6.1 Preamble

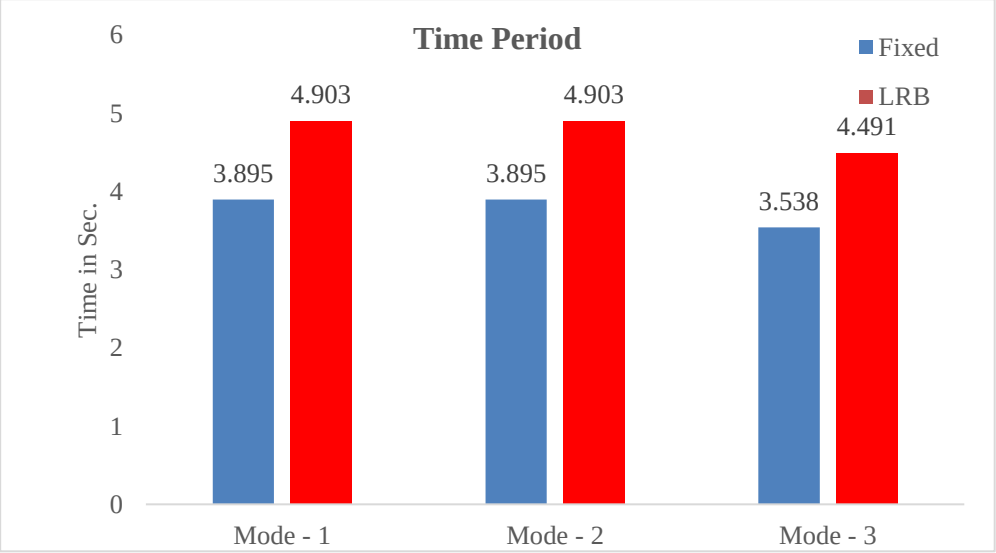
In this chapter the result obtained from all the model: Time period, Base Shear, Storey-Drift, Storey-Displacement, Steel reduction and overall cost economy is analyzed and a Results summary is made for comparison along with graph.

6.2 Result Comparison for Case (a) G+12 Storey Reinforced Concrete (RC) Structure. (Case-I with Case-II).

6.2.1 Time Period.

Table-19. Comparison of Time Period of Fixed Base Structure (Case-I) and LRB Base Structure (Case-II).

Time Period (Sec)			
	Fixed Base	LRB Base	Remark
Mode - 1	3.895	4.903	
Mode - 2	3.895	4.903	
Mode - 3	3.538	4.491	



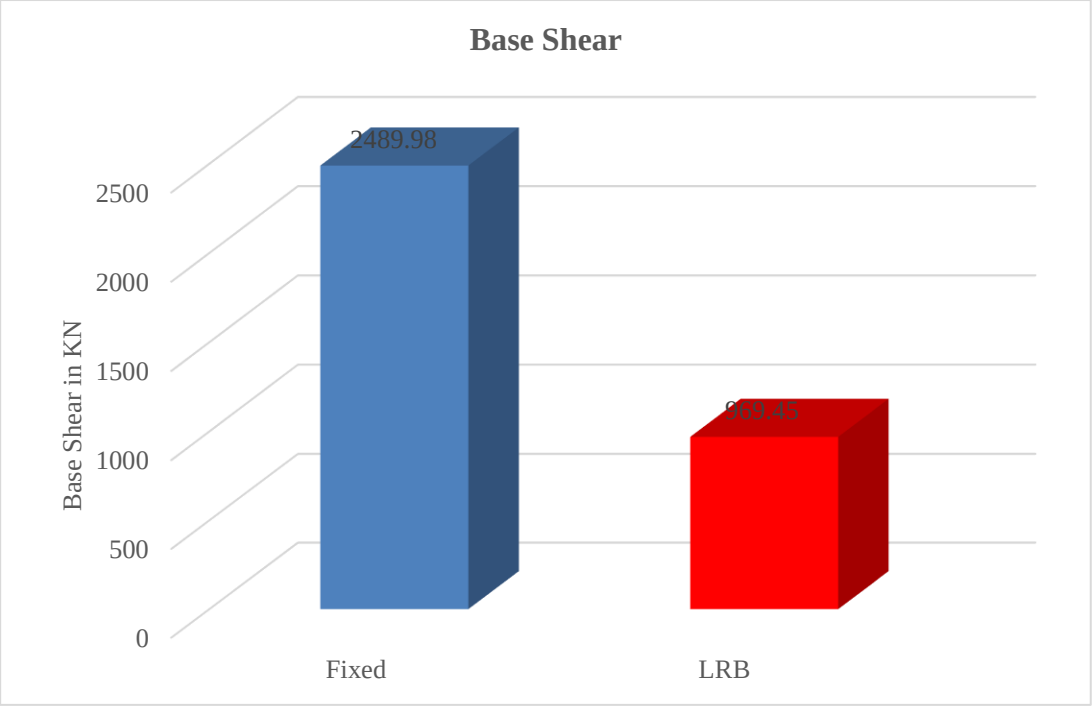
Graph-1. Parametric Change of Time Period of Fixed Base Structure (Case-I) and LRB Base Structure (Case-II).

The Time Period of G+12 Storey reinforced concrete structure for case (a) Case-I: Fixed base structure and Case-II: LRB base structure is shown in table-19 and parametric change in form of graph is shown in graph-1. The time period in Case-II is raised by 26.23% as compared to Case-I.

6.2.2 Base Shear.

Table-20. Comparison of Base Shear of Fixed Base Structure (Case-I) and LRB Base Structure (Case-II).

Base Shear (KN)			
	Fixed Base	LRB Base	Remark
Base Shear	2489.98	969.45	



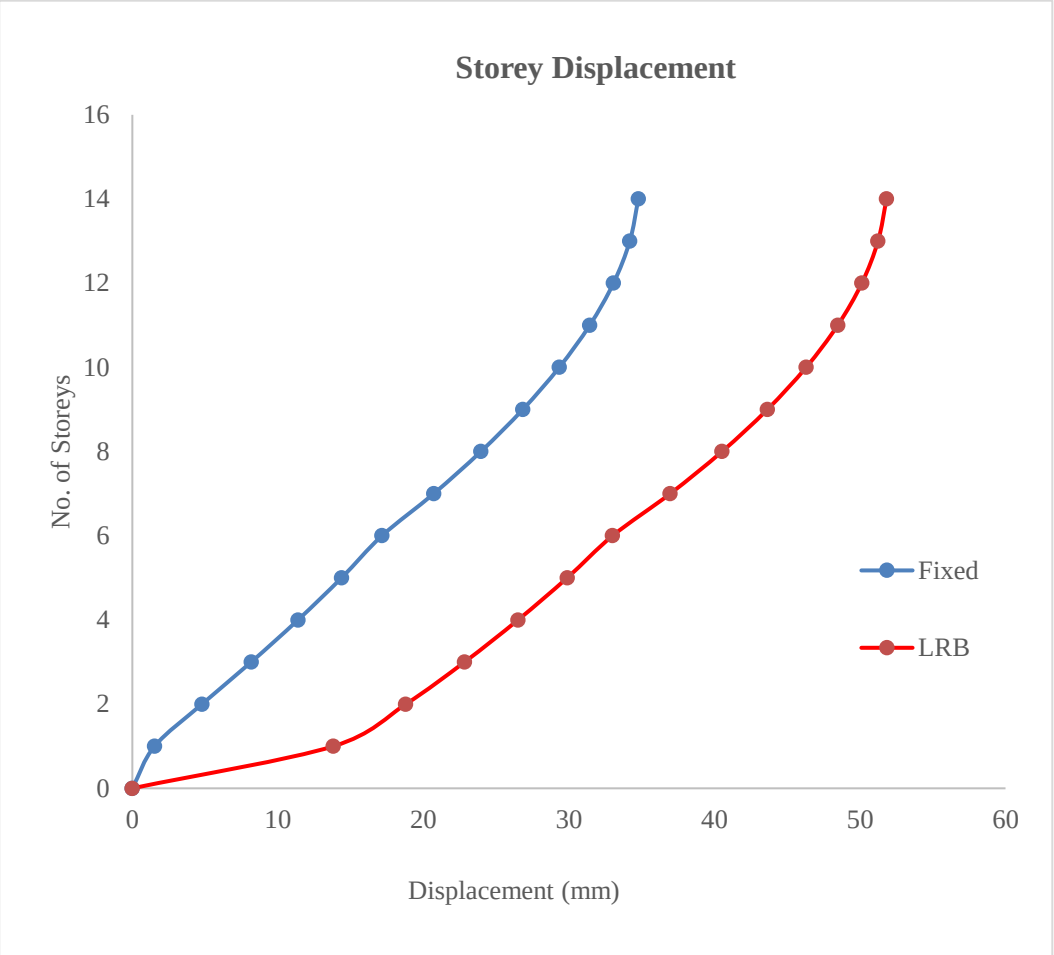
Graph-2. Parametric Change of Base Shear of Fixed Base Structure (Case-I) and LRB Base Structure (Case-II).

