–	–	–	T20-125	T16-100	T20-125	T10-100	T10-200	–
BP2A	PC2A/3	2700	1100	1000	450	550	1800	–	–	–	T20-125	T16-100	T10-100	T10-100	T10-200	–
BP2A	PC2A/4	3400	900	1000	450	450	2500	–	–	–	T20-125	T16-100	T10-100	T10-100	T10-200	–
BP2B	PC2B	2925	1050	1200	525	525	1875	–	–	–	T25-110	T20-140	T10-110	T10-110	T10-200	–
BP2B	PC2B/1	2925	1800	1200	525	900	1875	–	–	–	T25-110	T20-140	T10-110	T10-110	T10-200	–
BP2B	PC2B/2	4764	1050	1200	525	525	3714	–	–	–	T20-110	T20-125	T10-110	T10-110	T10-200	–
BP2C	PC2C	3450	1300	1250	600	600	2250	–	–	–	T32-110	T20-125	T10-100	T10-100	T10-200	–
BP2C	PC2C/1	3450	1800	1250	600	900	2250	–	–	–	T32-110	T20-125	T10-100	T10-100	T10-200	–
THREE PILE GROUP																
BP3C	PC3C	3450	–	1600	600	–	2250	1932	860	1071	T32-110	T32-110	T12-110	T12-110	T10-200	–
BP3C	PC3C/1	3800	–	1700	600	–	2600	2230	960	1720	T32-110	T32-110	T12-110	T12-100	T10-200	–

P. JEGATHEESAN, M.E., (Struct.)
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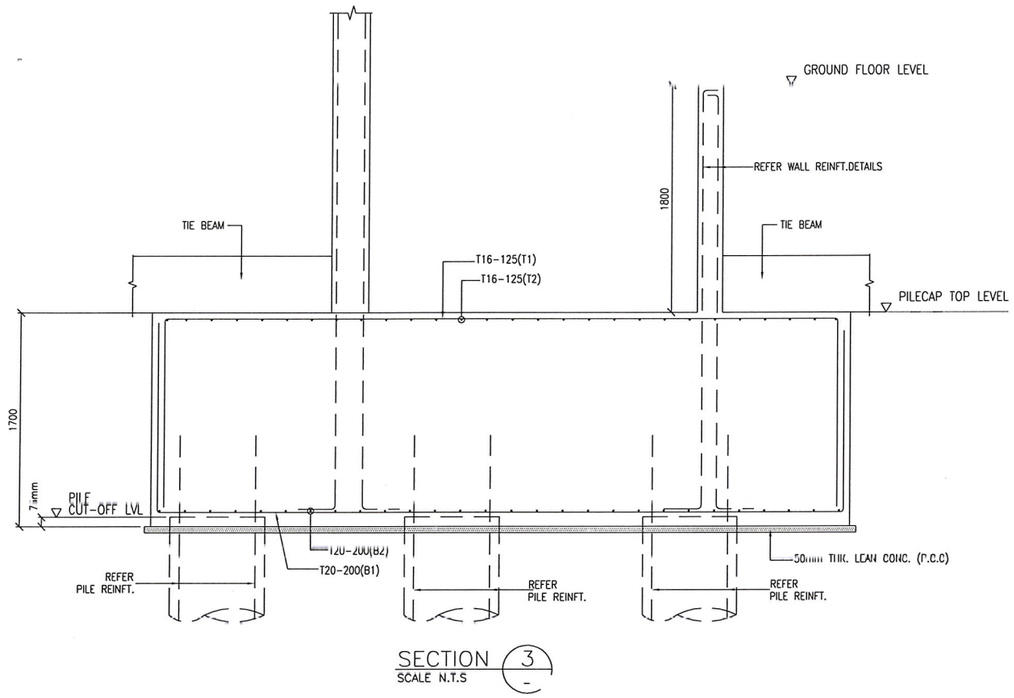
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drawing title
PILECAP DETAILS

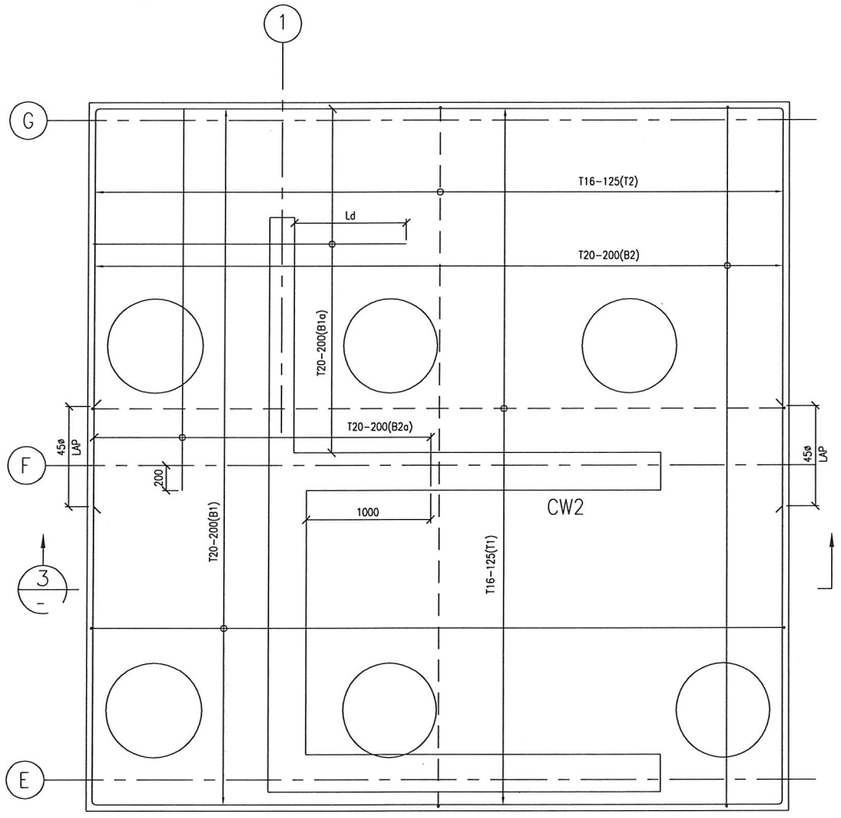
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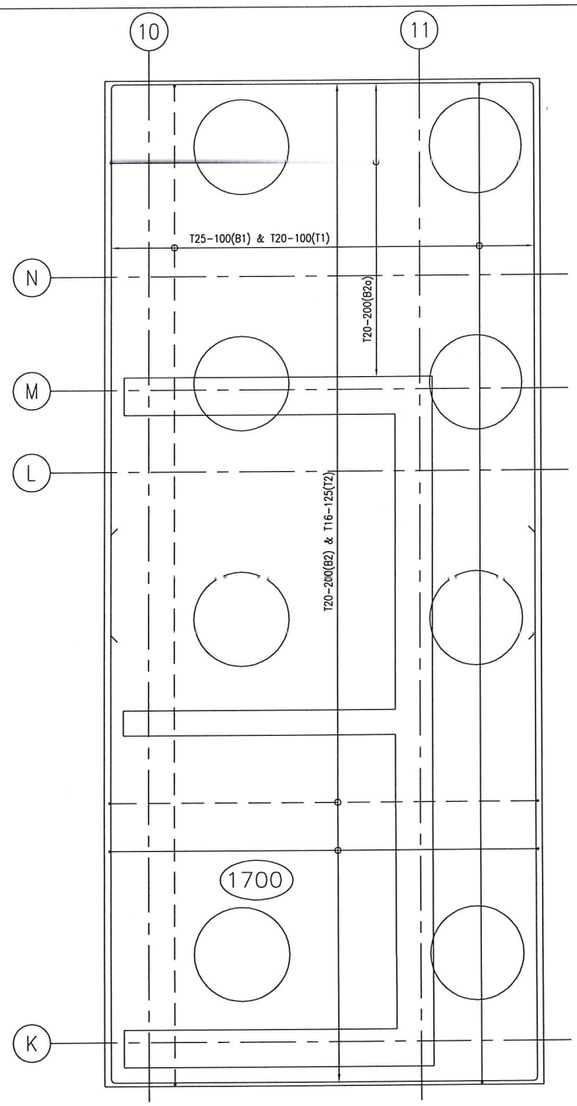
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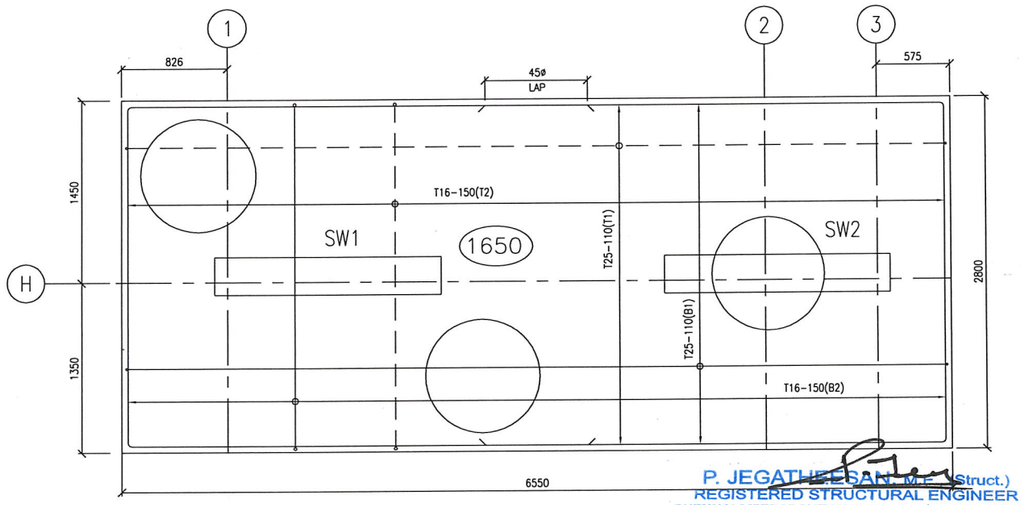


SECTION 3
SCALE N.T.S



PLAN OF THREE-PILE GROUP (PC3C/2)
SCALE 1:25





PLAN OF THREE-PILE GROUP (PC3C/1)
SCALE 1:25

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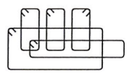
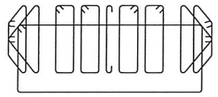
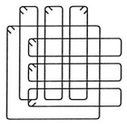
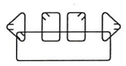
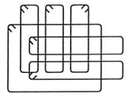
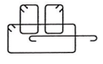
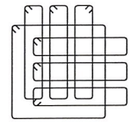
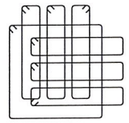
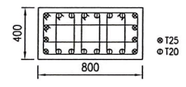
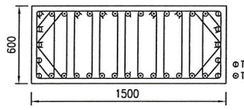
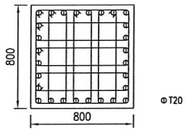
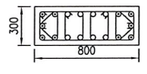
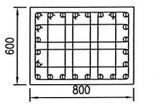
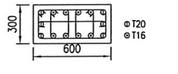
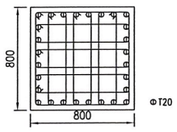
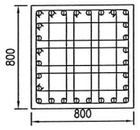
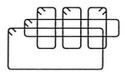
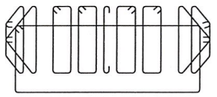
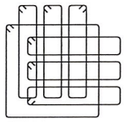
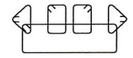
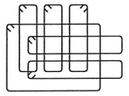
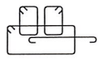
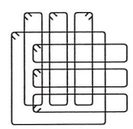
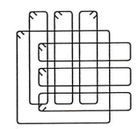
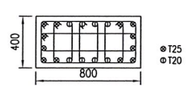
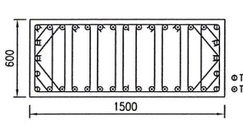
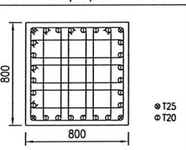
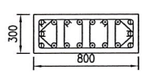
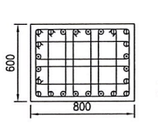
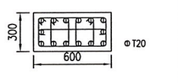
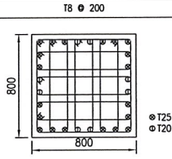
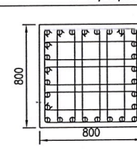
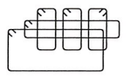
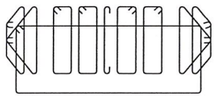
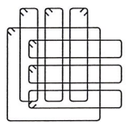
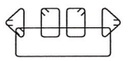
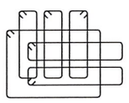
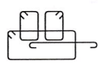
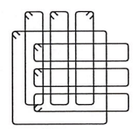
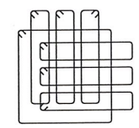
PILECAP DETAILS

scale	AS SHOWN	design by	ASFAQ
drawn by	SATHYA	checked by	JOSHI
date	JUN 2023	approved by	SIVA
drawing no.	BEI699_S-/PC/DT/02	revision	-

