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DESIGN BASIS REPORT

OF STRUCTURAL DESIGN FOR GROUP DEVELOPMENT OF HIGH RISE BUILDING (AFFORDABLE RESIDENTIAL HOUSES) CONSISTS OF COMBINED EXTENDED BASEMENTS (B1 & B2) ANDBLOCK-01 & 02.

BLOCK-01 (TOWER A): STILT FLOOR TO 35TH FLOOR WITH 315 DWELLING UNITS

BLOCK-02 (CLUB HOUSE): GROUND FLOOR + FIRST FLOOR + WITH SWIMMING POOL @ GROUND LEVEL COMPRISED IN S. NO's. 585/1A2A1, 586/1A, 586/2A, 586/2B, 586/2C, 587, 595/1B1A, 596/1A, 598/1 OF PADUR VILLAGE, THIRUPORUR TALUK, CHENGALPATTU DISTRICT, CHENNAI.

13-06-2024	R0	ISSUED FOR APPROVAL	SS	SK	RM
DATE	**REV.NO**	**DESCRIPTIO N**	**PREPARED**	**CHECKED**	**APPROVED**

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1. Introduction

This report provides the brief summary of approach adopted for analysis and design of **GROUP DEVELOPMENT OF HIGH RISE BUILDING (AFFORDABLE RESIDENTIAL HOUSES) CONSISTS OF COMBINED EXTENDED BASEMENT FLOOR (B1 & B2) AND BLOCK-01 & 02. BLOCK-01 (TOWER A): STILT FLOOR TO 35TH FLOOR WITH 315 DWELLING UNITS AND BLOCK-02 (CLUB HOUSE) : GROUND FLOOR + FIRST FLOOR + SWIMMING POOL GROUND LEVEL COMPRISED IN S.NO. 585/1A2A1, 586/1A, 586/2A, 586/2B, 586/2C, 587, 595/1B1A, 596/1A, 598/1 OF PADUR VILLAGE, THIRUPORUR TALUK, CHENGALPATTU DISTRICT.** It is situated in Chennai. The structure consists of 2 Basement Parking + STILT + 35 Floors + Terrace. The foundation system proposed for this structure is RaftFoundation. The ductile shear wall system is proposed as lateral load resisting system.

2. Building Details and Modeling

Basic Dimensions of the building:

- Total Height of Tower A : 114.35m
- Number of Suspended Slabs : 38
- Stilt Floor Height : 3.65
- Typical Floor Height : 3.15m
- First Basement Height : 4.50m
- Second Basement Height : 3.40m



For the analysis of the tower to get an accurate behavior, structure is simulated in ETABS software, with accurate geometric dimensions, relevant modeling parameters and loading which are mentioned in subsequent sections.

Structural System:

Ductile Shear Wall system is adopted for providing stability against the gravity and lateral loads. Shear walls will be main lateral stability providing elements in the system. Column/wall sizes are decided based on the stresses developed in the members considering the architectural design intent. Floor system to be beam slab system, unless necessary for lateral stability. Foundation system is designed based on soil investigation report.

Structural Modeling and Analysis:

The structural analysis is carried out using ETABS software. A 3D ANALYSIS model is developed to study the acceptable serviceability criteria and to obtain the design forces of various members. Frames in both directions are modeled as *ductile shear wall* with beam-slab element in ETABS. Beam and slabs are modeled as line and membrane respectively. The frames/shear walls in either direction are designed considering various listed combinations of Dead load, Live load and Earthquake/Wind loads. Dead loads, live loads and unit weights used for analysis are listed in Design parameters.

While analyzing and designing appropriate live load reduction as per *clause 3.2 of IS: 875 (PART-2)* is considered.

Stiffness modifiers for structural members

1. For factored load combination/design modifiers:
   a. Columns - 0.7
   b. Shear walls - 0.7
   c. Beams - 0.35
   d. Slabs - 0.25
2. For unfactored load combination/serviceability/deflection check:
   a. Columns - 0.9
   b. Shear walls - 0.9
   c. Beams - 0.7
   d. Slabs - 0.35

Serviceability checks:

1. Vertical deflection limit –
   a. The final deflection due to all loads including the effects of temperature, creep and shrinkage and measured from the as-cast level of the support of floors, roofs and all other horizontal members, should not exceed span/250.
   b. The deflection including the effects of temperature, creep and shrinkage occurring after erection of partitions and the application of finishes should not normally exceed span/350 or 20mm whichever is less.
2. Horizontal deflection limit –
   a. The horizontal deflection due to lateral wind loads should not exceed H/500, where "H" is overall height of building.
   b. The horizontal deflection due to lateral earthquake loads should not exceed H/250, where "H" is overall height of building.
3. Inter-story drift limit –
   When design lateral forces are applied on the building, the maximum inter-storey elastic lateral drift ratio (Δ_{max}/h_i) under serviceability loads (wind load with return period of 20 years),shall be limited to H/500. For a single story the drift limit shall be relaxed to $h_i/400$. For earthquake load (factored) combinations the drift shall be limited to $h_i/250$.
4. Crack width control limit –
   The surface width of the cracks should not, in general, exceed 0.3mm except in members where cracking in the tensile zone is harmful either because they are exposed to the effects of the weather or continuously exposed to moisture or in contact soil or ground water, an upper limit of 0.2mm is considered.

P-Delta effect and load combinations:

The P-Δ load combination for the initial analysis taken as 1.2 Dead Load + 0.5 Imposed Load.

3. List of referred IS codes.

1. IS 456:2000 – Code of Practice for Plain & Reinforced Concrete.
2. IS 875 (Part-1): 1987 - Code of Practice for Design loads – Unit weights.
3. IS 875 (Part-2): 1987 - Code of Practice for Design loads – Imposed loads.
4. IS 875 (Part-3): 2015- Code of Practice for Design loads – Wind loads.
5. IS 1893 (Part-1): 2016 - Criteria for Earthquake resistant design structures (General provisions and Buildings).
6. IS 13920:2016 Ductile design and detailing of reinforced concrete structures subjected to seismic forces.
7. IS 3370: 2009 - Code of Practice for Concrete Structures for the Storage of Liquids.
8. IS 800: 2007 Code of Practice for General Construction in Steel.
9. IS 16700:2017 Criteria for Structural Safety of Tall Buildings.

4. Design Parameters.

A. Dead Loads: The Unit Weight of various material used is considered as per IS 875 (Part 1) as below:

Table: 1: Dead Load

Sr. No.	Structural Units	Unit weight (kN/m^3)
1	R.C.C	25
2	Floor Finish/Plain concrete	24
3	AAC Block	7
4	Mortar	20.4
5	Soil	18
6	Brick Bat Coba	19.5

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B. Seismic Forces:

IS 1893 (Part 1) -2016 provides the provision for estimating seismic forces on a structure. Depending on the location, importance of structure, and type of lateral force resisting elements, seismic forces are calculated. Main factors used in this project are as follows:

- Location of Structure : Chennai, India.
- Seismic Zone : Zone III
- Z = Seismic zone factor : 0.16
- I = Importance factor : 1.2
- R = Response reduction factor : 4

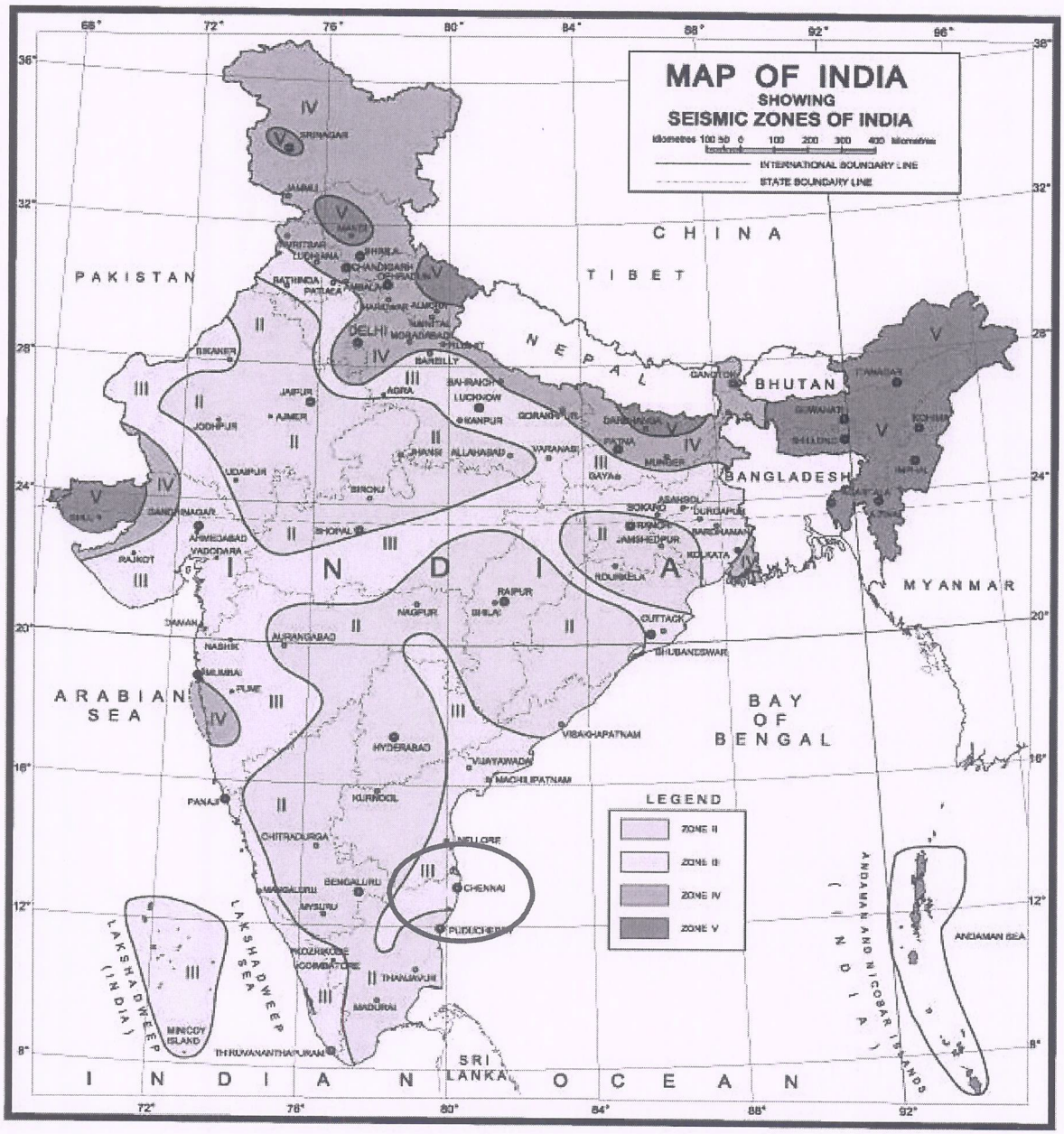


Figure 1 Seismic zones of INDIA

Time Period

a. $T=0.075 \times h^{0.75}$

b. $T=\frac{0.075h\text{^}0.75}{Aw\text{^}0.5} \geq \frac{0.09h}{d\text{^}0.5}$

$$Aw=\sum_{i=1}^{Nw}\left[Awi\left\{0.2+\left(\frac{Lwi}{h}\right)^2\right\}\right]$$

Where,

h= height of building

A_{wi} = effective cross-sectional area of wall *i* in first story, in m^2

L_{wi} = length of structural wall *i* in first story in the considered direction of lateral force, in m.

d= base dimension of the building at the plinth level along the considered direction of earthquake shaking, in m

N_w = number of walls in the considered direction of earthquake shaking.

