

A. REGIONAL SETTING AND COMMUNITY CHARACTERISTICS

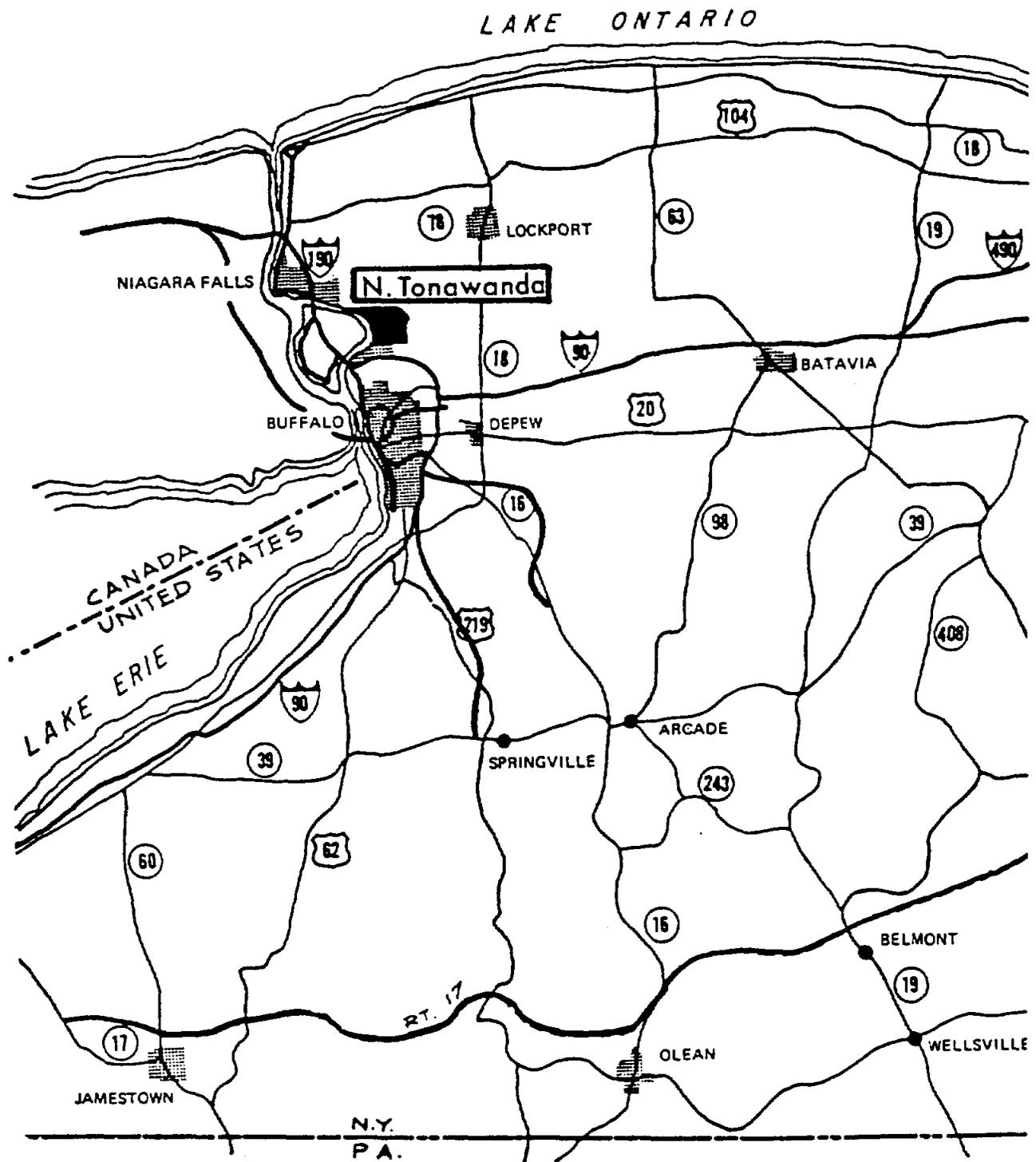
The City of North Tonawanda is located in the southwest corner of Niagara County approximately three miles south of the City of Niagara Falls and seven miles north of the City of Buffalo. It is within the Buffalo Standard Metropolitan Statistical Area and had a 1980 population of 35,760 according to the United States Bureau of Census. The Bureau has also estimated that the City's 1984 population dropped to 35,216, representing a 2 percent decrease since 1980. Figure 2 reflects a graphic description of the City's location within the region.

As illustrated in Figure 2, the City is strategically located along both the East Channel of the Niagara River and the Barge Canal, the latter being part of the Erie Canal in the 1800's. This location fostered population and industrial growth outward from the confluence of the two water bodies into the approximately 10.6 square mile area which comprises the City. A unique feature of the community is the large amount of undeveloped land in outlying areas. An examination of aerial photographs and field surveys indicates that approximately 20 percent of the City's land area has not yet been developed into an urban or suburban area. This characteristic is not common to other cities in the Erie-Niagara Region.

Although North Tonawanda has land available to accommodate growth, the dynamics of a declining birth rate and a depressed local economy have caused a slight decrease in population within the community. Figure 3 compares the rate of population growth and change in the City with Erie County and Niagara County.

As Figure 3 clearly shows, the City grew at a rapid rate in the 1940's and 50's, mirroring the population surge attributed to the baby boom and manufacturing expansion during this period throughout the Northeast. In fact, the City outpaced the growth of Niagara County and Erie County. As heavy industry declined along with the birth rate, however, North Tonawanda has experienced a slight loss of population since 1970. Population projections anticipate a stabilization of the population in the City and the rest of the region by the Year 2000.

North Tonawanda has been experiencing a severe unemployment problem since the mid-1970's. Figure 4 shows the unemployment rate in ten-year intervals since 1950 for Niagara County, Erie County and the United States. Figure 5 reflects the labor force status in 1979 within the City. The data clearly reflect the incidence of major economic problems within the City. The 1980 federal census data was recorded during the first year of a three-year period wherein the Erie-Niagara Region lost 22 percent of its manufacturing jobs and eight percent of its total jobs. Between March 1984 and February 1985, Niagara County's average unemployment rate was 45 percent higher than the Statewide figure. (3)



City of North Tonawanda

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Figure 2: REGIONAL SETTING



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YEAR	NORTH TONAWANDA	NIAGARA COUNTY	ERIE COUNTY
1940	20,254	160,110	798,377
1950	24,731(+22%)	189,992(+19%)	899,237(+13%)
1960	34,757(+40.5%)	242,269(+27%)	1,064,688(+18%)
1970	36,012(+3.6%)	235,720(-2.7%)	1,113,491(+4.6%)
1980	35,760(-.6%)	227,354(-3.5%)	1,015,472(-8.8%)
1990	34,500(-3.5%)	217,257(-4.4%)	983,773(-3%)
2000	35,400(+3%)	221,589(+2%)	987,749(+.4%)

Figure 3: Population in North Tonawanda, Niagara
County and Erie County ^{1,2}

	United States	Erie County	Niagara County	Erie-Niagara Region
1950	5.2			5.8
1960	5.4	6.7	6.5	
1970	4.8	4.7	5.4	
1980	7.0	9.5	9.7	
1984	7.4	8.7	9.5	
November 1985	7.0	6.7	8.6	

Figure 4: Unemployment Rates for the U.S.
Niagara County and Erie County

Source: New York State Labor Department, U.S. Census (1950-1984)

	<u>Males*</u>	<u>Females*</u>	<u>Total</u>
Total	10,715	7,717	18,432
Worked in 1979	10,540	7,481	18,021
50 to 52 weeks	7,350	3,943	11,293
40 to 49 weeks	1,215	1,268	2,483
1 to 39 weeks	1,975	2,270	4,245
With unemployment in 1979	2,095	1,707	3,802
Mean weeks of unemployment	16.5	14.4	15.6 (average)

Total with unemployment: 3,802

Percent of total work force
experiencing unemployment: 20.6 percent
(3,802 out of 18,432 people)

People employed 15 or more weeks: 1,537

*Includes persons 16 years and older in the labor force.

Figure 5: Labor Force Status in 1979,

City of North Tonawanda

SOURCE: 1980 Census - Neighborhood Statistics
Program and 1980 Census of Population
and Housing - Table P-10

The shutdown of two waterfront industries in North Tonawanda in the mid-1970's was a key contributor to the economic problems facing the community. These were International Paper and Tonawanda Iron and Steel, which together once employed more than 600 people. In addition, cutbacks in nearby chemical, auto and steel plants have affected a high percentage of the North Tonawanda work force.

In summary, North Tonawanda has experienced a slight population loss, as well as severe unemployment. Niagara County's jobless rate is 22 percent higher than the national average. It should be stressed, however, that population and employment indicators point toward a stabilization of these trends in the near future. The City's waterfront location provides a good opportunity to initiate efforts which can assist in gaining long term economic stability for the community. Waterfront development and people-oriented activities at the water's edge will benefit service-oriented businesses which must play a prominent role in the area's recovery. Furthermore, efforts to increase sport fishing can result in further economic spin-off benefits to area retail concerns, restaurants, and marine businesses. A comprehensive and targeted local waterfront program can serve as a valuable element in the overall economic recovery of the City.

B. HISTORIC SETTING

As previously noted, the City of North Tonawanda grew outward from the downtown area, located adjacent to the confluence of the Niagara River and the Barge Canal. The earliest record of human habitation in what is now North Tonawanda identifies a tribe of Neuter Indians believed to have settled on Tonawanda Island. An Indian burial mound was discovered on the southeast tip of the Island and included implements unlike any attributable to recorded races of Indians.⁴ The Iroquois, Seneca and Tuscarora nations followed the pre-historic Neuter tribe as users of the land within North Tonawanda. There are no records of any Indian settlements within the area due to the large swamp which extended from the present City line to the junction of Ellicott and Tonawanda Creeks and as far inland as the east boundary of the Conrail right of way. The area was extremely valuable as a hunting and fishing ground, however.⁵

At the time of the Erie Canal construction in 1823, the area now known as North Tonawanda included only a bridge across Tonawanda Creek, a few houses, and two small stores. It was hoped that the Canal would promote growth and bring development to the area and, in fact, three local entrepreneurs bought land and laid out Niagara Village in anticipation of a boom town environment. Unfortunately, the expectations of George Goundry and James and John Sweeney proved false and their newly-created company failed. For a time, the area was deserted even though the Canal was open and functioning.

The North Tonawanda area was originally part of the Town of Tonawanda, along with the Village of Kenmore, City of Tonawanda and Town of Grand Island, dating back to 1836. In 1854 the Twin Cities broke away from the Town and were incorporated as the Village of Tonawanda.⁶ North Tonawanda was formally incorporated as a City having its present boundaries in 1897.

Although the City's strategic location along the Erie Canal did not provide immediate economic benefits to the area, it eventually was the major reason that the Twin Cities area prospered as a lumber center in the late 1800's. The proximity of the valuable white oak trees on Grand Island combined with the transportation access afforded by the Erie Canal to give North Tonawanda the seed for a booming lumber cutting and water transport center. Once the white oaks were depleted on the Island, logs were floated by raft to the City from the Upper Great Lakes. The boom lumber period lasted approximately 20 years and peaked during the 1890's when North Tonawanda surpassed Chicago as the nation's major lumber milling center. During this period barge traffic was heavy and most residents in the City worked in the lumber milling industry and resulted in a time of rapid growth. North Tonawanda's waterfront was dotted with lumber stacks and finger piers extending into the Niagara River to accommodate the large amount of commercial boat traffic.

Although the late 1800's represented the heyday of the City's use of its waterfront for commercial purposes, various industries developed in the 1900's which continued to rely on the community's shoreline location. Such industries included Tonawanda Iron and Steel along the Niagara River, as well as International Paper located on Tonawanda Island. Both companies used the River for water transport. Ironically, the two firms have recently shut down, thereby eliminating the City's last waterfront industries.

The waterfront has played a very significant role in North Tonawanda's history ranging from the name Tonawanda itself, which is an Indian word meaning "swift running water," to the major lumber trade in the 1800's. With the recent closing of International Paper and Tonawanda Iron and Steel, the major waterfront users are now recreational boating concerns. This reflects a common trend in older, urban municipalities in Erie and Niagara Countries where efforts are being made to promote former industrial areas as new locations for the expanding recreational boating and fishing industry. These initiatives are seen as having valuable economic spin-off benefits to area businesses which can complement other City revitalization efforts. Furthermore, transforming former industrial land into a pleasant urban environment can also enhance a community's image in the eyes of both visitors and City residents.

The City of North Tonawanda, therefore, is at the initial stages of a new type of shoreline development. If managed properly, the waterfront recreational industry can contribute substantially to the economic revitalization of the community.

C. METHODOLOGY FOR UNDERTAKING THE INVENTORY AND ANALYSIS

The purpose of the inventory and analysis element is to identify opportunities, as well as opportunities and constraints to waterfront development. It is also intended to define certain natural features which should be preserved as part of the management program developed by the City.

In order to best review shoreline conditions, the waterfront has been divided into five sub-areas: the Niagara River, Tonawanda Island, Downtown, Barge Canal-West and Barge Canal-East. The specific sub-area boundaries are defined in Sub-section II-D. A focused analysis of each sub-area will permit a thorough examination of the characteristics unique to each and also allow for a recognition of the various waterfront conditions in the City. (See Figure 6.)

North Tonawanda's waterfront borders not only the Niagara River, but the Little River and Barge Canal, as well. The development pattern, adjacent neighborhood features, and overall community desires differ depending on which water body a specific area borders, which further justifies the sub-area approach to analysis.

The waterfront area, as defined in Section I, is narrow. In some instances, it has been necessary to include a wider study area to ensure that all possible factors which might influence waterfront development are addressed. For example, the demographic characteristics of adjacent neighborhoods and land use patterns have been examined to better determine recreational needs, development pressures, and potential uses for waterfront property. A specific delineation of the study area, as opposed to the waterfront area has not been defined. In cases where the study area extends beyond the waterfront area, the area will be defined within the text.

A wide range of information has been collected in the inventory phase, including the following:

- Environmental Factors
- Land Use
- Neighborhood Demographics
- Circulation Patterns
- Public Service Capacity
- Major Waterfront Land Parcels
- Vacant Waterfront Parcels
- Public Land Ownership Patterns
- Recent and Proposed Capital Improvements

As noted earlier, a thorough analysis of these factors within each sub-area will permit an understanding of those opportunities and constraints present in the waterfront area. It should be stressed, however, that the technical analysis has been strongly complemented by information received from City officials, as well as local residents, through both public meetings and a survey questionnaire. (Appendix I to this report includes the waterfront survey.)

Finally, information gathered in this section will assist in formulating shoreline policies. The data will not only determine policy direction, but also will provide background material for preparing those guidelines necessary to review waterfront actions for consistency with the policies.

D. COASTAL ZONE - GENERAL FEATURES

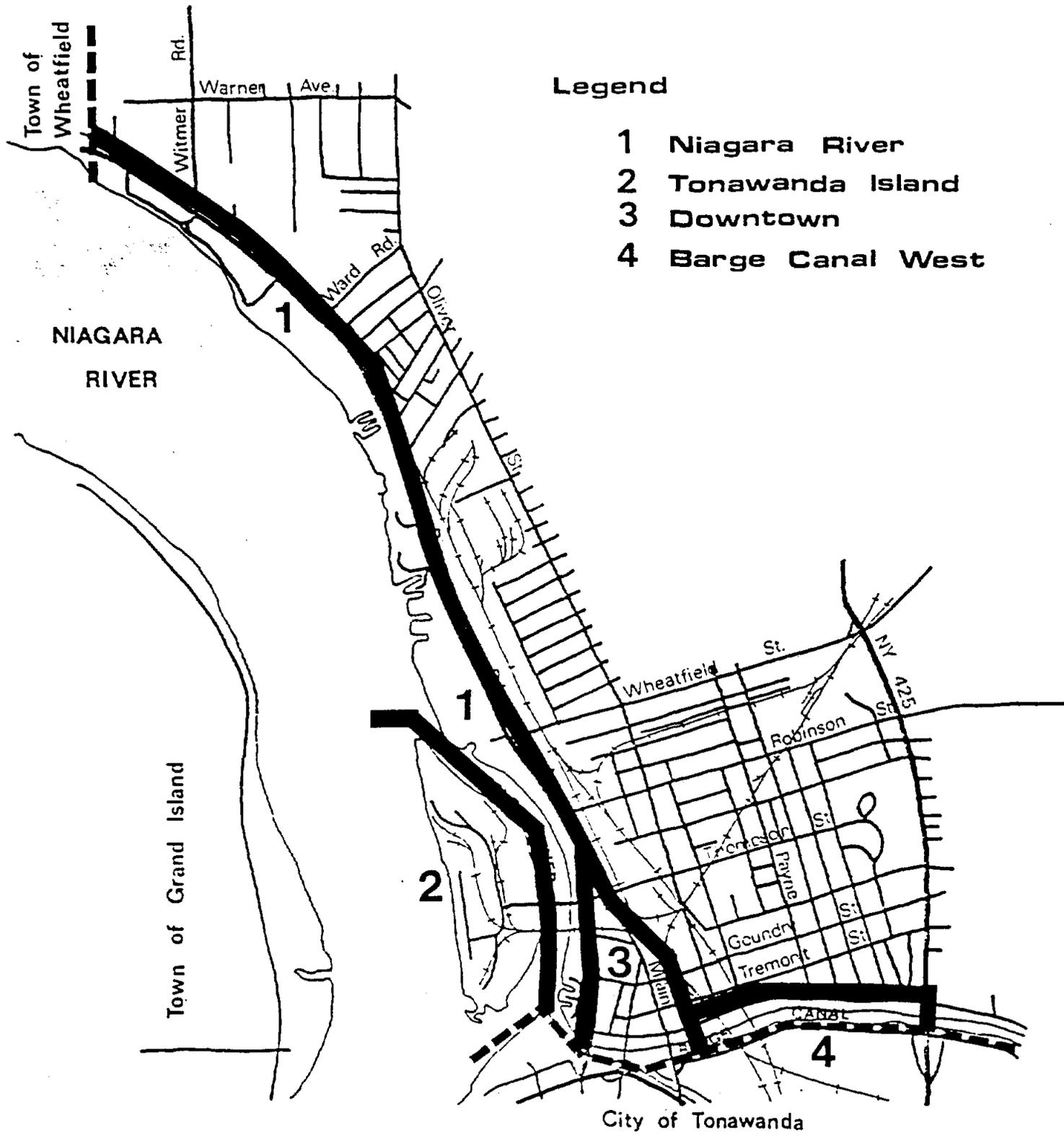
The North Tonawanda waterfront area is approximately 9 miles long and contains over 548 acres. As noted above, the waterfront has been divided into five sub-areas. The following narrative defines the boundaries of each and includes demographic information applicable to the City neighborhoods of which the particular sub-area is a part. (Reference should be made to Figure 6 for a graphic description of the sub-area locations.)