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CAD FILE NAME: BEI699_S-PCDT-02_.dwg

P. JEGATHEESAN, ME (Struct.)
REGISTERED STRUCTURAL ENGINEER
CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY
(REGISTRATION No.SE/GR-I/19/03/027
NEW No.31(OLD No.14), BESANT AVENUE,
ADYAR, CHENNAI - 600 020.
E-Mail : jegatheesan@buroengineers.in
Mobile : +91 9962545631

	M35 : Fe550 (M) : Fe415 (S) , COVER = 40MM	M35 : Fe550 (M) : Fe415 (S) , COVER = 40MM	M35 : Fe550 (M) : Fe415 (S) , COVER = 40MM	M35 : Fe550 (M) : Fe415 (S) , COVER = 40MM	M35 : Fe550 (M) : Fe415 (S) , COVER = 40MM	M35 : Fe550 (M) : Fe415 (S) , COVER = 40MM	M35 : Fe550 (M) : Fe415 (S) , COVER = 40MM	M35 : Fe550 (M) : Fe415 (S) , COVER = 40MM
3RD FLOOR								
TO	LINKS	LINKS	LINKS	LINKS	LINKS	LINKS	LINKS	LINKS
ROOF	T8-100/200/100	T8-100/200/100	T8-100/200/100	T8 @ 175	T8 @ 200	T8 @ 200	T8 @ 200	T8-100/200/100
								
	8-T25 + 12-T20	10-T20 + 26-T16	28-T20	10-T16 + 8-T12	24-T20	6-T20 + 8-T16	28-T20	28-T20
	M35 : Fe550 (M) : Fe415 (S) , COVER = 40MM	M35 : Fe550 (M) : Fe415 (S) , COVER = 40MM	M35 : Fe550 (M) : Fe415 (S) , COVER = 40MM	M35 : Fe550 (M) : Fe415 (S) , COVER = 40MM	M35 : Fe550 (M) : Fe415 (S) , COVER = 40MM	M35 : Fe550 (M) : Fe415 (S) , COVER = 40MM	M35 : Fe550 (M) : Fe415 (S) , COVER = 40MM	M35 : Fe550 (M) : Fe415 (S) , COVER = 40MM
1ST FLOOR								
TO	LINKS	LINKS	LINKS	LINKS	LINKS	LINKS	LINKS	LINKS
3RD FLOOR	T8-100/200/100	T8-100/200/100	T8-100/200/100	T8 @ 200	T8 @ 200	T8 @ 200	T8 @ 200	T8-100/200/100
								
	12-T25 + 8-T20	10-T20 + 26-T16	4-T25 + 24-T20	6-T20 + 12-T16	12-T20 + 12-T16	14-T20	20-T25 + 8-T20	28-T20
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BASEMENT								
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1ST FLOOR	T8-100/200/100	T8-100/200/100	T8-100/200/100	T8 @ 200	T8 @ 200	T8 @ 200	T8 @ 200	T8-100/200/100
	20T20	36-T20	28-T25	18-T20	12-T20 + 12-T16	6-T25 + 8-T20	12-T32 + 16-T25	28-T20
COLUMN MARKED	C1, C7, C12, C25, C31	C2, C32	C3, C4, C5, C6, C27, C28, C29, C30	C8, C26	C9, C13, C19, C24	C10, C11, C17	C14, C15, C16, C20, C21, C22	C18, C23

NO.	AMENDMENTS	BY	DATE
-	ISSUE FOR SUBMISSION	SATHYA	05/06/24

Client :

ARIHANT

Electrical & MEP :

Landscape Consultant :

Architect:

NATARAJ & VENKAT ARCHITECTS
18, 3rd SEAWARD RD, VALMIKI NAGAR
THIRUVANMIYUR, CHENNAI 600041
T/ + 91 44 2457 2457

Civil & Structural Engineer :

BURO ENGINEERS (I) PRIVATE LTD.
Civil & Structural Consultants
19, BRINDHAVAN STREET, 2nd FLOOR, MYLAPORE
CHENNAI 600004 INDIA TEL: 42658573 / 74, FAX: 24662755
email : buroindia@buroengr.com.sg,
buroindia@buroengineers.in

SUBMISSION DRAWING

STRUCTURAL

project title

OFFICE BUILDING
AT PERUNGUDI

drawing title

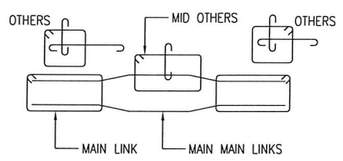
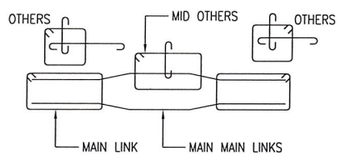
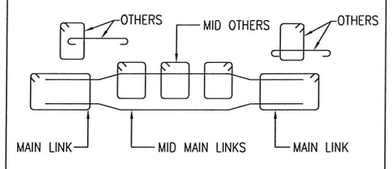
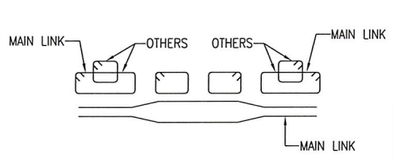
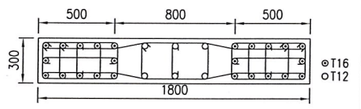
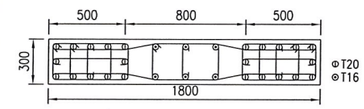
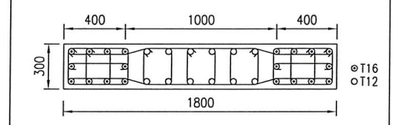
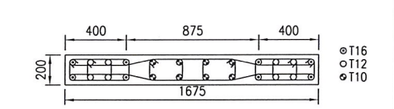
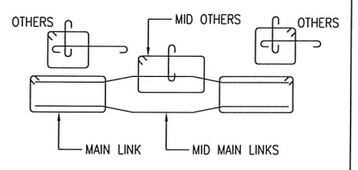
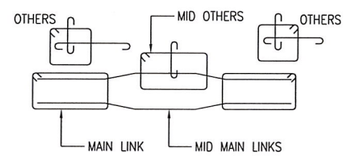
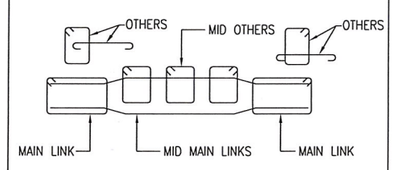
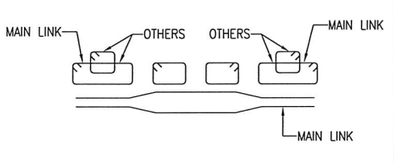
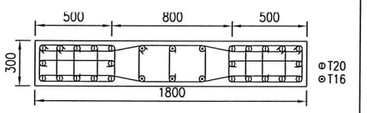
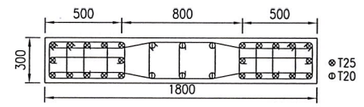
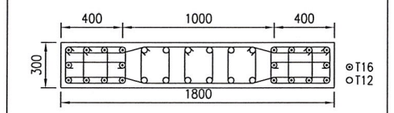
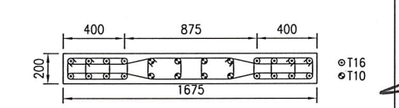
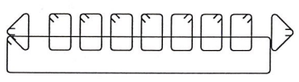
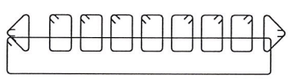
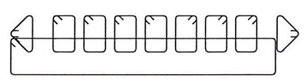
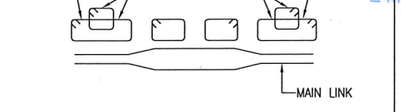
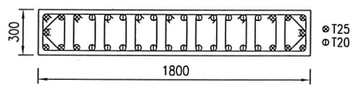
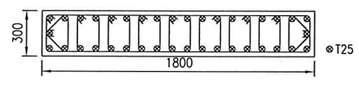
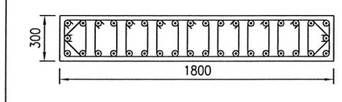
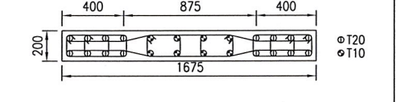
COLUMN SCHEDULE

scale	AS SHOWN	design by	ASFAQ
drawn by	SATHYA	checked by	JOSHI
date	APR 2024	approved by	SIVA
drawing no.	BEI699_S-/CL/SH/01	revision	-

P. JEGATHEESAN, M.E., (Struct.)
REGISTERED STRUCTURAL ENGINEER
CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY
REGISTRATION No.SE/GR-I/19/03/027
NEW No.31 (OLD No.14), BESANT AVENUE,
ADYAR, CHENNAI 600 020.
E-Mail : jegatheesan@buroengineers.in
Mobile : +91 9962545631

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CAD FILE NAME: BEI699_S-CLSH01_.dwg

3RD FLOOR TO ROOF	M35 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 30MM 				M35 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 30MM 				M35 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 30MM 				M35 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 30MM 			
	BE MAIN LINK	BE OTHERS	MID MAIN LINKS	MID OTHERS	BE MAIN LINK	BE OTHERS	MID MAIN LINKS	MID OTHERS	BE MAIN LINK	BE OTHERS	MID MAIN LINKS	MID OTHERS	BE MAIN LINK	BE OTHERS	MID MAIN LINKS	MID OTHERS
	T8 @ 100	T8@ 100	T8 @ 125	T8 @ 200	T10 @ 100	T8@ 100	T10 @ 125	T8@ 200	T8 @ 100	T8@ 100	T8 @ 125	T8@ 200	T8 @ 100	T8@ 100	T8 @ 175	T8@ 175
																
	24–T16 + 6–T12				24–T20 + 6–T16				20–T16 + 12–T12				(8–T16 + 8–T12) + 8–T10			
1ST FLOOR TO 3RD FLOOR	M35 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 30MM 				M35 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 30MM 				M35 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 30MM 				M35 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 30MM 			
	BE MAIN LINK	BE OTHERS	MID MAIN LINKS	MID OTHERS	BE MAIN LINK	BE OTHERS	MID MAIN LINKS	MID OTHERS	BE MAIN LINK	BE OTHERS	MID MAIN LINKS	MID OTHERS	BE MAIN LINK	BE OTHERS	MID MAIN LINKS	MID OTHERS
	T8 @ 100	T8@ 100	T8 @ 125	T8@ 200	T10 @ 100	T8@ 100	T10 @ 125	T8@ 200	T8 @ 100	T8@ 100	T8 @ 125	T8@ 200	T8 @ 100	T8@ 100	T8 @ 175	T8@ 175
																