L_{wi}/h shall not exceed 0.9.

c. $T=\frac{0.09h}{d\text{^}0.5}$

Design Base Shear

$V_B= A_hW$

Where,

A_h= design horizontal acceleration coefficient value

W= seismic weight of the building

$A_h=\left(\frac{Z}{2}\right)\left(\frac{Sa}{g}\right)/\left(\frac{R}{I}\right)$

Where,

Z=seismic zone factor

I=importance factor

R=response reduction factor

$\left(\frac{Sa}{g}\right)_g$=design acceleration coefficient, corresponding to natural time period of building.

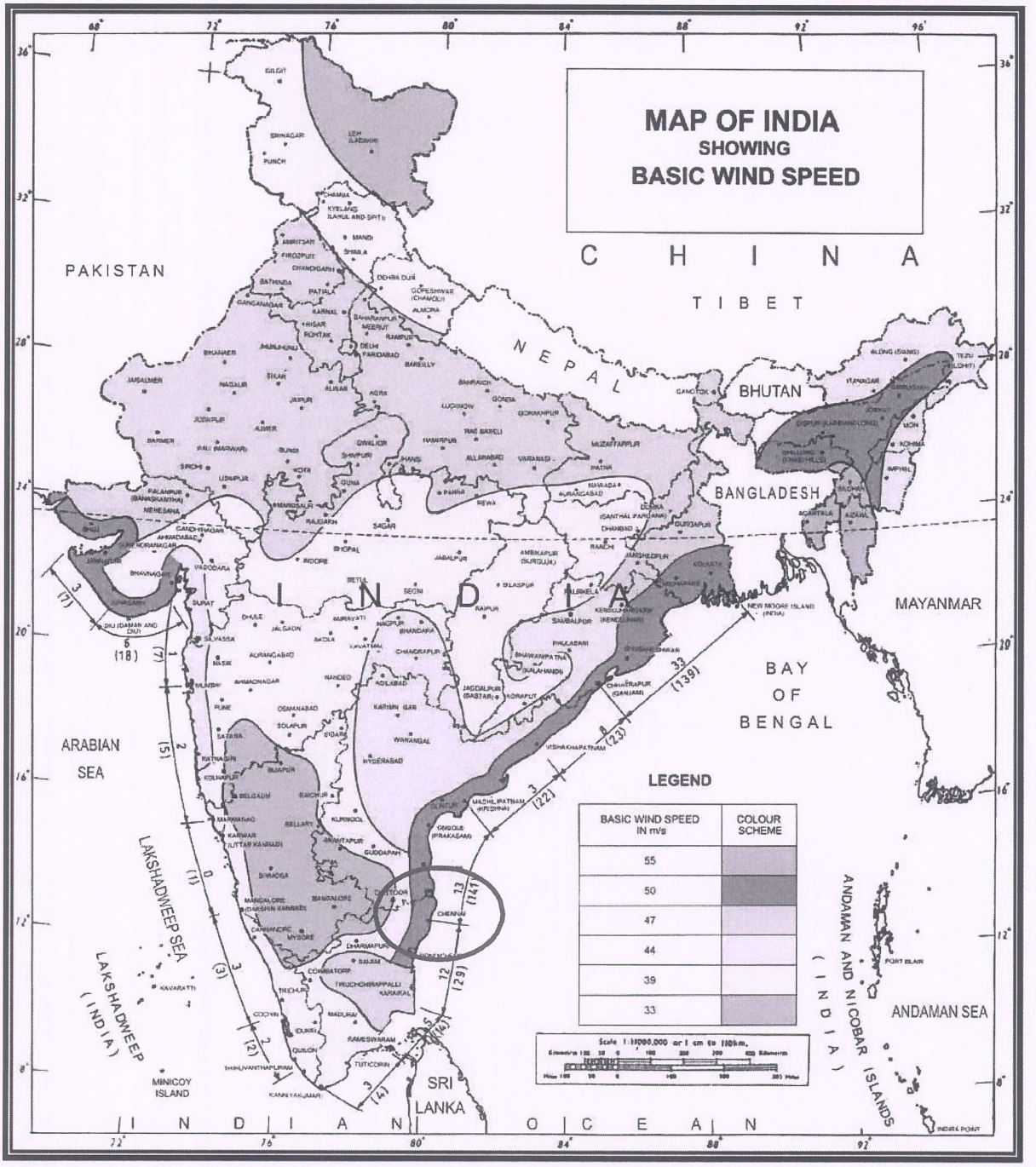
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C. Wind Forces

As per the IS 875 (Part-3): 2015 wind forces are estimated using the following factors. Gust factor method is considered in calculating wind loads.

- Basic Wind Speed in Chennai: V_b = 50 m/s
- k_1 = Probability factor- risk coeff. = 1.0
- k_2 = Category – 3
- k_3 = Topography Factor = 1.0
- k_4 = Importance Factor = 1.0
- Design Wind Speed, $Vz = k_1 * k_2 * k_3 * k_4 * V_b$
- Wind Pressure at height Z, $Pz = 0.6 (V_z)^2$
- Design Wind Pressure, $P_d = k_d * k_a * k_c * P_z$
- k_d - Wind directionality factor = 0.9
- k_a - Area averaging factor = 0.9
- k_c - Combination Factor = 1

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Based upon Survey of India Outline Map printed in 1993.

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The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.
The boundary of Meghalaya shown on this map is as interpreted from the North-Eastern Areas (Reorganisation) Act, 1971, but has yet to be verified.
Responsibility for correctness of internal details shown on the map rests with the publisher.
The state boundaries between Uttaranchal & Uttar Pradesh, Bihar & Jharkhand and Chhatisgarh & Madhya Pradesh have not been verified by Governments concerned.

Figure 2 Basic Wind Speed in m/s (Based on 50 Years Return Period)

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5. Loading Data.

Table: 3: Loading Data on Slab

Loading Data				
Basement / Parking				
Sl.No	**Parameter**	**Thk (mm)**	**Density (kN/m^3)**	**Weight (kN/m^2)**
1	Self-Weight	As per Design		
2	Floor Finishes	75	24	1.80
3	Ceiling Services			0.3
4	LL			3.00
	Total			**5.10**
Typical Floor				
Sl.No	**Parameter**	**Thk (mm)**	**Density (kN/m^3)**	**Weight (kN/m^2)**
1	Self-Weight	As per Design		
2	Floor Finishes	50	24	1.20
3	Ceiling Services			0.30
4	LL			2.00
	Total			**3.50**
Toilet Slab				
Sl.No	**Parameter**	**Thk (mm)**	**Density (kN/m^3)**	**Weight (kN/m^2)**
1	Self-Weight	As per Design		
2	Floor Finishes	50	24	1.20
3	100mm Sunk	90 thk screed	19.5	1.755
4	Ceiling Services			0.30
5	LL			2.00
	Total			**5.30**
Balcony Slab				
Sl.No	**Parameter**	**Thk (mm)**	**Density (kN/m^3)**	**Weight (kN/m^2)**
1	Self-Weight	As per Design		
2	Floor Finishes	50	24	1.20
3	150mm Sunk	140thk screed	19.5	2.75
4	Ceiling Services			0.30
5	LL			3.00
	Total			**7.25**

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Terrace Slab				
Sl.No	**Parameter**	**Thk (mm)**	**Density (kN/m^3)**	**Weight (kN/m^2)**
1	Self-Weight	As per Design		
2	Coba	150	20	3.00
5	LL			2.00
4	Ceiling Services			0.30
	Total			**5.30**

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6. Primary Loads & Load Combinations.

Table: 4: Basic Load combination

Primary Load cases	
1	DL: Dead Load
2	SIDL: Super Imposed Dead Load
3	LL: Live Load
4	WL: Wind Load
5	EQ: Earthquake Load
6	SPEC: Response Spectrum Method
7	WG: Wind Gust Factor Method
8	TL: Temperature Load



Table: 5: Load Combinations

Factored Load Combinations		
Gravity	EQ. Load Combinations	Wind Load Combinations
1.5(DL+SIDL+LL) 1.5(DL+SIDL+LL+TL)	1.5 (DL+SIDL+ EQX) 1.5 (DL +SIDL-EQX) 1.5 (DL +SIDL+ EQY) 1.5 (DL +SIDL- EQY) 1.5 (DL+SIDL+SPECX) 1.5 (DL+SIDL-SPECX) 1.5 (DL+SIDL+SPECY) 1.5 (DL+SIDL-SPECY) 1.2 (DL+SIDL+LL+EQX) 1.2 (DL+SIDL+LL-EQX) 1.2 (DL+SIDL+LL+EQY) 1.2 (DL+SIDL+LL-EQY) 1.2 (DL+SIDL+LL+SPECX) 1.2 (DL+SIDL+LL-SPECX) 1.2 (DL+SIDL+LL+SPECY) 1.2 (DL+SIDL+LL-SPECY) 0.9*(DL+SIDL)+1.5SPECX 0.9*(DL+SIDL)-1.5SPECX 0.9*(DL+SIDL)+1.5SPECY 0.9*(DL+SIDL)-1.5SPECY	1.5 (DL+SIDL+WX) 1.5 (DL+SIDL-WX) 1.5 (DL+SIDL+WY) 1.5 (DL+SIDL-WY) 1.5 (DL+SIDL+WGX) 1.5 (DL+SIDL-WGX) 1.5 (DL+SIDL+WGY) 1.5 (DL+SIDL-WGY) 1.2 (DL+SIDL+LL+WX) 1.2 (DL+SIDL+LL-WX) 1.2 (DL+SIDL+LL+WY) 1.2 (DL+SIDL+LL-WY) 1.2 (DL+SIDL+LL+WGX) 1.2 (DL+SIDL+LL-WGX) 1.2 (DL+SIDL+LL+WGY) 1.2 (DL+SIDL+LL-WGY) 0.9*(DL+SIDL)+1.5WX/WGX 0.9*(DL+SIDL)-1.5WX/WGX 0.9*(DL+SIDL)+1.5WY/WGY 0.9*(DL+SIDL)-1.5WY/WGY
	* This value is to be considered when stability against overturning or stress reversal is critical.	

