

Manufactural Geography of Chicago Heights, Illinois¹

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This study has for its objective a portrayal of the founding and growth of the industrial pattern of Chicago Heights in the framework of its regional setting and the coherent topographic and human factors of its site. Located twenty-five miles south of the Chicago Loop, eight miles south of the Chicago city limits, and just within the southern boundary of Cook County (Fig. 1), this relatively small-sized community of some 30,000 people² is distinguished by the magnitude of its manufacturing operations and by the enterprising coordinated civic agencies which have been effectively instrumental in developing a community pattern conducive to a sustained growth of industry. In contrast to many cities of its size in Illinois, it has a cosmopolitan population of a type usually identified with the largest municipalities in the United States. Its civic agencies have distinguished themselves in attacking the problem of integrating the social and economic life of the community in the rapidly expanding industrial pattern.

Chicago Heights has some four score manufacturing industries, with an estimated value of manufactured products of 125 million dollars, of which approximately 65 million dollars represents value added by manufacturing. The labor force is estimated at 12,500—male 9,000; female 3,500.

Working through or in conjunction with some dozen or more commissions, committees, and other agencies are the so-called Committee for Chicago Heights, the Manufacturers Association, the Merchants Association, and the City Plan Commission, which recognizes the need of co-ordinating space requirements for all the various functions of the community. The Committee for Chicago Heights represents a cross section of banking, business, commercial, and other civic leadership, announcing its avowed purpose "to foster and further civic, industrial and commercial development of Chicago Heights." The Committee hopes to accomplish this purpose by "attracting new industry for increased payroll dollars and by solving local problems so that Chicago Heights is a better place in which to live" (1).

The Manufacturers Association is a composite one serving a number of local cities mostly contiguous to the Chicago Heights area. At present it includes such communities as Steger, Peotone, Monee, Matte-

¹This study is based on a field survey conducted by means of a questionnaire, personal interviews, and local field observations. It is the third of a series of manufacturing studies in geography of the Calumet Region of Northwest Indiana-Northeast Illinois; the other two, those of LaPorte and Michigan City, Indiana, appear in volumes 64 and 65 of the *Proceedings*.

²Census of Population: 1950, U. S. Government, reports the figure 24,551.

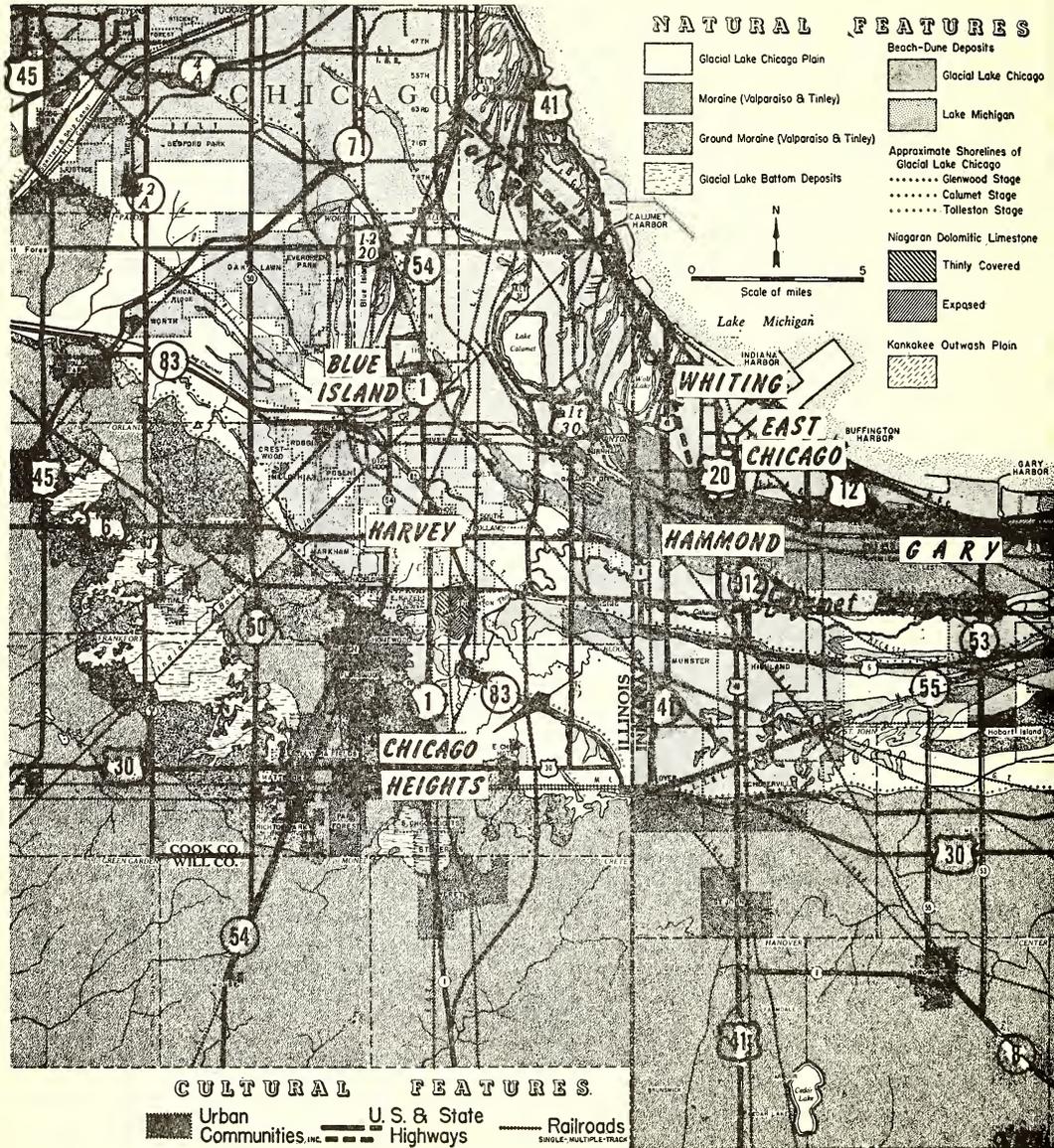


Fig. 1. The geographic setting of Chicago Heights in relation to its physiography, neighboring urban communities (including other industrial centers), the Calumet-Chicago metropolitan complex, and the major transportation pattern of the region.

