

# Is Surveying on a Fixed Rate Contract possible? Our Experience

Remi SHARIR, Israel

**Key words:** Surveying Fixed Rate Contract

In this article we would like to share our experiences and present conclusions of an unsuccessful contractual agreement between ourselves (a small private firm of Land Surveyors, established in 1944 with three generations of Surveyors) and our client (a large Private Development Company).

We were hired by the Developing Company to do the Surveying Control work of a new development project in Israel's most southern city Eilat, (which has had a considerable amount of development and redevelopment over the last few years). These have included the building of completely new neighborhoods.

We were to perform surveying services on the works of the main Development Contractor and to provide surveying services for the Project Manager on one of these new neighborhoods, which consist of approximately 1600 building units (mainly housing) over an area of about 90 hectares.

The problems that have occurred have been due to the type of contract signed. It was a Fixed Rate Contract to be performed over an 18 month period. This led to a number of questions. Is it possible to do surveying work and get appropriate payments, when there is no form of counting of various elements measured (such as area, length, number of details, etc.)? What are the necessary conditions for succeeding in a project based on a fixed rate contract? How can the quality of the work be guaranteed, so that both sides will be satisfied and not feel deprived?

# Is Surveying on a Fixed Rate Contract possible? Our Experience

Remi SHARIR, Israel

## 1. INTRODUCTION

Eilat is situated on the Red Sea coast of Israel. The city has a population of about 70,000 inhabitants. Most of the city's income is based upon tourism with an emphasis being on the beautiful beaches and coral reefs just off the shore with Eilat promoting itself as an all year round destination because of its good weather. Also in recent years there has been a growth of tourist attractions and places for recreation. Eilat is also Israel's major sea port connecting to the Red Sea and onto the Indian Ocean and the East.

In this article we would like to share our experiences and present conclusions of an unsuccessful contractual agreement between ourselves (a small private firm of Land Surveyors, established in 1944 with three generations of Surveyors) and our client (a large Private Development Company).

## 2. THE PROJECT

We were hired by the Development Company (one of Israel's largest development companies) to perform the Surveying Control work of a new development project in Israel's most southern city Eilat, (which has had a considerable amount of development and redevelopment in the last few years). These have included the building of completely new neighborhoods.

We were to perform surveying services on the works of the main Development Contractor and to provide surveying services for the Project Manager on one of these new neighborhoods, which consist of approximately 1600 building units (mainly housing) and open public areas, over an area of about 90 hectares (900 dunam). This had been defined and controlled by the Local Area Plan for this project.

Individual maps of each plot within the development to include all of the infrastructure and services for the purposes of selling and developing the plots were to be prepared.

We were involved with the development and infrastructure stages of the project, involving the land preparation, ground works, roads, walls and all the services above and below ground.

## 3. CONTRACTUAL PROBLEM

In the past, when we have worked for the same Development Company with our contractual basis being agreed on a fixed rate, according to quantities of works such as:

For engineering jobs: number of control points, length of control network, number of details, areas of mapping etc.

For cadastral work: as above and as well as a price according the number of lots, the areas and the number of border points for each lot.

There was a change of personnel at the Development Company. With this change there arose a disagreement between us and the Development Engineer about the necessity of all the measurements and the level of detailing with the possibility of doing less work in order to save expenses.

Even though we saw this (in our professional judgment) as faulted, we preferred not to confront our client so we solved the disagreements one by one with compromises (we still carried out the measurements but didn't include them all in the bill).

Resulting from a request by the Development Engineer, it was decided that this project would serve as an experiment to try a different method of pricing surveying work. It was decided that our contract would be on a Fixed Rate Contract. This is an agreement in which each side of the contract agrees on a fixed final price for all work done without considering quantities.

We wish to note here that we had never tried this kind of contract before, for such an extended time and for such a large and involved project.

Since we had been working for this Company in Eilat at this site for the primarily stages of the development, dealing with all aspects of surveying, (such as the preparation maps, background for the Local Area Plan, plans for Legal Registration Maps, ground and earth works etc). We accepted the Company's suggestion to continue working for them on the project along the new contractual terms of payment.

The agreement was as follows: The payment will be Fixed Rate Contract with a list of tasks to be prepared and the payments according to the time planned for each stage.

Before the contract was signed a preparation meetings was held with the Development Engineer and the General Manager of the project in order to define the assignments and tasks to be performed. The company set up a time limit of 18 months for our work.

We decided upon the estimated number of days for each task in the field and office work. Our assumption was, as the project advanced then our work would shift from field work to office work. The last stage of our office work would be the completion of the "As Made" maps for each separate lot.