Serviceability Load Combinations		
Gravity	EQ. Load Combinations	Wind Load Combinations
1.0 (DL+SIDL+LL)	1.0 (DL+SIDL+EQX) 1.0 (DL+SIDL-EQX) 1.0 (DL+SIDL+EQY) 1.0 (DL+SIDL-EQY) 1.0 (DL+SIDL+SPECX) 1.0 (DL+SIDL-SPECX) 1.0 (DL+SIDL+SPECY) 1.0 (DL+SIDL-SPECY) 1.0 (DL+SIDL)+0.8 (LL+EQX) 1.0 (DL+SIDL)+0.8 (LL-EQX) 1.0 (DL+SIDL)+ 0.8 (LL+EQY) 1.0 (DL+SIDL)+ 0.8 (LL-EQY) 1.0 (DL+SIDL)+0.8 (LL+SPECX) 1.0 (DL+SIDL)+ 0.8 (LL-SPECX) 1.0 (DL+SIDL)+ 0.8 (LL+SPECY) 1.0 (DL+SIDL)+0.8 (LL-SPECY)	1.0 (DL+SIDL+WX) 1.0 (DL+SIDL-WX) 1.0 (DL+SIDL+WY) 1.0 (DL+SIDL-WY) 1.0 (DL+SIDL+WGX) 1.0 (DL+SIDL-WGX) 1.0 (DL+SIDL+WGY) 1.0 (DL+SIDL-WGY) 1.0 (DL+SIDL)+0.8 (LL+WX) 1.0 (DL+SIDL)+ 0.8 (LL-WX) 1.0 (DL+SIDL)+ 0.8 (LL+WY) 1.0 (DL+SIDL)+ 0.8 (LL-WY) 1.0 (DL+SIDL)+ 0.8 (LL+WGX) 1.0 (DL+SIDL)+ 0.8 (LL-WGX) 1.0 (DL+SIDL)+ 0.8 (LL+WGY) 1.0 (DL+SIDL)+ 0.8 (LL-WGY)

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7. Construction Material for Structural Elements:

Minimum grade of concrete proposed is M30. Based on analysis and design the concrete is increased at lower floors. This shall result in required strength and durability. TMT bars conforming to IS: 1786 with minimum yield stress of 500MPa are proposed.

8. Foundation and substructure

Based on the Geotechnical recommendations Raft Foundation is proposed with the SBC of 70T/Sq.m.

9. Exposure condition

Following environmental exposure conditions are assumed,For Superstructure - Mild
For substructure – Moderate

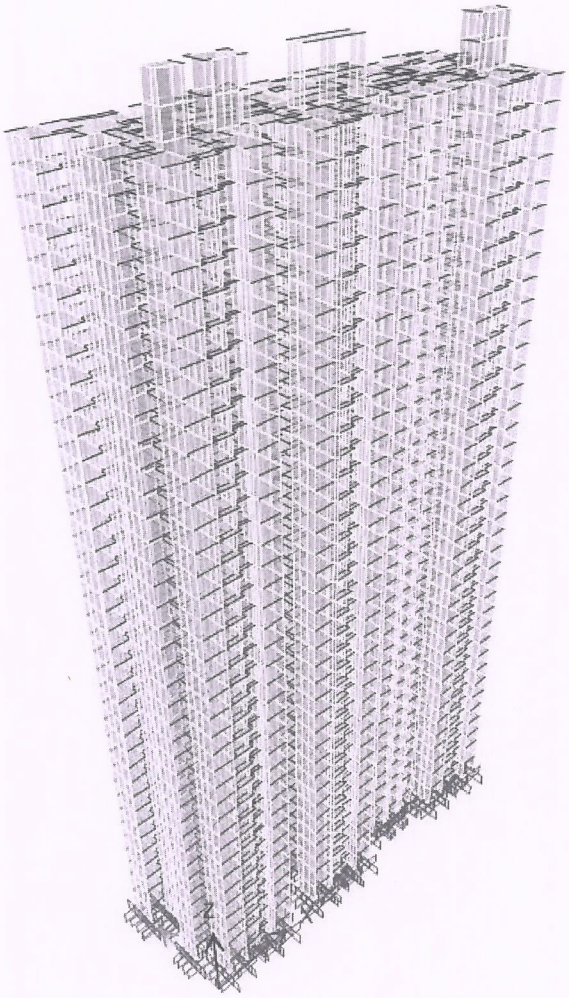
Fire Rating –
Shear wall/Column - 120
MinuteFloor System - 90
Minute

Following nominal clear cover to the reinforcement are considered,

Foundations and foundation beams (side/top/bottom)	- 50MM
Columns	- 40MM
Floor slabs (100mm Thk – 15MM)	- 20MM
Floor beams bottom	- 40MM
Floor beams top/side/lintels	- 30MM
Retaining wall for soil face	- 40MM
Retaining wall for inner/dry face	- 30MM
Shear wall	- 40MM
UGWT wall for soil face	- 40MM
UGWT wall for water face	- 40MM
STP wall for STP fluid face	- 45MM
Staircase flight	- 25MM
OHWT wall for internal and external face	- 30MM

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ETABS®



User Report
A Building

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1 Structure Data

This chapter provides model geometry information, including items such as story levels, point coordinates, and element connectivity.

1.1 Story Data

Table 1.1 - Story Definitions

Tower	Name	Height m	Master Story	Similar To	Splice Story	Color
T1	OHT TOP	3.15	No	OHT BOTTOM	No	Yellow
T1	OHT BOTTOM	3.15	Yes	None	No	Blue
T1	T	3.15	No	13	No	Cyan
T1	35	3.15	No	13	No	Magenta
T1	34	3.15	No	13	No	Gray8Dark
T1	33	3.15	No	13	No	Green
T1	32	3.15	No	13	No	Red
T1	31	3.15	No	13	No	Yellow
T1	30	3.15	No	13	No	Blue
T1	29	3.15	No	13	No	Cyan
T1	28	3.15	No	13	No	Magenta
T1	27	3.15	No	13	No	Gray8Dark
T1	26	3.15	No	13	No	Green
T1	25	3.15	No	13	No	Red
T1	24	3.15	No	13	No	Yellow
T1	23	3.15	No	13	No	Blue
T1	22	3.15	No	13	No	Cyan
T1	21	3.15	No	13	No	Magenta
T1	20	3.15	No	13	No	Gray8Dark
T1	19	3.15	No	13	No	Green
T1	18	3.15	No	13	No	Red
T1	17	3.15	No	13	No	Yellow
T1	16	3.15	No	13	No	Blue
T1	15	3.15	No	13	No	Cyan
T1	14	3.15	No	13	No	Magenta
T1	13	3.15	Yes	None	No	Gray8Dark
T1	12	3.15	No	10	No	Green
T1	11	3.15	No	10	No	Red
T1	10	3.15	Yes	None	No	Yellow
T1	9	3.15	No	7	No	Blue
T1	8	3.15	No	7	No	Cyan
T1	7	3.15	Yes	None	No	Magenta
T1	6	3.15	No	4	No	Gray8Dark
T1	5	3.15	No	4	No	Green
T1	4	3.15	Yes	None	No	Red
T1	3	3.15	No	1	No	Yellow
T1	2	3.15	No	1	No	Blue
T1	1	3.15	Yes	None	No	Cyan
T1	G	4.15	No	P	No	Magenta
T1	P	3.4	Yes	None	No	Gray8Dark



2 Properties

This chapter provides property information for materials, frame sections, shell sections, and links.

2.1 Materials

Table 2.1 - Material Properties - General

Material	Type	SymType	Grade	Color	Notes
A416Gr270	Tendon	Uniaxial	Grade 270	Green	
FE415	Rebar	Uniaxial	HYSD Grade 415	Gray8Dark	
FE500	Rebar	Uniaxial	HYSD Grade 500	Magenta	
M30	Concrete	Isotropic	Unknown	Green	
M35	Concrete	Isotropic	Unknown	Cyan	
M40	Concrete	Isotropic	Unknown	Red	
M45	Concrete	Isotropic	Unknown	Yellow	
M50	Concrete	Isotropic	Unknown	Blue	

3 Loads

This chapter provides loading information as applied to the model.