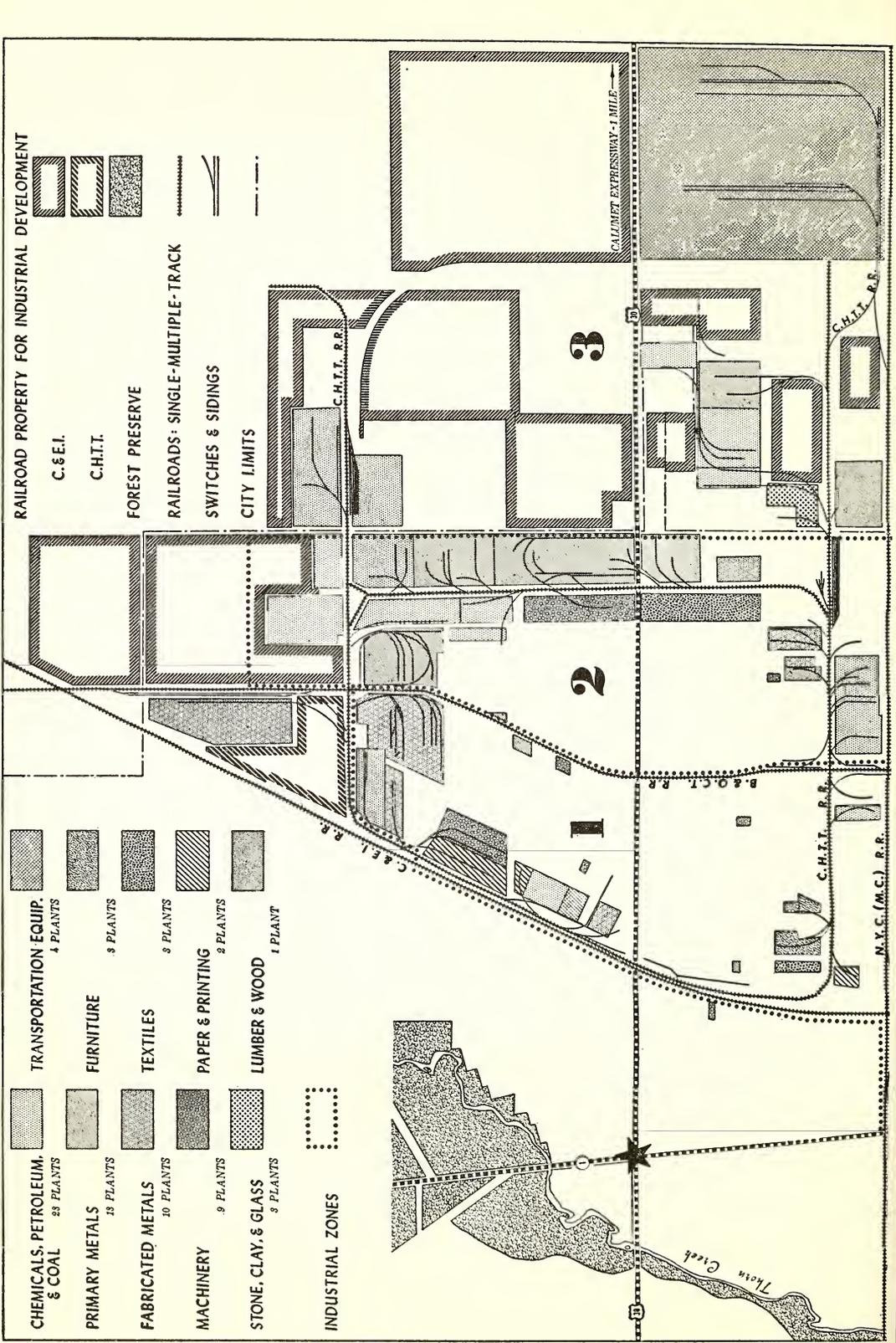
son, Homewood, and Thornton. All of these are contiguous to the Chicago Heights area with the exception of Peotone. Through interchange of information, the Association "attempts to increase manufacturing efficiency, inform members concerning impending legislative actions which might affect them, and through its public relations program to increase knowledge and understanding of local industry and assist in labor force training and recruitment" (2). Thus, whereas the Committee of Chicago Heights is credited with helping to bring industry into the area, such as the recent Ford Motor Company, Metisa Equipment Corporation, Pennsylvania Salt Manufacturing, among others, the Manufacturers Association helps industry realize its full potential.

Geo-Historical Factors

Chicago Heights is one of the "grove" communities of the western Calumet prairie, known originally as the Thorn Grove settlement. Pioneers in the middle nineteenth century migrating into the west end of the Calumet often sought out the more elevated and wooded sections rather than settling on the wetter prairie. Thorn Grove was one of these. Settlement in this grove was partly focused on the junction of two leading Indian trails in the west end of the Calumet region—the Sauk trail, now essentially US 30, and the old Hubbard's trace now essentially State Highway 1, partly known today as the Dixie Highway. (3). Sixteen settlers claiming squatter's rights settled here in 1838 under the Preemption Act. From the very beginning, this area had a rather cosmopolitan population, immigrants coming from France, Ireland, Scotland, Bohemia, Germany, Switzerland, and from many eastern states. Not only was the particular location inviting physiographically, but it had early advantages in attracting leaders from the Chicago area who became instrumental in developing land suited to industry. Thus "Charles H. Wacker, who was to become the first president of the Chicago Plan Commission, headed a group that purchased 1,260 acres in 1890. . . . Wacker attracted industry by offering free land and other concessions" (4).

Then in 1891 was formed the Chicago Heights Land Association which had for its specific objective the industrial development of approximately 4,000 acres of land in Bloom township. This association had two fixed policies: 1) "not to make the growth and prosperity of the city dependent upon any one line of industry," and 2) "to keep the factory district segregated from the residential part of the town, and as a result practically all the factories are located on the so-called 'East Side'" (5).

The Joliet and Northern Indiana Railroad ran a branch through Bloom in 1853, now known as the Michigan Central; and the Elgin, Joliet and eastern belt railroad was built in 1887. In the pioneer planning of this industrial community consideration was given to every facility that might attract industry. "One of the first facilities created was the Chicago Heights Terminal Transfer railroad for handling shipping to and from industrial plants and connecting with the many



RAILROAD PROPERTY FOR INDUSTRIAL DEVELOPMENT

C.E.I.
 C.H.I.T.
 FOREST PRESERVE
 RAILROADS: SINGLE-MULTIPLE-TRACK
 SWITCHES & SIDINGS
 CITY LIMITS

CHEMICALS, PETROLEUM, & COAL
 83 PLANTS

PRIMARY METALS
 28 PLANTS

FABRICATED METALS
 40 PLANTS

MACHINERY
 9 PLANTS

STONE, CLAY, & GLASS
 8 PLANTS

INDUSTRIAL ZONES

TRANSPORTATION EQUIP.
 4 PLANTS

FURNITURE
 8 PLANTS

TEXTILES
 8 PLANTS

PAPER & PRINTING
 2 PLANTS

LUMBER & WOOD
 1 PLANT

CALUMET EXPRESSWAY - 1 MILE

C.H.I.T. R.R.

C.A.L. R.R.

Hudson R.R.

C.H.I.T. R.R.

C.H.I.T. R.R.

N.Y.C. (M.C.) R.R.

