Verified RealEstate™

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

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

hello@verified.realestate
+91 9996 12 9996

Official Property Record

Digitally Verified Record - Powered by Verified RealEstate™



16-02-2024

THE PROPOSED CONSTRUCTION OF BASEMENT FLOOR + GROUND FLOOR + 4 FLOORS (18.30M HEIGHT) SHOP(GROUND FLOOR) CUM RESIDENTIAL SERVICE APARTMENT (1ST,2ND,3RD & 4TH FLOOR) WITH 36 DWELLING UNITS AVAILING PREMIUM FSI AT OLD DOOR NO :2 , NEW DOOR NO : 3, WALLACE GARDEN 1ST STREET / WALLACE GARDEN 3RD STREET, NUNGAMBAKKAM, CHENNAI - 600006 COMPRISED IN R.S.NO:62/29,62/74 & 62/30, BLOCK NO:13 OF NUNGAMBAKKAM VILLAGE WITHIN THE LIMITS OF GREATER CHENNAI CORPORATION. ZONE - IX , NEW DIVISION - 111

GENERAL NOTE ON STRUCTURAL DESIGN.

1.0 GENERAL.

1.1 DESIGN BASIS

The design of this building is carried out based on frame analysis using software.

1.2 CODES AND STANDARDS

All structural design is carried out conforming to the provisions in National Building Code of India and other relevant Indian Codes and Standards.

1. I.S. 456
2. I.S. 875 - Part I to V
3. I.S.1893
4. I.S.13920

2.0 BASIC CIVIL DESIGN LOADS

2.1 DEAD LOADS & LIVE LOADS

Typical slab dead load is calculated as follows

Self weight of slab	=	3 0kN/m²
Floor finish	=	2.0kN/m²
Live load	=	2.0kN/m²
		7.0kN/m²

Dr. J. SURESH, M.E., MIE., Ph.D.
Structural Engineer
Plot No. 555, VGP Layout, Mullai Street,
Uthandi, Chennai - 600 119.
Reg. No. SE/GR-I/19/02/003
Reg. No. RSE100382019
Reg. No. CGLRGN/SE/GR-1/2019/06/012

3.0 SOIL DETAILS

Based on Soil Test Report Pile Foundation is adopted.

4.0 DESIGN METHODS

General design and detailing of concrete members/elements are done conforming to the provisions of I.S: 456 and other relevant I.S codes. Limit State method is followed for the design.

Seismic Zone III load is taken into account for the analysis. The predominant direction of vibration is horizontal. Relevant combination of forces has been taken into account.

4.1

Load Combination	Ultimate Limit Load	Serviceability Limit State
DL+LL+WL Or DL+LL+EL	1.2DL+1.2LL+1.2WL Or 1.2DL+1.2LL+1.2EL	DL+LL+WL Or DL+LL+EL

4.2.1 MINIMUM COVER

Slab	25 mm
Beam	30 mm
Columns	40 mm
Foundations	50 mm

Structure will be sound and stable when used for the purpose for which it is designed.

