

## The Benton Harbor fruit market at Benton Harbor, Mich

United States.  
Washington, 1948.

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# *The Benton Harbor* **FRUIT MARKET**

**at Benton Harbor,  
MICH.**



**U.S. DEPARTMENT OF AGRICULTURE  
PRODUCTION AND MARKETING  
ADMINISTRATION  
MARKETING FACILITIES BRANCH**

Washington, D.C.

June 1948





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Special credit is also due M. E. Cravens and R. E. Marshall of the Michigan Agricultural Experiment Station, who read the report, made available data from unpublished manuscripts and offered many valuable suggestions.

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This is a report of a study conducted with funds appropriated under the Research and Marketing Act of 1946.

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## FOREWORD

The study that provided the basis for this report was made at the request of the Benton Harbor Market Board, a board created by the city of Benton Harbor for the control and management of the Benton Harbor Fruit Market. Since the members of this board expressed an interest in rebuilding and expanding the facilities of the present market in line with the growing needs of the city and the area served, the employees of the United States Department of Agriculture who made the study did not consider the question of ownership and management. As a consequence, ~~no recommendations~~ have been made in this report on these subjects.

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# THE BENTON HARBOR FRUIT MARKET, BENTON HARBOR, MICH.

BY

Roger F. Burdette, Marketing Specialist  
and A. B. Lowstuter, Architectural Engineer

## THE PRESENT MARKET

The Benton Harbor Fruit Market is a shipping point or concentration type of market. It is located near the center of the Berrien County, Mich. fruit belt at Benton Harbor. The market operates about 6 months each year, opening during May and closing during November. Although the market is usually referred to as a fruit market, over 60 different kinds of fruits, vegetables, nuts, poultry products, and other farm products are sold. The market is owned and operated by the city of Benton Harbor.

The market is about 3 city blocks west of the business district of Benton Harbor. It is adjacent to the lines of the New York Central Railroad and is about 3 blocks south of U.S. Highway No. 12, one of the main thoroughfares from Detroit to Chicago. In addition to the wholesale market there is a retail market within the market property. A cold storage warehouse, team tracks for loading outgoing shipments, several processing plants and other closely related facilities are near or adjacent to the market. The location of the market and these related facilities are shown in figure 1.

## HISTORY OF THE MARKET

The present site and facilities were used for the first time in 1930, but Benton Harbor has served as a place where farmers have congregated to ship and sell their fruits and vegetables for the past 60 or 70 years. Prior to the time when the railroads began hauling fruits and vegetables, farmers congregated at the wharves and either sold their products to the various ship captains who sailed the lake between Benton Harbor and Chicago or shipped them on consignment to commission merchants in Chicago. When the railroads became an important agency for transportation of fresh fruits and vegetables, about 1900, the growers gradually drifted away from the wharves and began congregating in an area just west of the present Pere Marquette passenger station. This area was used at that time because there were team tracks and loading platforms there. No one in the market could remember just how long this area continued to be the principal market place in the city, but at the time the present market was built the area just north of it had become the principal market place. The change from one area to the other was probably a gradual one and was associated with the coming of motortrucks in the fresh fruit and vegetable industry.

## IMPORTANCE OF THE MARKET

Several factors should be considered in ascertaining the importance of the Benton Harbor Fruit Market, such as the total volume of products handled, the volume handled in relation to the production in the area

from which products are received and the size of the area to which products sold on the market are distributed. In all these respects the market ranks high. It is one of the largest shipping point markets in the United States. It is the largest single market outlet for fresh fruits and vegetables in the Michigan fruit belt. Fresh fruits and vegetables are distributed by motortruck and rail direct from the market to about 30 states.

#### Volume of Products Handled

In 1946 the equivalent of 7,498 carloads of fresh fruits, vegetables and other farm products moved through the market, with a return to growers of \$9,361,540. This was the largest amount of money returned to growers since the market was opened in 1930. The largest quantity was reached in 1932 when the equivalent of 9,412 carloads were sold. The volume sold at the market from 1931 to 1946 inclusive is shown in table 1.

#### Origin of Supplies and Number of Sellers

The market keeps no records of the origin of the supplies sold, but a survey conducted by Michigan State College of Agriculture and Applied Science for the years 1930-33 and 1946 showed that the average distance traveled by farmers to reach the market was 9 miles in 1930-33 and 12 miles in 1946. None of the farmers interviewed traveled over 60 miles to reach the market and 93 percent of them lived within 20 miles of it. This survey indicated that less than 10 percent of the loads sold by growers originated outside of Berrien and Van Buren Counties.

As shown in table 2, a tabulation of the value of the fruits and vegetables grown in Berrien and Van Buren Counties, as reported by the census of 1945, indicates that at least one-third of the fruits and vegetables grown in this area move through the Benton Harbor market. It is conservatively estimated that the market handles about one-half of the fruits and vegetables grown for the fresh market in this area.

The market keeps a record of the number of loads sold by farmers and truckers. These loads sold by truckers are designated as resale loads and are shown in table 1. No attempt was made to determine the origin of all the products sold on the market by truckers, but interviews with a few of them at the time the market survey was being made showed that one group is made up of local people who buy from local growers and haul their purchases to the market to resell. Another group consists of buyers from distant States who visit the market primarily to purchase supplies, but they bring along a load of produce to sell in order to have a pay load in both directions. Nearly all the watermelons handled on the market are sold by truckers from distant States. Potatoes and onions are the principal commodities sold by the local truckers. During 1946, the resale loads accounted for less than one-half of 1 percent of all the loads handled on the market, however, the average load of produce for resale is larger than the average load sold by growers on the market. It is estimated that truckers sold the equivalent of about 100 carloads in the Benton Harbor Market in 1946 and that about 75 percent of these sales were made by truckers from distant States.

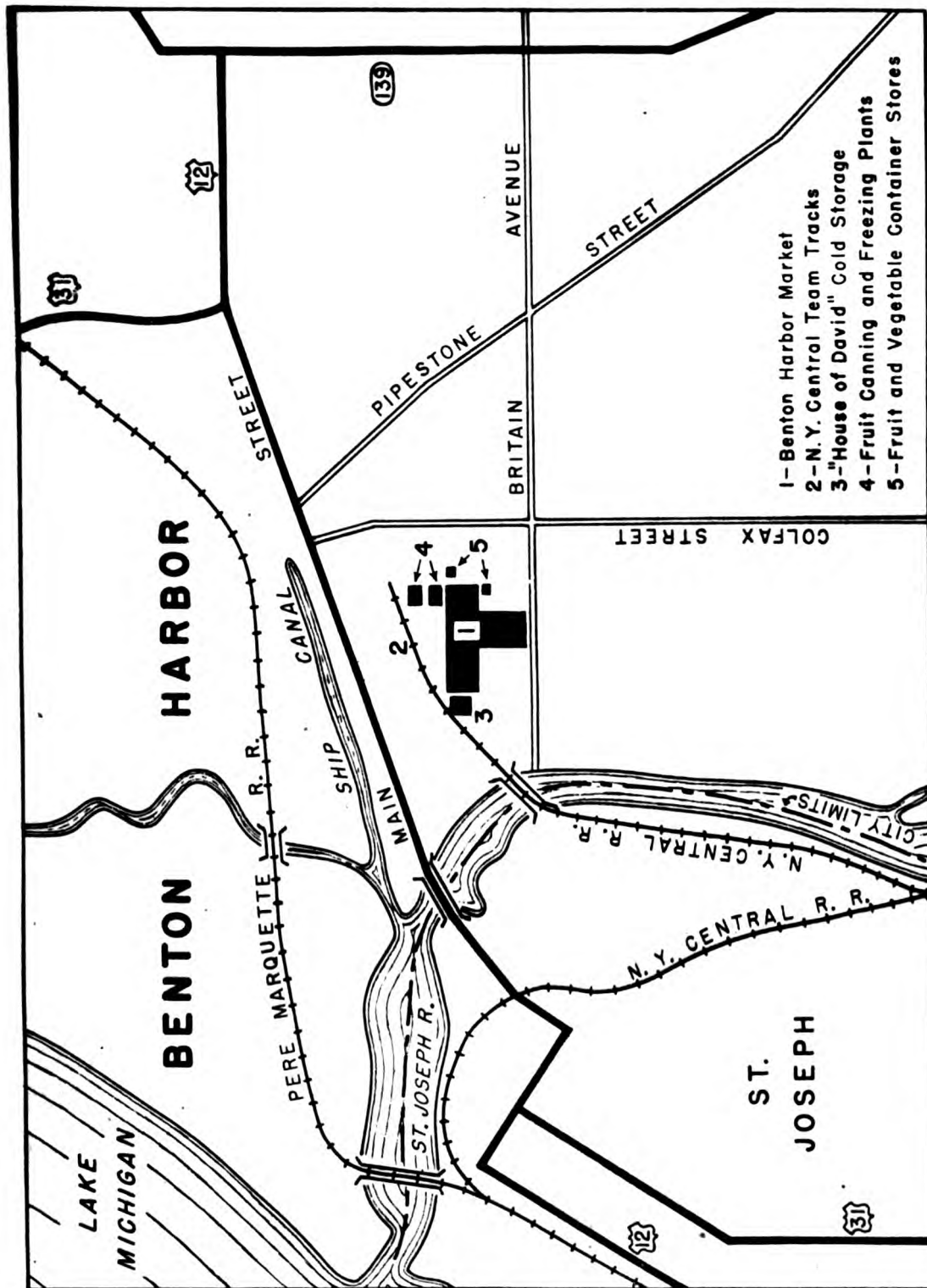


FIGURE I. MAP OF BENTON HARBOR SHOWING LOCATION OF MARKET AND OTHER RELATED FACILITIES

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Table 1. - Volume of fresh fruits and vegetables handled on the Benton Harbor Market, 1931-1946

Year	Volume Handled				Value	
	Packages Number	Growers loads Number	Resale loads Number	Equivalent carloads Number	Av. price per package Dollars	Total received by growers Dollars
1931	4,837,758	102,285	1/	7,162	.58	2,820,285.00
1932	7,210,159	125,351	844	9,412	.41	2,981,131.00
1933	6,073,282	112,154	1,501	6,798	.43	2,633,673.00
1934	6,909,774	131,392	1,851	8,184	.55	3,798,401.00
1935	6,412,766	121,245	2,242	8,049	.49	3,137,215.00
1936	5,891,711	131,963	1,174	8,288	.81	4,785,484.00
1937	7,151,661	133,361	1,199	9,006	.62	4,397,003.00
1938	3,679,942	96,839	1,434	5,720	.86	3,156,155.00
1939	7,052,646	134,199	1,283	9,324	.54	3,816,574.00
1940	6,224,333	113,681	1,311	7,258	.60	3,749,664.00
1941	5,333,027	108,653	1,140	7,690	.80	4,256,035.00
1942	5,523,041	106,035	690	7,078	1.16	6,162,056.00
1943	3,806,073	90,305	314	4,866	2.10	8,007,736.00
1944	3,966,762	88,445	314	6,050	2.24	7,568,691.00
1945	2,659,914	59,197	263	4,823	1.87	4,972,889.00
1946	4,601,900	92,627	438	7,498	2.03	9,361,540.00
<hr/>						
16-year annual aver.	5,458,422	109,233	—	7,325	.85	4,662,783.00

1/ Data not available.



Table 2. - Value of certain fruits and vegetables harvested in Berrien and Van Buren Counties, Michigan, and returns to growers at the Benton Harbor Fruit Market, 1944

Crop	Value of crops harvested		Sales by growers on Benton Harbor Market		Percent of total value of crops in two county area
	Berrien County Dollars	Van Buren County Dollars	Total county area Dollars	Total Dollars	
Apples	2,568,262	1,763,685	4,631,947	1,461,445	31.6
Peaches	4,512,408	921,942	5,434,350	2,609,465	49.5
Pears	500,837	127,453	628,290	370,504	59.0
Grapes	1,066,690	941,402	2,008,092	675,954	33.7
Cherries	809,996	435,147	1,245,143	102,418	8.2
Strawberries	660,583	208,625	869,208	247,515	28.5
Raspberries	1,157,746	134,583	1,292,329	626,723	48.5
Blackberries	288,929	23,095	312,024	5,433	1.7
Blueberries	38,169	194,125	232,294	51,230	22.0
Vegetables	933,050	933,648	1,866,698	895,820	48.0
<b>Total</b>	<b>12,836,670</b>	<b>5,683,705</b>	<b>18,520,375</b>	<b>7,126,507</b>	<b>38.5</b>

Source: Value of crops harvested in Berrien and Van Buren Counties was taken from the U. S. Census for Agriculture, 1945. The value of crops sold on the Benton Harbor Market was obtained from the market records for 1944. Certain fruits and vegetables sold at the market were excluded to make the statistics from the market records as nearly comparable as possible with those given in the Census.

In 1946 a total of 92,627 grower loads were sold on the market. No records were kept of the number of farmers using the market or the number of loads each grower sold. It is conservatively estimated that the average grower using the Benton Harbor market sold at least 20 loads there in 1946. Interviews with a large number of growers who were selling on the market at the time the survey was made showed that a few of these farmers use the market only once or twice a year whereas others sell as many as four and five loads a day during a part of the market season.

#### Distribution of Supplies and Number of Buyers

During the period 1942 to 1946 fresh fruits and vegetables purchased on the Benton Harbor market were distributed to 30 States, Canada and Mexico. Over 90 percent of these purchases were shipped by motortruck.

During 1943 when the shortage of trucks was reported to have been the most severe, the market kept a record on all sales that were shipped by rail. These records show that 331 carloads were shipped by rail as compared with 4,535 equivalent carloads by truck. A report of the Federal-State Market News Service for 1939 shows that 95 percent moved by motortruck and 5 percent by rail.

The distribution of supplies from the market is shown in figure 2. Shipments to cities and towns in Michigan accounted for 21.8 percent of the total volume sold during the 5-year period, 1942-46. During the same period, shipments to Illinois and Indiana accounted for 16.8 percent and 16.4 percent respectively. Shipments to these three States accounted for 55 percent of the total supplies and the nearby States of Ohio, West Virginia, Kentucky, Tennessee, Missouri, Iowa, and Wisconsin, accounted for an additional 34.1 percent. The remaining 10.9 percent of the supplies were distributed to 20 other States, Canada and Mexico. The market does not keep detailed records of the volume distributed to each town and city within each State, but it is estimated that less than one-half of 1 percent of the total receipts are distributed in the cities of Benton Harbor and Saint Joseph, Mich.

