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PAGE NO. 1

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*****
*
*      STAAD.Pro CONNECT Edition
*      Version 22.12.00.142
*      Proprietary Program of
*      Bentley Systems, Inc.
*      Date= NOV 14, 2024
*      Time= 14:49:10
*
*      Licensed to: United Consultanta
*****

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```

1. STAAD SPACE THE PROPOSED B+G+4 COMMERCIAL BUILDING IN TIRUVANMIYUR, CHENNAI
INPUT FILE: D:\HARIHARAN V\STABILITY REPORT\VSI ESTATE\THE PROPOSED B+G+4 COMMERCIAL BUILDING IN TIRUV... .STD
2. START JOB INFORMATION
3. ENGINEER DATE 14-NOV-24
4. JOB CLIENT VSI ESTATE
5. JOB NO AJ 3304
6. ENGINEER NAME HARIHARAN V
7. CHECKER NAME DR.ALEX JACOB
8. END JOB INFORMATION
9. INPUT WIDTH 79
10. UNIT METER KN
11. JOINT COORDINATES
12. 1 0 0 0; 2 5.87 0 0; 3 10 0 0; 4 13.56 0 0; 5 19.59 0 0; 6 0 3.8 0
13. 7 5.87 3.8 0; 8 10 3.8 0; 9 13.56 3.8 0; 10 19.59 3.8 0; 11 0 7.6 0
14. 12 5.87 7.6 0; 13 10 7.6 0; 14 13.56 7.6 0; 15 19.59 7.6 0; 16 0 11.4 0
15. 17 5.87 11.4 0; 18 10 11.4 0; 19 13.56 11.4 0; 20 19.59 11.4 0; 21 0 15.2 0
16. 22 5.87 15.2 0; 23 10 15.2 0; 24 13.56 15.2 0; 25 19.59 15.2 0; 26 0 19 0
17. 27 5.87 19 0; 28 10 19 0; 29 13.56 19 0; 30 19.59 19 0; 31 0 22.8 0
18. 32 5.87 22.8 0; 33 10 22.8 0; 34 13.56 22.8 0; 35 19.59 22.8 0
19. MEMBER INCIDENCES
20. 5 1 6; 6 2 7; 7 3 8; 8 4 9; 9 5 10; 10 6 7; 11 7 8; 12 8 9; 13 9 10; 14 6 11
21. 15 7 12; 16 8 13; 17 9 14; 18 10 15; 19 11 12; 20 12 13; 21 13 14; 22 14 15
22. 23 11 16; 24 12 17; 25 13 18; 26 14 19; 27 15 20; 28 16 17; 29 17 18; 30 18 19
23. 31 19 20; 32 16 21; 33 17 22; 34 18 23; 35 19 24; 36 20 25; 37 21 22; 38 22 23
24. 39 23 24; 40 24 25; 41 21 26; 42 22 27; 43 23 28; 44 24 29; 45 25 30; 46 26 27
25. 47 27 28; 48 28 29; 49 29 30; 50 26 31; 51 27 32; 52 28 33; 53 29 34; 54 30 35
26. 55 31 32; 56 32 33; 57 33 34; 58 34 35
27. DEFINE MATERIAL START
28. ISOTROPIC CONCRETE
29. E 2.17185E+07
30. POISSON 0.17
31. DENSITY 23.5616
32. ALPHA 1E-05
33. DAMP 0.05
34. G 9.28139E+06
35. TYPE CONCRETE
36. STRENGTH FCU 27579
37. END DEFINE MATERIAL
38. MEMBER PROPERTY

```


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 CHENNAI - 600 090.