	24–T20 + 6–T16				24–T25 + 6–T20				20–T16 + 12–T12				16–T16 + 8–T10			
BASEMENT TO 1ST FLOOR	M35 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 30MM 				M35 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 30MM 				M35 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 30MM 				M35 : Fe550 (MAIN) : Fe415 (SHEAR) , COVER = 30MM 			
	MAIN LINKS		OTHER LINKS		LINKS				LINKS				BE MAIN LINK	BE OTHERS	MID MAIN LINKS	MID OTHERS
	T8 @ 100		T8@ 100		T8@ 100				T8@ 100				T8 @ 100	T8@ 100	T8 @ 200	T8@ 200
																
	14–T25 + 24–T20				38–T25				38–T16				16–T20 + 8–T10			
COLUMN MARKED	SW1				SW2				SW4				SW3			

NO.	AMENDMENTS	BY	DATE
–	ISSUE FOR SUBMISSION	SATHYA	05/06/24

Client :

ARIHANT

Electrical & MEP :

Landscape Consultant :

Architect:

NATARAJ & VENKAT ARCHITECTS
18, 3rd SEAWARD RD, VALMIKI NAGAR
THIRUVANMIYUR, CHENNAI 600041
T/ + 91 44 2457 2457

Civil & Structural Engineer :

BURO ENGINEERS (I) PRIVATE LTD.
Civil & Structural Consultants
19, BRINDHAVAN STREET, 2nd FLOOR, MYLAPORE
CHENNAI 600004 INDIA TEL: 42658573 / 74, FAX: 24662755
email : buroindia@buroengr.com.sg,
buroindia@buroengineers.in

P. JEGATHEESAN, M.E., (Struct.)
REGISTERED STRUCTURAL ENGINEER
CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY
REGISTRATION No.SE/GR-I/19/03/027
NEW No.31 (OLD No.14), BESANT AVENUE,
ADYAR, CHENNAI - 600 020.
E-Mail : jegatheesan@buroengineers.in
Mobile : +91 9962545631

SUBMISSION DRAWING

STRUCTURAL

project title

OFFICE BUILDING
AT PERUNGUDI

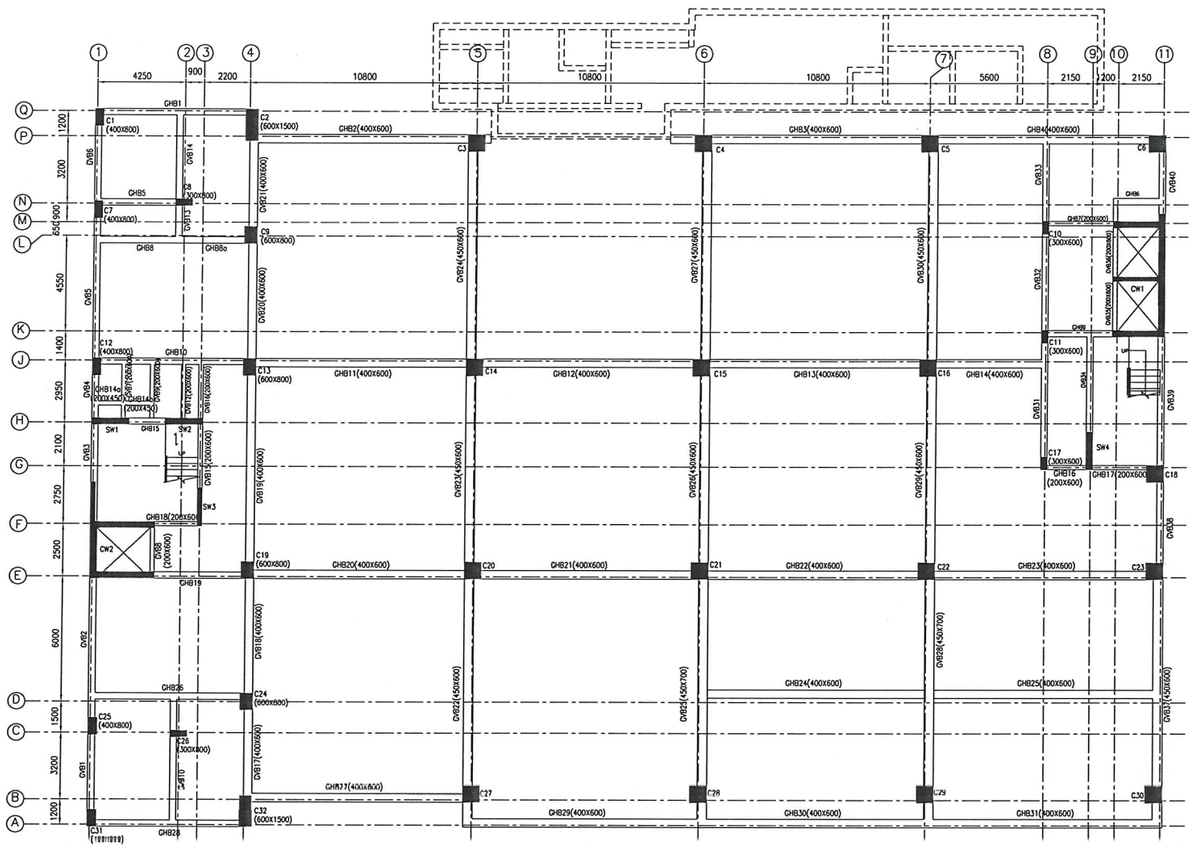
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COLUMN SCHEDULE

scale	AS SHOWN	design by	ASFAQ
drawn by	SATHYA	checked by	JOSHI
date	APR 2024	approved by	SIVA
drawing no.	BEI699_S-/CL/SH/02	revision	–

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GROUND FLOOR FRAMING PLAN

SCALE 1:150

NOTE

UNLESS OTHERWISE SPECIFIED

1. GRADE OF CONCRETE M30
2. GRADE OF STEEL Fe550
3. ALL BEAMS ARE TO BE 300x600mm
4. ALL SQUARE COLUMNS ARE TO BE 800X800mm

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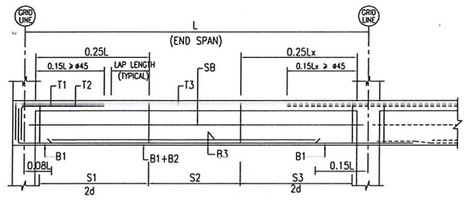
drawing title

GROUND FLOOR FRAMING PLAN

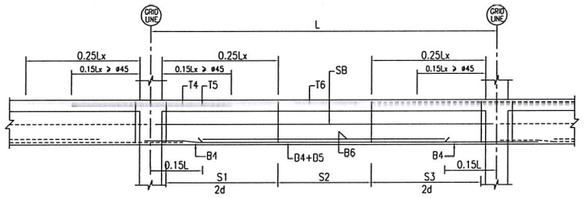
scale	AS SHOWN	design by	ASHFAQ
drawn by	SATHYA	checked by	JOSHI
date	JUN 2023	approved by	PJ
drawing no.	BEI699_S-/FP/G--/01	revision	-

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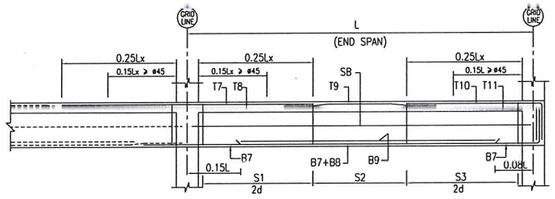
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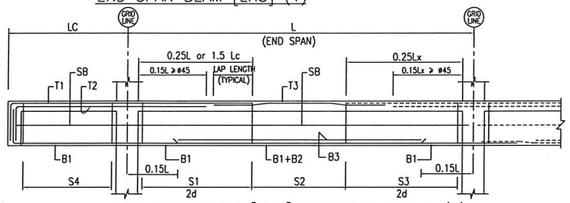
END SPAN BEAM [LHS] (1)



INTERMEDIATE SPAN BEAM (2)



END SPAN BEAM [RHS] (3)

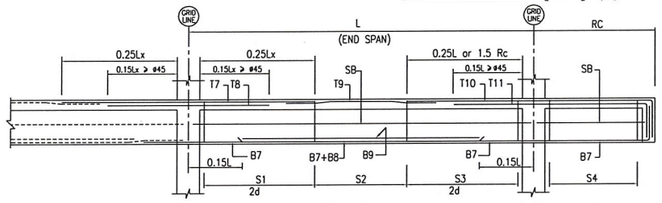


END SPAN BEAM [LHS] WITH CANTILEVER (4)

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
d --------EFFECTIVE DEPTH OF BEAM

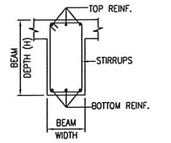
Lx = Length of span under consideration or Length of adjacent span whichever is greater



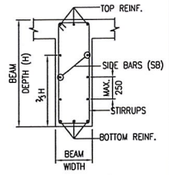
END SPAN BEAM [RHS] WITH CANTILEVER (5)

NOTES :-

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE KEY PLAN AND ALL OTHER RELEVANT DRAWINGS.
2. IF THE REINFORCEMENT IS PROVIDED IN TWO LAYERS OR MORE, THEN SPACER BARS BETWEEN THE LAYERS NEED TO BE PROVIDED
3. SPACER BARS TO BE T25 OR MAIN BAR SIZE (WHICHEVER IS GREATER) AT 900c/c BETWEEN EACH LAYER OF MAIN STEEL.
4. THE BAR LENGTH INDICATED ARE NOT TO BE USED FOR CUTTING OUT OR MEASUREMENT.
5. 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
6. LAP LENGTH FOR BARS SHOULD BE SAME AS TENSION ANCHORAGE LENGTH BASED UPON THE LARGER BAR DIAMETER FOR UNEQUAL SIZE OF BARS
7. FIRST STIRRUP OF BEAM SHOULD BE 50mm (MAXIMUM) FROM THE COLUMN FACE

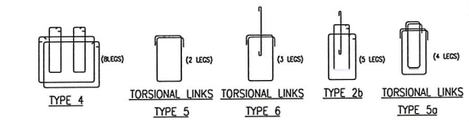


TYP. BEAM SECTION

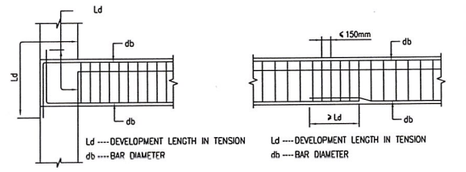


TYP. SIDE BARS DETAIL FOR BEAM DEPTH > 750





STIRRUPS TYPE

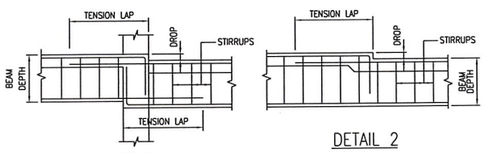


ANCHORAGE OF BEAM BARS AT BEAM AND COLUMN JUNCTION (EXTERNAL JOINT)

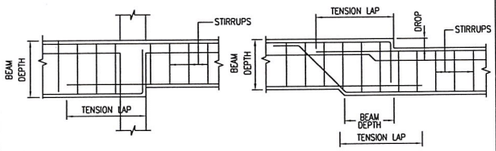
NOTE:
IN AN INTERNAL JOINT, BOTH TOP & BOTTOM BARS OF THE BEAM SHALL BE TAKEN CONTINUOUSLY THROUGH THE COLUMN

