MARKETING RESEARCH REPORT NO. 664

MILWAUKEE WHOLESALE FRESH FRUIT AND VEGETABLE MARKET FACILITIES

TRANSPORTATION AND FACILITIES RESEARCH DIVISION
U.S. DEPARTMENT OF AGRICULTURE•AGRICULTURAL MARKETING SERVICE
IN COOPERATION WITH THE WISCONSIN STATE DEPARTMENT OF AGRICULTURE

CONTENTS

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The work was conducted under the general supervision of William C. Crow, Director, Transportation and Facilities Research Division, Agricultural Marketing Service. Robert L. Holland provided special assistance in collating data for the study. A. B. Lowstuter prepared and designed the architectural features of the facilities. Catharine A. Perry, Agricultural Marketing Service, prepared a scale model of a wholesale unit, showing layout and equipment arrangement. The model is being used by city and industry planners.

SUMMARY

This report is designed to assist in planning and providing wholesale food facilities which will replace present facilities rendered unsuitable for operation as a result of highway improvement. This report presents guides for constructing an efficient modern wholesale fresh fruit and vegetable market in a convenient location.

Twenty-three independent wholesalers in Milwaukee received a total of 153,890 tons of fresh fruits and vegetables in 1962. Of this total, a little over 60 percent arrived by truck and the remainder by rail. These firms handle more than $20 million (wholesale value) worth of fresh fruits and vegetables annually. Eighty-nine percent of this amount was delivered within the greater Milwaukee area.

Among the inadequacies of the present market are: Inefficient and outmoded multistory buildings, lack of rail connections, and narrow streets. These, and other factors, have led to high costs of operation which have made it difficult for operators to remain in business.

In plans developed for new facilities, there are 2 multiple-occupancy buildings, each containing 26 units. Each unit is 25 feet wide and 100 feet deep, with 14-foot covered front and rear platforms. The new facilities would have 152,100 square feet of space, including restaurant facilities. This is about 80 percent of present total space. Double railroad tracks behind the buildings would handle 52 cars. A paved street, not less than 200 feet wide between the 2 multiple-occupancy buildings, is provided. In addition, parking space for approximately 195 vehicles is suggested. Expansion areas permit construction of additional facilities to meet future requirements. The total cost of the new facilities will be $1,596,000.

The fresh fruit and vegetable facilities and expansion space would require about 20 acres of land. Four sites have been examined in this report: Wauwatosa, Granville Township, North 76th Street, and Mitchell Field. The total cost of land for the required acreage would be about $130,000. The entire project--land and facilities--would cost about $1.7 million.

Rent for the new facilities would be about $177,500 more than for the old facilities. It may be possible to reduce the cost of amortization and other operating costs which affect rents through municipal-supported assistance. The increase in rental charges would be offset by reductions in measurable costs. After the allowance for increased rents, it is estimated that annual net savings of $56,000 would be possible.

Estimated savings would accrue principally from cost reductions introduced by efficiencies in the handling operation and from substantial savings in cartage costs. Additional benefits would accrue to workers, dealers, buyers, and consumers. Local Wisconsin producers and surrounding areas would benefit from having an organized market for their produce. In addition, the local governments would benefit from higher tax revenue, simplified enforcement of fire, health, and sanitary regulations, and improved traffic flow. Consumers would benefit by having better quality merchandise.

MILWAUKEE WHOLESALE FRESH FRUIT AND VEGETABLE MARKET FACILITIES

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BACKGROUND OF THE STUDY

The wholesale fresh fruit and vegetable market of Milwaukee is divided into two areas: The Broadway Street market, located at Broadway and Detroit Streets, and Central Market, at Fifth and Vliet Streets.

In Milwaukee, as in other market areas of the country, wholesale fresh fruit and vegetable facilities which many dealers occupy were neither designed nor intended to be used for wholesale food distribution. Many of the present facilities were built before modern motor and rail transportation was available.

Far-reaching changes have occurred in the distribution of fresh fruits and vegetables in the past 15 years; more will undoubtedly come in the future. In light of this situation, improvements in the suitability and adequacy of Milwaukee facilities for handling fresh fruits and vegetables will be outlined in this report.

In the fall of 1963, this study was undertaken at the request of the city of Milwaukee and the Milwaukee Fresh Fruit and Vegetable Advertising Council, in cooperation with the Wisconsin State Department of Agriculture. The purpose of the report is to assist in planning and providing wholesale food facilities to replace those facilities rendered unsuitable for operation as a result of highway improvement.

The downtown area, known as the Broadway Street market, or "commission row", which has been the center of wholesale fresh fruit and vegetable marketing activity in Milwaukee for more than 60 years is scheduled for redevelopment. The initial phase of the plan is to widen and improve North Broadway Street, the main market thoroughfare between East Clybourn and East Erie Streets. North Broadway will become a one-way street southbound. North Milwaukee Street will become a one-way street northbound. This will prohibit parking at 90 degree angles to the sidewalk for loading in the present market area, require the removal of sidewalk canopies, and eliminate storage areas under the sidewalks.

A resolution by the Common Council will revoke the special parking and storage privileges at the present location so that improvements may be carried out soon. Due to the urgency of the problems facing the Milwaukee fresh fruit and vegetable dealers, this study does not encompass all food commodities and is directed primarily to the immediate relocation problems facing these operators.

This study has the following objectives:

- To analyze the present wholesale fresh fruit and vegetable operations in Milwaukee.
- To estimate the major costs of handling fresh fruits and vegetables under present conditions.
- To determine facilities and possible sites needed for efficient wholesale marketing of these products.
- To estimate the cost of constructing new facilities.
- To estimate potential savings or benefits which may accrue from any suggested improvements.

Data in this report, unless otherwise noted, are for the year 1962. Data were obtained primarily through interviews with the fresh fruit and vegetable wholesalers, railroad officials, representatives of the city or other governmental bodies, and other interested persons. No attempt was made to study the entire food-distribution structure in the city, but only that part which is associated with the wholesale distribution of fresh fruits and vegetables. Cost estimates are rounded in the text; exact figures from computations appear in the tables.

IMPORTANCE OF THE WHOLESALE FRESH FRUIT AND VEGETABLE INDUSTRY IN MILWAUKEE

The greater Milwaukee area (defined in 1/) is comprised of Milwaukee and Waukesha counties and contains the cities of Milwaukee, Wauwatosa, Waukesha, and West Allis. In 1960, the population was 1,194,000. 1/ Milwaukee is a commercial, industrial, manufacturing, and shipping center which ranks among the first five Great Lakes ports in value of waterborne commerce. It is the largest city and chief port of entry for Wisconsin and the county seat of Milwaukee County. Rural land is devoted to farming, dairying, and recreation. The corporate city limits comprise about 44 square miles.

1/ U. S. Bureau of the Census. U. S. Census of Population, 1960. General, Social, and Economic Characteristics, Wisconsin. Final Report PC (1)-51C. 296 pp. U. S. Govt. Printing Office, Washington, D. C., 20402. 1961.

Highway access is by U. S. 41 and 45 on the south and northwest; U. S. 16 and 18 on the west; and U. S. 41 and 45 and U. S. 141 on the north.

Rail service is provided by the Chicago, Milwaukee, St. Paul and Pacific Railroad and the Chicago and Northwestern Railway. Air and ship service are also available. Figure 1 shows existing and proposed transportation networks.

NUMBER OF DEALERS AND VOLUME OF PRODUCE HANDLED

The importance of the city of Milwaukee as a wholesale fresh fruit and vegetable market is affected by its proximity to Chicago, because it lies in the distribution area of Chicago. However, the service provided by the independent wholesalers and their ability to maintain quality merchandise has prevented Milwaukee from declining in produce distributive importance.

A total of 23 independent operators, including 2 prepackaging firms who handle fruits and vegetables, are included in this study. There are 14 wholesale fresh fruit and vegetable dealers in the Broadway Street market and 9 other wholesalers operating from various locations throughout the city.

In 1962, a total of 359,730 tons of fresh fruits and vegetables moved through Milwaukee distribution channels. (table 1) Six chain-stores accounted for 205,840 tons of this volume. These data were obtained so that the overall industry could be evaluated and the magnitude of this industry could be shown as well as the proportion of business handled in the city by independent wholesalers. Most of these food-chains are housed in relatively new facilities or are in the process of constructing modern facilities. They, therefore, are not contemplating relocation to a centralized market, and consequently will not be listed on subsequent tables, nor will references be made to them in later sections of the report.

The volume of wholesale fresh fruit and vegetables handled by the independent dealers amounted to 154,000 tons. About 62 percent of direct receipts, or 95,000 tons, arrived by truck. About 19,000 tons, or a little over 12 percent of the total independent volume handled, originated in Chicago. Table 1 shows the number of dealers and the estimated volume of direct receipts.

Of the 23 independent wholesale fresh fruit and vegetable dealers in the city, 12 were service wholesalers, 6 were commodity specialists, and 5 were receivers.

Service Wholesalers were receiver-jobbers purchasing over half their merchandise from shipping points, while the rest came from other wholesalers. They generally receive merchandise in pool car shipments, or less than full truckloads. The majority of incoming receipts are handled through their facility. Over half their sales are to retail stores or institutional outlets, with little emphasis on sales to chain-store warehouses.

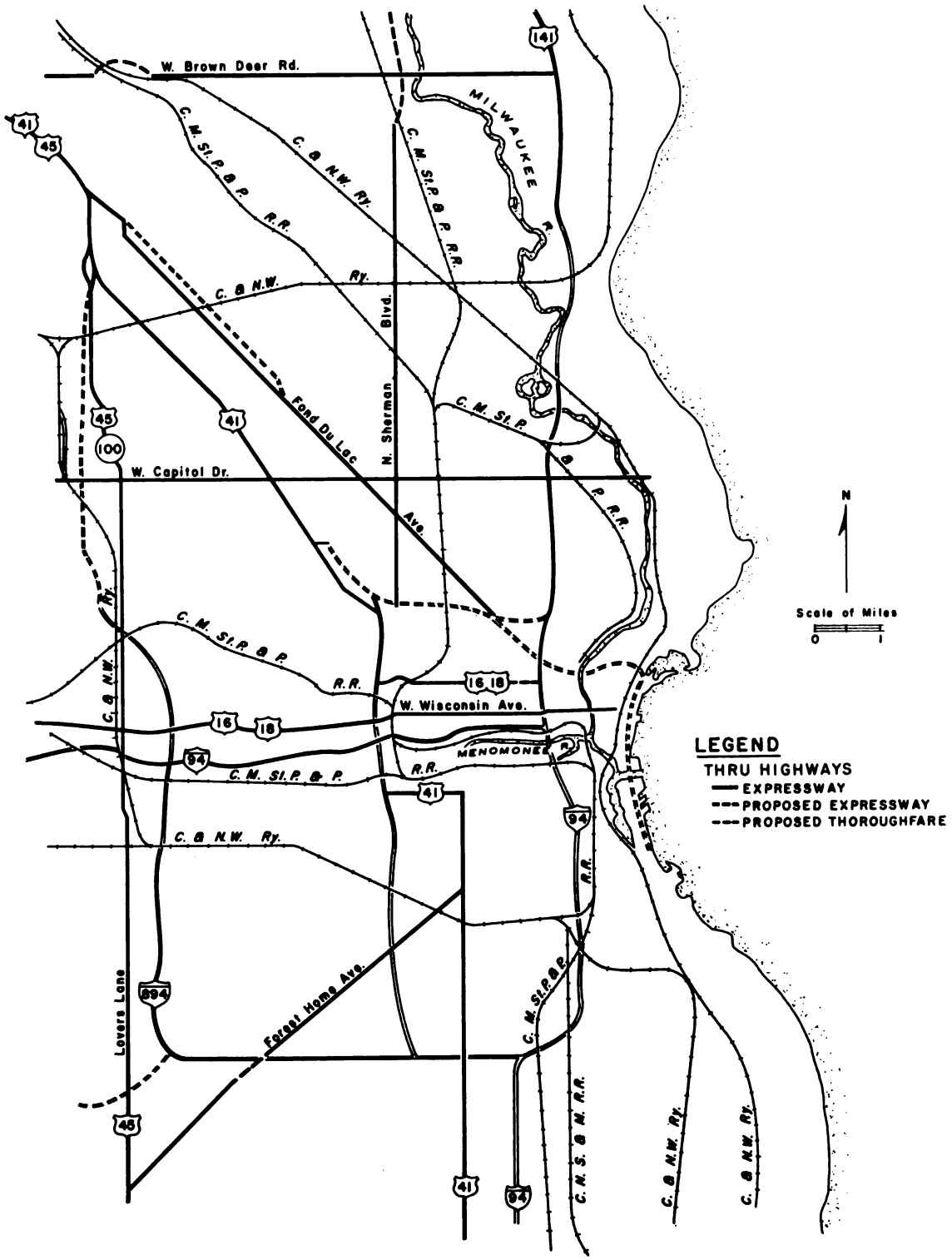

Figure 1.--Existing and proposed transportation networks.

