CHAPTER 5

Conclusions and Recommendations

5.1 Conclusions

Conclusions were summarized as follow:

1- The storey displacement results essentially depend on the type of tall building frame and the bracing system type.

2- The weight and story displacements of rigid frame with cross bracing were reduced by 0.5% and 61% in comparing with unbraced rigid frame, respectively.

3- The weight and story displacements of rigid frame with diagonal bracing were reduced by 0.5% and 57% in comparing with unbraced rigid frame, respectively.

4- The weight and story displacements of rigid frame with V-shape bracing were reduced by 2.4% and 59% in comparing with unbraced rigid frame, respectively.

5- The weight and story displacements of shear-wall frame with cross bracing were reduced by 0.1% and 6% in comparing with unbraced shear-wall frame, respectively.

6- The weight and story displacements of shear-wall frame with diagonal bracing were reduced by 0.1% and 4% in comparing with unbraced shear-wall frame, respectively.

7- The weight and story displacements of shear-wall frame with V-shape bracing were reduced by 0.9% and 5% in comparing with unbraced shear-wall frame, respectively.

8- The weight and story displacements of tube frame with cross bracing were reduced by 11.6% and 54% in comparing with unbraced tube frame, respectively.

9- The weight and story displacements of tube frame with diagonal bracing were reduced by 12.6% and 50% in comparing with unbraced tube frame, respectively.

10- The weight and story displacements of tube frame with V-shape bracing were reduced by 12.6% and 41% in comparing with unbraced tube frame, respectively.

5.2 Recommendations

Recommendations were summarized as follows:

1. Researchers should study the effect of increasing the height of tall building that leads to change all loads calculations, then the distribution of forces of all frame elements will be changed to make the possibility for another structural type of frame to be more suitable.
2. Researchers should use a composite tall building materials, which consists of concrete core and the structural steel elements for higher floors that leads to significant intensity of resisting stiffness.
3. Researchers should to study other types of bracing that not mentioned in this thesis.
4. Researchers should study the p-delta effect of steel tall buildings.

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