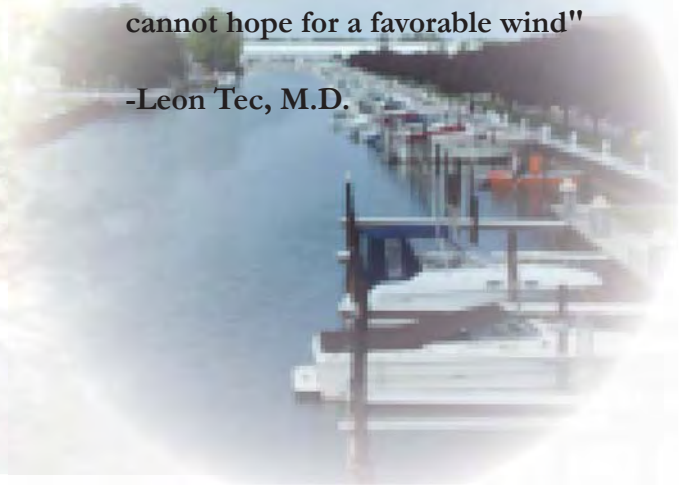
Charter Township of Harrison

Master Plan

2010

"A sailor without a destination
cannot hope for a favorable wind"

-Leon Tec, M.D.



Adopted by Township Board:
March 8, 2010

Adopted By Planning Commission:
February 18, 2010

CHARTER TOWNSHIP OF HARRISON
COUNTY OF MACOMB, MICHIGAN
TOWNSHIP BOARD RESOLUTION TO ADOPT MASTER PLAN

At a regular Board Meeting of the Board of Trustees for the Charter Township of Harrison, on Monday, March 8, 2010, the following resolution was adopted.

WHEREAS, the Michigan Planning Enabling Act (MPEA) authorizes the Planning Commission to prepare a Master Plan for the use, development and preservation of all lands in the Township; and

WHEREAS, the Planning Commission prepared a proposed new Master Plan and submitted the plan to the Township Board for review and comment; and

WHEREAS, on March 9, 2009, the Harrison Township Board authorized distribution of the Master Plan to the Notice Group entities identified in the MPEA; and

WHEREAS, notice was provided to the Notice Group entities as provided in the MPEA; and

WHEREAS, the Planning Commission held a public hearing on February 18, 2010 to consider the proposed Master Plan, adopted a resolution of approval, and recommended approval to the Township Board; and

WHEREAS, the Township Board finds that the proposed new Master Plan is desirable and proper and furthers the use, preservation, and development goals and strategies of the Township;

WHEREAS, the MPEA authorizes the Township Board to assert by resolution its right to approve or reject the proposed Master Plan;

THEREFORE BE IT HEREBY RESOLVED AS FOLLOWS:

1. **The Township Board approves and adopts the 2010 Master Plan, including all of the chapters, figures, maps and tables contained therein. The Township Board has asserted by resolution its right to approve or reject the proposed Master Plan and therefore the approval granted herein is the final step for adoption of the plan and is effective as of March 8, 2010.**
2. **The Township Board has made the determination based on a review of existing land uses in the Township, a review of the existing Master Plan provisions and maps, input received from the Planning Commission and public hearing, and with the assistance of a professional planning group, and finds that the new Master Plan will accurately reflect and implement the Township's goals and strategies for the use, preservation, and development of lands in Harrison Township.**
3. **The Master Plan shall be effective March 8, 2010.**

The foregoing resolution offered by Board Member Swiatkowski.

Second offered by Board Member Tomenello.

Upon roll call vote the following voted:

"Aye": Swiatkowski, Tomenello, Kapral, Verkest, York, Jorgensen

"Nay": None

"Absent": Forlini

Therefore it is resolved.

Jan P. Jorgensen, Clerk

CERTIFICATION

STATE OF MICHIGAN)
)SS
COUNTY OF MACOMB)

I, the undersigned, the duly elected Clerk of the Charter Township of Harrison, Macomb County, Michigan do hereby certify that the foregoing is a true and complete copy of a resolution adopted at a regular meeting of the Harrison Township Board of Trustees held on the 8th, day of March, 2010.

IN WITNESS WHEREOF, I have hereunto affixed by official signature on the 16th day of March, 2010.

Jan P. Jorgenson, CMC, Clerk

CHARTER TOWNSHIP OF HARRISON
MACOMB COUNTY, MICHIGAN

PLANNING COMMISSION RESOLUTION TO ADOPT MASTER PLAN

WHEREAS, the Michigan Planning Enabling Act (MPEA) authorizes the Planning Commission to prepare a Master Plan for the use, development and preservation of all lands in the Township; and

WHEREAS, the Planning Commission prepared a proposed new Master Plan and submitted the plan to the Township Board for review and comment; and

WHEREAS, on March 9, 2009, the Harrison Township Board received and reviewed the proposed Master Plan prepared by the Planning Commission and authorized distribution of the Master Plan to the Notice Group entities identified in the MPEA; and

WHEREAS, notice was provided to the Notice Group entities as provided in the MPEA; and

WHEREAS, the Planning Commission held a public hearing on February 18, 2010 on the proposed new Master Plan to further review and receive comment on the proposed new Master Plan; and

WHEREAS, the Planning Commission finds that the proposed new Master Plan is desirable and proper and furthers the use, preservation, and development goals and strategies of the Township;

THEREFORE BE IT HEREBY RESOLVED AS FOLLOWS:

1. ***Adoption of 2010 Master Plan.*** The Planning Commission on this 18th day of February, 2010, hereby approves and adopts the proposed 2010 Master Plan, including all of the chapters, figures, maps and tables contained therein.