Table 1.--Number of fresh fruit and vegetable dealers and estimated volume by method of receipts, 1962

Type of wholesaler	Dealers	Volume		
		Rail	Truck	Total
	Number	Tons	Tons	Tons
Fresh fruits and vegetables:				
Receivers	5	37,625	39,951	77,576
Service wholesalers	12	11,478	40,164	51,642
Commodity specialists	6	9,650	15,023	24,673
Total 1/	23	58,753	95,138	153,891
Food-chain warehouses	6	76,702	129,137	205,839
Grand total 2/	29	135,455	224,275	359,730

1/ Does not include intramarket transfers.
2/ Does not include volume handled by farmers' market.

Commodity Specialists were firms specializing in prepackaging fresh fruit and vegetables, ripening, storing, and repacking of tomatoes and bananas, or the storage and merchandising of potatoes. These firms may purchase from local sources. However, purchases are usually direct from shipping points. They distribute to chainstores, other wholesalers in the city, and to retail and institutional outlets.

Receivers were firms purchasing for their own account, usually in full carlots or truckloads direct from the shipping point. These firms were larger volume operators and a greater portion of incoming shipments were by rail. Direct receipts accounted for more than half of their purchases. Some merchandise bypasses the facilities and is delivered directly to the customers. These dealers usually perform the physical function of unloading and handling in their facilities or at the team tracks. More than 50 percent of their sales are to other wholesalers, chain-store warehouses, or processors.

PRESENT MARKETING FACILITIES

Of the 23 independent fresh fruit and vegetable firms, 14 are located on the Broadway Street market, 5 are located in the area surrounding the Central Farmers' market, and 4 are scattered at various locations in the city (fig. 2).

Broadway Street Market

The facilities of the dealers on Broadway Street are multistory buildings averaging three stories, most of which were constructed before the turn of the century. A few buildings are equipped with slow freight elevators, which in

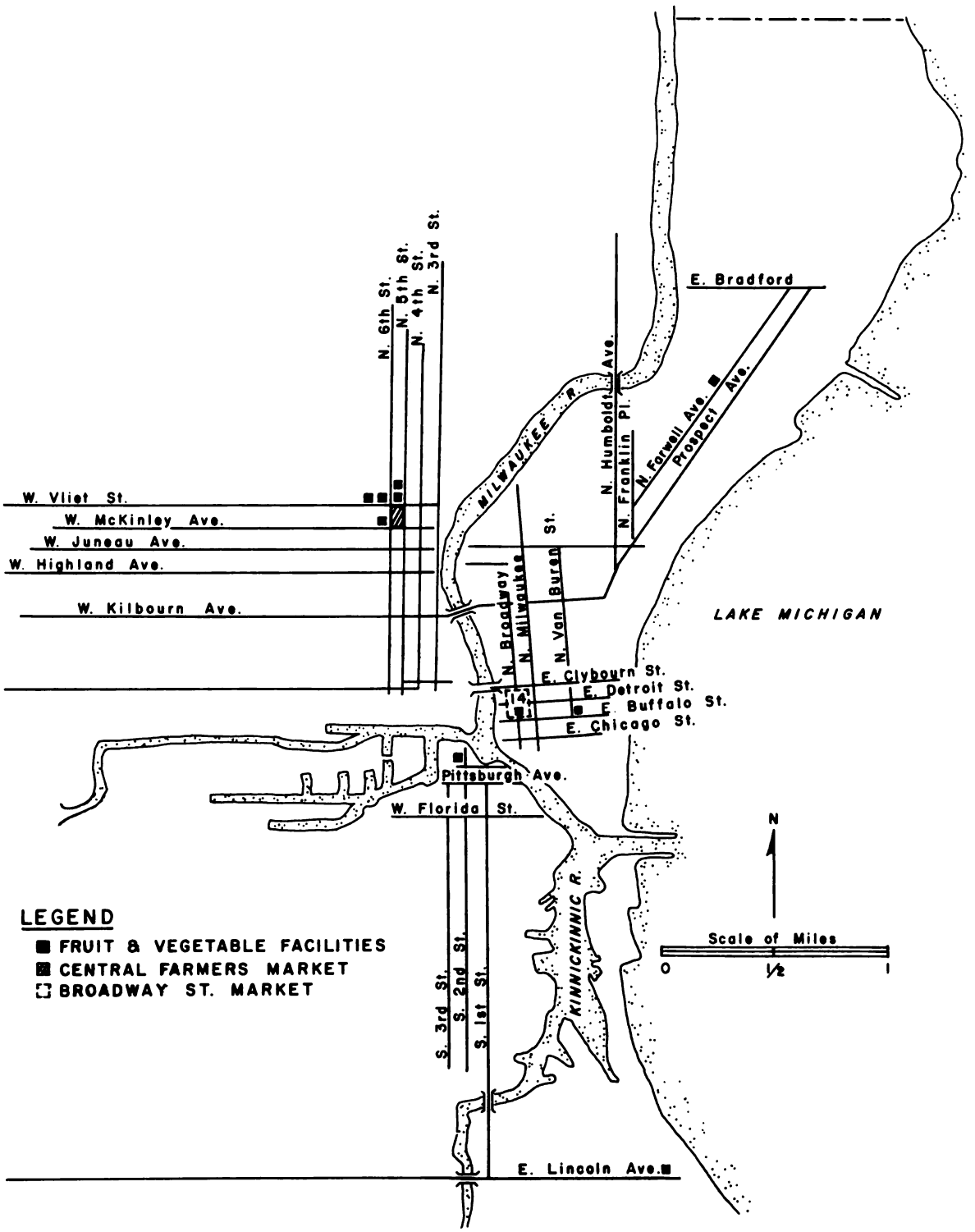

Figure 2.--Location of firms in Milwaukee.

some instances have been condemned. Stairways to upper floors are usually steep and narrow. Space above the first floor is not fully utilized and unused sections tend to accumulate trash. Basements are used for heating or refrigeration equipment, cooler space, banana rooms, or general storage. A few dealers use basement space located under the sidewalks for banana rooms or general storage. The city has ordered these subsidewalk areas closed off and filled, in preparation for the street widening project.

The typical facility is a row-type building of brick or frame construction; each section occupied by a firm. The sections vary in width from 16 to 60 feet and from 60 to 120 feet in depth. The facilities have no front platforms. The sidewalk is about 18 feet wide from building to curb. Sidewalk space is used extensively for shipping, receiving, and product display. A wooden or corrugated metal canopy over the front sidewalk provides limited protection. This canopy has been ordered removed in preparation for street widening.

Because a narrow alley restricts access, only four dealers loaded or unloaded merchandise through the rear of their facilities. Not only are produce dealers' stores effectively blocked when attempting to use rear platforms, but nonproduce firms are denied access to their facilities. It should be emphasized that none of these firms is served by direct rail.

The 14 firms on the Broadway Street market occupy 123,750 square feet of floor space, or average 8,840 square feet each. Of this total, 33 percent, or 41,300 square feet, is first-floor space. This does not include sidewalk and platform space. Refrigerated space amounts to 11 percent of total space, or 14,200 square feet. Total office space is 4 percent of total space, or 5,670 square feet. The remaining 52 percent, or 62,580 square feet, represents basements and above first-floor space.

Ten firms rent and four firms own their facilities. Pictures of typical fresh fruit and vegetable facilities may be seen in figures 3A and 3B.

Other Facilities Within the City

Eight of the nine fresh fruit and vegetable dealers not occupying space on North Broadway Street maintained single-story operations. Basements, if used, generally contained heating and refrigeration units, equipment, and general storage space. Four of the nine firms utilized dock or platform space. Three of these firms were served directly by rail.

The firms occupying scattered facilities had 57,790 square feet of floor space, or an average of 6,420 square feet each. Of this total, 66 percent, or 37,930 square feet, was first-floor space which excluded sidewalk or platform area. Refrigerated space amounted to 14 percent of total space, or 7,900 square feet. Office space amounted to 4 percent of total space, or 2,170 square feet. The remaining 16 percent, or 9,790 square feet, represents basement, or above first-floor area.

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Figure 3A.--Broadway Street market showing 90-degree angle parking which is to be revoked in order that improvements may be carried out.

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Figure 3B.--Illustration of sidewalk canopies and selling and display area which must be removed in preparation for street widening.

Farmers' Market

There are six municipally owned markets in Milwaukee: The central farmers' market and five other city-owned markets. Farmers' market sales were made by local producers at the central market which covers one city block. The entire area is paved and shed space is available.

In 1962, the average truckload at the central market was about 2,500 pounds, while the average load on the outlying neighborhood markets was about 1,000 pounds per load. 2/ More than 9,000 tons of fresh fruits and vegetables moved through these markets during the year.

Three markets operated 6 days per week and handled an average of 30 loads per day, while 3 other markets conducted business 3 days per week and averaged 11 loads per day. Farmers' market volume has not been included as a part of total volume. No further reference will be made concerning them in later sections of the report.

All Independent Fresh Fruit and Vegetable Facilities

The total space used by all independent fresh fruit and vegetable dealers in Milwaukee amounted to 181,500 square feet. Of this total, 82,700 square feet, or 45 percent, was first-floor space, excluding sidewalk and platform space. Refrigerated space of these firms amounted to 22,110 square feet, or 12 percent. Office space amounted to 7,840 square feet, or 4 percent of the total. The remaining 68,890 square feet, or 38 percent, represents basement or above first-floor area. Of the 23 dealers operating from 24 facilities, 17, or 74 percent, rented their facilities, while 6, or 26 percent, owned the facilities they occupy. Table 2 shows the amount and type of space and the tenure status of the 23 independent fresh fruit and vegetable wholesalers.

SOURCE OF SUPPLY

Fresh fruit and vegetables handled by 23 independent wholesalers originated from local sources, other firms within the State, and sources outside the State. Eighty-one percent, or 124,818 tons, constituted direct receipts of commodities from outside the State, which arrived by rail and truck from 43 States and several foreign countries. California, Florida, Arizona, Michigan, Idaho, Washington, Texas, and Colorado were the principal supply areas. 3/ Receipts from Chicago accounted for about 12 percent of the total volume handled. In 1962 about 19 percent, or 29,070 tons, of the fresh fruit and vegetable volume came to Milwaukee from points within Wisconsin. A large portion of this

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2/ Supplied by the Bureau of Weights and Measures, City of Milwaukee.

3/ U. S. Dept. Agr., Agr. Mktg. Serv. Fresh fruit and vegetable unloads in Midwestern cities, 1962. AMS-492, 132 pp. 1963.

Table 2.--Tenure status and space used by type of wholesaler for 23 fresh fruit and vegetable dealers, 1962

Type of wholesaler and space usage	Tenure status		Space used	Average per wholesaler
	Rent	Own		
	Number	Number	Sq. ft.	Sq. ft.
Receivers:	4	1		
Refrigerated			10,523	2,105
Office			3,104	621
First-floor			16,030	3,206
Other 1/			20,423	4,085
Total			50,080	10,016
Service wholesalers: 2/	9	3		
Refrigerated			4,486	374
Office			3,016	251
First-floor			38,240	3,187
Other			26,978	2,248
Total			72,720	6,060
Commodity specialists:	4	2		
Refrigerated 3/			7,101	1,183
Office			1,724	287
First-floor			28,431	4,738
Other			21,487	3,581
Total			58,743	9,790
All wholesalers:	17	6		
Refrigerated			22,110	961
Office			7,844	341
First-floor			82,701	3,596
Other			68,888	2,995
Total			181,543	7,893

1/ "Other uses" includes basement and above-first-floor storage areas.
2/ One firm owns and rents two separate buildings.
3/ Includes refrigeration under construction.

tonnage was accounted for by local production, especially potatoes, lettuce, and apples. The interdealer movement 4/ of 8,600 tons may be accounted for in part by movement between local dealers and those specializing in certain commodities. Table 3 shows the total volume and a breakdown of sources of supply from within Wisconsin and interdealer movement.