 REG No. SE/GR-I/19/02/001
 REG No. RSE100392019

THE PROPOSED B+G+4 COMMERCIAL BUILDING IN TIRUVANMIYUR, -- PAGE NO. 2

39. 5 9 14 18 23 27 32 36 41 45 50 54 PRIS YD 0.6 ZD 0.3
 40. 6 TO 8 15 TO 17 24 TO 26 33 TO 35 42 TO 44 51 TO 53 PRIS YD 0.6 ZD 0.5
 41. 10 TO 13 19 TO 22 28 TO 31 37 TO 40 46 TO 49 55 TO 58 PRIS YD 0.7 ZD 0.3
 42. CONSTANTS
 43. MATERIAL CONCRETE ALL
 44. SUPPORTS
 45. 1 TO 5 FIXED
 46. DEFINE IS1893 2016 LOAD
 47. ZONE 0.16 RF 3 I 1.2 SS 3 ST 1 DM 0.05 PX 0.78 PZ 0.78
 48. SELFWEIGHT -1
 49. MEMBER WEIGHT
 50. 10 TO 13 19 TO 22 28 TO 31 37 TO 40 46 TO 49 55 TO 58 UNI -12.4 0 0
 51. 10 TO 13 19 TO 22 28 TO 31 37 TO 40 46 TO 49 55 TO 58 UNI -31.8 0 0
 52. 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.

53. TYPE 1 WIND 1
 54. <! STAAD PRO GENERATED DATA DO NOT MODIFY !!!
 55. IS875-2015:PARAMS 0 0 0 22.800 0.000 3.800 0 CHENNAI 50.000 0 1.000 1 7 -
 56. 1.000 1.000 1.000 1.014 1.051 1.066 1.084 1.000 2 1.000 0.020 0 19.590 0.000 -
 57. 22.800 0 0 0 1.000 0 0 0.200 1.000 0 1.000 1.000 1.000
 58. !> END GENERATED DATA BLOCK
 59. INT 1.5 1.5 1.5 1.542 1.656 1.705 1.763 HEIG 0 3.8 7.6 11.4 15.2 19 22.8
 60. EXP 1 JOINT 1 TO 35
 61. LOAD 1 LOADTYPE SEISMIC-H TITLE EQX
 62. 1893 LOAD X 1
 63. LOAD 2 LOADTYPE SEISMIC-H TITLE EQ-X
 64. 1893 LOAD X -1.
 65. LOAD 3 LOADTYPE SEISMIC-H TITLE EQZ
 66. 1893 LOAD Z 1
 67. LOAD 4 LOADTYPE SEISMIC-H TITLE EQ-Z
 68. 1893 LOAD Z -1.
 69. LOAD 5 LOADTYPE DEAD TITLE DL
 70. SELFWEIGHT Y -1
 71. MEMBER LOAD
 72. 10 TO 13 19 TO 22 28 TO 31 37 TO 40 46 TO 49 55 TO 58 UNI GY -12.4
 73. LOAD 6 LOADTYPE LIVE TITLE LL
 74. MEMBER LOAD
 75. 10 TO 13 19 TO 22 28 TO 31 37 TO 40 46 TO 49 55 TO 58 UNI GY -31.8
 76. LOAD 7 LOADTYPE WIND TITLE WLZ
 77. WIND LOAD Z 1 TYPE 1


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THE PROPOSED B+G+4 COMMERCIAL BUILDING IN TIRUVANMIYUR, -- PAGE NO. 3

78. LOAD 8 LOADTYPE WIND TITLE WL-Z
79. WIND LOAD -Z 1 TYPE 1