2. ***Distribution to Township Board and Notice Group.*** The Township Board has asserted by resolution its right to final approval or rejection of the proposed Master Plan.

3. ***Findings of Fact.*** The Planning Commission has reviewed existing land uses, existing Master Plan provisions and maps, received input from the Township Board, ZBA, CPM P.C., notice groups and the public, and finds that the new Master Plan will accurately reflect and implement the Township's goals and strategies for the use, preservation, and development of lands in Harrison Township.

The foregoing resolution offered by Commissioner Comerello.

Second offered by Commissioner Murray.

Upon roll call vote the following voted:

"Aye": Comerello, Murray, Brisak, Fowke, Bacha, Zingas

"Nay": None

Therefore it is resolved.

Carol Murray, Commission Secretary

CERTIFICATION

STATE OF MICHIGAN)
)SS
COUNTY OF MACOMB)

I, the undersigned, the duly elected Clerk of the Charter Township of Harrison, Macomb County, Michigan do hereby certify that the foregoing is a true and complete copy of a resolution adopted at a regular meeting of the Harrison Township Planning Commission held on the 18th, day of February, 2010.

IN WITNESS WHEREOF, I have hereunto affixed by official signature on the 16th day of March, 2010.

Jan P. Jorgensen, CMC, Clerk

Charter Township of Harrison

Master Plan

2010

Prepared by:

CHARTER TOWNSHIP OF HARRISON PLANNING COMMISSION

Adopted by:

CHARTER TOWNSHIP OF HARRISON BOARD OF TRUSTEES

Assisted by:

Community Planning & Management, P.C.
30464 23 Mile Road
Chesterfield Township, Michigan 48047

Adopted March 8, 2010

Charter Township of Harrison

Supervisor
Anthony G. Forlini

Clerk
Jan P. Jorgensen

Treasurer
Darrin S. York

Board of Trustees

Frank T. Kapral
Jack Swiatkowski
Lawrence Tomenello
Kenneth J. Verkest

Planning Commission

Maria Zingas, Chair
Mark Bacha, Vice Chair
Carol Murray, Secretary
Doug McDougal
John Bicsak
Bil Fowke
Lawrence Tomenello

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Harrison Township Master Plan

Section 1

Regional Analysis

INTRODUCTION

The growth and development of a community and its resultant land use pattern depends, in large part, on its position within the region in which it is located. This regional location is important to the understanding of its historical growth pattern and current condition. Further, the understanding of regional influences provides a basis for anticipating future growth patterns and trends.

While control over most land use decisions remains a matter of local choice, development patterns are often strongly influenced by decisions made on a State and regional scale. Frequently, such decisions are not subject to direct local input or control. For this reason, land use policies need to take regional influences into account.

The purpose of this initial chapter of the Harrison Township Master Plan is to identify those factors that influence growth in the southeast Michigan region and how they may impact future development patterns. This presentation will provide the background necessary to understand the dynamics of growth and change and provide a practical regional perspective for formulating future land use policies.

The following analysis will consider Harrison Township's location relative to southeast Michigan's principal growth corridors and how these corridors have influenced, and will likely continue to influence, future growth patterns. The report will also examine relevant State, County and regional plans or policies that may have some impact on future planning activities in Harrison Township.

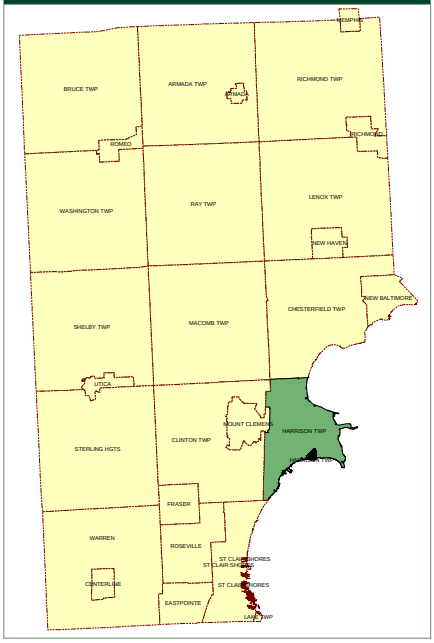
Historical Background

Harrison Township was first settled in 1754, but was not officially organized and recognized as a political entity until 1818. At the time of its formation as a Township, Harrison had 500 residents, most of which were French settlers.

Several attempts were made to establish cities along Lake St. Clair in the Township. The first of these attempts was the community of Belvidere, located at the mouth of the Clinton River. David and James Conger had this area platted as a village in 1835. By 1838, Belvidere (also known as "Huron Point") was abandoned due to large scale flooding.

Another attempt to create a community is "Liverpool", which was located near the intersection of Shook Road and Jefferson Avenue. Liverpool, named after the British city, was platted in 1856 by Edward Shook. The community declined when the principal form of transportation shifted from lake steamers to the electric inter-urban railway. For a more detailed account of the history of Harrison Township please refer to *Images of America, Harrison Township Michigan* by Marie Ling McDougal.

Illustration 1-1
Regional Location Map



Regional Location

Harrison Township is situated, in part, on a peninsula of land extending into Lake St. Clair in eastern Macomb County. The Clinton River bisects the Township as it flows toward the lake at the eastern end of the Township. Harrison is connected to the larger southeast Michigan region by the I-94 Freeway, located near the Township's western boundary, and by Metropolitan Beach Parkway, which ends at the entrance to the HCMA Metropark.