4/ Includes merchandise handled more than once on the same market (intramarket) movement or between markets (intermarket) movement.

Table 3.--Source of fresh fruits and vegetables handled by 23 firms, 1962

Type of wholesaler	Total volume handled	Volume from sources within Wisconsin 1/	Interdealer movement 2/
	Tons	Tons	Tons
Fresh fruits and vegetables:			
Receivers	77,576	5,869	1,731
Service wholesalers	51,642	18,250	5,590
Commodity specialists	24,673	4,954	1,300
Total	153,891	29,073	8,621

1/ Including local Wisconsin production.
2/ Includes both intermarket and intramarket transfers.

DISTRIBUTION OF SUPPLIES

Distribution information derived from a sample of wholesale dealers' records indicated that about 97 percent of the total volume was distributed within the State. Of this total, 137,140 tons, or 89 percent, was distributed within the greater Milwaukee area. Approximately 70 percent of sales was delivered by the wholesaler and the remaining 30 percent was picked up by the purchaser. See table 4 for methods of distribution.

Table 4.--Methods of distribution used by 23 fresh fruit and vegetable wholesalers, 1962

Type of wholesaler	Delivered by wholesaler	Picked up by customer	Total
	Tons	Tons	Tons
Fresh fruits and vegetables:			
Receivers	45,203	32,373	77,576
Service wholesalers	38,450	13,192	51,642
Commodity specialists	22,788	1,885	24,673
Total	106,441	47,450	153,891

Dealers usually load trucks directly from their wholesale establishments. However, some of the large carlot receivers periodically deliver directly to the customer and bypass the wholesale store. Other wholesalers have well-established delivery routes and schedules. Regular deliveries are usually made within a 25-mile radius of the Broadway Market area, but some deliveries are made over 150 miles to Eagle River and Sturgeon Bay. Buyers requesting delivery tend to place orders by telephone. Many buyers, however, prefer to

"shop the market".

Of the supplies distributed within a 25-mile radius: 32 percent was distributed within 1½ miles of the Broadway Street market, 34 percent moved north, 22 percent moved west, and 12 percent moved south.

Milwaukee distribution channels to the south are restricted by the proximity of Chicago to other Wisconsin cities, such as Racine and Kenosha, inducing greater movement of merchandise to the north and the west. Sheboygan, Green Bay, Madison, Racine, and Manitowoc were among major distribution points outside the 25-mile radius. Volumes moving from Milwaukee to various locations are shown in table 5.

Table 5.--Area of distribution serviced by 23 fresh fruit and vegetable wholesalers, 1962

Type of wholesaler	Distributed within--		Distributed outside the State	Total
	Greater Milwaukee	Other parts of Wisconsin		
	Tons	Tons	Tons	Tons
Fresh fruits and vegetables:				
Receivers	66,528	7,405	3,643	77,576
Service wholesalers	47,403	3,626	613	51,642
Commodity specialists	23,214	1,459		24,673
Total	137,145	12,490	4,256	153,891

SELECTED COSTS INCURRED IN PRESENT MARKETS

The major costs of marketing fresh fruits and vegetables depend on the physical movement of merchandise. The type, design, and condition of the facility and the methods of handling directly affect the costs incurred. Each movement or transfer of product increases handling costs, losses from spoilage, breakage, or deterioration. Some costs are measurable and reflect the adequacy and efficiency of the facilities and operation of the wholesaler. These are: Cartage costs incurred from point of initial receipts to dealers' stores, handling costs from point of unloading at dealers' stores to loading on outbound trucks, interdealer costs of handling commodities by more than one wholesaler, spoilage, breakage, deterioration, and shrinkage, and rental charges or occupancy costs. Further discussions are by geographical area to illustrate these costs more effectively.

Many of the present methods of handling fresh fruits and vegetables in the Broadway Street wholesale market, as well as other areas in the city, are inefficient and are costly to the operators on the market.

Selected costs are confined to those incurred from the first point of arrival in the Milwaukee area until the fresh fruit and vegetable order is placed on an outbound truck for delivery to the customer. The costs presented do not include utilities, telephone, selling, or management costs.

Costs included are: Labor cost and fringe benefits paid employees for unloading, movement into and handling within, including subsequent loading on an outbound truck for delivery, rentals paid, either actual, or estimated in the case of ownership, other handling costs, such as those for cartage and demurrage, and estimated spoilage, breakage, deterioration, and shrinkage.

Information obtained from dealers during the initial phase of the study provided the basic cost data. An analysis was made of receipts, cartage, intermarket movement, and methods of handling within the facility until merchandise is loaded on the truck for delivery to the customer. Where possible, the costs obtained from the general survey were substantiated from information obtained from railroads, trade sources, and from studies in other cities of comparable size.

Cartage Costs

In terms of this report, cartage is limited to those costs associated in unloading and moving the commodity from team tracks or other first points of arrival to the dealer's store. These costs include loading at team tracks and transportation costs, but do not include the unloading costs at dealer's store. Of the 23 wholesale firms, only 3 were served directly by rail. Because none of the dealers located on the Broadway Street market were served by rail, these firms incurred most of the cartage charges. Almost 40,000 tons of the fresh fruit and vegetables, or 26 percent, of the total tonnage was subject to cartage costs, which amounted to about $80,000, or averaged $2 per ton. Details of the breakdown are in table 6.

Handling Costs

Handling costs include the costs involved in unloading at the facility, movement into, movement within (such as sorting or order preparation), and final loading on an outbound vehicle. Processing costs are not included. Costs of light, water, heat, advertising, management, selling, and telephone do not depend on facilities, and are not included in the handling costs.

Many dealers and their employees unloaded trucks. When an over-the-road truck driver assisted in unloading, an estimate of the value of his time was included so that handling costs of the wholesalers would be comparable.

The variation in handling costs per ton indicates a difference in the methods of handling merchandise. All these costs may be affected considerably by the nature of the facilities used. The total cost of handling 162,500 tons of fresh fruit and vegetables by 23 independent wholesalers in 1962 was

Table 6.--Cartage costs to stores of fresh fruit and vegetable wholesalers by market area, 1962

Market area	Volume handled 1/	Cost per ton	Total cost
	Tons	Dollars	Dollars
Broadway Street market:			
Fresh fruit and vegetable wholesalers..	37,896	1.99	75,413
Other areas within the city:			
Fresh fruit and vegetable wholesalers..	1,928	2.18	4,203
Total.....	39,824	2.00	79,616

1/ Does not include 114,067 tons on which no cartage was incurred.

estimated at $455,060. This includes 8,621 tons of merchandise classed as interdealer transfers. The average handling cost was $2.80 per ton. Further details of these costs are in table 7.

Table 7.--Handling costs incurred by fresh fruit and vegetable wholesalers by market area, 1962

Market area	Volume handled 1/	Cost per ton	Total cost
	Tons	Dollars	Dollars
Broadway Street market: 2/			
Fresh fruit and vegetable wholesalers..	99,823	2.75	274,513
Other areas within the city: 2/			
Fresh fruit and vegetable wholesalers..	62,689	2.88	180,544
Total.....	162,512	2.80	455,057

1/ Includes 8,621 tons handled twice in the same market.
2/ Excludes 9,000 tons moved through central farmers' and other city-owned markets.

Interdealer Handling Costs

Because not all firms handle a complete line of merchandise, to satisfy customers' demands and offer better service, the transfer of merchandise between dealers is necessary. Such movement adds to the cost of handling the merchandise and inadequacies in present facilities or operations cause undue

or excessive transfer costs. Transfer of merchandise of the Broadway Street dealers is occasioned by antiquated or inefficient facilities, while scattered dealers find that geographic location compounds the problems required to obtain short or fill-in items. Variation in the costs per ton reflect different handling methods used to transfer the product between dealers. This is illustrated by the costs incurred by dealers outside the Broadway Street market. The total interdealer cost for moving 8,621 tons was about $15,000, or $1.74 per ton. A breakdown of interdealer handling costs is in table 8.

Table 8.--Estimated interdealer handling costs of fresh fruit and vegetable wholesalers by market area, 1962

Market area	Interdealer handling	Cost per ton	Total cost
	Tons	Dollars	Dollars
Broadway Street market:			
Fresh fruit and vegetable wholesalers	3,784	1.68	6,357
Other areas within the city:			
Fresh fruit and vegetable wholesalers	4,837	1.79	8,658
Total	8,621	1.74	15,015

Spoilage, Deterioration, Breakage, and Shrinkage

These costs were derived from estimates submitted by local wholesalers and from comparisons made with similar operations in other areas. Some dealers noted that their losses were higher than might be expected, because their multistory buildings required increased handling of merchandise and they forgot about merchandise stored on upper floors. As a result, greater losses were incurred in upper-level storage areas. The total cost for spoilage, deterioration, breakage, and shrinkage for wholesale fresh fruit and vegetable dealers in Milwaukee in 1962 was $378,050, or averaged $2.33 per ton. Further details are in table 9.

Rents

Present rental arrangements were discussed with dealers at the time data were being collected. In instances where dealers owned their facility, an estimated rent was determined by averaging rents in the immediate area for similar space. Location had slight influence in the amount of rent paid; past arrangements or special agreements were the main factors in any deviations.

Table 9.--Estimated spoilage, deterioration, breakage, and shrinkage costs by market area, 1962

Market area	Tonnage incurring loss 1/	Cost per ton	Total cost
	Tons	Dollars	Dollars
Broadway Street market: 2/			
Fresh fruit and vegetable wholesalers	99,823	2.28	227,596
Other areas within the city: 2/			
Fresh fruit and vegetable wholesalers	62,689	2.40	150,454
Total	162,512	2.33	378,050

1/ Includes 8,621 tons handled more than once on same market.
2/ Excludes 9,000 tons moved through farmers' market and other city-owned markets.

The total rental value for fresh fruit and vegetable facilities in the city amounted to $58,400, or averaged $.32 per square foot; the highest rents were paid by the firms located in outlying facilities. Further details are in table 10.

Table 10.--Rental or occupancy charge of present fresh fruit and vegetable wholesalers by market area, 1962

Market area	Space used 1/	Annual rental value	Cost per square foot
	Sq. ft.	Dollars	Dollars
Broadway Street market:			
Fresh fruit and vegetable wholesalers	112,557	34,860	.31
Other dealers within the city:			
Fresh fruit and vegetable wholesalers	68,986	23,544	.34
Total or average	181,543	58,404	.32

1/ Represents space utilized in operations.

Summary of Selected Marketing Costs

The total cost involved in cartage, handling, interdealer movement, spoilage, deterioration, breakage, shrinkage, and rental charges for the 23 wholesalers for 1962 was an estimated $986,140. Forty-six percent of the measured costs were handling costs. Table 11 shows summary of total combined costs for Milwaukee fruit and vegetable wholesalers.

Nonmeasurable Costs

The effect of long operating hours on other costs, and the inconveniences caused by poor or dirty facilities, poor sanitation, poor working conditions, and the lack of adequate safety precautions add to the total cost of distributing fresh fruits and vegetables. The cost of these items is difficult to measure and was not determined in the study, nor were the costs to the city for traffic control, police, and fire protection considered.

NEED FOR CHANGES IN FACILITIES

Revocation of special privileges, to allow street widening to begin and thus permit new traffic flow patterns to be put into effect, is an initial step in long-range planning that affects most fresh fruit and vegetable wholesalers in the city. Direct effects of the highway improvement program upon the Broadway Street market will: (1) Eliminate angle parking of trucks for loading and unloading at the front of the stores, and (2) eliminate the sidewalk display and selling area which is used quite extensively by the dealers. Although highway plans are forcing actions and decisions concerning relocation, other factors are involved; the blighted area of Market Row is the next logical objective in subsequent development and renewal undertaking.

Although not generally recognized, one real difficulty in this market, as well as other fresh fruit and vegetable marketing areas, is that it is in a location which has higher alternative uses. Wholesale marketing areas cannot compete for land located in or near central downtown locations. Sixty years ago wholesale fresh fruit and vegetable dealers had to be situated near retailers who could pick up their supplies daily. At that time, wholesale markets may have provided the best use of property. Wholesalers expected to pay high rents for such prime locations.

The 14 wholesalers located on the Broadway Street market occupy space in multistory buildings at least 60 years old, which were neither designed nor intended for wholesale food distribution. None of the buildings is of fireproof construction. Unused sections on the upper floors tend to become refuse deposits, thus lowering sanitary conditions. The worn, uneven floors make the use of handtrucks difficult. The location of elevator shafts, stairways, partitions, or post supports prevent possible improvements in interior layout. These factors restrict the adoption of improved methods of handling or the introduction of labor-saving devices.