1. NIAGARA RIVER: This area extends from the Town of Wheatfield-City of North Tonawanda municipal boundary south to the Barge Canal along an imaginary line east of River Road. It does not include Tonawanda Island. The sub-area contains approximately 3.2 miles of shoreline and encompasses 183 acres. As defined by 1980 Neighborhood Statistics Program (NSP) census data for North Tonawanda (dated October 6, 1982), the Niagara River sub-area extends through portions of five neighborhoods.

Although most of the waterfront area is non-residential, the land immediately east of the Conrail tracks includes large residential concentrations. The northern area above Ninth Avenue has approximately 2,800 residents. Most of the homes are owner-occupied and in sound condition. The residents have income levels somewhat below the City average. The remaining area has approximately 2,300 residents and a very old housing stock. High unemployment and income levels below the City average are evident in that portion of the City.

It should be noted that some of neighborhood 8 overlaps with Tonawanda Island, Downtown and Barge Canal-West sub-areas. Reference should be made to Figure 7 for a numerical tabulation of socio-economic and housing conditions in the neighborhoods which overlap the waterfront zone.

2. TONAWANDA ISLAND: This includes the entire island as depicted on Figure 6. It contains 1.8 miles of shoreline and encompasses approximately 95 acres. The Island is separated from the mainland by the Little River, having a width of approximately 650 feet. Adjacent neighborhood characteristics are not applicable to this sub-area due to the physical separation of the Island from the mainland and its distance from the nearest major residential concentration. There are no housing units on Tonawanda Island.
3. DOWNTOWN: This sub-area is bounded by Island Street on the north, Main Street to the east, the Barge Canal on the south and River Road to the west. It encompasses the downtown area as defined in the City's recently approved Fiscal 1985 HUD Small Cities Comprehensive Downtown Community Development Block Grant Program. The shoreline extends 0.21 miles along the Barge Canal and encompasses approximately 29 acres. Very little housing exists within the downtown area, however the number of housing units does increase immediately north and northeast

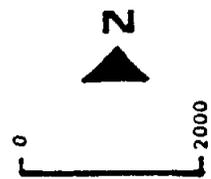


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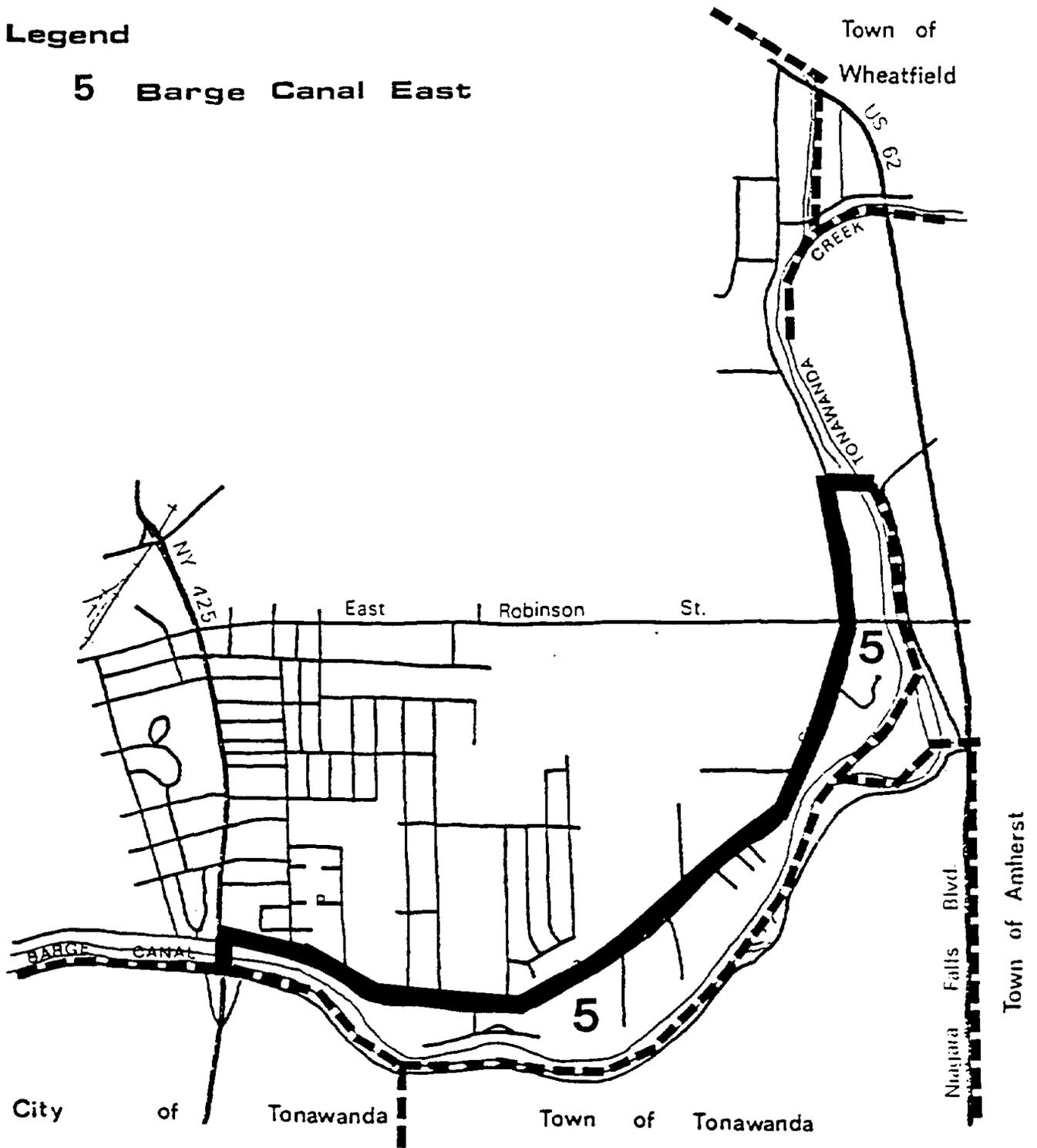
Figure 6A: SUB-AREAS

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Legend

5 Barge Canal East

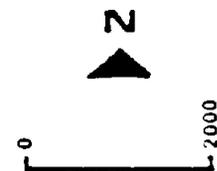


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Figure 6B: SUB-AREAS

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Neighborhood	Household Size	Median Income	Population	Estimated Percent of Land in Residential Use	Percent Owner Occupied	Percent Vacancy Rate	Percent of Houses Built 1939 or Earlier	Percent in Same D/U Since 1975	Percent of Labor Force Unemployed in 1979
1. N-1	2.93	17,394	2,003	55	77.0	3	.05	72	7.3
2. N-2	2.98	14,415	1,123	55	71.6	6	64	63	3.3
3. N-4	2.63	15,307	1,164	60	70.4	4	46	69	8.4
4. N-5	2.66	14,865	1,236	45	58.4	2	89	56	11.9
5. N-8	1.91	9,033	1,041	45	25.2	11	57	33	11.0
6. N-12	2.56	14,773	1,006	70	46.9	5	80	53	13.4
7. N-13	2.38	15,769	1,031	70	47.6	2	82	51	8.0
8. N-24	2.18	3,215	1,868	60	21.0	2	6	41	9.2
9. N-25	3.11	20,357	1,168	20	92.8	2	11	63	16.3
10. N-26	3.15	22,695	1,149	35	95.0	1	4	72	4.1
City Totals	2.77	17,599	35,760	45	69.4	3	38	61	8.5

Figure 7: Neighborhood Demographics

Source: 1. Neighborhood Statistical Program, City of North Tonawanda, United States Census Bureau - 10/6/82

2. Aerial Photographs - 1972

of the central business district. There is a high concentration of low and moderate income households in this area. The percent of owner-occupied units is below the City average, the housing stock is very old, and the unemployment levels are above the City average.

4. BARGE CANAL-WEST: This sub-area is bounded by Main Street on the west, the Barge Canal to the south, Twin Cities Memorial Highway (Route 429) on the east and the north boundary is an imaginary line 100 feet north of the northern right of way of Sweeney Street. It contains approximately 26 acres and extends .76 miles along the Barge Canal. The sub-area is part of three neighborhoods which are characterized by older housing units, a high percentage of lower income households, and generally high unemployment levels when compared to the City average.
5. BARGE CANAL-EAST: The southern and eastern boundaries are formed by the Barge Canal as it meanders in a southwesterly direction from the Town of Pendleton line. The northern and western boundaries are formed by an imaginary line 100 feet inland from Sweeney Street. The northern terminus of the sub-area is the City of North Tonawanda Botanical Gardens. Barge Canal-East encompasses 215± acres and 2.5 miles of the Barge Canal shoreline. It is included within three City neighborhoods having a combined population of 4,175. In the extreme northern sector approximately 80 percent of the land within neighborhoods 025 and 026 is vacant. Housing conditions are very good, household sizes are larger than the City average, reflecting the concentrations of families in this area, and the homes are newer than the City average, as well. The neighborhoods are stable with a small elderly population and a correspondingly higher number of persons 15 and under.

The southwestern sector of this sub-area is characterized by a lower household size, more densely populated residential areas, and a very low percentage of owner occupied housing units. Many of these characteristics can be explained by the existence of a 200 unit State assisted municipal housing complex and 50 unit elderly development managed by the North Tonawanda Housing Authority.

E. LAND USE

Figure 8 provides a tabular summary of the major land uses within each sub-area while Figure 9 provides a graphic description. The following narrative summarizes the key land use characteristics of the North Tonawanda waterfront area by sub-area;

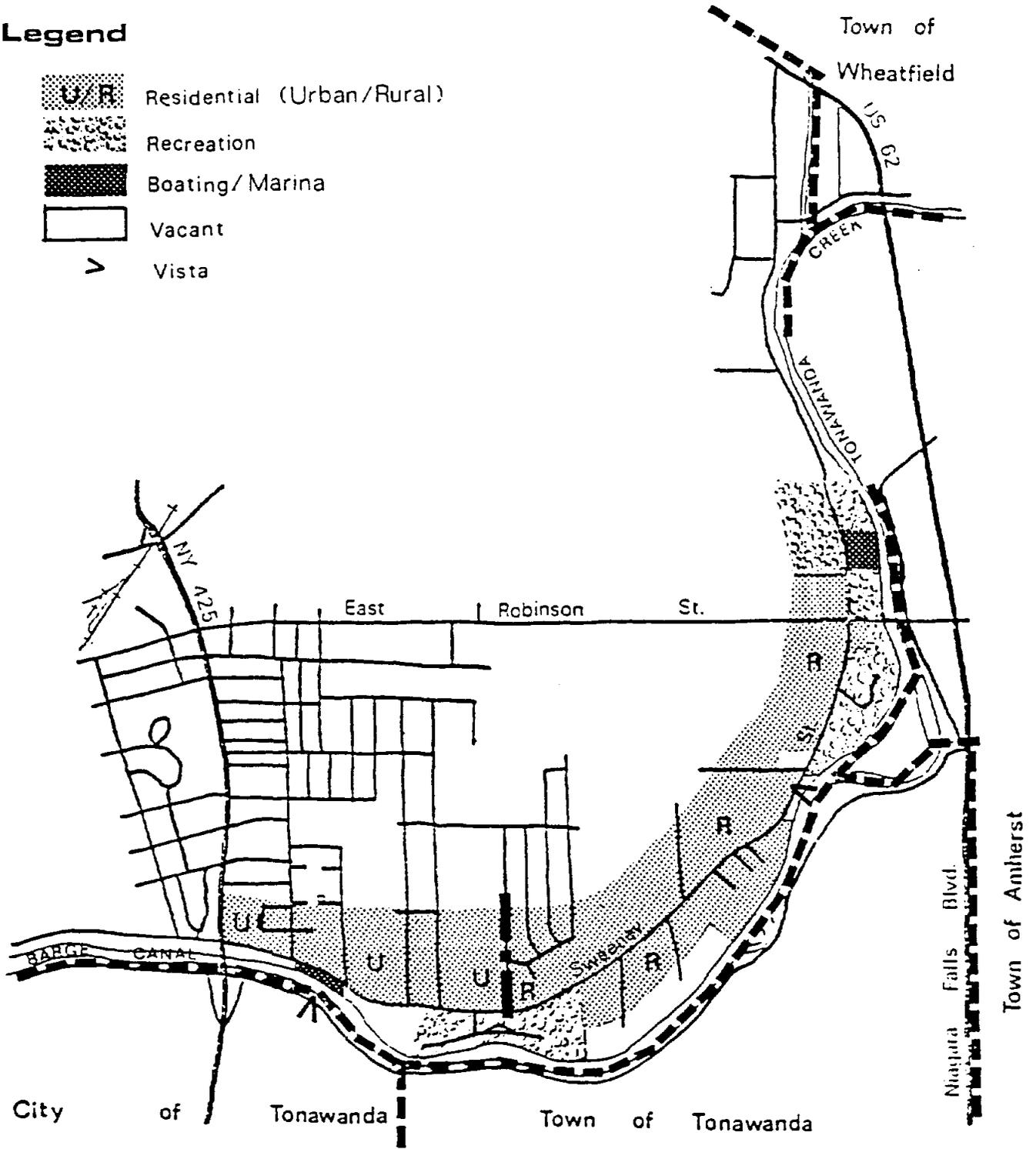
1. NIAGARA RIVER: Historically, the Niagara River sub-area developed as an industrial corridor, primarily because of transportation advantages offered by the River and nearby rail connections. Over the past ten to fifteen years, the predominance of industry has largely been replaced by vacant land, as well as water-oriented commercial and governmental uses.

Sub-Area	Residential	Industrial	Commercial	Marina	Parks	Transportation	Utilities	Vacant	Other	Total
Niagara River	1	11	2	9	14	22	3	38	0	100%
Tonawanda Island	0	40	0	12	0	8	3	34	3	100%
Downtown	0	14	52	0	3	31	0	0	0	100%
Barge Canal-West	23	3	19	0	5	33	1	15	1	100%
Barge Canal-East	48	0	0	0	28	11	1	12	0	100%
Total Area	15	13	14	5	10	20	2	19	2	100%

Figure 8: Land Use on the Waterfront
By Sub-Area (percentages)

Legend

-  Residential (Urban/Rural)
-  Recreation
-  Boating/Marina
-  Vacant
-  Vista



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Figure 9B: LAND USE



The central area features the Niagara River Yacht Club, which leases 5 acres from the City; the 5 acre site of the former Kippers Plant, which closed in 1985 (but has since been purchased for an undefined use); City-owned Fisherman's Park; the vacant Ashland Oil tank farm; City of North Tonawanda Sewage Treatment Plant; City of Lockport water intake pumping station; and a large 25 acre vacant parcel formerly occupied by Tonawanda Iron and Steel. The City of Lockport raw water intake is located offshore from this central area, as well.

Fisherman's Park contains approximately 4 acres and includes facilities for on-shore fishing, including a covered fishing pavilion. The shoreline at the Park is broken by former lumber dock slips which provide an excellent cover for fish. Facilities within the Park need upgrading and expansion. Potential improvements include the installation of picnic furniture, rest-rooms, and boat dock facilities. Dredging of the inlets will make the area more attractive for boaters.

Marinas, water-enhanced restaurants, and boatyards dominate the southern area. Smith Boys Marina contains 170 slips and offers related boat servicing facilities. Bow and Stern Marina is located just north of Smith Boys on the Little River and accommodates 80 slips. At the extreme southern tip of the sub-area, where the Little River merges with the Barge Canal, is Wardell's Boatyard, situated on a 2.5 acre parcel, which provides boat repair, storage and other related services.

In summary, approximately 26 percent of the land uses are water-dependent or water-enhanced within the Niagara River sub-area. This is a relatively high percentage in comparison to other Niagara River communities in the Buffalo area. The shoreline has developed within the framework of an industrial zoning classification that has not differentiated the area from any similar manufacturing districts in the City. This has caused a variety of mixed commercial/industrial uses along all of River Road with few attempts at buffering unattractive views by property owners. As Interstate 190 is a major north-south highway between Buffalo and Niagara Falls, the impression many people form of the City is shaped by the character of land uses on, and adjacent to, River Road.

2. TONAWANDA ISLAND: The 95 acre island has also historically been industrial. It was the site of numerous lumber mills in the 1800's and more recently the large 27 acre International Paper Plant. The latter was located at the northern area of the Island. Now the acreage is almost totally vacant. The site still contains a large waste water treatment facility with a 14,000,000 gallon-per-day capacity, in addition to a water treatment facility of similar size. The owners of Smith Boys Marina recently purchased the land parcel, but have yet to undertake any large-scale development.

Smith Boys Marina also has facilities on the Island, including boat slips and dry dock storage space for recreational craft. The marina is located in the north-central sector of the Island on the Little River. Immediately south of Smith Boys are various light industrial concerns, as well as the Tonawanda Island Launch Club.

The north-central sector of the Island bordering the Niagara River is dominated by R. T. Jones Lumber Company. The latter employs approximately 30 individuals and is involved in lumber milling and processing. It is the largest industrial concern on the Island.

The southern sector is comprised of mixed governmental, marina, commercial and light industrial uses. These range from the City of North Tonawanda Water Treatment Plant to International Filler Corporation. Placid Harbor II Marina has boat slips and facilities for boat repair and storage and is located on the Island's extreme southern tip. A unique anchor pier extending into the Niagara River at this point provides harbor protection for marina users. Also included in this section of the Island are the Niagara County Fire Training Tower and the former Inn-on-the-River restaurant. Perhaps the finest vista of the River is present immediately south of the restaurant looking toward Grand Island and the City of Tonawanda.

The fire training area is situated on a 2.5 acre site and is used by various volunteer fire companies in the County for drills, educational seminars, and other fire fighting purposes. A small portion of the property borders the Little River for approximately 200 linear feet and is separated from the main training area by a chain link fence. Since there are no public access points on the Island along the River, this area may provide an opportunity for shoreline access. It could be designed to accommodate fishing activities, as well.

A water use located offshore of Tonawanda Island in the East Channel of the River is the City's raw water intake.

3. DOWNTOWN: The 29 acre sub-area contains 69 structures, including two industrial buildings on Manhattan Street. Webster Street is the main downtown thoroughfare; it contains a variety of retail establishments and service businesses such as banks, beauty shops and insurance agencies. A large variety store is the anchor of the retail area.