3.1 Load Patterns

Table 3.1 - Load Pattern Definitions

Name	Is Auto Load	Type	Self Weight Multiplier	Auto Load
~LLRF	Yes	Other	0	
~SPECXECC	Yes	Other	0	
~SPECYECC	Yes	Other	0	
DEAD	No	Dead	1	
EQX	No	Seismic	0	IS 1893:2016
EQX+ECC	No	Seismic	0	IS 1893:2016
EQX-ECC	No	Seismic	0	IS 1893:2016
EQY	No	Seismic	0	IS 1893:2016
EQY+ECC	No	Seismic	0	IS 1893:2016
EQY-ECC	No	Seismic	0	IS 1893:2016
GWX	No	Wind	0	User Loads
GWY	No	Wind	0	User Loads
LIVE	No	Reducible Live	0	
LIVE1	No	Reducible Live	0	
LIVE2	No	Roof Live	0	
SIDL	No	Super Dead	0	
TLC	No	Other	0	
TLE	No	Other	0	
WINDX	No	Wind	0	Indian IS 875:2015
WINDY	No	Wind	0	Indian IS 875:2015

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3.2 Auto Wind Loading

Table 3.2 - Load Pattern Definitions - Auto Wind - Indian IS 875 2015 (Part 1 of 3)

Name	Exposure Set	Is Auto Load	Exposure Source	Top Story	Bottom Story	Include Parapet	Parapet Height m	Cp Windward	Cp Leeward	Wind Speed meter/sec
WINDX	1	No	Diaphragms	T	G	Yes	1.2	0.8	0.5	50
WINDX	1	No								
WINDX	1	No								
WINDX	1	No								
WINDX	1	No								
WINDX	1	No								
WINDX	1	No								
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WINDX	1	No								
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WINDX	1	No								
WINDX	1	No								
WINDY	1	No	Diaphragms	T	G	Yes	1.2	0.8	0.5	50
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								

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Name	Exposure Set	Is Auto Load	Exposure Source	Top Story	Bottom Story	Include Parapet	Parapet Height m	Cp Windward	Cp Leeward	Wind Speed meter/sec
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								
WINDY	1	No								

Table 3.2 - Load Pattern Definitions - Auto Wind - Indian IS 875 2015 (Part 2 of 3)

Name	Exposure Set	Terrain Category	Importance Factor	Risk Coefficient	Topography	Width Type	Direction Angle deg	Story
WINDX	1	3	1.00	1	1	Auto	0	OHT TOP
WINDX	1							OHT BOTTOM
WINDX	1							T
WINDX	1							35
WINDX	1							34
WINDX	1							33
WINDX	1							32
WINDX	1							31
WINDX	1							30
WINDX	1							29
WINDX	1							28
WINDX	1							27
WINDX	1							26
WINDX	1							25
WINDX	1							24
WINDX	1							23
WINDX	1							22
WINDX	1							21
WINDX	1							20
WINDX	1							19
WINDX	1							18
WINDX	1							17
WINDX	1							16
WINDX	1							15
WINDX	1							14
WINDX	1							13
WINDX	1							12

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Name	Exposure Set	Terrain Category	Importance Factor	Risk Coefficient	Topography	Width Type	Direction Angle deg	Story
WINDX	1							11
WINDX	1							10
WINDX	1							9
WINDX	1							8
WINDX	1							7
WINDX	1							6
WINDX	1							5
WINDX	1							4
WINDX	1							3
WINDX	1							2
WINDX	1							1
WINDX	1							G
WINDX	1							P
WINDY	1	3	1.00	1	1	Auto	90	OHT TOP
WINDY	1							OHT BOTTOM
WINDY	1							T
WINDY	1							35
WINDY	1							34
WINDY	1							33
WINDY	1							32
WINDY	1							31
WINDY	1							30
WINDY	1							29
WINDY	1							28
WINDY	1							27
WINDY	1							26
WINDY	1							25
WINDY	1							24
WINDY	1							23
WINDY	1							22
WINDY	1							21
WINDY	1							20
WINDY	1							19
WINDY	1							18
WINDY	1							17
WINDY	1							16
WINDY	1							15
WINDY	1							14
WINDY	1							13
WINDY	1							12
WINDY	1							11
WINDY	1							10
WINDY	1							9
WINDY	1							8
WINDY	1							7
WINDY	1							6
WINDY	1							5
WINDY	1							4
WINDY	1							3
WINDY	1							2
WINDY	1							1
WINDY	1							G
WINDY	1							P



Table 3.2 - Load Pattern Definitions - Auto Wind - Indian IS 875 2015 (Part 3 of 3)

Name	Exposure Set	Diaphragm	Width m	Depth m	X m	Y m
WINDX	1	D2	3	52.6	34.38	8.87
WINDX	1	D2	3	52.6	34.38	8.87
WINDX	1	D2	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDX	1	D1	20.96	64.635	32.2175	10.64
WINDY	1	D2	52.6	3	34.38	8.87
WINDY	1	D2	52.6	3	34.38	8.87
WINDY	1	D2	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64

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Name	Exposure Set	Diaphragm	Width m	Depth m	X m	Y m
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64
WINDY	1	D1	64.635	20.96	32.2175	10.64

Table 3.3 - Load Pattern Definitions - Auto Wind - User Loads

Name	Number Load Sets	Reversible?	Load Set Number	Story	Diaphragm	Fx kN	Fy kN	Mz kN-m	X m	Y m
GWX	1	Yes	1	OHT TOP	D2	0	0	0	34.38	8.87
GWX			1	OHT BOTTOM	D2	0	0	0	34.38	8.87
GWX			1	T	D2	241.68	0	0	32.2175	10.64
GWX			1	35	D1	270.67	0	0	32.2175	10.64
GWX			1	34	D1	266.93	0	0	32.2175	10.64
GWX			1	33	D1	263.15	0	0	32.2175	10.64
GWX			1	32	D1	259.3	0	0	32.2175	10.64
GWX			1	31	D1	255.42	0	0	32.2175	10.64
GWX			1	30	D1	251.49	0	0	32.2175	10.64
GWX			1	29	D1	247.52	0	0	32.2175	10.64
GWX			1	28	D1	243.51	0	0	32.2175	10.64
GWX			1	27	D1	239.46	0	0	32.2175	10.64
GWX			1	26	D1	235.38	0	0	32.2175	10.64
GWX			1	25	D1	231.25	0	0	32.2175	10.64
GWX			1	24	D1	227.09	0	0	32.2175	10.64
GWX			1	23	D1	222.88	0	0	32.2175	10.64
GWX			1	22	D1	218.62	0	0	32.2175	10.64
GWX			1	21	D1	214.3	0	0	32.2175	10.64
GWX			1	20	D1	209.92	0	0	32.2175	10.64
GWX			1	19	D1	205.47	0	0	32.2175	10.64
GWX			1	18	D1	200.94	0	0	32.2175	10.64
GWX			1	17	D1	196.32	0	0	32.2175	10.64
GWX			1	16	D1	191.58	0	0	32.2175	10.64
GWX			1	15	D1	186.73	0	0	32.2175	10.64
GWX			1	14	D1	181.73	0	0	32.2175	10.64
GWX			1	13	D1	176.57	0	0	32.2175	10.64
GWX			1	12	D1	171.21	0	0	32.2175	10.64
GWX			1	11	D1	165.62	0	0	32.2175	10.64
GWX			1	10	D1	159.77	0	0	32.2175	10.64
GWX			1	9	D1	153.59	0	0	32.2175	10.64
GWX			1	8	D1	147.02	0	0	32.2175	10.64
GWX			1	7	D1	139.97	0	0	32.2175	10.64
GWX			1	6	D1	132.33	0	0	32.2175	10.64
GWX			1	5	D1	123.93	0	0	32.2175	10.64

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Name	Number Load Sets	Reversible?	Load Set Number	Story	Diaphragm	Fx kN	Fy kN	Mz kN-m	X m	Y m
GWX			1	4	D1	114.53	0	0	32.2175	10.64
GWX			1	3	D1	103.76	0	0	32.2175	10.64
GWX			1	2	D1	91.01	0	0	32.2175	10.64
GWX			1	1	D1	75.11	0	0	32.2175	10.64
GWX			1	G	D1	30.86	0	0	32.2175	10.64
GWX			1	P	D1	0	0	0	32.2175	10.64
GWY	1	Yes	1	OHT TOP	D2	0	0	0	34.38	8.87
GWY			1	OHT BOTTOM	D2	0	0	0	34.38	8.87
GWY			1	T	D2	0	595.95	0	32.2175	10.64
GWY			1	35	D1	0	668.65	0	32.2175	10.64
GWY			1	34	D1	0	660.71	0	32.2175	10.64
GWY			1	33	D1	0	652.67	0	32.2175	10.64
GWY			1	32	D1	0	644.52	0	32.2175	10.64
GWY			1	31	D1	0	636.25	0	32.2175	10.64
GWY			1	30	D1	0	627.87	0	32.2175	10.64
GWY			1	29	D1	0	619.35	0	32.2175	10.64
GWY			1	28	D1	0	610.7	0	32.2175	10.64
GWY			1	27	D1	0	601.91	0	32.2175	10.64
GWY			1	26	D1	0	592.96	0	32.2175	10.64
GWY			1	25	D1	0	583.86	0	32.2175	10.64
GWY			1	24	D1	0	574.58	0	32.2175	10.64
GWY			1	23	D1	0	565.11	0	32.2175	10.64
GWY			1	22	D1	0	555.45	0	32.2175	10.64
GWY			1	21	D1	0	545.56	0	32.2175	10.64
GWY			1	20	D1	0	535.44	0	32.2175	10.64
GWY			1	19	D1	0	525.06	0	32.2175	10.64
GWY			1	18	D1	0	514.39	0	32.2175	10.64
GWY			1	17	D1	0	503.41	0	32.2175	10.64
GWY			1	16	D1	0	492.08	0	32.2175	10.64
GWY			1	15	D1	0	480.35	0	32.2175	10.64
GWY			1	14	D1	0	468.18	0	32.2175	10.64
GWY			1	13	D1	0	455.5	0	32.2175	10.64
GWY			1	12	D1	0	442.25	0	32.2175	10.64
GWY			1	11	D1	0	428.34	0	32.2175	10.64
GWY			1	10	D1	0	413.65	0	32.2175	10.64
GWY			1	9	D1	0	398.06	0	32.2175	10.64
GWY			1	8	D1	0	381.4	0	32.2175	10.64
GWY			1	7	D1	0	363.42	0	32.2175	10.64
GWY			1	6	D1	0	343.84	0	32.2175	10.64
GWY			1	5	D1	0	322.22	0	32.2175	10.64
GWY			1	4	D1	0	297.94	0	32.2175	10.64
GWY			1	3	D1	0	270.06	0	32.2175	10.64
GWY			1	2	D1	0	236.97	0	32.2175	10.64
GWY			1	1	D1	0	195.62	0	32.2175	10.64
GWY			1	G	D1	0	80.38	0	32.2175	10.64
GWY			1	P	D1	0	0	0	32.2175	10.64

3.3 Auto Seismic Loading

Table 3.4 - Load Pattern Definitions - Auto Seismic - IS 1893 2016 (Part 1 of 3)

