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STABILITY CERTIFICATE

Date: 20.05.2026

The detailed engineering and structure design of the proposed building comprising of Block A - Stilt Floor + 4 Floors (Height - 16.50m) Office (1st Floor) Cum Residential Building With 13 Dwelling Units & Block B - Stilt Floor + 4 Floors (Height - 16.50m) Residential Building With 16 Dwelling Units; Totally 29 Dwelling Units and Office (218.10 Sq.M.) at Perumal Nagar 5th Main Road (AGS Colony) And Kumaran Colony Road, Zamin Pallavaram, Chennai Comprised In Old S.Nos.117/4a And T.S.No.147, Block No.27, Ward-C Of Zamin Pallavaram Village, Pallavaram Taluk Within The Limits Of Tambaram Municipal Corporation has been done by us based on the report of geotechnical investigation (soil test) done by M/s. Boosham Associates Pvt. Ltd. Chennai, Report No. BAG/M/s.VIVA HOUSING AGS Colony/M-1931/24-25 Dated 15.06.2024 and considering the functional requirement of the building.

2. It is certified that among other factors, the proposed building has been designed to resist earthquake. I/We have checked various parameters and found that the proposed building would be safe.
3. I/We further certify that:
 - i. The minimum grade of concrete is M25
 - ii. The design and analysis has been done using the code of practice for plain and reinforced concrete as per IS 456, design loads as per IS Codes No: 875 and design of earthquake resistant structure as per IS Code No: 1893-2016
4. The building will be safe and sound when used for the purpose for which it is designed.

Encl.: Structural Design Calculation

Stamp and Signature

R. MANIKANDAN, M.Tech, (Structures)
Registered Structural Engineer Grade I
SE/GR-I/19/06/154 (CMDA), RSE 100692025(GCC)
CGLRGN/SE/Gr-I/2019/09/036(DTCP)
AURA ENGINEERING CONSULTANTS
#8, 50th Street, 7th Avenue, Ashok Nagar,
Chennai - 600 083. Ph: 9790751378



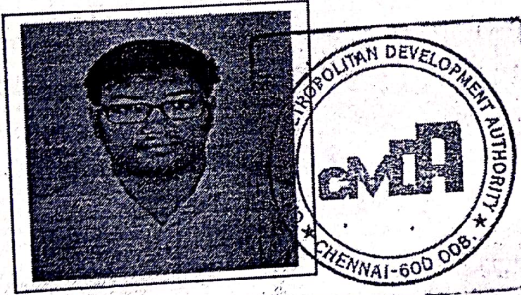
CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY
"Tbalamuthu Natarajan Building", No. 1, Gandhi Irwin Road,
Egmore, Chennai-600 008.

PROFESSIONAL REGISTRATION CERTIFICATE

This is to certify that the **Thiru. R. MANIKANDAN** has enrolled as **Registered Structural Engineer Grade-I (SE)** with Chennai Metropolitan Development Authority (CMDA) who has the qualification of **M.Tech., (Structural Engg.)** and experience in the relevant field for **5 years**.

He has been given the Registration No.**SE/GR-1/2019/06/154** Renewed on **10.06.2024**. He shall be required to comply with the duties and responsibilities prescribed by the Government of Tamil Nadu in Part-V, "Registration of Professionals", Tamil Nadu Combined Development and Building Rules, 2019, approved vide G.O.(Ms) No.18 MAWS (MAI) Dept. dated 04.02.2019.

This Registration is valid upto **09.06.2029**.