The Packet Inn, a three-story building located on Sweeney Street between Main and Webster adjacent to the Canal, is the dominant building in the sub-area. Constructed 200 years ago, it was designed to reflect the style of inns commonly visited by passengers traveling the "packet" or passenger boats. Economic problems forced the closing of the Inn in October 1981. In 1985 the facility was acquired by new owners and renovated at a cost of \$1.5 million. The new Packet Center contains 78 apartments, office space and restaurant facilities.

In order to complement and promote the Packet Inn facilities, North Tonawanda worked with the City of Tonawanda to secure \$130,000 in State assistance for construction of transient boat dock facilities both directly in front of the Inn, as well as on the immediate south shore of the Canal. In North Tonawanda this provides mooring space for twelve boats. Both cities have received additional State assistance to install lighting systems on the docks.

4. BARGE CANAL - WEST: Land uses are largely older residential units north of Sweeney Street, with State-owned open space located along much of the length of the Barge Canal. Most of the open space areas are landscaped with some opportunities for viewing the Canal. Generally views from Sweeney Street to the Canal are unobstructed except in several areas. Hi-Skipper Marina (50 slips) and Sales, located at the intersection of Payne Avenue and Sweeney Street, briefly interrupts the view of the Canal, as do two railroad bridges built to link Niagara County with Erie County. Only one bridge is now functional, while the other is free standing with no north or south abutments.

A dominant land use immediately west of the Twin Cities Memorial Highway is the 250-bed DeGraff Memorial Hospital.

5. BARGE CANAL - EAST: The southwest sector of this sub-area is characterized by a gradual decrease in land use density as the distance from downtown increases. Land north of Sweeney Street consists of mixed residential uses dominated by two State-assisted apartment developments (Nor-Ton Courts and the Scafione Apartments) managed by the North Tonawanda Housing Authority.

The area south of Sweeney Street is in State ownership. Various public park facilities are located in this area including the City of North Tonawanda's Service Drive Launch Ramps (double ramp) and Mayor's Park, as well as a privately-run Boys' Club camp immediately west of Mayor's Park. The latter is by reservation only and provides opportunities for picnicking and active recreation along the Canal. Unobstructed views of the Canal are present from Twin Cities Memorial Highway to Service Drive.

Physical facilities at Mayor's Park include picnic areas and pavilions. The Park is in need of renovation, and restrooms need to be installed.

The central sector of the Barge Canal - East sub-area consists mainly of strip residential uses on the north side of Sweeney Street with some local residential streets extending north off Sweeney Street. Generally, there is a large amount of vacant land immediately outside the waterfront area in this area. Low density strip residential uses also occur along Sweeney Street on the south side, having long narrow lots averaging 50'x 650' in size. The property lines do not abut the Canal, but terminate approximately 175 feet from the shoreline. New York State has retained ownership of the corridor immediately adjacent to the Canal and has

uninterrupted ownership for 8,552 l.f. (1.62 miles), extending from Webster Street in the downtown area to the approximate center sector of the Barge Canal - East sub-area.

The northern sector of the sub-area is characterized by low density strip residential uses along Sweeney Street and large vacant parcels immediately adjacent to the waterfront area. The City of North Tonawanda owns a linear strip 135 feet wide leading to Sweeney Street which serves as a paper street to Wright Avenue. St. Albert the Great Church owns a large 30 acre vacant parcel immediately west of Sweeney Street which is partially outside the waterfront areas. Finally, the municipally-owned Deerwood Golf Course is located in the extreme northern corner of the sub-area and is also partially located within the waterfront area on the west side of Old Falls Boulevard (continuation of Sweeney Street).

The area east of Sweeney Street is characterized by low density residential uses which abut the Canal bank, thereby prohibiting continuous public access along the shoreline. Other uses include a private Girl Scout Camp, and the municipally-operated Botanical Gardens Park on land owned by New York State. The Park includes two double boat launch ramps, which are to be repaired, and well-maintained flower displays on 11 acres immediately north of the East Robinson Street Bridge, opposite the Deerwood Golf Course on Old Falls Boulevard.

F. INVENTORY OF MAJOR PARCELS

A key part of the Inventory and Analysis is the identification of all public lands and private parcels of 5 or more acres. These usually represent areas where the greatest opportunities for, or constraints to, development exist. Large parcels often serve as anchors to development and dictate land use patterns. Therefore, the identification of these areas is useful in determining opportunities for future large-scale private or public investment along the waterfront.

Figure 10 graphically illustrates the major parcels, while Figure 11 includes a corresponding table which describes various features of each land use.

A key information item contained in Figure 11 is the column marked "Potential for Change." This notes the status of each land parcel relative to its potential to continue in the same land use category or change to a different use. Factors used to determine the response shown in this column included adjacent land use patterns, parcel size, location, and ownership patterns. Figure 12 graphically relates the major land parcels to the response given in the "Potential for Change" column in Figure 11. Only those parcels having a medium or major potential for change are shown.

G. ZONING

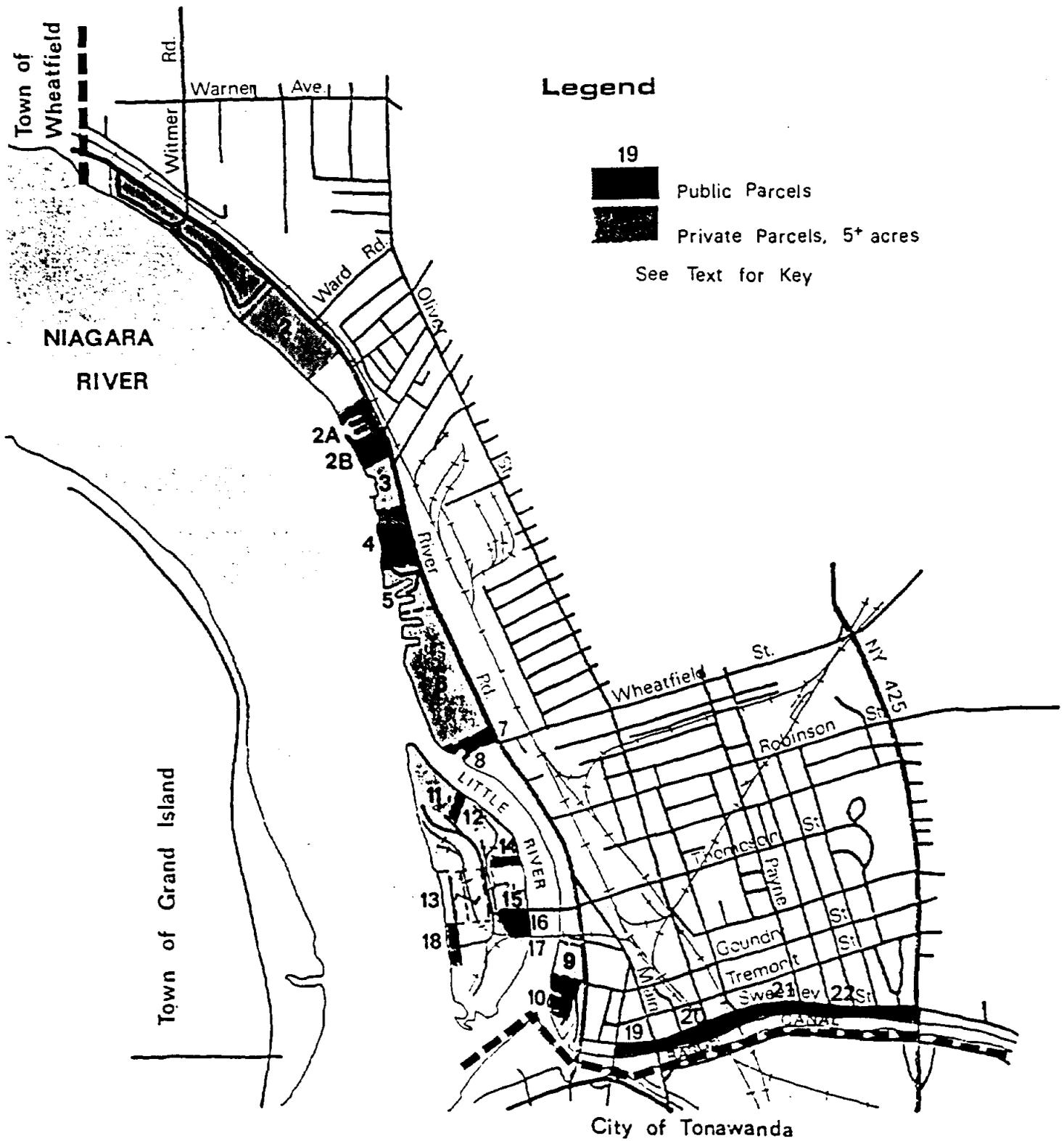
The City's waterfront is clearly divided among industrial and residential zoning classifications. The entire Niagara River and Tonawanda Island sub-areas are classified into various types of manufacturing districts, while the Barge Canal sub-areas are almost entirely residential. The only exceptions to this pattern are two small manufacturing pockets between Webster and Oliver Streets, as well as the area occupied by Hi-Skipper Marine Services.

An analysis of the 123 acres of vacant land identified on Figure 8 shows that 80 percent of these parcels are in manufacturing districts with the remaining acreage zoned R 1-2 (i.e., single family and two family residences).

It should be noted that the City's Zoning Ordinance is cumulative which allows most uses within an industrial zone. Furthermore, land in public ownership along the Barge Canal is exempt from local zoning controls and represents 23 percent of the total amount of vacant land in the waterfront area. Once the land is sold, however, the local regulations are applicable to any new use.

References should be made to Figure 13 for a graphic description of the zoning classifications within the waterfront area.

A definite need exists to establish special zoning provisions along the Niagara River Waterfront which encourages water-related development, public access along the shoreline, a variety of uses, and which pre-empt establishment of "nuisance" uses in the future, such as junk yards, slag heaps, etc.

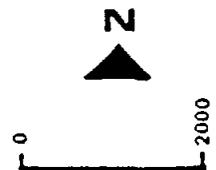


City of North Tonawanda

Local Waterfront Revitalization Program

Figure 10 A: MAJOR WATERFRONT PARCELS

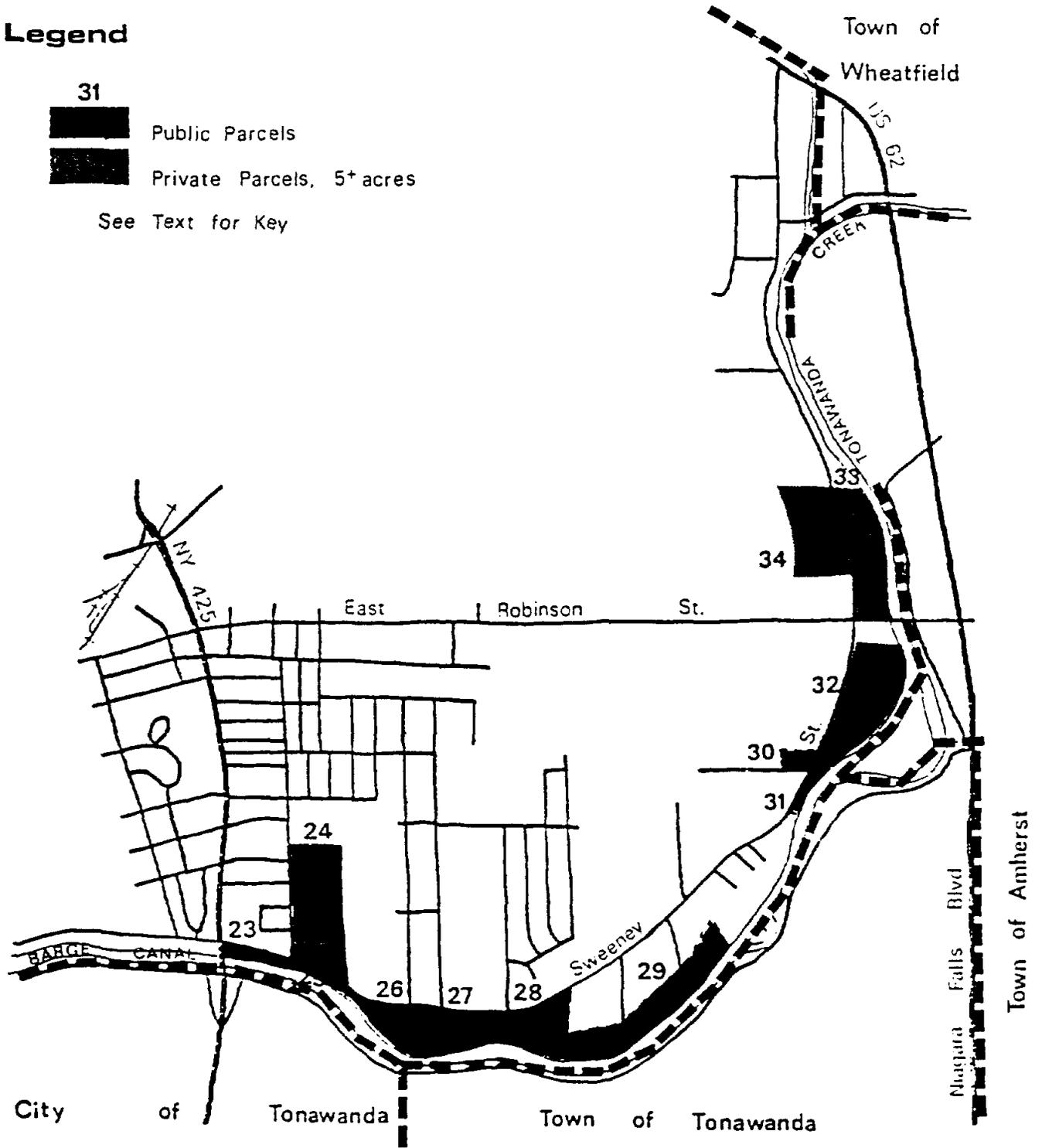
Stuart I. Brown Associates



Legend

- 31  Public Parcels
-  Private Parcels, 5+ acres

See Text for Key



City of North Tonawanda

Local Waterfront Revitalization Program

Figure 10B: MAJOR WATERFRONT PARCELS

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No.	Type of Ownership	Name of Owner	Size (Acres)	Sub-Area	Land Use	Existing Use	Potential for Change	Zoning	Water Dependency	Major Investment
1	Private (Leased to City)	Niagara Mohawk Power Corp.	22	Niagara River	Park	Gratwick Park	None	WD	Yes	No
2	Private (Leased to City)	Niagara Mohawk Power Corp.	24	Niagara River	Vacant	Vacant	Minor	WD	No	No
2A	Public	City of North Tonawanda	5	Niagara River	Marina	Inner Harbor YC	Medium	WD	Yes	No
2B	Private	Former Kopper's	5	Niagara River	Vacant	Vacant	Major	WD	No	No
3	Private	Ashland Oil Co.	6	Niagara River	Vacant	Tank Farm (Vacant)	Medium	WD	No	No
4	Public	City of North Tonawanda	14	Niagara River	Utility	Sewage Treatment Plant	None	WD	Yes	No
5	Public	City of North Tonawanda	4	Niagara River	Park	Fisherman's Park	None	WD	Yes	No
6	Private	Rosal Homes Partners	25	Niagara River	Vacant	Vacant	Major	WD	No	Proposed
7	Public	City of Lockport	1.2	Niagara River	Utility	Water Pumping Station	None	WD	Yes	No
8	Public	City of North Tonawanda	.1	Niagara River	Utility	Water Line	None	WD	Yes	No
9	Private	Wilbert F. Hollet	6.8	Niagara River	Vacant	Vacant	Medium	WD	No	No
10	Public	City of North Tonawanda	2.1	Niagara River	Residential	Boat House Area	Medium	WD	Yes	No

Figure 11: Major Waterfront Parcels - Key Features

No.	Type of Ownership	Name of Owner	Size (Acres)	Sub-Area	Land Use	Existing Use	Potential for Change	Zoning	Water Dependency	Major Investment
11	Private	Smith Boys Marina	28.9	Tonawanda Island	Vacant	Vacant	Major	WD	No	Proposed
12	Public	City of North Tonawanda	.22	Tonawanda Island	Utility	Utility Easement	None	WD	Yes	No
13	Private	R T Jones Lumber	15.3	Tonawanda Island	Industry	Lumber Operations	None	WD	No	No
14	Public	City of North Tonawanda	.25	Tonawanda Island	Utility	Utility Easement	None	WE	Yes	No
15	Private	Taylor Devices	5	Tonawanda Island	Industry	Produces Industrial Shock Absorbers	None	WD	No	No
16	Public	Niagara County	3.1	Tonawanda Island	Other	Fire Training Center	Major	WE	No	No
17	Public	City of North Tonawanda	.06	Tonawanda Island	Vacant	Vacant	Major	WD	No	No
18	Public	City of North Tonawanda	2.4	Tonawanda Island	Utility	Water Treatment Plant	None	WD	Yes	No
19	Public	NYS	.88	Downtown	Park	Boat Docks	None	M1	Yes	Recent
20	Public	NYS	1.25	Barge Canal-West	Vacant	Vacant	Minor	M1	No	No
21	Public	NYS	1.4	Barge Canal-West	Park	Park	None	RC	Yes	No

Figure 11 (con't.): Major Waterfront Parcels - Key Features

No.	Type of Ownership	Name of Owner	Size (Acres)	Sub-Area	Land Use	Existing Use	Potential for Change	Zoning	Water Dependency	Major Investment
22	Public	NYS	2.7	Barge Canal-West	Vacant	Vacant	Medium	RC	No	No
23	Public	NYS	.82	Barge Canal-East	Vacant	Vacant/Boathouse	Minor	R1-2	Yes	No
24	Public	North Tonawanda Housing Auth.	1.9	Barge Canal-East	Residential		Minor	R-2	No	No
25	Public	NYS (Partially leased to City)	1.12	Barge Canal-East	Park	Park/Boat Launch	None	R-2	Yes	No
26	Public	NYS	2.6	Barge Canal-East	Vacant	Vacant	Medium	R1-2	No	No
27	Public	NYS	6.3	Barge Canal-East	Park/Camp	Boys' Club Camp	Medium	R1-2	Yes	No
28	Public	NYS (Leased to City)	9.7	Barge Canal-East	Park	Mayor's Park	None	R1-2	Yes	No
29	Public	NYS	18.4	Barge Canal-East	Vacant	Vacant	Medium	R1-2	No	No
30	Public	City of North Tonawanda	.3	Barge Canal-East	Vacant	Vacant	Minor	R1-2	No	No
31	Public	NYS	.59	Barge Canal-East	Vacant	Vacant	Medium	R1-2	No	No
32	Public	NYS	28.7	Barge Canal-East	Park/Camp	Girl Scout Camp	Medium	R1-2	Yes	No
33	Public	NYS (Leased to City)	11.5	Barge Canal-East	Park/Boat Launch	Botanical Gardens	None	R-2	Yes	No
34	Public	City of North Tonawanda	.77	Barge Canal-East	Park/Golf Course	Deerwood Golf Course	None	R1-1	No	No

Figure 11 (con't.): Major Waterfront Parcels - Key Features

H. LAND OWNERSHIP

Approximately 15 percent of the waterfront is in City ownership, 16 percent is in State ownership, while the remainder is privately held. Reference should be made to Figure 14 for a breakdown of land ownership by sub-area. A key factor is the high percentage (i.e., 36 percent) of the total acreage along the Barge Canal owned by New York State. In contrast, 86 percent of all parcels on Tonawanda Island are in private ownership.