#### Negotiations Offer Number 1

We submitted our financial estimates for the tasks demanded in the time limit of 18 months. The price was based on the cost for a field team's work in the field and the surveyor's office rate, multiplied by the estimated number of days on site. Our financial offer was not accepted.

#### Negotiations Offer Number 2

A new evaluation was made of the number of days for field work and office work. The price was based on a different tariff and a second offer was made. Our financial offer was not accepted and the disagreement continued.

The company offered a price based on the budget intended for the surveying work which we accepted. We then negotiated the payments in relation to the tasks to be performed. The Company's engineers disregarded the estimates we presented regarding the working days

needed for fulfilling the tasks. They concentrated solely on the financial aspect. Since this was a Fixed Rate Contract without counting the quantities and number of days actually required to carry out the tasks (and assuming that all the tasks to be performed by the Project Manager would be carried out), we decided to accept the Company's offer, even though it was less than 50% of our estimate.

So we agreed, our work was therefore based solely on economic considerations.

#### 4. THE RESULT

The work started on July 2006, and was planned for a 12 month period with an (expected) extension of another 6 months.

##### **Still today (February 2009) the work has not been completed!**

The tasks as defined by the Project Manager for those 18 months have only been partially fulfilled. This was due to delays because of changes in the plans and the slow work of the contractors on the site.

The Development Engineer has asked us to keep working for this project beyond the time limit. Claiming that the tasks we had agreed upon have not yet been fulfilled. His position is that the payments we received along the 18 months were advance payments for the work until the end of the project.

##### **We are still working on site “Without Compensation”.**

At this present rate of work, we estimate that this will take another 12 more months after the initial 18 month period has lapsed in order to finish the project.

We think that for tasks executed after the time limit there should be additional payments based on either the extended period of the contract or per task.

The attempt to predefine the project scope/work and time considering the possibility of the project being prolonged, was unsuccessful because some of the tasks could not be fulfilled at all and some of them being dependent on the work of others such as planners and contractors, which were delayed.

As a result both sides of the Fixed Rate Contract are not satisfied with the outcome and will consider very carefully signing such contract in the future. It has not been possible to work in this manner without harming our professional standards.

#### 5. CONCLUSIONS

There are at least 3 conditions for performing surveying work under a Fixed Rate Contract, they should be adhered to:

- The contract should include a detailed list of tasks (not an undefined open list).
- The total amount and the schedule of payments according to the completion of works should be set.
- The time limit should be clear and definitive.

An appendix should be attached to the contract stating which should be made if the timetable and/or the tasks are changed for the following scenarios:

- The time period for the project is shorter/longer than planned.

- The project is discontinued.
- A system of payments should be established for any extra survey tasks not originally included in the contract..
- The contract should be linked to an agreed Government Index to accommodate any future unseen price rises/falls.

## 6. RECOMMENDATIONS

The Fixed Rate Contract system for survey work in a large scale project for an extended period of time - is not a recommended contractual type for surveying work.

A system of payments based on:

- known and accepted tariffs,
- counting details, areas or the size of control networks lengths and number of points,
- a flat rate for each field and office day.

Using one or a combination of the above seems more suitable.

In any system of payment it is most important to keep the high professional standards and not to compromise on "The Standard of Work According to the Price".

Surveying work for economic considerations should be avoided.

Our office will probably never sign a Fixed Rate Contract again.

## BIOGERAPHICAL NOTES

**Remi Sharir** was born in Jerusalem, Israel in 1933

Remi first started working as a Surveyor over 48 years ago working with his father Moshe Sharir, who was a Licensed Surveyor. Moshe started work with the British 'Palestine Government' in 1924 and was one of the 'Original Pioneer Surveyors' mapping Israel.

Remi's oldest son Dan now continues the family tradition. Dan has been a Licensed Surveyor for more than 12 years, he is also a Geodetic Engineer, Civil Engineer and a Supervising Surveyor.

Remi has worked in every aspect and field (almost literally every field in Israel) of surveying and at the age of 75 still enjoys going out and performing the field surveys. Remi has worked with all the types of equipment (from Chains to GPS) and experienced the changes and developments in the profession over the years. He now enjoys the advancements in technology and especially with the new GPS RTK surveying systems.

He has also been a member of the Association of Licensed Surveyors in Israel for 39 years and has held various positions within the Association, such as the Deputy Chairman and the Head of the Independent Surveyors.

Remi would be happy to receive any contact in the future and would like to wish the Profession good luck over the coming years.

## CONTACTS

Remi Sharir  
Sharir Licensed Surveyors  
3 Lloyd George Street  
Tel-Aviv  
65220  
ISRAEL  
Tel . + 972 (0)3 5611851  
Email: [dan\\_it2@netvision.net.il](mailto:dan_it2@netvision.net.il)