Regional Development Influences

Southeast Michigan Development Corridors

Within the southeast Michigan region, there are several principal corridors along which growth has traditionally occurred. Each of these corridors begins in Downtown Detroit, the historic center of the region, and radiates outward into the surrounding communities along established transportation routes. These corridors originally followed major surface streets, like the spokes of a wheel, from Downtown Detroit. Today, they largely parallel the interstate freeway system. These historic corridors are identified as follows.

1. Detroit to Mt. Clemens and Port Huron along, I-94 east and Gratiot Avenue.

2. Detroit to Utica and Romeo, along M-53 north (Van Dyke Avenue) and Mound Road.

3. Detroit to Pontiac and Flint, along I-75 north and Woodward Avenue.

4. Detroit to Brighton and Lansing, along I-96 west, the Lodge Fwy. and Grand River Ave.

5. Detroit to Ann Arbor and Jackson, along I-94 west and U.S.12 (Michigan Avenue).

6. Detroit to Monroe and Toledo, along I-75 south and Fort Street.

MACOMB COUNTY DEVELOPMENT CORRIDORS

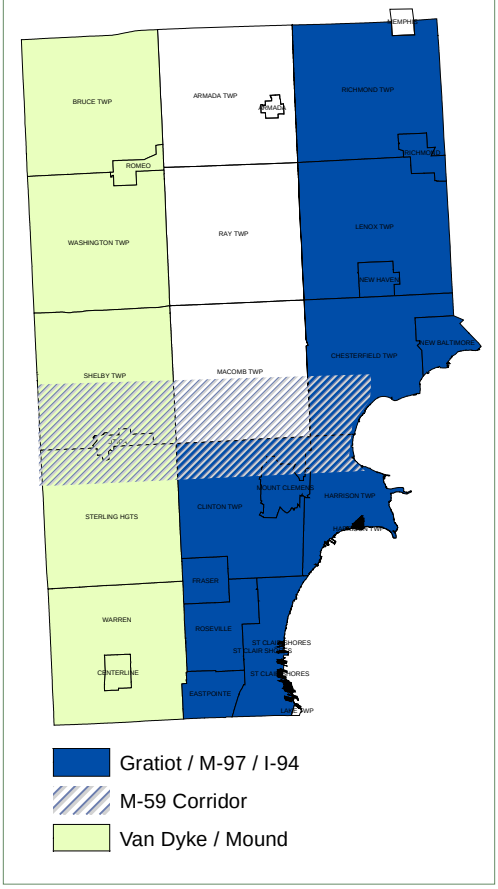
Population Growth Trends

Within Macomb County, growth traditionally occurred along the Lake St. Clair shoreline communities, which is consistent with historical urban settlement patterns. The establishment of Mt. Clemens as the County Seat also contributed to the predominant early development pattern along the eastern portion of the County.

Following the Second World War, most metropolitan areas experienced a sweeping wave of population migration from traditional central cities into emerging suburban communities. In Macomb County, this migration first occurred within those suburban communities located along the perimeter of Detroit. The second wave of suburban growth in the County accelerated north along the Van Dyke/Mound Road corridor in the western tier of communities.

By 1970, population levels in the western corridor communities (295,851 persons) nearly equaled the population along the eastern or shoreline communities (317,693). During the 1970's, population growth in the western corridor surpassed increases in the eastern communities. The 1980 Census revealed that the Van Dyke/ Mound Road communities had a slightly greater population (339,616 persons) than the eastern corridor (332,819 persons).

Illustration 1-2
Macomb County Growth Corridors



The dramatic growth experienced by the City of Warren during the 1960's, and Sterling Heights in the 1970's, accounts for this shift in population. For example, in the ten-year period between 1970 and 1980, Sterling Heights grew by more than 47,000 persons. This gain more than offset the population loss experienced by the City of Warren during the decade of the 1970's.

North of M-59, Shelby Township and Utica combined to report a population increase of 11,250 persons. Small increases were noted in those communities located north of 26 Mile Road. The increases do, however, provide evidence of a trend of population accelerating in a northerly direction within this corridor.

To the east, the greatest population increases also occurred in those communities located between 14 Mile Road and 26 Mile Road. Clinton Township (23,535 persons) and Chesterfield Township (8,898 persons) made the greatest contribution to the overall growth of this corridor during the decade. North of 26 Mile Road, the amount of growth was less than for the parallel communities to the west.