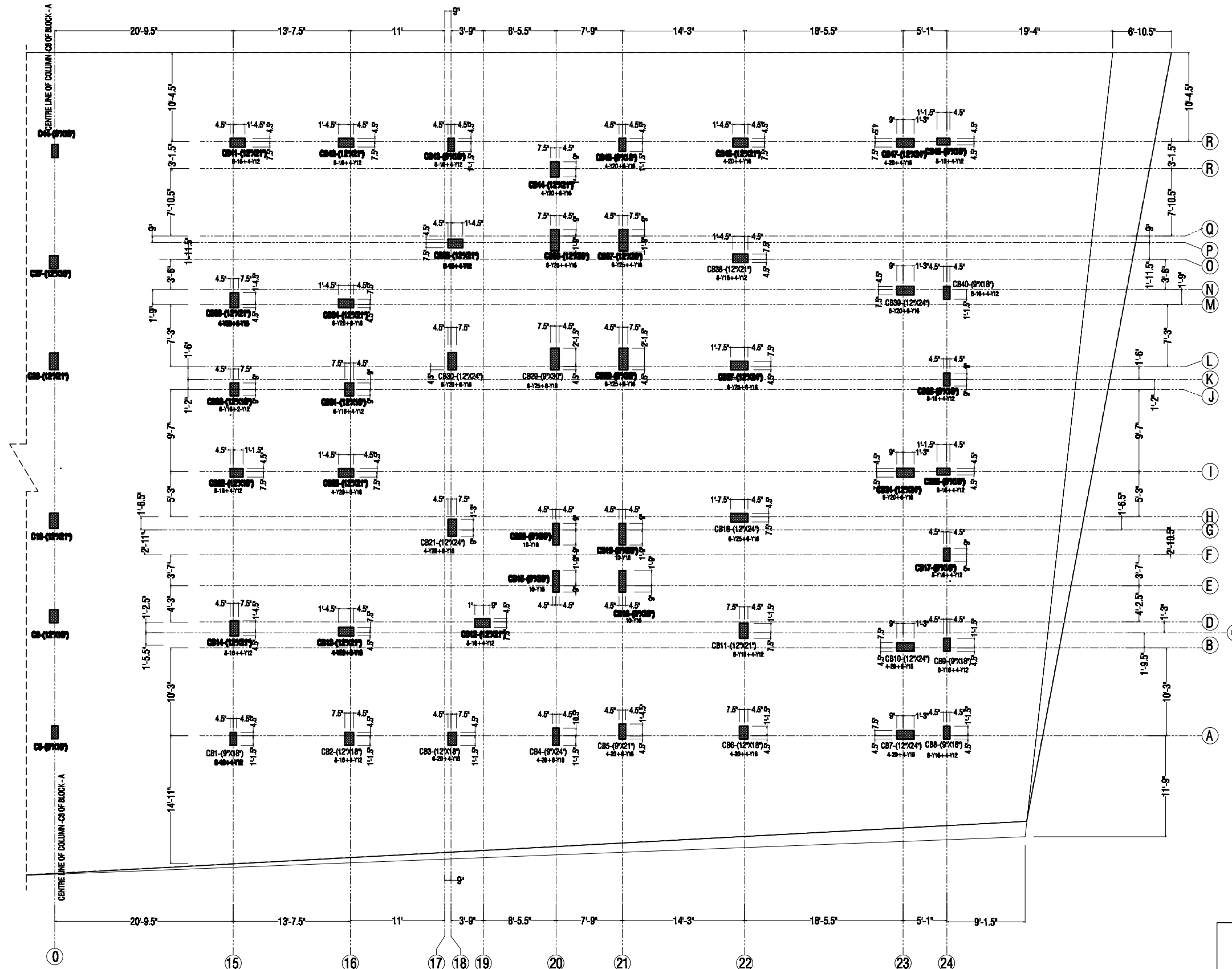
[Signature]
(A. MEGANATHAN)
Superintendent

[Signature]
R. MANIKANDAN, M.Tech, (Structures)
Registered Structural Engineer Grade I
SE/GR-I/19/06/154 (CMDA), RSE 100692025(GCC)
CGLRGN/SE/Gr-I/2019/09/036(DTCP)
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BLOCK-1

- NOTE :-
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 2. ANY DISCREPANCY SHALL BE BROUGHT TO THE NOTICE OF THE CONSULTANT.
 3. USE SUPER PLASTICIZER CERAPLAST 300 @ 300ml PER BAG TO IMPROVE WORKABILITY, MIXING ALONG WITH 22 LITRES OF WATER.
 4. DEPTH OF SOIL SHOULD BE UPTO HARD STRATA WHERE S.B.C OF SOIL IS 30 T/M² MINIMUM. DESIGN SBC OF SOIL IS (30 T/M²) AT WHICH DEPTH OF FOUNDATION IS 3.00 METER FROM EXISTING GROUND LEVEL AS PER SOIL REPORT.
 5. FILL THE FOUNDATION PITS WITH SAND GRAVEL MIX (1:3) OR STONE DUST AND GRAVEL MIX (1:3). COMPACTING IN LAYERS OF 6" THICK EACH UPTO A DEPTH OF 12 INCHES BEFORE LAYING P.C.C.
 6. LAPPING OF BARS SHOULD BE STAGGERED. NOT MORE THAN 50% OF BARS SHOULD BE LAPPED AT A JOINT.
 7. CLEAR COVER FOR FOOTINGS SHOULD BE 75mm. COVER FOR COLUMNS 40mm. COVER FOR BEAMS 25mm. COVER FOR SLABS 20mm.
 8. ENSURE THOROUGH COMPACTION OF ALL R.C.C MEMBERS BY MEANS OF VIBRATION. USE PIN AND FLAT VIBRATOR THOROUGHLY WHERE EVER NECESSARY.
 9. GRADE OF CONCRETE M20 (1:1.5:3) - 20N/SQ.mm COMPRESSIVE STRENGTH. DESIGN GRADE OF STEEL FE-415 TMT (Y=415 N/SQ.mm). USE ORDINARY PORTLAND CEMENT (OPC) OF 53 GRADE FOR ALL STRUCTURAL MEMBERS. USE PORTLAND POZZOLANA CEMENT (PPC) 53/43 GR MASONRY & PLASTERING PURPOSE.