Dr. J. SURESH, M.E., MIE., Ph.D.
Structural Engineer
Plot No. 555, VGP Layout, Mullai Street,
Uthandi, Chennai - 600 119.
Reg. No. SE/GR-I/19/02/003
Reg. No. RSE100382019
Reg. No. CGLRGN/SE/GR-1/2019/06/012

```
*************************************************
*                                               *
*           STAAD.Pro CONNECT Edition           *
*           Version  22.10.00.153               *
*           Proprietary Program of              *
*           Bentley Systems, Inc.               *
*           Date=    FEB 16, 2024               *
*           Time=    19:50:43                   *
*                                               *
*  Licensed to: Universal Consultants           *
*************************************************
```

```
     1. STAAD SPACE
INPUT FILE: C:\Users\suresh\Desktop\Staad\WALLACE GARDEN.STD
     2. START JOB INFORMATION
     3. JOB NAME THE PROPOSED  CONSTRUCTION OF BASEMENT   FLOOR  + GROUND FLOOR + 4
     4. *FLOORS (18.30M HEIGHT)  SHOP(GROUND FLOOR) CUM RESIDENTIAL SERVICE
     5. * APARTMENT (1ST,2ND,3RD & 4TH FLOOR) WITH 36 DWELLING UNITS AVAILING PREMIUM
     6. * FSI  AT OLD DOOR NO :2 , NEW  DOOR NO : 3,  WALLACE GARDEN 1ST STREET WALLACE
     7. *  GARDEN 3RD STREET, NUNGAMBAKKAM, CHENNAI - 600006
     8. *  COMPRISED IN R.S.NO :62/29,62/74 & 62/30,
     9. * BLOCK NO:13 OF NUNGAMBAKKAM VILLAGE  WITHIN THE LIMITS OF GREATER
    10. * CHENNAI CORPORATION.  ZONE - IX , NEW DIVISION - 111
    11. ENGINEER NAME SURESH
    12. CHECKER NAME SURESH
    13. APPROVED NAME SURESH
    14. ENGINEER DATE 2/16/2024
    15. CHECKER DATE 2/16/2024
    16. APPROVED DATE 2/16/2024
    17. END JOB INFORMATION
    18. INPUT WIDTH 79
    19. UNIT METER KN
    20. JOINT COORDINATES
    21. 1 -5 -1 0; 25 -5 -4 0; 26 -1.5 -1 0; 27 -1.5 -4 0; 28 2.2 -1 0; 29 2.2 -4 0
    22. 36 -5 2 0; 37 -1.5 2 0; 38 2.2 2 0; 42 -5 5 0; 43 -1.5 5 0; 44 2.2 5 0
    23. 48 -5 8 0; 49 -1.5 8 0; 50 2.2 8 0; 57 5.9 -1 0; 58 5.9 -4 0; 59 5.9 2 0
    24. 60 5.9 5 0; 61 5.9 8 0; 63 9.6 -1 0; 64 9.6 -4 0; 65 9.6 2 0; 66 9.6 5 0
    25. 67 9.6 8 0; 68 -5 11 0; 69 -1.5 11 0; 70 2.2 11 0; 71 5.9 11 0; 72 9.6 11 0
    26. 73 -5 14 0; 74 -1.5 14 0; 75 2.2 14 0; 76 5.9 14 0; 77 9.6 14 0
    27. MEMBER INCIDENCES
    28. 39 1 25; 40 1 26; 41 25 27; 42 26 27; 43 26 28; 44 27 29; 45 28 29; 55 1 36
    29. 56 26 37; 57 28 38; 61 36 37; 62 37 38; 66 36 42; 67 37 43; 68 38 44; 72 42 43
    30. 73 43 44; 77 42 48; 78 43 49; 79 44 50; 83 48 49; 84 49 50; 96 28 57; 97 29 58
    31. 98 57 58; 99 57 59; 100 38 59; 101 59 60; 102 44 60; 103 60 61; 104 50 61
    32. 107 57 63; 108 58 64; 109 63 64; 110 63 65; 111 59 65; 112 65 66; 113 60 66
    33. 114 66 67; 115 61 67; 116 48 68; 117 49 69; 118 50 70; 119 68 69; 120 69 70
    34. 121 61 71; 122 70 71; 123 67 72; 124 71 72; 125 68 73; 126 69 74; 127 70 75
    35. 128 73 74; 129 74 75; 130 71 76; 131 75 76; 132 72 77; 133 76 77
    36. DEFINE MATERIAL START
    37. ISOTROPIC CONCRETE
    38. E 2.17185E+07
```



```
39. POISSON 0.17
40. DENSITY 23.5616
41. ALPHA 1E-05
42. DAMP 0.05
43. END DEFINE MATERIAL
44. MEMBER PROPERTY INDIAN
45. 39 42 45 55 TO 57 66 TO 68 77 TO 79 98 99 101 103 109 110 112 114 116 TO 118 -
46. 121 123 125 TO 127 130 132 PRIS YD 0.8 ZD 0.3
47. 40 41 43 44 61 62 72 73 83 84 96 97 100 102 104 107 108 111 113 115 119 120 -
48. 122 124 128 129 131 133 PRIS YD 0.6 ZD 0.2
49. CONSTANTS
50. MATERIAL CONCRETE ALL
51. SUPPORTS
52. 25 27 29 58 64 FIXED
53. DEFINE 1893 LOAD
54. ZONE 0.16 RF 3 I 1 SS 2 ST 1 DM 0.5
55. MEMBER WEIGHT
56. 39 TO 45 55 TO 57 61 62 66 TO 68 72 73 77 TO 79 83 84 96 TO 104 107 TO 132 -
57. 133 UNI -14.5
58. DEFINE WIND LOAD

*** NOTE: If any floor diaphragm is present in the model Wind load definition
          should be defined after Floor Diaphragm definition. Otherwise wind
          load generation may be unsuccessful during analysis.

59. TYPE 1
60. INT 0.673 1.03335 1.3537 1.65375 HEIG  10  30  50  100
61. EXP 1 JOINT 1 25 TO 29 36 TO 38 42 TO 44 48 TO 50 57 TO 61 63 TO 67
62. LOAD 1 LOADTYPE NONE  TITLE SLX1
63. 1893 LOAD X 1
64. LOAD 2 LOADTYPE NONE  TITLE SLZ1
65. 1893 LOAD Z 1
66. LOAD 3 LOADTYPE DEAD  TITLE DL
67. SELFWEIGHT Y -1
68. MEMBER LOAD
69. 40 43 61 62 72 73 83 84 96 100 102 104 107 111 113 115 119 120 122 124 128 -
70. 129 131 133 UNI GY -25
71. LOAD 4 LOADTYPE LIVE  TITLE LL
72. MEMBER LOAD
73. 40 43 61 62 72 73 83 84 96 100 102 104 107 111 113 115 119 120 122 124 128 -
74. 129 131 133 UNI GY -15
75. LOAD 7 LOADTYPE WIND  TITLE WLZ1
76. WIND LOAD Z 1 TYPE 1
77. LOAD 8 LOADTYPE WIND  TITLE WLZ2
78. WIND LOAD Z -1 TYPE 1
```