Table 11.--Summary of selected costs incurred by 23 wholesale fresh fruit and vegetable firms by market area, 1962

Market area	Cartage	Handling	Interdealer movement	Spoilage deterioration breakage and shrinkage	Rental or occupancy charge	Total
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
Broadway Street market:						
Fresh fruit and vegetable wholesalers	75,413	274,513	6,357	227,596	34,860	618,739
Other areas within the city:						
Fresh fruit and vegetable wholesalers	4,203	180,544	8,658	150,454	23,544	367,403
Total	79,616	455,057	15,015	378,050	58,404	986,142

The majority of these dealers operate through the front entrances of their buildings because the narrow alleys at the rear of the stores are blocked by trucks in the process of loading and unloading. This prohibits maximum utilization of available rear door and platform areas.

Only 3 of 23 fresh fruit and vegetable dealers are served directly by rail, so almost all rail receipts which arrive in the city incur cartage costs. The cartage contributes to the spoilage and deterioration of products through increased handling and breakage.

Wholesale fresh fruit and vegetable operations in the city are not centralized, which introduces further inefficiencies into the channels of distribution. Cartage costs, interdealer handling, and spoilage are increased as a result of this type of operation. Some wholesalers carry on operations in two or more separate buildings. Other firms conduct business in buildings which fail to meet basic needs, lack expansion area, or restrict efficient handling operations.

As a result of the highway improvement program and other redevelopment programs pending in the city, it was determined that all independent fresh fruit and vegetable dealers should be included in plans that will develop facilities to serve the greater Milwaukee area. Therefore, it was assumed that all fresh fruit and vegetable firms, regardless of present condition, would eventually relocate.

Wholesalers distributing food commodities other than fresh fruits and vegetables were contacted by mail, to determine whether the study should include such firms. All who expressed interest were interviewed, but response to this inquiry did not warrant further consideration.

HOW THE MARKET FACILITIES CAN BE IMPROVED

Kind and Amount of Facilities Needed

The only way to eliminate the built-in defects of the present market is to construct new facilities of the design, type, and specific arrangement required to meet present conditions and, insofar as possible, to anticipate future needs.

Facilities, other than buildings for the operators, are required because other problems, such as lack of rail facilities, narrow streets or alleys, and lack of platform space cannot be remedied at the present location. The design, type, and arrangement of the proposed facilities provides for both buildings and other facilities necessary for the market to function properly.

The proposals presented in this report recommend 52 multiple-occupancy units (including restaurant facilities) for 154,000 tons of fresh fruit and vegetables.

The allocation of space for multiple-occupancy buildings was determined from discussions with wholesalers in the present market and with others associated with the market. The space required for fresh fruits and vegetables varies from other types of food commodities for three main reasons:

1. Density of products. Fresh fruits and vegetables, being bulky, require more space than other types of food products.

2. Stock turnover or storage period. Fresh fruits and vegetables stock moves rapidly; a turnover rate of about once every 4 days is normal.

3. The amount of processing. The greater the amount of processing, prepackaging, or specialization, the more space required to handle the product.

Plans to replace present wholesale fresh fruit and vegetable facilities should include:

1. Two buildings, each containing 26 multiple-occupancy units, including platforms 14 feet deep.

2. Double house tracks to accommodate 52 railcars.

3. Paved streets, at least 200 feet wide where buildings face each other, and parking area for 195 vehicles, in addition to the unloading space at the building platforms.

4. One restaurant, which will occupy one unit.

5. An 8-foot fence and gates to enclose the market area.

6. Future needs and space for expansion.

Actual construction should be based upon the space needed by responsible tenants who will sign firm agreements to lease the facilities. Overbuilding at the start of the project should be avoided so there will be no unoccupied space.

Multiple-Occupancy Buildings

Each multiple-occupancy building should be 100 feet wide and 650 feet long and contain 65,000 square feet of first-floor space (restaurant space included). Thus, the 52 units in the 2 buildings would contain a total of 130,000 square feet of first floor space, including platforms.

Each unit should be designed on the basis of a standard width of 25 feet (center to center of partitions) and depth of 100 feet. A firm could occupy one or more of these units, depending on its needs. These units should have a 14-foot platform, 55 inches high, at the rear (refrigerated railcar floor rack

height); and a 14-foot platform 45 inches above the street, at the front (truckbed height). Platforms should slope slightly to the outside for drainage. The enclosed part of each building should be 72 feet deep, outside measurement.

Platforms at both front and rear should be covered--the roof over the front platform should have sufficient overhang to protect loading and unloading operations in inclement weather. Care should be taken that the overhang will not obstruct movement of motor and rail equipment. The roof over the platform should be self-supporting, to provide a clear loading area.

To afford pedestrians convenient access to the front platform, steps should be placed about every fourth unit. In addition, a continuous step 24 inches wide, about half the height of the platform, would accommodate loading and unloading of small trucks. Bumpers should be attached at the upper edge of each platform to prevent damage by trucks as they park.

Fresh fruits and vegetables arriving by rail would be delivered to the rear platform. Incoming truck receipts might be unloaded from either platform. Figure 4 shows a layout of a 25-foot fresh fruit and vegetable unit. The units are designed so they are easily adapted to the operations of the present market. The final design of the building should incorporate a removable waterproof interior partition, to provide for expansion of the unit.

Mezzanine offices at the rear of the unit provide 425 square feet of office space above the operating level. Space on the mezzanine is suitable for light-weight storage at the discretion of the tenant. The mezzanine should be 17 feet by 25 feet. The width extends to the first row of support columns at the rear of the facility. The area directly below the mezzanine may be used for a cooler. To allow for adequate space for insulation, overall ceiling height should be at least 20 feet. It should be noted in figure 4 that the rear door is not centered, which allows for a cooler of one-carload capacity. Individual refrigeration requirements vary and such equipment should be provided by the tenant. The rear door should have two 3-foot double-acting doors. This promotes ease of movement. No pedestrian access door is recommended at the rear of the facility, because the rear door will be opened only during receipt of shipments. The front openeing of each unit should be 8 feet wide. An 8-foot overhead door with a pedestrian access door would permit entrance to the unit without opening and closing the large main door.

Store interiors should be well lighted, and provision should be made to supply electrical outlets to all areas in the units where they are needed. Adequate electrical outlets and fixtures would include platform areas to aid in improving safety and sanitation conditions. Heat may be supplied by individual gas, electric, or oil space heaters. Care should be taken that controls for lights, heating, and refrigeration are properly located. All first-floor space should have a nonskid concrete surface and slope to drains.

These units are intended as multipurpose and are readily adaptable to individual firm needs and preferences. Provision should be made so that these

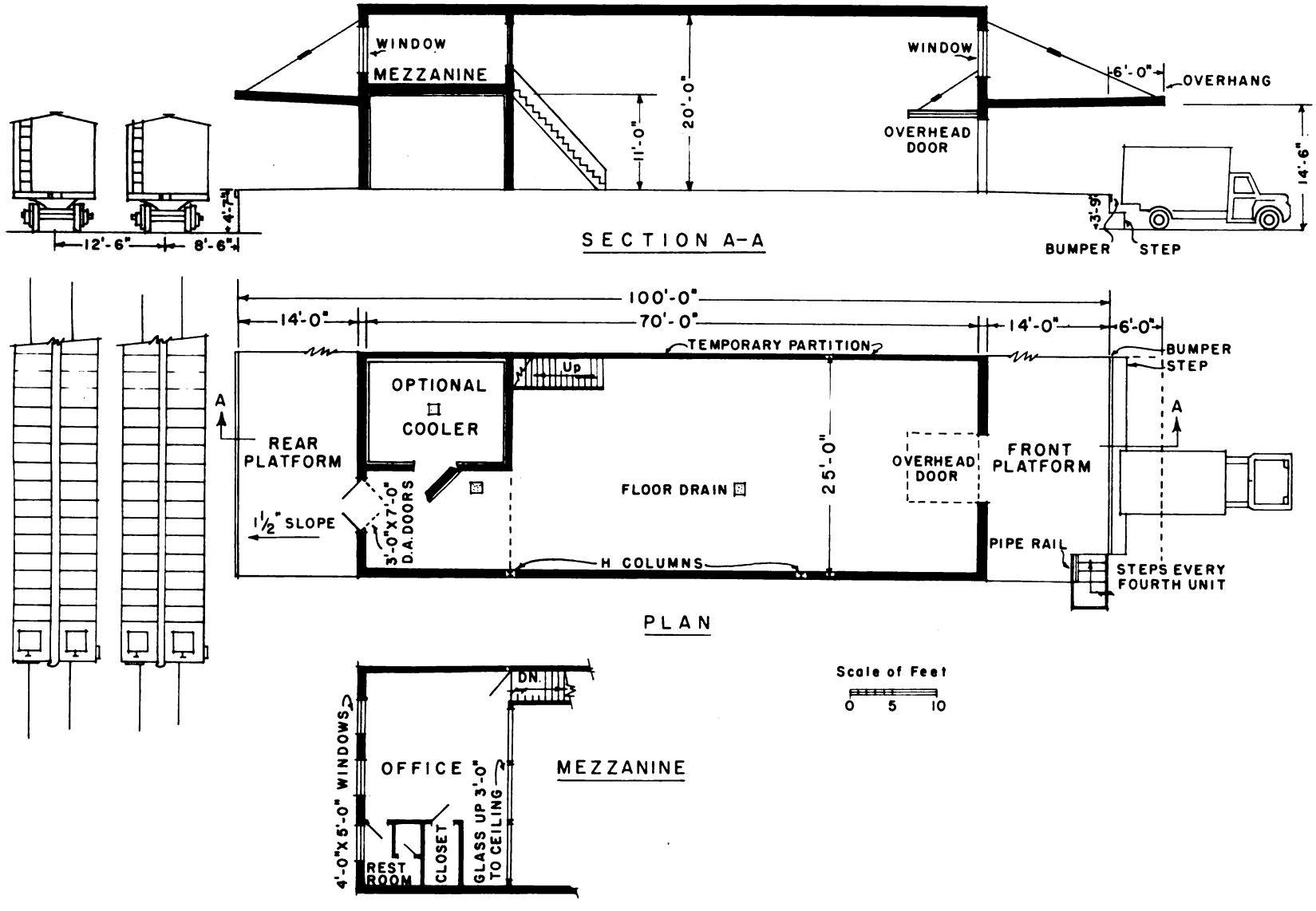

Figure 4.--Layout of a standard fresh fruit and vegetable unit.

units, initially designated for fresh fruit and vegetable wholesalers, could be converted for use by other types of operators. See figure 4 for the layout of the proposed fresh fruit and vegetable unit.

Rail Connections to Stores

The plan provides direct rail connections to all wholesale units. The area between the rear platform and the rail spur should be paved and rail tracks should be embedded in the pavement to permit its use by trucks when the space is not being used by incoming rail equipment. Paving this area encourages fuller utilization and promotes better sanitation practices.

Market Streets and Parking Areas

The main market street and parking areas should be paved with a 7-inch rock or gravel foundation, 4 inches of macadam, and 2 inches of asphaltic concrete. Such paving assures the durability required to carry heavy market traffic and proper sloping facilitates drainage away from the buildings.

The major market street should be 200 feet wide where multiple-occupancy buildings face each other. Angle parking should be provided in the center of the street. Possible future service streets within the market may vary in width between 60 and 100 feet.

Parking areas should be designated for employee and customer parking. These areas should be near the market buildings, but should not impede the flow of traffic through the market streets or loading areas. Adequate parking space should be provided commercial vehicles, not including the loading and unloading space at the platform of the stores.

Restaurant Facilities

A restaurant is proposed for the market. The space is provided in one unit and could be leased to a tenant. This restaurant should be conveniently located to accommodate the employees, buyers, and others using the market. Restaurant equipment should be furnished by the tenant.

A public restroom area could be located under the restaurant. The equipment, plumbing, and maintenance for this facility should be furnished by the market.

Fencing

To aid the regulation of the market's operating hours and to provide pilferage protection, the market should be enclosed by a fence approximately 8 feet high, with gates at the entrances and exits. Estimates for its construction are included in this report.