Name	Period Used sec	Coeff Used	Weight Used kN	Base Shear kN	Is Auto Load	X Dir?	X Dir Plus Ecc?	X Dir Minus Ecc?	Y Dir?	Y Dir Plus Ecc?
EQX	1.298	0.025146	646909.5887	16267.4337	No	Yes	No	No	No	No
EQX+ECC	1.298	0.025146	646909.5887	16267.4337	No	No	Yes	No	No	No
EQX-ECC	1.298	0.025146	646909.5887	16267.4337	No	No	No	Yes	No	No
EQY	2.182	0.01496	646909.5887	9677.8481	No	No	No	No	Yes	No
EQY+ECC	2.182	0.01496	646909.5887	9677.8481	No	No	No	No	No	Yes
EQY-ECC	2.182	0.01496	646909.5887	9677.8481	No	No	No	No	No	No

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Table 3.4 - Load Pattern Definitions - Auto Seismic - IS 1893 2016 (Part 2 of 3)

Name	Period Used sec	Coeff Used	Weight Used kN	Base Shear kN	Y Dir Minus Ecc?	Ecc Ratio	Top Story	Bottom Story	Period Type	User T sec
EQX	1.298	0.025146	646909.5887	16267.4337	No	0	T	Base	User Defined	1.298
EQX+ECC	1.298	0.025146	646909.5887	16267.4337	No	0.05	T	Base	User Defined	1.298
EQX-ECC	1.298	0.025146	646909.5887	16267.4337	No	0.05	T	Base	User Defined	1.298
EQY	2.182	0.01496	646909.5887	9677.8481	No	0	T	Base	User Defined	2.182
EQY+ECC	2.182	0.01496	646909.5887	9677.8481	No	0.05	T	Base	User Defined	2.182
EQY-ECC	2.182	0.01496	646909.5887	9677.8481	Yes	0.05	T	Base	User Defined	2.182

Table 3.4 - Load Pattern Definitions - Auto Seismic - IS 1893 2016 (Part 3 of 3)

Name	Period Used sec	Coeff Used	Weight Used kN	Base Shear kN	Z	Site Type	I	R
EQX	1.298	0.025146	646909.5887	16267.4337	0.16	II	1.2	4
EQX+ECC	1.298	0.025146	646909.5887	16267.4337	0.16	II	1.2	4
EQX-ECC	1.298	0.025146	646909.5887	16267.4337	0.16	II	1.2	4
EQY	2.182	0.01496	646909.5887	9677.8481	0.16	II	1.2	4
EQY+ECC	2.182	0.01496	646909.5887	9677.8481	0.16	II	1.2	4
EQY-ECC	2.182	0.01496	646909.5887	9677.8481	0.16	II	1.2	4

3.4 Functions

3.4.1 Response Spectrum Functions

Table 3.5 - Functions - Response Spectrum - IS1893 2016

Name	Period sec	Value	Seismic Zone	I	Soil Type	R	Damping Ratio
RSPECTRUM	0	0.024	III	1.2	I	4	0.05
RSPECTRUM	0.1	0.06					
RSPECTRUM	0.4	0.06					
RSPECTRUM	0.6	0.04					
RSPECTRUM	0.8	0.03					
RSPECTRUM	1	0.024					
RSPECTRUM	1.2	0.02					
RSPECTRUM	1.4	0.017143					
RSPECTRUM	1.6	0.015					
RSPECTRUM	1.8	0.013333					
RSPECTRUM	2	0.012					
RSPECTRUM	2.5	0.0096					
RSPECTRUM	3	0.008					
RSPECTRUM	3.5	0.006857					
RSPECTRUM	4	0.006					
RSPECTRUM	4.5	0.006					
RSPECTRUM	5	0.006					
RSPECTRUM	5.5	0.006					
RSPECTRUM	6	0.006					
RSPECTRUM	6.5	0.006					
RSPECTRUM	7	0.006					
RSPECTRUM	7.5	0.006					
RSPECTRUM	8	0.006					
RSPECTRUM	8.5	0.006					
RSPECTRUM	9	0.006					
RSPECTRUM	9.5	0.006					
RSPECTRUM	10	0.006					

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3.5 Load Cases

Table 3.6 - Load Case Definitions - Summary

Name	Type
Modal	Modal - Eigen
DEAD	Linear Static
LIVE	Linear Static
LIVE1	Linear Static
EQX	Linear Static
EQY	Linear Static
TLC	Linear Static
TLE	Linear Static
SPECX	Response Spectrum
SPECY	Response Spectrum
SIDL	Linear Static
LIVE2	Linear Static
EQX+ECC	Linear Static
EQX-ECC	Linear Static
EQY+ECC	Linear Static
EQY-ECC	Linear Static
WINDX	Linear Static
WINDY	Linear Static
GWX	Linear Static
GWY	Linear Static

Table 3.7 - Load Case Definitions - Linear Static

Name	Exclude Group	Mass Source	Stiffness Type	Load Type	Load Name	Load SF	Design Type	Notes
DEAD	None	MASS SOURCE	P-Delta	Load	DEAD	1	Program Determined	
EQX	None	MASS SOURCE	P-Delta	Load	EQX	1	Program Determined	
EQX+ECC	None	MASS SOURCE	P-Delta	Load	EQX+ECC	1	Program Determined	
EQX-ECC	None	MASS SOURCE	P-Delta	Load	EQX-ECC	1	Program Determined	
EQY	None	MASS SOURCE	P-Delta	Load	EQY	1	Program Determined	
EQY+ECC	None	MASS SOURCE	P-Delta	Load	EQY+ECC	1	Program Determined	
EQY-ECC	None	MASS SOURCE	P-Delta	Load	EQY-ECC	1	Program Determined	
GWX	None	MASS SOURCE	P-Delta	Load	GWX	1	Program Determined	
GWY	None	MASS SOURCE	P-Delta	Load	GWY	1	Program Determined	
LIVE	None	MASS SOURCE	P-Delta	Load	LIVE	1	Program Determined	
LIVE1	None	MASS SOURCE	P-Delta	Load	LIVE1	1	Program Determined	
LIVE2	None	MASS SOURCE	P-Delta	Load	LIVE2	1	Program Determined	
SIDL	None	MASS SOURCE	P-Delta	Load	SIDL	1	Program Determined	
TLC	None	MASS SOURCE	P-Delta	Load	TLC	1	Program Determined	
TLE	None	MASS SOURCE	P-Delta	Load	TLE	1	Program Determined	
WINDX	None	MASS SOURCE	P-Delta	Load	WINDX	1	Program Determined	
WINDY	None	MASS SOURCE	P-Delta	Load	WINDY	1	Program Determined	

Table 3.8 - Modal Case Definitions - Eigen (Part 1 of 2)

Name	Design Type	Exclude Group	Mass Source	Stiffness Type	Max Modes	Min Modes	Freq Shift cyc/sec	Cutoff Freq cyc/sec
Modal	Program Determined	None	MASS SOURCE	P-Delta	15	15	0	0

Table 3.9 - Modal Case Definitions - Eigen (Part 2 of 2)

Name	Design Type	Convergence Tol	Auto Shift?	Notes
Modal	Program Determined	1E-07	Yes	

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Table 3.9 - Load Case Definitions - Response Spectrum (Part 1 of 2)

Name	Design Type	Mass Source	Load Name	Function	Trans Accel SF mm/sec2	Coordinate System	Angle deg
SPECX	Program Determined	Previous (MASS SOURCE)	U1	RSPECTRUM	47722.68	Global	0
SPECY	Program Determined	Previous (MASS SOURCE)	U2	RSPECTRUM	24820.7	Global	0

Table 3.9 - Load Case Definitions - Response Spectrum (Part 2 of 2)

Name	Design Type	Modal Case	Modal Combo Method	Rigid Response?	Directional Combo Type	Eccentricity Ratio	Notes
SPECX	Program Determined	Modal	CQC	No	SRSS	0.05	
SPECY	Program Determined	Modal	CQC	No	SRSS	0.05	

Table 3.10 - P-Delta Option Definition

Load Pattern	ScaleFactor	Convergence Tolearnce	Automation Method
DEAD	1.2	0.0001	Iterative Based on Loads
LIVE	0.5		
LIVE2	0.5		
SIDL	1.2		
LIVE1	0.5		

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3.6 Load Combinations

Table 3.11 - Load Combination Definitions

Name	Type	Is Auto	Load Name	SF	Notes
1.0D0.8LEQXN	Linear Add	No	DEAD	1	
1.0D0.8LEQXN			SIDL	1	
1.0D0.8LEQXN			LIVE	0.8	
1.0D0.8LEQXN			LIVE1	0.8	
1.0D0.8LEQXN			LIVE2	0.8	
1.0D0.8LEQXN			EQX	-0.8	
1.0D0.8LEQXN+ECC	Linear Add	No	DEAD	1	
1.0D0.8LEQXN+ECC			SIDL	1	
1.0D0.8LEQXN+ECC			LIVE	0.8	
1.0D0.8LEQXN+ECC			LIVE1	0.8	
1.0D0.8LEQXN+ECC			LIVE2	0.8	
1.0D0.8LEQXN+ECC			EQX+ECC	-0.8	
1.0D0.8LEQXN-ECC	Linear Add	No	DEAD	1	
1.0D0.8LEQXN-ECC			SIDL	1	
1.0D0.8LEQXN-ECC			LIVE	0.8	
1.0D0.8LEQXN-ECC			LIVE1	0.8	
1.0D0.8LEQXN-ECC			LIVE2	0.8	
1.0D0.8LEQXN-ECC			EQX-ECC	-0.8	
1.0D0.8LEQXP	Linear Add	No	DEAD	1	
1.0D0.8LEQXP			SIDL	1	
1.0D0.8LEQXP			LIVE	0.8	
1.0D0.8LEQXP			LIVE1	0.8	
1.0D0.8LEQXP			LIVE2	0.8	
1.0D0.8LEQXP			EQX	0.8	
1.0D0.8LEQXP+ECC	Linear Add	No	DEAD	1	
1.0D0.8LEQXP+ECC			SIDL	1	
1.0D0.8LEQXP+ECC			LIVE	0.8	
1.0D0.8LEQXP+ECC			LIVE1	0.8	
1.0D0.8LEQXP+ECC			LIVE2	0.8	
1.0D0.8LEQXP+ECC			EQX+ECC	0.8	
1.0D0.8LEQXP-ECC	Linear Add	No	DEAD	1	
1.0D0.8LEQXP-ECC			SIDL	1	
1.0D0.8LEQXP-ECC			LIVE	0.8	
1.0D0.8LEQXP-ECC			LIVE1	0.8	
1.0D0.8LEQXP-ECC			LIVE2	0.8	