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 DETAIL 4

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

P. JEGATHEESAN, M.E., (Struct.)
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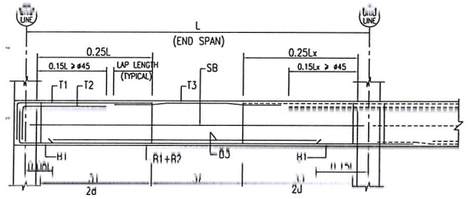
GROUND FLOOR BEAM SCHEDULE

scale	NTS	design by	ASHFAQ
drawn by	SATHYA	checked by	SIVA
date	FEB 2024	approved by	PJ
drawing no.	BEI699/S-/BM/G-/01	revision	-

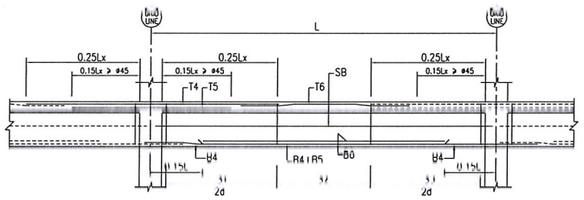
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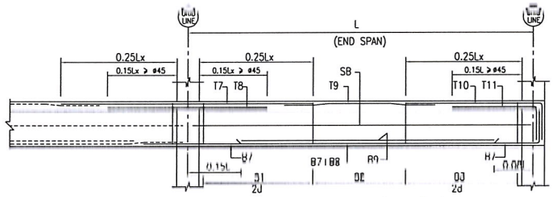
LOCATION			SIZE		SPAN			REINFORCEMENT																		SIDE BAR	STIRRUPS					REMARKS
BEAM MARKING	CATEGORY	GRID LINE OR BEAM MARK	WIDTH (mm)	DEPTH (mm)	LEFT END CANTILEVER Lc	SPAN (APPROX) L	RIGHT END CANTILEVER RC	LEFT END SPAN						INTERMEDIATE SPAN						RIGHT END SPAN														
								T1	T2	T3	B1	B2	B3	T4	T5	T6	B4	B5	B6	T7	T8	T9	T10	T11	B7	B8	B9	SB	S1	S2	S3	S4	TYPE	
GHB3	4	-	400	600	1650	10800	-	4T16	2T16	4T16	4T16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	T8-100	1	-
GHB4	3	-	400	600	-	10800	-	-	-	-	-	-	-	-	-	-	-	-	-	4T16	2T16	4T16	4T16	2T16	4T16	-	2T12	-	T8-200	T8-200	T8-200	-	1	-
GHB8	1	-	300	600	-	3950	-	3T16	-	3T16	3T16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	SIMILAR TO GHB26
GHB8A	3	-	300	600	-	3450	-	-	-	-	-	-	-	-	-	-	-	-	-	3T16	-	3T16	3T16	-	3T16	-	-	-	T8-200	T8-200	T8-200	-	1	SIMILAR TO GHB26A
GHB11	1	-	400	600	-	10700	-	4T16	2T16	4T16	4T20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GHB12	2	-	400	600	-	10800	-	-	-	-	-	-	-	4T16	2T16	4T16	4T20	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GHB13	2	-	400	600	-	10800	-	-	-	-	-	-	-	4T16	2T16	4T16	4T20	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GHB14	3	-	400	600	-	5500	-	-	-	-	-	-	-	-	-	-	-	-	-	4T16	2T16	4T16	4T16	-	4T16	-	-	-	T8-200	T8-200	T8-200	-	1	-
GHB14a	1	-	200	450	-	1400	-	2T12	-	2T12	2T12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GHB14b	3	-	200	450	-	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	2T12	-	2T12	2T12	-	2T12	-	-	-	T8-200	T8-200	T8-200	-	1	-
GHB16	1	-	200	600	-	2150	-	2T16	-	2T16	2T16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GHB17	3	-	200	600	-	3100	-	-	-	-	-	-	-	-	-	-	-	-	-	2T16	-	2T16	2T16	-	2T16	-	-	-	T8-175	T8-200	T8-175	-	1	-
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GVB2	3	-	300	600	-	7550	-	-	-	-	-	-	-	-	-	-	-	-	-	3T16	2T16	3T16	3T16	2T16	3T16	-	-	-	T8-200	T8-200	T8-200	-	1	-
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GVB4	2	-	300	600	-	2600	-	-	-	-	-	-	-	3T16	-	3T16	3T16	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GVB5	2	-	300	600	-	7500	-	-	-	-	-	-	-	3T16	2T12	3T16	3T16	-	2T12	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GVB6	3	-	300	600	-	4400	-	-	-	-	-	-	-	-	-	-	-	-	-	3T16	2T12	3T16	3T16	-	3T16	-	-	-	T8-200	T8-200	T8-200	-	1	-
GVB15	1	-	200	600	-	3500	-	2T20	-	2T20	2T16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-150	T8-200	T8-150	-	1	-
GVB16	3	-	200	600	-	2850	-	-	-	-	-	-	-	-	-	-	-	-	-	2T20	2T20	2T20	2T20	-	2T16	-	-	-	T8-200	T8-200	T8-200	-	1	-
GVB17	1	-	400	600	-	5300	-	4T16	-	4T16	4T16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GVB18	2	-	400	600	-	6300	-	-	-	-	-	-	-	4T16	-	4T16	4T16	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GVB19	2	-	400	600	-	9700	-	-	-	-	-	-	-	4T16	4T12	4T16	4T16	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GVB20	2	-	400	600	-	6300	-	-	-	-	-	-	-	4T16	4T12	4T16	4T16	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GVB21	3	-	400	600	-	5250	-	-	-	-	-	-	-	-	-	-	-	-	-	4T16	-	4T16	4T16	-	4T16	-	-	-	T8-200	T8-200	T8-200	-	1	-
GVB22	4	-	450	600	1600	10700	-	4T16	2T16	4T16	4T20	-	2T16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	T10-100	1	-
GVB23	2	-	450	600	-	9700	-	-	-	-	-	-	-	4T16	4T16	4T16	4T20	-	2T16	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GVB24	3	-	450	600	-	10700	-	-	-	-	-	-	-	-	-	-	-	-	-	4T16	4T16	4T16	4T16	4T16	4T20	-	2T16	-	T8-200	T8-200	T8-200	-	1	-
MARKING BEAM	CATEGORY	BEAM MARK OR GRID LINE	WIDTH (mm)	DEPTH (mm)	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									STIRRUPS					
								REINFORCEMENT																		SIDE BAR								



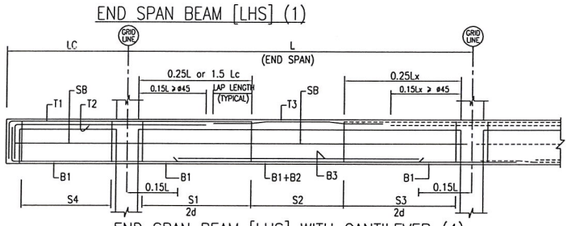
END SPAN BEAM [LHS] (1)



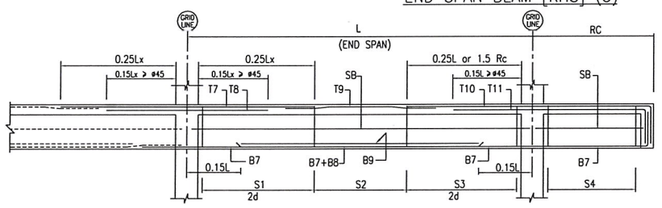
INTERMEDIATE SPAN BEAM (2)



END SPAN BEAM [RHS] (3)



END SPAN BEAM [LHS] WITH CANTILEVER (4)



END SPAN BEAM [RHS] WITH CANTILEVER (5)

LEGEND

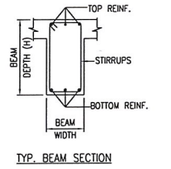
- L ---------- LENGTH OF SPAN UNDER CONSIDERATION
- La ---------- LENGTH OF ADJACENT SPAN TO THE SPAN UNDER CONSIDERATION
- Lc ---------- LENGTH OF LEFT END CANTILEVER
- Rc ---------- LENGTH OF RIGHT END CANTILEVER
- (1) ---------- CATEGORY
- d ---------- EFFECTIVE DEPTH OF BEAM

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

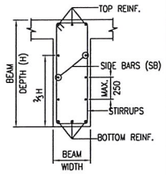
LOCATION			SIZE		SPAN			REINFORCEMENT																		SIDE BAR	STIRRUPS					REMARKS
								LEFT END SPAN						INTERMEDIATE SPAN						RIGHT END SPAN												
BEAM MARKING	CATEGORY	GRID LINE OR BEAM MARK	WIDTH (mm)	DEPTH (mm)	LEFT END CANTILEVER Lc	SPAN (APPROX) L	RIGHT END CANTILEVER RC	T1	T2	T3	B1	B2	B3	T4	T5	T6	B4	B5	B6	T7	T8	T9	T10	T11	B7	B8	B9	SB	S1	S2	S3	S4	TYPE	
GVBJ25	4	–	450	700	1600	10700	–	4T20	2T16	4T16	4T20	–	2T16	–	–	–	–	–	–	–	–	–	–	–	–	–	–	T8-200	T8-200	T8-200	T10-100	1	SIMILAR TO GVB28
GVBJ26	2	–	450	600	–	9700	–	–	–	–	–	–	–	4T16	2T16	4T16	4T20	–	2T16	–	–	–	–	–	–	–	–	–	T8-200	T8-200	T8-200	–	1	SIMILAR TO GVB29
GVBJ27	3	–	450	600	–	10700	–	–	–	–	–	–	–	–	–	–	–	–	–	4T16	2T16	4T16	4T16	2T16	4T20	–	2T16	–	T8-200	T8-200	T8-200	–	1	SIMILAR TO GVB30
GVBJ31	1	–	300	600	–	6050	–	3T16	–	3T16	3T16	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	T8-200	T8-200	T8-200	–	1	–
GVBJ32	2	–	300	600	–	5200	–	–	–	–	–	–	–	3T16	–	3T16	3T16	–	–	–	–	–	–	–	–	–	–	–	T8-200	T8-200	T8-200	–	1	–
GVBJ33	3	–	300	600	–	4200	–	–	–	–	–	–	–	–	–	–	–	–	–	3T16	–	3T16	3T16	–	3T16	–	–	–	T8-200	T8-200	T8-200	–	1	–
GVBJ35	1	–	200	600	–	2600	–	2T16	–	2T16	2T16	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	T8-200	T8-200	T8-200	–	1	–
GVBJ36	5	–	200	600	–	2600	1250	–	–	–	–	–	–	–	–	–	–	–	–	2T16	–	2T16	2T16	2T12	2T16	–	–	–	T8-200	T8-200	T8-200	T8-100	1	–
GVBJ37	4	–	450	600	1600	10700	–	4T25/ 3T25	3T16	4T16	4T16	–	2T16	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	T8-200	T8-200	T8-200	–	1	–
GVBJ38	2	–	300	600	–	4650	–	–	–	–	–	–	–	4T16	4T16	4T16	4T16	–	–	–	–	–	–	–	–	–	–	–	T8-200	T8-200	T8-200	–	1	–
GVBJ39	3	–	300	600	–	7000	–	–	–	–	–	–	–	–	–	–	–	–	–	4T16	–	4T16	4T16	–	4T16	–	–	–	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	SB	S1	S2	S3	S4	TYPE	REMARKS
LOCATION			SIZE		SPAN			LEFT END SPAN						INTERMEDIATE SPAN						RIGHT END SPAN								SIDE BAR	STIRRUPS					
								REINFORCEMENT																										

NOTES :