I. VACANCY ANALYSIS

Vacant parcels represent 24 percent of all the parcels inventoried along the shoreline. Thirty-eight percent of the parcels within the Niagara River sub-area are vacant, while 34 percent in the Tonawanda Island sub-area, and 15 percent and 12 percent in the Barge Canal - West and East sub-areas, respectively, are vacant. The downtown area has no parcels considered vacant.

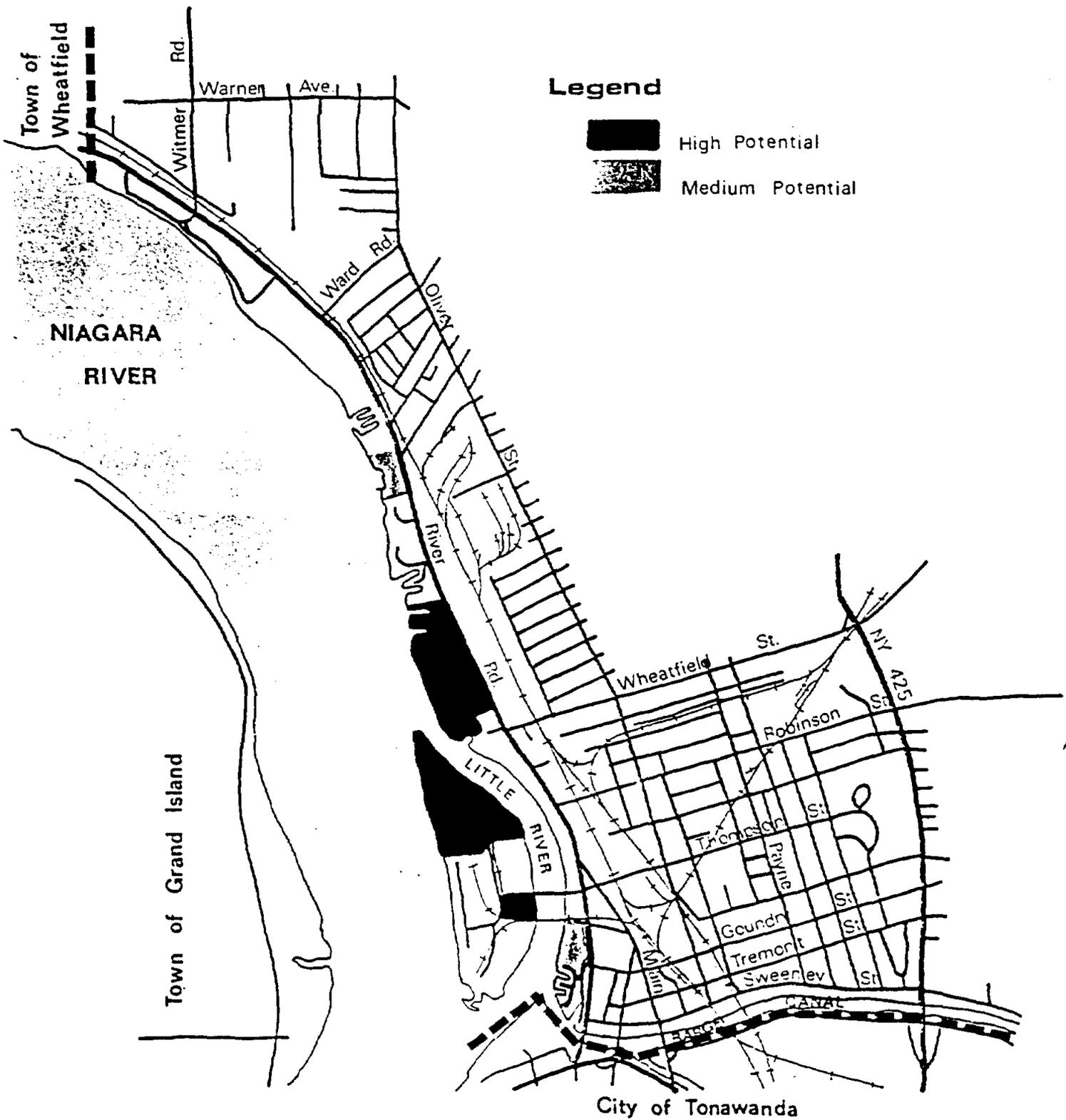
Throughout the waterfront, 20 percent of the vacant parcels are in public ownership. Public ownership is very extensive along the Barge Canal where New York State owns 99 percent of all vacant parcels. This documents the dominant position New York State has in determining any future development along the Canal. In contrast, all vacant parcels along the Niagara River are in private ownership, while 86 percent of those on Tonawanda Island are also privately held.

Reference should be made to Figure 15 for a graphic location of all vacant parcels within the City's waterfront area.

J. ENVIRONMENTAL CONDITIONS

An inventory of environmental conditions within the waterfront area is an essential ingredient when determining opportunities for, and constraints to, future development. For the purpose of this analysis, the following factors were examined: flood hazard areas, wetlands, inactive hazardous waste sites, topography, soils, fish habitats, water quality, and historic/archaeological features.

The conditions will be examined by sub-area. It should be noted that there are no State-regulated wetlands within the waterfront area and serious erosion problems do not occur within any sub-area. In addition, the City's waterfront is in attainment with all State air-quality standards.

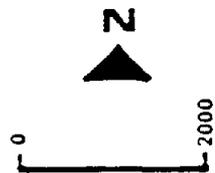


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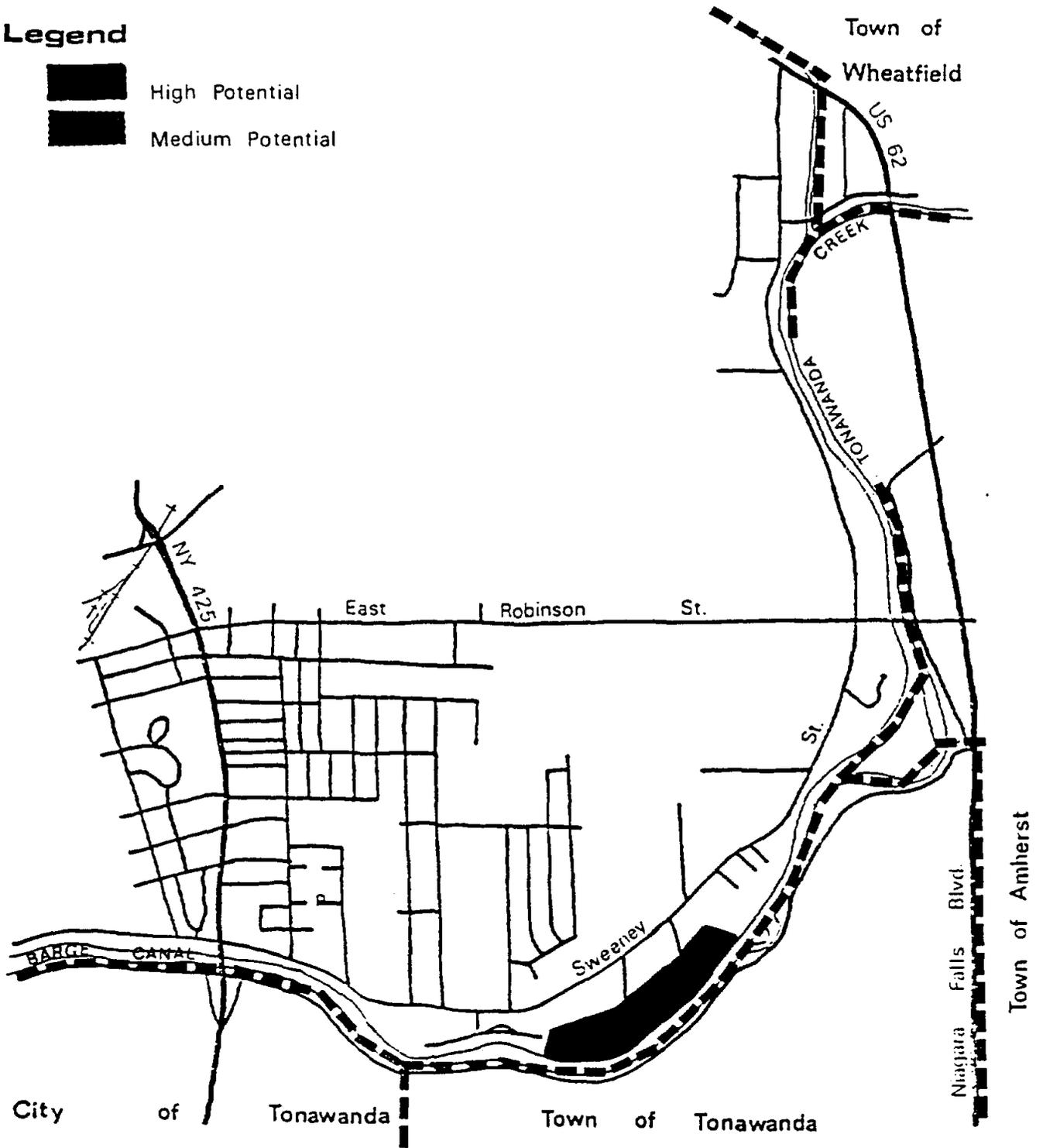
Figure 12A: POTENTIAL FOR LAND USE CHANGE ON MAJOR PARCELS

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-  High Potential
-  Medium Potential

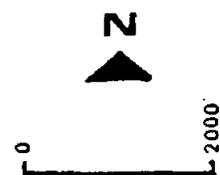


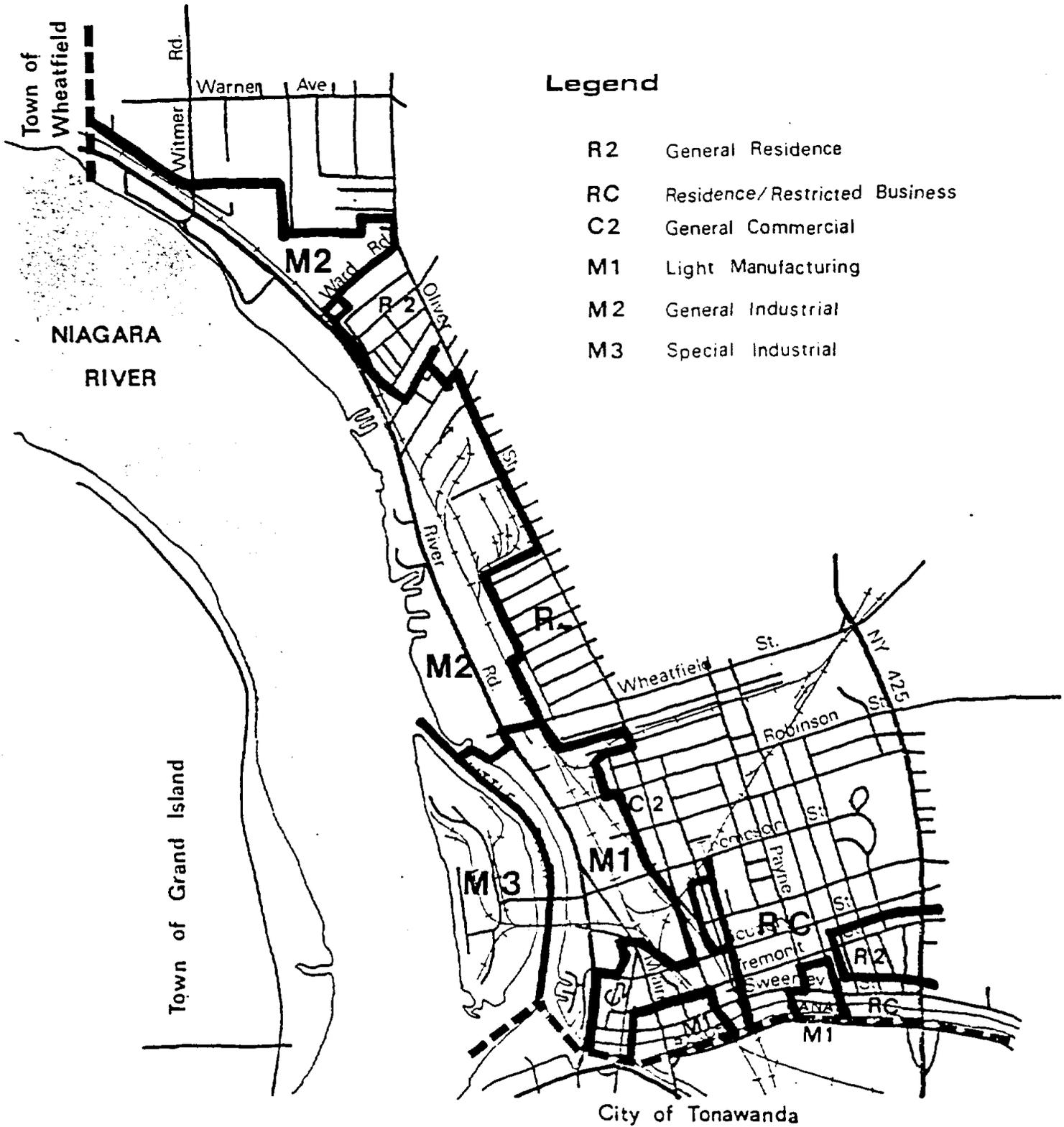
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**Figure 12B: POTENTIAL FOR LAND
USE CHANGE ON
MAJOR PARCELS**

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Legend

- R2 General Residence
- RC Residence/Restricted Business
- C2 General Commercial
- M1 Light Manufacturing
- M2 General Industrial
- M3 Special Industrial

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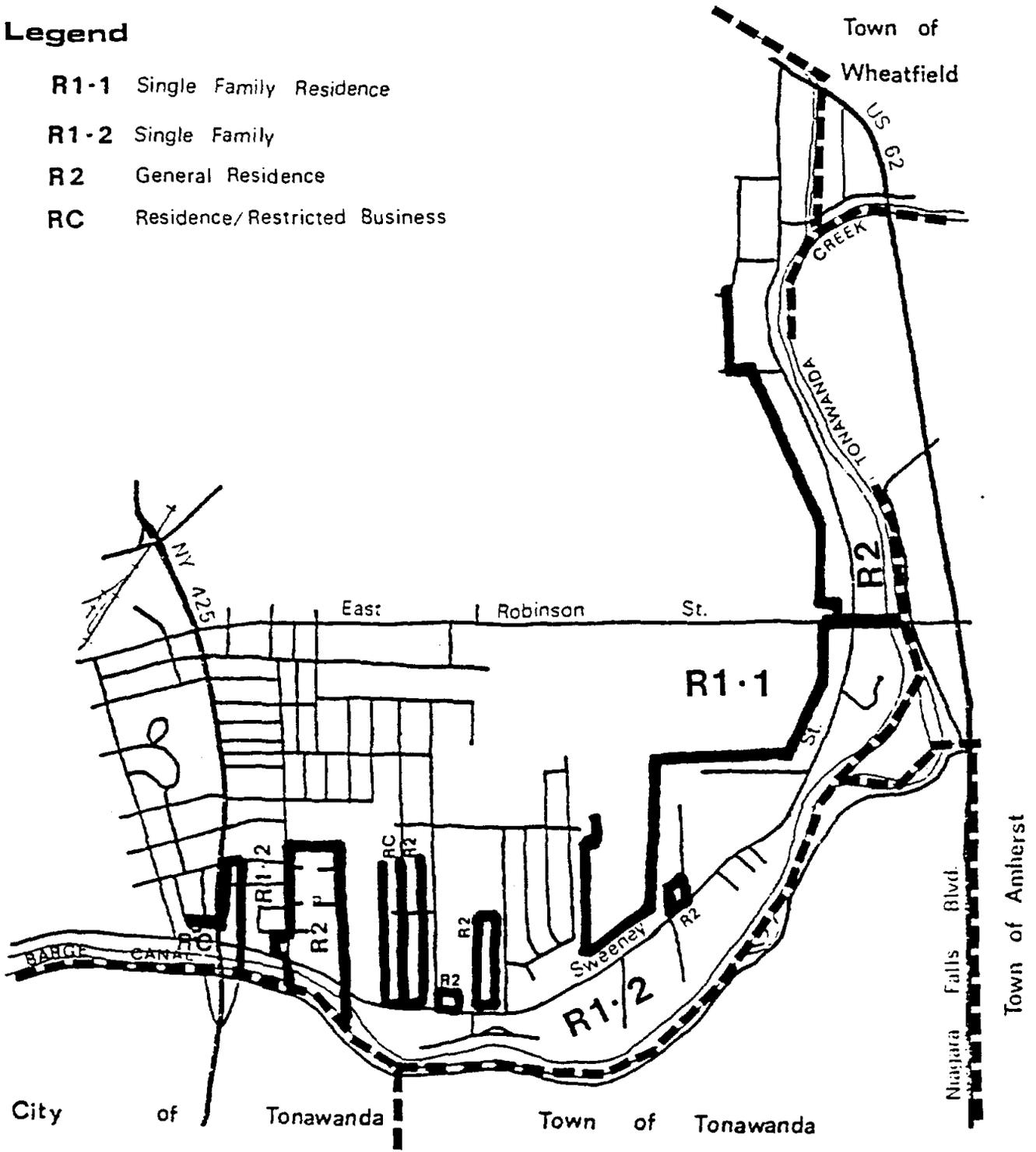
Figure 13A: EXISTING ZONING



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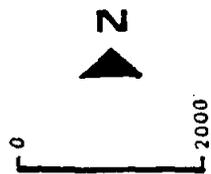
- R1-1 Single Family Residence
- R1-2 Single Family
- R2 General Residence
- RC Residence/Restricted Business



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Figure 13 B: EXISTING ZONING



Sub-Area	City-Owned	Other Public	Private
1. Niagara River	14	1	85
2. Tonawanda Island	11	3	86
3. Downtown	31	3	66
4. Barge Canal-West	34	23	43
5. Barge Canal-East	12	38	50
TOTAL	15%	17%	68%