SCHEDULE OF COLUMNS-(BLOCK-1).
PROPOSED PROJECT (P-214) AT KANNAGA SABHAPATHI NAGAR, A.G.S.COLONY

ARCHITECTS :

SCC ENGINEERS

.Architects
.Structural Engineers
.Contractors

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FILE

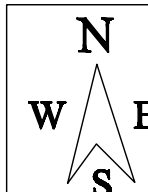
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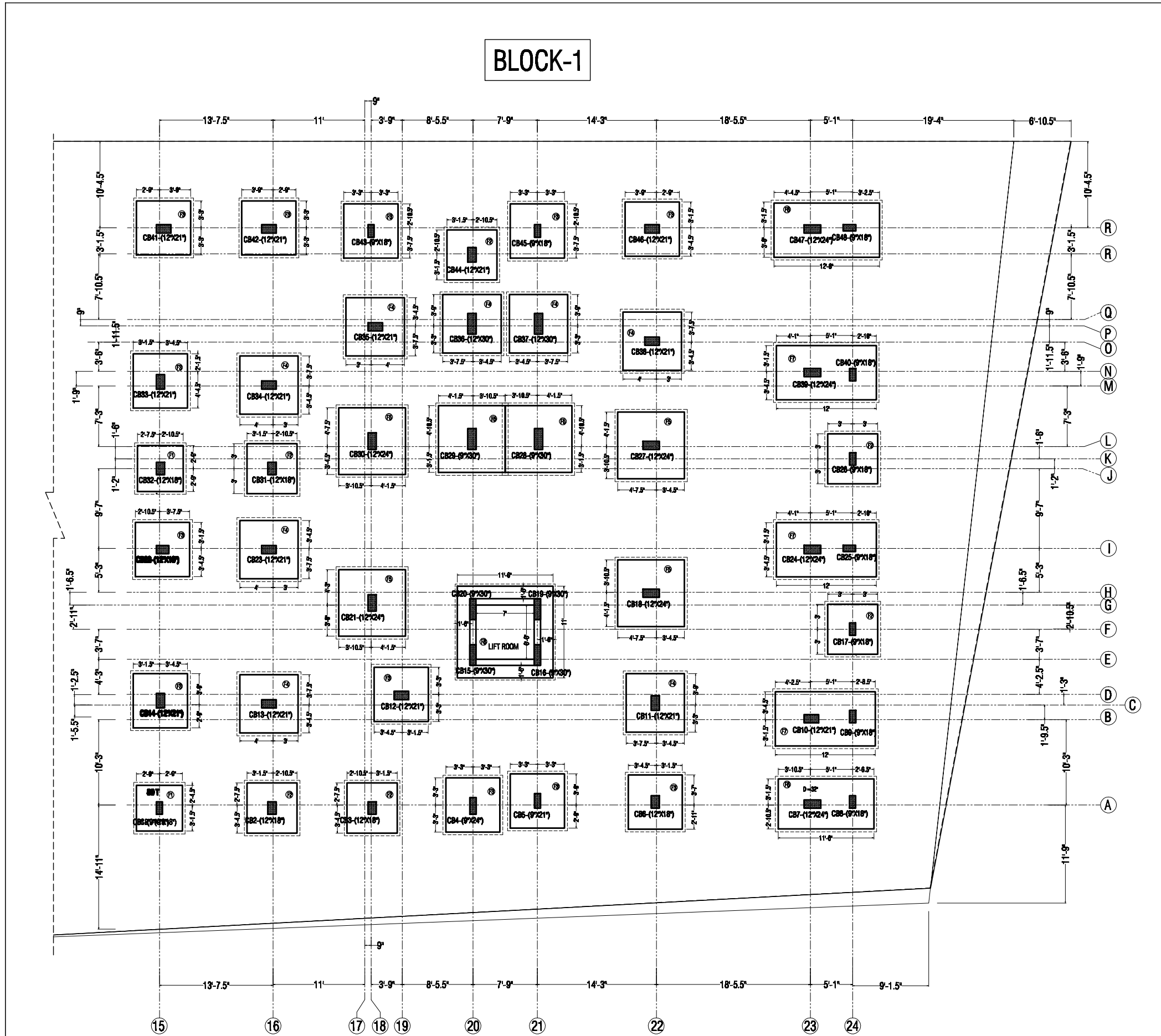
REV 2

DATE :

11-06-2025

SCALE : 1: 100





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STRUCTURE DESIGNED FOR: STILT+4.							
GRADE OF CONCRETE : M25 (NOMINAL MIX-1:1.5:3)							
GRADE OF STEEL : Fe510 (510 Nsq/mm)							
SAFE BEARING CAPACITY OF SOIL -25 T/SQ.MT.							
S.NO	FOOTING TYP & SIZE	BEARING COLUMNS.	DEPTH AT TOE T	TOTAL DEPTH AT CENTRE D	PEDESTAL SIZES		FOOTING REINFORCEMENT
					SIZE	HEIGHT (H)	
1.	(F1.) 5'0"x5'0"	C1,C2	27	27	---	---	Y10 BARS @ 5"C/C BOTH WAYS.
2.	(F2.) 6'0"x6'0"	C2,C3,C17,C28,C31,C44	30	30	---	---	Y10 BARS @ 5"C/C BOTH WAYS.
3.	(F3.) 6'0"x6'0"	C4,C5,C8,C12,C14,C22,C23,C34,C42,C43,C46	30	30	---	---	Y10 BARS @ 6"C/C BOTH WAYS(TOP). Y10 BARS @ 5"C/C BOTH WAYS(BOT).
4.	(F4.) 7'0"x7'0"	C11,C13,C25,C34,C35,C36,C37,C38	30	30	---	---	Y10 BARS @ 6"C/C BOTH WAYS(TOP). Y10 BARS @ 4"C/C BOTH WAYS(BOT).
5.	(F5.) 6'0"x6'0"	C14,C21,C27,C29,C30,C33	30	30	---	---	Y12 BARS @ 6"C/C BOTH WAYS(TOP). Y12 BARS @ 6"C/C BOTH WAYS(BOT).
6.	(F6.) 6'0"x11'0"	(C7,C8), (C47,C48)	30	30	---	---	Y10 BARS @ 6"C/C BOTH WAYS(TOP). Y12 BARS @ 6"C/C BOTH WAYS(BOT).
7.	(F7.) 6'0"x12'0"	(C9,C10),(C34,C35),(C36,C40)	30	30	---	---	Y10 BARS @ 6"C/C BOTH WAYS(TOP). Y12 BARS @ 4"C/C BOTH WAYS(BOT).
8.	(F8.) 11'0"x11'0"	C15,C16,C19,C20 LIFT FOUNDATION	30	30	---	---	Y12 BARS @ 6"C/C BOTH WAYS(TOP). Y12 BARS @ 6"C/C BOTH WAYS(BOT).
9.	(DF.) 3'0"x3'0"	DUMMY FOOTING	12	12	---	---	Y8 BARS @ 5"C/C BOTH WAYS.