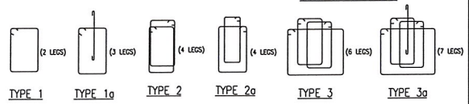
1. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE KEY PLAN AND ALL OTHER RELEVANT DRAWINGS.
2. IF THE REINFORCEMENT IS PROVIDED IN TWO LAYERS OR MORE, THEN SPACER BARS BETWEEN THE LAYERS NEED TO BE PROVIDED
3. SPACER BARS TO BE T25 OR MAIN BAR SIZE (WHICHEVER IS GREATER) AT 900c/c BETWEEN EACH LAYER OF MAIN STEEL.
4. THE SPAN LENGTHS INDICATED ARE NOT TO BE USED FOR SETTING OUT OR MEASUREMENT.
5. 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
6. LAP LENGTH FOR BARS SHOULD BE SAME AS TENSION ANCHORAGE LENGTH BASED UPON THE LARGER BAR DIAMETER FOR UNEQUAL SIZE OF BARS
7. FIRST STIRRUP OF BEAM SHOULD BE 50mm (MAXIMUM) FROM THE COLUMN FACE



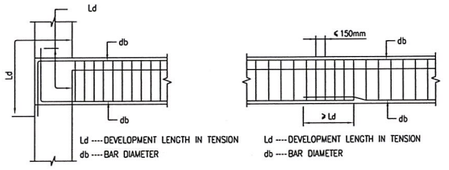
TYP. BEAM SECTION



TYP. SIDE BARS DETAIL FOR BEAM DEPTH > 750



STIRRUPS TYPE

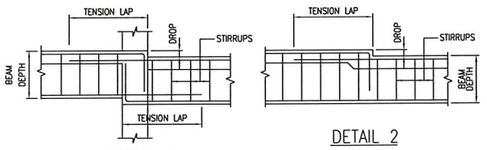


ANCHORAGE OF BEAM BARS AT BEAM AND COLUMN JUNCTION (EXTERNAL JOINT)

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

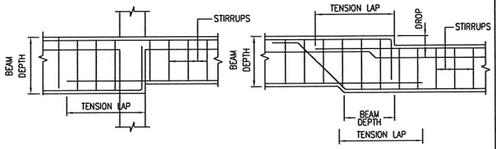
LAP/SPLICE IN BEAM

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



DETAIL 1

DETAIL 2



DETAIL 3

DETAIL 4

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

P. JEGATHEESAN, M.E., (Struct.)
REGISTERED STRUCTURAL ENGINEER
CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY
REGISTRATION No.SE/GR-I/19/03/027
NEW No.31 (OLD No.14), BESANT AVENUE,
ADYAR, CHENNAI - 600 020.
E-Mail : jegatheesan@buroengineers.in
Mobile : +91 9962545631

NO.	AMENDMENTS	BY	DATE
–	ISSUE FOR SUBMISSION	SATHYA	03/08/24

Client :

ARIHANT

Electrical & MEP :

Landscape Consultant :

Architect:

NATARAJ & VENKAT ARCHITECTS
18, 3rd SEAWARD RD, VALMIKI NAGAR
THIRUVANMIYUR, CHENNAI 600041
T/ + 91 44 2457 2457

Civil & Structural Engineer :

BURO ENGINEERS (I) PRIVATE LTD.
Civil & Structural Consultants
19, BRINDHAVAN STREET, 2nd FLOOR, MYLAPORE
CHENNAI 600004 INDIA TEL: 42658573 / 74, FAX: 24662755
email : buroindia@buroengr.com.sg,
buroindia@buroengineers.in

SUBMISSION DRAWING

STRUCTURAL

project title

OFFICE BUILDING
AT PERUNGUDI

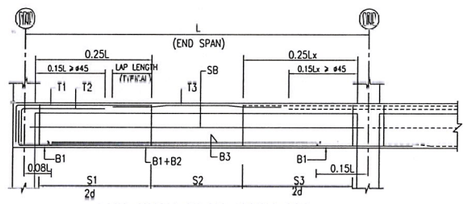
drawing title

GROUND FLOOR BEAM SCHEDULE

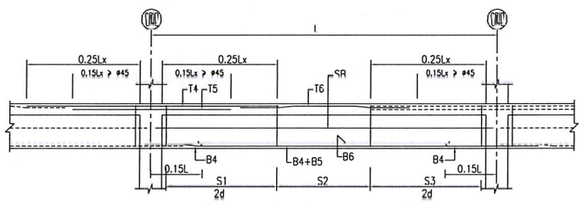
scale	NTS	design by	ASHFAQ
drawn by	SATHYA	checked by	SIVA
date	FEB 2024	approved by	PJ
drawing no.	BEI699/S-/BM/G-/02	revision	–

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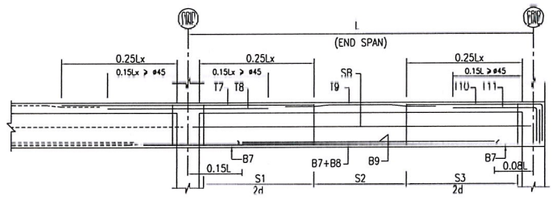
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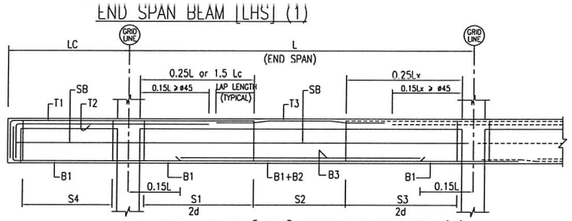
END SPAN BEAM [LHS] (1)



INTERMEDIATE SPAN BEAM (2)



END SPAN BEAM [RHS] (3)

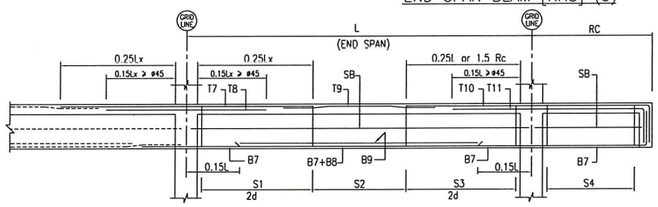


END SPAN BEAM [LHS] WITH CANTILEVER (4)

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
d ---------EFFECTIVE DEPTH OF BEAM

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

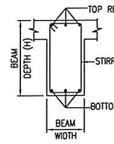


END SPAN BEAM [RHS] WITH CANTILEVER (5)

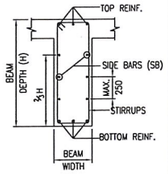
LOCATION			SIZE		SPAN			REINFORCEMENT																		SIDE BAR	STIRRUPS					REMARKS
								LEFT END SPAN						INTERMEDIATE SPAN						RIGHT END SPAN											
BEAM MARKING	CATEGORY	GRID LINE OR BEAM MARK	WIDTH (mm)	DEPTH (mm)	LEFT END CANTILEVER Lc	SPAN (APPROX) L	RIGHT END CANTILEVER RC	T1	T2	T3	B1	B2	B3	T4	T5	T6	B4	B5	B6	T7	T8	T9	T10	T11	B7	B8	B9	SB	S1	S2	S3	S4	TYPE	
GHB3	4	-	400	600	1650	10800	-	4T16	2T16	4T16	4T16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	T8-100	1	-
GHB4	3	-	400	600	-	10800	-	-	-	-	-	-	-	-	-	-	-	-	-	4T16	2T16	4T16	4T16	2T16	4T16	-	2T12	-	T8-200	T8-200	T8-200	-	1	-
GHB8	1	-	300	600	-	3950	-	3T16	-	3T16	3T16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	SIMILAR TO GHB26
GHB8A	3	-	300	600	-	3450	-	-	-	-	-	-	-	-	-	-	-	-	-	3T16	-	3T16	3T16	-	3T16	-	-	-	T8-200	T8-200	T8-200	-	1	SIMILAR TO GHB26A
GHB11	1	-	400	600	-	10700	-	4T16	2T16	4T16	4T20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GHB12	2	-	400	600	-	10800	-	-	-	-	-	-	-	4T16	2T16	4T16	4T20	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GHB13	2	-	400	600	-	10800	-	-	-	-	-	-	-	4T16	2T16	4T16	4T20	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GHB14	3	-	400	600	-	5500	-	-	-	-	-	-	-	-	-	-	-	-	-	4T16	2T16	4T16	4T16	-	4T16	-	-	-	T8-200	T8-200	T8-200	-	1	-
GHB14a	1	-	200	450	-	1400	-	2T12	-	2T12	2T12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
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GHB16	1	-	200	600	-	2150	-	2T16	-	2T16	2T16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GHB17	3	-	200	600	-	3100	-	-	-	-	-	-	-	-	-	-	-	-	-	2T16	-	2T16	2T16	-	2T16	-	-	-	T8-175	T8-200	T8-175	-	1	-
GHB19	1	-	300	600	-	4750	-	3T16	-	3T16	3T16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
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GHB21	2	-	400	600	-	10800	-	-	-	-	-	-	-	4T16	2T16	4T16	4T20	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GHB22	2	-	400	600	-	10800	-	-	-	-	-	-	-	4T16	2T16	4T16	4T20	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GHB23	3	-	400	600	-	10800	-	-	-	-	-	-	-	-	-	-	-	-	-	4T16	2T16	4T16	4T16	2T16	4T20	-	-	-	T8-200	T8-200	T8-200	-	1	-
GHB24	1	-	400	600	-	10800	-	4T16	2T16	4T16	4T20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GHB25	3	-	400	600	-	10800	-	-	-	-	-	-	-	-	-	-	-	-	-	4T16	2T16	4T16	4T16	2T16	4T20	-	-	-	T8-200	T8-200	T8-200	-	1	-
GHB29	1	-	400	600	-	11150	-	4T16	-	4T16	4T20	-	2T16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GHB30	2	-	400	600	-	10800	-	-	-	-	-	-	-	4T16	4T20	4T16	4T20	-	2T16	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GHB31	3	-	400	600	-	10800	-	-	-	-	-	-	-	-	-	-	-	-	-	4T16	4T20	4T16	4T16	2T16	4T20	-	2T16	-	T8-200	T8-200	T8-200	-	1	-
GVB1	1	-	300	600	-	4400	-	3T16	-	3T16	3T16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GVB2	3	-	300	600	-	7550	-	-	-	-	-	-	-	-	-	-	-	-	-	3T16	2T16	3T16	3T16	2T16	3T16	-	-	-	T8-200	T8-200	T8-200	-	1	-
GVB3	1	-	300	600	-	3250	-	3T16	-	3T16	3T16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GVB4	2	-	300	600	-	2600	-	-	-	-	-	-	-	3T16	-	3T16	3T16	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GVB5	2	-	300	600	-	7500	-	-	-	-	-	-	-	3T16	2T12	3T16	3T16	-	2T12	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GVB6	3	-	300	600	-	4400	-	-	-	-	-	-	-	-	-	-	-	-	-	3T16	2T12	3T16	3T16	-	3T16	-	-	-	T8-200	T8-200	T8-200	-	1	-
GVB15	1	-	200	600	-	3500	-	2T20	-	2T20	2T16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-150	T8-200	T8-150	-	1	-
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GVB18	2	-	400	600	-	6300	-	-	-	-	-	-	-	4T16	-	4T16	4T16	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GVB19	2	-	400	600	-	9700	-	-	-	-	-	-	-	4T16	4T12	4T16	4T16	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
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GVB21	3	-	400	600	-	5250	-	-	-	-	-	-	-	-	-	-	-	-	-	4T16	-	4T16	4T16	-	4T16	-	-	-	T8-200	T8-200	T8-200	-	1	-
GVB22	4	-	450	600	1600	10700	-	4T16	2T16	4T16	4T20	-	2T16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	T10-100	1	-
GVB23	2	-	450	600	-	9700	-	-	-	-	-	-	-	4T16	4T16	4T16	4T20	-	2T16	-	-	-	-	-	-	-	-	-	T8-200	T8-200	T8-200	-	1	-
GVB24	3	-	450	600	-	10700	-	-	-	-	-	-	-	-	-	-	-	-	-	4T16	4T16	4T16	4T16	4T16	4T20	-	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	SB	S1	S2	S3	S4	TYPE	REMARKS
LOCATION			SIZE		SPAN			LEFT END SPAN						INTERMEDIATE SPAN						RIGHT END SPAN								SIDE BAR	STIRRUPS					
								REINFORCEMENT																										