The Base Shear of G+12 Storey reinforced concrete structure for case (a) Case-I: Fixed Base Structure and Case-II: LRB Base Structure is shown in table-20 and parametric change in form of graph is shown in graph-2. The Base shear in Case-II is reduced by 61.07% as compared to Case-I.

6.2.3 Storey-Displacement.

Table-21. Comparison of Storey-Displacement of Fixed Base Structure (Case-I) and LRB Base Structure (Case-II).

Storey-Displacement			
Storey	Fixed Base	LRB Base	Remark
Storey -13	34.769	51.824	
Storey -12	34.184	51.24	
Storey -11	33.061	50.127	
Storey -10	31.428	48.471	
Storey -9	29.336	46.299	
Storey -8	26.831	43.639	
Storey -7	23.947	40.518	
Storey -6	20.711	36.961	
Storey -5	17.152	33.002	
Storey -4	14.377	29.884	
Storey -3	11.382	26.501	
Storey -2	8.171	22.829	
Storey -1	4.784	18.786	
Ground	1.527	13.819	



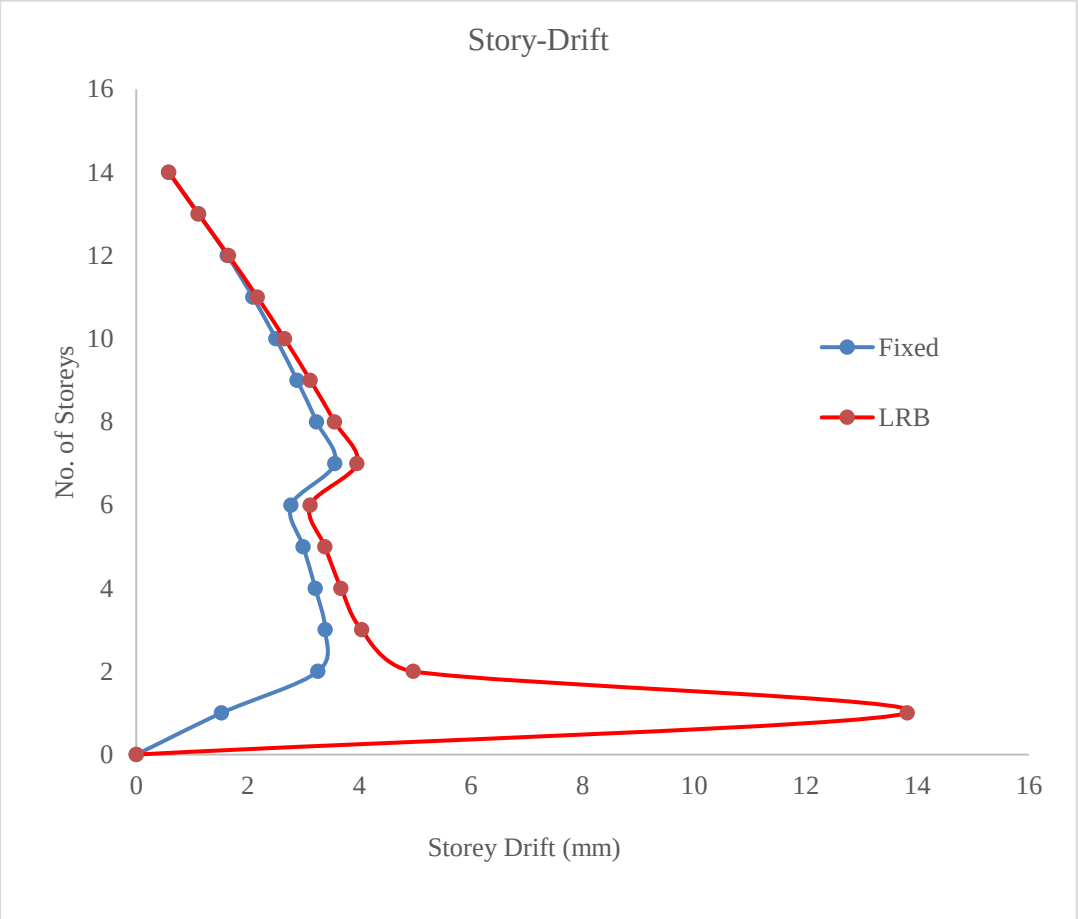
Graph-3. Parametric Change of Storey-Displacement of Fixed Base Structure (Case-I) and LRB Base Structure (Case-II).

The Storey-Displacement of G+12 Storey reinforced concrete structure for case (a) Case-I: Fixed Base Structure and Case-II: LRB Base Structure is shown in table-21 and parametric change in form of graph is shown in graph-3. The Storey-Displacement in Case-II is raised by 58.74% as compared to Case-I.

6.2.4 Storey-Drift.

Table-22. Comparison of Storey-Drift of Fixed Base Structure (Case-I) and LRB Base Structure (Case-II).

Storey-Drift			
Storey	Fixed Base	LRB Base	Remark
Storey -13	0.585	0.584	
Storey -12	1.123	1.113	
Storey -11	1.633	1.656	
Storey -10	2.092	2.172	
Storey -9	2.505	2.66	
Storey -8	2.884	3.121	
Storey -7	3.236	3.557	
Storey -6	3.559	3.959	
Storey -5	2.775	3.118	
Storey -4	2.995	3.383	
Storey -3	3.211	3.672	
Storey -2	3.387	4.043	
Storey -1	3.257	4.967	
Ground	1.527	13.819	



Graph-4. Parametric Change of Storey-Drift of Fixed Base Structure (Case-I) and LRB Base Structure (Case-II).

The Storey-Drift of G+12 Storey reinforced concrete structure for case (a) Case-I: Fixed Base Structurea nd Case-II: LRB Base Structure is shown in table-22. The storey-drift follows a non-linear pattern which can be observed in graph as shown in graph-4. The Storey-Drift is reduced by 64.06% which makes the structure ideally stiff & provides less damage to the structure. The storey-drift obtained are well within the limit as per IS 1893:2016.

6.2.5 Steel Reduction.

Table-23. Comparison of Steel Reduction of Fixed Base Structure (Case-I) and LRB Base Structure (Case-II).

Steel Reduction (%)			
Sr. No.	Description	Fixed Base (mm^2)	LRB Base (mm^2)
1	Column-Biaxial	77586	61581
2	Column-Uniaxial	764810	552144
3	Column-Axial	1606393	1433588
Reinforcement in Column=		2448789	2047313
Reinforcement Reduction in Column =		16.39%	
1	Beam	2898050	2629336
Reinforcement Reduction in Beam =		9.27%	
Total Reinforcement Reduction =		25.67%	

The Steel Reduction of G+12 Storey reinforced concrete structure for case (a) Case-I: Fixed Base Structure and Case-II: LRB Base Structure is shown in table-23. The Steel in Case-II is reduced by 25.67% as compared to Case-I.

6.2.6 Overall Cost Economy.

Table-24. Comparison of Overall Cost Economy of Fixed Base Structure (Case-I) and LRB Base Structure (Case-II).