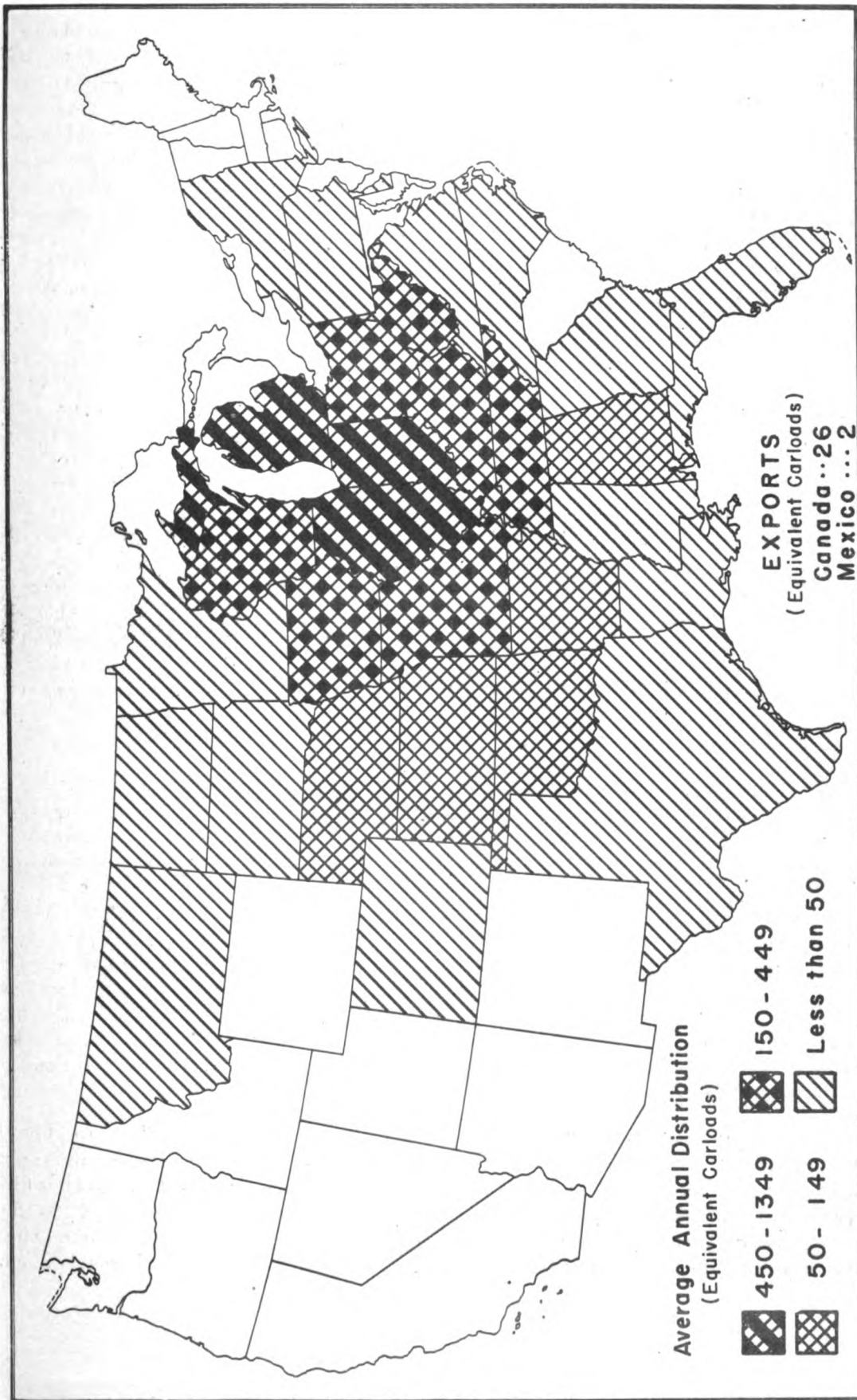
There are two types of buyers who purchase on the market, namely season buyers and day buyers. Season buyers rent one or more stalls each at the loading platforms and buy throughout the marketing season. Some of these buyers maintain a residence at Benton Harbor and handle only supplies from this market; others buy on other markets in the United States changing from one market to another as the season changes. A rather common custom of the latter group is to buy at one of the Florida markets in the winter and at Benton Harbor in the summer. Most of the season buyers have an office on the market and perform the functions of a buying broker. A number of them have one or more trucks and deliver the supplies they purchase on orders. The day buyers visit the market from time to time purchasing only one truckload on any one day. Interviews with a large number of these buyers indicated that this group includes the following types of operators: (1) merchant truckers who buy on one market and sell at another; (2) merchant truckers who buy on one or more markets and de-

liver to dealers along an established route; (3) wholesale dealers primarily distributors in other cities, who buy on other markets to obtain supplies for their wholesale stores; (4) roadside market operators; (5) retailers; and (6) buyers with a truck who purchase only when they can get a load at bargain prices and sell to any number of market outlets. One chain store maintains an office in Benton Harbor and purchases supplies on the market. Since the operations of the chain store buyer are very similar to those of the season buyers, his activities have been combined with those of the other season buyers for the purposes of this report. Several other chain stores may be considered as buyers on the Benton Harbor Market since they place purchase orders with season buyers who purchase for them.

During the period, 1938 to 1946, the season buyers have purchased 72.4 percent and the day buyers 27.6 percent of the supplies handled on the Benton Harbor Fruit Market. The proportion bought annually by each group has not varied a great deal from the average for this period, (table 3). In 1946 there were 112 season buyers operating on the market representing a total of 82 firms. The total number of buyers was larger than the number of firms represented as several of the firms are by partnerships, or fathers and sons, or brothers, or they are large firms that have several buyers. For those firms having more than one buyer the division of the orders among the buyers varied from firm to firm, but buyers from the same firm seldom compete by bidding on the same load. There were several firms in which a younger member of the family did most of the buying and the older member would go on the market only when the firm had more orders than one buyer could fill. The large firms with several buyers usually divided the orders among the buyers along commodity lines. For instance, one buyer might handle all of the peach purchases while another might handle all the tomato purchases.

During the 1946 marketing season a total of 1,553 day buyers patronized the Benton Harbor Fruit Market. Some of these buyers purchased only one load during the entire market season, whereas others were on the market for extended periods and made purchases every day. The number of day buyers on the market each day from the opening of the season on June 2, 1946 to the closing on November 5, 1946, varied from none to 241. The daily average number of day buyers on the market by weeks for 1946 is shown in table 4. The number of day buyers attending the market varied in proportion to the volume being sold from week to week. During those weeks when the average daily number of grower loads sold was over 1,500 truckloads, the average daily number of day buyers was over 160; during those weeks when fewer than 500 grower loads were sold daily there were fewer than 40 day buyers patronizing the market.

Although the day buyers purchase only about one-fourth of the supplies sold at the market, they play an important role in moving supplies during the peak of the marketing season. It is estimated that the day buyers purchased nearly half of the volume handled during the 4 to 5 weeks when growers sold an average of over 1,000 loads per day. Since the day buyers normally distribute their purchases to many of the smaller cities



**FIGURE 2. DISTRIBUTION OF FRESH FRUITS AND VEGETABLES  
FROM THE BENTON HARBOR FRUIT MARKET, 1942-46**



Table 3. - Volume purchased by season and day buyers at the Benton Harbor Fruit Market 1938-1946

Year	: Total :		Season buyers bought:		Day buyers bought	
	: Packages:		Per Cent	:	Per Cent	
	: Sold	: Packages	of Total	:	Packages	of Total
	Number	Number	Percentage		Number	Percentage
1938	3,679,942	2,632,753	71.5		1,047,189	28.5
1939	7,052,646	5,031,683	71.3		2,020,963	28.7
1940	6,224,333	4,774,036	76.6		1,450,297	23.4
1941	5,333,029	3,694,336	69.2		1,638,693	30.8
1942	5,523,041	3,855,883	72.4		1,467,158	27.6
1943	3,806,073	2,804,659	73.6		1,001,414	26.4
1944	3,966,762	2,896,972	73.0		1,069,790	27.0
1945	2,659,914	1,920,960	72.2		738,954	27.8
1946	4,601,900	3,266,523	70.9		1,335,377	29.1
<b>Average</b>	<b>4,738,626</b>	<b>3,430,867</b>	<b>72.4</b>		<b>1,307,759</b>	<b>27.6</b>

Table 4. - Daily average number of grower loads sold and average number of day buyers on the Benton Harbor Fruit Market by weeks, 1946

Week beginning Sunday	Daily average of grower loads sold <u>Number</u>	Daily average of day buyers on the market <u>Number</u>
June 2	268	4
June 9	582	11
June 16	450	6
June 23	350	5
June 30	500	9
July 7	616	15
July 14	617	10
July 21	676	12
July 28	566	15
August 4	634	29
August 11	966	82
August 18	1,616	161
August 25	1,650	174
September 1	1,860	169
September 8	1,316	116
September 15	1,017	82
September 22	633	64
September 29	550	54
October 6	417	36
October 13	233	31
October 20	150	22
October 27	134	14
November 3	435	10

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and towns over a wide area, they perform an important service in widening the distribution area of the market at a time when it is most needed. The volumes handled and distribution by day buyers are shown in table 5.

#### Relationship to Other Markets

In addition to the Benton Harbor Fruit Market, there are several other market outlets in Berrien County for the fruits and vegetables produced in this area. There are fruit exchanges at Sodus, Watervliet, Berrien Springs, Coloma, Milburg and other towns that grade, pack and ship fruits and vegetables. There are also a number of canners in Benton Harbor, Saint Joseph and other nearby cities. Many of the farmers have packing sheds from which they sell direct to truckers and occasionally ship by rail. Most of these agencies are in competition with the Benton Harbor Fruit Market, but at times some of these agencies sell a part of their supplies on the market and the canners frequently purchase part of their supplies on the market. Interviews with growers and representatives from the other marketing agencies indicated that both farmers and other marketing agencies use the daily price reports for the Benton Harbor market, published by the Federal-State Market News Service, as a guide for establishing prices. Some growers sell direct to truckers at the farm and agree to accept a premium above or a discount below the prices paid on the Benton Harbor market as reported by the Federal-State Market News Service. Some of the fruit exchanges also follow this procedure in establishing prices to buyers.

#### METHOD OF SALE AND MARKET ORGANIZATION

The Benton Harbor Fruit Market is unique in that its organization and selling methods are not found on any other organized market in the United States. The farmers with their loads of produce enter the market gate where they pay a fee for the privilege of selling. They also report the amount and type products offered for sale to a market attendant as they enter the gate. The grower is then assigned to one of eight selling lanes where he pulls his vehicle in line behind the vehicles of the growers who previously entered this line. These selling lanes are arranged in pairs with a traffic lane between each pair of selling lanes to allow the grower to pull out of the selling lane and out of the selling areas as soon as he has sold his load. There are a total of 10 selling lanes in this sales area but the single outside lanes on each side of the sales area are reserved for the vehicles of dealers and truckers bringing produce to the market for resale. Buyers are not permitted to make purchases outside of the selling area. As soon as the grower enters the selling area he negotiates directly with the buyers in arriving at a price for his commodities. The grower usually receives from one to several offers for his load as soon as he enters the selling area. If he agrees to accept the offer of one of the buyers, the buyer writes out a sales ticket in duplicate, gives one to the grower and keeps the other for his own records. This ticket shows the location of the buyer's stall. The grower then pulls his vehicle out of the selling lane into one of the traffic lanes and leaves the selling area to deliver his load to the buyer's loading platform or



Table 5. - Volume and distribution of supplies purchased by day buyers on the Benton Harbor Fruit Market, 1931 to 1946

Year	Volume Purchased			Distribution from the Market		
	Packages : Number	Day buyers : loads : Number	Truckloads : per buyer : Number	Day buyers : represented : Number	States : represented : Number	Cities : represented : Number
1946	1,335,377	6,537	4.2	1,553	30	566
1945	738,954	4,074	3.6	1,125	27	460
1944	1,069,790	5,271	4.6	1,137	24	445
1943	1,001,414	4,490	4.6	970	25	407
1942	1,467,158	6,103	5.3	1,137	24	458
1941	1,638,693	6,950	4.7	1,449	27	528
1940	1,450,297	6,366	4.1	1,527	29	553
1939	2,020,963	8,893	4.9	1,825	24	589
1938	1,047,189	7,076	4.9	1,451	24	486
1937		8,978	5.8	1,549	28	567
1936		9,558	4.7	2,042	26	644
1935		9,624	4.8	1,998	25	538
1934		10,907	5.0	2,168	25	568
1933		8,999	5.3	1,697	17	449
1932		11,393			21	
1931		9,190			21	

Source: Market records.

1/ Information not available.

stall As soon as he has delivered and unloaded his commodities at the buyers stall, he presents his sales ticket and is paid.

The grower is permitted to remain in the selling area until he receives an offer he is willing to accept. However, he must stay in the same lane and if a grower ahead of him sells his load and leaves the selling area, he must pull his vehicle forward so as to keep the vehicles in the forward part of the selling lanes in a tight formation at all times. Since there are always new loads arriving on the market, there is a tendency for the buyers to move from the forward part of the selling lanes toward the market entrance as selling progresses. Many of the buyers try to stay as close to the entrance gate as possible in order to spot a desirable load as soon as it enters the market. This organization of the traffic through the market results in the most active trading taking place between the place where the last vehicles to enter have parked and the market entrance. On days when there is a sellers market, there are seldom more than 25 or 30 vehicles in the selling lanes at any one time during the entire sales period but on days when there is a buyers market the selling lanes fill up rapidly and the market is most active near the entrance to the selling area.

All selling in the area just discussed is done in wholesale quantities. There is no minimum limit on the number of packages that can be sold but most growers prefer to sell their entire load to one buyer. The number of packages and number of commodities brought to the market on each load vary widely. One grower may have as many as 5 or 6 commodities of one or two packages each; another may have as many as 200 or 300 packages of only one commodity. A large percentage of the grower loads contain fewer than 25 packages but the average for all loads sold during 1946 was 50 packages. If the grower has several different commodities or different grades of the same commodities in one load, he frequently sells one commodity or one grade to one buyer and the other commodity or grade to another buyer. It is very rare for a grower to split a sale of any one grade of the same commodity between two or more buyers. However, there are no regulations prohibiting this type of sale.

Selling begins about 10 a.m., and continues until the last grower load arrives in the afternoon, usually about 5 p.m. Grower loads arrive in about equal numbers each hour during the day until about 3 p.m. when the number arriving each hour slackens off gradually until the close of the sales period. Most buyers from distant points make their purchases before noon in order to get on the road in time to arrive for early morning markets in other cities the following day. However, the time at which each buyer makes his purchase will depend in a large degree upon the market hours in the city to which he is delivering from Benton Harbor and the amount of time it requires for him to make this trip with a particular type of truck. Purchases by season buyers also vary throughout the day, as many of them receive orders by telephone after trading for the day has begun. In addition, orders that were placed with the season buyers prior to the opening of the market may be canceled or modified if prices vary considerably from those of the previous day. Since all of the season buy-

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ers and many of the day buyers are in communication by telephone with the towns to which they distribute, several times during the day, market conditions at a large number of cities in distant areas are reflected in the trading on the Benton Harbor market.

In addition to the wholesale market, there is a retail market in the market area where farmers and dealers sell to consumers. A number of the dealers in the retail market also make some jobbing sales to retailers, hotels, restaurants and institutions.

#### DESCRIPTION OF WHOLESALE FACILITIES

The present market comprises an area of approximately 13 acres located southwest of the intersection of Market and Ninth Streets. A layout of the market area and facilities is shown in figure 3. The area bounded by Market, Ninth, Bond and Twelfth Streets contains 4 sheds for season buyers, a selling area, market clerk office, restaurant and rest rooms for both men and women. Part of this area is shown in figure 4. The area across Bond Street on the South contains two sheds for day buyers, a day buyers office, two small shacks for the storage of equipment and tools, a retail market and space for the parking of trucks. On the southeast corner of this area a space of about 100 feet by 150 feet has been fenced in and tents set up for the housing of migrant laborers.