Dr. J. SURESH, M.E., MIE., Ph.D.
Structural Engineer
Plot No. 555, VGP Layout, Mullai Street,
Uthandi, Chennai - 600 119.
Reg. No. SE/GR-I/19/02/003
Reg. No. RSE100382019
Reg. No. CGLRGN/SE/GR-1/2019/06/012

```
 79. LOAD COMB 9 1.5(DL+LL)
 80. 3 1.5 4 1.5
 81. LOAD COMB 10 1.2(DL+LL+SLX)
 82. 3 1.2 4 1.2 1 1.2
 83. LOAD COMB 11 1.2(DL+LL+SLZ)
 84. 3 1.2 4 1.2 2 1.2
 85. LOAD COMB 14 1.2(DL+LL+WLZ1)
 86. 3 1.2 4 1.2 7 1.2
 87. LOAD COMB 15 1.2(DL+LL+WLZ2)
 88. 3 1.2 4 1.2 8 1.2
 89. LOAD COMB 16 1.5(DL+SLX)
 90. 3 1.5 1 1.5
 91. LOAD COMB 17 1.5(DL+SLZ)
 92. 3 1.5 2 1.5
 93. LOAD COMB 20 1.5(DL+WLZ1)
 94. 3 1.5 7 1.5
 95. LOAD COMB 21 1.5(DL+WLZ2)
 96. 3 1.5 8 1.5
 97. LOAD COMB 22 0.9DL+1.5SLX
 98. 3 0.9 1 1.5
 99. LOAD COMB 23 0.9DL+1.5SLZ
100. 3 0.9 2 1.5
101. LOAD COMB 26 0.9DL+1.5WLZ1
102. 3 0.9 7 1.5
103. LOAD COMB 27 0.9DL+1.5WLZ2
104. 3 0.9 8 1.5
105. PERFORM ANALYSIS


         P R O B L E M   S T A T I S T I C S
         -----------------------------------

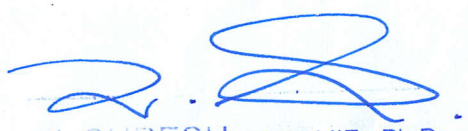
  NUMBER OF JOINTS          35  NUMBER OF MEMBERS       58
  NUMBER OF PLATES           0  NUMBER OF SOLIDS         0
  NUMBER OF SURFACES         0  NUMBER OF SUPPORTS       5

        Using 64-bit analysis engine.

        SOLVER USED IS THE IN-CORE ADVANCED MATH SOLVER

 TOTAL      PRIMARY LOAD CASES =     6, TOTAL DEGREES OF FREEDOM =     180
 TOTAL LOAD COMBINATION  CASES =    13  SO FAR.

**WARNING: IF THIS UBC/IBC ANALYSIS HAS TENSION/COMPRESSION
OR REPEAT LOAD OR RE-ANALYSIS OR SELECT OPTIMIZE, THEN EACH
UBC/IBC CASE SHOULD BE FOLLOWED BY PERFORM ANALYSIS & CHANGE.
```