Overall Cost Economy				
Sr. No.	Description	Quantity	Units	Remark
1	Approx Reinforcement Quantity	5	Kg/Sft	
2	Total Reinforcement Reduction (Approx 26%)	1.3	Kg/Sft	
3	Total Cost Reduction due to LRB (Round off)	95	Rs.	Steel 70 Rs./Kg
4	Cost of Lead Rubber Bearing	200	Rs./Sft	
5	Net Cost for Lead Rubber Bearing	105	Rs.	
6	Approx. cost of Construction	1500	Rs./Sft	
7	Effective Incremental in Construction Cost	7.00	%	

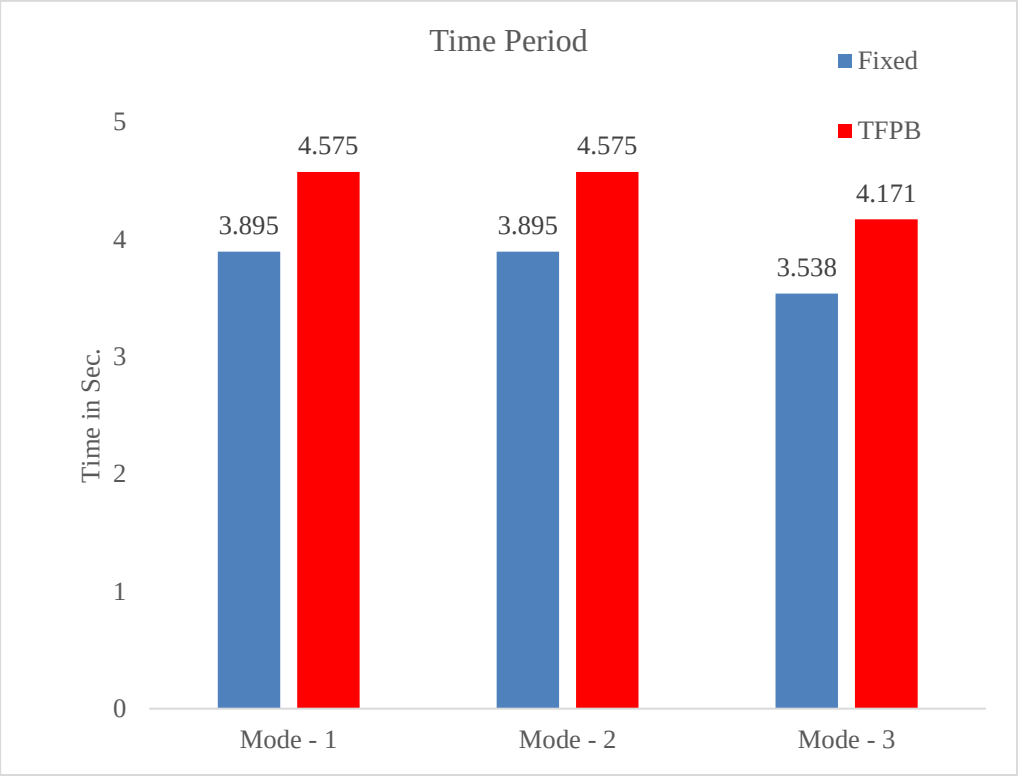
The Overall Cost Economy of G+12 Storey reinforced concrete structure for case (a) Case-I: Fixed Base Structure and Case-II: LRB Base Structure is shown in table-24. The Overall cost economy of Case-II is raised by 7.00% as compared to Case-I.

6.3 Result Comparison for Case (a) G+12 Storey Reinforced Concrete (RC) Structure. (Case-I with Case-III).

6.3.1 Time Period.

Table-25. Comparison of Time Period of Fixed Base Structure (Case-I) and TFPB Base Structure (Case-III).

Time Period (Sec)			
	Fixed Base	TFPB Base	Remark
Mode - 1	3.895	4.575	
Mode - 2	3.895	4.575	
Mode - 3	3.538	4.171	



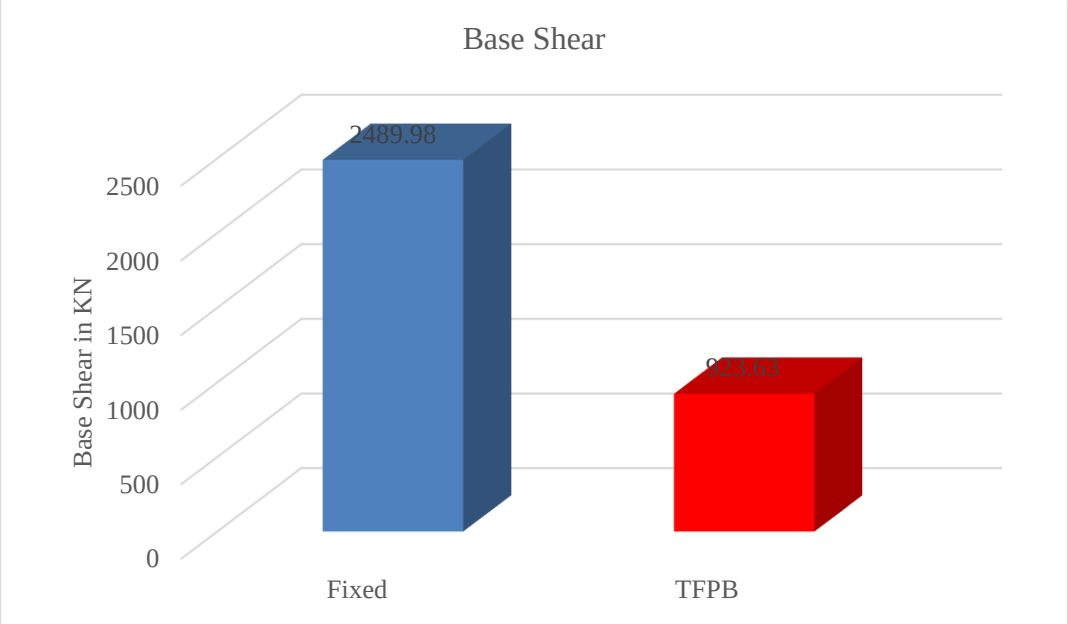
Graph-5. Parametric Change of Time Period of Fixed Base Structure (Case-I) and TFPB Base Structure (Case-III).

The Time Period of G+12 Storey reinforced concrete structure for case (a) Case-I: Fixed Base Structure and Case-III: TFPB Base Structure is shown in table-25 and parametric change in form of graph is shown in graph-5. The time period in Case-III is raised by 17.60% as compared to Case-I.

6.3.2 Base Shear.

Table-26. Comparison of Base Shear of Fixed Base Structure (Case-I) and TFPB Base Structure (Case-III).

Base Shear (KN)			
	Fixed Base	TFPB Base	Remark
Base Shear	2489.98	923.63	



Graph-6. Parametric Change of Base Shear of Fixed Base Structure (Case-I) and TFPB Base Structure (Case-III).

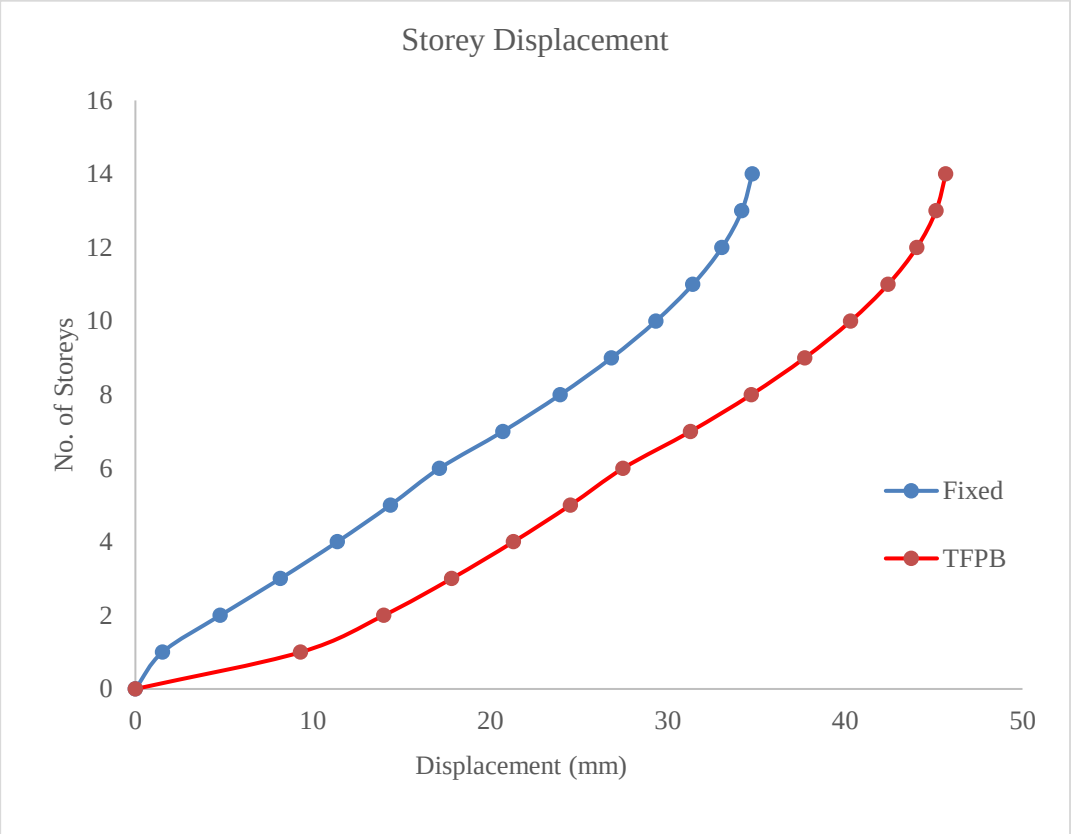
The Base Shear of G+12 Storey reinforced concrete structure for case (a) Case-I: Fixed Base Structure and Case-III: TFPB Base Structure is shown in table-26 and

parametric change in form of graph is shown in graph-6. The Base shear in Case-III is reduced by 62.91% as compared to Case-I.