The selling area is 130 feet wide and approximately 900 feet long. The section of the selling area between Ninth and Eleventh Streets (600 feet in length) has been paved with macadam and the section between Eleventh and Twelfth Streets is covered with gravel. The paved section of the selling area has been marked off into 10 selling lanes each 8 feet wide and 5 traffic lanes each 10 feet wide, by painting lines on the pavement. Whenever the paved area is sufficient to handle all of the grower loads as fast as they arrive, the graveled section is not used and Eleventh Street is opened to traffic. When the grower loads begin arriving in numbers too large to be parked on the paved section, Eleventh Street is closed by chains hung from two posts on either side of the street and all of the grower vehicles in the paved section are required to move forward until the gravel section has been filled. This provides additional space at the entrance to the selling area. Although no lanes have been designated on the graveled section of the selling area the grower vehicles move forward in 8 well defined lanes and there is always space on either side of the selling lanes for growers who have sold their loads to move out of the selling area. Although the entire selling area will accommodate more than 350 vehicles when all the selling lanes are filled and the vehicles in each lane are parked in a tight formation, counts made on several occasions when the selling area was full showed that about 250 trucks is the maximum capacity of the area under normal trading conditions. The continual movement of vehicles out of the selling lanes whenever a load is sold makes it very difficult to keep the vehicles in each of the selling lanes in a tight formation at all times.

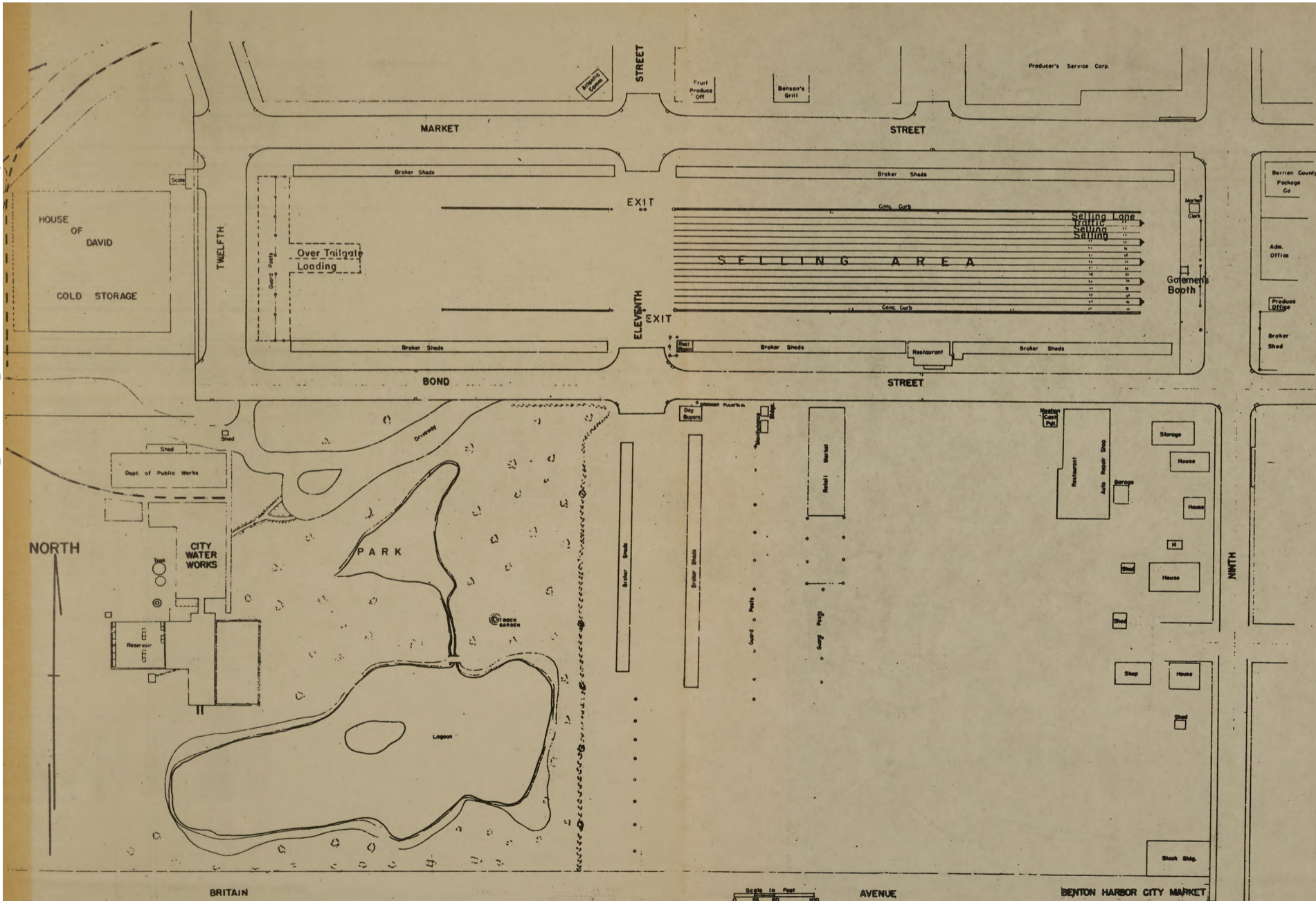


FIGURE 3. LAYOUT OF THE PRESENT BENTON HARBOR FRUIT MARKET



**FIGURE 4. SELLING AREA AT THE BENTON HARBOR FRUIT MARKET.  
THE SHEDS ON EACH SIDE OF THE SELLING AREA CONTAIN  
STALLS THAT ARE RENTED TO SEASON BUYERS.**



COURTESY MICHIGAN BELL TELEPHONE CO.

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The season buyers sheds on each side of the selling area between Ninth and Eleventh Streets are 630 feet long and 14 feet wide. The shed on the north side of the selling area contains 63 stalls 10 feet wide and 14 feet deep. Offices have been constructed on 14 spaces leaving a total of 49 stalls that are used for the stacking of produce and loading of trucks. The floors of all sheds were at truck-bed height at the time they were built, but they were mounted on cedar posts planted in the ground and during the time since the sheds were built the posts at some places have sunk. At other places fills have been made. As a consequence, the floors of most stalls range from 18 to 24 inches in height whereas the original floor was about 30 inches high. The sheds are of frame construction with composition paper roofs. The clearance between the roof and the ground level ranges from 11½ to 12 feet depending upon the amount of fill that has been made and the degree the supporting posts have sunk.

The shed on the south side of the selling area between Ninth and Eleventh Streets is of the same design and construction as the one on the north. However, it contains only 55 stalls because a restaurant which is 60 feet long has been constructed in the center and toilets at the Eleventh Street end occupy the space of two stalls. Offices have been constructed on 8 stalls in this shed leaving a total of 47 stalls for stacking and loading produce. There is one additional office in the shed that has been built to one side of the stall adjacent to the restaurant. This arrangement allows this space to be used for the stacking of produce but trucks cannot be loaded across the platform at this stall because the office is occupying the space where the truck to be loaded would park.

There are two season buyers' sheds west of Eleventh Street; one on each side of the graveled selling area. Each of these sheds is 400 feet long and 14 feet wide. They are of the same design and construction as the two east of Eleventh Street.

Each shed contains 40 stalls. Offices have been constructed at 8 stalls in the northern shed and at 4 stalls in the southern shed leaving a total of 68 stalls in the two sheds that are used for the stacking and loading of produce.

The selling area is separated from the season buyers' shed on each side by a concrete curb which runs the full length of the paved part of the selling area and by posts planted in the ground on each side of the graveled area. These curbs and posts permit the 36 foot wide area in front of the season buyers' sheds to be used as a street. This street is used by growers who either back up or pull alongside the season buyers stalls to unload their produce. If there are no other farmers waiting to unload the farmer who has just completed his unloading will leave his vehicle backed up or alongside the buyers' platform while he goes into the buyers' office to receive payment, but if there are others waiting to unload he will pull his vehicle alongside the curb, that forms the boundary to the selling area, and park it there while he is being paid.

The distance from the two season buyers' sheds on the north side of the selling area to the center of Market Street is approximately 40 feet. It is about the same distance from the two sheds on the south side to the center of Bond Street.



The day buyers' sheds are of the same construction and design as those of the season buyers. One shed is 300 feet long and the other 330 feet long. The two sheds contain 63 stalls. The street between the two sheds is 75 feet wide and the street between the water works and the western most shed is 54 feet wide. Space for parking about 40 trucks is provided south of the day buyers' sheds and another space to the east will accommodate about 70 trucks.

There are two buildings on the east side of Ninth Street across the street from the market entrance that are owned by the market. One building of brick construction, is 24 feet wide and 84 feet long. The other is a frame shed containing 6 stalls of similar design to those of the season buyers. The brick building houses the offices of the market master, the Marketing and Enforcement Bureau of the Michigan Department of Agriculture and the farm labor office. The frame shed was originally constructed for a container store but is now used by a season buyer.

The market clerk's office is a 12 foot by 12 foot frame building located on Ninth Street adjacent to the entrance to the selling area. The day buyers' office is a 34 foot by 20 foot frame building and is located on Bond Street just north of the day buyers' sheds.

The offices of the market master, market clerk and day buyers are equipped with an intercommunication system. A loud speaker system has recently been installed so that anyone in the market area can be paged from either the market master's office, office of the market clerk or the day buyers' office.

#### DESCRIPTION OF RETAIL FACILITIES

As shown in figure 3, the retail market is located on Bond Street about 125 feet east of the day buyers' office. It is an open shed type of building 140 feet long and 48 feet wide, with an earth floor on which the dealers and farmers have constructed various types of counters and tables for displaying fruits and vegetables. The shed has been laid out into 28 stalls. There are 14 stalls 10 feet by 18 feet on each side of a 12-foot aisle through the center of the shed.

Although the retail market caters primarily to consumers, interviews with most of the operators showed that they were selling a large volume in jobbing size lots. Hotels, restaurants and ferry lines buy at the retail market because they do not want to spend a lot of time shopping on the wholesale market to buy such a small quantity of produce. Many of the consumers purchase in bushel and crate quantities for home canning. The retail market also does a large volume of trading with people visiting the wholesale market as sightseers who want to purchase some fruit. The tourist trade from the numerous lake resorts also buys large quantities. Many of the latter group visit the market once a week and purchase a week's supply of fruits and vegetables to take home to their cottages on one of the many nearby lakes.

DESCRIPTION OF OTHER FACILITIES

In addition to the business of the wholesale and retail markets there are a number of closely related activities that have their facilities located within the greater market area.

There is a public cold storage warehouse across the street from the market on Twelfth Street. It is a four-story building approximately 175 feet square, with both cooler and freezer space for the handling of nearly all types of food products requiring cold storage. This warehouse is equipped with modern handling and portorage machinery and has rail connections and truck-bed height platforms for truck shipments.

The team tracks of the New York Central Railroad are located in the area immediately north of the market. Although most of the fruits and vegetables sold at the Benton Harbor market are distributed by truck, rather large quantities are moved at times by rail. Most of the rail shipments are loaded at the team track adjacent to the market.

A canning factory and a frozen food packing plant are located adjacent to the market on the north, and several container dealer stores are adjacent to and near the market. The farm labor camp, which houses migrant laborers for the harvesting of fruits and vegetables, is located on the market property.

FEEES AND MARKET REVENUE

The fees charged at the market were raised in 1947 to provide a larger fund for improving the facilities. Prior to 1947, growers were charged 10 cents for each load sold on the market, and truckers who brought products on the market for resale were charged \$1 a load. The season buyers and operators in the retail market paid an annual fee of \$50 for each stall rented and day buyers were charged \$1 for each truckload of produce loaded and distributed from the market. St the beginning of the market season of 1947, grower fees were increased from a flat 10 cents per load to 25 cents per load for those containing over 25 packages. The fee for grower loads containing 25 packages or less was maintained at the previous rate of 10 cents. The season buyers' fees were increased to \$75 a year and those of the day buyers from \$1 to \$1.50 a load. The rental on retail stalls was also increased from \$50 to \$75 a year.

The total revenue received and the expenses of operating the market from 1941 to 1946 are shown in table 6. The income during this period was obtained as follows:

Rental of stalls to seasonal buyers . . . . .	35 percent
Fees from day buyers. . . . .	20 percent
Fees from growers . . . . .	31 percent
Fees from resale loads. . . . .	1 percent
Rental of Retail Stalls . . . . .	7 percent
Other miscellaneous income. . . . .	6 percent

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Table 6. - Annual income and operating expenses of the Benton Harbor Fruit Market, 1941 to 1946, inclusive.

<u>Year</u>	<u>Gross income Dollars</u>	<u>Operating expenses Dollars</u>	<u>Net income Dollars</u>
1941	31,746	23,350	8,396
1942	30,396	20,280	10,116
1943	26,263	18,472	7,791
1944	27,495	16,979	10,516
1945	23,496	13,757	9,739
1946	32,684	22,478	10,206
Average	28,680	19,219	9,461

Source: Market records.

The operating expense of the market averaged \$19,219 annually during this period and was expended as follows:

Salaries and wages. . . . .	53 percent
Advertising . . . . .	11 percent
Depreciation. . . . .	10 percent
Supplies and services . . . . .	8 percent
Insurance and taxes . . . . .	6 percent
Heat, light, water, and telephone . . . . .	2 percent
Repairs . . . . .	2 percent
Miscellaneous expenses. . . . .	8 percent

It has been the policy of the city in operating the market to charge fees large enough to meet all operating expenses and when the income from the market has exceeded operating expenses to spend the excess for improvements in facilities or to deposit it in a special fund to be used at a later date for market improvements. As of December 31, 1946, the market had fixed assets of \$162,624.60 and liquid assets of \$42,124.68 in cash and deposits with the general fund of the city. A statement of the financial condition of the market as of December 31, 1946, follows:

Assets:	Cost Dollars	Depreciation reserve Dollars	Net book value Dollars	Total Dollars
Cash in bank	-	-	-	17,124.68
Advance to general fund city of Benton Harbor	-	-	-	25,000.00
Land and improvements:				
Cost of land purchased	37,650.61	-	37,650.61	
Sand	37,622.53	-	37,622.53	
Muck removal	670.91	-	670.91	
Sanitary sewer	294.86	-	294.86	
Cost of gravel	21,485.73	-	21,485.73	
Paving	32,315.16	1,077.17	31,237.99	
Special improvements tax assessments	30,189.99	-	30,189.99	
Total land and im- provements	<u>160,229.79</u>	<u>1,077.17</u>	<u>159,152.62</u>	159,152.62
Buildings:				
Dock foundations	243.40	243.40	-	
Sheds	24,913.14	24,913.14	-	
Morrison building	6,265.48	4,375.00	1,890.48	
Total buildings	<u>31,422.02</u>	<u>29,531.54</u>	<u>1,890.48</u>	1,890.48
Equipment	<u>4,812.66</u>	<u>3,231.16</u>	<u>1,581.50</u>	1,581.50
Total assets				<u>204,749.28</u>
Liabilities:				
Accounts payable				20.00
Due general fund, City of Benton Harbor				2,249.13
Current installment of special improvements assessment				794.10
Deferred installment of special improvements assessment				498.75
Total liabilities				<u>3,561.98</u>
Surplus				<u>201,187.30</u>
Total liabilities and equity				<u>204,749.28</u>

### OWNERSHIP, OPERATION AND MANAGEMENT

The Benton Harbor Fruit Market is municipally owned and operated. It is managed by a market board consisting of five members. The members of the board are appointed by the mayor upon approval of the city commission. The board members are appointed for a period of 5 years with the appointments arranged so that one member is appointed each year to fill the office of an outgoing member. The members are appointed from businessmen in Benton Harbor but no member of the board is permitted to buy and sell on the market. The city ordinance creating the city market board gives the board rather broad powers for the operation and control of the market but it lays down rather strict procedures for the handling and accounting of all market funds. Section 11 of the ordinance entitled, "Collection and Disbursement of Monies", reads as follows: "(a) the Market Board shall collect from persons using the Market a sufficient amount of fees and licenses to pay for and properly maintain said market; (b) all monies so collected or received by the Market Board shall be turned over to the City Treasurer each day and said monies shall be credited to the Market Account, and deposited by the Treasurer in a separate bank account designated as the Market Fund. All salaries, expenses of operation, police supervision, all costs of land or buildings, maintenance, improvements and/or extension of said market shall be charged against the Market Account; (c) said Market Board or its Finance Committee shall pass up n all disbursements from said Market Account before said disbursements are audited by the city manager and approved by the City Commission and disbursements from said Market Account are to be made on regular city vouchers drawn on the general fund of the city of Benton Harbor. The City Treasurer shall, at least once a month transfer sufficient monies from the Market fund to the general fund of the city to cover actual disbursements of Market expenditures."