Future Needs and Space for Expansion

In the selection of a market site, adequate land should be acquired for expansion of the facilities. In developing plans that will answer the immediate needs of the fresh fruit and vegetable wholesalers, a "total market concept" should be incorporated into planning. This concept would provide not only for the immediate and future needs of the fresh fruit and vegetable wholesalers, but would insure a sizable portion of land be set aside for other wholesale food firms who may face relocation problems or lack expansion area. Examples of such food firms would be wholesale meat products, poultry, eggs and dairy products, groceries, seafood, and frozen food. Allied food industries, such as distribution warehouses, public refrigerated warehouses, or food processors should also be considered. Thus, at the time of initial purchase of land for the fresh fruit and vegetable wholesalers, consideration should be given to obtaining options for future allied food occupancy.

Possible Arrangements of the Proposed Facilities

Arrangement of the facilities on any site depends upon the shape and other physical characteristics of the selected area. Access streets, railroad locations, and access to utilities strongly influence the location of buildings; buildings likewise strongly influence the location of parking and expansion areas, restaurant, and public welfare facilities. Facilities must be arranged so that movement of fresh fruits and vegetables away from the market can be effected with a minimum of delay. Layouts showing proper arrangements of facilities are presented in figure 5. Illustrated in this figure are 2 multiple-occupancy buildings containing 52 units, arranged in parallel rows. The 2 buildings face a main market street 200 feet wide. In the plan, rear dock space is provided for incoming rail and truck shipments and a front platform for loading out. Parking space for 195 vehicles is suggested. An 8-foot chain link fence, with gates, surrounds the entire wholesale fruit and vegetable area.

The fresh fruit and vegetable market should be placed at the edge of the market site near main access roads, to accommodate buyers who visit the market. This arrangement would not interfere with the planning for other types of food wholesalers constructing facilities in the future. This arrangement would also minimize traffic congestion, should other food commodity sections be developed later.

SELECTING A SITE

Potential sites were suggested by the wholesalers and the City Planning Department in accordance with land-use development plans. Additional areas were recommended by the industrial development offices of the railroads, and others interested in improving food distribution in Milwaukee. All suggested locations were examined and an analysis of selected sites was made. The largest number of sites was in the northwestern quadrant of the city. Most of these are located near present or proposed highways. They were all served by rail.

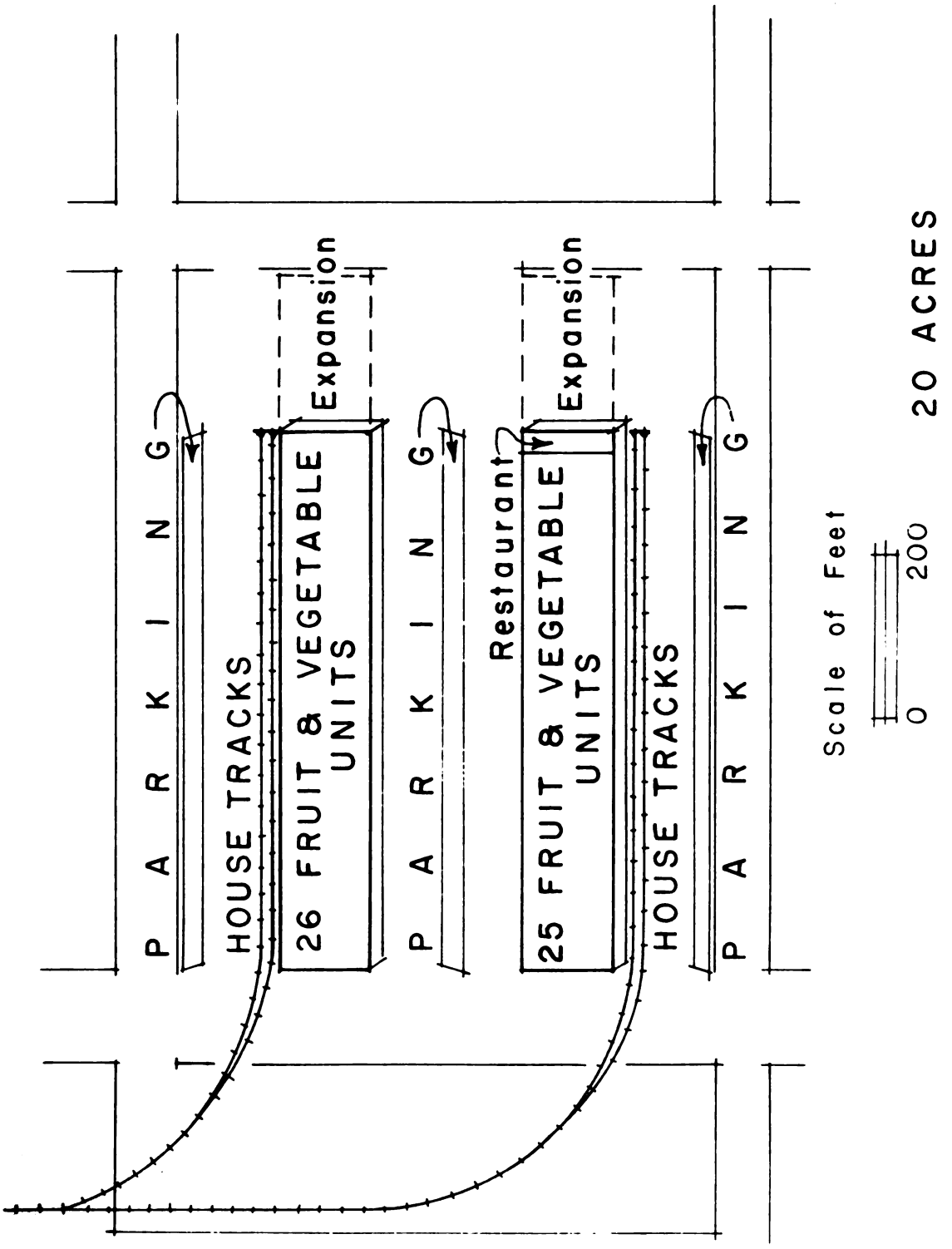

Figure 5.--Layout of the proposed market.

However, some sites were too small and offered serious drawbacks in projecting long-range plans or the broader concept of a combined food-distribution center. Four of these sites are analyzed in detail. These are the Wauwatosa site, the Granville Township site, the North 76th Street site, and the Mitchell Field site. Distribution patterns, as outlined in the earlier sections of the report, tend to give added weight to sites in the northwestern portion of the city as being a more advantageous area for the majority of the fresh fruit and vegetable wholesalers. None of the sites will fulfill all requirements; so each site was considered in relation to the following points: Adequate land, convenient shape, suitable foundation conditions, reasonable proximity, both to area served and to present or proposed highways, reasonable access to rail, zoning restrictions, future urban development plans, and economical price. Four potential sites covered in this report are shown in figure 6. Other sites are available and can be examined, analyzed, and evaluated if sufficient interest is shown.

Wauwatosa Site

This site of 104 acres is located in northwest Milwaukee County outside the corporate city limits, approximately 9 miles from downtown Milwaukee. It is bounded on the north by West Capitol Drive, on the south by the Briggs and Stratton and the A. & P. Tea Company properties, to the east by the Chicago and Northwestern Railway, and on the west by North 124th Street. The area is level. It has good access to arterial highways and will be near a proposed expressway, which is scheduled for completion in the near future. This site is within the switching limits of the Chicago and Northwestern Railway. Their "Butler Yard" is located just north of the site and should insure excellent switching service.

Public utilities and sewerage are available, although, water must be supplied from private wells. The area is zoned heavy industrial and is owned by one individual, which simplifies land acquisition. The site is near major chainstore warehouses and could provide the nucleus of a food-distribution center for Milwaukee. The 104-acre site may be divided, but the total area provides an excellent location for additional development of a possible food center. The asking price for the Wauwatosa site is $25,000 per acre. See table 12 for site summary.

Granville Township Site

The Granville Township area (site 2) is located in the northwestern section of the corporate city limits. The site contains 45 acres. It is bounded on the north by West Bobolink Avenue, on the south by the Chicago and Northwestern Railway, on the west by North 124th Street extended, or the Waukesha County line, and on the east by the proposed expressway. This area is generally level, but has a slight rolling nature. It is approximately 10 miles from downtown Milwaukee. The site has frontage road access to Highway 100 and access to the proposed highway from West Silver Spring Drive. Rail service is provided by the Chicago and Northwestern Railway and is within their switching

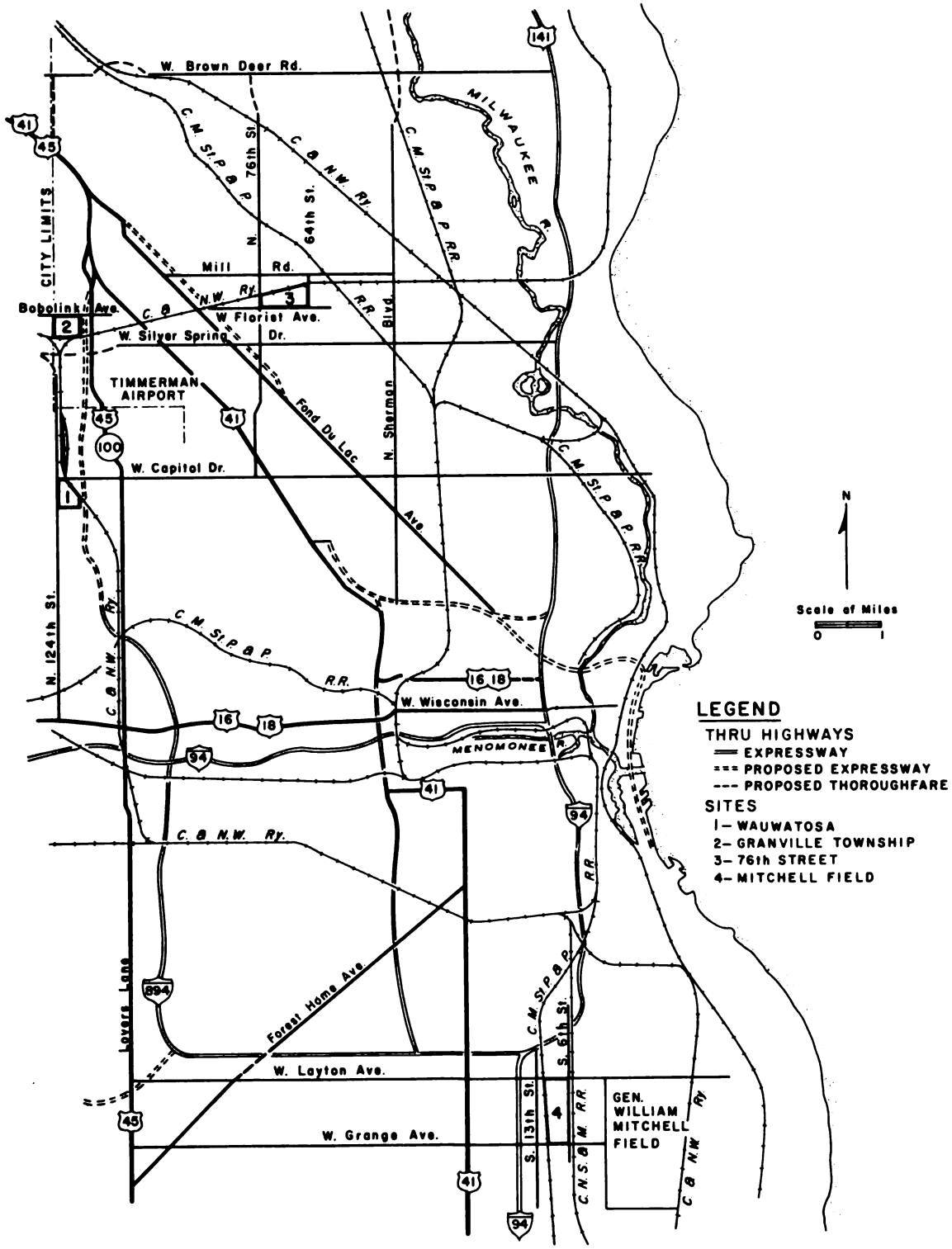

Figure 6.--Location of possible sites.

limits. Public utilities are available, including sewerage. The area is zoned heavy industrial and is located approximately 2 miles north of the chainstore warehousing complex. The site offers 45 acres with additional acres available for future acquisition or expansion. The asking price per acre at this site is $9,000. See table 12 for site summary.

