DESIGN OF A CITY PARK FOR MUSKEGON HEIGHTS, MICHIGAN

THESIS FOR THE DEGREE OF B. S.

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SUPPLEMENTARY MATERIAL IN BACK OF BOOK

Design of a City Park

for

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by

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The population of the city of Muskegon Heights, Michigan, consists mostly of the laboring class of people. The inhabitants are employed chiefly by the automobile and furniture industries. There is very little farming done in this part of the state. The land is mostly sand blown from the sand dunes along Lake Michigan. There are a few fruit and berry farms. Also some vegetable and celery farms in the lowlands by the lakes and rivers. These furnish only a small percentage of the population an occupation. The balance seek work in the city.

In early days Muskegon and Muskegon Heights were the center of the lumbering industry of the world. Where they now stand used to be a great pine forest. As time went on, the lumber industry began to disappear and the once thriving communities began to die. The people, realizing this, started to look toward new industries which would take the place of lumbering. Due to the location of the cities and their easy access to transportation facilities, both by rail and water, the iron industry was introduced in this vicinity. It thrived slowly at first, but it soon had a firm hold and the growth of the twin cities began to increase rapidly. Today they are the leading communities on the eastern shores of Lake Michigan.

From the very beginning, the people of Muskegon Heights showed great thought when planning the city. The streets are laid out in a fairly regular rectangular or gridiron system. In the original layout, there was a parcel of land set aside for park purposes. This was known as South Park. It was two blocks wide and one block long. The parks site was bounded on the north by Hovey Avenue, on the south by Irma Avenue, on the west by Sixth Street, and on the east by Jefferson Street. It was located in the north central part of the city, and would have been easily accessible

from all parts of the city. It was a very good park site and would have been a credit to any city.

In 1940 the board of education passed a resolution to build a new high school for Muskegon Heights. The site on which the old one stood was inadequate, so they asked the city if the park site could be secured. The city council voted favorably and it was put to the vote of the people. The people also voted in favor of the new high school and its location. That meant the end of a beautiful park for the city of Muskegon Heights.

Today the city is pretty well built up, and there is no place available for so large a park to be as centrally located as the original site. There remains however, one small site in the heart of the city which could be changed to a small park. It is located on Broadway Avenue, between Baker Street, and Moffet Street. The plot is about 100 feet deep and about 280 feet wide. It could be easily graded and landscaped to serve the purpose of a small park. The plot is centrally located and would make a very enjoyable place to spend the evening after a hard day's work.

With this thought in mind, a study was made of the necessary improvements and costs as well as the advisability of such an improvement. The park site was surveyed by the transit and tape method, and a topographic map of the property was drawn. The necessary information with regard to elevations of walks, streets, and bench marks was obtained at the office of the city engineer, Mr. Gamble. As a part of this thesis the following work is to be done for the city of Muskegon Heights, Michigan, at the estimated costs shown on sheets following this writeup.

In the layout of the park it can be seen that most of the trees have to be transplanted to fit the general plan of the park. The trees are all second growth oaks, well developed, and ranging from 6 to 8 inches in diameter. A landscape architect suggested that they be used for park

purposes and offered to transplant them at a fair price. There are fifty trees on the plot and they are to be arranged into the positions shown on the plan of the park.

The next operation consists of grading of the park site. From the topographic map, it can be seen that the plot is fairly level, except for a low spot in the west and south central section. Here it is necessary to do some filling. Also the ridge along the north end of the plot had to be cut down to the elevation of the sidewalk, which is 95. Since the soil is real sandy it is unnecessary to design a tile drainage system. The simplest method of taking care of the drainage is to grade the plot in the shape of a truncated pyramid. The center is to be at least one foot higher than the sidewalks. This will make the elevation of the center 96. The amount of cut in the plot will be insufficient to make the total fill. It will be necessary to obtain some free earth to complete the grading.

The park is to have a fountain in the center. This will require the installation of a water system. Water pipe has to be laid in each of the four sections for sprinkling purposes. Two drinking fountains are to be installed opposite each other, at the edge of the concrete circle in the center of the park. All of the work of installing pipe and fixtures is to be done by the city water department.