Although the market board takes an active interest in the policies followed on the Benton Harbor Fruit Market, the market master who is appointed by the board is responsible for the detailed management of the market. He has power to suspend licenses of buyers and to prohibit undesirable and dishonest sellers from operating on the market. Actions of the market master are subject to review or appeal to the market board.

In the management of the Benton Harbor Fruit Market both the market board and market master have followed a policy of encouraging unrestricted and competitive trading by all types of buyers and sellers regardless of the area in which the produce was grown and from which it was distributed. The fees charged different types of buyers and sellers vary somewhat but these variations in fees are designed to tax the buyers and sellers on the basis of the volume handled rather than to dissriminate against any locality or type of buyer.

### MARKET REGULATIONS

The market has regulations regarding hours of trading but these regulations have little if any effect on trading operations. The regulations state that the market shall not open later than 10 a.m., and shall

close not later than 9 p.m. Most of the sales take place between the hours of 10 a.m. and 5:30 p.m. The market closes on Saturdays and on days before holidays because it is a wholesale market and sales made one day are normally sold the following day at retail. Since most retail stores and markets close on Sundays and holidays, trading on the Benton Harbor Fruit market would be very small if this rule were abolished.

The market has a number of regulations designed to promote honest trading on the part of both buyers and sellers. Section 18 of the market rules states, "It shall be unlawful for any person to offer for sale or sell any fruit, vegetable, or farm produce which is not in accordance with the standards determined and fixed by the laws of the State of Michigan or accepted as standard within the State." In actual practice, the regulation requires that any package labeled in accordance with either the Michigan or U. S. standards for grades and offered for sale on the Benton Harbor Fruit Market must meet the standards required for the designated grade. If the product so labeled does not meet the standards of the designated grade, the seller is subject to a fine and the buyer may refuse acceptance of the produce. For unlabeled and ungraded products the face of the pack must be representative of the entire contents, if not, the seller is subject to the same penalties imposed for improper grading and labeling. If a buyer refuses to accept delivery on a seller's load (after he has given the seller a sales ticket) because he feels the products have been improperly graded, labeled, or packaged, the buyer may be suspended from the market, provided the products meet grade standards when they are inspected. The Michigan Bureau of Markets and Enforcement maintains a staff of inspectors at the market to arbitrate disagreements between buyers and sellers regarding quality and grades.

The market has no regulations prohibiting payment to growers by check, but growers are cautioned not to accept checks from unknown buyers. Buyers without established credit at one of the local banks are not permitted to buy on the market unless they pay cash for their purchases. In actual practice the season buyers who have offices on the market and buy every day pay for their purchases by check, but most of the day buyers pay the seller in cash. The market master reported that losses from bad checks at the market had been negligible during the past 10 years.

## WHAT IS WRONG WITH THE PRESENT MARKET

Most of the needs for improvements in the Benton Harbor Fruit market have been brought about by changes in market operations that have taken place in recent years.

### PRESENT SELLING METHODS CAUSE WIDE PRICE FLUCTUATIONS

Known methods of correcting many of the defects in the present selling methods would incur problems of greater magnitude than the existing defects.

One of the most objectionable features of the present market is the wide range in prices received for commodities of the same grade and size during the same day. Observation at the time this survey was conducted showed that the price of U. S. No. 1 tomatoes of the same size packed in identical containers varied as much as fifty cents per 12-quart basket during the same day. Prices of several other commodities varied in a like manner. Some of this variation may be attributed to the variation of quality within grades but a great deal of it is believed to be caused by variation in the supply and demand at different times during the day. Under present methods of selling there is no way for either buyers or sellers to ascertain the supply and demand for a particular day before the opening of sales. Growers with their loads begin arriving between 9 a.m. and 10 a.m. each market day and new loads continue to arrive until late in the afternoon. The buyers who have received their orders for the day have no way of determining whether the supply of the commodity for which they have orders will be large or small. In addition orders from dealers in distant cities usually must be purchased during the forenoon so that the trucks can be loaded in time to arrive in the distant city before the market opens the following day. The demand picture is also further complicated because some dealers may not place their orders with the brokers on the Benton Harbor Fruit Market until late in the afternoon. These conditions result in prices being high in the morning and low in the afternoon one day and vice versa the next. These wide variations in prices for the same grade of the same commodity could be eliminated by shortening the hours of trading, but it was the consensus of most growers and buyers that such an arrangement would work a hardship on all groups concerned. Some growers bring several loads to the market each day and it would be impractical for them to send all their supplies to market before sales begin. Some of the season buyers purchase for dealers in a large number of widely separated distant cities and they feel it would be impractical for the dealers in each of these cities to place their orders at Benton Harbor prior to a definite hour each day. In addition the present facilities of the market would need to be tripled to handle all the supplies that arrive daily if the selling hours were shortened to a two or three hour period.

Some growers complained that they had no way of determining if the prices offered for their products were in line with those offered other growers. These growers were of the opinion that some method whereby prices could be made public at frequent intervals during the day would eliminate the wide variation in prices received by different growers for commodities of the same grade, size, and quality. If the auction system of selling were adopted, there would be little basis for this complaint, but

there is no assurance that the auction system of selling would eliminate these price variations. Where the auction system of selling is used prices paid at the beginning of the sale are usually higher than those received near the end of the sales period. 1/ In addition, the volume of produce being sold on the Benton Harbor Market is too large to be handled by one auction block. Some of the largest shipping point auctions sell less than 500,000 packages a season, whereas sales at the Benton Harbor Fruit Market have averaged nearly 5,000,000 packages a season during the last 10 years. At some of the larger auction markets the sale lasts for three hours or longer depending upon the volume sold for a particular day. 2/ Since variation in supply and demand is the basic reason for changes in the prices paid at various periods during the day it is doubtful if any system of publishing prices at frequent intervals would eliminate these changes.

A number of buyers complained that the buyer must cover too much area to inspect all of the products offered for sale on the Benton Harbor Fruit Market, but any system of selling that would permit the buyer to stand at one point and inspect all the loads received at the market would slow up sales in much the same manner as the auction system of selling.

#### FACILITIES NEED EXTENSIVE REPAIRS

The facilities at the Benton Harbor Fruit Market were constructed in 1931. The platforms for the buyers' shed were built on cedar posts sunk in the ground. Since that time many of these posts have sunk several inches and the platforms have been weakened by continued use. A number of the upright posts that support the roof to the buyers' sheds have been broken out by trucks backing into them. In the past, damage of this nature has been negligible, but at the present time the need for repairs has occurred more frequently because the posts have weakened from age and use. The condition of some of the sheds is such that it would be more economical to build entire new sheds than to repair the old one.

#### FACILITIES INADEQUATE TO HANDLE PRESENT DAY MOTOR VEHICLES

At the time the buyers' sheds were built trucks were much smaller than they are now. Today the sheds are too small and the streets are too narrow to handle adequately the larger size trucks. The 10- by 14-foot stalls under the buyers' shed will not hold enough produce to fill a semi-trailer-truck, and the shed roofs are too low for many of the modern trucks to back up to the platform. The streets on each side of the buyers' shed were designed to accommodate the smaller four-wheel trucks in common use at that time, but they are too narrow for the larger trucks in use

1/ "Marketing farm products through community auctions," p. 342 344, Paul P. Poffenberger and S. H. DeVault, Maryland Agricultural Experiment Station, Bull. No. 434, June 1940.

2/ "Some facts concerning country fruit and vegetable auctions in eastern seaboard States," pp. 1 and 37, by Edwin W. Cake, Agricultural Experiment Station, Cornell University, Bull. No. 737, June 1940, and "Marketing farm products through community auction," p. 342.



today. The selling lanes and traffic lanes are too narrow for trucks to pull out of the selling lanes into the traffic lanes with safety. During the last two years, two buyers have been seriously injured when they were caught between trucks moving out of selling lanes into the traffic lanes.

#### MARKET AREA TOO SMALL FOR PRESENT VOLUME OF BUSINESS

Although the physical volume of business being handled at the Benton Harbor Fruit Market has not increased greatly since the market was built in 1931, a need for additional space has developed. The rules regarding the opening and closing of the market have not changed since 1931, although the hours of trading have been shortened considerably in recent years. With the same number of loads arriving at the market during a shorter period more area is needed to handle them. In recent years more and more of the season buyers have been delivering purchases made for dealers in other cities. These buyers park their trucks in the market area until a load can be purchased. This development has also led to the need for additional space. In 1931 when the market was built there were a number of vacant lots adjacent to the market area where on busy days growers and buyers undoubtedly parked their trucks. Today, several business establishments have been constructed on the lots. This is another situation that has created a need for a larger market area. In addition, these new establishments have brought additional traffic into the vicinity of the market, which competes with the market traffic for space.

## SHOULD THE MARKET BE REORGANIZED

### TO REMODEL AND REPAIR PRESENT BUILDINGS WOULD BE EXPENSIVE

The cost of repairing and remodeling the existing buyers' shed would be nearly as great as the cost of constructing new sheds. Besides too the enlargement of the existing sheds would necessitate using part of the space now devoted to streets. This would be unwise, inasmuch as the streets are already too narrow to handle adequately the modern types of trucks.

The selling and traffic lanes in the selling area are also too narrow to handle the present day types of vehicles with safety. If these lanes are widened at least part of the existing buyers' shed would need to be moved back 50 to 100 feet. In their present condition it is doubtful if these sheds could be moved. In view of these facts, it would be more economical to demolish the existing sheds and to construct new ones.

### SHOULD THE PRESENT METHODS OF SALE BE CHANGED?

Although there are a number of defects in the present methods of sale, any known system that may be adopted in place of the one now followed would result in problems as great as those existing. However, some improvements can be made in the existing system.

If hours of trading were shortened from the present hours of 9 a.m. to 5 p.m. to about 10 a.m. to 3 p.m., some of the existing daily price fluctuations might be eliminated. The present regulations state that the market shall open not later than 10 a.m., and shall close not later than 9 p.m. In actual practice these regulations have little effect on trading hours because the market usually opens about 9 a.m., and closes about 5 p.m.

If the resale loads were placed together at a buyers' type of shed it would permit more efficient handling of the sales by this group and would provide more protection to their loads from the weather. Most of the resale loads are large trailer truck loads consisting primarily of watermelons, onions, potatoes and sweetpotatoes. These commodities are not normally competitive with those being sold by growers and would not need to be sold in the same area. Buyers interested in purchasing these commodities would soon learn to visit the sheds where such sellers were located. Normally these sellers do not sell their entire load to one buyer but in small quantities to several buyers. If they were located at a buyers' type of shed the buyers could back up to sellers' stall and load, and thereby eliminate the need for the seller to move a large truck-load of produce every time a sale was made. The resale loads usually stand in the market area one full day or longer before the entire load is sold. If these sellers were located under a shed their loads could be protected from the hot sun and rain. They usually purchase a load at the Ponton Harbor market so as to have a return load. If they were located at a shed they could unload the load they brought to market for sale and reload their trucks with the produce purchased, thereby saving time.

## WHERE SHOULD THE MARKET BE REBUILT?

Sufficient land is available north of Britain Avenue and adjacent to the existing market to expand and rebuild the market at its present location. There is also a site on the south side of Britain Avenue at which the market could be built.

In addition to the 13 acres now occupied by the market there is approximately 6 acres of privately owned property adjacent to the market west of 9th Street, between Bond Street and Britain Avenue, that could be purchased to expand the size of the present market site. At the city waterworks park, which adjoins the market, there is 6 acres that could be made available immediately if it were needed. When the city waterworks are moved to a new location, an additional 15 to 20 acres would be available for expanding the existing market site.

The site on the south side of Britain Avenue includes the land between 11th Street extended and the Saint Joseph River for a distance of more than 3,000 feet south of Britain Avenue. This site contains more than 100 acres. It is owned by the city of Benton Harbor and could be made available for the building of the market but it is swamp land that would need to be filled to a depth of about 10 feet before it could be used for a market.

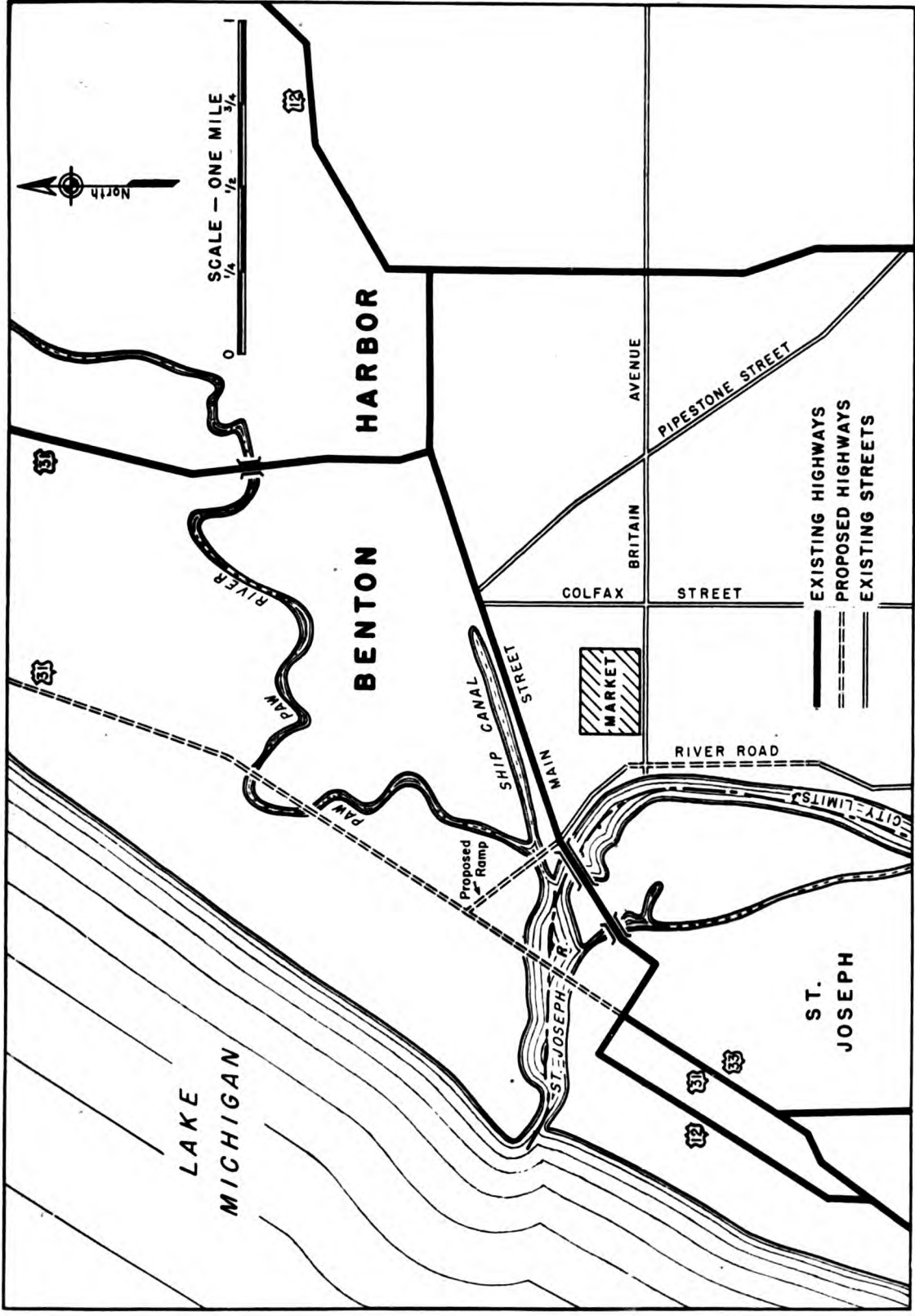
In determining which of the above mentioned sites would be the most desirable for a market the following factors have been considered: (1) availability of sufficient land for future expansion, (2) accessibility to highways, (3) accessibility to railroads, (4) location of existing facilities related to the market, (5) cost of acquiring the land, and (6) cost of improving the land for market purposes.