North 76th Street Site

The North 76th Street area (site 3) is located in the northwest section of the corporate city limits. The general boundaries of this site are: North, the Chicago and Northwestern Railway; south, West Florist Avenue; east, North 64th Street; and west, North 76th Street. The site is level, and presently, the major portion of it is used for agricultural purposes. This site is 7 miles from downtown Milwaukee. The site is within the switching limits of the Chicago Northwestern Railway. Public utilities are available, including sewerage. The area is zoned industrial and is located about 3 miles northeast of the chain warehousing complex. This site offers 56 acres, with an additional 70 acres located just across North 64th Street. The asking price is $16,500 per acre. See table 12 for site summary.

Mitchell Field Site

This area (site 4) is located to the south, within the corporate city limits near General William Mitchell Air Field. The boundaries of this site are: North, West Layton Avenue; south, West Grange Avenue; east, South 6th Street extended; and west, by the Chicago, Milwaukee, St. Paul, and Pacific Railroad. The site is generally level and is located approximately 6.5 miles from downtown Milwaukee. The site is located near a proposed section of Interstate 94 with access to Interstate 41 via West Layton Avenue. Two railroads border the property; the Chicago, Milwaukee and St. Paul and Pacific Railroad, and the Chicago, North Shore and Milwaukee Railway. However, the site is not within railroad switching limits. Public utilities are available. The area is zoned heavy industrial and offers approximately 75 acres of land bordering a proposed industrial park. The asking price at this site is $6,000 to $7,000 an acre. See table 12 for site summary.

Table 12.--Summary of four possible sites: Wauwatosa, Granville Township, North 76th Street, and Mitchell Field for the proposed wholesale fresh fruit and vegetable facilities for Milwaukee

Item	Wauwatosa site	Granville Township site	North 76th Street site	Mitchell Field site
Location and boundaries	Bounded by: West Capital Drive, Briggs and Stratton and the A&P Tea Company properties, the Chicago and Northwestern Railway and North 124th St.	Bounded by: West Bobolink Ave., the Chicago and Northwestern Railway, the Waukesha County line and proposed expressway.	Bounded by: The Chicago and Northwestern Railway, West Florist Ave., North 64th St. and North 76th St.	Bounded by: West Layton Ave., West Grange Ave., South 6th Street extended and the Chicago, Milwaukee, St. Paul and Pacific Railroad.
Land available	104 acres	45 acres with more available.	56 acres with an additional 70 acres located just across North 64th St.	75 acres
Estimated land cost	$500,000 for 20 acres @ $25,000 per acre.	$180,000 for 20 acres @ $9,000 per acre.	$330,000 for 20 acres @ $16,500 per acre.	$120,000 to $140,000 for 20 acres @ $6,000 to $7,000 per acre.
Present land use	Vacant	Vacant	Farmland	Vacant
Topography	Level with a few trees.	Generally level with slight rolling nature.	Level farmland.	Level with trees.
Rail transportation	Direct access by the Chicago and Northwestern Railway; other railroads by the use of interchanges and connecting lines.	Direct access by the Chicago and Northwestern Railway; other railroads by the use of interchanges and connecting lines.	Direct access by the Chicago and Northwestern Railway; other railroads by the use of interchanges and connecting lines.	Two railroads border the property--the Chicago, Milwaukee, St. Paul and Pacific Railroad and the Chicago North Shore and Milwaukee Railway.
Truck transportation	Near future expressway. Access to Highway 100 and U. S. 45.	Frontage road access to Highway 100 and access to proposed highway from W. Silver Spring Drive.	Bounded by State 181 with access to U. S. 41.	Located near a proposed section of Interstate 94 with access to U. S. 41 via West Layton Ave.
Convenience to other food wholesalers	The site is near a major chainstore warehousing complex.	Approximately 2 miles north of the chain warehousing complex.	Approximately 3 miles northeast of the chain warehousing complex.	6½ miles from downtown Milwaukee.
Distance from downtown Milwaukee	Approximately 8½ miles.	Approximately 10 miles.	Approximately 7 miles.	6½ miles.

ESTIMATED COST OF LAND AND FACILITIES

The cost of providing fresh fruit and vegetable wholesalers with new facilities would involve two major components--land and facilities. Considerable variation is possible in either of these components.

Land

The actual cost per acre of any individual site could not definitely be established until an option to buy is signed. In order to take into consideration land costs and proceed to reasonably sound conclusions in regard to land value per acre, it was necessary to develop a composite cost for light industrial land. Cost estimates of land for possible sites presented in this report were based on the sales of similar land areas from 1961 through 1963.

Sales information on land value was supplied by the Tax Commissioner's office, city of Milwaukee. For the purposes of this report, $6,500 per acre is used in determining land value. There could be variation, depending on the site selected and sale conditions. An appropriate adjustment from the estimated cost could be made at the time of land acquisition. Land cost in outlying sections is generally lower than in the more densely populated sections.

Facilities

The estimated cost of proposed facilities is based upon the 1963 Milwaukee construction indexes, costs of similar facilities in other areas, and estimates made by local contractors or engineers.

Space provided in the initial construction depends upon present and anticipated needs. Actual space used may differ from these estimates when final plans for construction are completed.

Cost estimates are for the structures described in this report. The individual units in the multiple-occupancy buildings will not have finished offices. The costs include mezzanine and stairway and mezzanine railing; toilet facilities; fluorescent lighting fixtures; electric outlets; gas, electric, or oil space heaters; and lighting for the stores and platform areas.

Detailed building cost estimates are for the shell only and do not include refrigeration rooms, refrigeration equipment, and various other features which depend upon individual dealer needs and preferences. Cost estimates assume a light mill type of construction.

Paving cost estimates are prorated among dealers to insure each will carry a fair share of the cost. Cost estimates assume a 7-inch foundation of

gravel or crushed rock, a macadam base of 4 inches, and an asphaltic concrete surface coat of 2 inches.

All utility connections were assumed to be underground. Other construction costs, such as the 6-percent architect's fee, the 5-percent construction loan, and the 10-percent contingency fund, are the rates charged for, or included in, the total estimated cost of construction. The construction and loan cost of 5 percent is the total cost of the loan and is not an interest rate.

Estimated construction costs are not intended to replace firm estimates made by local architects or contractors and should be considered only as a guide in ascertaining a total estimated cost for the project.

The following tabulations and pictorial summary, figure 7, (not drawn to scale) present cost of land and facilities for fresh fruit and vegetable wholesalers as of July 1963.

Estimated Fresh Fruit and Vegetables Facility Cost

Multiple-occupancy buildings:	
51 units (in 2 buildings) 2,925 sq. ft. per unit (including mezzanines) @ $21,470 per unit, or $7.34 per sq. ft.....	$1,094,970
1 restaurant in a unit, with public restrooms @ $21,470 basic cost plus $2,160 for additional finishing.....	23,630
Other facilities:	
Paving:	
Blacktop combination 35,555 sq. yds. @ $2.50 per sq. yd...	88,887
Sewers:	
4,000 ft.--15-inch (storm) @ $3.50.....	14,000
1,600 ft.--12-inch (sanitary) @ $2.25.....	3,600
Floodlights:	
Fruit and vegetable area 12 @ $150 each.....	1,800
Fencing:	
7 ft. high--4,000 ft. @ $3.50.....	14,000
Trackage: (House and associated lead-in)	
4,800 ft. @ $10.50 per linear foot.....	50,400
6 switches #8 turnout @ $2,070.....	12,420
Cost of buildings and facilities.....	1,303,707
Architect's fee--6% of building and facilities cost.....	78,222
Cost of construction including architect's fee.....	1,381,929
Construction loan @ 5%.....	69,096
Cost of construction including architect's fee and cost of construction loan.....	1,451,025
Contingency--10% of construction costs, architect's fee, and construction loan.....	145,102
Total cost of buildings, facilities, and associated costs.....	1,596,127
Cost of 20 acres of land @ $6,500 per acre.....	130,000
Total investment cost.....	1,726,127

INVESTMENT COST
FRESH FRUIT AND VEGETABLE FACILITIES
MILWAUKEE, WISCONSIN

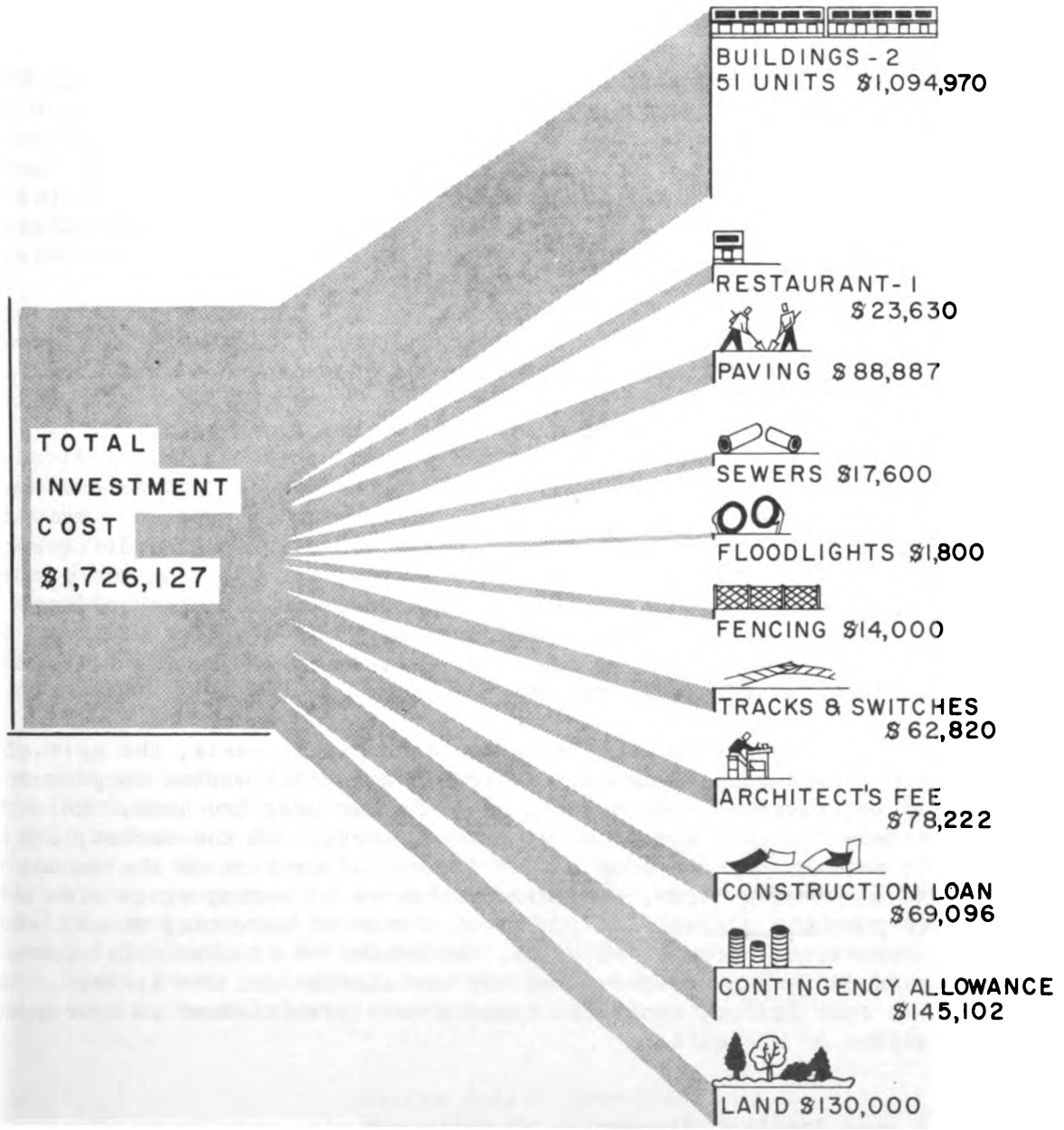

Figure 7

Types of Ownership

Some of the more common means of financing are: (1) Private corporations, (2) public benefit corporations, (3) direct public ownership, or (4) a combination. 5/

Private Corporations

A private corporation is a legal entity, organized in conformity with State statutes and made up of individuals bound together for a common purpose or objective. A private corporation usually is organized for profit, but may be operated as a nonprofit organization. To form a private corporation, the incorporators usually obtain a charter from the State. This charter defines the power of the corporation and its officers and directors. It also specifies what the stockholders' rights shall be and how they shall exercise control.