Table 1-1
Regional Growth Corridors
1970-1980

M-53/VAN DYKE/MOUND					I-94/GRATIOT/M-3				
	POPULATION		CHANGE			POPULATION		CHANGE	
COMMUNITY	1970	1980	Number	%	COMMUNITY	1970	1980	Number	%
Bruce Twp.	2,213	3,823	1,610	72.8	Richmond City	3,234	3,536	302	9.3
Romeo	4,012	3,509	- 503	-12.5	Richmond Twp.	1,719	2,453	734	42.7
32 Mile to 38 Mile	6,225	7,332	1,107	17.8	32 Mile to 38 Mile	4,953	5,989	1,036	20.9
Washington Twp.	5,651	8,637	2,986	52.8	Lenox Twp.	2,869	3,028	159	5.5
					New Haven	1,855	1,871	16	0.9
26 Mile to 32 Mile	5,651	8,637	2,986	52.8	26 Mile to 32 Mile	4,724	4,899	175	3.7
Shelby Twp.	29,467	38,939	9,472	32.1	Chesterfield Twp.	9,378	18,276	8,898	94.9
Utica	3,504	5,282	1,778	50.7	New Baltimore	4,132	5,439	1,307	31.6
M-59 to 26 Mile	32,971	44,221	11,250	34.1	M-59 to 26 Mile	13,510	23,715	10,205	75.5
Sterling Heights	61,365	108,999	47,634	77.6	Fraser	11,868	14,560	2,692	22.7
					Clinton Twp.	48,865	72,400	23,535	48.2
					Mt. Clemens	20,476	18,806	-1,670	-8.2
					Harrison Twp.	18,755	23,649	4,894	26.1
14 Mile to M-59	61,365	108,999	47,634	77.6	14 Mile to M-59	99,964	129,415	29,451	29.5
Center Line	10,379	9,293	-1,086	-10.5	East Detroit	45,920	38,280	-7,640	-16.6
Warren	179,260	161,134	-18,126	-10.1	Roseville	60,529	54,311	-6,218	-10.3
					St. Clair Shores	88,093	76,210	-11,883	-13.5
8 Mile to 14 Mile	189,639	170,427	-19,212	-10.1	8 Mile to 14 Mile	194,542	168,801	-25,741	-13.2
TOTALS	295,851	339,616	43,765	14.8	**TOTALS**	317,693	332,819	15,126	4.8

Results from the 1990 census indicated a leveling off of the explosive growth that occurred within the western corridor. Eastern corridor communities out-gained their counterparts in the west over the past decade. These two portions of the County share nearly equal population levels in the early 1990's. See Table 2 below.

Between 1980 and 1990, lesser population increases were observed in both corridors. For example, Sterling Heights reported a population increase of 8,811 persons, down from 47,634 the previous decade. Shelby Township, on the other hand, matched the increase that occurred during the 1970's, providing additional evidence of the continued movement of population northward.

Chesterfield and Clinton Townships continued to be the major contributors to growth in the eastern corridor. These two communities experienced population increases of 7,629 and 13,466 persons, respectively, over the ten years leading up to 1990.

Table 1-2
Regional Growth Corridors
1980-1990

M-53/VAN DYKE/MOUND					I-94/GRATIOT/M-3				
	POPULATION		CHANGE			POPULATION		CHANGE	
COMMUNITY	1980	1990	Number	%	COMMUNITY	1980	1990	Number	%
Bruce Twp.	3,823	4,193	370	9.7	Richmond City	3,536	4,141	605	17.1
Romeo	3,509	3,520	11	0.3	Richmond Twp.	2,453	2,528	75	3.1
32 Mile to 38 Mile	7,332	7,713	381	5.2	32 Mile to 38 Mile	5,989	6,669	680	11.4
Washington Twp.	8,637	11,386	2,749	31.8	Lenox Twp.	3,028	3,069	41	1.4
					New Haven	1,871	2,331	460	24.6
26 Mile to 32 Mile	8,637	11,386	2,749	31.8	26 Mile to 32 Mile	4,899	5,400	501	10.2
Shelby Twp.	38,939	48,655	9,716	25.0	Chesterfield Twp.	18,276	25,905	7,629	41.7
Utica	5,282	5,081	-201	-3.8	New Baltimore	5,439	5,798	359	6.6
M-59 to 26 Mile	44,221	53,736	9,515	21.5	M-59 to 26 Mile	23,715	31,703	7,988	33.7
Sterling Heights	108,999	117,810	8,811	8.1	Fraser	14,560	13,899	-661	-4.5
					Clinton Twp.	72,400	85,866	13,466	18.6
					Mt. Clemens	18,806	18,405	-401	-2.1
					Harrison Twp.	23,649	24,685	1,036	4.4
14 Mile to M-59	108,999	117,810	8,811	8.1	14 Mile to M-59	129,415	142,855	13,440	10.4
Center Line	9,293	9,026	-267	-2.9	East Detroit	38,280	35,283	-2,997	-7.8
Warren	161,134	144,864	-16,270	-10.1	Roseville	54,311	51,412	-2,899	-5.3
					St. Clair Shores	76,210	68,107	-8,103	-10.6
8 Mile to 14 Mile	170,427	153,890	-16,537	-9.7	8 Mile to 14 Mile	168,801	154,802	-13,999	-8.3
TOTALS	339,616	344,535	4,919	1.4	**TOTALS**	332,819	341,429	8,610	2.6

Results from the 2000 Census reveal that the western corridor communities have surpassed the growth experienced in the eastern corridor, similar to that seen between 1970 and 1980. The data further emphasizes the continued population growth in the northern portion of both the eastern and western corridors between 1990 and 2000. Shelby Township and Chesterfield Township increased by 16,504 and 11,500 persons, respectively, during this ten-year span. Population decreases can be seen in many of the southern communities, such as Warren, St. Clair Shores, and Roseville.

Further examination of the overall population data reveals that all communities located between 8 Mile Road and 14 Mile Road have experienced continued declines in population over the 30 year time span between 1970 and 2000. The City of Mount Clemens is the only other community in the county that has experienced a decline each decade since 1970.