Both sites contain sufficient land for future expansion. Approximately 19 acres will be needed for construction of the facilities needed now. At the existing market site 25 acres would be available immediately and an additional 15 to 20 acres would become available before the needs for expansion arise. At the site south of Britain Avenue 100 acres would be available immediately. If the market should be built at this site, only that part needed for the market would be improved for immediate use and the rest of the swamp would be filled and graded as the demands for future expansion arose.

Both sites are about equally accessible to the existing and proposed highways. The existing and proposed highway routes through Benton Harbor and Saint Joseph are shown in figure 5.

The existing market is readily accessible to both buyers and sellers entering the city via U. S. Highways Nos. 12 and 31 from the north and south. It is also readily accessible to growers from the west and southwest who enter the city over Colfax and Pipestone Streets. When the construction of the proposed highway routes is completed most growers and buyers will probably use the ramp from U. S. Highway No. 31 or River Road and will enter the market via Britain Avenue.

If the market were located on the south side of Britain Avenue it would be somewhat more accessible to motor vehicles because less nonmarket traffic would be encountered at the entrance gate.



**FIGURE 5. EXISTING AND PROPOSED HIGHWAY ROUTES THROUGH BENTON HARBOR, MICHIGAN**



If the market were located on the south side of Britain Avenue it would be considerably less accessible to the railroads than the existing market. The team tracks of the New York Central Railroad are adjacent to the existing market area. This makes it very convenient for buyers who ship by rail to leave the selling area for a few minutes occasionally to supervise the loading of cars. If the market were located south of Britain Avenue buyers shipping by rail would lose time going to and from the team tracks. Growers might be reluctant to deliver their products such a distance to the team tracks.

The existing public cold storage warehouse, canning and freezing plants, and fruit and vegetable container stores are very conveniently located with reference to the existing market site. If the market were moved to the south side of Britain Avenue, growers and buyers who use the above mentioned facilities would be placed at some inconvenience.

The difference in the cost of the land and the improvements that will be needed before a new market can be built is the most important factor in determining the desirability of each site for a market. These costs have been estimated as follows:

At Existing Market Site on North Side of Britain Avenue	<u>Dollars</u>
Existing land and improvements (13 acres)	159,140
New land (6 acres)	75,000
Additional grading and fill, 85,500 cubic yards at \$.90 a cubic yard	76,950
Additional paving 76,000 square yards at \$1.00 a square yard	76,000
Sewer and water lines	<u>18,250</u>
Total	405,340
At Site on South Side of Britain Avenue	<u>Dollars</u>
Land - 19 acres at \$1,000 an acre	19,000
Grading and fill, 315,500 cubic yards at \$.90 a cubic yard	283,950
Paving - 100,000 square yards at \$1.00 a square yard	100,000
Sewer and water lines	<u>50,000</u>
Total	452,950

Unless the 13 acres at the site on the north side of Britain Avenue which is owned by the market could be sold, the cost of building at the site on the south side of Britain Avenue would be greater than the above estimates indicate. The market has \$159,140 invested in the property on the north side of Britain Avenue. The cost of purchasing additional land plus that of improvements to the site on the north side of Britain Avenue would be \$246,200 while the cost of land and improvements at the site on the south side of Britain Avenue would be \$452,950. In other words the cost of developing the site on the south side of Britain Avenue would be \$206,750 greater than that for the site on the north side of Britain Avenue. It is estimated that the 13 acres now owned by the market on the north side of Britain Avenue could be sold for \$200,000, therefore the net cost of developing the property at either site would be about equal.

If the property on the north side of Britain Avenue were sold for \$200,000 a profit of \$40,860 would be realized from the sale, but it would be false economy to sell this property when all the profits realized would be consumed in acquiring another of equal value.

In view of the difficulties that may be experienced in selling the property now owned by the market at a price which would justify relocation of the facility, it is recommended that the market be rebuilt at the present site.

The market could be rebuilt at this site and not interfere with the operation of the market. The market operates only about 6 months out of each year. The rebuilding program could be carried out during the season when the market is closed. The complete rebuilding plan may be extended over a period of 3 or 4 years. Under such a plan part of the existing buyers' platforms could be torn down and new ones constructed according to the master plan each year. Under one plan the area between Bond Street and Britain Avenue could be developed the first year and the area between Bond and Market Street could be developed during the next two or three years.

During the first year, the area between Bond, 9th and 11th Streets and Britain Avenue could be graded and filled. The present day buyers' sheds, the retail market and privately-owned building would be torn down. New sheds for the day buyers would be built and the retail market would be moved to the existing concrete block building at the corner of 9th Street and Britain Avenue. If this plan is followed, it is recommended that the balance of the present selling area be paved to 12th Street and the selling area lengthened by requiring the buyers trucks that now load in this area to use the new parking area next to Britain Avenue during the period when receipts are heavy. The second year the season buyers sheds along Bond Street could be torn down and rebuilt at the location shown in figure 5. The third year the selling area could be widened and curbs constructed between the selling lanes. The fourth year the season buyers sheds on the north side of the market could be torn down and rebuilt and a fence built around the entire market area.

There are both advantages and disadvantages to extending the rebuilding program over a period of several years. The city of ~~Benson~~ Harbor is a resort town which has a large vacation population during the summer months. City employees and equipment that are busy during the summer months are only partially employed during other seasons. These employees and equipment could be used during the periods of slack employment for rebuilding the market and effect some economies in total construction costs. By extending the rebuilding program over several years it would be possible to finance part of the program from receipts from the market rather than borrow a rather large sum to complete the entire program in one year. However, an extended rebuilding program would delay some of the most important improvements, such as enlarging of the selling area and the construction of fences. In addition, some of the buyers would be operating at old facilities at the same time others would be using the modern facilities. This may cause considerable complaint from the buyers required to remain at the old facilities.

## TYPE OF FACILITIES REQUIRED TO MEET FUTURE NEEDS

In planning a market it would be uneconomical to provide facilities that might not be needed until several years later. Plans should be designed to allow for expansion and to permit as much flexibility as possible. Once a market has been built there is a tendency for many associated lines of business to locate around or near the market. If only enough land is obtained to meet present needs it usually becomes very difficult to expand if the volume of business increases at a later date. Other industries and related activities will have been located on all the adjoining space and it may be necessary to condemn or purchase the expensive improvements to obtain the space needed for expansion.

### POTENTIAL NEEDS FOR EXPANSION

Records on the physical volume of fruits and vegetables sold at the Benton Harbor Fruit Market during the last 10 years indicate that little if any increase in the total number of equivalent carloads to be sold by growers can be expected in the next 10 to 15 years but the trend in marketing methods indicates that more space may be needed than is currently being used. Ten years ago the market opened earlier in the morning and remained open later in the afternoon than it does at present. With the same number of truckloads of produce being sold in a shorter period of time, more space is needed to handle it. If this trend should continue, still more space will be needed in the future to allow all sellers to enter the selling area as soon as they arrive. In the past, growers parked their trucks on the streets leading to the market when the selling area became crowded with unsold loads and awaited their turn to enter. In recent years, however, the city has grown and it has become impractical to allow growers to park on the streets approaching the market.

In recent years, the number of buyers using the market has increased and there has been a greater demand for buyers' sheds. At the time the field survey was made the market had received applications from about 40 prospective seasonal buyers who could not be accommodated because there were not enough buyers' sheds.

Prior to World War II the volume of fruits and vegetables being sold by merchant truckers, from out-of-State points, was increasing each year. In 1943 and 1944 sales by this group declined to less than the volume sold 5 or 6 years previously. The decline in sales by this group during that period may be attributed to the shortage of trucks, tires, and gasoline, because sales rose sharply again in 1946. In 1947 sales by merchant truckers had reached a new high peak. If sales by this group continue to increase considerable additional space will be needed in the future.

### STORES FOR YEAR-ROUND DEALERS

At the present time stores for wholesale dealers who would operate at the market throughout the year are not needed. However, the trend in sales by merchant truckers and the changes that have been taking place at the retail section of the market indicate that a need may develop within the next few years for facilities at which produce can be sold throughout the year.



Interviews with the three service wholesale stores that serve Benton Harbor and Saint Joseph showed that these dealers sell only a small quantity of fruits and vegetables, mostly out-of-season products, during the period when a large variety of fruits and vegetables are available at the Benton Harbor Market. Yet during this same period the retail section of the market sells large quantities to retail stores, restaurants, hotels, and other types of retailers. Some of the dealers in the retail section of the market reported that over 60 percent of the total volume they handled was distributed to retail types of dealers who purchased in jobbing size lots.

The retail section of the market was originally established to meet the demands of consumers who wanted to buy at the wholesale market but were prohibited from making purchases because neither the farmers nor season buyers were interested in selling retail quantities. Since the retail section of the market was established, a larger and larger proportion of the volume handled there has been sold to retailers and other similar types of buyers. If facilities were provided, many of these dealers would continue to sell in wholesale quantities during the season when the wholesale section of the market is closed. Inasmuch as an increasing proportion of the sales at the retail market are becoming wholesale sales and the volume being sold to merchant truckers is increasing, it is quite probable that facilities for a year-round market will be needed in the future. The retail section of the market is already buying a large quantity of out-of-season products from the merchant truckers. If year-round facilities were provided, there would be a better sales outlet in Benton Harbor during the period when the present wholesale market is closed.

The cities of Benton Harbor and Saint Joseph have a population of only 25,601. This number is hardly enough to support a wholesale market, but many of the buyers from places like South Bend, Michigan City and Gary would buy their supplies at Benton Harbor if a year-round market were located there.

It is recommended that space be allotted for the construction of a building that would contain about 10 units, 96 feet deep and 22½ feet wide. Space should also be allotted to provide streets 100 feet wide at both the front and rear of this building and 50-foot streets at each end so that traffic could move freely in any direction around this proposed building. In allotting a space for the wholesale store the space should be located at the point where rail connections for house tracks to the rear of the stores can be installed.

#### SELLING AREA FOR FARMERS AND TRUCKERS

For farmers and truckers it is recommended that the present type of selling area with some improvements in design be constructed when the market is rebuilt. The amount of space used for a selling area will also need to be enlarged to take care of changes in design and to provide space for a larger number of sellers' trucks at one time.

The selling lanes should be maintained at their present width of 8 feet. The traffic lanes should be widened from 10 feet to 12 feet and a

curb or safety island 5 to 7 inches high and 4 feet wide should be constructed between each pair of selling lanes.

The construction of a safety island between the selling lanes would be the only major change in the design of the selling area. This change would eliminate the hazard of buyers being crushed by trucks moving forward in the selling area. This curb or safety island would also act as a channelizing device for the market traffic, preventing trucks from driving from one lane to another. A space 4 feet wide between each pair of selling lanes might be designated as a safety island by painting a series of yellow lines on the pavement. However, the curb or raised platform type of island is recommended. <sup>3/</sup>

It is recommended that 14 selling lanes be provided ~~instead of the~~ present 10. The four additional lanes would allow a larger number of sellers' trucks to park in the selling area at the same time. The widening of the traffic lanes would also increase the capacity of the selling area. With the present width of traffic lanes each grower must park his truck about 8 feet behind the truck immediately ahead of him so as to have enough room to pull out into the traffic lane if he should sell before the truck in front of him does. With wider traffic lanes trucks could be parked within 4 feet of each other and still have room to pull out of the selling lanes into the traffic lanes.

Assuming that an average of 28 feet of selling lane length is used for each seller on the market, the present selling area will accommodate a total of 350 trucks at one time. However, as previously reported, traffic counts made at the market showed that only about 250 trucks can be parked in the present selling area at one time, because it is impossible to keep all of the trucks in a tight formation while selling is taking place. Assuming that an average of 24 feet of selling lane length would be used by each seller when the traffic lanes are widened the enlarged area would accommodate a total of 518 at one time. It would be impossible, however, to keep all the trucks in tight formation at all times, therefore it is estimated that the enlarged selling area would accommodate a total of about 450 trucks, or 200 more than the present selling area. In a later chapter on "How the Facilities Might Be Arranged" it is recommended that the entrance to the selling area be moved forward about 200 feet, (to avoid a tract of private property that would be costly to acquire) but the new selling area would be approximately the same length as the existing selling area, because it is proposed to add 225 feet by extending it 225 feet toward the exit. The moving of the entrance 200 feet forward would provide a space for the parking of about 150 trucks off the street

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<sup>3/</sup> The manual on Uniform Traffic Control Devices for Streets and Highways prepared by the Joint Committee on Uniform Traffic Control Devices and published by the Public Roads Administration, Federal Works Agency, Washington, D. C., January 1947, recommends the raised or platform type of safety island for streets and highways. The following agencies were represented on this committee: American Association of State Highway officials, Institute of Traffic Engineers, and National Conference on Street and Highway Safety.

if the selling area should become crowded. This space in front of the entrance to the selling area, together with that in the selling area, would provide for the parking of 600 sellers' trucks, or over twice as many as can be accommodated at the present market.

In designing a new selling area, provision should be made for as much flexibility as possible. Chain gates should be provided about midway between both ends of the selling area. These gates could be opened or closed to make the selling area large or small according to the daily volume of produce being sold. Both ends of the selling area should be designed so that either end could be used as an entrance or exit. This arrangement would also allow both ends to be used as entrances with the exits being at the gates in the center of the area. By designing a selling area with a great deal of flexibility it would be possible to route traffic to the market over several different routes if in the future the city traffic patterns should change.

#### LOADING PLATFORMS FOR BUYERS

The loading platforms should be of the same general type now used, but with some improvements in design and more space at each stall for stacking produce.

The platforms should be 20 feet wide and approximately 39 inches high. They should be covered with a roof 32 feet wide, with 14 feet clearance between the eaves and the ground level. A 32-foot wide roof would provide an overhang of 6 feet on each side of the platform. This type of roof would permit farmers to back up under the overhanging roof on one side of the platform and the buyers to back up under an overhanging roof on the other side. During bad weather the growers and buyers would be partially protected from rain while loading and unloading. This type of roof would also provide ample shade for produce stacked under the shed and would materially reduce the damage caused by driving rains.