When a private corporation is operated for profit, there are usually no restrictions on the sale of voting stock to any individual because of his occupation or profession, nor are there restrictions on the number of shares of voting stock that may be held by any one individual. Stockholders normally have one vote in corporate affairs for each share of voting stock held.

Among the advantages of a corporation is that the board of directors can make decisions quickly and without the delay found in other types of organizations. Quick decisions on major policy matters sometimes make the difference between success and failure of an organization. In addition, when the period of amortization expires, the entire investment belongs to the stockholders; tenancy changes have no effect upon stock ownership, and transfer of stock is unrestricted. The major problem of corporate ownership lies in the fact that a substantial financial equity is necessary.

When a private corporation is operated on a nonprofit basis, the sale of shares of voting stock usually is restricted. A nonprofit market corporation probably would restrict the sale of this stock to farmers, truckers, wholesalers, and others directly concerned with the operation of the market, and would base the amount of stock sold to one individual or firm on the amount of facilities used. In some cases, eligible purchasers of voting stock also would be required to purchase a specified number of shares of nonvoting stock. Through these restrictions on stock sales, the number of stockholders' votes and the voice in management exercised by any one shareholder are limited. Under the laws in some States, nonprofit corporations are referred to as cooperative corporations or societies.

5/ For a more detailed discussion of these methods, see Clowes, Harry G., Elliott, W. H., and Crow, W. C., Wholesale Food Market Facilities--Type of Ownership and Methods of Financing. U. S. Dept. Agr. Mktg. Res. Rpt. No. 160. 96 pp., illus. 1957.

A number of wholesale markets are owned and operated by private corporations. In some instances, the principal stockholders in these corporations are food wholesalers. In other cases, the corporation may be a railroad company or some other company primarily organized for other types of business. Most of the large terminal produce markets built in the 1920's were sponsored by railroad companies which believed that such markets would increase the volume of traffic handled by their lines.

Public Benefit Corporations

Public benefit corporations, sometimes called "market authorities" are often created by State and local governments to construct and operate market facilities.

A public benefit corporation is a nonprofit agency. As such, rentals and other charges do not exceed the amount needed to pay the costs of operation, amortize the original investment, and maintain a limited reserve for contingencies. Because under public ownership the revenues would be considered public funds, the reserve fund could not be paid to lessees as dividends. However, there is the possibility that reserve funds might be appropriated for other public uses while bonds remained outstanding, unless reserves are specifically committed to redemption of bonds.

Public benefit corporations usually have the power of eminent domain, which can be useful in the acquisition of a site. Such corporations usually finance market improvements through the sale of revenue bonds. This type of financing normally is not a full obligation of a State or a political subdivision. These revenue bonds are often tax exempt, thereby lowering the interest cost. A public agency, such as a market authority, is more likely than some type of private ownership to provide for future expansion and to work toward the establishment of a complete wholesale food-distribution center. A market authority may or may not be required to pay taxes to the community in which it is located.

Market authorities also have certain limitations, especially with respect to the financing and management of the facilities. They find it difficult to raise funds through revenue bonds unless considerable equity funds are provided in some way or the bonds are guaranteed by the city, county, or State. Some State or city governments have appropriated part of the funds needed for land acquisition and original construction. The continuity of management may be dependent on the continuance of a State or municipal government administration in office. As a whole, market authorities do not have as complete freedom of operation as is possible under private ownership.

Direct Public Ownership

A number of wholesale food market facilities have been financed, constructed, and operated by States, counties, or municipalities. Several States and a number of municipalities have enabling legislation covering the improvement or establishment of produce markets.

Direct State ownership and operation usually can be differentiated from ownership and operation by a State market authority by the methods of financing used and the delegations of authority made by the State legislature. Although a number of States have appropriated funds and otherwise assisted market authorities with financial problems, they do not usually underwrite the total cost of a market constructed by an authority, nor have the States always assumed responsibility for the operation of these markets. Direct State ownership contemplates that a market facility will be financed in whole or part by an appropriation of State funds. If the financing is not entirely by this method, the State usually is obligated for the remainder unless this balance is obtained through grants or donations. Also, the State is responsible for maintenance and other expenses involved in the operation of a State-owned market.

Municipal ownership of a wholesale food market is comparable in many of its basic aspects to direct State ownership. A number of municipalities are authorized in their charters to construct and operate food markets. In some cases, city councils or commissions are not authorized to make appropriations from general funds in the city treasury for the construction of market facilities on a basis comparable to that of a State legislative body. Three methods are usually open to municipalities for financing a market program: (1) Issuance of municipal bonds, (2) issuance of revenue warrants, and (3) loans from public corporations. In most cities the issuance of bonds for such purposes must be approved by a majority of the qualified electorate voting in a referendum. States may finance, construct, and operate wholesale food market facilities because legislative bodies feel that improved facilities will, in themselves, serve the public interest. Facilities constructed with municipal or county funds would necessarily be owned by the county or municipality, and rent would have to be paid by the tenants indefinitely.

Combinations

Wholesale food-distribution centers have been established combining two or more types of ownership and operations previously described. For example, in Philadelphia, a food-distribution center has recently been developed by a nonprofit corporation on land owned and put in condition for building by the city.

METHODS OF FINANCING AND OPERATION

In Milwaukee it would be possible to use two or more of these methods of financing a food-distribution market. The entire project could be constructed and operated by a single agency, or various parts could be constructed and operated by different agencies. To illustrate:

1. The city could put the land in condition to build and lease it to tenants.
2. The city could build the multiple-occupancy buildings and lease them to tenants. However, it is understood that special enabling legislation would be required.

3. Fresh fruit and vegetable wholesalers could form a corporation and lease or buy land or facilities from the city or a private developer.

Revenue Required and Sources of Revenue

Revenue required could vary according to the methods used to finance the development. For example, city or State ownership would not only reduce interest costs, but could materially affect the amortization period. If a corporation with substantial assets were constructing its own facilities, it obviously could expect better financing arrangements than one with limited assets. It is not feasible in this report to illustrate all possibilities; it has been necessary, therefore, to make certain assumptions.

If a wholesale fresh fruit and vegetable center were built containing the suggested facilities, it might follow the general layout in figure 5. It was assumed that the entire facilities would be constructed by a single agency and leased to the occupants. Such assumptions are not intended to suggest the most desirable arrangements, nor are they intended to exclude other arrangements, but they are presented so that some estimate of probable operating expenses may be included in this report.

The revenue requirements for a privately developed wholesale fresh fruit and vegetable market will be considered under four categories: (1) Costs of management; (2) insurance, maintenance, and repairs; (3) taxes on real estate; and (4) debt services. Each of these requirements will be discussed on the following pages.

Cost of Management

The management and maintenance expenses are based upon annual reports of other wholesale markets and estimates of such costs in Milwaukee. These costs are prorated among the firms on the basis of buildings, other facilities, and associated costs.

The estimates concerning management expenses assume that the market at the outset would not have a salaried market manager, because the management functions could be handled by a private accounting firm or individual. At such time as growth warrants, a market manager should be chosen to provide the competent management the day-to-day operation of a wholesale fresh fruit and vegetable market requires. The manager could promote the concept of a combined food center.

It is assumed that initial promotional costs would be borne by the developer, transportation agencies, appropriate city and State agencies, or other governmental bodies. Certain other administrative costs inherent in successful operations must be included and are listed in the tabulation that follows.

Management Expenses

Managerial service	$ 4,000
Auditing and legal assistance	1,000
Advertising and promotion	500
Utilities	1,500
General market sanitation	4,000
Snow removal	1,500
Contingency	1,000
	13,500

Management expenses may be adjusted, depending upon the services desired by the tenants of the market.

Sanitation costs are based upon probable costs in Milwaukee and comparative costs in other markets. This item may not be necessary if the city would provide municipal sanitation services.

Insurance, Maintenance, and Repairs

The basis for the estimates of fire, extended coverage, and liability insurance were provided by insurance underwriters in the city.

The liability insurance rate for a building occupied as a wholesale store for limits of $300,000 per person per accident was computed on the basis of $.651 per 100 square feet. These are current stock insurance company rates.

Fire and extended coverage insurance was computed on the basis of $.16 per $100 based upon 80 percent of the combustible facility costs. The total cost for liability, fire, and extended coverage insurance was estimated at $2,580.

There are means of reducing the overall costs, such as insuring for a 5-year term with premiums payable annually. This is a customary procedure and the average annual cost on that basis could be reduced from those quoted, but are subject to negotiations.

Maintenance and repairs were assumed to be one-half percent of facilities and associated costs. The rate was applied to all buildings and facilities. To provide a reserve for increases in these costs, a 10-percent contingency is included. A summary of annual costs of management and upkeep, insurance, maintenance and repairs, including a contingency appears in table 13.

Real Estate Taxes

It has been assumed that the fresh fruit and vegetable market will pay taxes on land, buildings, or other taxable facilities. Computations were based upon the 1962 assessed valuation of 53.40 percent of the estimated market value. Estimated market value is assumed to be the same as the investment cost. The tax rate information was provided by the City Comptroller's office, based

Table 13.--Estimated annual income required for management and upkeep in the proposed facilities by market area, 1962

Market area	Management expense	Fire, extended coverage and liability insurance 1/	Maintenance and repairs 2/	Reserve or contingency 3/	Total
	Dollars	Dollars	Dollars	Dollars	Dollars
Broadway Street market:					
Fresh fruit and vegetable wholesalers...	7,830	1,496	4,628	2,262	16,216
Other areas within the city:					
Fresh fruit and vegetable wholesalers...	5,670	1,084	3,352	1,638	11,744
Total.....	13,500	2,580	7,980	3,900	27,960

1/ Based on information supplied by insurance consultants in Milwaukee and subject to change upon negotiation.
2/ Assuming one-half percent of facilities and associated costs.
3/ Ten percent of preceding item.

upon formulas enacted by the 1961 legislature. To make allowances for possible increases in the current tax rate, a 10-percent contingency has been included which should provide for such future increases. It is possible that this contingency fund could be discontinued when a full year's tax payment has been accrued. The total tax payment for the center is estimated at $53,940. The reserve would amount to $5,394. Specifics are in table 14.

Debt Service

The proportion of the total that might be borrowed on a mortgage loan and the terms of the loan would depend upon the availability of money and interest rates at that time. The design of the facilities recommended are by intent multipurpose so they can easily be converted to meet the needs of many industries. Facilities of this type should not become obsolete nor fully depreciated in less than 20 to 30 years and should have a useful life for a much longer period.

The three major sources of raising capital, provided private financing were used, are: First mortgage bonds, second mortgage or preferred stock, and equity capital.

Sixty-five percent might be obtained on a first mortgage, 20 to 25 percent on a second mortgage, or by issuance of preferred stock, and the remainder

(10 to 15 percent) would be required as equity capital.

Table 14.--Estimated real estate taxes to be paid in the proposed facilities by market area, 1962

Market area	Assessed value 1/	Income required for real estate taxes 2/		
		Tax 3/	Reserve 4/	Total
	Dollars	Dollars	Dollars	Dollars
Broadway Street market:				
Fresh fruit and vegetable wholesalers	534,616	31,286	3,129	34,415
Other areas within the city:				
Fresh fruit and vegetable wholesalers	387,136	22,655	2,265	24,920
Total	921,752	53,941	5,394	59,335

1/ Based on 53.40 percent of construction and land costs.
2/ Tax rate figured at $.05852 of assessed value.
3/ Effective equalized tax rate information provided by the City Comptroller's office.
4/ Assumed to be 10 percent of tax to allow for eventual rise in market value.

A rate of 6 percent amortized over a 25-year period is assumed. This rate would be a composite of the various rates charged for capital from each of these sources. If the first mortgage were obtained at 5½ percent, the second for 6 percent, the equity capital having a value of 7 percent, the average rate of interest would be approximately 6 percent.

If bonds were issued, financiers and persons purchasing bonds might demand that current income exceed expenses by some stipulated amount and that this remain as a reserve fund. Amounts required would vary according to the tightness of the money market, the financial rating of the bond issuer, and the value of collateral.

The reserve fund should amount to 10 percent of the annual costs. Usually after a full year's amortization has been accrued, it may be possible to discontinue such a fund. For the purposes of this report, a 10-percent reserve, or contingency allowance, has been included.

A financial plan must be established before the terms of a loan can be worked out. The estimated annual income required for debt service to amortize the cost of the market is in table 15. In the event the city, county, or State would lend its credit or tax exempt status, interest rates might be reduced.