6.3.3 Storey-Displacement.

Table-27. Comparison of Storey-Displacement of Fixed Base Structure (Case-I) and TFPB Base Structure (Case-III).

Storey-Displacement			
Storey	Fixed Base	TFPB Base	Remark
Storey -13	34.769	45.68	
Storey -12	34.184	45.127	
Storey -11	33.061	44.044	
Storey -10	31.428	42.428	
Storey -9	29.336	40.312	
Storey -8	26.831	37.729	
Storey -7	23.947	34.713	
Storey -6	20.711	31.29	
Storey -5	17.152	27.494	
Storey -4	14.377	24.523	
Storey -3	11.382	21.306	
Storey -2	8.171	17.822	
Storey -1	4.784	13.997	
Ground	1.527	9.314	



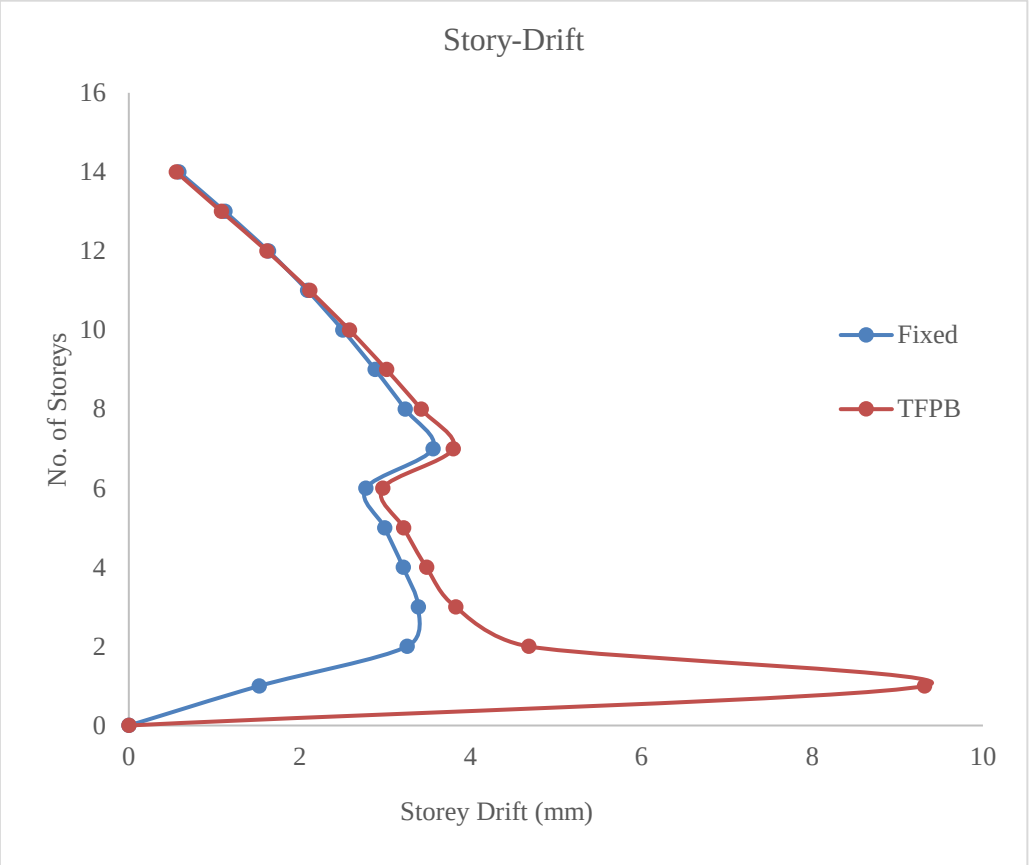
Graph-7. Parametric Change of Storey-Displacement of Fixed Base Structure (Case-I) and TFPB Base Structure (Case-III).

The Storey-Displacement of G+12 Storey reinforced concrete structure for case (a) Case-I: Fixed Base Structure and Case-III: TFPB Base Structure is shown in table-27 and parametric change in form of graph is shown in graph-7. The Storey-Displacement in Case-III is raised by 49.41% as compared to Case-I.

6.3.4 Storey-Drift.

Table-28. Comparison of Storey-Drift of Fixed Base Structure (Case-I) and TFPB Base Structure (Case-III).

Storey-Drift			
Storey	Fixed Base	TFPB Base	Remark
Storey -13	0.585	0.553	
Storey -12	1.123	1.083	
Storey -11	1.633	1.616	
Storey -10	2.092	2.116	
Storey -9	2.505	2.583	
Storey -8	2.884	3.016	
Storey -7	3.236	3.423	
Storey -6	3.559	3.796	
Storey -5	2.775	2.971	
Storey -4	2.995	3.217	
Storey -3	3.211	3.484	
Storey -2	3.387	3.825	
Storey -1	3.257	4.683	
Ground	1.527	9.314	



Graph-8. Parametric Change of Storey-Drift of Fixed Base Structure (Case-I) and TFPB Base Structure (Case-III).

The Storey-Drift of G+12 Storey reinforced concrete structure for case (a) Case-I: Fixed Base Structure and Case-III: TFPB Base Structure is shown in table-28. The storey-drift follows a non-linear pattern which can be observed in graph as shown in graph-8. The Storey-Drift is reduced by 49.72% which makes the structure ideally stiff & provides less damage to the structure. The storey-drift obtained are well within the limit as per IS 1893:2016.

6.3.5 Steel Reduction.

Table-29. Comparison of Steel Reduction of Fixed Base Structure (Case-I) and TFPB Base Structure (Case-III).

Steel Reduction (%)			
Sr. No.	Description	Fixed Base (mm^2)	TFPB Base (mm^2)
1	Column-Biaxial	77586	61998
2	Column-Uniaxial	764810	557424
3	Column-Axial	1606393	1431680
Reinforcement in Column=		2448789	2448789
Reinforcement Reduction in Column =		16.24%	
1	Beam	2898050	2595148
Reinforcement Reduction in Beam =		10.45%	
Total Reinforcement Reduction =		**26.69%**	

The Steel Reduction of G+12 Storey reinforced concrete structure for case (a) Case-I: Fixed Base Structure and Case-III: TFPB Base Structure is shown in table-29. The Steel in Case-III is reduced by 26.69% as compared to Case-I.

6.3.6 Overall Cost Economy.

Table-30. Comparison of Overall Cost Economy of Fixed Base Structure (Case-I) and TFPB Base Structure (Case-III).