The roof should be supported by two rows of posts, set back 2 feet from each edge of the platform and spaced 10 feet apart. By setting the posts back 2 feet from the edge of the platform the damage caused by trucks backing into the posts would be eliminated. These posts should be designed so that the renter of each stall under the shed could install overhanging doors or drop curtains if he so desired.

A number of the buyers who were interviewed expressed the opinion, that the platforms should be 30 feet wide to provide sufficient space for the stacking of produce. Although there are a few times during each season when a few of the buyers may need that much space, the construction of wider platforms would increase construction costs and be reflected in higher fees or rents. In addition more than 60 percent of all the produce handled is unloaded from the growers' trucks directly into the buyers' trucks by gravity conveyors. If the platforms were made 30 feet wide, additional conveyors would be needed and the loading and unloading by this method would be less efficient. A 10 by 20 foot stall provides enough space to stack a trailer truckload of produce, which is the maximum amount normally held at the platform for any one period or over night. In those instances where a buyer first purchases the products that are to be loaded

in the back of his truck and later purchases the products to be loaded in the front of the truck a 10 by 20 foot platform provides sufficient space to stack the early purchases and still leave enough room to unload the later purchases by conveyors.

At the present market the season buyers have constructed offices at their own expense at the stalls rented from the market. Most of these buyers expressed the desire that the market build the offices and charge the buyers rentals high enough to cover the cost of this additional investment. Although the market could construct offices at the time the sheds were being built at a lower cost per unit than each buyer could do if he constructed one for himself, it is not recommended that the market build offices for its buyers. The needs of buyers for office space vary so widely that it would be impractical to build an office to meet the needs of each buyer, it would be necessary to obtain a long term lease from each buyer renting office space to assure that he would pay the market yearly rentals over a sufficient period to compensate for the additional investment. However, sewer and water lines should be installed at the time the sheds are built so that buyers who wish to build their own offices can install toilet facilities. Most of the season buyers hire women as bookkeepers and it is difficult to obtain clerical help at an office without toilet facilities.

The proposal has been made that buyers not be permitted to build offices at the place where their stalls are located and that those needing office space rent an office that would be provided in a separate building. Such an arrangement would increase the cost of maintaining an office for most of the season buyers and would work a hardship on most of the growers. Under the present methods of operation, grower loads can be checked at the loading platforms and most growers are paid in cash at the time delivery is made. If the season buyers were required to use office space in a separate building, additional clerical help would be needed and growers would have to make a special trip to the office building to be paid for their sales. The season buyers also find it more convenient to have their telephones located near the spot where they are loading out trucks.

#### WIDTH OF STREETS

Recommended widths for streets or lanes in the selling area were covered in the section on "Selling area for farmers and truckers." This section will cover recommended widths for streets in other parts of the market. The street between the loading platforms located on each side of the selling area should be at least 53 feet wide. The present streets are 36 feet wide but they are not wide enough to allow a free flow of traffic at all times. They should be wide enough for a farm truck to back up to the buyers platform and leave 23 feet of free space in front of his truck. A 53-foot wide street would provide a space 10 feet wide for growers to park horizontally alongside the curb while they are being paid, and a 13-foot lane for loaded trucks to move to and from buyers' stalls leaving a space 30 feet deep for growers to back up to the buyers' platform.

The streets on the side of the platforms from which buyers' trucks are loaded should be at least 80 feet wide where no other facilities are located beyond the platform and 100 feet wide where another loading plat-

form is located across the street. Cross streets leading from the selling area to the loading platforms and the cross streets between loading platforms should be 40 feet wide.

#### PARKING AREA FOR TRUCKS

An essential part of a complete and modern market is a parking area for the cars of the people employed at the market and for trucks that are used for marketing activities. Many of the season buyers have a fleet of trucks to deliver the supplies they purchase on the market. It is essential that space be provided for parking these trucks during the periods they are not on the road or being loaded. Day buyers also need a place to park their trucks while they are being assigned a buyers shed.

#### ADMINISTRATION BUILDINGS, COMMUNICATION CENTER AND RESTAURANT

Some space will be needed for offices of the market manager and other public officials who supervise the market operations and perform public services at the market. These facilities might be provided in one of two ways. A separate building might be constructed for the housing of the market master, other market officials, a restaurant and a communication center, or space for these facilities might be provided on a second floor above the buyers platforms. Each method would have certain advantages and disadvantages.

Offices and a restaurant located on a second floor would not be as convenient to the public as those located at ground level but if so located more space would be available for conducting market operations. The market now owns a building at the entrance to the market that houses the market master, officials of the farm labor office and the Bureau of Marketing and Enforcement of the Michigan State Department of Agriculture. Adjacent to this building, the market also owns a tract of land about 50 by 100 feet on which a building for housing a communication center and restaurant could be constructed. If the restaurant were moved from its present location between the buyers sheds, additional space would be provided on the market for about six buyers stalls. If the new market is enclosed by a fence and definite hours established for trading, the restaurant can remain open before and after trading hours if it is adjacent to the present market administration building.

The market clerk's office is now located at the entrance to the selling area. If it were placed on the second floor over one of the buyers' platforms near the entrance to the selling area, traffic could move more freely into the selling area. A second floor location would also allow the market clerk a better view of activities on the selling area and would permit him to direct traffic more efficiently over the loud speaker system.

If the day buyers office were moved from its present location to the second floor over one of the day buyers' platforms it would permit freer movement of traffic in this area.

At the present time the market does not have a centralized communication center but the number of calls originating and terminating at the market has increased to a point where it will be necessary for the tele-

phone company to locate an office and switchboard at the market in order to give the market patrons satisfactory service. It would still be necessary to have a number of telephone booths located at several strategic points in the market but the installation of a communication center on the market would enable the telephone company to locate persons receiving person-to-person calls more quickly over the market's loud speaker system.

#### TOILET FACILITIES

Most of the season buyers would install toilets at their offices but additional toilet facilities should be provided for farmers, truckers, day buyers, and others who conduct business in the market. Toilets should be located at convenient places preferably one at each end of the selling area and one at each of the day buyers' shed.

#### TEAM TRACKS

At the present time the team tracks of the New York Central Railroad are located adjacent to the market area. Since only a small percentage of the fruits and vegetables sold at the market are shipped by rail, it would be uneconomical to install team tracks in the market area to handle them. However, if the market should develop into a year-round market in the future, team tracks would be needed by dealers operating wholesale stores. These tracks could also be used for loading products purchased on the market for shipment by rail, as the wholesale dealers would normally receive fewer rail shipments during the local marketing season.

#### SCALES

At the present time a number of products sold at the market are sold to processors who purchase on a weight basis and there are numerous requests for the use of scales that can weigh as much as a trailer truck-load of fruits and vegetables. Although most of the buyers who purchase on a weight basis have scales for weighing the products they purchase, many growers feel that they can be assured of honest weights only when this service is performed by a disinterested party. The installation of a scale on the market is recommended only if the revenue from fees for the use of this facility will amortize the original investment and the upkeep and cost of operation.

#### FENCES AND GATES

The entire market area should be enclosed with a substantial fence with wide gates at all entrances and exits. This would facilitate the enforcement of market regulations and would allow the market management to collect fees and rentals with a smaller number of market personnel. It would also reduce the amount of pilferage at buyers stalls where products are held on an open platform overnight. Some thought should be given to operation of exit gates from the market clerk's office by means of push-button control.

#### RETAIL MARKET

The retail market at Benton Harbor performs a dual function. Although a large number of customers purchase in small retail size quantities more

than 60 percent of the volume handled is sold to retail dealers, consumers, and others who purchase lots of one or more full packages. The jobbing and wholesale operations of these dealers are filling a real economic need, as most retail dealers in the city do not care to pay the daily license fee to purchase on the wholesale section of the market. In addition, most of these dealers do not want to buy in lots as large as those offered nor do the growers want to sell in small lots to a number of different buyers.

Since the retail stores in the cities of Benton Harbor and Saint Joseph have facilities for supplying the needs of consumers in these towns for fresh fruits and vegetables it is doubtful if the construction of retail market facilities for this purpose only can be justified by the city.

If a retail market is provided by the city, special emphasis should be placed on providing facilities that will meet the needs of these dealers for conducting wholesale operations. However, the dealers and growers on the wholesale section of the market will be continually faced with the problem of consumers attempting to make purchases on the wholesale market, unless a retail market or store that sells locally grown fruit is located near the wholesale market area. During the period the field survey was being conducted, as many as 50 to 60 sightseers were observed on the market on several different days. The lakes area in the vicinity of Benton Harbor attracts large numbers of vacationists every year. The Benton Harbor Fruit Market has become a rather widely known attraction, and many of the tourists and vacationers visit the market merely to observe the large quantities of fruit being sold and the market activities. After having seen such large quantities of fruit being marketed most sightseers develop a strong urge to purchase a small quantity of fruit to eat on the spot or to take home. Although fruit offered for sale at one of the nearby roadside markets or one of the retail stores in town may be just as fresh, of the same quality, and grown on the same farms as that sold on the wholesale market, the psychological satisfaction from a purchase at one of the former places is not so great as when the fruit is purchased at the wholesale market.

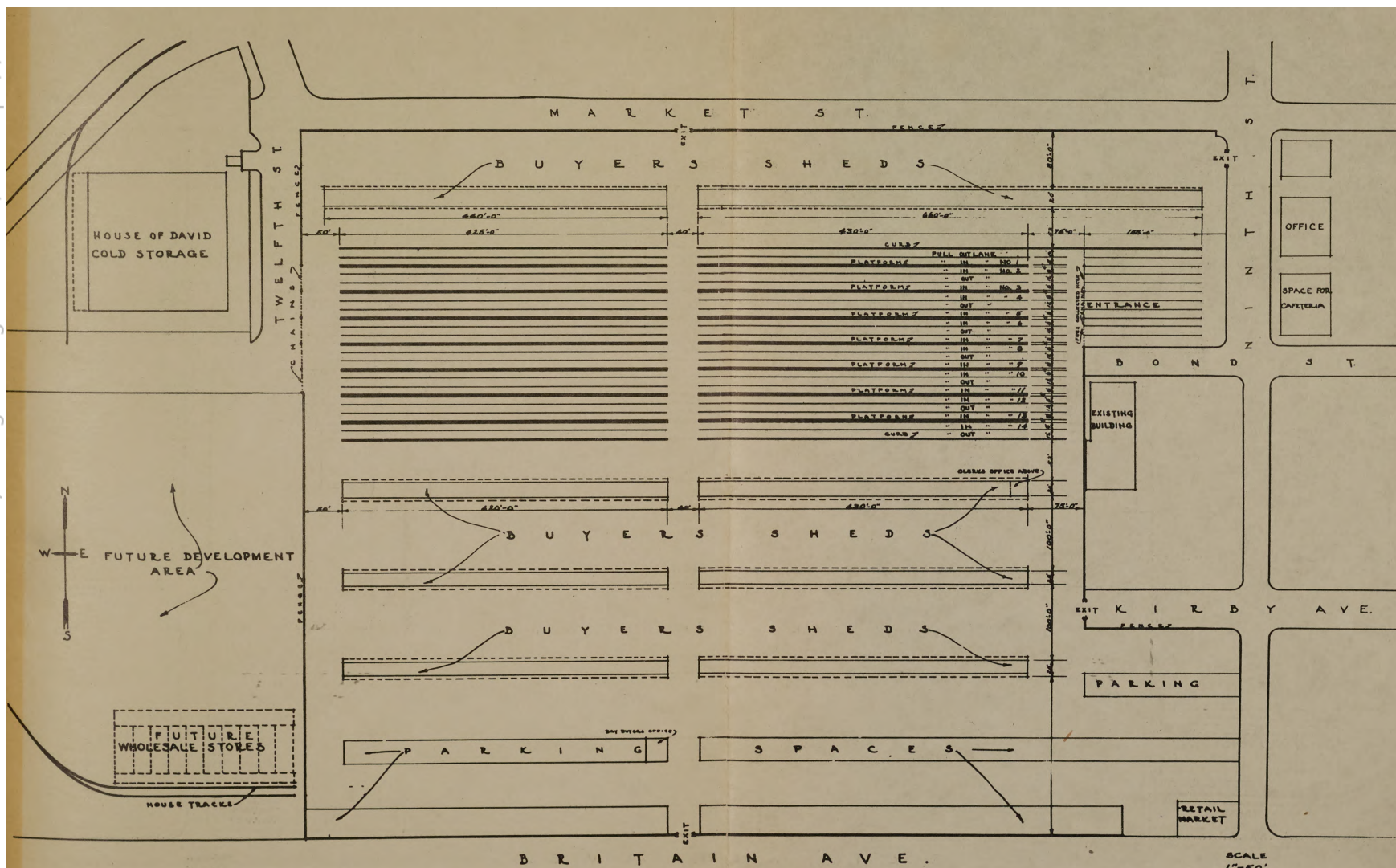


FIG. 6 POSSIBLE WHOLESALE PRODUCE MARKET LAYOUT AT PRESENT SITE — BENTON HARBOR, MICHIGAN



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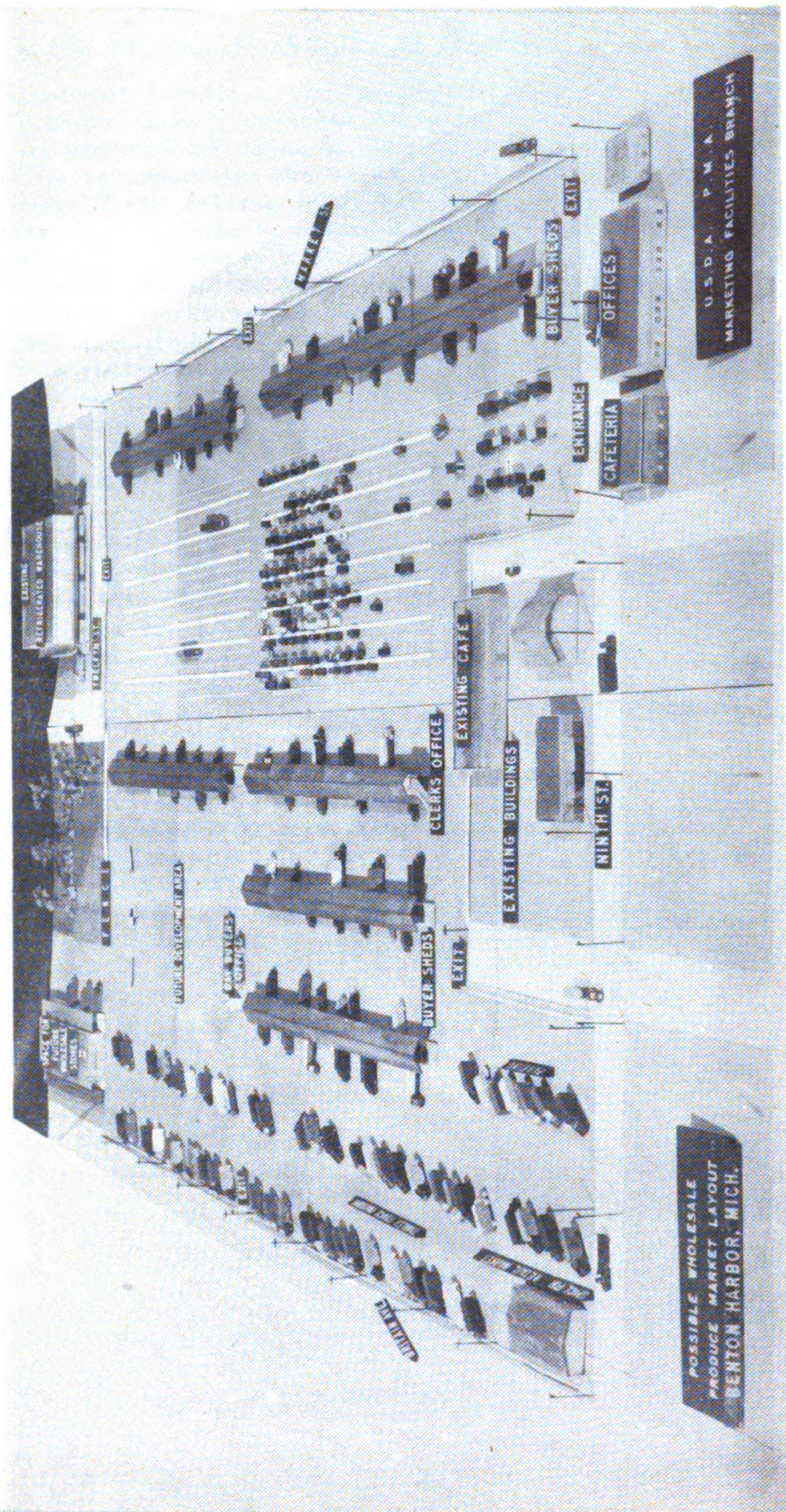


FIGURE 7. AERIAL VIEW OF FIGURE 6

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## HOW THE FACILITIES MIGHT BE ARRANGED

One arrangement of facilities at the present location is shown in figures 6 and 7. Under this arrangement the same type of facilities as now exist would be provided for sales of locally grown products. The selling area would be enlarged and the sheds for season buyers would be placed on each side of the selling area, but larger sheds would be constructed and wider streets would be provided than now exist in the present market. The present retail market would be moved to an existing building at the corner of Ninth Street and Britain Avenue. The day buyers' sheds would be arranged in rows next to the season buyers' sheds with a 100 foot street between each row of sheds. Space would be allocated along Britain Avenue for the construction of stores for wholesale dealers in the future. This space could be used for the parking of trucks until it is needed for the construction of wholesale stores. The entire area between the present market and Britain Avenue would be graded and paved with gravel. Those sections of this area not used for buyers sheds would be used for the parking of trucks.