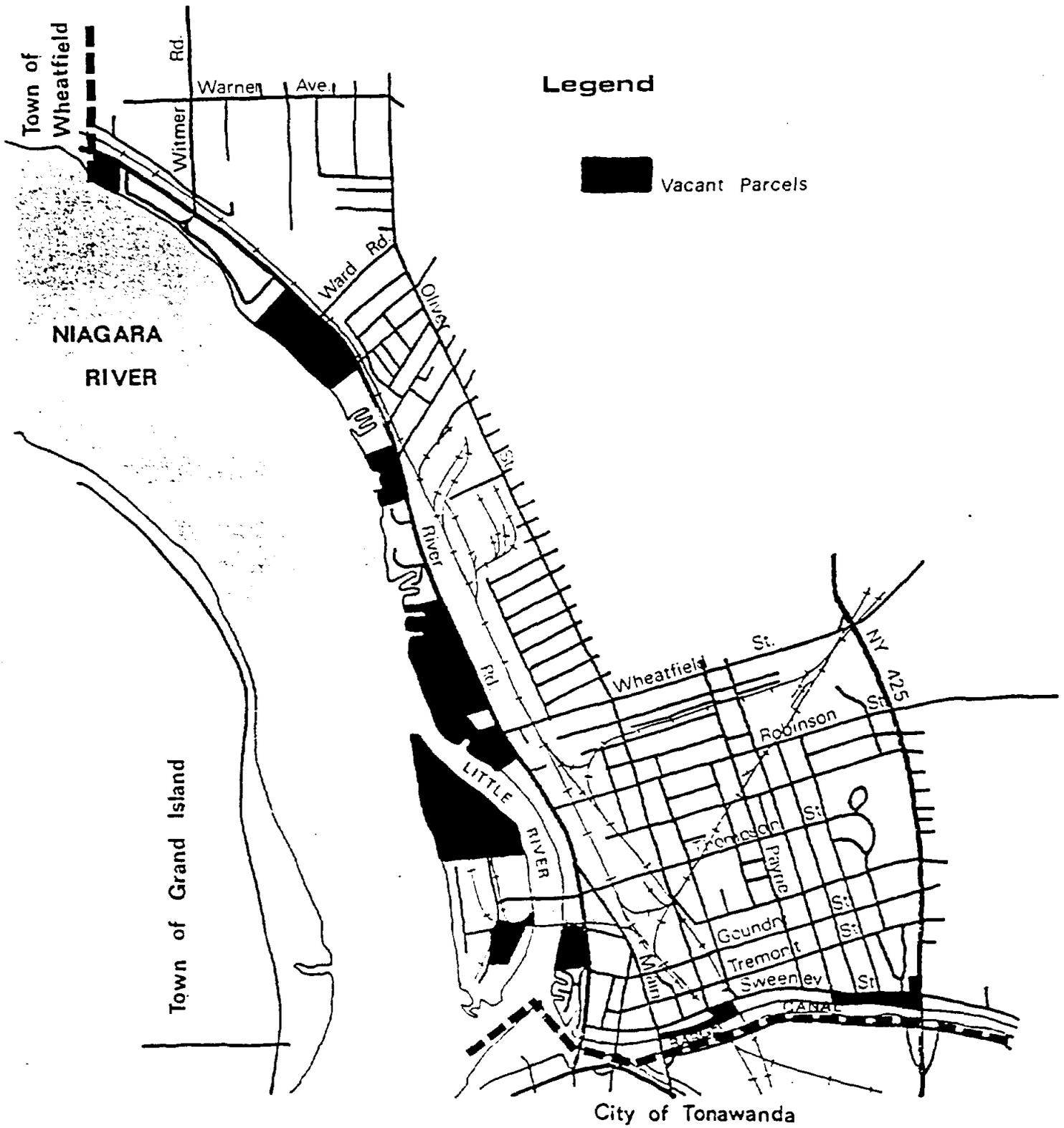
Figure 14: Land Ownership by Sub-Area (%)

1. NIAGARA RIVER: (See Figure 16.) The major environmental condition within this sub-area is the existence of an inactive hazardous waste site on a 45 acre parcel owned by the Niagara Mohawk Power Corporation. The entire parcel is leased to the City, with approximately one-half of the area being used as a waterfront park (i.e., Gratwick-Riverside Park). The New York State Department of Environmental Conservation (DEC) has assigned a class code of 2 to the site.¹⁰ This classification indicates that the site is a significant threat to public health or the environment and cleanup action is required. The area was used by two large manufacturing firms for the disposal of a variety of toxic materials including phenolic resin, oil and grease, phenolic molding compounds, and municipal waste. In 1982, the owner removed more than 30 barrels of hazardous waste from the west bank of the Niagara River. The potential for contaminant migration is major, since the fill material is permeable, allowing lateral movement of contaminants to the River.¹⁹ There has been no action to date on site cleanup,²⁰ but the DEC is working with Niagara Mohawk on this matter.

Although not located in the waterfront area, the Occidental Chemical Corporation - Durez Division toxic waste site seriously affects water quality within the City's Waterfront. There are 14 hazardous waste disposal areas on the 40-acre site. Contents include phenol tar, chlorobenzenes, phenol-bearing material, calcium-aluminum oxide, and calcium phosphate.²¹ The plant is located in the City of North Tonawanda, approximately 1.7 miles from the Niagara River. There is a very high potential for contaminants to migrate within the groundwater off the site toward coastal waters.²²

The Durez facility is a possible PCB source.²³ Sediments from the Pettit-Flume, which is a channel emptying into the Little River, were tested and found to contain high concentrations of PCB's, endrin, and hexachlorobenzene. The Pettit-Flume receives discharges from Occidental - Durez which are believed to have contributed to the major sediment contamination found in the Little River, which contains high levels of zinc and PCB's.²³ Occidental Chemical has a State Pollutant Discharge Elimination System (SPDES) Permit from New York State for discharge into the Pettit-Flume. Finally, the Occidental - Durez facility has been designated a Class 2 site by the DEC. It is also, presently, the subject of litigation between the State Attorney General's Office and Occidental Chemical Corporation relative to cleanup issues. The above classification denotes that the site is a significant threat to public health or the environment and cleanup action is required.

In addition to the Niagara Mohawk and Occidental-Durez sites, the State recently identified another site at 76 Robinson Street, formerly used by Booth Oil Co., as a Class 2 site. This 2.5 acre area is saturated with spilled oil, some of it containing PCB's. The site is approximately 250 feet from the waterfront area and 1,000 feet from the Niagara River.¹¹

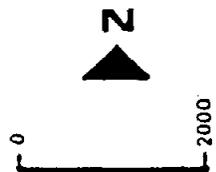


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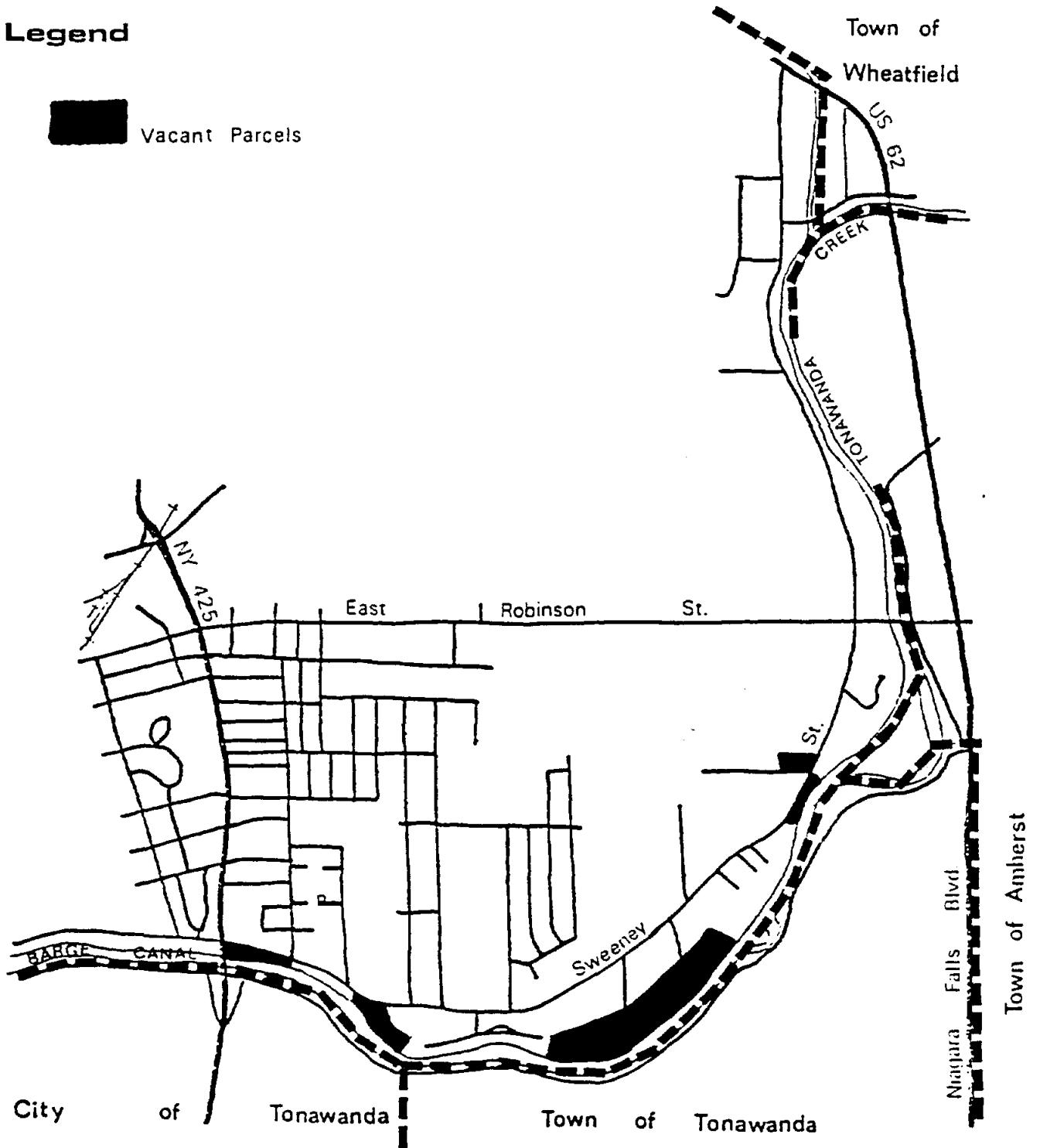
Figure 15A: VACANT LAND PARCELS

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 Vacant Parcels

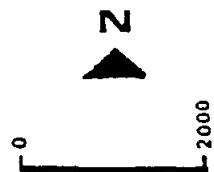


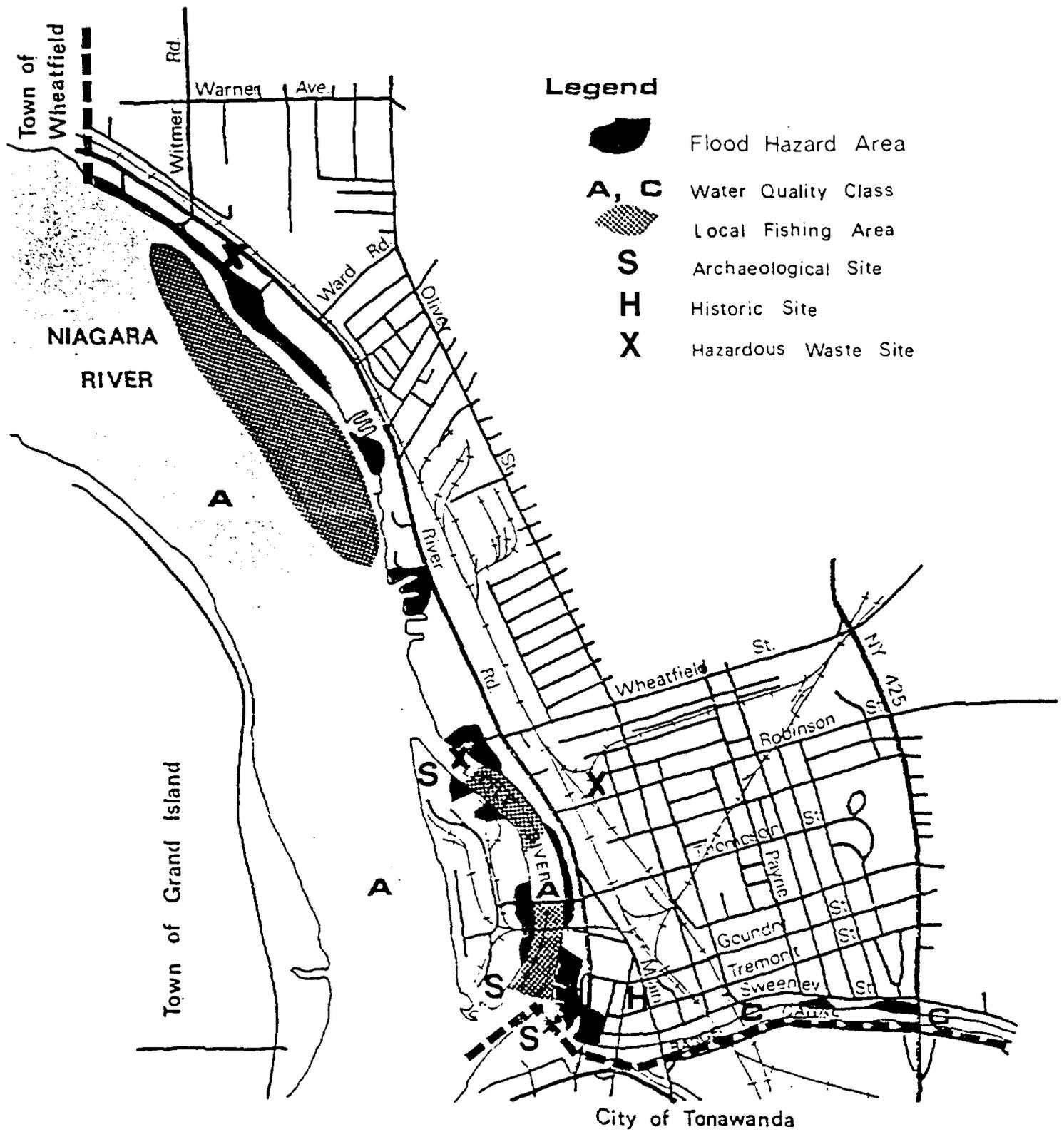
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Figure 15 B: VACANT LAND PARCELS

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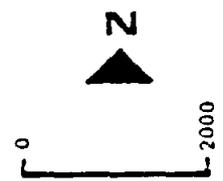


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Figure 16: ENVIRONMENTAL CONDITIONS

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It should be noted that point discharges to the Little River and/or Niagara River occur at two primary locations authorized by the following SPDES permits.

<u>Permit Holder</u>	<u>Discharge Location</u>	<u>Status</u>
Occidental - Durez	Little River/via Pettit Flume	Original permit expired; new one under negotiation
City of North Tonawanda	Niagara River/and Other Overflow pts.	Permit expires 8/86
Battenfield Grease and Oil Corp.	Little River/via Pettit Flume	Original permit expired; new one under negotiation

In regard to the City of North Tonawanda, there are a series of overflow points within the City's sanitary system controlled by sluice gates. These are open during periods of heavy flow when the treatment plant reaches capacity. Since the plant is operating at 50 percent of design capacity, discharges via the overflow points rarely, if ever, are opened. Two discharge points are located in the Niagara River sub-area at the foot of Schenck Street and East Avenue.

The City of North Tonawanda was the recipient of an Order On Consent from the NYS DEC on January 2, 1986, relative to alleged violations of Article 17 of the NYS Environmental Conservation Law. It was issued due to excessive discharges of wastewaters at the sewage treatment plant and failure to implement an industrial pre-treatment program. These violations were inconsistent with the SPDES Permit. The City submitted a Composite Corrective Plan to the DEC on schedule.

Locally, significant fishing areas are located offshore between Gratwick Park and Fisherman's Park for trout and salmon, while the River area between Gratwick Park and the Niagara River Yacht Club is considered a productive site for muskellunge.

2. TONAWANDA ISLAND: (See Figure 15.) The most prominent environmental condition on the Island is the existence of two archaeological sites with the potential of having Statewide significance. The sites have not been surveyed and were reported in the late 18th and early 19th centuries by the archaeologists who reported Buffalo "P" site. The first area on the Island is referred to as the Tonawanda Island Mound site; it is situated on the Island's northern tip. The mound was originally 15-ft. high, encircled by stones which had traces of fire. The diameter was approximately 10-ft. and contained bones comprising three or four skeletons. Worked flint, broken points and worked antler were also found on the site.

The second mound and village site (i.e., Stephen White site) is at the very southern tip of the Island. The culture is neutral and the present condition of the site is unknown.

Other prominent environmental conditions on the Island include the existence of flood hazard areas located sporadically along the Little River. This has the greatest impact on the large vacant parcel located on the northern tip of the Island, as well as the publicly owned fire-training tower, and Taylor Devices.¹² It should be noted that, although these areas are within the floodplain, severe flooding has not occurred in the recent past nor has it hindered development.

As mentioned previously, the water quality classification within the Little River and Niagara River is Class - A (Special). Soils on the Island are considered 'made-land' ¹⁴ fill with a dominant make-up of lacustrine clay.²⁴ The latter was deposited in the depths of ancient Lake Tonawanda which formerly covered the site. Due to the general designation of the Island as made-land by the U.S. Soil Conservation Service, soil borings should be prepared prior to any major development.

A locally significant muskellunge fishing area is located within the Little River, although access for shore fishing is non-existent.¹⁸

3. DOWNTOWN: (See Figure 16.) The major environmental feature within the downtown sub-area is the Riviera Theatre at 27 Webster Street. The structure is listed on the National Register of Historic Places. The Theatre was built in 1926 and reflects structural design input from notable period architects, including Willard M. Lusk. During the 1920's and 30's the building accommodated silent movies, vaudeville shows, and, most importantly, organ concerts. Today, the building continues to serve the public with an emphasis on organ recitals sponsored by the Niagara Frontier Theatre Organ Society. A key piece within the Theatre is an ornate Wurlitzer console organ. It consists of three manuals, seventeen ranks, 1169 pipes, and 178 tabs.²⁵ In summary, the Theatre is one of the last 1920's movie palaces in New York State and serves as a significant landmark in the City's downtown area.

A locally significant historic structure located in this area is the former Packet Inn now the Packet Center. It was the site for the home of Colonel John Sweeney. The present building was built on the site of the Niagara Silk Mill, which later was Van Raalte Silk Mill.⁴ A small portion of the original foundation is the only remaining part of the Silk Mill.

