

CHAPTER IV CONCLUSIONS AND SUGGESTIONS

4.1 Conclusion

In the preparation of the structure and MEP calculation analysis of the galaxy hermina hospital project, conclusions can be drawn in the form of:

1. In making an analysis of the unit price of work for structure and MEP work using analysis from the company and the unit price of wages and materials for Bekasi city in 2023. From the results of the analysis of the unit price of costs for structure and MEP work for the Hermina Galaxy Hospital project, the overall price is Rp. 23.433.100.701,38 excluding VAT. That is Rp. 13.349.342.660,54 for structure from Rp. 15.557.500.000 or 35% contract value and Rp. 10.083.758.040 from Rp. 11.112.500.000 or 25% of the contract value.
2. According to HSBGN from Bekasi city, the value of 1m³ building is Rp. 5.620.000, this project has a value of 1m³ is Rp. 3.556.874.
3. Based on the time schedule, the Structure and MEP work on Hermina Galaxy Hospital project is carried out for 11 months. Start from 26th October 2023 until 4th August 2024.
4. The method of making cash flow refers to the time schedule. This is because the time schedule contains the weight of each work item, which will be accumulated with the total cost of the project.
5. Advances payment received at the beginning of the project amounted to 20% of the project value of Rp 4.686.620.140,28 and Retention of 5% of the Project value of Rp 1.171.655.053,07
6. While measuring the structure works, the measuring taking points is very important. Wrong taking point will make an overlap measurement and that will cost a wrong price for that work.
7. For the formwork and concrete work, the type of length that will be often to use is the clear span, and for reinforcement rebar work, the type of length that will be often to use is the as to as length.

8. In plumbing there is two main length for pipe measurement, that are horizontal length and vertical length.
9. Pipe fittings are usually included in the cost analysis, so there is no need to calculate, unless for a several type like valve, water hammer, flexible joint system.
10. For electrical work, especially in lighting installation, the length of the cable is already included in the cost analysis, so there is no need to measure it.
11. In mechanical work, almost all of the installation just needs to calculating the installation point, because the price of that material includes the accessories that needed for installation.

VOLUME RECAP				
Floor	Formwork (m2)	Concrete (M3)	Rebar (KG)	Ratio
Bore Pile	912,00	458,19	54503,05	118,95
Pile Cap	484,64	346,11	23358,62	67,49
Tie Beam	500,65	73,64	13506,20	183,40
Column	1992,48	435,69	81895,78	187,97
Beam	5070,64	749,51	185241,83	247,15
Slab	4953,39	649,82	91049,46	140,12
Stairs	136,17	14,49	2819,41	194,52
Pit Lift	111,92	25,35	2613,05	103,07
TOTAL	14049,96	2727,46	454987,39	166,82

12. According to the volume recap above, the ratio between all concrete and all rebar of this project is 166,82 Kg/M3

4.2 Suggestion

In making the final assessment there are several suggestions that need to be conveyed, including the following:

1. In calculating the volume (taking off), as a Quantity Surveyor is expected to be able to perform detailed calculations in accordance with the existing working drawings.

2. There are so much application that can help to measuring the work of building easier, like planswift, cubicost, etc. Learn it to find the easiest and fastest method of measurement.
3. In preparing the Time Schedule, it must take into account the resources and construction work methods used.
4. Preparation of cash flow must be in accordance with the existing time schedule so that the cash flow is as desired, the accuracy of the time schedule is things that must be considered in the preparation of cash flow.

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