Under this plan the area now occupied by the city water works and park would be used as the need for expansion arose. It is understood that the city water works will be moved before that occurs.

Under this lay-out the building now used by the market master would continue to be used as an administration building and the cafeteria would be located adjacent to the administration building. The market clerk's office would be placed on a second floor over one of the season buyers' sheds and the day buyers' office would be located near the day buyers' sheds.

In this proposed lay-out the number of selling lanes has been increased making the entire selling area wider in proportion to its present length. It would be uneconomical to purchase a tract of privately owned land on the south side of Bond Street, therefore, the entire selling area has been shifted about 225 feet westward to avoid this tract of private land. Under this lay-out the new selling area would be approximately the same length but about 50 percent wider than the present selling area.

## KIND AND AMOUNT OF FACILITIES NEEDED NOW

Before a market is built plans should be made and the land obtained for a market large enough to meet future needs, but construction of facilities that are not needed or that will be used for only a short period during the marketing season would only increase the rentals that must be collected to amortize the investment and pay operating expenses.

### SELLING AREA FOR FARMERS AND TRUCKERS

It is recommended that a selling area with 14 selling lanes and 7 traffic lanes approximately 895 feet long be paved at the present time. As shown in figure 6, the selling area would be divided into two sections by a cross-street that can be closed by hanging chains from posts on each side of it. During most of the market season, this cross-street would remain open and be used as an exit from the selling area. But for those days each season when both sections of the selling area are needed for the parking of growers' trucks this cross-street would be closed and the entire selling area used for buying and selling. A selling area of this size should be large enough to meet the needs of the future. The first 430-foot section of this selling area would be large enough to handle the present volume of business except for a few days each season. In view of the wide range in the number of sellers loads handled each day during any one season the curbs or safety islands should not be constructed in the second or 425-foot section of the selling area at present. During that part of the season when the number of grower loads is relatively small, this section could be used for loading buyers' trucks over the tail gate. For those few days during each season such as before and after Labor Day and during the peak of the strawberry and peach season, this section could be used to enlarge the selling area. If the present trend toward shorter selling hours should continue, in a few years curbing or safety islands could be constructed in this section and the entire selling area used exclusively for selling.

### LOADING PLATFORMS FOR BUYERS

It is recommended that a total of six buyers sheds containing 280 stalls 20 feet deep and 10 feet wide be constructed to meet present needs. At present there are 261 buyers stalls at the market. Season buyers are renting 198 of these stalls on an annual basis, and 63 are reserved for the use of day buyers. The market has received applications for about 40 stalls from buyers who would like to obtain space on a seasonal basis. If all the present season buyers continue to rent the same number of stalls and if an additional 40 stalls are rented to the buyers that have applied for space on a seasonal basis, a total of 280 stalls would provide only 32 stalls for the use of day buyers, or 31 stalls less than are now reserved for this group. However, it is believed that a total of 280 stalls would be adequate to meet present needs, because most of the buyers who have applied for stalls on a seasonal basis are now renting space on a daily basis and the larger-size stalls would allow some of the buyers to operate at a smaller number of stalls. For a few days each season about 225 day buyers patronize the market but the average daily number of day buyers has ranged from 35 to 50 during recent years. In 1946 there were

only 24 days during the season when more than 100 day buyers patronized the market. Assuming a cost of \$1,000 per unit for constructing a buyers stall it would be necessary to charge buyers about \$4 a day for the use of these stalls to amortize the investment and pay operating expenses if they are used only 24 days out of each season. For those day buyers that use the market less than 2 months out of each season it is recommended that parking space be designated where they can load directly from the grower trucks over the tail gate.

#### PARKING AREA FOR TRUCKS

It is recommended that an area containing approximately 4 acres be designated as a parking area for trucks. This space would accommodate about 350 trucks. It would be used by day buyers that could not obtain space at one of the loading platforms and by season buyers and others for the parking of empty trucks.

#### ADMINISTRATION BUILDINGS, COMMUNICATION CENTER AND RESTAURANT

If the market is rebuilt at its present location the present administration building could continue to be used as an office for the market master and inspection service. If the farm labor office were moved to another location, this building could also house the communication center. The market clerks office and day buyers office could be moved to a second floor over the buyers' sheds. A new building would need to be constructed for the market restaurant.

#### TOILET FACILITIES

Toilet facilities should be provided at each end of the selling area, preferably at the ends of the buyers' sheds on each side of the selling area. At least two more toilets should be provided at the buyers' sheds that would be located parallel to the sheds on each side of the selling area.

#### TEAM TRACKS

If the market is rebuilt at its present location the team tracks of the New York Central Railroad adjacent to the market area will be adequate to meet present needs.

#### SCALES

Scales should be provided near a point where one of the market attendants could supervise the weighing and the collection of fees for the use of the scales in addition to his other duties.

#### FENCES AND GATES

A substantial fence with wide gates at all entrances and exits should be built around the entire market area. If the market is rebuilt at its present location the administration building and a restaurant would be located outside of the fenced-in area.

RETAIL MARKET

If additional land is obtained and the market rebuilt at its present location there is a concrete block building at the corner of Ninth and Britain Avenues that could be used for the retail market.

### COST OF CONSTRUCTION, OPERATION, AND MAINTENANCE

The Benton Harbor Market Board has followed a very conservative financial policy. Most of the improvements that have been made in the past have been financed out of reserves accumulated from revenues of previous years. This policy has resulted in comparatively low rentals and fees being charged the growers and dealers using the market. It has also allowed the market to build up quite a large cash reserve for the construction of new facilities.

It will be necessary to estimate the cost of making the proposed improvements to determine if the present cash reserve will be adequate to finance them and to determine the rentals that will be needed to amortize the investment and pay operating expenses. Estimates of land, construction, and operating costs presented in the following sections are made as a guide to determine the over-all cost of the market improvement program and the amount of revenue needed in rentals and fees to amortize the investment. In calculating the cost of the proposed improvements the authors have attempted to make them as realistic as possible, however, they are not offered as substitutes for an appraisal by a qualified appraisal board or as a guarantee that bids for construction can be obtained at the costs designated.

#### COST OF LAND AND LAND IMPROVEMENTS

Unimproved land at this location in the city has a value of \$2,000 to \$10,000 per acre, depending upon its accessibility and the amount of improvements needed before it could be used for commercial or industrial purposes. Land upon which buildings have been constructed would have a higher value. The value of the private properties along Ninth Street between Bond Street and Britain Avenue is estimated at \$75,000.

All cost figures on improvements to land are based on costs of similar improvements at Washington, D. C., as of December 1, 1947.

Actual costs will vary throughout the United States and the authors assume no responsibility for such variations, or for changes in the future. Preliminary estimates of the cost of improving the land needed now are as follows:

	Dollars
Grading and fill, 85,500 cubic yards at \$.90 a cubic yard-----	76,950
Paving (Black top) 76,000 square yards at \$1.00 a square yard----	76,000
Sewer and water lines-----	<u>18,250</u>
Total-----	171,200

These costs might be reduced materially, if the work is done by the regular city employees during seasons when other work is slack. If the paving were omitted and the area graveled this would also reduce these costs materially.

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**COSTS OF CONSTRUCTION**

Preliminary estimates of the cost of constructing the facilities recommended now are as follows:

	Dollars
Buyers sheds - 280 units at \$1,000-----	280,000
Clerks office (second floor)-----	1,000
Day buyers office (second floor)-----	2,000
Restaurant (40 x 80 feet)-----	15,000
Fences and gates, 4,700 feet at \$2.50-----	11,750
Scales-----	5,000
Four toilets-----	3,000
	<u>317,750</u>
Architect's fee - 6 percent-----	19,065
<b>Total-----</b>	<b><u>336,815</u></b>

**TOTAL COST OF MARKET**

An approximation of the cost of providing the land, and making improvements to land and facilities under the rebuilding program follows:

	Dollars
Purchase of land-----	75,000
Improvements to land-----	171,200
Construction of new facilities-----	<u>336,815</u>
<b>Total-----</b>	<b>583,015</b>

If the improvement program should be extended over a period of 4 years as outlined in the section "Rebuilding Plan Will Not Interfere with Market Operations" the annual expenditures are estimated as follows:

	Dollars
1st year-----	316,815
2nd year-----	108,875
3rd year-----	42,750
4th year-----	<u>114,575</u>
<b>Total expenditure completed market-----</b>	<b>583,015</b>

The total investment in a completed market will exceed the expenditures for new land, land improvements and the construction of new facilities by the sum of \$162,612. The market now owns land that will be used for the new market that was purchased for \$97,430, (including the grading and fill) in 1930. Today this land could be sold for considerably more than its original cost but it is being carried on the market books at its purchase price. Improvements to the existing land, such as paving, water and sewer lines, which should be depreciated to determine their present value, are estimated to have a net value of \$61,710. The value of existing buildings that would continue to be used at the new market have a net value of \$3,472 after depreciating the purchase price for their use during previous years. All these facilities have been paid for out of revenues from previous years. Under the rebuilding plan proposed they would all be used. When

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incorporated with the new facilities it is estimated they will enhance the value of the new facility to the extent of their present value. No value has been placed upon the facilities that will be demolished under the rebuilding program.

An approximation of the investment in the completed market is as follows:

	<u>Dollars</u>
<b>Nondepreciable Items:</b>	
Existing land (including cost of grade and fill)-----	97,430
New land (including cost of grade and fill)	
Cost of land-----	\$75,000
Grade and fill-----	<u>76,950</u>
	151,950
<b>Depreciable items:</b>	
Existing paving, sewers and water lines-----	61,710
Existing building and equipment-----	3,472
New paving, sewers and water lines-----	94,250
New building and equipment-----	<u>336,815</u>
Total investment in the new market-----	745,627

**AMORTIZATION OF INVESTMENT**

The amounts that will need to be set aside from revenues to amortize the new capital invested in the completed market will vary somewhat, depending upon the method used to finance the rebuilding of the market. Since all the existing facilities have been paid for out of revenues from previous years no charge will need to be made for the use of these facilities. In addition, the market has accumulated a cash reserve of \$65,000, that can be spent for the purchase of new land or the construction of new facilities.

Under one plan the \$75,000 that would need to be spent for additional land plus the cost of \$76,950 for grade and fill would not be amortized but interest at 4 percent would be collected on these amounts every year. The cost of the land has not been amortized because it is presumed it will be just as valuable 20 to 30 years in the future as it is today. The item of \$76,950 for grade and fill has been included with that of the land because the particular land under consideration is swamp that will have little value for commercial purposes until it is graded and filled. Once this improvement has been made it will enhance the permanent value of the land. Under this plan the cost of the new buildings (\$336,815) and that for new paving, sewers, and water lines (\$94,250) would be amortized over a 25-year period at 4 percent.

Under another plan the entire expenditure for remodeling the market would be amortized over a 25-year period at 4 percent. Under both plans it is assumed that the cash reserve fund of \$65,000 would be used and that no revenues would be set aside to replenish this fund during the period the cost of rebuilding the market was being amortized.

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If the market rebuilding program is extended over a 4-year period, as suggested previously, the amounts that will need to be set aside from revenues to cover amortization and interest will vary each year during the rebuilding period. 4/ They will also vary considerably under each plan.

The amount of money needed to meet interest and amortization costs under the first plan are shown in the following schedules by years.

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4/ In the calculations which follow no allowance has been made for the cost of borrowing money during the year in which construction is undertaken, because it is impossible to know in advance the exact dates during the year when the loans will become effective. Actually, funds would be borrowed during the year as they are needed to pay for the construction, as it progresses. But, for purposes of these calculations, it was assumed that all loans would be obtained as of the end of the year. This of course results in a slight underestimate of the operating costs during each of the first four years, but an assumption that all funds would have been obtained on the first day of each year would have resulted in an overstatement of such costs. Moreover, the funds that would be available for permanent improvements out of current revenues would not be available at the beginning of each year as is indicated in the calculations.