Name	Type	Is Auto	Load Name	SF	Notes
1.0D0.8LEQXP-ECC			EQX-ECC	0.8	
1.0D0.8LEQYN	Linear Add	No	DEAD	1	
1.0D0.8LEQYN			SIDL	1	
1.0D0.8LEQYN			LIVE	0.8	
1.0D0.8LEQYN			LIVE1	0.8	
1.0D0.8LEQYN			LIVE2	0.8	
1.0D0.8LEQYN			EQY	-0.8	
1.0D0.8LEQYN+ECC	Linear Add	No	DEAD	1	
1.0D0.8LEQYN+ECC			SIDL	1	
1.0D0.8LEQYN+ECC			LIVE	0.8	
1.0D0.8LEQYN+ECC			LIVE1	0.8	
1.0D0.8LEQYN+ECC			LIVE2	0.8	
1.0D0.8LEQYN+ECC			EQY+ECC	-0.8	
1.0D0.8LEQYN-ECC	Linear Add	No	DEAD	1	
1.0D0.8LEQYN-ECC			SIDL	1	
1.0D0.8LEQYN-ECC			LIVE	0.8	
1.0D0.8LEQYN-ECC			LIVE1	0.8	
1.0D0.8LEQYN-ECC			LIVE2	0.8	
1.0D0.8LEQYN-ECC			EQY-ECC	-0.8	
1.0D0.8LEQYP	Linear Add	No	DEAD	1	
1.0D0.8LEQYP			SIDL	1	
1.0D0.8LEQYP			LIVE	0.8	
1.0D0.8LEQYP			LIVE1	0.8	
1.0D0.8LEQYP			LIVE2	0.8	
1.0D0.8LEQYP			EQY	0.8	
1.0D0.8LEQYP+ECC	Linear Add	No	DEAD	1	
1.0D0.8LEQYP+ECC			SIDL	1	
1.0D0.8LEQYP+ECC			LIVE	0.8	
1.0D0.8LEQYP+ECC			LIVE1	0.8	
1.0D0.8LEQYP+ECC			LIVE2	0.8	
1.0D0.8LEQYP+ECC			EQY+ECC	0.8	
1.0D0.8LEQYP-ECC	Linear Add	No	DEAD	1	
1.0D0.8LEQYP-ECC			SIDL	1	
1.0D0.8LEQYP-ECC			LIVE	0.8	
1.0D0.8LEQYP-ECC			LIVE1	0.8	
1.0D0.8LEQYP-ECC			LIVE2	0.8	
1.0D0.8LEQYP-ECC			EQY-ECC	0.8	
1.0D0.8LGWXN	Linear Add	No	DEAD	1	
1.0D0.8LGWXN			SIDL	1	
1.0D0.8LGWXN			LIVE	0.8	
1.0D0.8LGWXN			LIVE1	0.8	
1.0D0.8LGWXN			LIVE2	0.8	
1.0D0.8LGWXN			GWX	-0.8	
1.0D0.8LGWXP	Linear Add	No	DEAD	1	
1.0D0.8LGWXP			SIDL	1	
1.0D0.8LGWXP			LIVE	0.8	
1.0D0.8LGWXP			LIVE1	0.8	
1.0D0.8LGWXP			LIVE2	0.8	
1.0D0.8LGWXP			GWX	0.8	
1.0D0.8LGWYN	Linear Add	No	DEAD	1	
1.0D0.8LGWYN			SIDL	1	
1.0D0.8LGWYN			LIVE	0.8	
1.0D0.8LGWYN			LIVE1	0.8	
1.0D0.8LGWYN			LIVE2	0.8	
1.0D0.8LGWYN			GWY	-0.8	
1.0D0.8LGWYP	Linear Add	No	DEAD	1	
1.0D0.8LGWYP			SIDL	1	
1.0D0.8LGWYP			LIVE	0.8	
1.0D0.8LGWYP			LIVE1	0.8	
1.0D0.8LGWYP			LIVE2	0.8	
1.0D0.8LGWYP			GWY	0.8	
1.0D0.8LSPECXN	Linear Add	No	DEAD	1	Dead + Live [Strength]
1.0D0.8LSPECXN			SIDL	1	
1.0D0.8LSPECXN			LIVE	0.8	



Name	Type	Is Auto	Load Name	SF	Notes
1.0D0.8LSPECXN			LIVE1	0.8	
1.0D0.8LSPECXN			LIVE2	0.8	
1.0D0.8LSPECXN			SPECX	-0.8	
1.0D0.8LSPECXP	Linear Add	No	DEAD	1	
1.0D0.8LSPECXP			SIDL	1	
1.0D0.8LSPECXP			LIVE	0.8	
1.0D0.8LSPECXP			LIVE1	0.8	
1.0D0.8LSPECXP			LIVE2	0.8	
1.0D0.8LSPECXP			SPECX	0.8	
1.0D0.8LSPECYN	Linear Add	No	DEAD	1	Dead + Live [Strength]
1.0D0.8LSPECYN			SIDL	1	
1.0D0.8LSPECYN			LIVE	0.8	
1.0D0.8LSPECYN			LIVE1	0.8	
1.0D0.8LSPECYN			LIVE2	0.8	
1.0D0.8LSPECYN			SPECY	-0.8	
1.0D0.8LSPECYP	Linear Add	No	DEAD	1	
1.0D0.8LSPECYP			SIDL	1	
1.0D0.8LSPECYP			LIVE	0.8	
1.0D0.8LSPECYP			LIVE1	0.8	
1.0D0.8LSPECYP			LIVE2	0.8	
1.0D0.8LSPECYP			SPECY	0.8	
1.0D0.8LWLXN	Linear Add	No	DEAD	1	
1.0D0.8LWLXN			SIDL	1	
1.0D0.8LWLXN			LIVE	0.8	
1.0D0.8LWLXN			LIVE1	0.8	
1.0D0.8LWLXN			LIVE2	0.8	
1.0D0.8LWLXN			WINDX	-0.8	
1.0D0.8LWLXP	Linear Add	No	DEAD	1	
1.0D0.8LWLXP			SIDL	1	
1.0D0.8LWLXP			LIVE	0.8	
1.0D0.8LWLXP			LIVE1	0.8	
1.0D0.8LWLXP			LIVE2	0.8	
1.0D0.8LWLXP			WINDX	0.8	
1.0D0.8LWLYN	Linear Add	No	DEAD	1	
1.0D0.8LWLYN			SIDL	1	
1.0D0.8LWLYN			LIVE	0.8	
1.0D0.8LWLYN			LIVE1	0.8	
1.0D0.8LWLYN			LIVE2	0.8	
1.0D0.8LWLYN			WINDY	-0.8	
1.0D0.8LWLYP	Linear Add	No	DEAD	1	
1.0D0.8LWLYP			SIDL	1	
1.0D0.8LWLYP			LIVE	0.8	
1.0D0.8LWLYP			LIVE1	0.8	
1.0D0.8LWLYP			LIVE2	0.8	
1.0D0.8LWLYP			WINDY	0.8	
1.0DEQXN	Linear Add	No	DEAD	1	
1.0DEQXN			SIDL	1	
1.0DEQXN			EQX	-1	
1.0DEQXN+ECC	Linear Add	No	DEAD	1	
1.0DEQXN+ECC			SIDL	1	
1.0DEQXN+ECC			EQX+ECC	-1	
1.0DEQXN-ECC	Linear Add	No	DEAD	1	
1.0DEQXN-ECC			SIDL	1	
1.0DEQXN-ECC			EQX-ECC	-1	
1.0DEQXP	Linear Add	No	DEAD	1	
1.0DEQXP			SIDL	1	
1.0DEQXP			EQX	1	
1.0DEQXP+ECC	Linear Add	No	DEAD	1	
1.0DEQXP+ECC			SIDL	1	
1.0DEQXP+ECC			EQX+ECC	1	
1.0DEQXP-ECC	Linear Add	No	DEAD	1	
1.0DEQXP-ECC			SIDL	1	
1.0DEQXP-ECC			EQX-ECC	1	
1.0DEQYN	Linear Add	No	DEAD	1	

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Name	Type	Is Auto	Load Name	SF	Notes
1.0DEQYN			SIDL	1	
1.0DEQYN			EQY	-1	
1.0DEQYN+ECC	Linear Add	No	DEAD	1	
1.0DEQYN+ECC			SIDL	1	
1.0DEQYN+ECC			EQY+ECC	-1	
1.0DEQYN-ECC	Linear Add	No	DEAD	1	
1.0DEQYN-ECC			SIDL	1	
1.0DEQYN-ECC			EQY-ECC	-1	
1.0DEQYP	Linear Add	No	DEAD	1	
1.0DEQYP			SIDL	1	
1.0DEQYP			EQY	1	
1.0DEQYP+ECC	Linear Add	No	DEAD	1	
1.0DEQYP+ECC			SIDL	1	
1.0DEQYP+ECC			EQY+ECC	1	
1.0DEQYP-ECC	Linear Add	No	DEAD	1	
1.0DEQYP-ECC			SIDL	1	
1.0DEQYP-ECC			EQY-ECC	1	
1.0DGWXN	Linear Add	No	DEAD	1	
1.0DGWXN			SIDL	1	
1.0DGWXN			GWX	-1	
1.0DGWXP	Linear Add	No	DEAD	1	
1.0DGWXP			SIDL	1	
1.0DGWXP			GWX	1	
1.0DGWYN	Linear Add	No	DEAD	1	
1.0DGWYN			SIDL	1	
1.0DGWYN			GWY	-1	
1.0DGWYP	Linear Add	No	DEAD	1	
1.0DGWYP			SIDL	1	
1.0DGWYP			GWY	1	
1.0DL	Linear Add	No	DEAD	1	
1.0DL			SIDL	1	
1.0DL			LIVE	1	
1.0DL			LIVE1	1	
1.0DL			LIVE2	1	
1.0DSPECXN	Linear Add	No	DEAD	1	
1.0DSPECXN			SIDL	1	
1.0DSPECXN			SPECX	-1	
1.0DSPECXP	Linear Add	No	DEAD	1	
1.0DSPECXP			SIDL	1	
1.0DSPECXP			SPECX	1	
1.0DSPECYN	Linear Add	No	DEAD	1	
1.0DSPECYN			SIDL	1	
1.0DSPECYN			SPECY	-1	
1.0DSPECYP	Linear Add	No	DEAD	1	
1.0DSPECYP			SIDL	1	
1.0DSPECYP			SPECY	1	
1.0DWLXN	Linear Add	No	DEAD	1	Dead [Deflections]
1.0DWLXN			SIDL	1	
1.0DWLXN			WINDX	-1	
1.0DWLXP	Linear Add	No	DEAD	1	
1.0DWLXP			SIDL	1	
1.0DWLXP			WINDX	1	
1.0DWLYN	Linear Add	No	DEAD	1	Dead + Live [Deflections]
1.0DWLYN			SIDL	1	
1.0DWLYN			WINDY	-1	
1.0DWLYP	Linear Add	No	DEAD	1	
1.0DWLYP			SIDL	1	
1.0DWLYP			WINDY	1	
1.5DLLLTLC	Linear Add	No	DEAD	1.5	Dead + Live [Strength]
1.5DLLLTLC			SIDL	1.5	
1.5DLLLTLC			LIVE	1.5	
1.5DLLLTLC			LIVE1	1.5	
1.5DLLLTLC			LIVE2	1.5	
1.5DLLLTLC			TLC	1.5	