Dr. J. SURESH, M.E., MIE., Ph.D.
Structural Engineer
Plot No. 555, VGP Layout, Mullai Street,
Uthandi, Chennai - 600 119.
Reg. No. SE/GR-I/19/02/003
Reg. No. RSE100382019
n. No. CGLRCN/SE/GR-1/2019/06/012

STAAD SPACE -- PAGE NO. 4

```
*********************************************************
* UNITS - KN    METE                                    *
* TIME PERIOD FOR X 1893 LOADING =    0.65541 SEC       *
* SA/G PER 1893=    1.038, LOAD FACTOR= 1.000           *
* VB PER 1893=    0.0277 X     2786.90=      77.11 KN   *
*                                                       *
*********************************************************


*********************************************************
* UNITS - KN    METE                                    *
* TIME PERIOD FOR Z 1893 LOADING =    0.65541 SEC       *
* SA/G PER 1893=    1.038, LOAD FACTOR= 1.000           *
* VB PER 1893=    0.0277 X     2786.90=      77.11 KN   *
*                                                       *
*********************************************************


106. FINISH

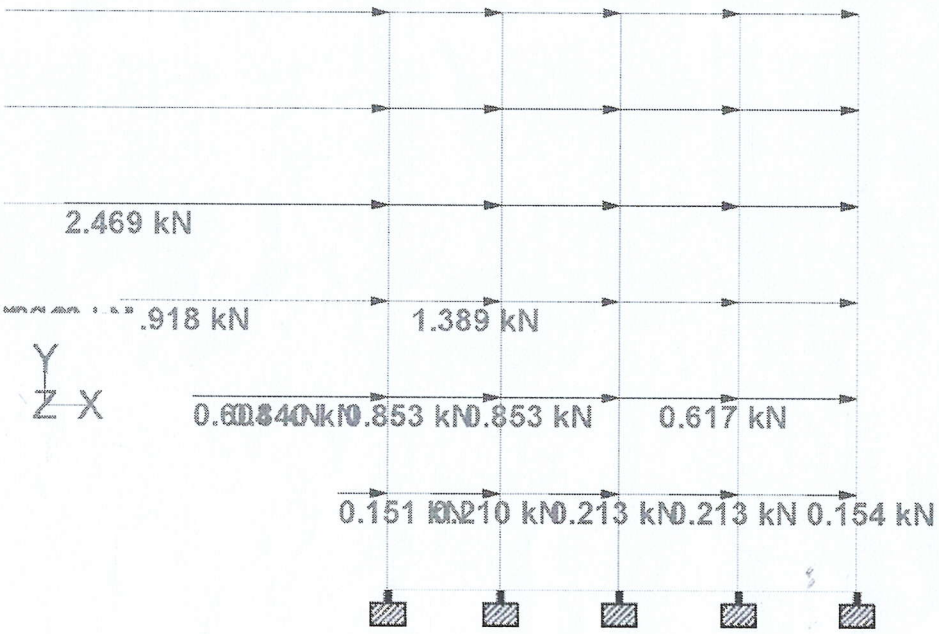
          ********** END OF THE STAAD.Pro RUN **********

            **** DATE= FEB 16,2024   TIME= 19:50:44 ****
```