Table 1-3
Regional Growth Corridors
1990-2000

M-53/VAN DYKE/MOUND					I-94/GRATIOT/M-3				
	POPULATION		CHANGE			POPULATION		CHANGE	
COMMUNITY	1990	2000	Number	%	COMMUNITY	1990	2000	Number	%
Bruce Twp.	4,193	6,434	2,241	53.4	Richmond City	4,141	4,809	668	16.1
Romeo	3,520	3,601	81	2.3	Richmond Twp.	2,528	3,263	735	29.1
32 Mile to 38 Mile	7,713	10,035	2,322	30.1	32 Mile to 38 Mile	6,669	8,072	1,403	21.0
Washington Twp.	11,386	18,799	7,413	65.1	Lenox Twp.	3,069	5,390	2,321	75.6
					New Haven	2,331	2,747	416	17.8
26 Mile to 32 Mile	11,386	18,799	7,413	65.1	26 Mile to 32 Mile	5,400	8,137	2,737	50.7
Shelby Twp.	48,655	63,605	14,950	30.7	Chesterfield Twp.	25,905	36,380	10,475	40.4
Utica	5,081	4,735	-346	-6.8	New Baltimore	5,798	7,610	1,812	31.3
M-59 to 26 Mile	53,736	68,340	14,604	27.2	M-59 to 26 Mile	31,703	43,990	12,287	38.8
Sterling Heights	117,810	119,922	2,112	1.8	Fraser	13,899	14,667	768	5.5
					Clinton Twp.	85,866	92,708	6,842	8.0
					Mt. Clemens	18,405	16,500	-1,905	-10.4
					Harrison Twp.	24,685	24,851	166	0.7
14 Mile to M-59	117,810	119,922	2,112	1.8	14 Mile to M-59	142,855	148,726	5,871	4.1
Center Line	9,026	8,214	-812	-9.0	Eastpointe	35,283	31,657	-3,626	-10.3
Warren	144,864	132,238	-12,626	-8.7	Roseville	51,412	47,808	-3,604	-7.0
					St. Clair Shores	68,107	61,305	-6,802	-10.0
8 Mile to 14 Mile	153,890	140,452	-13,438	-8.7	8 Mile to 14 Mile	154,802	140,770	-14,032	-9.1
TOTALS	344,535	357,548	13,013	3.8	**TOTALS**	341,429	349,695	8,266	2.4

Housing Unit Trends - In recent decades, population change alone has proven not to be the most accurate barometer of community growth and vitality. Much of the population decline experienced by the ring of maturing suburban communities surrounding Detroit is the result of declines in household size, rather than an exodus of residents from the community. Population decline should, therefore, not necessarily be interpreted as an indicator of community decline. Frequently, a community will experience an increase in the number of households concurrently with a decline in population. For this reason, housing unit growth trends are considered to be a more valid measure of growth.

Applying this measure of growth to the two identified Macomb County growth corridors reveals an overall balance between these two areas. Between 1970 and 1980, western corridor communities held a slight edge in the number of new housing units constructed. In spite of this increase, the eastern communities had some 5,000 more housing units.

Table 1-4
Regional Housing Growth
Corridors 1970-1980

M-53/VAN DYKE/MOUND					I-94/GRATIOT/M-3				
	HOUSING UNITS		CHANGE			HOUSING UNITS		CHANGE	
COMMUNITY	1970	1980	Number	%	COMMUNITY	1970	1980	Number	%
Bruce Twp./ Romeo	1,179	1,825	646	54.8	Richmond City	982	1,282	300	30.5
					Richmond Twp.	434	676	242	55.8
32 Mile to 38 Mile	1,179	1,825	646	54.8	32 Mile to 38 Mile	1,416	1,958	542	38.3
Washington Twp./ Romeo	2,171	3,322	1,151	53.0	Lenox Twp.	770	919	149	19.4
					New Haven	508	613	105	20.7
26 Mile to 32 Mile	2,171	3,322	1,151	53.0	26 Mile to 32 Mile	1,278	1,532	254	19.9
Shelby Twp.	7,571	12,319	4,748	62.7	Chesterfield Twp.	2,789	6,075	3,286	117.8
Utica	1,265	1,952	687	54.3	New Baltimore	1,353	2,118	765	56.5
M-59 to 26 Mile	8,836	14,271	5,435	61.5	M-59 to 26 Mile	4,142	8,193	4,051	97.8
Sterling Heights	17,571	34,517	16,946	96.4	Fraser	3,067	4,832	1,765	57.5
					Clinton Twp.	13,436	24,752	11,316	84.2
					Mt. Clemens	6,823	7,363	540	7.9
					Harrison Twp.	5,797	9,332	3,535	61.0
14 Mile to M-59	17,571	34,517	16,946	96.4	14 Mile to M-59	29,123	46,279	17,156	58.9
Center Line	3,129	3,642	513	16.4	East Detroit	13,214	13,458	244	1.8
Warren	49,609	54,532	4,923	9.9	Roseville	16,751	18,491	1,740	10.4
					St. Clair Shores	24,882	27,154	2,272	9.1
8 Mile to 14 Mile	52,738	58,174	5,436	10.3	8 Mile to 14 Mile	54,847	59,103	4,256	7.8
TOTALS	82,495	112,109	29,614	35.9	**TOTALS**	90,806	117,065	26,259	28.9

During the 1980's, over 18,000 new units were added in the eastern communities, giving them an edge in the total number of dwelling units. Sterling Heights, Warren and Shelby Township made the greatest contribution to the housing unit increases that occurred in the western corridor during the 1970's. Nearly 90 percent of the total increase took place in those three communities. The greatest contributors to the housing unit growth in the eastern corridor were Chesterfield, Clinton and Harrison Townships. Collectively, these three communities accounted for nearly 70 percent of the corridor's total housing unit increase for the decade.

Following the pattern of the previous decade, Sterling Heights and Shelby Township again made the greatest contribution to total housing unit gain. To the east, Clinton Township, Chesterfield Township and the City of Roseville had the greatest housing unit increases during the 1980's.