ARCHITECTS :

SCC ENGINEERS

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Contractors

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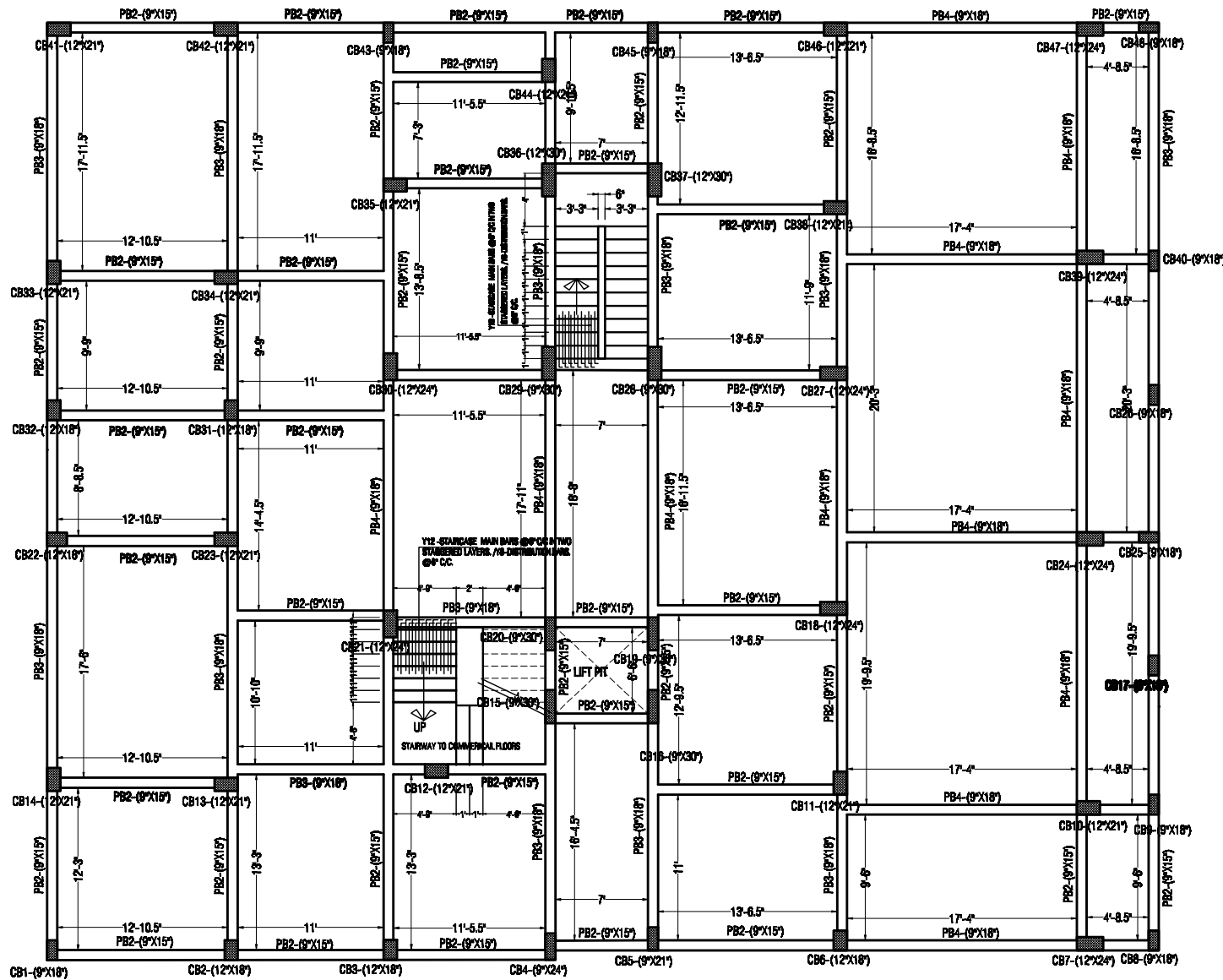
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DATE : 19-06-2025