Other environmental features in this sub-area include a small finger-like flood hazard area extending approximately 400-ft. inland from the Barge Canal and immediately west of Manhattan Street. It is generally 50-ft. wide and is bounded on the west by the approach embankment to the Seymour St. Bridge.¹² Severe flooding does not occur in this area, however.

Soil conditions are in the 'made land' category¹⁶ with a predominance of delta gravel deposits.²⁴ The latter has fair to good drainage and a good boring capacity.¹⁵ Once again, however, soil borings should be conducted prior to any major development.

The Barge Canal has been designated by the DEC as a class "C" waterway, indicating that the water is suitable for fishing, but not for water supply, cooking, or primary contact recreation.

The downtown area also includes a point discharge source for wastewater covered by the City's SPDES Permit located on Manhattan Street. As noted earlier, the sluice gates are rarely, if ever, opened. This sub-area is also the only section of the waterfront area where the sanitary and storm systems are combined. It has not been a serious water-quality problem, however.

4. BARGE CANAL - WEST: (See Figure 16.) There are no significant environmental constraints in this sub-area. A flood hazard area is located approximately 25-ft. to 75-ft. offshore of the Barge Canal, beginning approximately 300-ft. east of Vandervoort Street and extending to the Twin Cities Memorial Highway. State land, HI-Skipper Marine Sales, and some boathouses are located in the flood hazard area, however, flooding has not been a serious problem.

The soils in the sub-area are 'made-land' and Tonawanda silt loam.¹⁴ Drainage is considered fair to poor and the bearing capacity is fair.¹⁵ Barge Canal water-quality is in a "C" classification.

A locally significant historic structure in the area is the Sperry Rand Corporation building, which includes part of the old Allan Herschell Plant.

5. BARGE CANAL - EAST: (See Figure 17.) A major environmental feature of the Canal within this sub-area is the presence of a locally significant fishing area. Presence of northern pike, bass, walleye, and panfish throughout the sub-area makes fishing a viable recreational activity.^{18,26,27} In addition, a study to investigate the potential for enhancing the walleye fishery in the Tonawanda Creek/Barge Canal system may be undertaken by the NYS Department of Environmental Conservation in the future. A stocking program would benefit the local fishery by increasing the supply.

Other environmental features of the sub-area include a continuous flood hazard area approximately 25-ft. wide offshore from the Canal. This extends the entire length of the sub-area; however, it does not cause any serious flooding problems to land uses. Soils in the area include cut and fill, Canandaigua, and Rockland, which cause minor development constraints due to poor drainage from the high water table in the area.

During periods of heavy rainfall and thaws, sewers in this sub-area tend to backup, requiring bypass pumping to storm sewers to eventual discharge into the Barge Canal or Pettit Flume. As this only occurs during heavy flow periods, the water is well diluted prior to entering the Canal or Little River. Although this situation should be addressed eventually, it is not a major problem which detracts from the area's water quality.

K. UTILITY SERVICE

The City operates its own sewage and water treatment plants, located along River Road and on Tonawanda Island, respectively. The sewage treatment plant has a design capacity of 14 MGD and is operating at approximately 50 percent capacity. The City is presently undertaking an Industrial Pre-Treatment Program pursuant to a consent order agreed to by the City with the DEC regarding the correction of several problems related to plant operation.²⁸ The purpose of the program is to protect the waste water treatment system and the environment from damages that might occur when industrial wastes are discharged into municipal sewers.²⁹

The water treatment plant has a design capacity of 14 MGD and is operating at 36 percent capacity.

It should be noted that most of the waterfront area is serviced by or has immediate access to, both the sewer and water systems. The only area where access is financially prohibitive is in the Niagara River sub-area, extending north from the area where Smith Boys Marina is located. Both systems have large trunk lines located on the east side of River Road. In order to provide service to those parcels within the waterfront area, cuts would have to be made across River Road, as well as through the Tonawanda Island Railroad located on right-of-way along the west side of River Road. Such a project would be very expensive and seriously disrupt vehicular and rail traffic.

Finally, the City of North Tonawanda operates a municipal solid waste collection system. The waste is transported to the Hooker Energy Waste facility, in the City of Niagara Falls, where it undergoes an incineration process. The plant is presently operating at approximately 80 percent of design capacity.

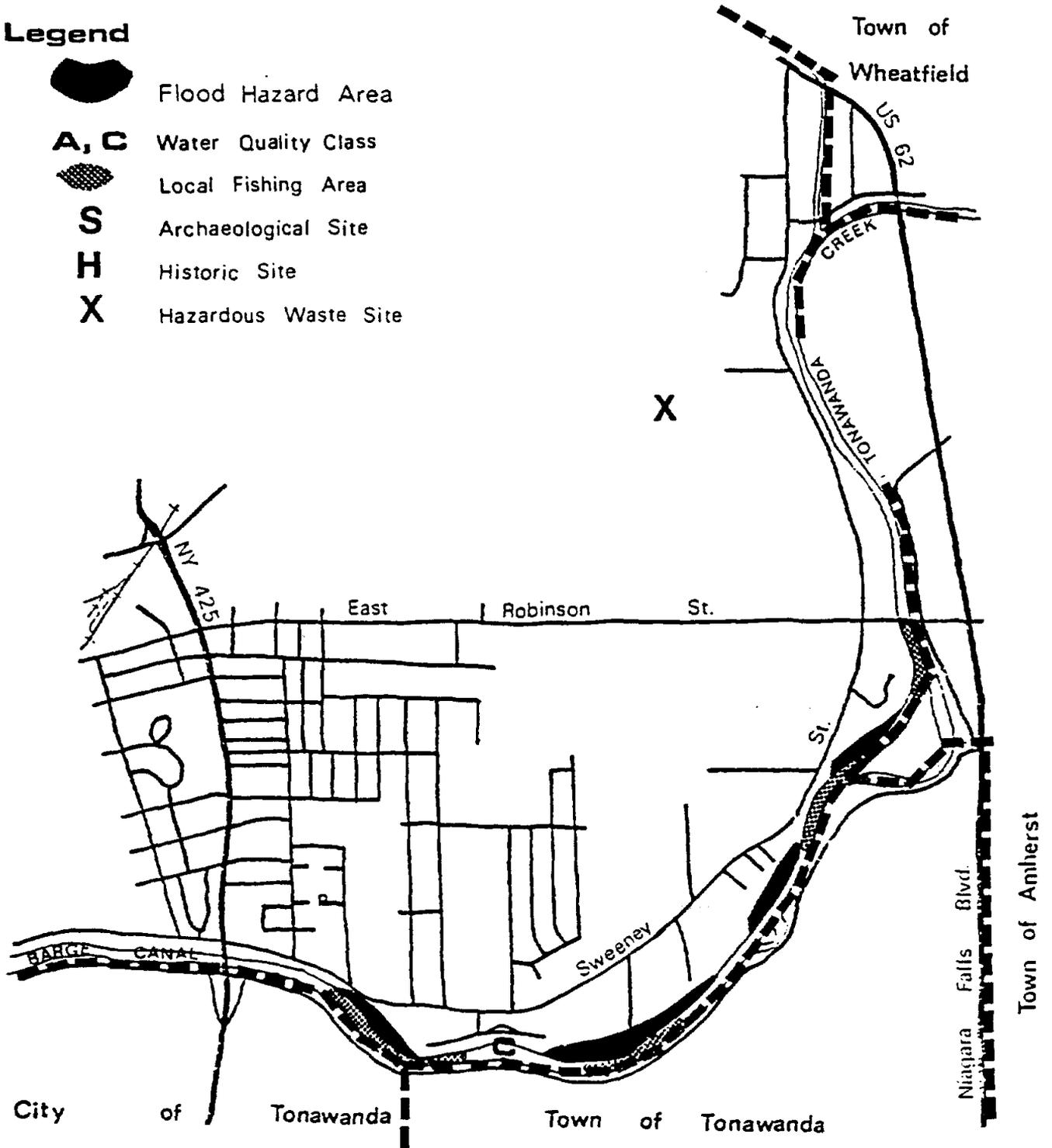
L. CIRCULATION AND ACCESS

The following provides information regarding circulation characteristics within each sub-area and also notes the access problems or opportunities created due to the circulation system.

1. NIAGARA RIVER: River Road serves as the only north-south highway in this sub-area. It is a State road and is classified as a principal arterial from the Town of Wheatfield line to its intersection with Main Street where it becomes a minor

Legend

-  Flood Hazard Area
- A, C** Water Quality Class
-  Local Fishing Area
- S** Archaeological Site
- H** Historic Site
- X** Hazardous Waste Site

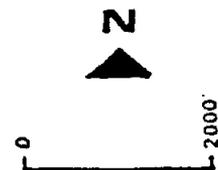


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Figure 17: ENVIRONMENTAL CONDITIONS

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arterial. The four-lane road carries an average daily traffic volume of 9,400 vehicles per day. Access is provided from this road to both Gratwick and Fisherman's Parks, as well as to the marina facility in the southern part of the sub-area. The road carries approximately 800 trucks per day and has been included in the region's preferred truck route system as a major collector.³¹

The major east-west thoroughfares which channel traffic to the waterfront area are Wheatfield and Robinson Streets, which are City-owned roads and are classified as minor arterials.³⁰ Access to the shoreline is supplemented by nine local streets which intersect with River Road. Therefore, vehicle access to the shoreline is good.

This sub-area is further characterized by three railroad lines. The Niagara Branch of Conrail parallels River Road from Main Street to the City Line with the Town of Wheatfield. The tracks are in excellent condition, and frequent passenger and freight services utilize the line (approximately six trains per day). The old Erie-Lackawanna line is in service between Robinson Street and Roblin Steel on East Avenue. The Line services strictly local industrial concerns and is in adequate condition to meet existing needs. The Tonawanda Island Railroad is a private facility and is located on the west side of River Road from Island Street to the former Koppers Plant.

It does not presently provide any service to River Road facilities.

Bridges in the area include the State-owned Seymour Street Bridge over the Barge Canal to the City of Tonawanda, the City-owned Durkee Bridge over the Little River, and the Tonawanda Island Railroad Bridge which is privately owned. The facilities are in very sound condition with the exception of the Railroad Bridge. A visual inspection indicates some deterioration.

As noted, vehicle access is good to the shoreline. Pedestrian access, however, for those residents living in the residential neighborhoods east of River Road, is dangerous due to the numerous rail crossings, as well as poor pedestrian crossing opportunities at the intersection of River Road with local streets. Public transportation does not serve this sub-area. Such service, however, was not identified as a need during the LWRP planning process.

2. TONAWANDA ISLAND: The Island is serviced by a series of local streets which are City-owned. Circulation is difficult because of the industrial activity adjacent to the roads and numerous railroad crossings. As funds became available, all local roads are improved in accordance with an ongoing resurfacing program.

The Tonawanda Island Railroad also operates on the Island and services R. T. Jones Lumber, as well as International Filler.

In summary, vehicle access to the water's edge is adequate on the Island. Since there are no public recreational opportunities in this sub-area, access has not been a major concern. Public transportation does not serve this sub-area, nor is there currently a demand for such service.

3. DOWNTOWN: The major east-west thoroughfare providing linear access to the Canal is the City-owned Sweeney Street considered a minor arterial which contains a single travel lane in each direction. Access to the Canal from the central business district is provided via Main and Webster Streets. These are local roads and are considered principal arterials. A parking problem exists in front of the Packet Center where the City has recently constructed transient boat-docking facilities. Parking is perpendicular to the road but is inadequate given the attractions and demand in the area.

Two highway bridges crosses the Canal in this sub-area. The Renaissance Bridge carries Webster Street traffic into Erie County, while the Main Street Bridge serves a similar function at the eastern edge of the sub-area.

The latter bridge is considered structurally deficient by the New York State Department of Transportation (DOT).

The Niagara Frontier Transportation Authority (NFTA) provides bus service to Sweeney Street via Webster Street for residents living north of the Canal along Oliver Street and Payne Avenue. Service is provided on an hourly basis and provides good public transportation access to this sub-area.

4. BARGE CANAL - WEST: Sweeney Street continues to provide linear vehicle access along the Canal in this area. It serves as a minor arterial to Oliver Street and then changes to a collector status. Minor traffic congestion occurs periodically between Main Street and Payne Avenue, especially during major waterfront events. This area is curbed so parking opportunities on the road shoulder for those wishing to utilize the linear park facilities are limited. Recreational users generally use the private canal-side parking provided for the employees of a local corporation or park on adjacent side streets. This is not a major problem and does not prohibit access to the Canal.

Vehicle access to the waterfront from the residential areas north of the Canal is easily accommodated by the intersection of Sweeney with seven local streets. Pedestrian and bicycle access can also easily be accommodated through the existing street system.

There is one active railroad bridge at the foot of Oliver Street. It carries the Niagara Branch of Conrail and has been rated as structurally deficient by the DOT. The former Erie-Lackawanna Bridge is located immediately east of the Niagara Branch crossing. The bridge stands alone within the Canal with no connections to either shore and has been abandoned by Conrail. The DOT has planned to remove the abutments but has no immediate plans to remove the bridge. This creates an unattractive view and seriously detracts from the overall visual environment. Visual access is, therefore, negatively impacted by the bridge.

The NFTA provides bus service to this area with a stop at Sweeney and Webster Street. Service is provided on an hourly basis, thus providing good public transportation access to this sub-area.

5. BARGE CANAL - EAST: Sweeney Street continues as a collector, carrying average traffic volumes with no congestion problems. Access to the waterfront from adjacent neighborhoods is via thirteen local roads and the Twin Cities Memorial Highway which serve as a principal arterial, and East Robinson Street which functions as a minor arterial.³⁰ There are no major vehicle or pedestrian access problems in this area. Parking is available on the roadside or along adjacent streets for those wishing to utilize recreational areas along the Canal.

The East Robinson Street Bridge crossing the Canal in the far eastern sector of the sub-area has been rated as structurally sound by the DOT. A rating was not available for the Twin Cities Memorial Highway Bridge.

The NFTA provides service along Sweeney Street to the Botanical Gardens via Spruce Street and Old Falls Boulevard. Service is provided three times daily which is sufficient given the lack of demand for increased service.

M. MAJOR RECENT AND PROPOSED WATERFRONT IMPROVEMENTS

The following information describes recent and future waterfront improvements for the shoreline. They are listed by sub-area and coincide with the numbering system illustrated on Figure 18. This provides good background material on the level of public and private investment and suggests possible opportunities for additional improvements.

A. NIAGARA RIVER:

1. Former Koppers Co., Inc. Sale. The City has learned that a privately financed sale (amount unknown) of the former 25,000 sq. ft. Koppers Co. building will occur shortly.

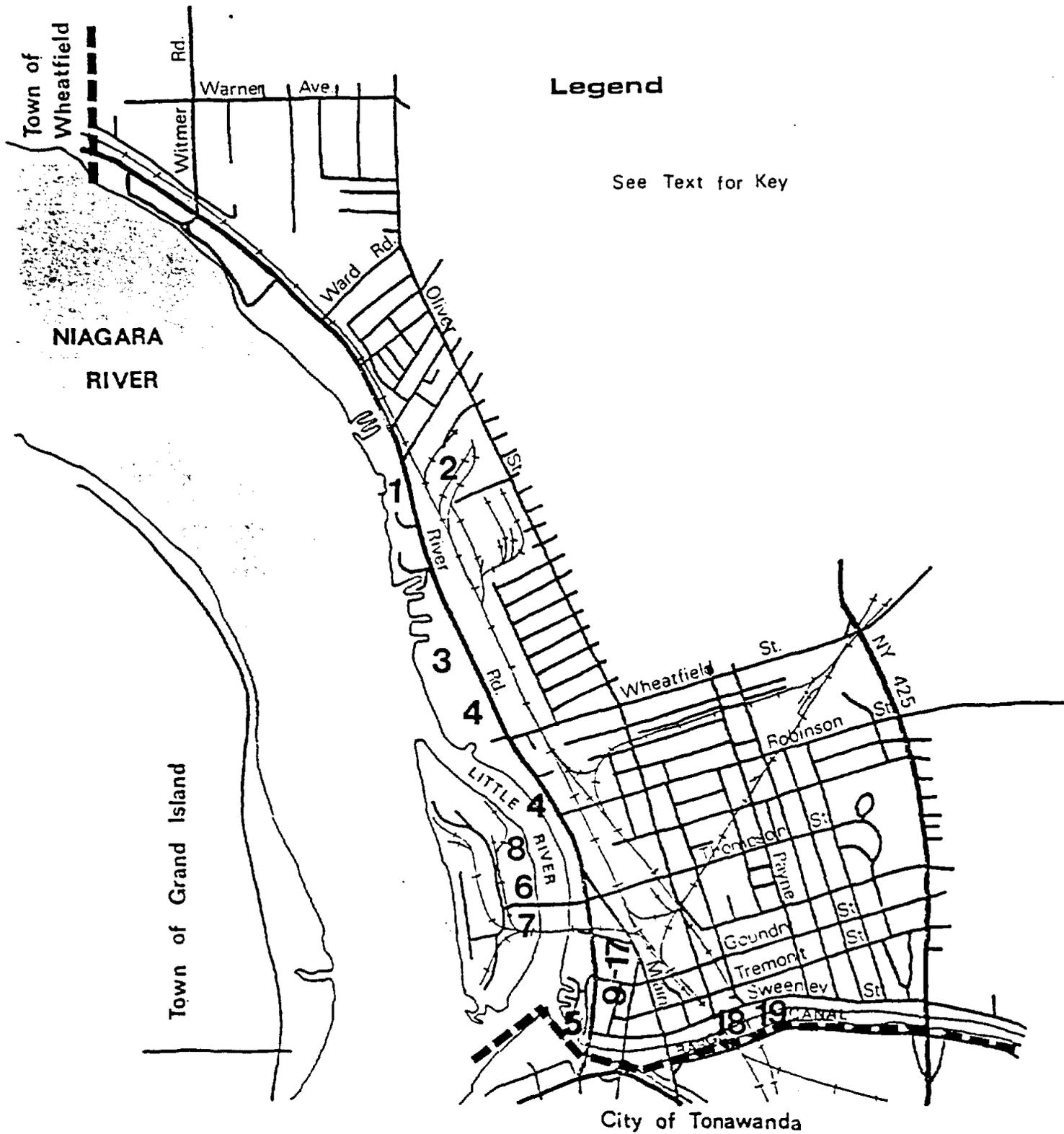
2. Armstrong Pumps, Inc. The Company purchased 151,000 square feet of vacant space in the Roblin Steel Corporation Plant with \$1.5 million in Industrial Revenue Bond (IRB) proceeds. The inducement resolution was provided by the Niagara County Industrial Development Agency (NCIDA). Armstrong Pumps manufactures centrifugal pumps and accessories for commercial and industrial clients.
3. Riverview Shopping Center. Private developers have submitted an application to the NCIDA for \$9.5 million in IRB proceeds to construct a \$150,000 square foot shopping plaza on the former Tonawanda Iron Works site. The proposed project has not progressed beyond the initial planning stages, and an anchor store for the center has not been found.
4. Tonawanda Island Railroad. Approximately \$300,000 in State resources has been used to improve the railroad in the last five years.
5. Seymour Street Bridge. This bridge was improved in 1984-1985 by the DOT at a cost of \$696,000.