Table 1-5
Regional Housing Growth Corridors 1980-1990

M-53/VAN DYKE/MOUND					I-94/GRATIOT/M-3				
	HOUSING UNITS		CHANGE			HOUSING UNITS		CHANGE	
COMMUNITY	1980	1990	Number	%	COMMUNITY	1980	1990	Number	%
Bruce Twp./ Romeo	1,825	2,062	237	13.0	Richmond City Richmond Twp.	1,282 676	1,662 783	380 107	29.6 15.8
32 Mile to 38 Mile	1,825	2,062	237	13.0	32 Mile to 38 Mile	1,958	2,445	487	24.9
Washington Twp./ Romeo	3,322	4,668	1,346	40.5	Lenox Twp. New Haven	919 613	1,018 824	99 211	10.8 34.4
26 Mile to 32 Mile	3,322	4,668	1,346	40.5	26 Mile to 32 Mile	1,532	1,842	310	20.2
Shelby Twp. Utica	12,319 1,952	17,630 1,962	5,311 10	43.1 0.5	Chesterfield Twp. New Baltimore	6,075 2,118	9,594 2,459	3,519 341	57.9 16.1
M-59 to 26 Mile	14,271	19,592	5,321	37.3	M-59 to 26 Mile	8,193	12,053	3,860	47.1
Sterling Heights	34,517	42,317	7,800	22.6	Fraser Clinton Twp. Mt. Clemens Harrison Twp.	4,832 24,752 7,363 9,332	5,342 33,938 7,727 10,616	510 9,186 364 1,284	10.6 37.1 4.9 13.8
14 Mile to M-59	34,517	42,317	7,800	22.6	14 Mile to M-59	46,279	57,623	11,344	24.5
Center Line Warren	3,642 54,532	3,986 56,189	344 1,657	9.4 3.0	East Detroit Roseville St. Clair Shores	13,458 18,491 27,154	13,684 20,025 27,929	226 1,534 775	1.7 8.3 2.9
8 Mile to 14 Mile	58,174	60,175	2,001	3.4	8 Mile to 14 Mile	59,103	61,638	2,535	4.3
TOTALS	112,109	128,814	16,705	14.9	**TOTALS**	117,065	135,601	18,536	15.8

Results from the 2000 Census indicate that during the ten-year span between 1990 and 2000, the western corridor communities equaled the growth in housing units experienced in the eastern corridor. Shelby Township and Sterling Heights make the greatest contribution to the housing unit increases in the western corridor with approximately 74 percent of the corridor's total housing unit increase. In the eastern corridor, Clinton Township and Chesterfield Township provide the greatest housing unit increases.

Table 1-6
Regional Housing Growth Corridors 1990-2000

M-53/VAN DYKE/MOUND					I-94/GRATIOT/M-3				
	HOUSING UNITS		CHANGE			HOUSING UNITS		CHANGE	
COMMUNITY	1990	2000	Number	%	COMMUNITY	1990	2000	Number	%
Bruce Twp./ Romeo	2,062	2,919	857	41.6	Richmond City Richmond Twp.	1,662 783	2,061 1,060	399 277	24.0 35.3
32 Mile to 38 Mile	2,062	2,919	857	41.6	32 Mile to 38 Mile	2,445	3,121	676	27.6
Washington Twp./ Romeo	4,668	7,317	2,649	56.7	Lenox Twp. New Haven	1,018 824	2,646 1,138	1,628 314	159.9 38.1
26 Mile to 32 Mile	4,668	7,317	2,649	56.7	26 Mile to 32 Mile	1,842	3,784	1,942	105.4
Shelby Twp. Utica	17,630 1,962	25,265 2,005	7,905 43	44.8 2.2	Chesterfield Twp. New Baltimore	9,594 2,459	13,967 3,218	4,373 759	45.6 30.9
M-59 to 26 Mile	19,592	27,270	7,678	39.2	M-59 to 26 Mile	12,053	17,185	5,132	42.6
Sterling Heights	42,317	47,547	5,230	12.4	Fraser Clinton Twp. Mt. Clemens Harrison Twp.	5,342 33,938 7,727 10,616	6,178 41,803 7,546 11,486	836 7,865 -181 870	15.6 23.2 -2.3 8.2
14 Mile to M-59	42,317	47,547	5,230	12.4	14 Mile to M-59	57,623	67,013	9,390	16.3
Center Line Warren	3,986 56,189	3,916 57,248	-70 1,060	-1.8 1.9	East Detroit Roseville St. Clair Shores	13,684 20,025 27,929	13,965 20,519 28,208	281 494 279	2.1 2.5 .9
8 Mile to 14 Mile	60,175	61,165	990	1.6	8 Mile to 14 Mile	61,638	62,692	1,054	1.7
TOTALS	128,814	146,218	17,404	13.5	**TOTALS**	135,601	153,795	18,194	13.4

M-59 Growth Corridor

As reflected in the preceding analysis, the rapid rate of population and housing growth experienced by communities in western Macomb County over the past 20 to 30 years has brought both growth corridors into close proximity in the number of residents and total housing units. The pace of population and housing unit change experienced by these two corridors does not, however, fully explain overall County growth patterns, for an east-west corridor has emerged along M-59. This corridor provides a bridge across the County, linking the east and the west.

The communities most impacted by this corridor include Shelby Township, Clinton Township, Sterling Heights, Utica, Macomb Township and Clinton Township. Collectively, these communities, excluding the City of Utica, experienced a population gain of 48,106 persons during the past decade. More than 28,000 new housing units were constructed in these communities since 1980, accounting for more than 80 percent of the total population and housing unit and population increases for both corridors. Communities located proximate to M-59 are clearly positioned to be further impacted by future County development trends.