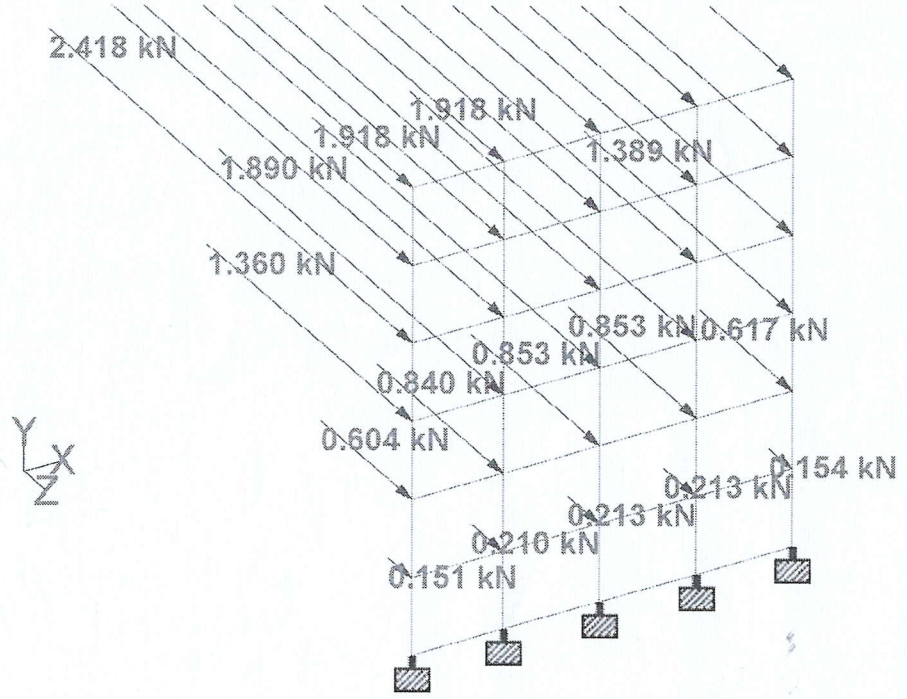
Dr. J. SURESH, M.E., MIE., Ph.D.
Structural Engineer
Plot No. 555, VGP Layout, Mullai Street,
Uthandi, Chennai - 600 119.
Reg. No. SE/GR-I/19/02/003
Reg. No. RSE100382019
Reg. No. CGLRGN/SE/GR-1/2019/06/012

```
************************************************************
*   For technical assistance on STAAD.Pro, please visit    *
*   http://www.bentley.com/en/support/                     *
*                                                          *
*   Details about additional assistance from               *
*   Bentley and Partners can be found at program menu      *
*   Help->Technical Support                                *
*                                                          *
*          Copyright (c) Bentley Systems, Inc.             *
*               http://www.bentley.com                     *
************************************************************
```

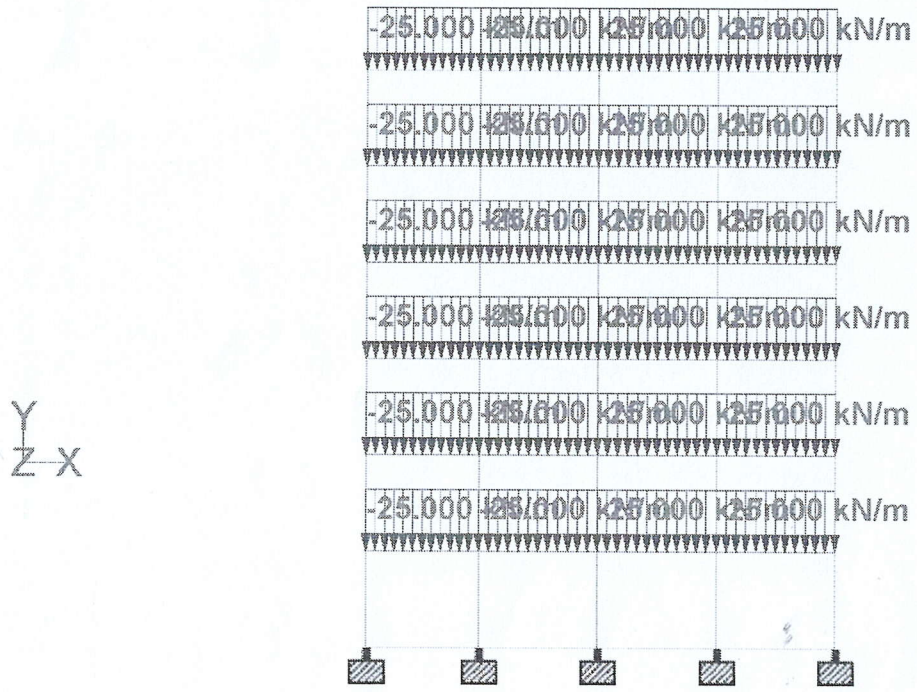
Dr. J. SURESH, M.E., MIE., Ph.D.
Structural Engineer
Plot No. 555, VGP Layout, Mullai Street,
Uthandi, Chennai - 600 119.
Reg. No. SE/GP-I/19/02/003