Thosm Creek

3

2

1

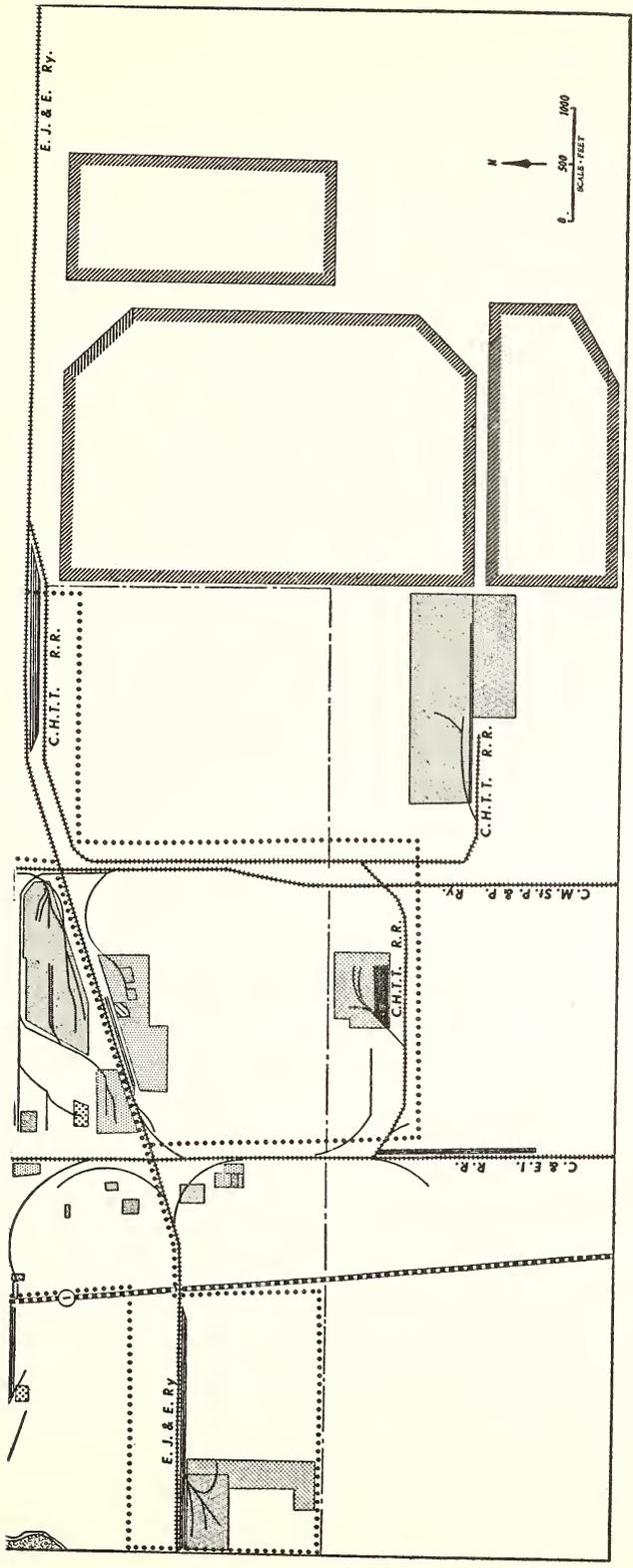


Fig. 2. The classified manufactural pattern of Chicago Heights in the geographic framework of transportation and switching service, railroad land available for industrial development, and the progressive general zonal shifting of industrial occupancy from west to east (zones 1, 2, 3).

railway lines serving Chicagoland. It is important to note that this transportation advantage was the outstanding feature that attracted the first batch of industries to the area" (6).

Splendid transportation facilities, close rail connection with the coal fields of Illinois and Indiana, low water taxes, were other features which attracted industry.

A year by year chronological listing of the appearance of the various industries establishing themselves in the Chicago Heights area, as revealed in a brochure issued by the Committee for Chicago Heights, lends itself to some interesting observations on the growth of the industrial structure.

The first major industries in Chicago Heights started to be established in 1890 (American Manganese Steel Division and the American Brake Shoe Company); 1893 (Inland Steel Company); and 1896 (Victor Chemical Works). This was followed by a progressively increasing number of industries established throughout the years from 1900 to the present (1956). The present-day manufacturing plant pattern appears in Fig. 2. Three plants appeared in 1900; 1 (1902); 3 (1904); 1 each (1906, 1907); 2 (1908); 1 each (1909, 1915, 1916, 1917, 1918, 1919); 2 each (1920, 1921); 1 (1923); 2 each (1925, 1928); 1 each (1932, 1937); 3 each (1938, 1940, 1941); 1 (1943); 3 each (1945, 1946); 1 (1947); 3 (1948); 1 (1949); 6 (1950); 2 (1951); 1 each (1952, 1954); 2 (1955); 3 (1956).

The growth pattern of industrial establishments may be related to four stages: The first period of development up to 1909 is identified with the program of the Chicago Heights Land Association. The second, from approximately 1915 to 1920 is related to the efforts of the Chicago Heights Manufacturers Association. The third, from 1921 to 1937, is reflective of the financial depression. New impetus in industrial development is recognized as starting about 1938 and continuing down to the present. These chronologic data, reduced to a chorographic base of three zones, as incorporated in Figure 2, point up the general progress of manufactural pattern development from west to east. In the original core (zone 1) the majority of industries (nearly 70%) was established by 1920. In the second zone 75% of the industries had been started after 1920. In the third zone the outlying section on the east end of the city, much of which is outside of the city limits, includes industries nearly all of which were established since 1931.¹

Regional Considerations

Chicago Heights is part of the Chicago-Calumet region, physiographically, commercially, and industrially.

Thorn Creek, which drains the Chicago Heights area empties into the Little Calumet River which, in its course westward, joins the Calumet-Sag barge channel. The northeast section of Chicago Heights along Thorn Creek is part of the glacial lake bottom laid down by Old Lake Chicago. Rising to the center is the Tinley ground moraine and on

¹Based on compilations by Mr. Donald Killmer.

the south the Tinley terminal moraine. This higher and better-drained site compared with the poorly-drained lake plain areas to the north was credited in early days as an influential factor in pioneer settlement and subsequent industrial development. Geomorphologically, it is significant to note that the elevation of site is also identified with a rise in bedrock contour, the Niagaran dolomitic limestone in this district coming within 25 feet or less of the surface (Fig. 3). This sub-surface structure came to be recognized as a decidedly beneficial factor in establishing secure footings for foundations, particularly by the more recent establishments of the heavy industrial type. Vicinal description of this rock elevation appears in a bulletin of the Illinois State Geological Survey as follows:

"A rock hill, partially buried by glacial drift so that only its northeastern and eastern slopes crop out, occurs in East Chicago Heights near the intersection of Cottage Grove Avenue and Lincoln Highway about four miles south and one mile east of the Thornton klint. It rises rather steeply from the highest level of the lake plain on the north and has a relief of 25 to 30 feet. In an old quarry along Cottage Grove Avenue there are northward-dipping reef beds" (7).

Such close proximity of limestone to the surface suggests profitable limestone quarrying operations, and this potential has not been overlooked; however, as Mr. Arthur Longini, chief economist of the C. & E. I. R. R., has pointed out, industrial and transportation revenues which may accrue from such development may very well be offset by liabilities associated with quarrying, particularly the eventual precautions which have to be taken in preventing trespass into an abandoned quarry area.

Occupying the west end of the Calumet region, and only a few miles from Chicago, Chicago Heights has commonly been considered a part of commuter and commercial metropolitan Chicago. For one thing, it shares with Chicago a common airport; however most of the residents of the city work in the immediate area and not Chicago, and so, as indicated by Mr. W. W. Thorsness, Executive Secretary of the Manufacturers Association, the city definitely is not considered a commuter "bedroom city" such as Park Forest, Homewood, and Flossmoor. Chicago Heights has also been commonly recognized as regionally a part of the Chicago Industrial area; however, here again Mr. Thorsness, feels that Chicago Heights, despite its proximity to Chicago, "is actually a separate and distinct industrial area," emphasized by the fact that "we are separated from Chicago by another industrial area, namely Harvey, which is eight miles north of Chicago Heights."

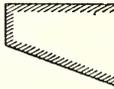
A regional factor of great significance to industrialists is related to advantageous trade rates. "Though Chicago Heights is not a part of the Chicago switching district, it has been granted the same freight rates and so has advantages over all other communities not in the Chicago switching district which do not share the privilege of intra-rate switching at the Chicago switching district rates." (Fig. 3).