NOTES :

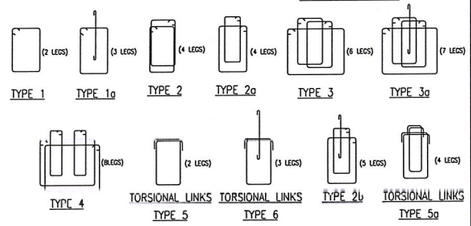
1. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE KEY PLAN AND ALL OTHER RELEVANT DRAWINGS.
2. IF THE REINFORCEMENT IS PROVIDED IN TWO LAYERS OR MORE, THEN SPACER BARS BETWEEN THE LAYERS NEED TO BE PROVIDED
3. SPACER BARS TO BE T20 OR MAIN BAR SIZE (WHICHEVER IS GREATER) AT 900c/c BETWEEN EACH LAYER OF MAIN STEEL.
4. THE SPAN LENGTH INDICATED ARE NOT TO BE USED FOR SETTING OUT OR MEASUREMENT.
5. 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
6. LAP LENGTH FOR BARS SHOULD BE SAME AS TENSION ANCHORAGE LENGTH BASED UPON THE LARGER BAR DIAMETER FOR UNEQUAL SIZE IN BARS
7. FIRST STIRRUP OF BEAM SHOULD BE 50mm (MAXIMUM) FROM THE COLUMN FACE



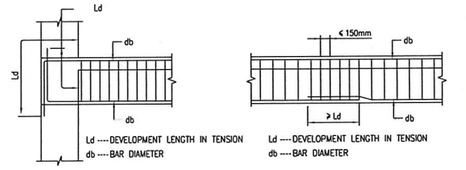
TYP. BEAM SECTION



TYP. SIDE BARS DETAIL FOR BEAM DEPTH > 750



STIRRUPS TYPE

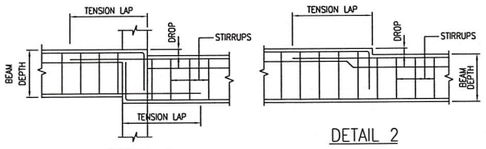


ANCHORAGE OF BEAM BARS AT BEAM AND COLUMN JUNCTION (EXTERNAL JOINT)

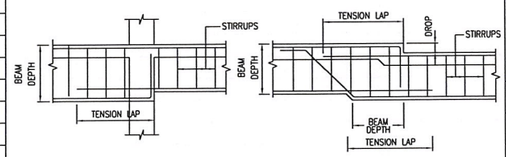
NOTE:
IN AN INTERNAL JOINT, BOTH TOP & BOTTOM BARS OF THE BEAM SHALL BE TAKEN CONTINUOUSLY THROUGH THE COLUMN

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 DETAIL 4

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

P. JEGATHEESAN, M.E., (Struct.)
REGISTERED STRUCTURAL ENGINEER
CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY
REGISTRATION No.SE/GR-I/19/03/027
NEW No.31 (OLD No.14), BESANT AVENUE,
ADYAR, CHENNAI - 600 020.
E-Mail : jegatheesan@buroengineers.in
Mobile : +91 9962545631

NO.	AMENDMENTS	BY	DATE
	ISSUE FOR SUBMISSION	SATHYA	05/06/24

Client :

ARIHANT

Electrical & MEP :

Landscape Consultant :

Architect:

NATARAJ & VENKAT ARCHITECTS
18, 3rd SEAWARD RD, VALMIKI NAGAR
THIRUVANMIYUR, CHENNAI 600041
T/ + 91 44 2457 2457

Civil & Structural Engineer :

BURO ENGINEERS (I) PRIVATE LTD.
Civil & Structural Consultants
19, BRINDHAVAN STREET, 2nd FLOOR, MYLAPORE
CHENNAI 600004 INDIA TEL: 42658573 / 74, FAX: 24662755
email : buroindia@buroengr.com.sg,
buroindia@buroengineers.in

SUBMISSION DRAWING

STRUCTURAL

project title

OFFICE BUILDING
AT PERUNGUDI

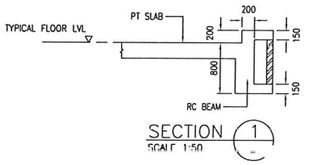
drawing title

GROUND FLOOR BEAM SCHEDULE

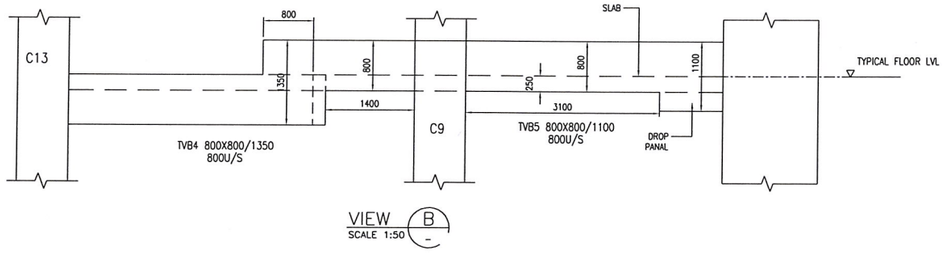
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drawn by	SATHYA	checked by	SIVA
date	FEB 2024	approved by	PJ
drawing no.	BEI699/S-/BM/G-/03	revision	-

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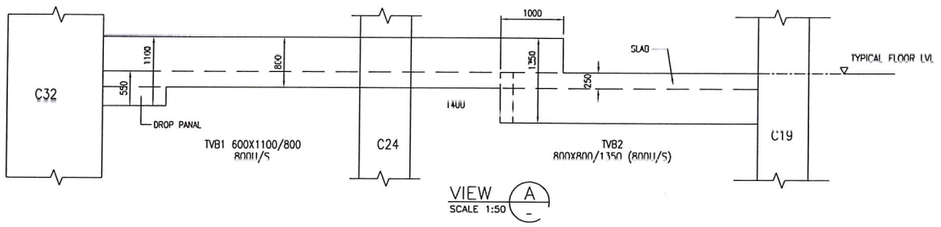
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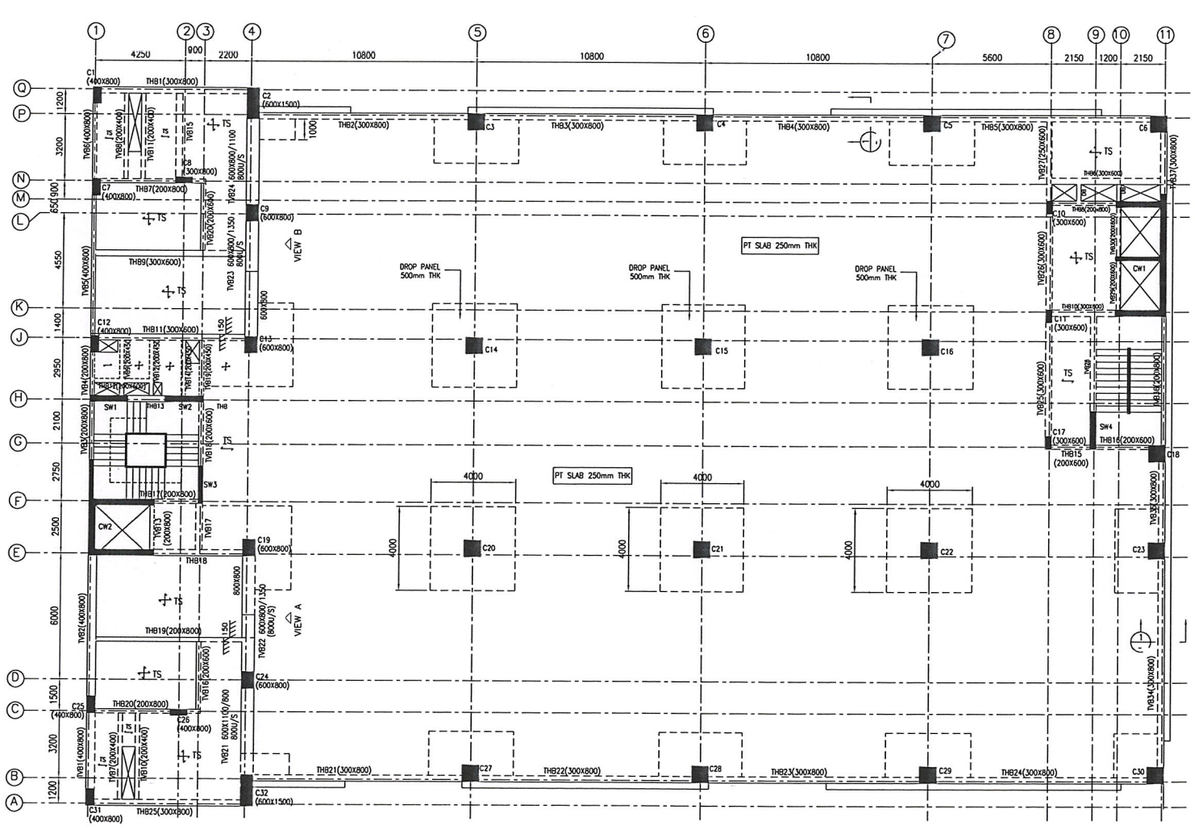
SECTION 1
SCALE 1:50



VIEW B
SCALE 1:50

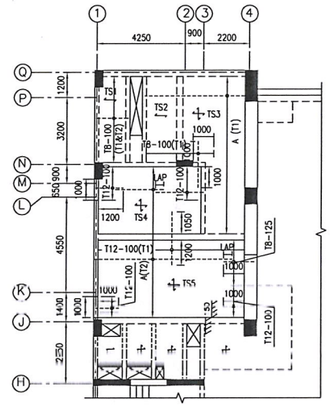


VIEW A
SCALE 1:50



TYPICAL FLOOR FRAMING PLAN
SCALE 1:150

NOTE
UNLESS OTHERWISE SPECIFIED
1. GRADE OF CONCRETE M--
2. GRADE OF STEEL Fe550
3. ALL BEAMS ARE TO BE 300x800mm
4. ALL SLABS ARE TO BE 150 mm THK
5. ALL SQUARE COLUMNS ARE TO BE 800X800mm



TYPICAL FLOOR SLAB TOP REINFORCEMENT DETAIL
SCALE 1:100

NOTES
1. GRADE OF CONCRETE M30
2. GRADE OF STEEL Fe550
3. ALL THE SLABS ARE TO BE 150mm THICK.
4. TRIMMER BARS(AROUND CUTOUT OPEN) REFER STANDARD DETAILS

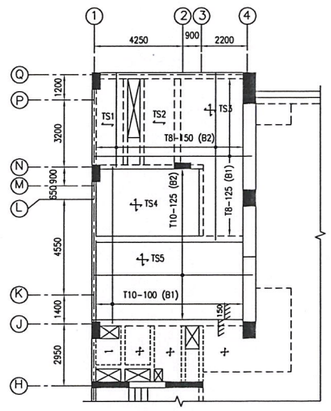
UNLESS OTHERWISE SPECIFIED

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

LEGEND,
------- TOP REINFORCEMENT

REINFORCEMENT SCHEDULE

MARK	SIZE	SPACING
A	T8	200



TYPICAL FLOOR SLAB BOTTOM REINFORCEMENT DETAIL
SCALE 1:100

NOTES
1. GRADE OF CONCRETE M30
2. GRADE OF STEEL Fe550
3. ALL THE SLABS ARE TO BE 150mm THICK.
4. TRIMMER BARS(AROUND CUTOUT OPEN) REFER STANDARD DETAILS