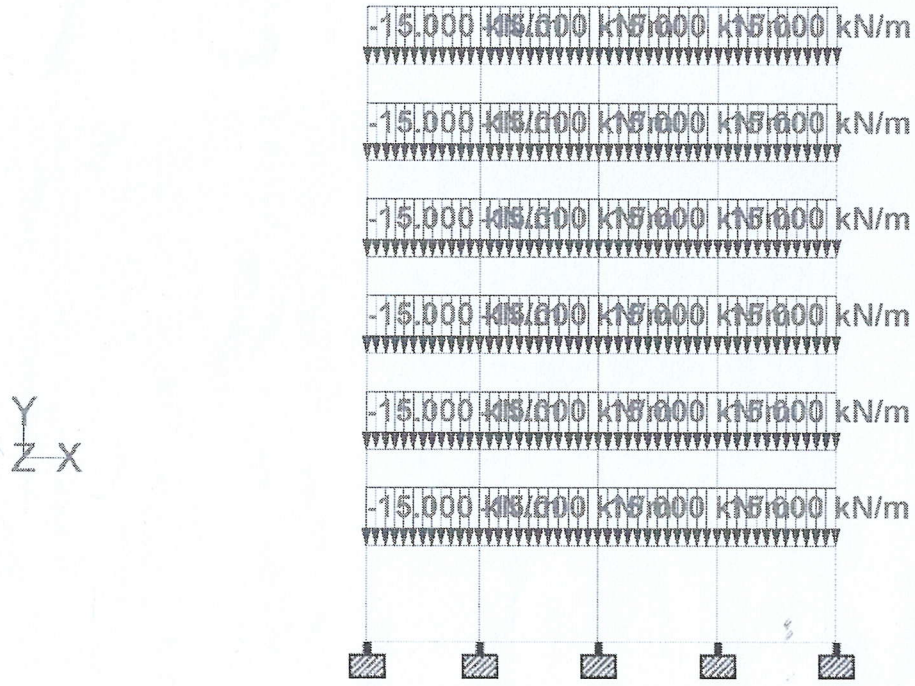
Dr. J. SURESH, M.E., MIE., Ph.D.
Structural Engineer
Plot No. 555, VGP Layout, Mullai Street,
Uthandi, Chennai - 600 119.
Reg. No. SE/GR-I/19/02/003
Reg. No. RSE100382019
Reg. No. CGLRGN/SE/GR-1/2019/06/012



Dr. J. SURESH, M.E., MIE., Ph.D.
Structural Engineer
Plot No. 555, VGP Layout, Mullai Street,
Uthandi, Chennai - 600 119.
Reg. No. SE/GR-I/19/02/003
Reg. No. RSE100382019
Reg. No. CGLRGN/SE/GR-1/2019/06/012

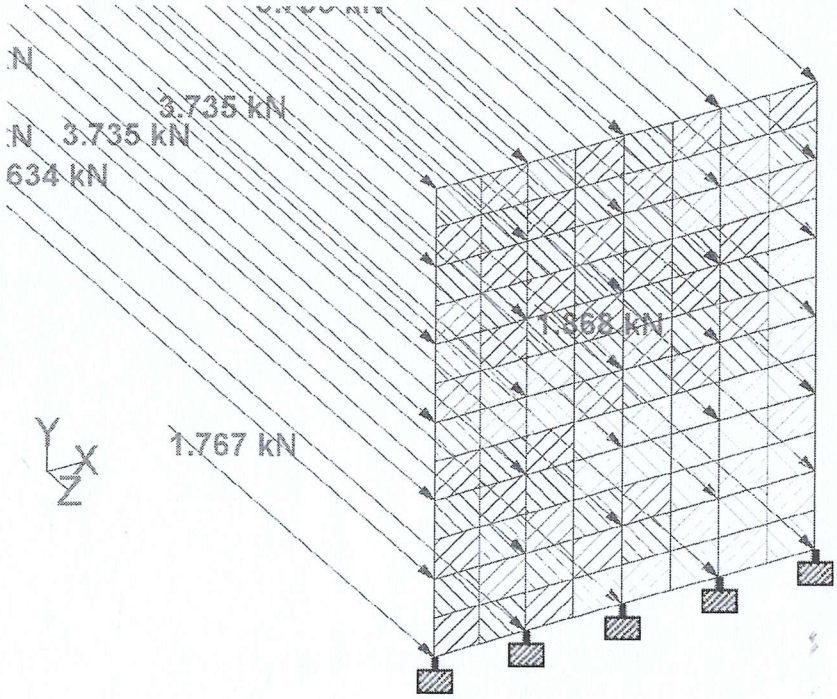


Dr. J. SURESH, M.E., MIE., Ph.D.
Structural Engineer
Plot No. 555, VGP Layout, Mullai Street,
Uthandi, Chennai - 600 119.
Reg. No. SE/GR-I/19/02/003
Reg. No. RSE100382019
Reg. No. CGLRGN/SE/GR-1/2019/06/012



