



TALLINNA
TEHNIKAÜLIKOO

Ehituse ja arhitektuuri instituut

TARTU ŌHTUKAARE KORTERELEMUTE ARENUSPROJEKTI ANALÜÜS

Analysis of the Ōhtukaare residential development project in Tartu
EA70LT

Üliõpilane: **Inna Paulus**

Juhendaja: **Tiina Nuuter**

Tallinn, 2017.a.

SISUKOKKUVÕTE EESTI KEELES:

Magistritöö eesmärgiks oli analüüsida Tartus ehitatud Ōhtukaare korterelamute arendusprojekti ning selgitada välja, kas peatöövõtja poolt esitatud hinnapakkumine arendusprojekti ehitamisele, on piisavalt kasumlik nii peatöövõtjale, kui ka tellijale.

Tehti Tartu linna eluasemeturu analüüs, milles selgus, et vaatamata inimeste arvu vähenemisele, on ehitustööd Tartu linnas küllaltki aktiivsed, kuna inimesed soovivad kolida vanadest majadest uutesse kortermajadesse. Samuti selgus, et kesklinna ja selle lähedal olevad elamuarendused on võrreldes äärelinna ja eeslinnaga oluliselt kallimad ning see on põhjuseks miks inimesed ostavad Tartu linnapiiril olevaid uusarendusi. Seega enamus uusarendusi, mis hetkel müükse, asuvad just äärelinnas ning mille ruutmeetri müügihind on vahemikus 1136-2055 eurot (hinnad sisaldavad käibemaksu). Antud hinnavahemikku jäab ka Ōhtukaare kortermajade keskmise ruutmeetri hind, milleks on 1724 eurot.

Arendusprojekti maksumuseks on arvestatud 3 147 399 eurot, millest krundi ja ehitusmaksumus on 2 905 000 eurot ning ülejäänud 242 399 eurot on tegevuskulud. Projekti finantseeriti 65% ulatuses 2 aastase pangalaenuga. Koostati arendusprojekti rahavoogude tabel, kus on näha, et oktoobrikuu seisuga on arendaja kahjumiks 235 723 eurot. Kui müümata korterid ja parklakohad lõplikult maha müükse planeeritud müügismärgi (495 750 eurot), siis arendusprojekti kasumiks oleks 8,3%, mis on 255070 eurot. Ōhtukaare arendusprojekti hindamise tulemuseks saadi puhas nüüdisväärtuseks 131 237 eurot, mis on suurem kui null. Projekti sisemine tulumäär on 12%, mis on kõrgem 5% diskoneerimismäärist. Kasumiindeks on 1,1, mis on suurem kui 1. Arvutuste põhjal võib järelidata, et antud projekt on tulus.

Ehitusmaksumuse tulemuseks saadi 2 254 520,70 eurot, mis sisaldab lisa - ja muudatustööde maksumust. Tellijaga oli sõlmitud leping töödele kogumaksumusega 2 395 000,03 eurot, mis ei sisaldanud tellija reservi. Tööde lõppedes esitas peatöövõtja tellijale lisa- ja muudatustööde akti summas 45 284,23 eurot, millest 35 851,23 eurot aktsepteeriti tellija poolt. Kokku tasus tellija koos muudatustöödega peatöövõtjale 2 430 851,23 eurot. Peatöövõtja kasum koos makstud reserv summaga on kokku 7,25%, mis on 176 330,56 eurot.

Enamus ehitusse kaastatud alltöövõtjad tegid madalama hinnapakkumise. Samas kaasati ka alltööpakkujaid, kelle pakutud hind on kõrgem, kuid kellega on tehtud koostööd mitu objekti järjest ning kelle töökvaliteedis ja koostöös pole peatöövõtja pidanud pettuma - nendega lepitakse kokku pärast hinnapäringuid tööhind, millega leping sõlmitakse. Samuti selgus, et alati pole parim variant sõlmida leping kõige odavama ja tundmatu alltööpakkujaga, kuna see on risk, mis võib tuua suurt kahjumi. Pigem valida alltööpakkuja, kes pakkus kõrgema hinna ja kelle töökvaliteedis ja tööjõudluses ollakse kindlad, kuna selline valik taandab peatöövõtja riske nii rahaliselt kui ka ajaliselt.

Kokkuvõttes on arendusprojekt tulus, kui arendaja saab müüdud ülejäänud müümata korterid ja parkimiskohad hetkel pakkumises oleva hinnaga, siis on arendaja kasum 8,3%. Peatöövõtja projekti kasum on 7,25%.

SUMMARY OF MASTER THESIS:

The aim of this Master's thesis was to analyse the apartment building development project for the Ōhtukaare region in Tartu and to find out whether the bid submitted by the main contractor for the construction of the development project, drawn up by the cost accountant, is profitable enough for both the main contractor and the contracting entity.

An analysis was carried out on the residential housing market in Tartu, which revealed that despite the decrease in citizens, construction work in the city of Tartu is quite active, as people want to move from old houses to new apartment buildings. It also revealed that the residential developments in the city centre and nearby are significantly more expensive compared to the outskirts and suburbs, which is why people buy new residential developments at the Tartu city border. Thus, most of the new developments that are currently sold on the market are located in the suburbs, with a square meter price from 1,136–2,055 euros (prices include VAT). The average price per square meter in the Ōhtukaare apartment buildings – 1,724 euros – is in this price range.

The cost of the development project is estimated at 3,147,399 euros, which covers the plot and construction cost – 2,905,000 euros – and operating expenses – 242,399 euros. 65% of the project was financed with a 2-year bank loan. A table of cash flow of the development project was created, which reveals that as of October, the developer is at expenses of 235,723 euros. If the remaining apartments and parking lots are sold at the planned prices (495,750 euros), the development project would have a profit of 8.3%, which is 255,070 euros. The evaluation of the Ōhtukaare development project resulted in a net present value of 131,237 euros, which is greater than zero. The internal rate of return is 12%, which is higher than the 5% discount rate. The profit index is 1.1, which is greater than 1. Based on these indicators, it can be concluded that this project is profitable.

The cost of construction was calculated to 2,254,520.70 euros, which includes the costs of supplementary and alteration work. A contract was concluded with the contracting entity at a total cost of 2,395,000.03, which did not include the contracting entity's reserve. At the end of the works, the main contractor submitted an act of supplementary and alteration work in the amount of 45,284.23 euros to the contracting entity, of which 35,851.23 euros was accepted by the contracting entity. In total, the contracting entity paid 2,430,851.23 euros, including for the alteration work, to the main contractor. The main contractor's profit with the paid reserve is a total of 7.25%, which is 176,330.56 euros.

The summary table of the sub-contractors reveals that most of the sub-contractors, who carried out the construction of the Ōhtukaare apartment buildings, had made a lower bid. There were also sub-contractors whose bid was higher, but with whom the main contractor had worked with on several projects in a row and whose work quality and cooperation the main contractor has not have had to disappoint in – with them, a price is agreed upon after the price queries, after which the contract is concluded. It also turned out that it is always not the best option to conclude a contract with an unknown sub-contractor who offers the cheapest price, because this risk might lead to great losses. It would be wiser to choose a sub-contractor who offered a higher price, but in whose work quality and performance the main contractor can be certain of, because this choice reduces the main contractor's risk both in terms of finance and time.

In summary, the development project would be profitable if the developer succeeds in selling the remaining apartments and parking lots at the current price, making the developer's profit 8.3%. The main contractor's project profit is 7.25%.