REV : 2

SCALE : 1: 100

BLOCK-1

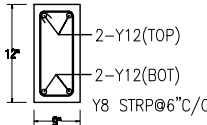
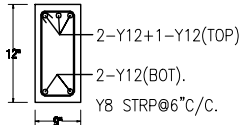
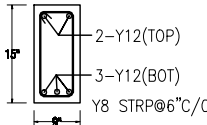
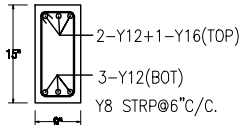
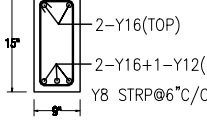
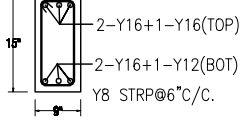
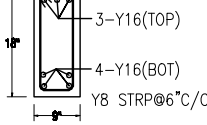
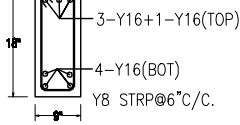


SCHEDULE OF PLINTH BEAMS -(BLOCK-1).
PROPOSED PROJECT (P-214) AT KANNAGA SABHAPATHI NAGAR, A.G.S.COLONY

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REINFORCEMENT DETAILS OF PLINTH BEAMS.

REINFORCEMENT DETAILS AT VARIOUS SECTIONS IN LONGITUDINAL DIRECTIONS.

SIGN	SECTION AT MID POINT OF BEAM.	SECTION AT BEAM & COLUMN JOINT.
PB1		
PB2		
PB3		
PB4		

ARCHITECTS :

SCC



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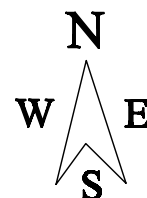
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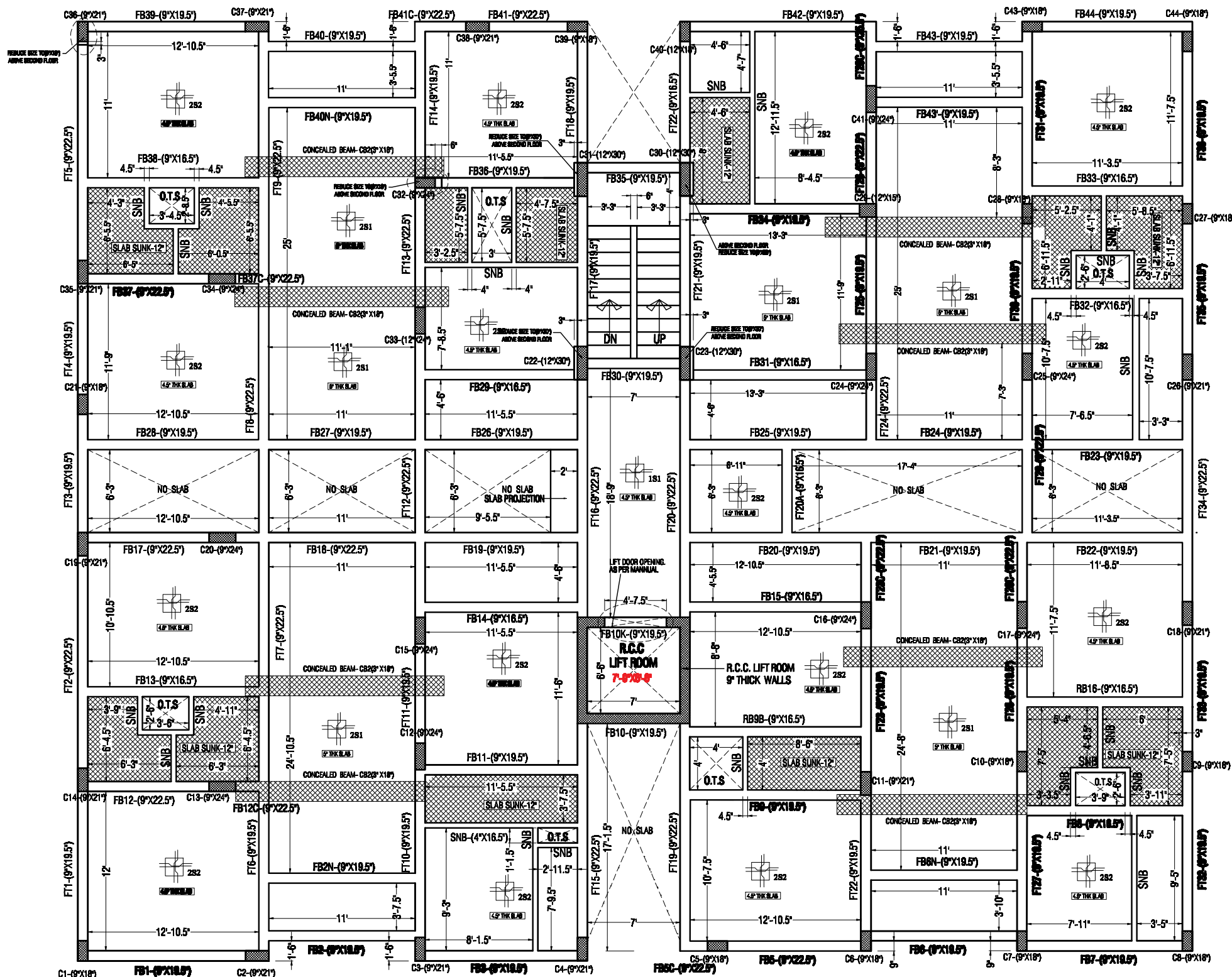
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DATE :