Since the tax rates in Cook County are higher than in adjacent Will County on the south, Chicago Heights, just inside the southern boundary of Cook County, experiences here a disadvantage; however this

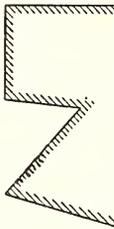
-LEGEND:-



BOUNDARY OF THE CHICAGO RATE BASE AREA (RAIL POINTS CLOSEST TO BOUNDARIES ARE INDICATED).



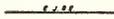
LIMITS OF THE CHICAGO SWITCHING DISTRICT AS DESCRIBED IN I.F.A. TARIFF 20Y. NO POINTS ON THE E.J.&E. R.R. ARE CONSIDERED IN THIS DISTRICT. FOR WABASH R.R.-INDIANA HARBOR BELT R.R. INTERCHANGE PURPOSES ONLY, TOLLESTON, IND., IS WITHIN THE DISTRICT.



LIMITS OF THE CHICAGO HEIGHTS, GARY, GRIFFITH, AND JOLIET SWITCHING DISTRICTS. (NOTE: WITHIN THE CHICAGO HEIGHTS SWITCHING DISTRICT, DESCRIBED IN I.F.A. TARIFF 10L, RECIPROCAL SWITCHING IS GENERALLY PROVIDED, AND SWITCHING BETWEEN INDUSTRIES IN THE CHICAGO HEIGHTS DISTRICT AND INDUSTRIES IN THE CHICAGO DISTRICT IS DONE AT CHICAGO DISTRICT RATES, THE GARY, GRIFFITH, AND JOLIET SWITCHING DISTRICTS INDICATED ARE THE LIMITS OF LOCAL SWITCHING AS DESCRIBED IN TARIFFS OF THE INDIVIDUAL CARRIERS INVOLVED, IN MANY CASES, PARTICULARLY AT GARY, RECIPROCAL SWITCHING BETWEEN LINES IS NOT PROVIDED.)



CHICAGO & EASTERN ILLINOIS RAILROAD, ITS SUBSIDIARY SWITCH LINE, CHICAGO HEIGHTS TERMINAL TRANSFER RAILROAD, AND ITS AFFILIATED CHICAGO TERMINAL LINE, CHICAGO & WESTERN INDIANA RAILROAD.



OTHER RAILROADS (AS INDICATED BY INITIALS).



CITY LIMITS - SHOWN FOR CHICAGO, CHICAGO HEIGHTS, GARY, AND JOLIET.



STATE LINES.



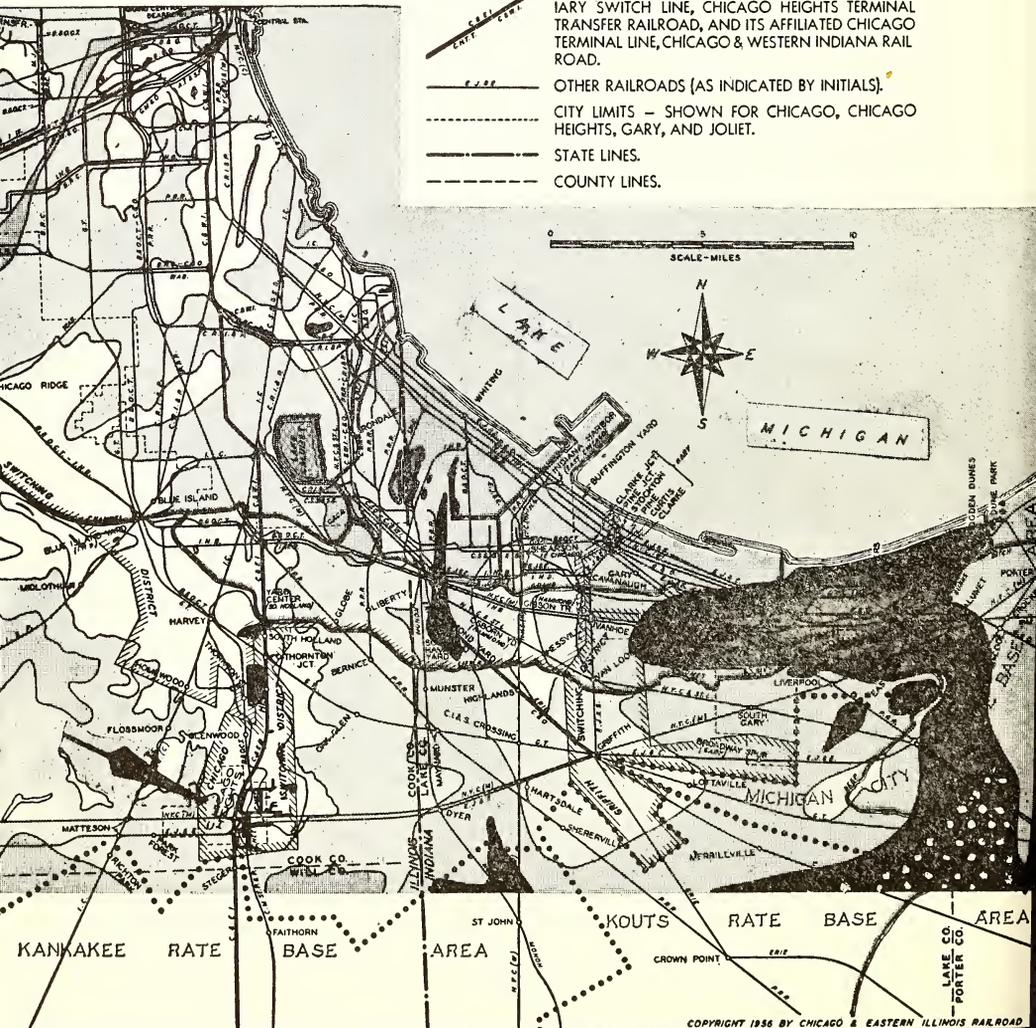
COUNTY LINES.

LEGEND

OVERBURDEN ON BEDROCK

- 0 FEET - ROCK OUTCROP
- 0 FEET - 25 FEET
- 25 FEET - 50 FEET
- 50 FEET - 100 FEET
- 100 FEET - 150 FEET
- 150 FEET - 200 FEET
- OVER 200 FEET

SOURCE: DERIVED BY C&E FROM SURFACE CONTOURS AND BEDROCK CONTOURS.



is said to be offset by the advantage of having an adequate sanitary disposal plant and enjoying freight rates not being shared by adjacent Will County communities. Moreover, the local township (Bloom) has an excellent high school which not only prepares the students for college, but also in some instances through its industrial department prepares a student for employment in industry upon completion of his high school term.

A certain type of regionality also exists with reference to the geographic area served by the Manufacturers Association, as indicated by the list of community members who share a common denominator of industrial interests. Generally speaking, this represents a contiguous area. Other communities may become members of the organization at the discretion of the Board of Directors even though such communities may not necessarily be in contact with the larger area (ex. Peotone).

Other regional associations of significance as, for example, those dealing with transportation both by water and land, will be considered under the heading of Transportation.