Overall Cost Economy				
Sr. No.	Description	Quantity	Units	Remark
1	Approx Reinforcement Quantity	5	Kg/Sft	
2	Total Reinforcement Reduction (Approx 27%)	1.35	Kg/Sft	
3	Total Cost Reduction due to TFPB (Round off)	100	Rs.	Steel 70 Rs./Kg
4	Cost of Triple Friction Pendulum Bearing	160	Rs./Sft	
5	Net Cost for Friction Pendulum Bearing	60	Rs.	
6	Approx. cost of Construction	1500	Rs./Sft	
7	Effective Incremental in Construction Cost	4.00	%	

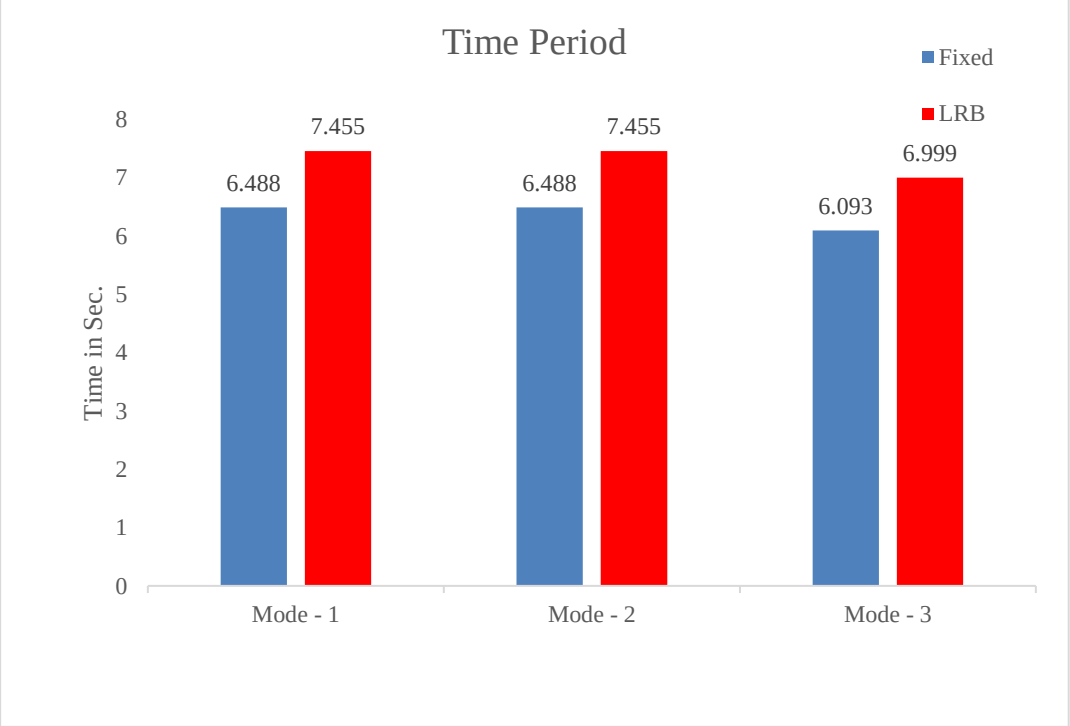
The Overall Cost Economy of G+12 Storey reinforced concrete structure for case (a) Case-I: Fixed Base Structure and Case-III: TFPB Base Structure is shown in table-30. The Overall cost economy of Case-III is raised by 4.00% as compared to Case-I.

6.4 Result Comparison for Case (b) G+22 Storey Reinforced Concrete (RC) Structure. (Case-IV with Case-V).

6.4.1 Time Period.

Table-31. Comparison of Time Period of Fixed Base Structure (Case-IV) and LRB Base Structure (Case-V).

Time Period (Sec)			
	Fixed Base	LRB Base	Remark
Mode - 1	6.488	7.455	
Mode - 2	6.488	7.455	
Mode - 3	6.093	6.999	



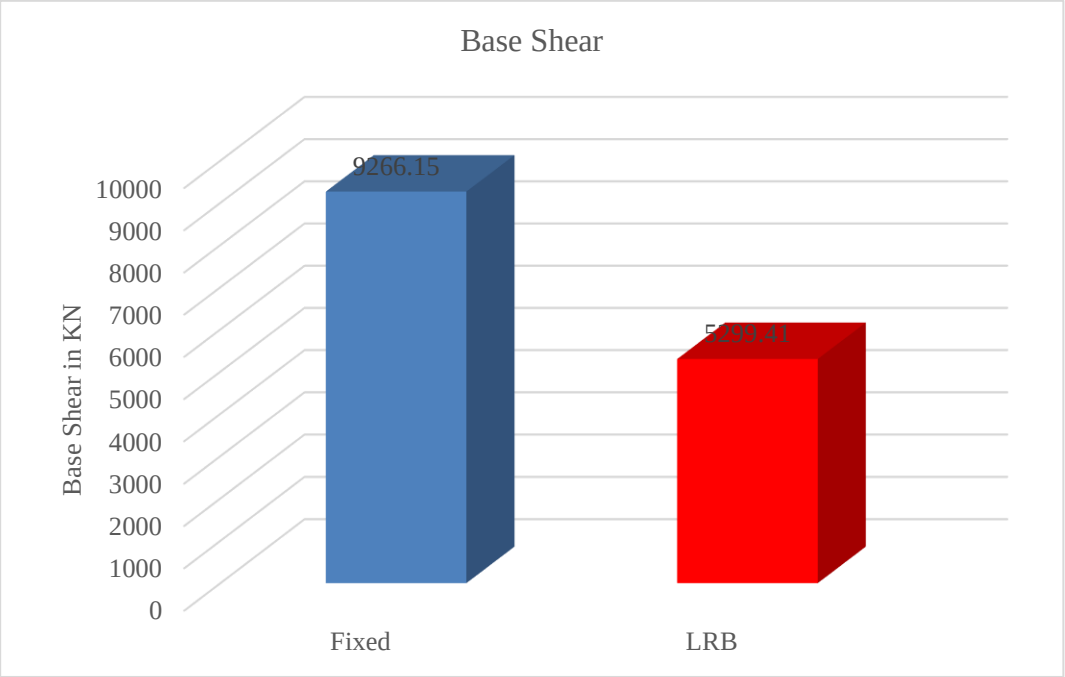
Graph-9. Parametric Change of Time Period of Fixed Base Structure (Case-IV) and LRB Base Structure (Case-V).

The Time Period of G+22 Storey reinforced concrete structure for case (b) Case-IV: Fixed Base Structure and Case-V: LRB Base Structure is shown in table-31 and parametric change in form of graph is shown in graph-9. The time period in Case-V is raised by 14.89% as compared to Case-IV.

6.4.2 Base Shear.

Table-32. Comparison of Base Shear of Fixed Base Structure (Case-IV) and LRB Base Structure (Case-V).

Base Shear (KN)			
	Fixed Base	LRB Base	Remark
Base Shear	9266.15	5299.41	



Graph-10. Parametric Change of Base Shear of Fixed Base Structure (Case-IV) and LRB Base Structure (Case-V).

The Base Shear of G+22 Storey reinforced concrete structure for case (b) Case-IV: Fixed Base Structure and Case-V: LRB Base Structure is shown in table-32 and parametric change in form of graph is shown in graph-10. The Base shear in

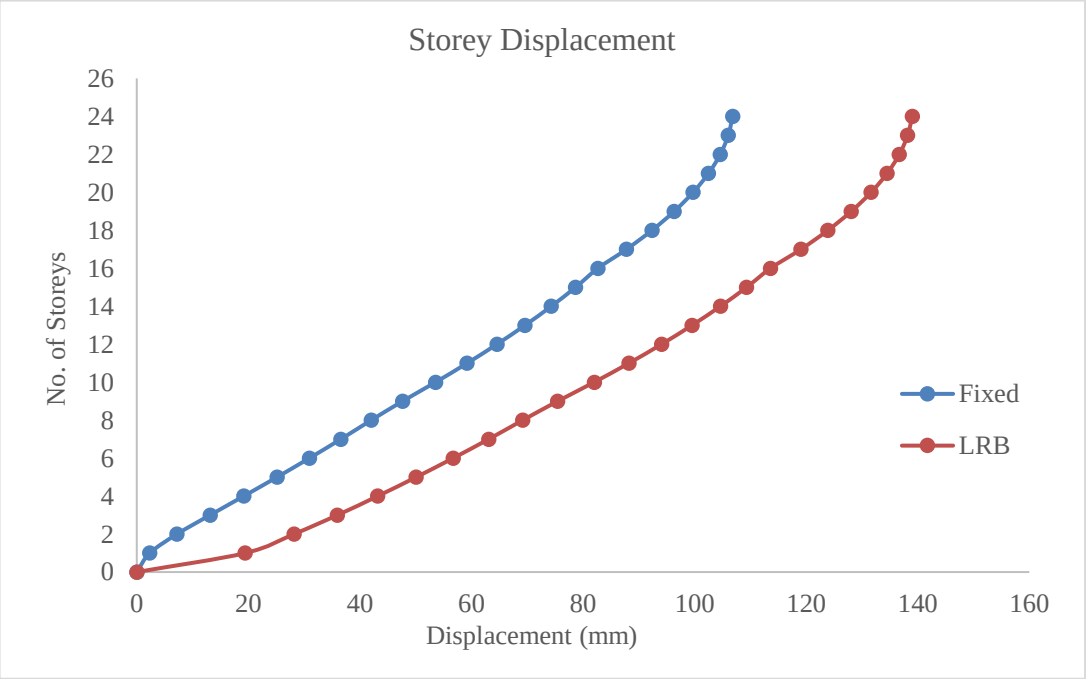
Case-V is reduced by 42.81% as compared to Case-IV.