Table 1-7
M-59 Growth Corridor 1990-2000

	HOUSING UNITS		CHANGE		POPULATION		CHANGE	
Community	**1990**	**2000**	**Number**	**%**	**1990**	**2000**	**Number**	**%**
Chesterfield Township	9,594	13,967	4,373	45.6	25,905	37,405	11,500	44.4
Macomb Township	7,562	17,922	10,360	137.0	22,714	50,478	27,764	122.2
Clinton Township	33,938	41,803	7,865	23.2	85,866	95,648	9,782	11.4
Sterling Heights	42,317	47,547	5,230	12.4	117,810	124,471	6,661	5.7
Utica	1,962	2,005	43	2.2	5,081	4,577	-504	-9.9
Shelby Township	17,630	25,265	7,635	43.3	48,655	65,159	16,504	33.9
TOTALS	113,003	148,509	35,506	31.4	306,031	377,738	71,707	23.4

Conclusions

As County development patterns continue to accelerate in a northerly direction along both corridors, communities to the south will continue to be less impacted by the influence of these corridors and will make smaller contributions to population and housing unit increases experienced by corridor communities as a whole. Harrison Township is a unique example of this trend.

During the 1970's, for example, Harrison's population increased by 4,894 persons. Then in the 80's, the Township experienced an increase of 917 persons. Over the past decade the Township actually saw a loss in population of 224 persons. This trend is similarly reflected in housing unit increases. Between 1970 and 1980, Harrison had a housing unit gain of 3,535 units, or some 13 percent of the total increase reported for the eastern corridor as a whole. During the 80's, the gain in housing units was only 1,244, or seven percent of the corridor's total gain. Over the past decade the Township saw an increase of only 870 housing units.

These trends suggest that the Township can expect more modest population and housing unit increases in the future. The impact of growth in the M-59 corridor on Harrison Township is somewhat blocked by the location of the Selfridge Air National Guard Base. The mass of the air base preempts the access and development of adjoining land and the balance of the Township over to the south.

REGIONAL DEVELOPMENT INFLUENCES

Southeast Michigan Council of Governments (SEMCOG)

SEMCOG is the principal regional planning agency serving the seven-county southeast Michigan region. Its main role is to foster inter-governmental cooperation and to coordinate planning activities that are regional in scope. SEMCOG's principal planning activities involve the following areas: transportation, community/economic development, water/air quality, solid waste disposal, sewage treatment, storm drainage, public safety, and land use. SEMCOG also maintains the region's most extensive data base used for planning and economic development purposes. Several of SEMCOG's activities have some influence on Harrison Township, either directly or indirectly. Relevant regional plans and policies influencing the community are identified below.

Sewer Service Area Map

A revised sewer service area map was adopted by SEMCOG's General Assembly in 2002. This map was prepared in response to increased concerns regarding urban sprawl and the corresponding impact that this growth has on the cost of extending public utilities. The map recognizes that urbanization is highly dependent on the availability of utilities, and seeks to direct growth to areas where existing sewer lines and available treatment capacity are currently available.

The only portions of Harrison Township that are not located within either existing or proposed sewer service areas are portions of the Selfridge Air National Guard Base and the Metro Beach Metro Park.

Transportation Planning

Southeast Michigan's road system provides the physical linkage that ties the region together. By its very nature, this system is regional in scope. SEMCOG plays an important role in coordinating the regional planning process for expanding and improving this system.

The primary purpose of SEMCOG's transportation planning system is to identify the region's major transportation system deficiencies and to recommend solutions for addressing these problems. SEMCOG's present Regional Transportation Plan (RTP) considers long-range transportation planning needs to the year 2030. These needs are based on projected population, household, and employment forecasts for each of the region's 223 units of government. The Plan also identifies improvement corridors which are those regional arterials which demonstrate the greatest need for additional traffic capacity.

Several of these corridors are located within or proximate to the Township and, therefore, have some impact on the community. The following RTP improvements, located in or near the Township are listed below:

- Metropolitan Parkway (From Harper to I-94) - Widen from 4 to 6 lanes.
- Jefferson (From Crocker to 16 Mile Rd.) - Widen from 2 to 5 lanes.
- Jefferson (From 16 Mile Rd. to S. River Rd.) - Widen from 2 to 5 lanes.
- S. River Road (From Bridgeview to Jefferson) - Widen from 2 to 3 lanes.
- S. River Road (From I-94 to Bridgeview) - Widen from 2 to 3 lanes.
- S. River Road (From Jefferson to Terminus) - Widen from 2 to 3 lanes.

Regional Development Forecasts

Every five years, SEMCOG prepares a series of population, household and employment forecasts on a regional, County and individual community basis. These forecasts are prepared for each five-year interval between 2000 and 2030. The results of this process for Harrison Township are reflected in the following figures. Moderate population, household and employment growth for Harrison is anticipated by SEMCOG. By the year 2030, the number of Township residents and households are expected to increase nominally to 24,881 and 12,366, respectively. The number of persons employed at locations in the Township is projected to increase to 9,910 by the year 2010. These forecasts will be evaluated and compared to other available projections in other phases of the planning process.

Suburban Mobility Authority for Regional Transportation (SMART)

SMART is the agency responsible for providing mass transportation services to the three-County Metropolitan Detroit area. The main component of SMART's service to the region consists of a network of bus routes. Other services provided by SMART include a connector service and community transit service, which provides a more specialized type of service. This is particularly useful for meeting the transportation needs of senior citizens and the handicapped.