UNLESS OTHERWISE SPECIFIED

THE BOTTOM BARS ARE TO BE T8-200 (B2)

LEGEND:
——— BOTTOM REINFORCEMENT

REINFORCEMENT SCHEDULE

MARK	SIZE	SPACING
A	T8	200

P. JEGATHEESAN, M.E., (Struct.)
REGISTERED STRUCTURAL ENGINEER
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NEW No.31 (OLD No.14), BESANT AVENUE,
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E-Mail : jegatheesan@buroengineers.in
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19, BRINDHAVAN STREET, 2nd FLOOR, MYLAPORE
CHENNAI 600004 INDIA TEL: 42658573 / 74, FAX: 24662755
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SUBMISSION DRAWING

STRUCTURAL

project title

OFFICE BUILDING
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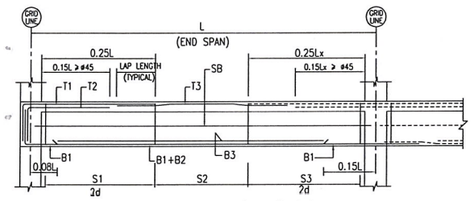
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TYP FLOOR FRAMING PLAN

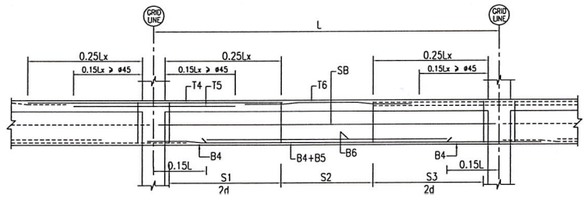
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drawn by	SATHYA	checked by	JOSHI
date	JUN 2023	approved by	PJ
drawing no.	BEI699_S-/FP/T-/01	revision	-

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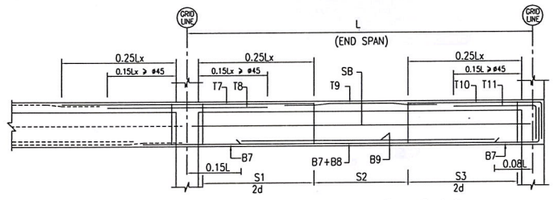
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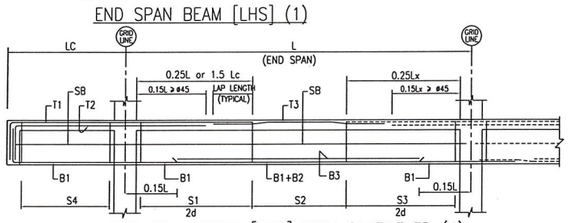
END SPAN BEAM [LHS] (1)



INTERMEDIATE SPAN BEAM (2)



END SPAN BEAM [RHS] (3)

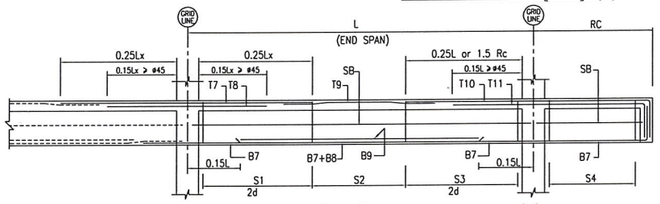


END SPAN BEAM [LHS] WITH CANTILEVER (4)

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
d ---------EFFECTIVE DEPTH OF BEAM

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



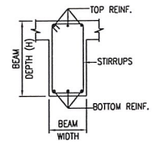
END SPAN BEAM [RHS] WITH CANTILEVER (5)

LOCATION			SIZE		SPAN			REINFORCEMENT																			SIDE BAR	STIRRUPS					REMARKS
								LEFT END SPAN						INTERMEDIATE SPAN						RIGHT END 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	B1	B2	B3	T4	T5	T6	B4	B5	B6	T7	T8	T9	T10	T11	B7	B8	B9	SB	S1	S2	S3	S4	TYPE	
THB2	1	-	300	800	-	10700	-	3T25	-	3T25	3T25	-	3T20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T10-100	T10-175	T10-100	-	1a	SIMILAR TO THB21
THB3	2	-	300	800	-	10800	-	"	"	"	"	"	"	3T25	2T25	-	3T25	-	2T20	-	-	-	-	-	-	-	-	T10 100	T10 175	T10-100	-	1a	SIMILAR TO THB22
THB4	2	-	300	800	-	10800	-	-	-	-	-	-	-	3T25	3T25	-	3T25	-	2T20	-	-	-	-	-	-	-	-	T10-100	T10-150	T10 100	-	1a	SIMILAR TO THB23
THB5	3	-	300	800	-	10800	-	-	-	-	-	-	-	-	-	-	-	-	-	3T25	3T25	3T25	3T25	3T32	3T32	-	-	T12-100	T12-200	T12-100	-	1a	SIMILAR TO THB24
TVB1	1	-	400	800	-	4400	-	4T20	2T20	4T20	4T20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T10-100	T10-100	T10-100	-	1	-
TVB2	3	-	400	800	-	7650	-	-	-	-	-	-	-	-	-	-	-	-	-	4T25	2T20	4T20	4T25	2T25	4T20	-	2T16	-	T12-100	T12-100	T12-100	-	1	-
TVB3	1	-	200	800	-	3000	-	2T25	2T20	2T25	2T25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T12-100	T12-100	T12-100	-	1a	
TVB4	2	-	200	800	-	2500	-	-	-	-	-	-	-	2T25	-	2T25	2T25	-	-	-	-	-	-	-	-	-	-	T10-100	T10-100	T10-100	-	1a	
TVB5	2	-	200	800	-	7500	-	-	-	-	-	-	-	2T25	2T20	2T25	2T25	-	2T20	-	-	-	-	-	-	-	-	T12-100	T12-150	T12-100	-	1a	
TVB6	3	-	200	800	-	4400	-	-	-	-	-	-	-	-	-	-	-	-	-	2T25	2T20	2T20	2T20	2T16	2T20	-	-	T8-100	T8-125	T8-100	-	1a	
TVB34	1	-	300	800	-	10700	-	3T25	2T32	3T25	3T20+ 3T20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T12-100	T12-125	T12-100	-	1a	-
TVB35	2	-	300	800	-	4650	-	-	-	-	-	-	-	3T25	3T25	3T25	3T20	-	-	-	-	-	-	-	-	-	-	T10-100	T10-150	T10-100	-	1	-
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TVB19	3	-	200	450	-	3950	-	-	-	-	-	-	-	-	-	-	-	-	-	2T25	2T20	2T25	2T25	-	2T25	-	-	T10-175	T10-175	T10-175	-	1	-
TVB21	1	-	600	1100/800	-	5200	-	6T20	4T20	6T20	6T20	-	2T20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T10-100	T10-200	T10-100	-	2a	800 U/S
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TVB23	1	-	600	800/1350	-	6300	-	6T20	4T20	6T20	6T20	-	2T20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T10-150	T10-200	T10-150	-	2a	800 U/S
TVB24	3	-	600	800/1100	-	5250	-	-	-	-	-	-	-	-	-	-	-	-	-	6T20	4T20	6T20	6T20	2T20	6T20	-	2T20	-	T10-100	T10-200	T10-100	-	2a	800 U/S
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TVB27	3	-	250	600	-	4250	-	-	-	-	-	-	-	-	-	-	-	-	-	3T16	3T16	3T16	3T16	3T16	-	2T12	-	T10-125	T10-200	T10-125	-	1	-
TVB29	1	-	200	600	-	2600	-	2T20	2T16	2T20	2T16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T10-100	T10-200	T10-100	-	1	-
TVB30	3	-	200	600	-	2600	-	-	-	-	-	-	-	-	-	-	-	-	-	2T20	2T16	2T20	2T20	2T16	2T16	-	-	T10-100	T10-200	T10-100	-	1	-
THB15	1	-	200	600	-	2150	-	2T20	-	2T20	2T16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T8-150	T8-150	T8-150	-	1	-
THB16	3	-	200	600	-	3100	-	-	-	-	-	-	-	-	-	-	-	-	-	2T20	2T20	2T20	2T20	2T16	2T20	-	2T16	-	T12-100	T12-100	T12-100	-	1	-

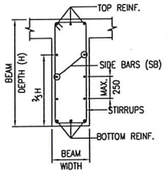
MARKING BEAM	CATEGORY	BEAM MARK OR GRID LINE	(mm) WIDTH	(mm) DEPTH	Lc CANTILEVER LEFT END	L (APPROX) SPAN	Rc CANTILEVER RIGHT END	T1	T2	T3	B1	B2	B3	T4	T5	T6	B4	B5	B6	T7	T8	T9	T10	T11	B7	B8	B9	SB	S1	S2	S3	S4	TYPE	REMARKS
LOCATION			SIZE		SPAN			LEFT END SPAN						INTERMEDIATE SPAN						RIGHT END SPAN								SIDE BAR	STIRRUPS					
								REINFORCEMENT																										

NOTES :

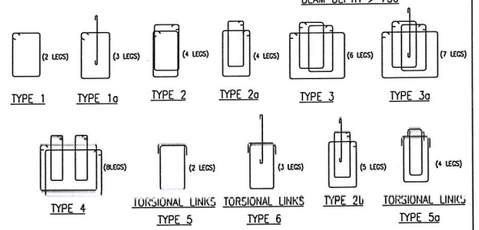
1. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE KEY PLAN AND ALL OTHER RELEVANT DRAWINGS.
2. IF THE REINFORCEMENT IS PROVIDED IN TWO LAYERS OR MORE, THEN SPACER BARS BETWEEN THE LAYERS NEED TO BE PROVIDED
3. SPACER BARS TO BE T25 OR MAIN BAR SIZE (WHICHEVER IS GREATER) AT 900c/c BETWEEN EACH LAYER OF MAIN STEEL.
4. THE SPAN LENGTH INDICATED ARE NOT TO BE USED FOR SETTING OUT OR MEASUREMENT.
5. 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
6. LAP LENGTH FOR BARS SHOULD BE SAME AS TENSION ANCHORAGE LENGTH BASED UPON THE LARGER BAR DIAMETER FOR UNEQUAL SIZE OF BARS
7. FIRST STIRRUP OF BEAM SHOULD BE 50mm (MAXIMUM) FROM THE COLUMN FACE



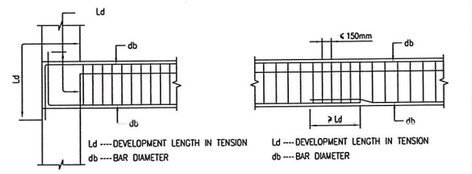
TYP. BEAM SECTION



TYP. SIDE BARS DETAIL FOR BEAM DEPTH > 750



STIRRUPS TYPE

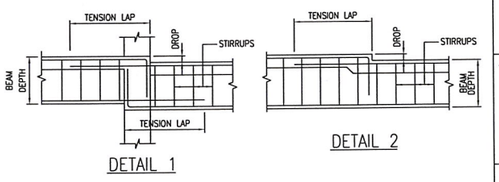


ANCHORAGE OF BEAM BARS AT BEAM AND COLUMN JUNCTION (EXTERNAL JOINT)

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

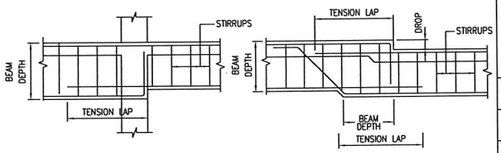
LAP/SPLICE IN BEAM

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



DETAIL 1

DETAIL 2



DETAIL 3

DETAIL 4

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

P. JEGATHEESAN M.E., (Struct.)
REGISTERED STRUCTURAL ENGINEER
CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY
REGISTRATION No.SE/GR-I/19/03/027
NEW No.31 (OLD No.14), BESANT AVENUE,
ADYAR, CHENNAI - 600 020.
E-Mail : jegatheesan@buroengineers.in
Mobile : +91 9962545631