Evaluation of Locative Factors as Based on Questionnaire

The interview data supplied for our questionnaire by the industrialists of Chicago Heights indicate considerable awareness of the significance of locative factors in the establishment of industry. This, no doubt, is due in large measure to the alert and aggressive Manufacturers Association, the Committee on Chicago Heights, and the City Planning Commission, previously mentioned, which effectively co-ordinate their efforts in exploring and exploiting every opportunity to realize the community's full industrial potential. Only seven interviewees (15%) were unaware of any specific factor or combination of factors, instrumental in influencing management to locate in this region, or on the particular site occupied by the establishment. The questionnaire on this point reads as follows: "Were locational advantages considered in selecting the site as regards any geographic facility, economic factor, or political consideration"? Answers to this question were sought both with reference to the general area of Chicago Heights as well as the particular site selected in the city. The interviewee was then asked to explain and evaluate the relative importance of each influential locative factor. From these data we derive the following categorical observations in relative order of frequency of notation.

Regional Relations—Over half of the respondents indicate regionality to be a leading factor in industrial location. In terms of general

Fig. 3. A dual purpose map, featuring 1) regional differentiation in bedrock overburden, and 2) the geographic relation of the freight rate structure area of Chicago Heights to the Chicago Rate Base Area. As concerns the bedrock overburden, note the thin overburden (0-25 feet) in the Chicago Heights area which facilitates stable foundation construction, especially essential for the numerous heavy industries of the area. In relation to the cartographic feature, note the favored switching facility as described in the legend. (Reproduction of this copyrighted map is by special permission.)

regional considerations we note the following observations: centrally located; centrally located to the best industrial cities of the areas; near the railroad lines and the railroad center of the U. S. A.; proximity to Chicago; close to Chicago and east Chicago; near southside plants; steel mills nearby; near residential area.

Labor regional relations were emphasized by some eight respondents (17%) in terms of local availability or regional proximity: away from the congested and immediately competitive labor market; labor cost at reasonable employment scales.

Regional market considerations were on a par with regional labor evaluations. Representative were the following: We located in Chicago Heights to be closer to the trade; Chicago offered a good market for goods; we were here close to big factories that could use our services.

Regional relations as respects raw materials seemingly was a less significant factor. Only three respondents expressed themselves with reference to accessibility of steel and other raw material.

Transportation—This is the leading single reported locative consideration, about forty percent of the respondents noting this factor. Representative (and usually duplicative) comments of this group follow: Accessibility to transportation by rail, C. & E. I. and truck (US 30); railroad facilities of Chicago Heights very good, and especially at this particular spot in the city; are closer here to the railroads and highways (transportation network); have a spare track (railroad siding) away from the congested area outside the city; [advantageous] Chicago shipping rates.

Space—Understandably, adequacy in quantity and quality of site for the placement of buildings constitutes a leading category in locational consideration, almost identical in rank with transportation. Some eighteen industries, or approximately thirty-eight percent, gave focal emphasis to this environmental factor. Representative statements follow: Space was important; the only available place to go was Chicago Heights; land was plentiful; land was for sale and was reasonable compared to Chicago prices; land was for sale and land was large enough to build the amount of buildings needed; we were able to rent space reasonably in Chicago Heights; particular site was chosen because of space and railroad facilities; found land available outside of city limits; moved our plant in order to get more space; when we built we were the only plant in area; we had here opportunity to get away from congested area outside city limits.

Previous Building—Quite a number of firms (13), or about twenty-eight percent, indicated that they were influenced in their site location by the fact that some building previously existed there. Thus the following rather common expressions: This company purchased its sight from a previous foundry; the quarters were available; the particular site was chosen because the land and buildings were already available; we found a cheap building and land; the physical plant was already here; bought out another company; the building was vacant; space was available in a rented building.

Utilities—It is interesting to note that only two of the respondents out of the entire group mentioned utilities in this connection. The importance to this rapidly growing industrial community of ample supply of water, adequate drainage, and sewerage, along with other utilities, is not undervalued, however, as is indicated elsewhere in this survey.

Miscellaneous—Individual firms enumerated other diverse reasons for locating in Chicago Heights: Found Chicago Heights presented the only available space suitable, after having had to move out of Chicago; this company was in a process of decentralization and was also in search of another labor market; this is the only tool and dye shop in town; land was large enough to build the amount of buildings needed, and other industry was here already; close to Victor Chemical Company and Blockson Chemical Company and various suppliers in area; my home is in Monee, and as this is a sideline, I wanted it to be near.

Areal Labor

Industrial Chicago Heights employs approximately 10,500 persons, 3,000 (28.6%) of whom are employed at the recently opened Ford stamping plant. With the addition of this one plant, the classification of "fabricated metal" becomes most important in terms of total employed. The classifications of chemical-petroleum-coal and primary metals formerly occupying first and second rank respectively, now are relegated to second and third place.

The 1950 U. S. census listed 4,836 people employed by local manufacturing concerns. In contrast with this are the figures of 7,500 for early 1956 and 10,500 of today. One-fifth (20%) of the employed are female. There is local sentiment for the establishment of types of factories which would utilize a higher proportion of women, especially Negro. The accelerated industrialization at the close of the last century was accomplished in large measure by immigrant laborers from southern and eastern Europe, as reflected by the hundreds of Italian and Polish names in the community. This mass migration of Europeans to America was drastically curtailed by the immigration laws of 1920. To fill this partial labor vacuum, Negroes and Mexicans settled in the city, so that in 1950, they composed 16.8 percent of the population.

Since the second World War the location and the relocation of industry in peripheral Chicago progressed on a large scale. This trend has caused a relative scarcity of much-needed labor in such suburban areas—more so than in most of Chicago proper.

Ford Motor Company expects to add 1,000 employees to the local plant in the near future. This prospect plus the anticipated location of new industry will serve to make Chicago Heights a large labor market. Two sources of labor will supply the local labor needs. Firstly, Chicago Heights will continue to participate in the rapid population increase being experienced in suburban Cook County. Secondly, the increased labor mobility afforded by new expressways will contribute to the community's regional labor market. As industries locate here and expand, the partial labor vacuum will require more and more persons from the

surrounding area. The approximate radial dimensions of the major labor tributary area is twenty miles. Area more distant than twenty miles generates 2.6% of the total labor force.

The following table categorizes in terms of distance the source of the total employed in Chicago Heights. It is noteworthy that 41.4% of employees live outside of the city limits (2). A large part of this

TABLE

| Percent of total employed | Distance of origin |
|---------------------------|------------------------|
| | Within 5 miles |
| 58.6% | a) inside city limits |
| 19.7 | b) outside city limits |
| 10.1 | 5-9 miles |
| 9.0 | 10-19 miles |
| 1.3 | 20-29 miles |
| .9 | 30-39 miles |
| .3 | 40-59 miles |
| .1 | 60 miles and more |

non-city labor comes from the rural land to the south of Chicago Heights. Situated at the northern edge of the corn belt, local industry can draw upon farmers and the non-industrialized farm town. Not only is this a supply of good labor, but such a rural supply tends to moderate the local wage rates.