80. LOAD COMB 9 1.5(DL+LL)
81. 5 1.5 6 1.5
82. LOAD COMB 10 1.2(DL+LL+EQX)
83. 1 1.2 5 1.2 6 1.2
84. LOAD COMB 11 1.2(DL+LL-EQX)
85. 2 1.2 5 1.2 6 1.2
86. LOAD COMB 12 1.2(DL+LL+EQZ)
87. 3 1.2 5 1.2 6 1.2
88. LOAD COMB 13 1.2(DL+LL-EQZ)
89. 4 1.2 5 1.2 6 1.2
90. LOAD COMB 14 1.2(DL+LL+WLZ)
91. 5 1.2 6 1.2 7 1.2
92. LOAD COMB 15 1.2(DL+LL-WLZ)
93. 5 1.2 6 1.2 8 1.2
94. LOAD COMB 16 1.5(DL+EQX)
95. 1 1.5 5 1.5
96. LOAD COMB 17 1.5(DL-EQX)
97. 2 1.5 5 1.5
98. LOAD COMB 18 1.5(DL+EQZ)
99. 3 1.5 5 1.5
100. LOAD COMB 19 1.5(DL-EQZ)
101. 4 1.5 5 1.5
102. LOAD COMB 20 1.5(DL+WLZ)
103. 5 1.5 7 1.5
104. LOAD COMB 21 1.5(DL-WLZ)
105. 5 1.5 8 1.5
106. LOAD COMB 22 0.9DL+1.5EQX
107. 1 1.5 5 0.9
108. LOAD COMB 23 0.9DL-1.5EQX
109. 5 0.9 2 1.5
110. LOAD COMB 24 0.9DL+1.5EQZ
111. 5 0.9 3 1.5
112. LOAD COMB 25 0.9DL-1.5EQZ
113. 5 0.9 4 1.5
114. LOAD COMB 26 0.9DL+1.5WLZ
115. 5 0.9 7 1.5
116. LOAD COMB 27 0.9DL-1.5WLZ
117. 5 0.9 8 1.5
118. PERFORM ANALYSIS



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THE PROPOSED B+G+4 COMMERCIAL BUILDING IN TIRUVANMIYUR, -- PAGE NO. 4

PROBLEM STATISTICS

NUMBER OF JOINTS	35	NUMBER OF MEMBERS	54
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 = 8, TOTAL DEGREES OF FREEDOM = 180
TOTAL LOAD COMBINATION CASES = 19 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.

***NOTE: Equivalent Static Analysis should preferably be performed for regular structures with approximate natural time period less than 0.4s and regular structures with height less than 15m in Seismic Zone II. Ref Cl.6.4.3 and 7.6 BASE SHEAR AND TIME PERIOD IN X

```
*****
* UNITS - KN      METE                      *
* TIME PERIOD FOR X 1893 LOADING =    0.78000 SEC      *
* SA/G PER 1893=    2.141, LOAD FACTOR= 1.000          *
* VB PER 1893=    0.0685 X    3936.81=    269.72 KN    *
* VB Act Based on Clause 7.2.1 =    269.72 KN          *
* VB Min based on Clause 7.2.2 =    43.30 KN          *