6.4.3 Storey-Displacement.

Table-33. Comparison of Storey-Displacement of Fixed Base Structure (Case-IV) and LRB Base Structure (Case-V).

Storey-Displacement			
Storey	Fixed Base	LRB Base	Remark
Storey -23	106.815	139.022	
Storey -22	106.042	138.201	
Storey -21	104.613	136.714	
Storey -20	102.506	134.524	
Storey -19	99.746	131.648	
Storey -18	96.356	128.1	
Storey -17	92.365	123.901	
Storey -16	87.797	119.07	
Storey -15	82.685	113.632	
Storey -14	78.674	109.333	
Storey -13	74.318	104.644	
Storey -12	69.613	99.555	
Storey -11	64.576	94.078	
Storey -10	59.224	88.227	
Storey -9	53.575	82.016	

Storey -8	47.653	75.462	
Storey -7	42.036	69.205	
Storey -6	36.594	63.097	
Storey -5	30.962	56.73	
Storey -4	25.152	50.102	
Storey -3	19.191	43.203	
Storey -2	13.142	35.98	
Storey -1	7.217	28.187	
Ground	2.343	19.449	



Graph-11. Parametric Change of Storey-Displacement of Fixed Base Structure (Case-IV) and LRB Base Structure (Case-V).

The Storey-Displacement of G+22 Storey reinforced concrete structure for case (b) Case-IV: Fixed Base Structure and Case-V: LRB Base Structure is shown in

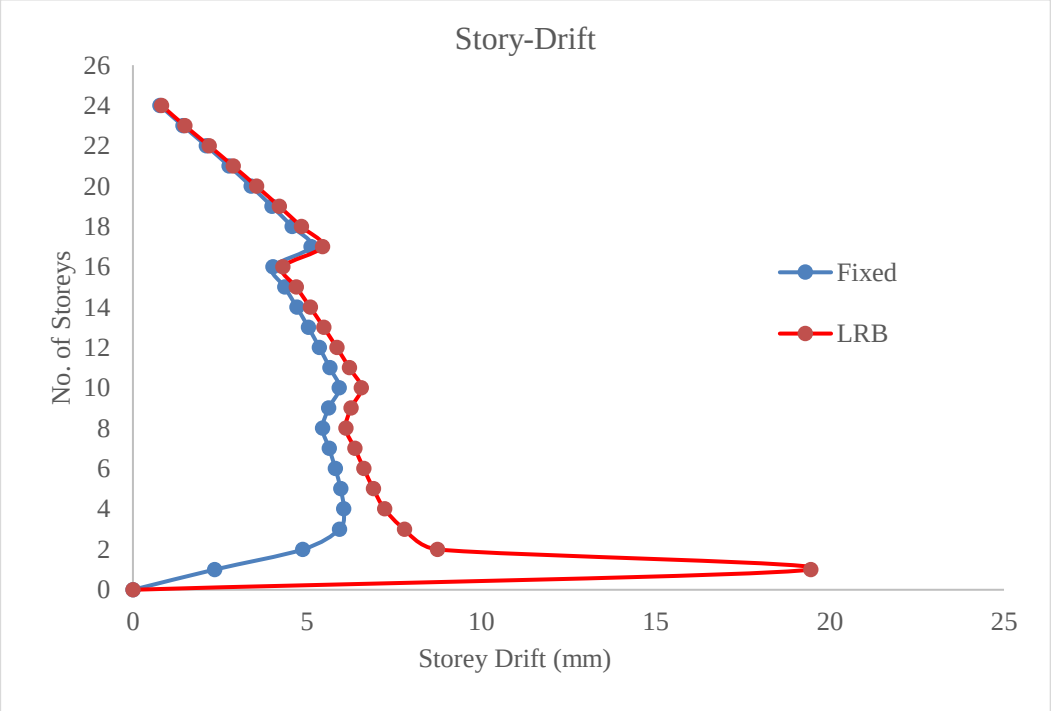
table-33 and parametric change in form of graph is shown in graph-11. The Storey-Displacement in Case-V is raised by 39.76% as compared to Case-IV.

6.4.4 Storey-Drift.

Table-34. Comparison of Storey-Drift of Fixed Base Structure (Case-IV) and LRB Base Structure (Case-V).

Storey-Drift			
Storey	Fixed Base	LRB Base	Remark
Storey -23	0.773	0.821	
Storey -22	1.429	1.487	
Storey -21	2.107	2.19	
Storey -20	2.76	2.876	
Storey -19	3.39	3.548	
Storey -18	3.991	4.199	
Storey -17	4.568	4.831	
Storey -16	5.112	5.438	
Storey -15	4.011	4.299	
Storey -14	4.356	4.689	
Storey -13	4.705	5.089	
Storey -12	5.037	5.477	
Storey -11	5.352	5.851	
Storey -10	5.649	6.211	

Storey -9	5.922	6.554	
Storey -8	5.617	6.257	
Storey -7	5.442	6.108	
Storey -6	5.632	6.367	
Storey -5	5.81	6.628	
Storey -4	5.961	6.899	
Storey -3	6.049	7.223	
Storey -2	5.925	7.793	
Storey -1	4.874	8.738	
Ground	2.343	19.449	



Graph-12. Parametric Change of Storey-Drift of Fixed Base Structure (Case-IV) and LRB Base Structure (Case-V).

The Storey-Drift of G+22 Storey reinforced concrete structure for case (b) Case-IV: Fixed Base Structure and Case-V: LRB Base Structure is shown in table-34. The storey-drift follows a non-linear pattern which can be observed in graph as shown in graph-12. The Storey-Drift is reduced by 55.07% which makes the structure ideally stiff & provides less damage to the structure. The storey-drift obtained are well within the limit as per IS 1893:2016.

6.4.5 Steel Reduction.

Table-35. Comparison of Steel Reduction of Fixed Base Structure (Case-IV) and LRB Base Structure (Case-V).

Steel Reduction (%)			
Sr. No.	Description	Fixed Base (mm^2)	LRB Base (mm^2)
1	Column-Biaxial	265416	225700
2	Column-Uniaxial	4513480	3995044
3	Column-Axial	16957790	15971568
Reinforcement in Column=		21736686	20192312
Reinforcement Reduction in Column =		7.10%	
1	Beam	17355952	14908932
Reinforcement Reduction in Beam =		14.10%	
Total Reinforcement Reduction =		**21.20%**	

The Steel Reduction of G+22 Storey reinforced concrete structure for case (b) Case-IV: Fixed Base Structure and Case-V: LRB Base Structure is shown in table-35. The Steel in Case-V is reduced by 21.20% as compared to Case-IV.

6.4.6 Overall Cost Economy.

Table-36. Comparison of Overall Cost Economy of Fixed Base Structure (Case-IV) and LRB Base Structure (Case-V).

Overall Cost Economy				
Sr. No.	Description	Quantity	Units	Remark
1	Approx Reinforcement Quantity	5	Kg/Sft	
2	Total Reinforcement Reduction (Approx 22%)	1.1	Kg/Sft	
3	Total Cost Reduction due to LRB (Round off)	80	Rs.	Steel 70 Rs./Kg
4	Cost of Lead Rubber Bearing	200	Rs./Sft	
5	Net Cost for Lead Rubber Bearing	120	Rs.	
6	Approx. cost of Construction	1500.00	Rs./Sft	
7	Effective Incremental in Construction Cost	8.00	%	