Dr. J. SURESH, M.E., MIE., Ph.D.
Structural Engineer
Plot No. 555, VGP Layout, Mullai Street,
Uthandi, Chennai - 600 119.
Reg. No. SE/GR-I/19/02/003
Reg. No. RSE100382019
Reg. No. CGLRGN/SE/GR-1/2019/06/012

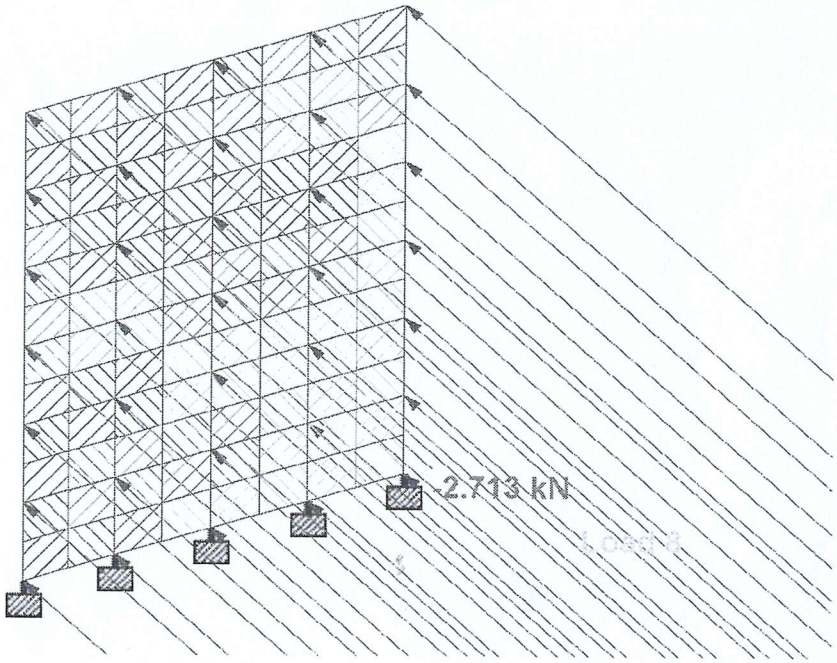
Software licensed to STAAD.Pro CONNECTED User: Not signed in	Job No	Sheet No 1	Rev
	Part		
Job Title The Proposed Construction of Basement Floor + Ground Floor + 4	Ref		
	By Suresh	Date 2/16/2024	Chd Suresh
Client	File WALLACE GARDEN.std	Date/Time	16-Feb-2024 19:50



Load 7

Dr. J. SURESH, M.E., MIE., Ph.D.
Structural Engineer
Plot No. 555, VGP Layout, Mullai Street,
Uthandi, Chennai - 600 119.
Reg. No. SE/GR-I/19/02/003
Reg. No. RSE100382019
Reg. No. CGLPCN/SE/GR-1/2019/06/012

Software licensed to STAAD.Pro CONNECTED User: Not signed in	Job No	Sheet No 1	Rev
	Part		
Job Title The Proposed Construction of Basement Floor + Ground Floor + 4	Ref		
	By Suresh	Date 2/16/2024	Chd Suresh
Client	File WALLACE GARDEN.std	Date/Time	16-Feb-2024 19:50





Dr. J. SURESH, M.E., MIE., Ph.D.
Structural Engineer
Plot No. 555, VGP Layout, Mullai Street,
Uthandi, Chennai - 600 119.
Reg. No. SE/GR-I/19/02/003
Reg. No. RSE100382019
Reg. No. CGLRGN/SE/GR-1/2019/06/012



our services doesn't just end there

Buying & Selling Services

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

Legal & Documentation Services

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

Property Development & Approvals

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

NRI & Investment Services

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

Compliance & Special Services

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



empowering your real estate decisions with smart tools

Property Valuation & Cost Estimation

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

Ownership, Compliance & Legal Verification

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

Zoning & Land Use Analysis

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

Property Documentation & Workflow Tools

Forms & Templates, Document Generator, Document Translation, Dictionary

Vastu & Property Management Tools

Home Vastu Shastra, Plot Vastu Shastra, Property Management

Verified RealEstate™

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

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

hello@verified.realestate
+91 9996 12 9996
www.verified.realestate