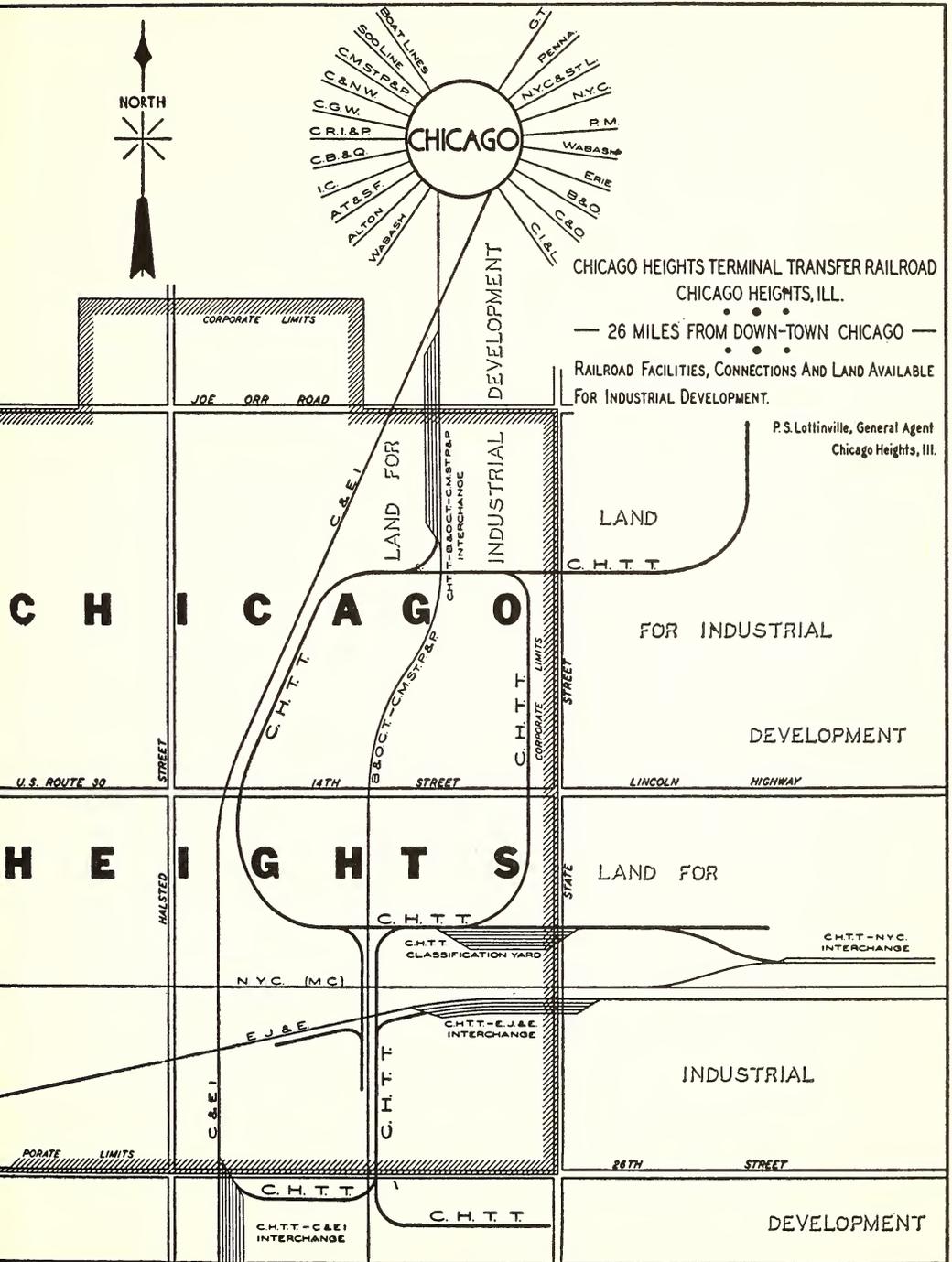
The Transportation Pattern

With a manufactural structure dominated by primary metals, fabricated metals, and chemicals, Chicago Heights industry is based upon a dense local rail net. The six railroads servicing local industry give excellent service in all directions, especially to the Chicago-Calumet complex for the in-movement of bulk raw and semi-processed goods.

Since Chicago Heights is located at the first hub of rail lines southwest of Chicago proper, local industry is proximal to both the belt lines outside of Chicago, and the dense trackage of Chicago itself. The following table outlines the freight rail service locally available. Of the fifty industries serviced by rail, all but eight are served by the Chicago Heights Terminal Transfer Railroad (Fig. 4).

Geographically viewed, Chicago Heights is outside of the Chicago Switching District. The location of the Indiana Harbor Belt Line

Fig. 4. One of the major rail advantages of Chicago Heights is the transfer facility provided by the C.H.T.T.R.R. as shown in this special feature map. Comparison with Fig. 2 reveals how this pattern fits into the general transportation and industrial patterns. It is noteworthy that of the fifty industries served by rail, all but eight are served by this transfer facility.



TABLE

| Name of Railroad | Direction of Service | Nature of Service |
|--|------------------------|--|
| Chicago and Eastern Illinois Railroad | North-South | Most of north-south traffic |
| Baltimore and Ohio Terminal Railroad | North-South | Inner Belt Line Service |
| Chicago, Milwaukee, St. Paul and Pacific | North-South | Chicago-Milwaukee with S. Indiana |
| New York Central (Michigan Central) | East-West | Most of non-local E-W traffic |
| Elgin, Joliet and Eastern Railway | East-West | Steel traffic. Outer Belt Line Service |
| Chicago Heights Terminal Transfer R. R. | N. E.-S. W., and local | Connecting with Chicago Switching District |

delineates the extent of the District, and Chicago Heights lies without this delineated region; however, as the result of a court case, Chicago Heights, in the Chicago Heights Switching District, was granted the same rates as the Chicago District (Fig. 3). With this favorable rate structure, it can successfully compete with other suburban areas and even with Chicago for industries which need both cheap bulk transportation and large tracts of land; moreover, as pointed out by Mr. Thorsness, "Our local intra-industry switching rate is substantially lower than that which applies between industries in the Chicago Switching District.

Over 3,000 loaded freight cars are handled monthly. The average of six months in 1955-56 indicates that approximately 30 percent are loaded with local manufacture, and 70 percent bring in materials to be manufactured. Approximately 80 percent more industries use predominantly rail for shipping in than in shipping out. In spite of the heavy reliance upon rails, twelve industries reported an increasing use of trucks.

The city's location is strategic not only in reference to rail transportation, but also in terms of highway circulation and developments. Astride the intersection of the Dixie and Lincoln highways, Chicago Heights' transportational position is enhanced by the recent construction of the Calumet Expressway and the anticipated development of an Indiana to Wisconsin Expressway, six miles north of the city.

Utilizing the road net are several local trucking lines and more than 150 line haul trucking companies with rights to handle ingoing and outgoing freight.

Ten miles to the north is the Calumet Harbor development. Because of local heavy industry and good transportation connections, Chicago Heights can be expected to participate in the beneficial effects of the port's future expanded traffic, most likely in cheaper bulk commodities.

Geographic Origin of Raw Materials

The general sources of the major raw and processed materials can be rather easily outlined. Of the twelve plants in the primary metals classification, all but one use scrap; and, therefore, are more market-oriented. Most of the scrap is railway scrap, so that these industries have a good source of materials in Chicago, the railroad center of the United States. Only Columbia Steel, which electrically produces a high-grade tool steel, uses ore. The chemical plants have good bulk transportation for the movement of petro-chemicals from the south-central states, and they are in close proximity to the chemical concerns of the Greater Chicago region. Wood is procured from the Northwest, Canada, and the Southeast. Textiles and textile materials come almost entirely from the Southeast. Miscellaneous materials come from a wide diversity of sources, but the Chicago Region itself is a major source of both the common bulk commodities and the more diversified materials.

