https://dx.doi.org/10.22161/ijaers.71.25 ISSN: 2349-6495(P) | 2456-1908(O)

Review Analysis on Determine the Best Location of Porch in Multistory Building with and without Seismic Loading

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Abstract**—** *This paper briefs about determination of best location of porch with the help of analytical method by using staad-pro software. It also describes the effects of seismic and non seismic behavior of multistory buildings. The main purpose of the paper is to analyze the effect of seismic waves on skyscrapers and multistory buildings. The analysis is also for non seismic area locations. The software which is used for the analysis is staad-pro.*

Keywords**— Staad-pro, porch location, seismic loading, seismic analysis.**

I. INTRODUCTION

The world is full of multistory buildings and skyscrapers so it is really important to make it safer for people and also to reduce its overall cost therefore seismic analysis is really important and compulsory in today's world. The new invention and ideas are increasing vastly so that we can easily live our life without being afraid of hazards and earthquake is one of them. Seismic loading is the major factor in any type of multistory buildings and skyscrapers.

Fig.1 Multistory Building

It widely affects the structural approach of multistory buildings. When earthquake occurs seismic waves started to begin into earth crust which mainly affect the civil structures like buildings, bungalows, houses, skyscrapers, dams, highways and Bridges.

Fig.2 Multistory Building

II. MULTISTORY BUILDINGS

This paper is about different-different analytical approaches for multistory building by considering seismic and non seismic behavior on multistory buildings and also

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to find out best location porch by using analysis. The software which is used for this analysis is staad-pro.by using this method and analysis we can easily find out the best location of porch. it is really important analysis for multistory buildings because many of the multistory building are constructed in seismic zones and many without seismic zones so this analysis is important for both. And it also can reduced the cost of construction by knowing that it results

Fig.3 Building Plan

Figure shows the plan of building with the porch which is provided middle of the bulding

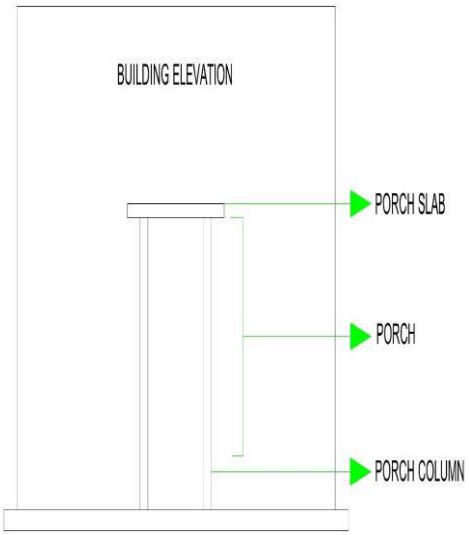

Fig.4 Building Elevation

Figure shows the elevation of building with the porch which is provided middle of the bulding

III. LITERATURE REVIEW

T. Öztürk, Z. Öztür This paper summarizes the analysis of load carrying systems and its effects on multi-storey RCC buildings during seismic loads. It is so important to determine all possible earthquake loadings and behavior of reinforced concrete Because of it helps to design the structure system and also to resist seismic effects. seismic load effects is also an important factor in all type of normal buildings including skyscrapers.

Wensheng LU, Xilin LU The paper briefs about the tests of some scaled high-rise multi-tower structure models on the trembling table. By considering the effect of flexible transfer floor in a new analytic model is shown. The test result considers the theoretical dynamic behavior comparison. The combination floors between towers at top levels, and the stiffness of foundation role to structural dynamic behavior is also described in this paper. Many suggestions and theoretical guidelines are also accomplished.

P. P. Chandurkar, Dr. P. S. Pajgade The paper state that In the design of building structural walls, shear walls plays an important role as major earthquake resisting members during seismic loadings. These walls provide a great potential for lateral load and offer resistance efficient bracing system. The properties of these seismic shear walls is very important factor in the buildings therefore, it is very significant to calculate the seismic response of the walls suitably. In this paper determination of shear wall location in multi-storey building is observed. It has been considered with the help of 4 different models.

N R Shwetha , Naveen, Pampanna Moolimani, S Naveenkumar, Mahesh Sajjan, C H Veeresh This paperincludes design and estimation with the analysis of multi storey building under seismic load, Dead load and live load. The design of beams, columns and footings is carried out under seismic loads. The software has been adopted is E Tabs because of its new features of data sharing and analysis and design. Completion of the analysis, design and estimation of a multi-storey building is the main aim of the paper. kani's method is being used to verify the results obtained through E tabs software. The fitness of structure is calculated by using the analysis result. E tab software is used for analysis.

Pushkar Rathod, Rahul Chandrashekar The paper states that the Seismic analysis plays an important role in any type of structure. it is very important to consider seismic analysis in high earthquake prone areas. During an earthquake the high lateral movement of earth's crust the structure can be designed with the help of seismic analysis. By using ETABS any type of basic or a highly advanced

structure can be evaluated which maybe under static or dynamic conditions. ETABS is a main tool for analysis and designs, which can design simple 2D frames to modern skyscrapers therefore it is the one of the best software for building structures.

Viktor castlenrist, Stefan svensson This paper summarizes the methodology which is based on idealized calculation models and idealized finite element models, especially focused on the dynamical properties, natural frequencies and accelerations of the building. In recent years it has been seen that in society, there has been vast changes like related to economics, urbanization, and architectural changes has become the greater interest for the construction of high-rise buildings. Up to that time Construction of skyscrapers has been limited in Sweden. The challenges are faced during designing and construction of high-rise buildings.

IV. CONCLUSION

This paper summarizes that it is really important to use analytical methods before construction of multistory buildings in seismic and non seismic areas. By reviewing all the Papers we can easily understand the importance of analytical methods. We can easily calculate the effect of seismic loading by using the software's like staad pro and E-tabs before construction of multistory buildings. Calculation and modeling is the main purpose of the conclusion

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