19-06-2025

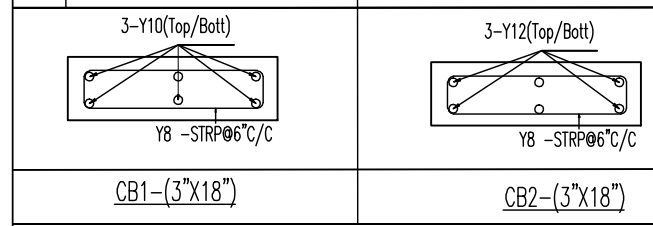
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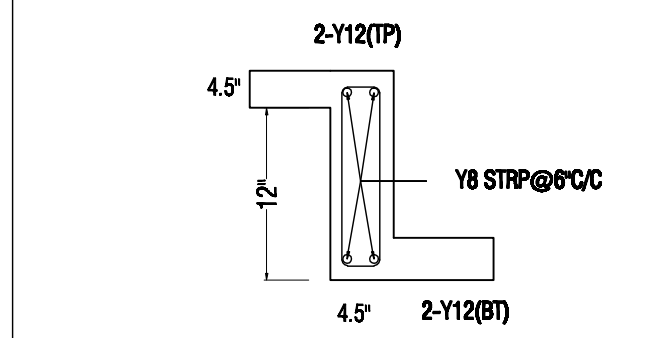


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SLAB REINFORCEMENT		
2S1	TWO WAY SLAB REINFORCEMENT	Y10-@5"C/C along short direction. Y10-@8"C/C along long direction.
2S2	TWO WAY SLAB REINFORCEMENT	Y8-@6"C/C along short direction. Y8-@8"C/C along long direction.
1S1	ONE WAY SLAB REINFORCEMENT	Y8-@6"C/C along short direction. Y8-@8"C/C along long direction.



DETAIL OF SUNKEN BEAM- (4.5"X 16.5")

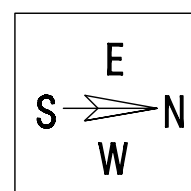


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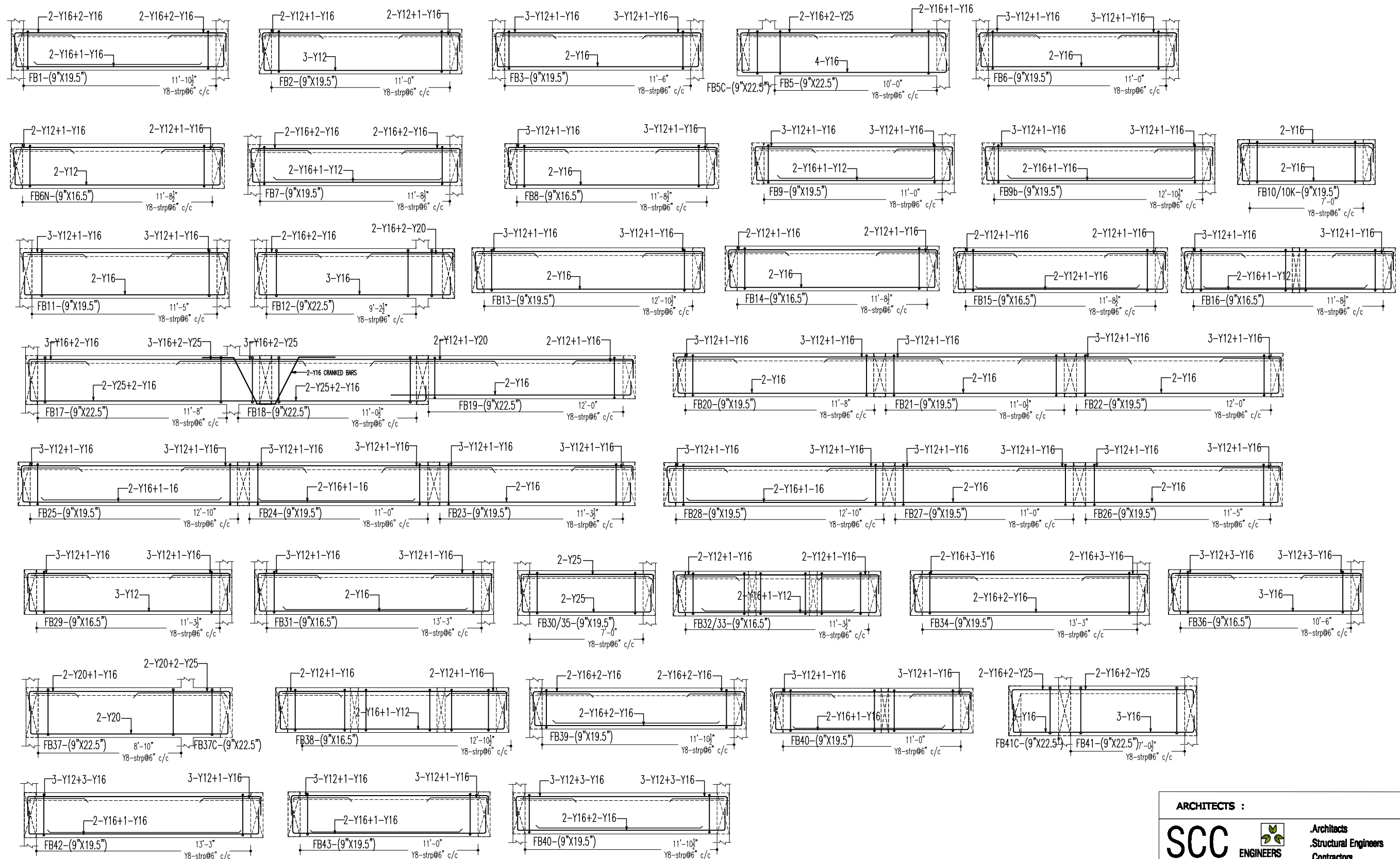
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SCHEDULE OF FIRST& SECOND FLOOR SLAB.