NO.	AMENDMENTS	BY	DATE
-	ISSUE FOR SUBMISSION	SATHYA	05/06/2024

Client :

ARIHANT

Electrical & MEP :

Landscape Consultant :

Architect:

NATARAJ & VENKAT ARCHITECTS
18, 3rd SEAWARD RD, VALMIKI NAGAR
THIRUVANMIYUR, CHENNAI 600041
T/ + 91 44 2457 2457

Civil & Structural Engineer :

BURO ENGINEERS (I) PRIVATE LTD.
Civil & Structural Consultants
19, BRINDHAVAN STREET, 2nd FLOOR, MYLAPORE
CHENNAI 600004 INDIA TEL: 42658573 / 74, FAX: 24662755
email : buroindia@buroengr.com.sg,
buroindia@buroengineers.in

SUBMISSION DRAWING

STRUCTURAL

project title

OFFICE BUILDING
AT PERUNGUDI

drawing title

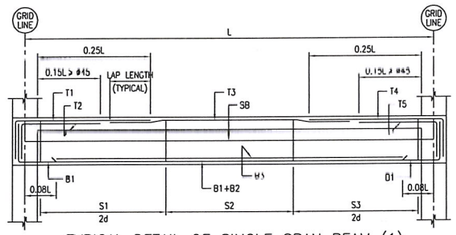
TYPICAL FLOOR BEAM SCHEDULE

scale	NTS	design by	ASHFAQ
drawn by	SATHYA	checked by	SIVA
date	FEB 2024	approved by	PJ
drawing no.	BEI699/S-/BM/T-/01	revision	-

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CAD FILE NAME: BEI699_S-BMT-01_.dwg

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	
THB1	1	-	300	800	-	7350	-	3T25	-	3T25	3T25	2T25	3T25	-	2T16	-	T10-100	T10-150	T10-100	-	1a	SIMILAR TO THB25
TVB7	1	-	200	400	-	4350	-	2T12	-	2T12	2T12	-	2T16	-	2T12	-	T8-200	T8-200	T8-200	-	1	SIMILAR TO TVB8, TVB10, TVB11
TVB9	1	-	200	450	-	2950	-	2T12	-	2T12	2T12	-	2T16	-	-	-	T8-150	T8-200	T8-150	-	1	SIMILAR TO TVB12
TVB13	1	-	200	800	-	2400	-	2T20	-	2T20	2T20	-	2T20	-	-	-	T10-100	T10-100	T10-100	-	1	-
TVB14	1	-	200	450	-	2950	-	2T16	-	2T16	2T16	-	2T16	-	-	-	T8-200	T8-200	T8-200	-	1	-
TVB15	1	-	300	800	-	4350	-	3T16	-	3T16	3T16	-	3T16	-	-	-	T8-200	T8-200	T8-200	-	1	-
TVB16	1	-	200	600	-	3400	-	2T16	-	2T16	2T16	-	2T16	-	-	-	T8-200	T8-200	T8-200	-	1	SIMILAR TO TVB20
TVB17	1	-	300	800	-	2750	-	3T20	-	3T20	3T20	2T16	3T20	-	-	-	T8-200	T8-200	T8-200	-	1	-
TVB28	1	-	300	800	-	5100	-	3T20	2T16	3T20	3T20	-	3T20	-	-	-	T8-200	T8-200	T8-200	-	1	-
TVB37	1	-	300	800	-	3500	-	3T20	3T20	3T20	3T20	3T20	3T25	-	-	-	T12-100	T12-100	T12-100	-	1	-
THB6	1	-	300	600	-	5550	-	3T16	-	3T16	3T16	-	3T16	-	2T12	-	T8-200	T8-200	T8-200	-	1	-
THB7	2	-	200	800	-	4150	1000	2T20	-	2T20	2T20	2T25	2T25	-	2T20	-	T10-125	T10-200	T10-125	T10-100	1	SIMILAR TO THB20
THB8	1	-	200	800	-	3750	-	2T20	-	2T20	2T20	2T25	2T25	-	2T20	-	T8-175	T8-175	T8-175	-	1	-
THB9	1	-	300	600	-	7450	-	3T20	-	3T20	3T20	-	3T20+ 3T20	-	-	-	T8-100	T8-125	T8-100	-	1	-
THB10	1	-	300	600	-	3750	-	3T32	-	3T32	3T32	3T20	3T25+ 3T25	-	-	-	T12-125	T12-200	T12-125	-	1	-
THB11	1	-	300	600	-	7450	-	3T20	-	3T20	3T20	2T16	3T25+ 2T20	-	-	-	T12-100	T12-100	T12-100	-	1a	-
THB12	1	-	200	600	-	2800	-	2T16	-	2T16	2T16	-	2T16	-	-	-	T8-200	T8-200	T8-200	-	1	-
THB13	1	-	300	800	-	2550	-	3T32	2T20	3T32	3T32	2T20	3T25+ 3T25	-	-	-	T12-100	T12-100	T12-100	-	1a	-
THB17	1	-	200	800	-	2550	-	2T32	2T32	2T32	2T32	-	2T25+ 2T25	-	-	-	T10-125	T10-125	T10-125	-	1	-
THB18	1	-	300	800	-	4850	-	3T32	3T32	3T32	3T32	-	3T32+ 2T25	-	-	-	T12-100	T12-100	T12-100	-	1	
THB19	1	-	200	800	-	7350	-	2T16	-	2T16	2T16	-	2T25+ 2T25	-	-	-	T8-125	T8-175	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	SB	S1	S2	S3	S4	TYPE	REMARKS
LOCATION			SIZE		SPAN			REINFORCEMENT								SIDE BAR	STIRRUPS					
								SPAN														

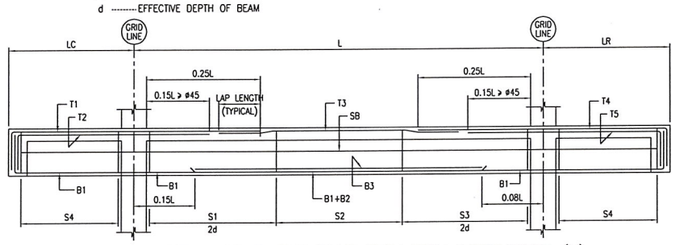


TYPICAL DETAIL OF SINGLE SPAN BEAM (1)

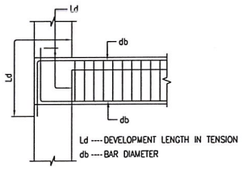
L ----- LENGTH OF SPAN UNDER CONSIDERATION
LC ----- LENGTH OF LEFT END CANTILEVER
RC ----- LENGTH OF RIGHT END CANTILEVER
(1) ----- CATEGORY
d ----- EFFECTIVE DEPTH OF BEAM

NOTES :

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE KEY PLAN AND ALL OTHER RELEVANT DRAWINGS.
2. IF THE REINFORCEMENT IS PROVIDED IN TWO LAYERS OR MORE, THEN SMALLER BARS, OTHERWISE THE EXTRA AREA TO BE PROVIDED
3. SPACER BARS TO BE T25 OR MAIN BAR SIZE (WHICHEVER IS GREATER) AT 900c/c BETWEEN EACH LAYER OF MAIN STEEL.
4. THE SPAN LENGTH INDICATED ARE NOT TO BE USED FOR SETTING OUT OR MEASUREMENT.
5. 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
6. LAP LENGTH FOR BARS SHALL BE SAME AS TENSION ANCHORAGE LENGTH BASED UPON THE LARGER BAR DIAMETER FOR UNEQUAL SIZE OF BARS
7. FIRST STIRRUP OF BEAM SHOULD BE 50mm (MAXIMUM) FROM THE COLUMN FACE



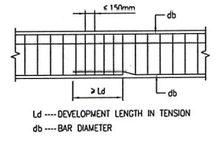
TYPICAL DETAIL OF SINGLE SPAN BEAM WITH CANTILEVERS (2)



Ld ---- DEVELOPMENT LENGTH IN TENSION
db ---- BAR DIAMETER

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

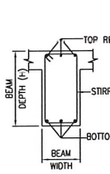
NOTE:
IN AN INTERNAL JOINT, BOTH TOP & BOTTOM BARS OF THE BEAM SHALL BE TAKEN CONTINUOUSLY THROUGH THE COLUMN



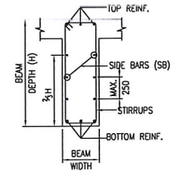
Ld ---- DEVELOPMENT LENGTH IN TENSION
db ---- BAR DIAMETER

LAP/SPLICE IN BEAM

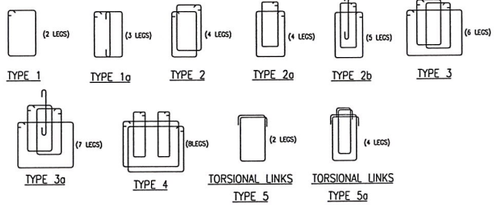
NOTE:
NOT MORE THAN 50 PERCENT OF THE BARS SHALL BE SPLICED AT ONE SECTION



TYP. BEAM SECTION

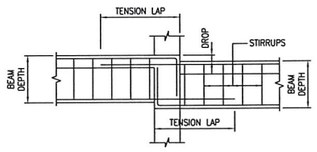


TYP. SIDE BARS DETAIL FOR BEAM DEPTH > 750

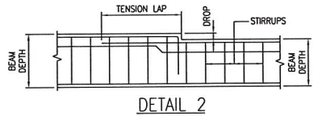


TYPE 1 | TYPE 1a | TYPE 2 | TYPE 2a | TYPE 2b | TYPE 3
TYPE 3a | TYPE 4 | TORSIONAL LINKS TYPE 5 | TORSIONAL LINKS TYPE 5a

STIRRUPS TYPE

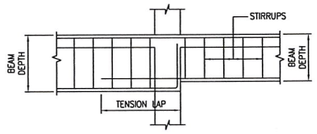


DETAIL 1

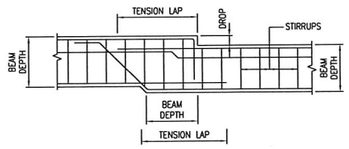


DETAIL 2

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

P. JEGATHEESAN, M.E., (Struct.)
REGISTERED STRUCTURAL ENGINEER
CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY
REGISTRATION No.SE/GR-I/19/03/027
NEW No.31 (OLD No.14), BESANT AVENUE,
ADYAR, CHENNAI - 600 020.
E-Mail : jegatheesan@buroengineers.in
Mobile : +91 9962545631

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Architect:

NATARAJ & VENKAT ARCHITECTS
18, 3rd SEAWARD RD, VALMIKI NAGAR
THIRUVANMIYUR, CHENNAI 600041
T/ + 91 44 2457 2457

Civil & Structural Engineer :

BURO ENGINEERS (I) PRIVATE LTD.
Civil & Structural Consultants
19, BRINDHAVAN STREET, 2nd FLOOR, MYLAPORE
CHENNAI 600004 INDIA TEL: 42698573 / 74, FAX: 24662755
email : buroindia@buroengr.com.sg,
buroindia@buroengineers.in

SUBMISSION DRAWING

STRUCTURAL

project title

OFFICE BUILDING
AT PERUNGUDI

drawing title

TYPICAL FLOOR BEAM SCHEDULE

scale	NTS	design by	ASHFAQ
drawn by	SATHYA	checked by	SIVA
date	FEB 2024	approved by	PJ
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