Regional Markets

Being a mature industrial community, Chicago Heights ships manufactures throughout the United States. Several of the local industries are branch plants, however, and were located to serve a regional market. A large part of local industry, then, serves the Midwest, especially that area economically tributary to Chicago. Agricultural chemicals are in close transportational proximity to the large fertilizer user—the Corn Belt. At the same time, the non-agricultural chemicals are part of the Chicago Region, with its diversified demand. The several asphalt product plants, based on a local tradition of building supplies, are near to an area which is experiencing a building boom, including not only south Cook County, but the entire Chicago-Calumet region.

Local Utilities

An ample supply of water is gotten from shallow wells on the west side of the city. Twenty percent of the interviewed industries made negative comment about the quality of the water supply (hardness, odor, taste). Because of this, in part, many plants have their own wells.

Chicago Heights is in the Bloom Township Sanitary District, which also serves Park Forest and South Chicago Heights. In 1956 the capacity of the treatment plant was doubled so that it could service 75,000 people. Since the Sanitary District now includes 60,000 people, the treatment plant will most likely be operating at capacity in a very few years.

Availability of excellent electric power was a major consideration in the location of the Ford stamping plant. Commonwealth Edison operates a large generating plant near the Illinois-Indiana line at Lake Michigan. This company helped to locate the Ford plant.

Some Self-Recognized Industrial Problems

Problems of industry, like locative factors, can often best be explored by specific reference to original statements of the industrialists

themselves. Such procedure as the following, then, has certain advantages: 1) It substitutes objective reality of facts and evaluations for subjective thinking and rationalization based on purely environmental considerations. 2) And since in many cases, time and circumstances vary considerably from industry to industry, it is often difficult to categorize or regionalize differences among them—a problem of a particular industry may not be geographically related to the area at all. 3) Such procedure helps to distinguish factors essentially geographic from those which are not inherently geographic.

More than half of the respondents recognized some particular problem identified with its type of industry or otherwise as related to this particular region. Five respondents mentioned the cost of transportation or other transportation problems, such as: raw materials from a long way, making service slow; high freight rates; raw materials obtained from areas having natural resources; shipment appreciably affected by cross freight. Four mentioned competitive problems: competition is not unionized; competition with southern mills; cheaper labor down there; have to pay low wages here, but they are higher wages for this type of industry.

Three of the respondents mentioned labor troubles: difficulty of getting skilled help; labor problems in the form of strikes; wage conditions.

Comments on miscellaneous items included the following: Our firm follows the business cycle; our business follows the general trend of construction; we have to have our plant near the market; our markets are particularly affected by the purchasing power of railroads and heavy industries; our business affected by trends of the auto industry; two comments on odor problems.

About one-fourth of the industries stated they had evolved a particular plan for solving the problems just mentioned. Trucking appears to be one of the major solutions of the transportation problem. As pointed out by one respondent, "We hope we are equal to Chicago producers now that trucks are used." Another, "We save considerable money by the use of trucks." And still another points out that cost and better service may be effected by pooling cars. Better trucking service is also being sought from truck lines that serve Chicago but do not pick up freight in Chicago Heights.

Plant location, or relocation, or the establishment of branch plants appears to be the solution for some industrial problem; for example, "putting plants where the markets are."

Solutions to some of the other problems are suggested by some of the following remarks: diversification of products; rising control methods; writing to congressmen and the aluminum and smelting associations; unionizing competitors; developing new technical approaches.

With respect to site conditions the question was asked, "Do you recognize any industrial land-use problems in your area with respect to the quality and quantity of land available for industry?" Ten reported some type of site-expansion problem by such comments as: no expansion room; rather hard to find suitable space since a railroad owns

the land; can't expand on the present site; not enough land; railroad on two sides of city streets and manufacturing; plant site hemmed in by other industries; new housing development encroaching on land which might otherwise be used for expansion. It is noted that during the war there were complaints about noise from hammers in a particular establishment. One industry noted the lack of good water.

Restrictive and Remedial Measures

To the query, "What legislative restrictive measures, if any, add to the cost of operating expenses?" only twenty-four had any comments to make. The one important factor stressed was taxes: normal taxes, state unemployment taxes, health and accident taxes; corporation taxes; sales taxes; sales taxes; sales taxes; sales taxes and all other state and city taxes that are inflicted on tax-paying people; sales tax and royalties; tax on sales and all others raising prices; only the common tax which industry has; sales tax.

Other diverse restrictive measures were noted as follows: state laws with respect to age of employees; some local measures and trucking laws; control of dust and fumes by local and state authorities; very reasonable and only minor safety precautions; safety devices; social welfare; general trends in labor; tax laws and bookkeeping affected by this.

Question: Can your community and your industry, in your judgment, effectively share joint responsibility in eliminating geographic maladjustments; Thirty-two indicated a possibility of using some agency in this direction. Eight of them specifically mentioned the various civic organizations or city ordinances: Manufacturers Association and City Planners; we work with the Chicago Heights Manufacturers Association; we work with the Chicago Heights Manufacturers Association; we work through the Chicago Heights Manufacturers Association; we work with the Committee for Chicago Heights; we are leaders in the Committee for Chicago Heights; two others speak of general community effort.

Question: What local, regional, national, or foreign geographic data do you consider essential in helping understand and solve problems related to your type of industry? Only some dozen firms saw fit to respond to this question. About ten indicated that certain survey studies of their own were being made: population surveys; data on expected location of building booms; the use of maps and charts; population statistics and school statistics; sales tax and royalties; data on car and automobile, and truck sales from one year to the next as to our own production; we use catalogues to send to dealers and that is all.

Question: Are local and regional zoning and geographic planning ordinances adequate to meet all the needs of your plant for present operation? For anticipated future expansion? Of the forty who commented on this point, thirty-six indicated apparent adequacy for present and future available land for industry. Typical comments follow: yes, we can expand in an easterly direction; we own enough land for future development and expansion in this area; zoning is adequate. Some two

respondents responded with qualifications as to adequacy. Present facilities adequate but not for the future. Several indicated inadequacy of expansion possibility as follows: they don't consider us at all; our area is zoned only for agriculture; our future expansion limited by city housing development. Several indicated they were outside the city limits and in several instances added they were outside of the zoning regulation area.

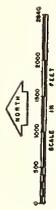
Planning and Zoning

It is obvious that in a modern manufacturing community such as Chicago Heights the availability of suitable industrial sites and favorable transportation facilities depends upon adequate planning and zoning regulations. Thus we observe from a recent news letter of the Michigan Department of Economic Development, the following observations: "The community must show that it really is prepared for industry, that it carries on sound planning and has good zoning." Due to the recency of the adoption of the comprehensive City Plan for Chicago Heights, few industrialists seemingly were prepared at the time of our interviews to make specific comments on how the new city zoning and planning regulations affected their particular plant interest so far as location and operation are concerned; however, an examination of the comprehensive City Plan brochure, issued by the Chicago Heights Plan Commission, March, 1955, reveals a definite perception of local areal land-use interest and planning intelligence. Besides the zoning map reproduced herewith (Fig. 5), the brochure includes maps featuring the following: generalized land-use patterns; thoroughfare plan; community facilities plan. These maps illustrate the interrelationships existing between the various physical and cultural elements of the community and systematic and coordinate planning for the varied city functions.