*                                                    *
*****
```

***NOTE: Equivalent Static Analysis should preferably be performed for regular structures with approximate natural time period less than 0.4s and regular structures with height less than 15m in Seismic Zone II. Ref Cl.6.4.3 and 7.6 BASE SHEAR AND TIME PERIOD IN X

```
*****
* UNITS - KN      METE                      *
* TIME PERIOD FOR X 1893 LOADING =    0.78000 SEC      *
* SA/G PER 1893=    2.141, LOAD FACTOR=-1.000          *
* VB PER 1893=    0.0685 X    3936.81=    -269.72 KN   *
* VB Act Based on Clause 7.2.1 =    -269.72 KN          *
* VB Min based on Clause 7.2.2 =    -43.30 KN          *
*                                                    *
*****
```

***NOTE: Equivalent Static Analysis should preferably be performed for regular structures with approximate natural time period less than 0.4s and regular structures with height less than 15m in Seismic Zone II. Ref Cl.6.4.3 and 7.6


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THE PROPOSED B+G+4 COMMERCIAL BUILDING IN TIRUVANMIYUR, -- PAGE NO. 5

BASE SHEAR AND TIME PERIOD IN Z

```
*****
* UNITS - KN    METE                               *
* TIME PERIOD FOR Z 1893 LOADING =    0.78000 SEC   *
* SA/G PER 1893=    2.141, LOAD FACTOR= 1.000       *
* VB PER 1893=    0.0685 X    3936.81=    269.72 KN  *
* VB Act Based on Clause 7.2.1 =    269.72 KN       *
* VB Min based on Clause 7.2.2 =    43.30 KN        *
*                                                    *
```

***NOTE: Equivalent Static Analysis should preferably be performed for regular structures with approximate natural time period less than 0.4s and regular structures with height less than 15m in Seismic Zone II. Ref Cl.6.4.3 and 7.6

BASE SHEAR AND TIME PERIOD IN Z

```
*****
* UNITS - KN    METE                               *
* TIME PERIOD FOR Z 1893 LOADING =    0.78000 SEC   *