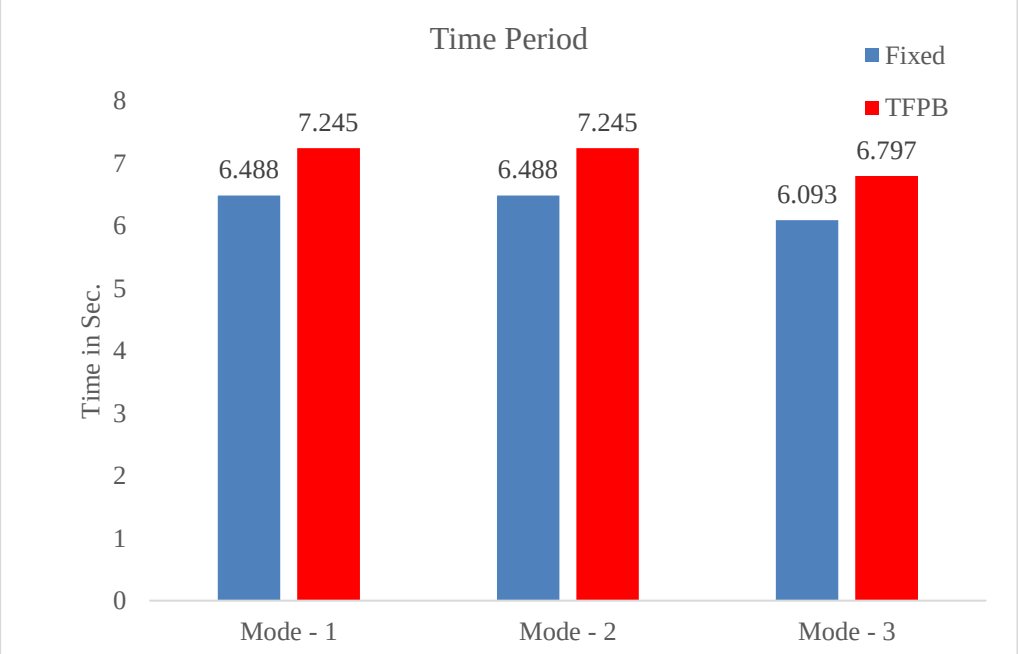
The Overall Cost Economy of G+22 Storey reinforced concrete structure for case (b) Case-IV: Fixed Base Structure and Case-V: LRB Base Structure is shown in table-36. The Overall cost economy of Case-V is raised by 8.00% as compared to Case-IV.

6.5 Result Comparison for Case (a) G+22 Storey Reinforced Concrete (RC) Structure. (Case-IV with Case-VI).

6.5.1 Time Period.

Table-37. Comparison of Time Period of Fixed Base Structure (Case-IV) and TFPB Base Structure (Case-VI).

Time Period (Sec)			
	Fixed Base	TFPB Base	Remark
Mode - 1	6.488	7.245	
Mode - 2	6.488	7.245	
Mode - 3	6.093	6.797	



Graph-13. Parametric Change of Time Period of Fixed Base Structure (Case-IV) and TFPB Base Structure (Case-VI).

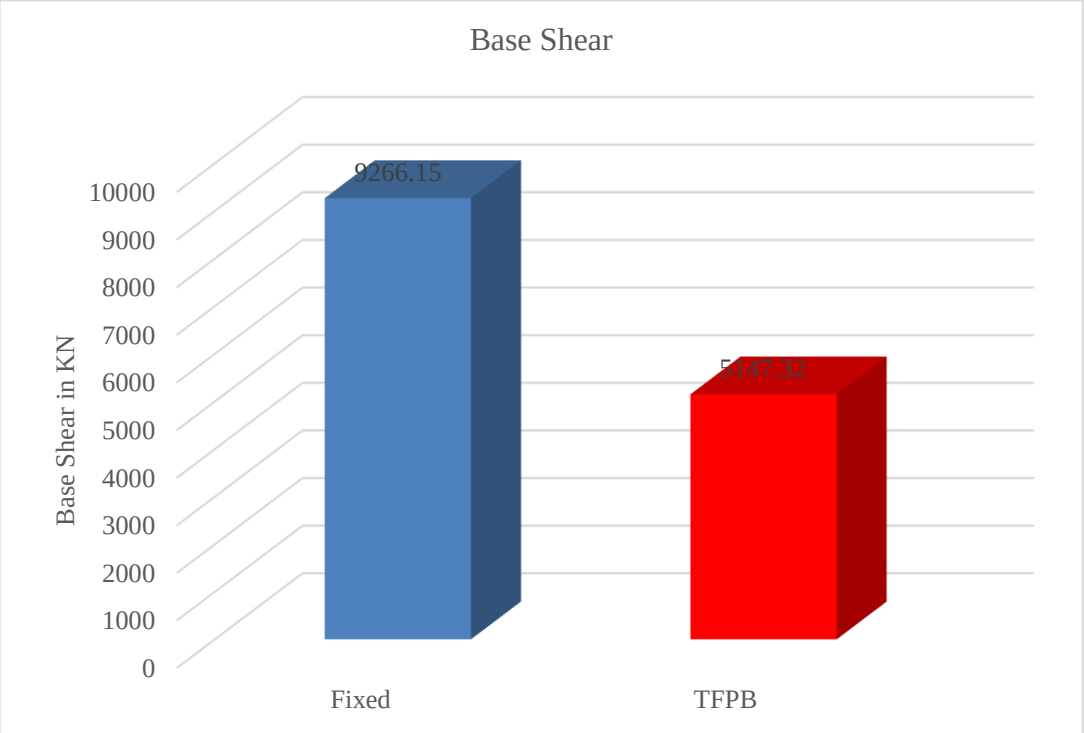
The Time Period of G+22 Storey reinforced concrete structure for case (b) Case-IV: Fixed Base Structure and Case-VI: TFPB Base Structure is shown in table-37

and parametric change in form of graph is shown in graph-13. The time period in Case-VI is raised by 11.63% as compared to Case-IV.

6.5.2 Base Shear.

Table-38. Comparison of Base Shear of Fixed Base Structure (Case-IV) and TFPB Base Structure (Case-VI).

Base Shear (KN)			
	Fixed Base	TFPB Base	Remark
Base Shear	9266.15	5147.32	



Graph-14. Parametric Change of Base Shear of Fixed Base Structure (Case-IV) and TFPB Base Structure (Case-VI).

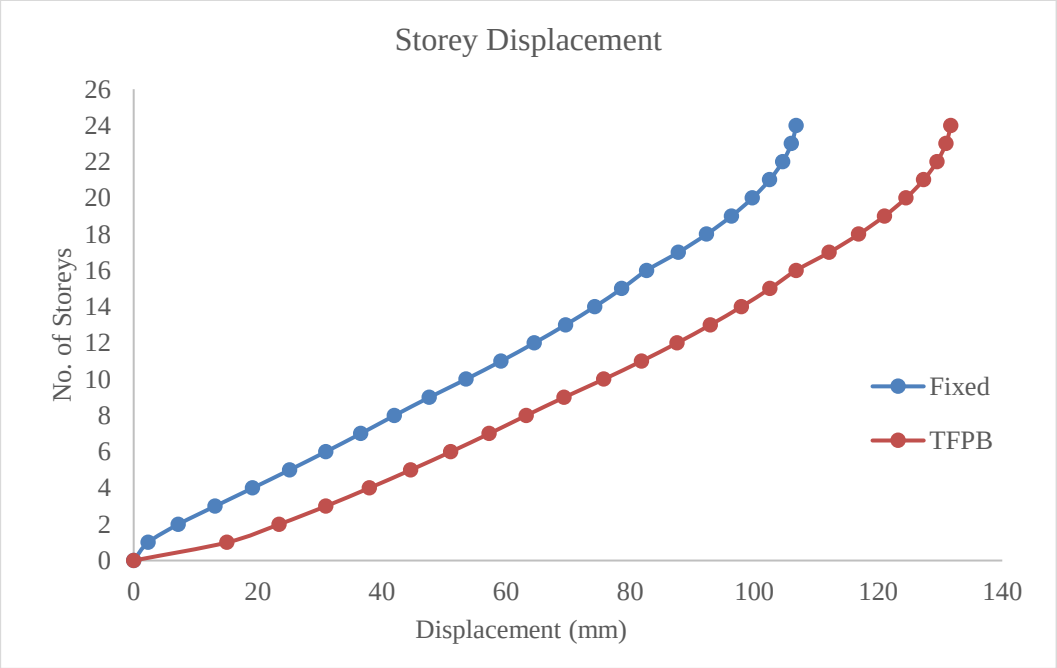
The Base Shear of G+22 Storey reinforced concrete structure for case (b) Case-IV: Fixed Base Structure and Case-VI: TFPB Base Structure is shown in table-38 and parametric change in form of graph is shown in graph-14. The Base shear in Case-VI is reduced by 44.45% as compared to Case-IV.

6.5.3 Storey-Displacement.

Table-39. Comparison of Storey-Displacement of Fixed Base Structure (Case-IV) and TFPB Base Structure (Case-VI).