PROPOSED PROJECT (P-214) AT KANNAGA SABHAPATHI NAGAR, A.G.S.COLONY (BLOCK-2)

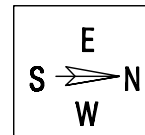


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DATE :	03-07-2025	SCALE : 1: 100

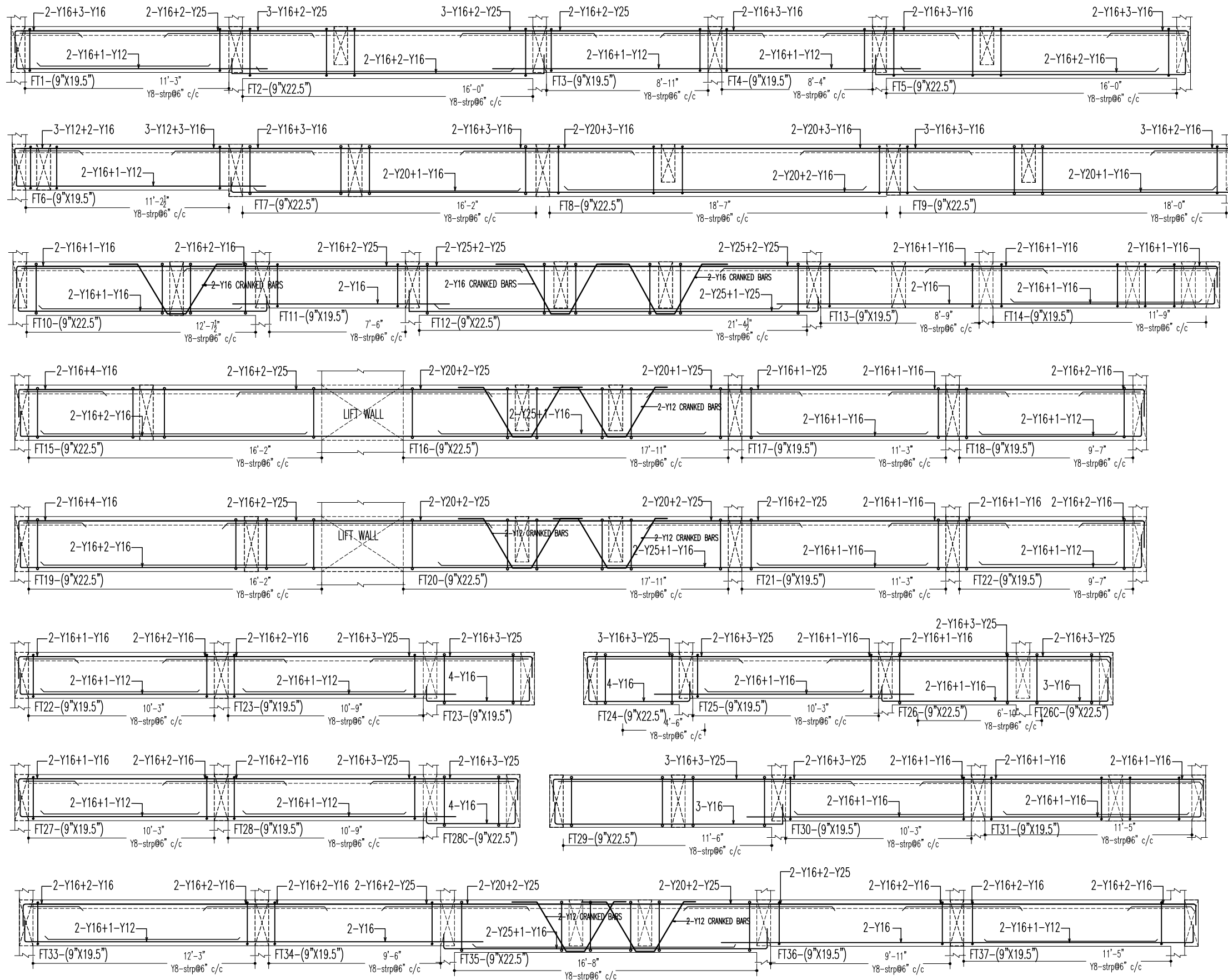


DETAILING OF FIRST & SECOND FLOOR ROOF BEAMS (SHEET-1).