Simultaneously with the installation of the water system, the conduits for the park lights are to be laid. There are thirteen lights to be placed as shown on the park plan. This does not include the ones on Broadway which are already in place. The lights have an ornamental cast iron standard with a single globe at the top. They are of the same type as those on Broadway Avenue.

After all of the underground work is completed the park will be ready for concrete construction. Forms have to be laid for the crosswalks, and the walk along the southern boundary of the park. The forms for the circular center and the base of the fountain are to be laid integral with the sidewalk forms. The concrete is to be poured immediately after the forms are laid. This work is all to be awarded to the lowest bidder on the job.

The concrete is to be allowed to cure at least seven days. After the curing period has elapsed the fountain in the center of the park is to be assembled. This will include the connection to the water system in the park. The work is all to be done by the firm giving the most satisfactory bid on the installation of the desired park fountain.

Since the soil is very sandy, it will prove more economical to sod the park rather than to attempt sowing it with grass seed. Sod is quite prevalent in the lowlands along the rivers and lakes, and can be obtained at a reasonable price. This work will also be awarded to the lowest bidder.

The final major job consists of landscaping the center of the park with suitable shrubs. The choice of shrubs is to be left to the landscape architect offering the lowest bid on the work. This marked the completion of the general work on the park. One dozen all steel park settees are to be purchased and placed about the park.

At the present time, the city of Muskegon Heights, Michigan, does not have a park commissioner. Mayor Bartels has already indicated that he will appoint Mr. Jamble, the city engineer, to fill this office. He will have complete supervision over all of the work done in the developing of this park for Muskegon Heights, Michigan.

Engineer's Estimate on Cost of Park

Cost of Transplanting Trees

Cost per tree

Cost of labor (4 men)	$16.00	
Cost of tractor & equipment (inc.driver)	14.00	
Total cost per tree	30.00	
Total cost of transplanting 50 x $30		$1500.00

Cost of Earthwork

Sample computation: (Using borrow pit method and taking 100 foot square area in southwest corner of park)

$$V = 10{,}000 \times \frac{18 + 2 + 2 + 18}{4} = 10{,}000 \times .64 =$$

6,400 cu. ft.

6,400 cu. ft. = 240 cu. yds. of fill

Cost of cut = $.30 per cu. yd.

Cost of fill = $.50 per cu. yd.

Total cost of cut. = 125 x .30	$37.50	
Total cost of fill = 1165 x .50	582.50	
Total cost of earthwork		620.00

Cost of Installing Water in Park

Cost of drinking fountains = 2 x $25.00	50.00	
Cost of 1" cast iron pipe (.10 per ft.) 650	65.00	
Cost of fittings	10.00	
Cost of labor	30.00	
Total cost of installing water system		155.00

Cost of Park Lighting System

(Cost per light)

Cost of light	50.00	
Cost of labor	15.00	
Cost of conduit	10.00	
Total cost per light	75.00	
Total cost of lighting system (15 lights)		975.00

Cost of Concrete Work

Cost per sq. ft. of 5 inch concrete = $.25

Cost of 5,830 sq. ft. 1460.00

Cost of Fountain

One fountain with 20 foot circular basin, concrete base, marble coping and pedestal, and a bronze statue mounted on pedestal	700.00	
Cost of labor for installation	50.00	
Total cost of Fountain		750.00

Cost of Sodding

Cost of sod	.10 per sq. yd.	
Cost of labor	.30 " " "	
Cost of sod per sq. yd.	.40	
Total cost of sod = 4,360 sq. yd. x 40		1744.00

Cost of Shrubs

Berberis Thunbergi (Japanese Barberry)	30.00 per 100 shrubs	
cost of labor	20.00	
Total cost of shrubs		50.00

Cost of Park Settees

One dozen all steel [redacted] ees @ $7.50 each	90.00

Miscellaneous Costs

	756.00
Total estimated cost of park for Muskegon Heights, Michigan	$8,100.00