* SA/G PER 1893=    2.141, LOAD FACTOR=-1.000       *
* VB PER 1893=    0.0685 X    3936.81=   -269.72 KN  *
* VB Act Based on Clause 7.2.1 =   -269.72 KN       *
* VB Min based on Clause 7.2.2 =   -43.30 KN        *
*                                                    *
```

119. FINISH

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

*** DATE= NOV 14,2024 TIME= 14:49:12 ***

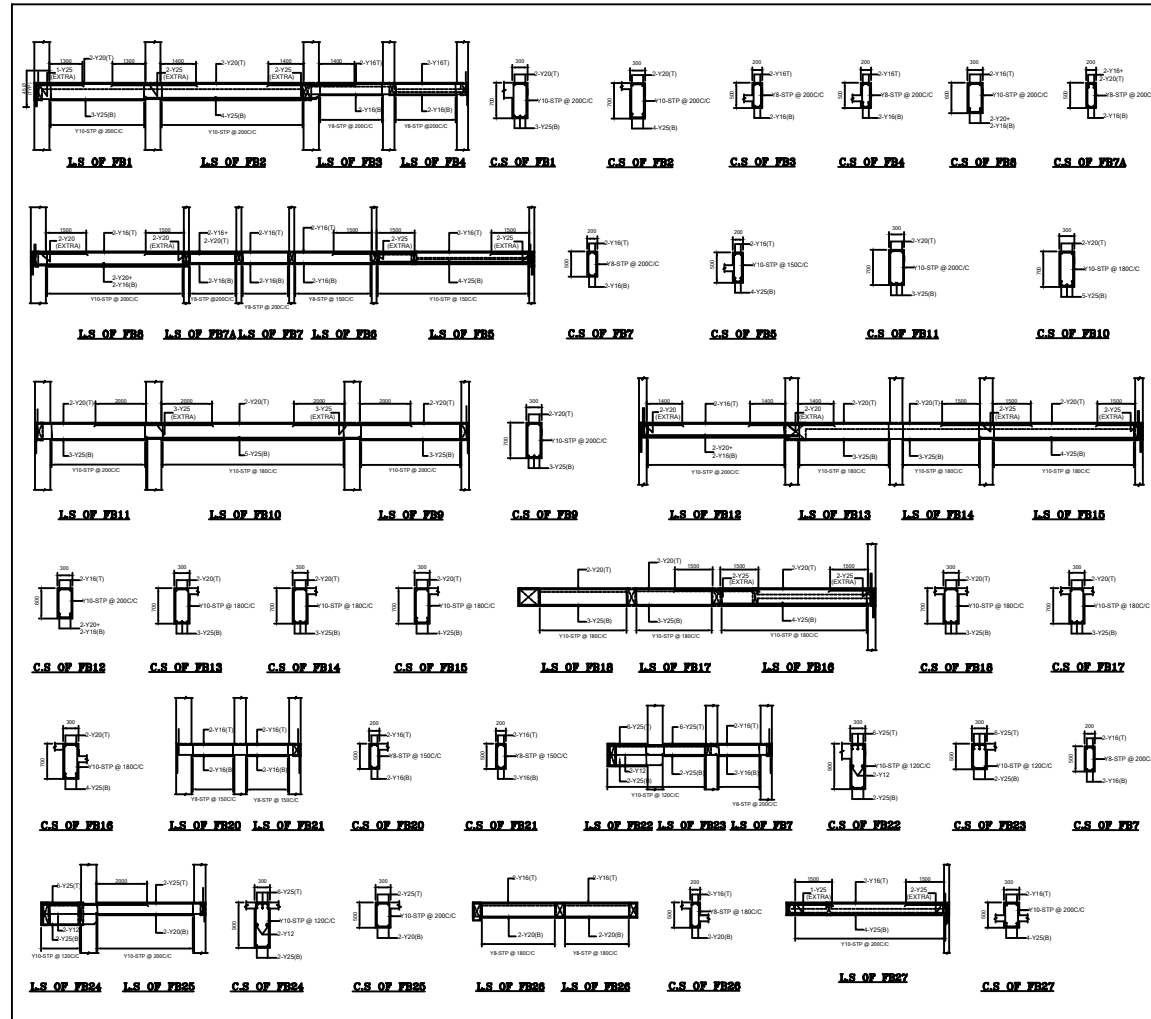
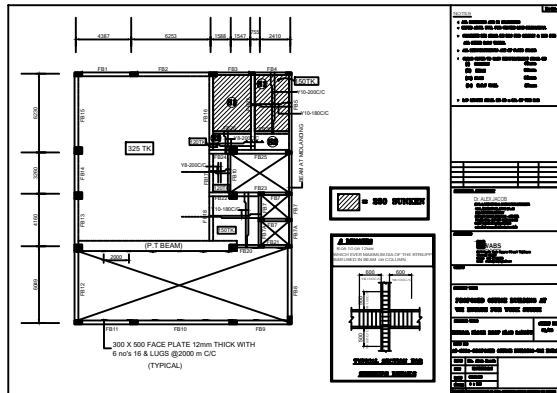

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THE PROPOSED B+G+4 COMMERCIAL BUILDING IN TIRUVANMIYUR, -- PAGE NO. 6

* 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 *
* *
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REG No. SE/GR-I/19/02/001
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TYPICAL FLOOR ROOF DETAIL



NOTES

- ALL DIMENSION ARE IN MILLIMETER
- REINFORCEMENT DIA. FOR CENTRE LINE DIMENSIONS.
- CONCRETE MIX SHALL BE M20 FOR COLUMN & M25 FOR ALL OTHER R.C.C WORKS.
- ALL REINFORCEMENTS ARE OF Fe500 GRADE.
- CLEAR COVER TO MAIN REINFORCEMENT SHALL BE
 - (i) SLAB 20mm
 - (ii) COLUMN 40mm
 - (iii) BEAM 30mm
 - (iv) R.C.C WALL 25mm
- LAP LENGTH SHALL BE 30 x DIA OF THE BAR

STRUCTURAL CONSULTANT

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CLIENT

PROJECT TITLE

PROPOSED OFFICE BUILDING AT
VSI ESTATE FOR WORK STORM

DRAWING TITLE

TYPICAL FLOOR ROOF DETAIL

SHEET NO:

08/02

DWG NO

AJ-3904-PROPOSED OFFICE BUILDING-VSI ESTATE

DESIGN

Dr. Alex Jacob

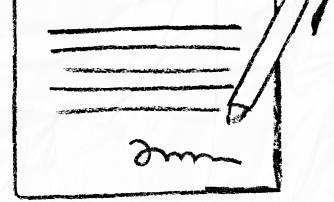
DATE

04.04.23

SCALE

1 : 100

FILE NAME: \PROJECTS\AJ-3904-PROPOSED OFFICE BUILDING-VSI ESTATE\DWG\08-02-23\08-02-23.dwg



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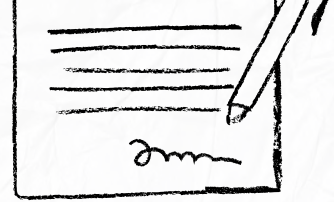
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Vastu & Property Management Tools

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

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