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Name	Type	Is Auto	Load Name	SF	Notes
1.5DLLLTLE	Linear Add	No	DEAD	1.5	Dead [Deflections]
1.5DLLLTLE			SIDL	1.5	
1.5DLLLTLE			LIVE	1.5	
1.5DLLLTLE			LIVE1	1.5	
1.5DLLLTLE			LIVE2	1.5	
1.5DLLLTLE			TLE	1.5	
09D15EQX	Linear Add	No	DEAD	0.9	Dead + Live [Deflections]
09D15EQX			SIDL	0.9	
09D15EQX			EQX	1.5	
09D15EQX+ECC	Linear Add	No	DEAD	0.9	
09D15EQX+ECC			SIDL	0.9	
09D15EQX+ECC			EQX+ECC	1.5	
09D15EQX-ECC	Linear Add	No	DEAD	0.9	Dead + Live [Strength]
09D15EQX-ECC			SIDL	0.9	
09D15EQX-ECC			EQX-ECC	1.5	
09D15EQXN	Linear Add	No	DEAD	0.9	
09D15EQXN			SIDL	0.9	
09D15EQXN			EQX	-1.5	
09D15EQXN+ECC	Linear Add	No	DEAD	0.9	
09D15EQXN+ECC			SIDL	0.9	
09D15EQXN+ECC			EQX+ECC	-1.5	
09D15EQXN-ECC	Linear Add	No	DEAD	0.9	
09D15EQXN-ECC			SIDL	0.9	
09D15EQXN-ECC			EQX-ECC	-1.5	
09D15EQY	Linear Add	No	DEAD	0.9	
09D15EQY			SIDL	0.9	
09D15EQY			EQY	1.5	
09D15EQY+ECC	Linear Add	No	DEAD	0.9	
09D15EQY+ECC			SIDL	0.9	
09D15EQY+ECC			EQY+ECC	1.5	
09D15EQY-ECC	Linear Add	No	DEAD	0.9	
09D15EQY-ECC			SIDL	0.9	
09D15EQY-ECC			EQY-ECC	1.5	
09D15EQYN	Linear Add	No	DEAD	0.9	
09D15EQYN			SIDL	0.9	
09D15EQYN			EQY	-1.5	
09D15EQYN+ECC	Linear Add	No	DEAD	0.9	
09D15EQYN+ECC			SIDL	0.9	
09D15EQYN+ECC			EQY+ECC	-1.5	
09D15EQYN-ECC	Linear Add	No	DEAD	0.9	
09D15EQYN-ECC			SIDL	0.9	
09D15EQYN-ECC			EQY-ECC	-1.5	
09D15GWX	Linear Add	No	DEAD	0.9	
09D15GWX			SIDL	0.9	
09D15GWX			GWX	1.5	
09D15GWXN	Linear Add	No	DEAD	0.9	
09D15GWXN			SIDL	0.9	
09D15GWXN			GWX	-1.5	
09D15GWY	Linear Add	No	DEAD	0.9	
09D15GWY			SIDL	0.9	
09D15GWY			GWY	1.5	
09D15GWYN	Linear Add	No	DEAD	0.9	
09D15GWYN			SIDL	0.9	
09D15GWYN			GWY	-1.5	
09D15SPECX	Linear Add	No	DEAD	0.9	
09D15SPECX			SIDL	0.9	
09D15SPECX			SPECX	1.5	
09D15SPECX+ECC	Linear Add	No	DEAD	0.9	
09D15SPECX+ECC			SIDL	0.9	
09D15SPECX-ECC	Linear Add	No	DEAD	0.9	
09D15SPECX-ECC			SIDL	0.9	
09D15SPECXN	Linear Add	No	DEAD	0.9	
09D15SPECXN			SIDL	0.9	
09D15SPECXN			SPECX	-1.5	

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Name	Type	Is Auto	Load Name	SF	Notes
09D15SPECXN+ECC	Linear Add	No	DEAD	0.9	
09D15SPECXN+ECC			SIDL	0.9	
09D15SPECXN-ECC	Linear Add	No	DEAD	0.9	
09D15SPECXN-ECC			SIDL	0.9	
09D15SPECY	Linear Add	No	DEAD	0.9	
09D15SPECY			SIDL	0.9	
09D15SPECY			SPECY	1.5	
09D15SPECY+ECC	Linear Add	No	DEAD	0.9	
09D15SPECY+ECC			SIDL	0.9	
09D15SPECY-ECC	Linear Add	No	DEAD	0.9	
09D15SPECY-ECC			SIDL	0.9	
09D15SPECYN	Linear Add	No	DEAD	0.9	
09D15SPECYN			SIDL	0.9	
09D15SPECYN			SPECY	-1.5	
09D15SPECYN+ECC	Linear Add	No	DEAD	0.9	
09D15SPECYN+ECC			SIDL	0.9	
09D15SPECYN-ECC	Linear Add	No	DEAD	0.9	
09D15SPECYN-ECC			SIDL	0.9	
09D15WX	Linear Add	No	DEAD	0.9	
09D15WX			SIDL	0.9	
09D15WX			WINDX	1.5	
09D15WXN	Linear Add	No	DEAD	0.9	
09D15WXN			SIDL	0.9	
09D15WXN			WINDX	-1.5	
09D15WY	Linear Add	No	DEAD	0.9	
09D15WY			SIDL	0.9	
09D15WY			WINDY	1.5	
09D15WYN	Linear Add	No	DEAD	0.9	
09D15WYN			SIDL	0.9	
09D15WYN			WINDY	-1.5	
12DLEQX	Linear Add	No	DEAD	1.2	
12DLEQX			SIDL	1.2	
12DLEQX			LIVE	1.2	
12DLEQX			LIVE1	1.2	
12DLEQX			LIVE2	1.2	
12DLEQX			EQX	1.2	
12DLEQX+ECC	Linear Add	No	DEAD	1.2	
12DLEQX+ECC			SIDL	1.2	
12DLEQX+ECC			LIVE	1.2	
12DLEQX+ECC			LIVE1	1.2	
12DLEQX+ECC			LIVE2	1.2	
12DLEQX+ECC			EQX+ECC	1.2	
12DLEQX-ECC	Linear Add	No	DEAD	1.2	
12DLEQX-ECC			SIDL	1.2	
12DLEQX-ECC			LIVE	1.2	
12DLEQX-ECC			LIVE1	1.2	
12DLEQX-ECC			LIVE2	1.2	
12DLEQX-ECC			EQX-ECC	1.2	
12DLEQXN	Linear Add	No	DEAD	1.2	
12DLEQXN			SIDL	1.2	
12DLEQXN			LIVE	1.2	
12DLEQXN			LIVE1	1.2	
12DLEQXN			LIVE2	1.2	
12DLEQXN			EQX	-1.2	
12DLEQXN+ECC	Linear Add	No	DEAD	1.2	
12DLEQXN+ECC			SIDL	1.2	
12DLEQXN+ECC			LIVE	1.2	
12DLEQXN+ECC			LIVE1	1.2	
12DLEQXN+ECC			LIVE2	1.2	
12DLEQXN+ECC			EQX+ECC	-1.2	
12DLEQXN-ECC	Linear Add	No	DEAD	1.2	
12DLEQXN-ECC			SIDL	1.2	
12DLEQXN-ECC			LIVE	1.2	
12DLEQXN-ECC			LIVE1	1.2	

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Name	Type	Is Auto	Load Name	SF	Notes
12DLEQXN-ECC			LIVE2	1.2	
12DLEQXN-ECC			EQX-ECC	-1.2	
12DLEQY	Linear Add	No	DEAD	1.2	
12DLEQY			SIDL	1.2	
12DLEQY			LIVE	1.2	
12DLEQY			LIVE1	1.2	
12DLEQY			LIVE2	1.2	
12DLEQY			EQY	1.2	
12DLEQY+ECC	Linear Add	No	DEAD	1.2	
12DLEQY+ECC			SIDL	1.2	
12DLEQY+ECC			LIVE	1.2	
12DLEQY+ECC			LIVE1	1.2	
12DLEQY+ECC			LIVE2	1.2	
12DLEQY+ECC			EQY+ECC	1.2	
12DLEQY-ECC	Linear Add	No	DEAD	1.2	
12DLEQY-ECC			SIDL	1.2	
12DLEQY-ECC			LIVE	1.2	
12DLEQY-ECC			LIVE1	1.2	
12DLEQY-ECC			LIVE2	1.2	
12DLEQY-ECC			EQY-ECC	1.2	
12DLEQYN	Linear Add	No	DEAD	1.2	
12DLEQYN			SIDL	1.2	
12DLEQYN			LIVE	1.2	
12DLEQYN			LIVE1	1.2	
12DLEQYN			LIVE2	1.2	
12DLEQYN			EQY	-1.2	
12DLEQYN+ECC	Linear Add	No	DEAD	1.2	
12DLEQYN+ECC			SIDL	1.2	
12DLEQYN+ECC			LIVE	1.2	
12DLEQYN+ECC			LIVE1	1.2	
12DLEQYN+ECC			LIVE2	1.2	
12DLEQYN+ECC			EQY+ECC	-1.2	
12DLEQYN-ECC	Linear Add	No	DEAD	1.2	
12DLEQYN-ECC			SIDL	1.2	
12DLEQYN-ECC			LIVE	1.2	
12DLEQYN-ECC			LIVE1	1.2	
12DLEQYN-ECC			LIVE2	1.2	
12DLEQYN-ECC			EQY-ECC	-1.2	
12DLGWX	Linear Add	No	DEAD	1.2	
12DLGWX			SIDL	1.2	
12DLGWX			LIVE	1.2	
12DLGWX			LIVE1	1.2	
12DLGWX			LIVE2	1.2	
12DLGWX			GWX	1.2	
12DLGWXN	Linear Add	No	DEAD	1.2	
12DLGWXN			SIDL	1.2	
12DLGWXN			LIVE	1.2	
12DLGWXN			LIVE1	1.2	
12DLGWXN			LIVE2	1.2	
12DLGWXN			GWX	-1.2	
12DLGWY	Linear Add	No	DEAD	1.2	
12DLGWY			SIDL	1.2	
12DLGWY			LIVE	1.2	
12DLGWY			LIVE1	1.2	
12DLGWY			LIVE2	1.2	
12DLGWY			GWY	1.2	
12DLGWYN	Linear Add	No	DEAD	1.2	
12DLGWYN			SIDL	1.2	
12DLGWYN			LIVE	1.2	
12DLGWYN			LIVE1	1.2	
12DLGWYN			LIVE2	1.2	
12DLGWYN			GWY	-1.2	
12DLSPECX	Linear Add	No	DEAD	1.2	
12DLSPECX			SIDL	1.2	