As far as industry itself is concerned, several factors are particularly noteworthy: 1) The very large amount of land allocated to industry. Some of this is within the city limits; a greater amount is outside of the city limits and subject to county planning jurisdiction. 2) The large amount of land now owned by the C. and E. I. Railroad held for industrial use. 3) The exceptionally large area zoned for heavy industry. This is well-situated geographically in relation to the number of coherent factors. We quote: "Heavy industry is concentrated on the east side of the city where it is served by several railroads and major streets. It is anticipated that the area between State Street and Cottage Grove Avenue will eventually be annexed to the city and developed as an extension to this industrial district. Because the prevailing winds are from the southwest, any possible adverse influence

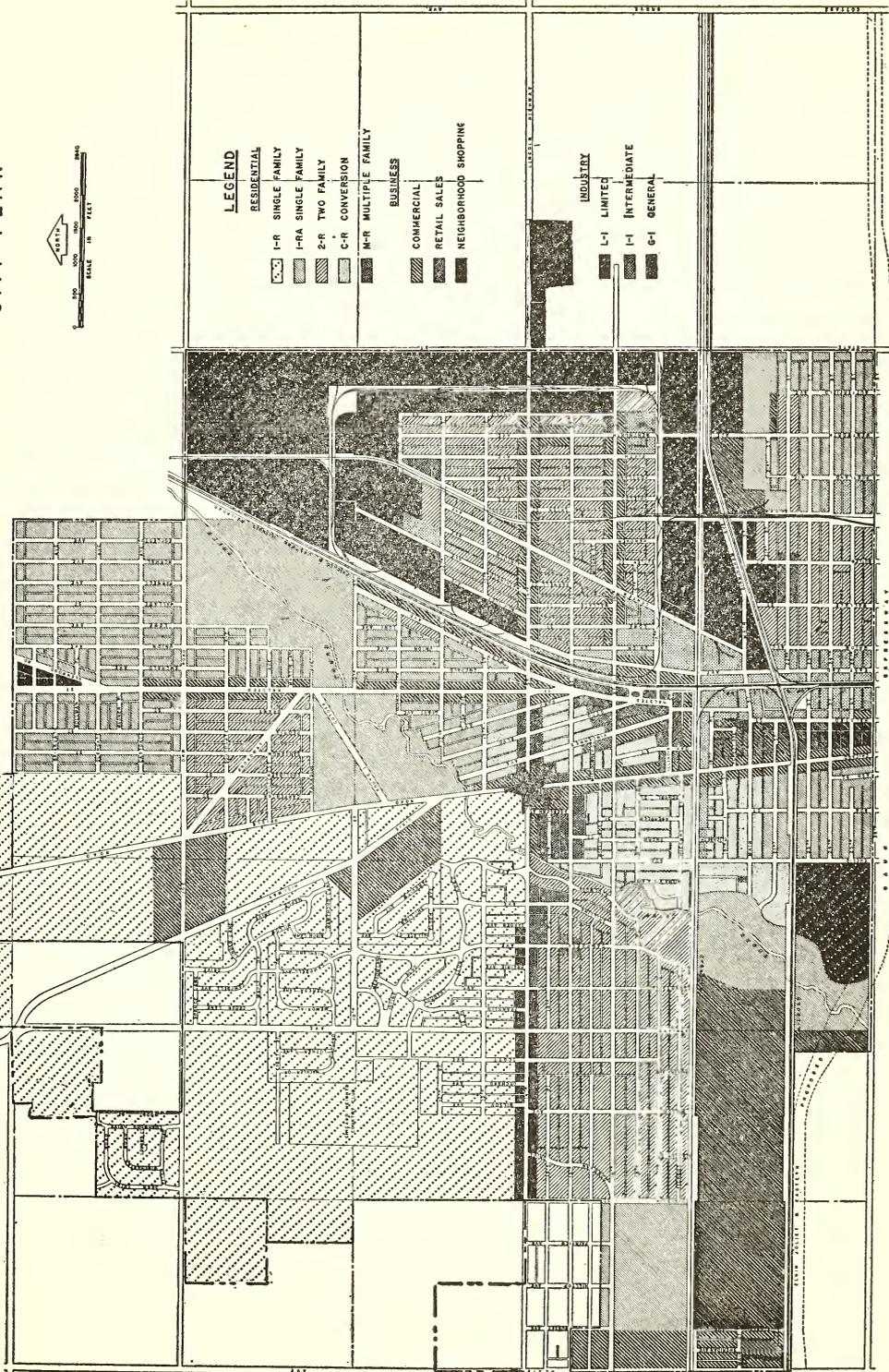
Fig. 5. This map, issued by the Chicago Heights City Plan Commission, shows areal differentiation of land-use allocated to residence, business, and industry. Note the comparatively large areas zoned for industry, especially for general (heavy) industry. Comparing this map with Fig. 2, the viewer will observe the comparative industrial space relationships within the City Limits and the newly developed areas outside the City Limits.

A PART OF THE COMPREHENSIVE CITY PLAN



LEGEND

- RESIDENTIAL**
- 1-R SINGLE FAMILY
 - 1-RA SINGLE FAMILY
 - 2-R TWO FAMILY
 - C-R CONVERSION
 - M-R MULTIPLE FAMILY
- BUSINESS**
- COMMERCIAL
 - RETAIL SALES
 - NEIGHBORHOOD SHOPPING
- INDUSTRY**
- L-1 LIMITED
 - I-1 INTERMEDIATE
 - G-1 GENERAL



which this district might otherwise have upon the city's residences is largely eliminated.

Almost as much area as has been allocated for heavy industry in the Land-Use Plan has been designated for limited industry. This is of the so-called non-nuisance type. It is concentrated, in the main, between the Michigan Central and the Elgin, Joliet and Eastern Railroads and from Western Avenue to Ashland Avenue, and in the area immediately south and east of the downtown business districts (Fig. 5).

Summary and Conclusions

Chicago Heights, on the west end of the Calumet Region, occupies a topographic position transitional between the Chicago Lake Plain and the Valparaiso Moraine, and a commercial and industrial setting peripheral to Metropolitan Chicago. As such, it is favored physiographically by a somewhat elevated rock foundation and landform site, and likewise as a sub-urban community of the Chicago Industrial Complex derives geographic "fringe benefits" in practically all the elements which enter into its manufacturing structure—ready accessibility to capital, labor, raw materials, transportation facilities, and markets.

While favorability of geographic regional situation and topographic site has been a strong conditioning factor of industrial growth, the realization of such growth, of course, was made possible, here as elsewhere, only by man. Impetus toward industrial development in the case of Chicago Heights was the outgrowth of a series of industrial land-promotion programs combined with favored transportation facilities and switching rates.

What equally distinguishes this small-sized but greatly-developed industrial community is the concerted action of a number of civic organizations—The Committee for Chicago Heights, the Manufacturers Association, the Merchants Association, the City Plan Commission, and others—whose objectives is to realize the full industrial and residential potential of the community.

Every industrial community has its problems, and so also in the case of Chicago Heights. Slum clearance is one of such community problems, which is now being resolved with the aid of federal funds. Adequacy of labor supply is a growing concern of some industrialists and other employers of labor. As Chicago Heights becomes more of a labor market, because of new and expanded industry, the demand for laborers will expectedly be met by local population increases and by a more thorough utilization of an expanding labor tributary area.¹

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