B. TONAWANDA ISLAND

6. Tayco Technology, Inc. The City received approval of an Urban Development Action Grant (UDAG) in the amount of \$171,906 to assist in the establishment of a small plastics manufacturing facility. Owned by Taylor Devices, Inc. (also located on Tonawanda Island) and Tayco Developments, Inc., Tayco Technology makes plastic shock absorbers and other energy management devices.
7. Tonawanda Island Railroad: (See Item 4.)
8. Smith Boys Marina. Smith Boys expects to expand its operations in the near future. The marina has secured the necessary federal permits to construct 300 slips from their present location on the island to the north end of the Island along the Little River.

C. DOWNTOWN: (Note: Items with an asterisk are part of the City's 1985 Small Cities Downtown Comprehensive Program. Funding sources include federal Community Development Block Grant (CDBG) resources, municipal funds and private investment or a blend of the various sources, as noted).

9. Snyder Gear Corporation. The Company has received an inducement resolution from the NCIDA for \$275,000 in IRB proceeds to acquire equipment and expand its facilities on Manhattan Street. Snyder Gear makes gears for the coal mining industry.

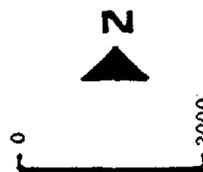


City of North Tonawanda

Local Waterfront Revitalization Program

Figure 18A: MAJOR RECENT and PLANNED IMPROVEMENTS

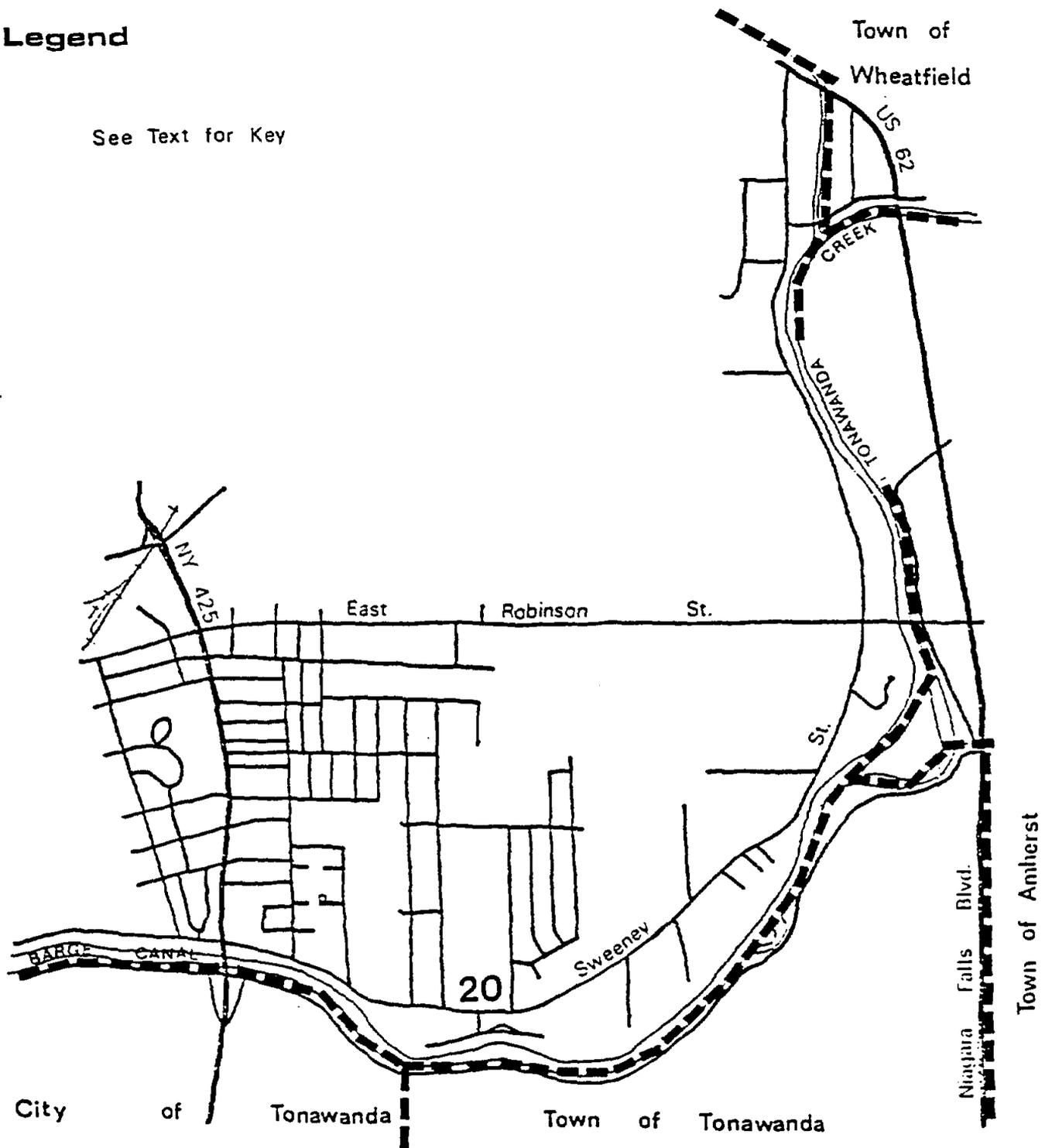
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- *10. Robert's Furniture Show Place. Robert's, located on Main Street between Tremont and Goundry Streets, expects to expand its showroom and retail display areas with \$335,000 in private resources and \$175,000 in Small Cities CDBG loan funds.
- 11. Packett Center. The renovation of the 55,000 square foot building was completed in 1985 with \$1.5 million in private funds. The Packett Center includes 78 efficiency apartments, restaurant facilities and office space.
- *12. Webster Street Mini Mall. The planned 3,800 square foot shopping center, which will span the distance between Webster Street and Manhattan Street will be constructed with \$80,000 in private funds and \$80,000 in Small Cities loan resources. The City DPW will improve the public walkway adjacent to the mini-mall, thereby creating a pleasant area between the Manhattan Street parking lot and the retail establishments on Webster Street.
- *13. Manhattan Street Public Facilities Improvements. A series of improvements on Manhattan Street will complement the downtown revitalization activities being carried out with a combination of public and private resources. The repaving and lighting of the Manhattan Street parking lot, the installation of new curbs and sidewalks, and the replacement of a sanitary sewer at a cost of \$121,200 (\$85,000 in CDBG funds and \$36,200 in municipal resources) will be completed in 1986 and 1987.
- *14. Goundry Street Repaving. The intersection of Goundry and Webster Streets has been repaved at a cost of \$6,200 in municipal resources.
- 15. Sweeney Street City Docking Facilities. Approximately 300 linear feet of docking facilities were constructed in 1984-1985 with \$130,000 in State funds. (These funds also provided for construction of 200 linear feet in the City of Tonawanda). This provides temporary dockage space for approximately 12 boats immediately adjacent to the Packett Center. Additional utility and landscaping improvements will be completed in 1986 with \$30,000 in State funds and \$11,200 in municipal funds.
- 16. Sweeney Street Parking Improvements. The City's Department of Public Works (DPW) will repave the parking areas on both sides of Sweeney Street in front of the Packett Center in 1986 with \$5,000 in municipal funds. This activity will improve the street condition and enhance the attractiveness of the downtown area.

Legend

See Text for Key

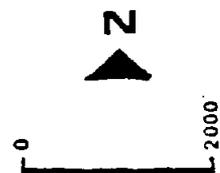


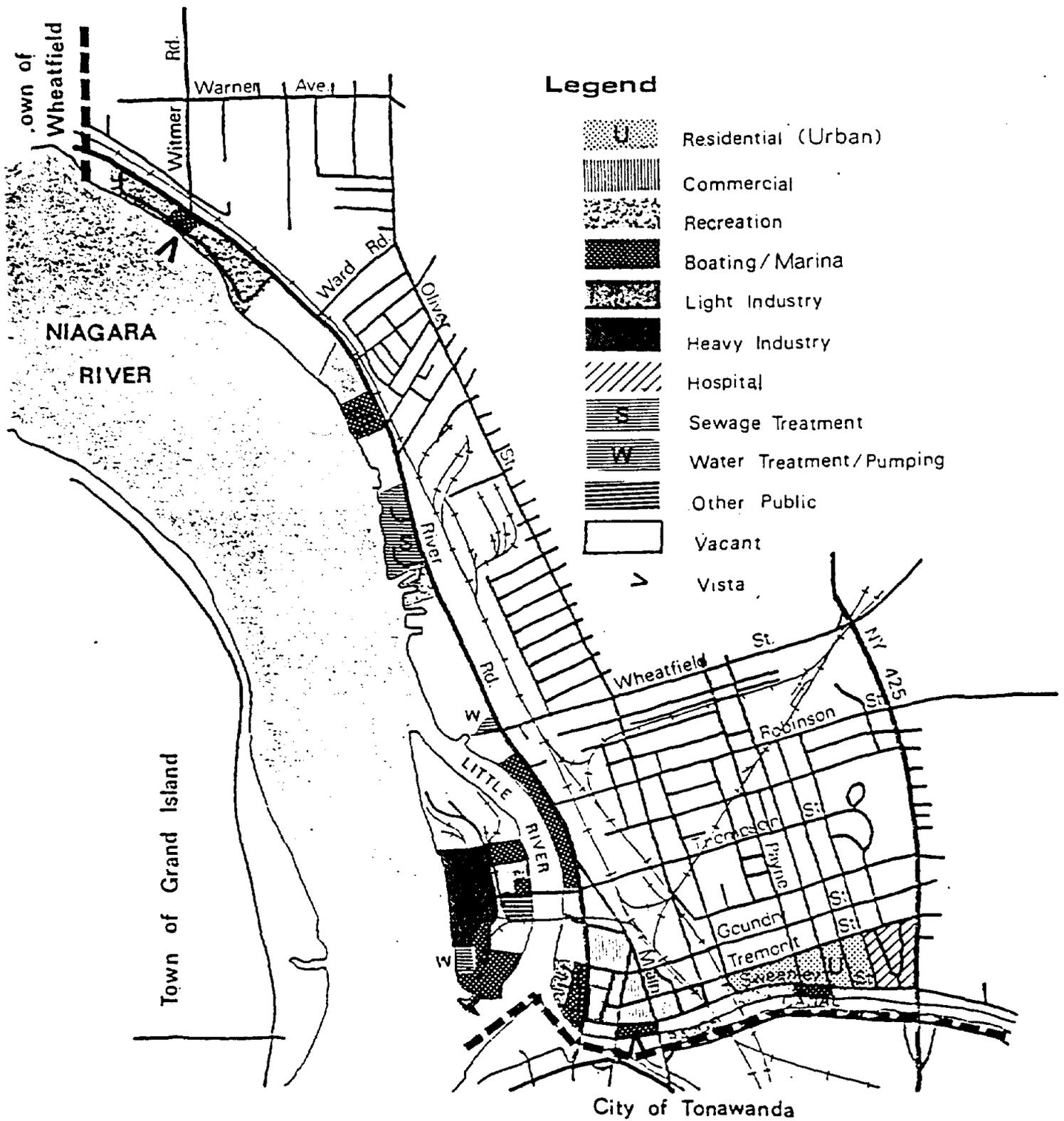
City of North Tonawanda

Local Waterfront Revitalization Program

Figure 18B: MAJOR RECENT and PLANNED IMPROVEMENTS

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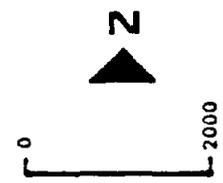


City of North Tonawanda

Local Waterfront Revitalization Program

Figure 9A: LAND USE

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17. Downtown Signage System. The City's DPW installed signage in 1986 with \$500.00 in municipal resources.

D. BARGE CANAL - WEST:

18. Removal of the Bridge Approach. The DOT recently removed the Conrail - Erie/Lackawanna Railroad Bridge crossing the Barge Canal.
19. Removal of the Bridge Abutments. The DOT plans to remove the abutments for the Conrail - Erie/Lackawanna Railroad Bridge in the near future.

E. BARGE CANAL - EAST:

20. Ryan Subdivision. A 20-home residential development located north of Sweeney Street is presently under construction with private financing.

- F. MISCELLANEOUS: The City has been promoting an annual Canal Fest in conjunction with the City of Tonawanda over the last few years. This is a one-week event with numerous family attractions and activities centered around the Barge Canal. It has been an annual success and serves to draw thousands of area residents to the North Tonawanda downtown area.

In addition to the Canal Fest, numerous North Tonawanda marina operators promote an annual boat show each year along the Canal. Although not as prominent, it also serves to bring people to the waterfront and subsequently to the neighboring commercial areas.

Finally, the Niagara County Economic Development and Planning Department designated the Sweeney Street - Webster Street - Goundry Street - River Road route as the City's sector of the Niagara Historic Trail²⁴ in 1976. A series of signs have been placed along these roads to orient the user to the area's historic past as described in a promotional brochure.

In addition, the DOT designated River Road as the City's component of the New York State Seaway Trail. This is an auto-tourist route, intended to promote area commercial and recreational attractions for tourists visiting the area. Signs have also been placed along River Road signifying this designation.

N. OVERVIEW OF PREVIOUS LAND USE DOCUMENTS

The following narrative briefly describes plans and studies which have previously been developed by other organizations and which address, in part, development of the City's waterfront. These proposals were examined in analyzing the City's shoreline. Reference should be made to Section IV for a description of why certain suggestions were ruled out for inclusion in the LWRP.

1. COMPREHENSIVE PLAN, CITY OF NORTH TONAWANDA April, 1971 - prepared for the North Tonawanda City Planning Commission by Candeb, Fleissig and Associates: The Plan suggested continuous public open space from the Town of Wheatfield boundary to the City of Lockport pumping station along the Niagara River. The entire Tonawanda Island and Downtown sub-areas were proposed for industrial uses, while the majority of the Barge Canal - East sub-area was proposed for parkland including the underutilized State-owned land east of Mayor's Park.

2. BARGE CANAL RECREATION AND OPEN SPACE PRESERVATION PLAN, July 1973 - Erie and Niagara Counties Regional Planning Board. The following proposals affecting the City's waterfront were made:
 - * Develop a Riverfront Park and Marina in the area of the Wardell's Boatyard.
 - * Develop a Barge Dock Area between Main Street and railroad crossings. This plan suggested the continued use of this area for parking.
 - * Develop the Creekside Marina immediately east of Mayor's Park at public expense.
 - * Implement a Landscaping and Trail System along the entire length of the Barge Canal presently in public ownership.
 - * Establish a Uniform Sign System along the Canal.

3. UPPER NIAGARA RIVER RECREATION STUDY, December, 1976 - Erie and Niagara Counties Regional Planning Board: The following proposals affecting the City's waterfront were made:
 - * Develop a Marine-Oriented Commercial District along the Little River from the Barge Canal to the Lockport water pumping station.
 - * Maintain Tonawanda Island for Industrial Use, but convert vacant land to less intensive, water enhanced uses as existing uses terminate.
 - * Preserve Tonawanda Iron Works Site as Open Space, until a unified development proposal is brought forward. Emphasis should be on marine oriented uses.
 - * Remove Ashland Tank Farm and Pursue City Acquisition for use as Parkland. In addition, public acquisition of private land between Fisherman's and Gratwick Parks should be pursued for additional parkland development.
 - * Implement a Continuous Class I Bikepath along the Niagara River edge.

4. NIAGARA FRONTIER BICYCLE MASTER PLAN, March, 1981 - Niagara Frontier Transportation Committee: The Plan proposed a Class I Bikepath along River Road in the City. It designated the trail a second priority route. The plan also designated the area along Sweeney Street as a Class II or III bike route. This proposal was placed in the second priority group.
5. NEW YORK STATEWIDE COMPREHENSIVE RECREATION PLAN, 1978 - New York State Office of Parks, Recreation, and Historic Preservation. The Plan designated the area along Sweeney Street as part of the Barge Canal Park and Trailway System. This system extends from the Niagara River to the Hudson River and includes existing and proposed trails, parks, and other recreation activities.
6. NIAGARA COUNTY ECONOMIC DEVELOPMENT STRATEGY, Phase I and II (July 9, 1985 and February 3, 1986) - A.D. Little, Inc: The report identified the Barge Canal area as part of a larger tourist circuit in the County. The circuit would link scenic areas along Lake Ontario. Specific land/water uses for the City were not identified.

Other tourism activities suggested for the North Tonawanda area included development of the Erie Canal as the focal point for restoration and development, as well as improved development of the Seaway Trail auto route.

It should be noted that the suggestions were not selected for more detailed analysis by the Study Advisory Committee. This resulted from the relatively low score these suggestions received when analyzed against various economic development criteria.

7. NORTHERN CORRIDORS REFINEMENT STUDY - TRANSITIONAL ANALYSIS, (April 1986) - Niagara Frontier Transportation Authority (NFTA): This analysis identified the Tonawanda Extension to the existing 6.4 mile transit line as a potentially viable alternative to the Amherst Extension. The Tonawanda alternative would service the City of North Tonawanda via an abandoned Conrail rail right-of-way crossing the Barge Canal at Vandervoort Street and have an "end of the line" station at Goundry Street. An alternative aerial structure would serve North Tonawanda above an existing utilized Conrail track and provide a terminus station at Oliver and Thompson Streets. Both the Amherst and Tonawanda Extension are still under consideration by the NFTA.
0. OVERVIEW OF MARKETING FACTORS

A key determinant of any future land or water use for the North Tonawanda waterfront is market conditions. The potential for a particular use must be considered in relation to community desires and physical constraints to land development. This will ensure that the LWRP is not prepared in a vacuum. The scope of the waterfront program, however, does not permit a detailed market

analysis for all uses. Rather, it is appropriate to include a general overview of market conditions for selected land uses most often mentioned in past studies of the City's waterfront. The information used in the evaluation was gleaned either from other planning documents prepared for the North Tonawanda area or developed through basic land use demand/need methodologies. The results of the marketing analysis were used in developing proposed land and water uses for the City's shoreline.