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Name	Type	Is Auto	Load Name	SF	Notes
12DLSPECX			LIVE	1.2	
12DLSPECX			LIVE1	1.2	
12DLSPECX			LIVE2	1.2	
12DLSPECX			SPECX	1.2	
12DLSPECX+ECC	Linear Add	No	DEAD	1.2	
12DLSPECX+ECC			SIDL	1.2	
12DLSPECX+ECC			LIVE	1.2	
12DLSPECX+ECC			LIVE1	1.2	
12DLSPECX+ECC			LIVE2	1.2	
12DLSPECX-ECC	Linear Add	No	DEAD	1.2	
12DLSPECX-ECC			SIDL	1.2	
12DLSPECX-ECC			LIVE	1.2	
12DLSPECX-ECC			LIVE1	1.2	
12DLSPECX-ECC			LIVE2	1.2	
12DLSPECXN	Linear Add	No	DEAD	1.2	
12DLSPECXN			SIDL	1.2	
12DLSPECXN			LIVE	1.2	
12DLSPECXN			LIVE1	1.2	
12DLSPECXN			LIVE2	1.2	
12DLSPECXN			SPECX	-1.2	
12DLSPECXN+ECC	Linear Add	No	DEAD	1.2	
12DLSPECXN+ECC			SIDL	1.2	
12DLSPECXN+ECC			LIVE	1.2	
12DLSPECXN+ECC			LIVE1	1.2	
12DLSPECXN+ECC			LIVE2	1.2	
12DLSPECXN-ECC	Linear Add	No	DEAD	1.2	
12DLSPECXN-ECC			SIDL	1.2	
12DLSPECXN-ECC			LIVE	1.2	
12DLSPECXN-ECC			LIVE1	1.2	
12DLSPECXN-ECC			LIVE2	1.2	
12DLSPECY	Linear Add	No	DEAD	1.2	
12DLSPECY			SIDL	1.2	
12DLSPECY			LIVE	1.2	
12DLSPECY			LIVE1	1.2	
12DLSPECY			LIVE2	1.2	
12DLSPECY			SPECY	1.2	
12DLSPECY+ECC	Linear Add	No	DEAD	1.2	
12DLSPECY+ECC			SIDL	1.2	
12DLSPECY+ECC			LIVE	1.2	
12DLSPECY+ECC			LIVE1	1.2	
12DLSPECY+ECC			LIVE2	1.2	
12DLSPECY-ECC	Linear Add	No	DEAD	1.2	
12DLSPECY-ECC			SIDL	1.2	
12DLSPECY-ECC			LIVE	1.2	
12DLSPECY-ECC			LIVE1	1.2	
12DLSPECY-ECC			LIVE2	1.2	
12DLSPECYN	Linear Add	No	DEAD	1.2	
12DLSPECYN			SIDL	1.2	
12DLSPECYN			LIVE	1.2	
12DLSPECYN			LIVE1	1.2	
12DLSPECYN			LIVE2	1.2	
12DLSPECYN			SPECY	-1.2	
12DLSPECYN+ECC	Linear Add	No	DEAD	1.2	
12DLSPECYN+ECC			SIDL	1.2	
12DLSPECYN+ECC			LIVE	1.2	
12DLSPECYN+ECC			LIVE1	1.2	
12DLSPECYN+ECC			LIVE2	1.2	
12DLSPECYN-ECC	Linear Add	No	DEAD	1.2	
12DLSPECYN-ECC			SIDL	1.2	
12DLSPECYN-ECC			LIVE	1.2	
12DLSPECYN-ECC			LIVE1	1.2	
12DLSPECYN-ECC			LIVE2	1.2	
12DLWX	Linear Add	No	DEAD	1.2	
12DLWX			SIDL	1.2	



Name	Type	Is Auto	Load Name	SF	Notes
12DLWX			LIVE	1.2	
12DLWX			LIVE1	1.2	
12DLWX			LIVE2	1.2	
12DLWX			WINDX	1.2	
12DLWXN	Linear Add	No	DEAD	1.2	
12DLWXN			SIDL	1.2	
12DLWXN			LIVE	1.2	
12DLWXN			LIVE1	1.2	
12DLWXN			LIVE2	1.2	
12DLWXN			WINDX	-1.2	
12DLWY	Linear Add	No	DEAD	1.2	
12DLWY			SIDL	1.2	
12DLWY			LIVE	1.2	
12DLWY			LIVE1	1.2	
12DLWY			LIVE2	1.2	
12DLWY			WINDY	1.2	
12DLWYN	Linear Add	No	DEAD	1.2	
12DLWYN			SIDL	1.2	
12DLWYN			LIVE	1.2	
12DLWYN			LIVE1	1.2	
12DLWYN			LIVE2	1.2	
12DLWYN			WINDY	-1.2	
15DEQX	Linear Add	No	DEAD	1.5	
15DEQX			SIDL	1.5	
15DEQX			EQX	1.5	
15DEQX+ECC	Linear Add	No	DEAD	1.5	
15DEQX+ECC			SIDL	1.5	
15DEQX+ECC			EQX+ECC	1.5	
15DEQX-ECC	Linear Add	No	DEAD	1.5	
15DEQX-ECC			SIDL	1.5	
15DEQX-ECC			EQX-ECC	1.5	
15DEQXN	Linear Add	No	DEAD	1.5	
15DEQXN			SIDL	1.5	
15DEQXN			EQX	-1.5	
15DEQXN+ECC	Linear Add	No	DEAD	1.5	
15DEQXN+ECC			SIDL	1.5	
15DEQXN+ECC			EQX+ECC	-1.5	
15DEQXN-ECC	Linear Add	No	DEAD	1.5	
15DEQXN-ECC			SIDL	1.5	
15DEQXN-ECC			EQX-ECC	-1.5	
15DEQY	Linear Add	No	DEAD	1.5	
15DEQY			SIDL	1.5	
15DEQY			EQY	1.5	
15DEQY+ECC	Linear Add	No	DEAD	1.5	
15DEQY+ECC			SIDL	1.5	
15DEQY+ECC			EQY+ECC	1.5	
15DEQY-ECC	Linear Add	No	DEAD	1.5	
15DEQY-ECC			SIDL	1.5	
15DEQY-ECC			EQY-ECC	1.5	
15DEQYN	Linear Add	No	DEAD	1.5	
15DEQYN			SIDL	1.5	
15DEQYN			EQY	-1.5	
15DEQYN+ECC	Linear Add	No	DEAD	1.5	
15DEQYN+ECC			SIDL	1.5	
15DEQYN+ECC			EQY+ECC	-1.5	
15DEQYN-ECC	Linear Add	No	DEAD	1.5	
15DEQYN-ECC			SIDL	1.5	
15DEQYN-ECC			EQY-ECC	-1.5	
15DGWX	Linear Add	No	DEAD	1.5	
15DGWX			SIDL	1.5	
15DGWX			GWX	1.5	
15DGWXN	Linear Add	No	DEAD	1.5	
15DGWXN			SIDL	1.5	
15DGWXN			GWX	-1.5	

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Name	Type	Is Auto	Load Name	SF	Notes
15DGWY	Linear Add	No	DEAD	1.5	
15DGWY			SIDL	1.5	
15DGWY			GWY	1.5	
15DGWYN	Linear Add	No	DEAD	1.5	
15DGWYN			SIDL	1.5	
15DGWYN			GWY	-1.5	
15DL	Linear Add	No	DEAD	1.5	
15DL			SIDL	1.5	
15DL			LIVE	1.5	
15DL			LIVE1	1.5	
15DL			LIVE2	1.5	
15DSPECX	Linear Add	No	DEAD	1.5	
15DSPECX			SIDL	1.5	
15DSPECX			SPECX	1.5	
15DSPECXN	Linear Add	No	DEAD	1.5	
15DSPECXN			SIDL	1.5	
15DSPECXN			SPECX	-1.5	
15DSPECY	Linear Add	No	DEAD	1.5	
15DSPECY			SIDL	1.5	
15DSPECY			SPECY	1.5	
15DSPECYN	Linear Add	No	DEAD	1.5	
15DSPECYN			SIDL	1.5	
15DSPECYN			SPECY	-1.5	
15DWX	Linear Add	No	DEAD	1.5	
15DWX			SIDL	1.5	
15DWX			WINDX	1.5	
15DWXN	Linear Add	No	DEAD	1.5	
15DWXN			SIDL	1.5	
15DWXN			WINDX	-1.5	
15DWY	Linear Add	No	DEAD	1.5	
15DWY			SIDL	1.5	
15DWY			WINDY	1.5	
15DWYN	Linear Add	No	DEAD	1.5	
15DWYN			SIDL	1.5	
15DWYN			WINDY	-1.5	

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