Table 15.--Estimated annual income required for debt service in the proposed facilities by market area, 1962

Market area	Investment in land and facilities	Amortization charge 1/	Reserve or contingency 2/	Total
	Dollars	Dollars	Dollars	Dollars
Broadway Street market:				
Fresh fruit and vegetable wholesalers	1,001,154	78,320	7,832	86,152
Other areas within the city:				
Fresh fruit and vegetable wholesalers	724,973	56,714	5,671	62,386
Total	1,726,127	135,035	13,503	148,538

1/ Assuming 6-percent annual interest rate for 25 years.
2/ Computed at 10 percent of amortization charge.

Total Annual Income Required

Estimates of the amount of revenue needed to operate the market, including costs of management and upkeep, taxes, and debt service are in table 16. The cost of operations for individual businesses is not included. The total amount needed to operate the center would be about $235,830 annually.

Should other food firms decide to relocate with the fresh fruit and vegetable dealers, it would be possible to reduce the costs to individual firms. Special tax concessions or the use of municipal services such as street sanitation or snow removal would also reduce total income required to operate the market.

Table 16.--Estimated total annual income required in the proposed facilities by market area, 1962

Market area	Management	Taxes	Debt service	Total
	Dollars	Dollars	Dollars	Dollars
Broadway Street market:				
Fresh fruit and vegetable wholesalers	16,216	34,415	86,152	136,783
Other areas within the city:				
Fresh fruit and vegetable wholesalers	11,744	24,920	62,386	99,050
Total	27,960	59,335	148,538	235,833

Source of Revenue

It is assumed that the revenue required, regardless of financing, will be derived from rent or leases of facilities to individual tenants. Minor sources of income, such as vending machines or public telephones, have not been included. Other alternatives might be to set a fee on gross income of restaurants or other service type businesses operating in the market. In these estimates, the restaurant rental was computed as a percentage of the total revenue, carrying its share of development costs.

Rental charges are based on a total computed cost per square foot, which requires an annual revenue of $1.55 per square foot. The cost of market streets, paved parking, fencing, and other items has been prorated among the dealers. The rentals presented in table 17 will adequately cover costs and reserves.

In some areas, reductions of certain operating costs have been realized when governmental agencies assumed the responsibility of market sanitation or snow removal; utilities companies installed services to the individual stores, or the railroads have provided lead-in trackage. If similar agencies in Milwaukee supply these services, operations costs can be reduced.

Table 17.--Estimated annual revenue charges required in the proposed facilities by market area, 1962

Market area	Space planned	Revenue required	Annual revenue required per square foot
	Sq. ft.	Dollars	Dollars
Broadway Street market:			
Fresh fruit and vegetable wholesalers	87,750	136,783	1.56
Other areas within the city:			
Fresh fruit and vegetable wholesalers	64,350	99,050	1.54
Total	152,100	235,833	1/ 1.55

1/ Variations in square-foot rental costs between the two areas are a result of the difference in the total space planned. In the proposed market, rental costs should be equitable.

BENEFITS AND SAVINGS FROM IMPROVED FACILITIES

The same selected measurable costs computed for the 23 dealers in the city also were estimated for these dealers in the proposed facilities: (1) Cartage, (2) handling, (3) interdealer movement, (4) spoilage, deterioration, breakage, and shrinkage, and (5) rentals. These are not the only costs involved, but they reflect the greatest measurable cost change effected by new facility proposals and the areas where greater savings are to be realized. Although such projections involve elements of probability, the estimates were based upon research by the Department of Agriculture on operating costs within modern facilities throughout the country. The data were supplemented by comparison of percentage cost reductions realized by wholesalers in other areas who have moved to new facilities.

Cartage

Although 38 percent of direct receipts arrived by rail, only 3 wholesalers in the city had house tracks. Since none of the dealers on the Broadway Street market are presently served by direct rail to their store, substantial savings would be realized in the elimination of cartage costs in the proposed facilities. These costs are incurred in loading and delivery of merchandise from team tracks, but do not include the unloading costs at the dealer's store. The limited volume, which previously arrived at other points in the city, would be received directly at the new facilities. The recommended facilities for the fruit and vegetable dealers provide direct rail car and truck access to store platforms.

This would serve to eliminate cartage cost incurred in moving the commodity from the team track. The cost involved in receipt of pool cars will be considered as interdealer movement, since it would be affected by movement down a platform. Therefore, cartage costs presently incurred would be eliminated in the new center (table 18). Direct rail facilities would save about $80,000 a year.

Table 18.--Comparison of cartage costs in present facilities compared with those in proposed facilities, 1962

Market area	Tonnage incurring cost	Cost per ton		Total cost		Cost reduction
		Present	Proposed	Present	Proposed	
	Tons	Dollars	Dollars	Dollars	Dollars	Dollars
Broadway Street market:						
Fresh fruit and vegetable wholesalers	37,896	1.99	1/	75,413	1/	75,413
Other areas within the city:						
Fresh fruit and vegetable wholesalers	1,928	2.18	1/	4,203	1/	4,203
Total or average	39,824	2.00	1/	79,616	1/	79,616

1/ Cartage costs would be eliminated with provision of direct rail connections to the dealer's store in the proposed facilities.

Handling

Handling costs include the movement of the product within the facility from time of unload at the store until loaded on outgoing trucks. The greatest savings would be realized from the increased efficiency in the improved facilities. The one-story multiple-occupancy buildings recommended would provide front and rear platforms. Bulk products could be loaded on efficient handling equipment and transported to cooling, storage, or display areas, or could be loaded immediately for transport out of the facility. Even without modern handling equipment, savings would accrue to dealers handling smaller volumes. These firms could use pallets and pallet jacks to improve their operating efficiency. It is assumed that most merchandise in the proposed facilities would be handled through the dealer's store.

The reduction in per-ton handling costs for the wholesalers would be $110,760. Possible handling cost reductions are shown in table 19.

Table 19.--Comparison of handling costs in present facilities compared with those in proposed facilities, 1962

Market area	Tonnage incurring cost	Cost per ton		Total cost		Cost reduction
		Present	Proposed	Present	Proposed	
	Tons	Dollars	Dollars	Dollars	Dollars	Dollars
Broadway Street market:						
Fresh fruit and vegetable wholesalers	99,823	2.75	2.08	274,513	207,632	66,881
Other areas within the city:						
Fresh fruit and vegetable wholesalers	62,689	2.88	2.18	180,544	136,662	43,882
Total or average	162,512	2.80	2.12	455,057	344,294	110,763

Interdealer Handling

Dealers' buying habits will not materially change by their relocating in new facilities, although interdealer handling costs should be reduced. The dealers will be able to interchange merchandise by moving it along a common platform for much shorter distances. Although interdealer exchange is necessary, some of the costs can be reduced, especially where dealers' facilities are scattered or there is a split market. It has been assumed that the volume subject to interdealer movement would remain about the same, because some dealers who discontinue this operation would be sharing pool cars. The estimated saving should amount to $4,900. See table 20.

Table 20.--Comparison of interdealer handling costs in present facilities with those in the proposed facilities, 1962

Market area	Tonnage incurring cost	Cost per ton		Total cost		Cost reductions
		Present	Proposed	Present	Proposed	
	Tons	Dollars	Dollars	Dollars	Dollars	Dollars
Broadway Street market:						
Fresh fruit and vegetable wholesalers	3,784	1.68	1.20	6,357	4,558	1,799
Other areas within the city:						
Fresh fruit and vegetable wholesalers	4,837	1.79	1.14	8,658	5,524	3,134
Total or average	8,621	1.74	1.17	15,015	10,082	4,933

Spoilage, Deterioration, Breakage, and Shrinkage

In a new market it will no longer be necessary to store merchandise outside, although some platform areas may be used for display purposes. More adequate refrigeration could decrease losses. Bruising and spoilage will be reduced because less handling is required in a single-story operation. The estimated saving accruing to wholesalers would be about $38,000, as is illustrated in table 21.

Table 21.--Costs of spoilage, deterioration, breakage, and shrinkage in present facilities compared with those in proposed facilities, 1962

Market area	Tonnage incurring cost	Cost per ton		Total cost		Cost reduction
		Present	Proposed	Present	Proposed	
	Tons	Dollars	Dollars	Dollars	Dollars	Dollars
Broadway Street market:						
Fresh fruit and vegetable wholesalers	99,823	2.28	2.05	227,596	204,637	22,959
Other areas within the city:						
Fresh fruit and vegetable wholesalers	62,689	2.40	2.16	150,454	135,408	15,046
Total or average	162,512	2.33	2.09	378,050	340,045	38,005

Rents

Rents will be higher in the proposed market, although increases are more than offset through savings which the new facilities make possible. The new market offers improvements and services not now available to fresh fruit and vegetable wholesalers in Milwaukee. Building costs have increased. Higher rent is the price that must be paid for relocating to new and modern facilities and improvements in working conditions.

Rental comparisons between old and new facilities indicated an increase of about $177,430 will be necessary. This increase may be seen in table 22.

Table 22--Comparison of rentals in present facilities with those in the proposed facilities, 1962

Market area	Space used		Rentals		Increase
	Present	Proposed	Present	Proposed	
	Sq. ft.	Sq. ft.	Dollars	Dollars	Dollars
Broadway Street market:					
Fresh fruit and vegetable wholesalers	112,557	87,750	34,860	136,783	101,923
Other areas within the city:					
Fresh fruit and vegetable wholesalers	68,986	64,350	23,544	99,050	75,506
Total	181,543	152,100	58,404	235,833	177,429

Summary of Selected Marketing Costs

Possible savings which may be derived in new facilities more than compensate the increase in rentals required. There would be estimated savings of about $56,000 over present cost of operations, as may be seen in tabular form in table 23. Total costs could be altered by subsidies such as tax adjustments, land grants, or changes in the money market. Food wholesalers must move from their present location. If the city were the developer of a market, or the sponsor of a combined food center, the cost of operation could be materially affected. The dealers should be provided with facilities at the lowest possible increase in operating costs.

Nonmeasurable Benefits

It is not possible to place dollar savings on all benefits to be derived from new wholesale fresh fruit and vegetable facilities. These benefits could be shared by the producer, the wholesale dealer, the market employee, the buyer, transportation agencies, the final consumer, or the municipality where the new facilities will be located.

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Table 23.--Summary of cost reductions in the proposed fresh fruit and vegetable facilities, 1962

Market area	Cost reduction				Rental cost	Total
	Cartage	Handling	Interdealer handling	Spoilage, deterioration, breakage, and shrinkage		
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
Broadway Street market: Fresh fruit and vegetable wholesalers	75,413	66,881	1,799	22,959	-101,923	65,129
Other areas within the city: Fresh fruit and vegetable wholesalers	4,203	43,882	3,134	15,046	- 75,506	- 9,241
Total	79,616	110,763	4,933	38,005	-177,429	55,888

Both local and distant producers could expect to benefit from the improved facilities. The elimination of many of the inefficiencies could reduce handling and resultant spoilage and deterioration of the product.

Wholesale fresh fruit and vegetable dealers would find it possible to transact their business with fewer man-hours per day. Selling hours could be regulated to the satisfaction of the majority of the dealers. Reduced construction costs through concerted action of the dealers could reduce the anticipated relocation costs on an individual basis.

Market employee working conditions could be improved in the proposed facilities, thus providing higher employee morale and greater efficiency. These facilities have been designed so that with proper handling equipment, workers' tasks would be less arduous. This could result in increased earnings and greater productivity.

Improved parking facilities and restrooms would improve the general environment of the employees. The two multiple-occupancy buildings facing each other, with their continuous platforms, would make it less time-consuming for the buyer to shop the market. Parking areas and convenient entrance and exit to and from the market would also serve to reduce purchase time.

The buyer could expect to have a better selection of fresh fruits and vegetables with all dealers located in the food center.

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Transportation agencies would expect to benefit from the proposed facilities. Railroads presently cannot serve the majority of these dealers, but could serve all firms in the new area.

Truckers hauling products to and from the new market would be able to unload and load directly on the platform. Congestion, with the resultant delay found on the present Broadway area, would be eliminated. Adequate parking for trucks would also be available.

The city would benefit with the development of the new market because it could expect to solve future displacement problems caused by urban renewal or redevelopment programs.

The tax base developed by the new facilities would more than replace loss in revenue from the old facilities. In addition, alternative land use of the present site would be enhanced, as opposed to its present utilization. The improved competitive position created by the new market could serve to attract additional business to the area.

Consumers of fresh fruits and vegetables could anticipate a better quality and variety of these products.