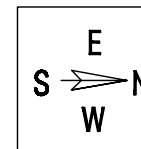
PROPOSED PROJECT (P-214) AT KANNAGA SABHAPATHI NAGAR, A.G.S.COLONY (BLOCK-2)



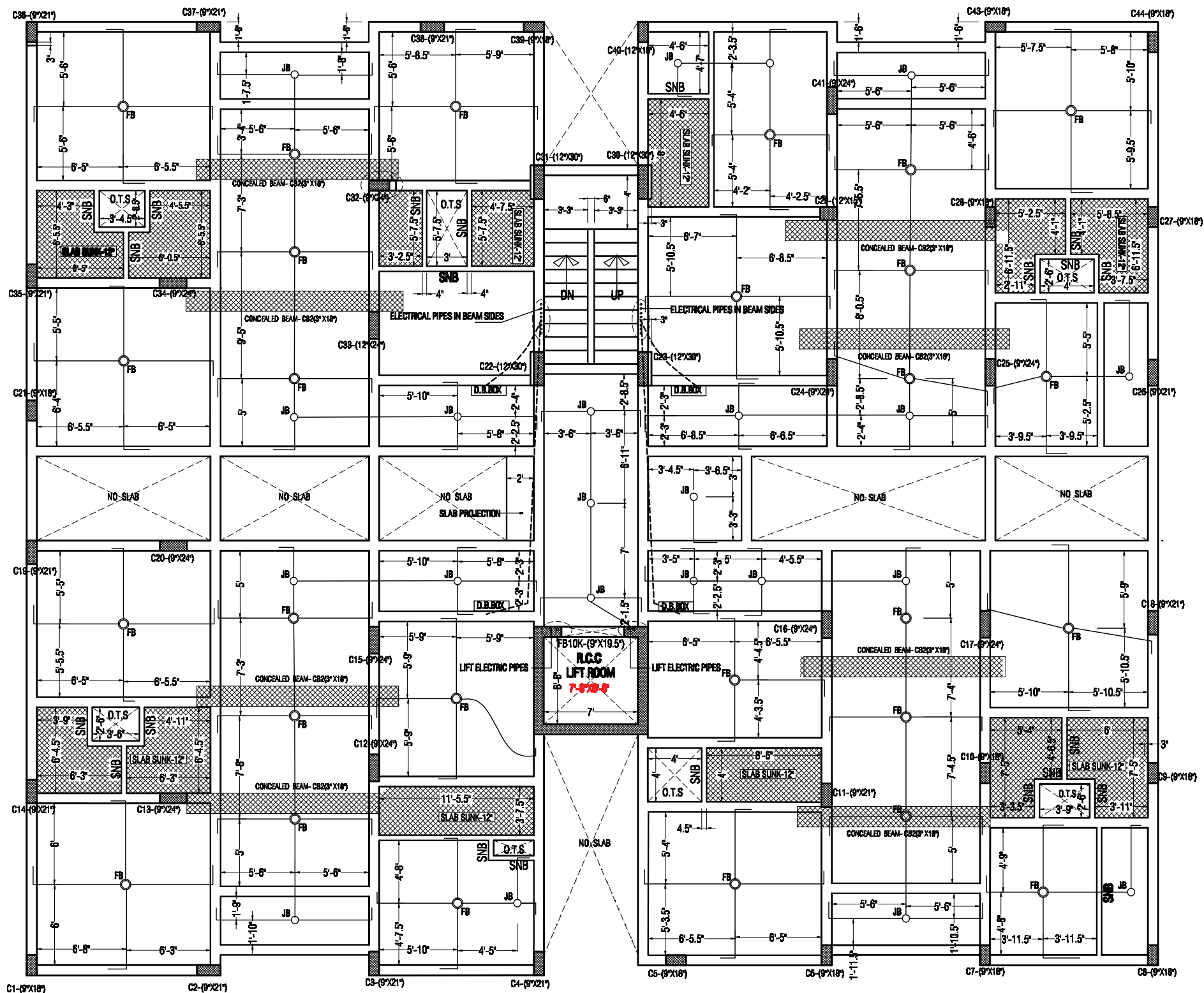
ARCHITECTS :		
SCC ENGINEERS Architects Structural Engineers Contractors		
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FILE	P-214/CHN/VVA-AGS	REV :3
DATE :	03-07-2025	SCALE : 1: 100



DETAILING OF FIRST & SECOND FLOOR ROOF BEAMS (SHEET-2).
PROPOSED PROJECT (P-214) AT KANNAGA SABHAPATHI NAGAR, A.G.S.COLONY (BLOCK-2)



ARCHITECTS :		
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3. CARE SHOULD BE TAKEN TO PROVIDE SPACERS BELOW PIPES SO THAT IT REMAINS IN THE CENTRE OF THE SLAB THICKNESS. PIPES SHOULD NOT BE GROUPED TOGETHER IN THE SLAB.
4. PIPES SHOULD NOT BE PLACED IN MAT BOTTOM IN SLAB.

SYMBOLS:

- FB - FAN BOX
DB - DEEP BOX/JUNCTION BOX.
D.B. BOX - DISTRIBUTION BOX
E.C. PANEL - ELECTRICAL CONTROL PANEL.

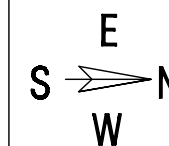
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SCHEDULE OF 1,2,3,4 FLOOR SLAB ELECTRICAL.

PROPOSED PROJECT (P-214) AT KANNAGA SABHAPATHI NAGAR, A.G.S.COLONY (BLOCK-2)

FILE

P-214/CHN/VIVA-AGS

REV :3

DATE :

03-07-2025

SCALE : 1: 100