<u>1st year</u>	<u>Dollars</u>
Cost of new land including grade and fill . . . . .	151,950
Other rebuilding costs . . . . .	<u>164,865</u>
Total expenditures first year . . . . .	<u>316,815</u>

Less:

Amount in cash reserve fund	\$65,000	
Excess of market revenues above		
Operation cost (\$47,000-\$20,000)	<u>27,000</u>	<u>92,000</u>
Amount that will need to be financed from other than existing market funds and revenues		224,815

Less:

Amount that will incur an interest charge of 4 percent . . . . .	<u>151,950</u>
Balance to be amortized (25 years at 4 percent) . . . . .	<u>72,865</u>
Interest on \$151,950 at 4 percent . . . . .	6,078
Amortization of \$72,865 (25 years at 4 percent) . . . . .	<u>4,664</u>
Annual financing cost of 1st year's improvements . . . . .	<u>10,742</u>

2d year

Cost of new construction . . . . .		108,875
Less available surplus from market revenues:		
Market revenue	\$47,000	
Less: Operation costs \$20,000		
Financing costs <u>10,742</u>	<u>30,742</u>	<u>16,258</u>
Balance to be amortized (25 years at 4 percent)		<u>92,617</u>
Interest on \$151,950 at 4 percent . . . . .		6,078
Amounts to be amortized (25 years at 4 percent)		
carried over from 1st year . . . . .		4,664
2d year additions (\$92,617, 25 years at 4 percent . . . . .		<u>5,928</u>
Annual financing cost of first 2 year's improvements		<u>16,670</u>

3d year

Cost of new construction . . . . .		42,750
Less available surplus from market revenues:		
Market revenue	\$47,000	
Less: Operation cost \$20,000		
Financing costs <u>16,670</u>	<u>36,670</u>	<u>10,330</u>
Balance to be amortized (25 years at 4 percent)		<u>32,420</u>

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	<u>Dollars</u>
Interest on \$151,950 at 4 percent . . . . .	6,078
Amounts needed for amortizations:	
Carried over from 1st and 2d years . . . . .	10,592
3d year additions (\$32,420, 25 years at 4 percent) . . . . .	<u>2,075</u>
Annual financing cost of first 3 year's improvements . . . . .	<u>18,745</u>

4th year

Cost of new construction . . . . .	114,575
Less available surplus from market revenues:	
Market revenue . . . . .	\$47,000
Less: Operation costs \$20,000 . . . . .	
Financing costs <u>18,745</u> . . . . .	<u>38,745</u>
	<u>8,255</u>
	<u>106,320</u>

Interest on \$151,950 at 4 percent . . . . .	6,078
Amounts needed for amortizations:	
Carried over from first 3 years . . . . .	12,667
4th year additions (\$106,320, 25 years at 4 percent) . . . . .	<u>6,805</u>
Annual financing cost each year (4th-25th) after construction is completed . . . . .	<u>25,550</u>

26th year

Interest on \$151,950 at 4 percent . . . . .	6,078
Amounts needed for amortizations: (\$19,472 less \$4,664) . . . . .	<u>14,808</u>
Total financing cost 26th year . . . . .	<u>20,886</u>

27th year

Interest on \$151,950 at 4 percent . . . . .	6,078
Amounts needed for amortizations: (\$14,808 less \$5,928) . . . . .	<u>8,880</u>
Total financing cost 27th year . . . . .	<u>14,958</u>

28th year

Interest on \$151,950 at 4 percent . . . . .	6,078
Amounts needed for amortizations: (\$8,880 less \$2,075) . . . . .	<u>6,805</u>
Total financing cost 28th year . . . . .	<u>12,883</u>

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Dollars

29th year and each year thereafter until debt is paid

Interest on \$151,950 at 4 percent . . . . .	6,078
(The total amount expended for construction of buildings and depreciable land improvements will have been amortized at the end of the 28th year.)	

Under the second plan the amounts of money needed for amortization and interest costs are shown in the following schedules by years:

1st year Dollars

Total expenditures (new land and construction) . . . . .	316,815
Less: Amount in cash reserve fund \$65,000	
Available surplus from market	
Revenues (\$47,000-\$20,000 27,000	<u>92,000</u>
Balance that will be borrowed and financed (25 years at 4 percent)	<u>224,815</u>
Amortization costs:	
\$224,815 for 25 years at 4 percent	<u>14,380</u>

2d year

Cost of new construction . . . . .	108,875
Less available surplus from market revenue:	
Market revenue \$47,000	
Less: Operating costs \$20,000	
Financing cost <u>14,380</u>	34,380
Balance to be amortized . . . . .	<u>96,255</u>
Amortization cost:	
Carried over from 1st year . . . . .	14,380
\$96,255 for 25 years at 4 percent . . . . .	<u>6,161</u>
Total for 2d year . . . . .	<u>20,541</u>

3d year

Cost of new construction . . . . .	42,750
Less available surplus from market revenues:	
Market revenue \$47,000	
Less: Operating costs \$20,000	
Financing costs 20,541	<u>40,541</u>
Balance to be amortized . . . . .	<u>36,291</u>
Amortization cost:	
Carried over from previous year . . . . .	20,541
\$36,291 for 25 years at 4 percent . . . . .	<u>2,323</u>
Total for 3d year . . . . .	<u>22,864</u>

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Dollars

4th year

Cost of new construction . . . . .		114,575
Less available surplus from market revenues:		
Market revenue	\$47,000	
Less: Operating costs \$20,000		
Financing costs <u>22,864</u>	<u>42,864</u>	<u>4,136</u>
Balance to be amortized . . . . .		<u>110,439</u>

Amortization costs:

Carried over from previous years . . . . .		22,864
\$110,439 for 25 years at 4 percent . . . . .		<u>7,069</u>
Total for each year (4th-25th) after construction is completed . . . . .		<u>29,933</u>

26th year

Amortization costs (\$29,933 - \$14,380) . . . . .		15,553
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27th year

Amortization costs (\$15,553 - \$ 6,161) . . . . .		9,392
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28th year

Amortization costs (\$9,392 - \$2,323) . . . . .		7,069
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29th year

Amortization cost (\$7,069 - \$7,069) . . . . .		None
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OPERATING EXPENSES

During the past six years the operating expenses for the market have averaged \$17,091 annually. During that period labor and salaries accounted for slightly more than half the total operating expenses. If present wage and salary rates should continue in the future the market cannot expect to operate in the future at as low an expense as it has in the past. The amount of space for conducting market operations would be enlarged materially but this improvement is not expected to increase the cost of market operating expenses. It is conservatively estimated that operating expenses would not exceed \$20,000 annually.

TOTAL ANNUAL REVENUE NEEDED

The annual revenue needed to finance the new improvements and pay cost of operation will vary according to the plan used for amortizing the cost of the new improvements, as shown in a previous section of this report. In addition to the revenue needed for amortizing the investment in new facilities the \$20,000 previously mentioned will be needed annually to pay operation expenses. Under the first financing plan the market will need to collect annual revenues as follows:

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	<u>Dollars</u>
1st year-----	30,742
2nd year-----	36,670
3rd year-----	38,745
4th year-----	45,550
Next 21 years-----	45,550
26th year-----	40,886
27th year-----	34,958
28th year-----	32,883
29th and each succeeding year-----	26,078

Under the second financing plan it will be necessary to collect the following annual revenues:

	<u>Dollars</u>
1st year-----	34,380
2nd year-----	40,541
3rd year-----	42,864
4th year-----	49,933
Next 21 years-----	49,933
26th year-----	35,553
27th year-----	29,392
28th year-----	27,069
29th year-----	20,000

#### SOURCES OF REVENUE

Under the present methods of operation rentals from buyers and fees from growers have constituted the principal sources of revenue. It is estimated that the new rentals and fees established in 1947 and the other miscellaneous income will bring in approximately \$47,000 annually. If the first financing plan is used, the present revenues will be sufficient to meet amortization, interest and operation costs. If the second financing plan is used, present revenues will not be large enough to meet all expenses and it would be necessary to obtain about \$3,000 annually in additional revenues to make the market operate without a loss.

#### SUGGESTED RENTAL RATES

Although the need for revenue could be obtained with no increase in rentals under the first financing plan and at a small increase in rentals under the second financing plan, it is suggested that rentals for season and day buyers' stalls also be increased considerably to provide a contingency reserve. It is suggested that the rentals for season buyers be increased from \$75 to \$90 per year and that for day buyers from \$1.50 to \$1.75 per load. This would be an increase of only about 20 percent, yet it would provide a space for buyers about 40 percent larger than is used at present. Some buyers who are now operating at several stalls would probably rent a smaller number and would be able to operate at no increase in rental costs. It is suggested that the present fees for growers be maintained as the increases made in 1947 were somewhat larger proportionately than those for season and day buyers.



If the improvements in facilities should result in a larger number of season buyers using the market than has been contemplated, the additional revenue needed for financing the improvements under the second plan might be obtained under present rental rates. However, it would be more conservative financing to increase rentals at the time the improvements were made rather than to run the risk of operating at a loss for a year or so and then increasing rentals. If the rental rates were found to be higher than necessary to meet expenses, they could be lowered or the money put in a reserve for additional improvements in the future.

### EQUIPMENT TO BE SUPPLIED BY DEALERS

Ever since the outbreak of World War II, interest in the use of labor-saving devices for reducing handling operations throughout the perishable food industry has mounted steadily. A number of experiments are now under way to determine the degree of mechanization that can be economically applied. The industry as a whole, therefore, should proceed cautiously and install **only** that equipment which has proved to be an economically sound investment or that which appears to offer the greatest economies.

Within recent years more and more buyers have been using portable gravity conveyors at the Benton Harbor Market. Buyers who have been using conveyors claim they have affected sizable savings in handling costs.

These conveyors are of the roller or wheel design. They are available in 5 foot and 10 foot straight sections, curved sections, and with adjustable stands. They are easily set up or dismantled and can be used to great advantage in unloading or loading trucks, trailers, railroad cars and vehicles. Lightweight sections that can be carried from place to place on trucks are also available. Gravity conveyors require no source of power, because the force of gravity, aided by the pitch or angle of inclination of the system and the weight of the package causes it to move. The amount of pitch needed per 10 foot section varies from 3/4 to 3 inches, depending upon the weight of the article being conveyed and its riding surface. Light loads (20 to 40 pounds) require steeper grades or pitch than 100 pound loads. Standard widths for roller and wheel conveyors are 12, 15, 18 and 24 inches. The number of rollers or wheels per foot of conveyor length, and their spacing or wheel arrangement, vary and depend on the weight to be uniformly supported over a 10 foot section.

## BENEFITS TO BE DERIVED FROM A NEW MARKET

The economies to be gained from the construction of a new market would not be very large. However, it will be possible to handle the present volume of business more expeditiously there than in the present market and space will be provided for handling a larger volume of business in the future. In addition, the present market has reached such a state of repair that new facilities will have to be provided soon if it is going to maintain its present status.

At the present market traffic congestion at the buyers' platforms causes considerable delay to both buyers and sellers. If wider streets are provided, as has been recommended for the new market, most of the congestion will be eliminated. It is estimated that this congestion is causing buyers to spend 2 extra man-hours of labor for each equivalent carload of fruit and vegetables handled, and growers lose 15 minutes on each load sold. At 50 cents per hour for labor, a new market would result in a saving of time worth about \$5,000 to buyers and \$25,000 to growers annually.

Congestion and delays in the loading out of buyers trucks at loading platforms is also causing buyers to lose some orders for which other buyers in a distant city will pay a premium of 25 to 50 cents per package. Buyers in distant cities frequently telephone in orders with the stipulation that the loads must arrive prior to a specific time at the distant market. For quick delivery, they are willing to pay a premium of 25 to 50 cents per package over the market price at Benton Harbor. Since most of the buyers at Benton Harbor are buying brokers any premiums offered for quick delivery are reflected in the prices paid to growers.

The enlarging of the selling area would permit a greater number of growers to enter the market at one time, which in turn would permit shorter selling hours and less fluctuation in the prices paid to various growers. A reduction in price fluctuations would not increase the overall returns to growers but it would make for more satisfaction on the part of the individual growers concerned.

The construction of new facilities and the enlarging of the market would provide facilities for a larger number of buyers. During recent years the market has not handled as great a volume of produce as buyers now operating on the market demanded. However, if buying power should fall off in the future, additional buyers will widen the distribution area of the market and help materially in preventing a drastic decline in prices paid to growers on the Benton Harbor market.

## SUMMARY AND CONCLUSIONS

The Benton Harbor Fruit Market is a city owned shipping point or concentration type of market that remains open about 6 months out of each year.

In 1946 the market handled the equivalent of 7,498 carloads of fresh fruits and vegetables. Most of the produce sold there originates from local growers who deliver their produce to the market in trucks and other miscellaneous types of farm vehicles. There are two general types of buyers at the market namely, the season buyers and day buyers. The season buyers are primarily buying brokers, who operate at the market throughout the season, and purchase on orders from dealers in 30 States. The day buyers are merchant truckers, dealers from other cities, roadside market operators and others, who visit the market on a day to day basis, and distribute their products to approximately the same area covered by the season buyers. Distribution from the market is primarily motor truck, but in certain years sizable quantities have been shipped by rail.

The facilities on the present market consist of a large paved space or selling area where growers park their loaded trucks and 6 buyers' sheds, where buyers load the trucks that distribute produce from the market. The market also has a number of other miscellaneous facilities such as offices for the market management, a restaurant, and public toilets. The selling area is marked off into lanes to indicate the places where the growers can park while selling. The buyers' sheds are divided into a total of 261 stalls which are 10 feet wide and 14 feet deep. These stalls have platforms of truck-bed height and are used for the unloading of growers trucks and the loading of buyers' trucks. In addition to these stalls where buyers load, parking spaces are provided for about 110 trucks to load and unload across the tail gate.

The principal defects of the present facilities are listed as follows:

1. The buyers' sheds are old and need extensive repairs or should be completely rebuilt.
2. The stalls are too small to handle adequately present day motor vehicles.
3. The selling area is too small to accommodate all the sellers that arrive during the peak of the marketing season.
4. There is not enough parking space for trucks of all buyers and sellers who attend the market.
5. There is no protection, at ground level to buyers operating in buyers' lanes.

There are several factors that make it desirable to remodel the market at the present location. These factors are: (1) additional land is available for expansion, (2) the area is accessible to both buyers and sellers, (3) the area is accessible to railroads, (4) a cold storage warehouse and other related market facilities are already established at the area, and (5) a rebuilding program can be carried out that would not interfere with market operations.

Under the rebuilding program it is recommended that the selling area be enlarged to accommodate approximately twice as many trucks as the pre-

sent area and that curbs be placed between the selling lanes to eliminate some of the traffic hazards. The buyers sheds should be rebuilt. The new sheds would be enlarged to provide 280 stalls 10 feet wide and 20 feet deep in place of the present sheds with 261 stalls, 10 feet wide and 14 feet deep. Additional space for the parking of buyers and sellers trucks should be provided and a space should be designated for the construction of wholesale stores for dealers if the market should develop into a year-round market in the future.

An area of approximately 30 acres would be required for construction of the facilities needed now and to allow for future expansion. The present market is using about 13 acres of space for market purposes, but the city now owns about 20 acres adjoining the present market. This area is occupied by the city waterworks and a park, but the city waterworks will be moved to a new location in the future. Part of the park area can be used immediately for market purposes. To provide the most effective arrangement of facilities it would be necessary to purchase about 3 acres of privately owned property and to improve an additional 3 acres of low-land now owned by the market.

The entire market area should be enclosed by a substantial fence with gates at all entrances and exits.

The cost of land that would need to be purchased is estimated at \$75,000. An additional \$171,200 would be needed for improvements to land and \$336,815 is the estimated cost of providing the buildings needed now. The estimated cost of providing all of the improvements needed at present totals \$583,015.

If the present cash building fund reserve of \$65,000 is used, no charge is made for the use of existing land and facilities, and the rebuilding program is carried out over a period of 4 years, an annual revenue of \$49,933 would be needed to pay operating expenses and the amortization of the new land and buildings over a 25-year period. If the cost of new land plus that of grade and fill to the new land is not amortized over a 25-year period, but an interest rate of 4 percent charged annually for the use of this land (including the cost of the grade and fill) only \$45,550 would be needed annually to finance the remodeling and operation of the market. At present rental rates the annual revenue is about \$47,000. The present rentals are high enough to finance the improvements if the land and the improvements to land, such as grade and fill are not amortized. However, it is recommended that season buyers rental be increased from \$75 to \$90 per year and day buyers fees from \$1.50 to \$1.75 per load, to provide a contingency reserve.

The rebuilding of the market would result in more expeditious handling of the fruits and vegetables sold and would aid Eenton Harbor in maintaining its position as one of the largest shipping markets in the United States.









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