Storey-Displacement			
Storey	Fixed Base	TFPB Base	Remark
Storey -23	106.815	131.724	
Storey -22	106.042	130.937	
Storey -21	104.613	129.484	
Storey -20	102.506	127.335	
Storey -19	99.746	124.505	
Storey -18	96.356	121.012	
Storey -17	92.365	116.877	
Storey -16	87.797	112.12	
Storey -15	82.685	106.77	
Storey -14	78.674	102.55	
Storey -13	74.318	97.95	
Storey -12	69.613	92.96	
Storey -11	64.576	87.593	
Storey -10	59.224	81.863	
Storey -9	53.575	75.786	
Storey -8	47.653	69.381	

Storey -7	42.036	63.273	
Storey -6	36.594	57.322	
Storey -5	30.962	51.125	
Storey -4	25.152	44.683	
Storey -3	19.191	37.991	
Storey -2	13.142	30.997	
Storey -1	7.217	23.473	
Ground	2.343	15.06	



Graph-15. Parametric Change of Storey-Displacement of Fixed Base Structure (Case-IV) and TFPB Base Structure (Case-VI).

The Storey-Displacement of G+22 Storey reinforced concrete structure for case (b) Case-IV: Fixed Base Structure and Case-VI: TFPB Base Structure is shown in table-39 and parametric change in form of graph is shown in graph-15. The

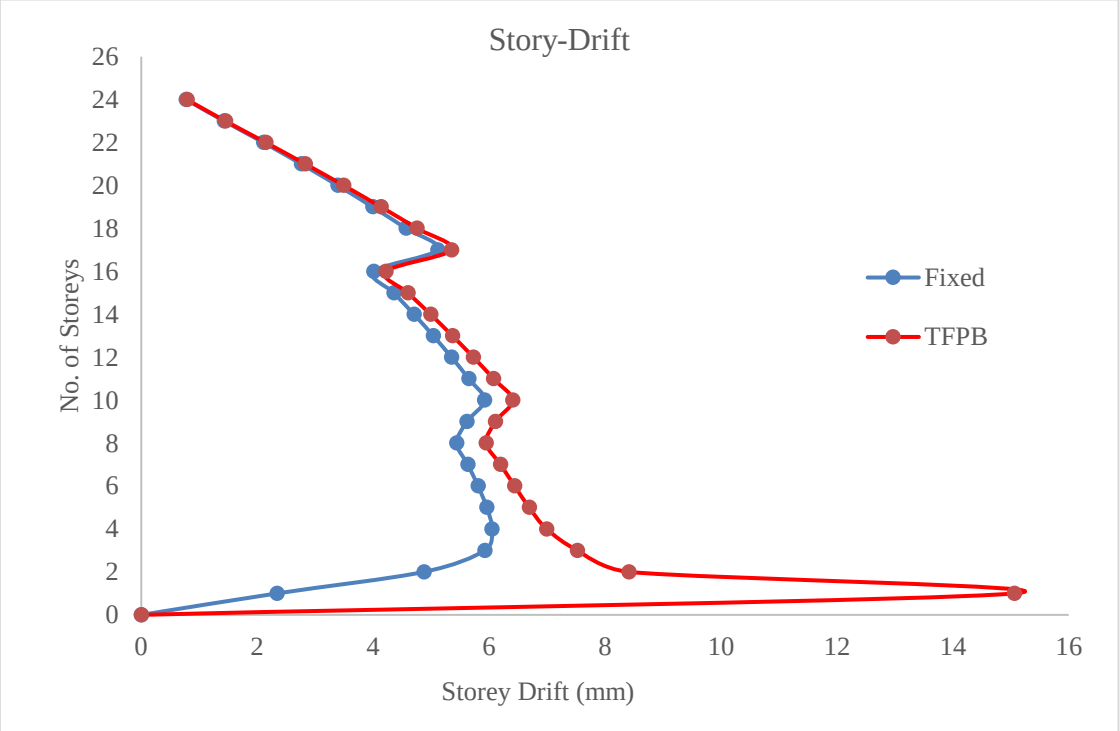
Storey-Displacement in Case-VI is raised by 30.94% as compared to Case-IV.

6.5.4 Storey-Drift.

Table-40. Comparison of Storey-Drift of Fixed Base Structure (Case-IV) and TFPB Base Structure (Case-VI).

Storey-Drift			
Storey	Fixed Base	TFPB Base	Remark
Storey -23	0.773	0.787	
Storey -22	1.429	1.453	
Storey -21	2.107	2.149	
Storey -20	2.76	2.83	
Storey -19	3.39	3.493	
Storey -18	3.991	4.135	
Storey -17	4.568	4.757	
Storey -16	5.112	5.35	
Storey -15	4.011	4.22	
Storey -14	4.356	4.6	
Storey -13	4.705	4.99	
Storey -12	5.037	5.367	
Storey -11	5.352	5.73	
Storey -10	5.649	6.077	

Storey -9	5.922	6.405	
Storey -8	5.617	6.108	
Storey -7	5.442	5.951	
Storey -6	5.632	6.197	
Storey -5	5.81	6.442	
Storey -4	5.961	6.692	
Storey -3	6.049	6.994	
Storey -2	5.925	7.524	
Storey -1	4.874	8.413	
Ground	2.343	15.06	



Graph-16. Parametric Change of Storey-Drift of Fixed Base Structure (Case-IV) and TFPB Base Structure (Case-VI).

The Storey-Drift of G+22 Storey reinforced concrete structure for case (b) Case-IV: Fixed Base Structure and Case-VI: TFPB Base Structure is shown in table-40. The storey-drift follows a non-linear pattern which can be observed in graph as shown in graph-16. The Storey-Drift is reduced by 44.14% which makes the structure ideally stiff & provides less damage to the structure. The storey-drift obtained are well within the limit as per IS 1893:2016.

6.5.5 Steel Reduction.

Table-41. Comparison of Steel Reduction of Fixed Base Structure (Case-IV) and TFPB Base Structure (Case-VI).

Steel Reduction (%)			
Sr. No.	Description	Fixed Base (mm^2)	TFPB Base (mm^2)
1	Column-Biaxial	265416	229720
2	Column-Uniaxial	4513480	4021152
3	Column-Axial	16957790	15960503
	Reinforcement in Column=	21736686	20211375
Reinforcement Reduction in Column =		7.02%	
1	Beam	17355952	14759524
Reinforcement Reduction in Beam =		14.96%	
Total Reinforcement Reduction =		**21.98%**	

The Steel Reduction of G+22 Storey reinforced concrete structure for case (b) Case-IV: Fixed Base Structure and Case-VI: TFPB Base Structure is shown in table-41. The Steel in Case-VI is reduced by 21.98% as compared to Case-IV.

6.5.6 Overall Cost Economy.

Table-42. Comparison of Overall Cost Economy of Fixed Base Structure (Case-IV) and TFPB Base Structure (Case-VI).

Overall Cost Economy				
Sr. No.	Description	Quantity	Units	Remark
1	Approx Reinforcement Quantity	5	Kg/Sft	
2	Total Reinforcement Reduction (Approx 22%)	1.1	Kg/Sft	
3	Total Cost Reduction due to TFPB (Round off)	80	Rs.	Steel 70 Rs./Kg
4	Cost of Triple Friction Pendulum Bearing	160	Rs./Sft	
5	Net Cost for Friction Pendulum Bearing	80	Rs.	
6	Approx. cost of Construction	1500.00	Rs./Sft	
7	Effective Incremental in Construction Cost	**5.33**	%	

The Overall Cost Economy of G+22 Storey reinforced concrete structure for case (b) Case-IV: Fixed Base Structure and Case-VI: TFPB Base Structure is shown in table-42. The Overall cost economy of Case-VI is raised by 5.33% as compared to Case-IV.

6.6 Summary

In this chapter, comparison of Time period, Base shear, Storey-displacement, Storey-drift, Percentage reduction of steel and overall cost economy is done and their parametric change is shown in the form of graph. The summary of analysis of result is shown below.

Table-43. Summary of Result Analysis

S.N.	Description	LRB Base	TFPB Base
For G+12 Storey Reinforced Concrete Structure			
1	Time Period	26.23%	17.60%
2	Base Shear	61.07%	62.91%
3	Storey-Displacement	58.74%	49.41%
4	Storey-Drift	64.06%	49.72%
5	Percentage Steel Reduction	25.67%	26.69%
6	Overall Cost Economy	7.00%	4.00%
For G+22 Storey Reinforced Concrete Structure			
1	Time Period	14.89%	11.63%
2	Base Shear	42.81%	44.45%
3	Storey-Displacement	39.76%	30.94%
4	Storey-Drift	55.07%	44.14%
5	Percentage Steel Reduction	21.20%	21.98%
6	Overall Cost Economy	8.00%	5.33%