1. LIGHT INDUSTRY: As noted, Arthur D. Little, Inc. is preparing an Economic Development Strategy for Niagara County. The analysis is being funded jointly by the Western New York Economic Development Corporation and the Niagara County Industrial Development Agency. Initial phases of the strategy have suggested that existing industrial parks in Niagara County have ample space (i.e., over 1700 acres) to accommodate projected long-term demand. The strategy indicates that rather than developing new parks, ³² more emphasis should be given to improving the existing ones. This includes North Tonawanda's Wurlitzer Industrial Park (WIP), which has 24 of its 35 acres available for additional development. Adjacent to the WIP is the former Wurlitzer Plant which has approximately 15,000 sq. ft. of vacant space available at this time. It should be noted, however, that the Little report does leave the door open by suggesting that perhaps one new park might be appropriate, if it were suitably located and of sufficient size. The study recommended that ³³ such a park be geared toward attracting Canadian firms.

The County's economic development strategy further suggested that opportunities are present for plants to spin-off from existing large manufacturing firms in the area. The proximity of North Tonawanda to Occidental-Durez and other firms makes the area a potential candidate for this type of market. The report, however, emphasizes channeling such activities into the Wurlitzer Park which is appropriately zoned and where space is available. ³⁴

2. HEAVY INDUSTRY: The market for large industrial facilities with high employment requirements and capital intensive plants is weak. A large inventory of vacant industrial land exists along the Erie and Niagara Counties shoreline resulting in an oversupply of space for water-dependent industry. ³⁵

Nevertheless, the City's abundant inventory of vacant land along the Niagara River with immediate access to water, rail, and highway transportation systems suggest that water dependent heavy industry should not be precluded as a potential occupant of the waterfront area. Such uses would only be feasible if appropriate design standards are developed and enforced through the City regulatory system.

3. PARK AREA: For the purpose of the LWRP, it has been assumed that any parkland located in the City's waterfront area serves the entire City rather than those residents of a particular district or neighborhood. The unique features and activities available at Gratwick-Riverside Park and the Botanical Gardens, for example, attract residents from all areas of the City. Therefore, it is necessary to determine if there is an existing or long-term need for additional community parkland in North Tonawanda which could be accommodated along the shoreline.

A standard of 5 acres per thousand is recommended in the New York State Outdoor Recreation Plan (1978) as a sound guide to determine the adequacy of community park space within a municipality.³⁶ The following existing community parks have been developed in North Tonawanda:

1. Gratwick-Riverside	25 acres
2. Fisherman's Park	4
3. Payne	11
4. Pinewoods	34
5. Barge Canal Parkland	4
6. Mayor's Park	10
7. Botanical Gardens	<u>12</u>
Total	100 acres

It should be noted that there are 200 acres of undeveloped City parkland (Holiday Park) located immediately adjacent to the Barge Canal-East Sub-area off E. Robinson Street. The eventual development of Holiday Park is limited, however, because of its recent designation by New York State as a significant wetland.

The application of the above standard indicates that the City ideally should have 175 acres of community parkland. As a result, there is an existing shortfall of 75 developed acres. Since a stable population for North Tonawanda is projected through the Year 2000, an increase in the need for park space is not expected to occur within this study period.

Although there is a need for more community parkland, the feasibility of locating new facilities along the waterfront as opposed to developing Holiday Park, must consider a variety of factors.

At present, 55 percent of all of the developed community park acreage is within the waterfront area, which represents only 8 percent of the total land area of the City. Present economic conditions warrant a concerted effort to return vacant land to active and productive uses which would not only provide jobs for City residents, but generate additional municipal tax revenue, as well.

Alternatively, much of the land along the Barge Canal is in public ownership and vacant. This would make the conversion to active parkland easier and would not impact the existing supply of vacant, marketable private parcels along the Niagara River. As mentioned earlier, the attraction of a waterfront site to all area residents for recreational activities lends justification for a shoreline location. Furthermore, additional parkland along the Canal would reduce the high demand for facilities at Mayor's Park. It would also extend the continuous open space corridor along the Canal.

A further consideration is the constraint that would be placed on developing Holiday Park as active community parkland. It is likely that any recreational development requiring fill or extensive clearing would be prohibited under the State Wetlands Law. Therefore, the potential of Holiday Park fulfilling the current need for 75 additional acres of community park space is limited.

A final note regarding the need for additional community parkland and the status of Gratwick-Riverside Park. As stated earlier, the area has been designated by NYSDEC as a Class 2 inactive hazardous waste site. It is presently undergoing environmental sampling to determine the health hazard of any wastes buried on the site. Results of the sampling may require a temporary closing of the park until cleanup is completed. In this event, the City should actively promote immediate site remediation by responsible parties, and eventual reopening of the park for public use. Such prompt action is necessary given the above mentioned shortfall in community park space and the area's location adjacent to the Niagara River which makes it a high demand facility of City residents.

4. HOUSING: Figure 19 provides a projection of housing demand for Niagara County for 1990 and 2000. It suggests that approximately 600 new residential units will be needed annually through the Year 2000. Figures for the period from 1980 through 1984 show an actual annual increase of approximately 377 new units.³⁷ The low figure reflects the declining area economy and high interest rates offered by area banks during this period. Since North Tonawanda has captured about 18 percent of the total new residential construction market in the County between 1975 and 1984, it is reasonable to assign a similar percentage to the anticipated share by North Tonawanda of the projected housing market.³⁸ This would result in the City absorbing approximately 108 new units each year through the Year 2000. This figure would return the City to the construction pace experienced in the mid to late 1970's.

The ability of the waterfront to absorb a portion of the projected units is a function of housing costs, and the perception of developers and prospective buyers that improvements will be made or are being made to the physical

environment along the shoreline. The type and price range of waterfront housing units that could be sold would have to be determined by carrying out a market analysis.

5. RETAIL: As noted in previous paragraphs, a detailed market analysis for land uses is not within the scope of the LWRP. Various observations can be made, however, regarding the anticipated demand for commercial centers within the Niagara River sub-area. The sub-area has several large, vacant parcels which could conceivably accommodate retail uses. The observations are as follows:

• A REGIONAL MALL with 300,000 to 1,000,000 sq. ft. of retail space would require a 50 acre site. The construction of such a facility would require the consolidation of existing parcels along the River. The demand for a regional mall appears limited because of the proximity (10-15 minutes driving time) of Summit Park Mall in the Town of Wheatfield. The Summit Park Mall has 861,616 of retail space. In addition, there is no large population increase or rise in household income projected during the next 15 years which would establish a need for a regional commercial center.

• A Community Center shopping mall containing 100,000 to 300,000 sq. ft. and occupying a 10 to 30 acre site is physically possible on existing vacant parcels along the River. Such a center would typically feature a discount store and satellite stores. It would generally serve a market area within a 10 minute travel time of the site. Similar community centers are located in the City's Central Business District (CBD) and the City of Tonawanda CBD. Thus, the market for a new center within 3 to 4 minutes driving time from those areas is limited. Such a conclusion is even more appropriate when examined in relation to the stable population and income base anticipated for the City through the study period. Finally, the projected private and public investment in downtown, which will approach \$2.8 million requires the concentration of retail activity in that area, rather than promoting new community centers that would compete with the CBD.

• A NEIGHBORHOOD RETAIL CENTER containing 50,000 sq. ft. of leasable space and occupying a 3 to 5 acre site could be constructed on existing vacant parcels along the River.

	1980	1990	1980-1990 (Projected)	2000	1990-2000 (Projected)
1. Population	227,354	217,257		221,589	
2. Average household size	2.83	2.56		2.49	
3. Number of households	80,337	84,866		88,991	
4. Housing vacancy rate (%)	4.9	4.9		4.9	
5. Housing demand (year-round units)	84,273	89,024		93,351	
6. New demand from house- hold growth			4311		4125
7. Lost units (2%)			1780		1867
8. New units added			6091		5992
9. Average annual demand for units			609		599

FIGURE 19

Housing Demand Projection - Niagara County

Source: (1) Erie and Niagara Counties Household Projections (7/16/85);

(2) NYS Division of Water Quality Mgt. - Population Projections (9/30/83)

Such a center would be anchored by a supermarket and contain a limited number of other satellite stores. It would serve a market area within a 5 minute travel time of the site. An overview of the service area indicates that two other neighborhood centers exist on Goundry Street near River Road and Division Street between Erie Avenue and East Robinson Street. These centers would greatly overlap the service area of any new neighborhood retail center along the River. In addition, the population and income characteristics noted in earlier paragraphs limit the prospects for any new neighborhood retail centers in the future (i.e., 15 years.)

° Finally, the recent experience by the owners of the former Tonawanda Iron and Steel site in marketing their 26 acre parcel for a 165,000 sq. ft. community retail center reinforces the conclusions. The inability to attract an anchor retail store to the area and the fact that the parcel has been vacant for the past³⁹ eight years reflect current commercial market conditions.

° Although market conditions do not appear to support construction of a large shopping mall, it must be noted that the preceding comments are not based on a detailed market analysis but rather preliminary observations. It may well be that a comprehensive marketing study which thoroughly examines the distribution of the resident population and its buying power, the location and composition of competing centers and access to the site would document the feasibility of a large scale commercial project.

F. MARINA: It has been estimated by Marshall, Macklin Monaghan, Limited, in the report entitled, Market Forecasts and Sensitivity Analysis (7/4/84) prepared for the City of Buffalo, Division of Planning that the City of Buffalo will have a demand for 2,483 additional boat slips by the year 2000. As the Cities of North Tonawanda and Buffalo are within a short distance, some of the demand could be accommodated along the North Tonawanda waterfront.

P. SUMMARY

The following provides a brief summary of opportunities and constraints to development present in each sub-area along the shoreline.

1. NIAGARA RIVER:

a. The location of an inactive hazardous waste site on the Niagara Mohawk parcel limits short-term redevelopment opportunities and major improvements to Gratwick-Riverside Park.

- b. The numerous rail crossings and high-speed nature of River Road create waterfront access problems for residents living east of the waterfront area. However, the lack of any elevated barriers is a positive factor.
- c. On-shore fishing access at Gratwick-Riverside and Fisherman's Parks to the locally significant fishing area is good. Some improvements to the physical facilities at these sites are appropriate, however.
- d. The high percentage of vacant land presents opportunities for redevelopment and a possible new direction in land-use priorities. However, immediate access to the water and rail transportation systems as well as the region's preferred truck route contribute to the sub-areas' potential for attracting manufacturing uses. This conflict between promoting the historical industrial use pattern and encouraging less intensive uses is a major issue in the sub-area.
- e. A constraint to any development north of Smith Boys Marina is the difficulty in providing sewer and water service.
- f. The River Road corridor provides virtually uninterrupted waterfront views.
- g. Land uses between Wardell's Boatyard and the Tonawanda Iron Works site are 80 percent water-dependent. This creates good opportunities for building upon the water oriented nature of the area and promoting spin-off complementary uses (e.g. restaurants).
- h. Water quality problems within the Little River which may be caused by pollutants originating at the Occidental Chemical Corps. - Durez Plant²⁹ pose a conflict with the local fishing area. Such problems may be increased if the recently designated hazardous waste site on Robinson Street is found to have toxic chemicals migrating to the River.
- i. The area north of Wardell Marina has insufficient infrastructure.
- j. Eventual development of the former Tonawanda Iron Works site can serve as an anchor to the area and possibly dictate a new land use direction for the sub-area.
- k. The entire sub-area is zoned for manufacturing which permits virtually any land use. This tends to create an unattractive corridor with numerous incompatible uses, and unsightly structures.

1. The protected nature of the Little River from severe wave action and River currents creates opportunities for continued expansion of the recreational boating industry.

2. TONAWANDA ISLAND:

- a. The 29-acre vacant parcel on the northern tip of the Island presents opportunities for re-development to uses which are dependent or enhanced by a waterfront location. The availability of independent sewer and water systems on site can also increase the site's attractiveness for large-scale development.
- b. Any development would have to be sensitive to the two archaeological sites in the area.
- c. The anticipated expansion of slip space by Smith Boys Marina, Inc. presents opportunities for spin-off commercial development on the Island. It may also increase the marketability of the vacant parcel to the north. Also see comment A.¹²
- d. On-shore fishing access to the Little River is non-existent.
- e. The circulation pattern, building conditions, and land use variations of the Island tend to create a negative visual impact. The existence of R. T. Jones Lumber at the mid-point of the Island reduces the market potential for any residential development. Although the facility is isolated from most of the vacant parcels on the Island, all vehicle access to these sites directly pass the lumber mill. Also see comment A.¹¹

3. DOWNTOWN:

- a. Public, and private investment in the downtown area totalled \$2,744,900 at the end of 1986. An opportunity exists to utilize the sub-areas' waterfront location as a further catalyst to downtown investment and retail activity. The active promotion of the Barge Canal as a resource for boaters, fishermen, and passive recreational enthusiasts will not only draw people to the shoreline, but increase the business/retail activity in downtown.

4. BARGE CANAL - WEST:

- a. The vacant, free-standing former Erie-Lackawanna Railroad Bridge and the Conrail-Niagara Branch Bridge detract from the visual environment.
- b. The sub-area provides good access to the Canal through linear parks and local streets located perpendicular to the Canal.

- c. The existence of boathouses along the Canal has the potential, if not maintained, for decreasing the scenic quality of the sub-area.

5. BARGE CANAL - EAST:

- a. The potential for problems with the boathouses, as noted in D (3) also exists in this sub-area.
- b. Various sections of the sub-area between Sweeney Street and the Canal have been sold by the State to private owners. These parcels have been converted into large linear residential lots and have interrupted the continuous public ownership pattern along the Canal.
- c. The 100-year floodplain along the Canal presents some constraints to development.
- d. The continued development of the local fishing area in the Canal will increase recreational opportunities for City residents.
- e. Although 28 percent of the sub-area is devoted to park land, approximately 50 percent of that total is the Girl Scout Camp and Boy's Club Camp. These occupy 31 acres of Canal waterfront and go unused for much of the year. Opportunities for shared use of the lands may be present.
- f. Physical facilities within Maor's Park and the boat launch at the Botanical Gardens require some renovation.
- g. The sub-area is immediately adjacent to a middle-class, low density residential section of the City, representing 48 percent of the total land area. Large, vacant parcels are available for further residential development immediately north of Sweeney Street. Opportunities for access to the Canal should be preserved in anticipation of future demand likely to be generated by the long-term population growth.

6. GENERAL:

- a. The high unemployment rate in the City is a major problem facing the community. It is important to utilize the City's waterfront location as a key contributor to the area's recovery. This can be accomplished in varying ways, including the continued promotion of the recreational boating and sport-fishing industry, encouraging waterfront activity which complements the downtown revitalization efforts, and by using public dollars in ways that best promote private development opportunities.
- b. The history of the City as a nationally prominent lumber milling center in the late 1980's is not known to many

residents in the two-county region. Opportunities to increase this awareness and possibly capitalize on it in a manner similar to the Carousel and Railroad Museum projects should be given further consideration.

- c. With the exception of marina development, and possibly housing, the market for new land development is soft within the City's waterfront area. The shoreline location and design opportunities it can foster, however, can increase the market value of waterfront land and the subsequent demand for it.

NOTES

1. New York State Division of Water, Bureau of Water Quality Management -- Population Projections, New York State Water Quality Management Plan, September 30, 1983
2. New York State, Department of State, Legislative Manual, N.Y. 1980-81, prepared pursuant to the provisions of Executive Law Article VI, Section 95
3. City of North Tonawanda, Application to U.S. Department of Housing and Urban Development for Urban Development Action Grant - Comprehensive Downtown Revitalization Program, April 29, 1985
4. Centennial Magazine, 1865-1965, Charles R. Fleischman
5. Ibid
6. Buffalo News, "Town of Tonawanda Has Big Plans for 150th", January 4, 1986
7. Aiken, John; Wilhelm, John; Brunger, Eric; Aikern, Richard -- Outpost of Empires, A short History of Niagara County, 1961
8. Ibid
9. Felton Grammar School, Tonawandas, Then and Now, 1959
10. NYSDEC, Inactive Hazardous Waste Disposal Sites in New York State, Appendix Volume 9, December 1984
11. Buffalo News, "117 Dump Sites Put County At Top of State List", January 16, 1986
12. Flood Insurance Rate Map -- City of North Tonawanda, New York, Niagara County, January 6, 1982
13. January 29, 1986 correspondence to Mr. Thomas J. Dearing from Ms. Gloria J. McKenna and Mr. Ben A. Nelson, Assistant Professor SUNYAB -- Department of Anthropology
14. United States Department of Agriculture -- Soil Conservation Service, Soil Survey and Map -- Niagara County, N.Y., September 1, 1947
15. Lynch, Kevin, Site Planning, Third Edition, 1984
16. Ibid; #14
17. Sander, John M. -- Sander's Fishing Guide and Service Directory, 1985, pp. 121, 126
18. Interview with Ken Sprenger, 1/20/86

NOTES (CONT'D)

19. USEPA Preliminary Evaluation of Chemical Migration To Groundwater and the Niagara River from Selected Waste Disposal Sites, March 1985
20. Niagara River Toxics Committee, Report of the Niagara River Toxics Committee, October 1984
21. Ibid
22. Ibid; #19
23. Ibid; #20
24. Niagara County Legislature, Niagara Trail Brochure, 1976, Special insert
25. United States, Department of Interior, National Park Service, National Register of Historic Places, Inventory-Nomination Form, June 21, 1979
26. Ibid; #17
27. Niagara County Economic Development and Planning Department, "I Love New York, Niagara County Fishing Map", date unknown
28. Tonawanda News, "Industries Inventoried for Chemical Outflow", January 17, 1986
29. NYSDEC, Water Bulletin, November 1985
30. Niagara Frontier Transportation Committee, "Federal-Aid Highway System -- 1990 Functional Classification", July 1985
31. Niagara Frontier Transportation Committee, Trucking Needs Study, April 1983
32. Arthur D. Little, Inc., "Working Memorandum of Phase I - of an Economic Development Strategy for Niagara County", July 9, 1985
33. Ibid.
34. Arthur D. Little, Inc., "Working Memorandum On Phase II of an Economic Development Strategy for Niagara County", February 3, 1986
35. Marshall, Macklin, Monaghan, Limited; Tippetts-Abbett-McCarthy-Stratton; Booz Allen and Hamilton, Inc.; "Buffalo Waterfront Project; Market Forecasts and Sensitivity Analysis" July 4, 1984
36. Erie County Department of Environmental and Planning, "Erie County Parks in the 1980's: Achievements, Problems, and Prospects for the Future" (1982)

37. Niagara County Economic Development and Planning Department,
"Construction Permits Issued in Niagara County - 1980 through 1984"
38. New York State Urban Development Corporation "Audobon New Community -
UDC Policy Options (Draft)" - October, 1985