The community transit service offers Dial-a-Ride, Shopping Shuttle and summer beach shuttles. This service is exclusive to the 60+ and handicapped residents of Harrison Township.

Harrison Township is connected to the SMART bus system via the Jefferson Express route(635). It provides transit service between Crocker/Metropolitan Beach Parkway and Grand Circus Park in Downtown Detroit. Selected trips are also available with the Harper route (580) and the Gratiot route (560).

Huron-Clinton Metropolitan Authority (HCMA)

The Huron-Clinton Metropolitan Authority operates two regional park facilities in Macomb County: Stony Creek Metropark in Washington and Shelby Townships, and Metropolitan Beach Metropark in Harrison Township. These two parks offer a wide range of recreational opportunities for residents throughout the County and region. Metropolitan Beach occupies a large portion of eastern Harrison Township. The location of this facility in the community has a significant influence on the Township's long-term land use and transportation pattern.

HCMA is also responsible for coordinating the implementation of a regional hike-bike path through central Macomb County. The main purpose of this system is to provide a non-motorized pedestrian and bicycle path connection between existing and planned major recreation facilities in this portion of the County. It will accomplish this by developing new paths that will connect with those that currently exist in the area.

This system will provide a connecting loop from the existing Harrison Township bike path extending from Metropolitan Beach in Harrison Township along Metropolitan Beach Parkway, to Freedom Hill Park in Sterling Heights. From there, it will proceed north to the Clinton River Valley, where it will connect into the City of Sterling Height's path system in Dodge Park and Clinton River Park. It will continue in a northwesterly direction along the river, through the Rochester Utica Recreation area, to the entrance of Stony Creek Park in Shelby Township and Washington Township.

The next leg of this path will extend along 26 Mile Road as far east as Wetzel State Park, with a branch (Macomb Orchard/29 Mile Road) providing access to Romeo and eventually Wolcott Mill Metropark. The Plan is to provide a loop system that will circulate throughout Macomb County.

Michigan Department of Transportation and Road Commission of Macomb County

Future land use patterns are impacted and influenced by improvements to the regional highway system. Within Macomb County, the Michigan Department of Transportation and the Road Commission of Macomb County exercise the greatest amount of control over future transportation routes.

Planned improvements to the Macomb County road system are reflected in the County's Long Range Master Plan 2004-2030, which identifies needed improvements from the current until 2030. A major component of this plan is the completion of the County's master grid road system. The intent of this system is to provide improved accessibility within the County and to connect major employment centers to the developed State trunkline system. Some important components of the County's long-range plan include improvements to the following:

- Completing the widening of 23 Mile Road.
- Widening 26 Mile Road.
- Widening North Avenue from Hall Road to 23 Mile Road.
- Widening Romeo Plank from Cass to 23 Mile Road.

The Plan does not include any road widening or extension projects for Harrison Township in the short, medium or long-term sections, although a number of bridges and intersections are targeted for study.

Shoreline Influences

Because of it location, Harrison Township is influenced by its proximity to Lake St. Clair, which is part of the large Great Lakes system. Regulation of land use activities along the shoreline of Lake St. Clair and navigable waterways along this system is, in part, the responsibility of the U.S. Army Corps of Engineers and the Michigan Department of Natural Resources, which share permit responsibilities.

The Corps of Engineers has regulated activities along this Nation's waterway system since the latter part of the 19th century. Until 1960, the Corps' principal responsibility was to protect navigation. This responsibility has since been widened to include the long-term protection and utilization of our water resources. The Corps has regulatory responsibility in the following areas: 1) prohibiting the obstruction of navigable waters, and 2) the discharge of dredged materials. The Corps of Engineers' permit process is coordinated with the Michigan Department of Natural Resources.

The regulatory responsibility of both agencies impacts those property owners who have frontage on the lake or connecting navigable waterways. Foremost among these connecting channels is the Clinton River, which bisects Harrison Township. Any construction altering the shoreline, including filling, seawall, docks, or boat houses requires a permit prior to any construction taking place.

Harrison Township is also influenced by the fluctuation of water levels in Lake St. Clair and periodic flooding levels along the shoreline. Periodic fluctuation in the level of Lake St. Clair, both seasonal and long-term, could have a significant impact on the community. The Township, however, has no control over the natural processes influencing lake levels.

Macomb County Planning Commission

The Macomb County Planning Commission plays an important role in the County planning and development process. Rather than developing County-wide plans or growth policies, the Macomb County Planning Commission has sought to assist local units of governments establish their own land use goals and plans. This is accomplished by providing local planning commissions with a range of resources to help facilitate better planning. Among the many services provided by the County are economic development assistance, coordination of the subdivision review process, aerial photography, and GIS mapping resources.

Most recently, the County has created a Potential Conservation/Natural Areas Report that outlines critical environmental areas throughout the County. Other reports include a regional pathway study and several suggested ordinance drafts for natural feature preservation.

Air Installation Compatible Use Zone(s) (AICUZ)

In May of 1999, the Department of the Air Force published its newest AICUZ Study for Selfridge Air National Guard Base (SANG). This study applied Air Force experience standards to the lands generally north and south of Selfridge Field. The standards involved accident potential (shown at right) and noise impacts, which are identified on a noise contour map within the AICUZ study. Based on the flight patterns at SANG, certain zones were derived, and the Air Force made detailed recommendations concerning land usage within these districts. The study identifies three (3) zones in which to coordinate with land use decisions. The zones are as follows:

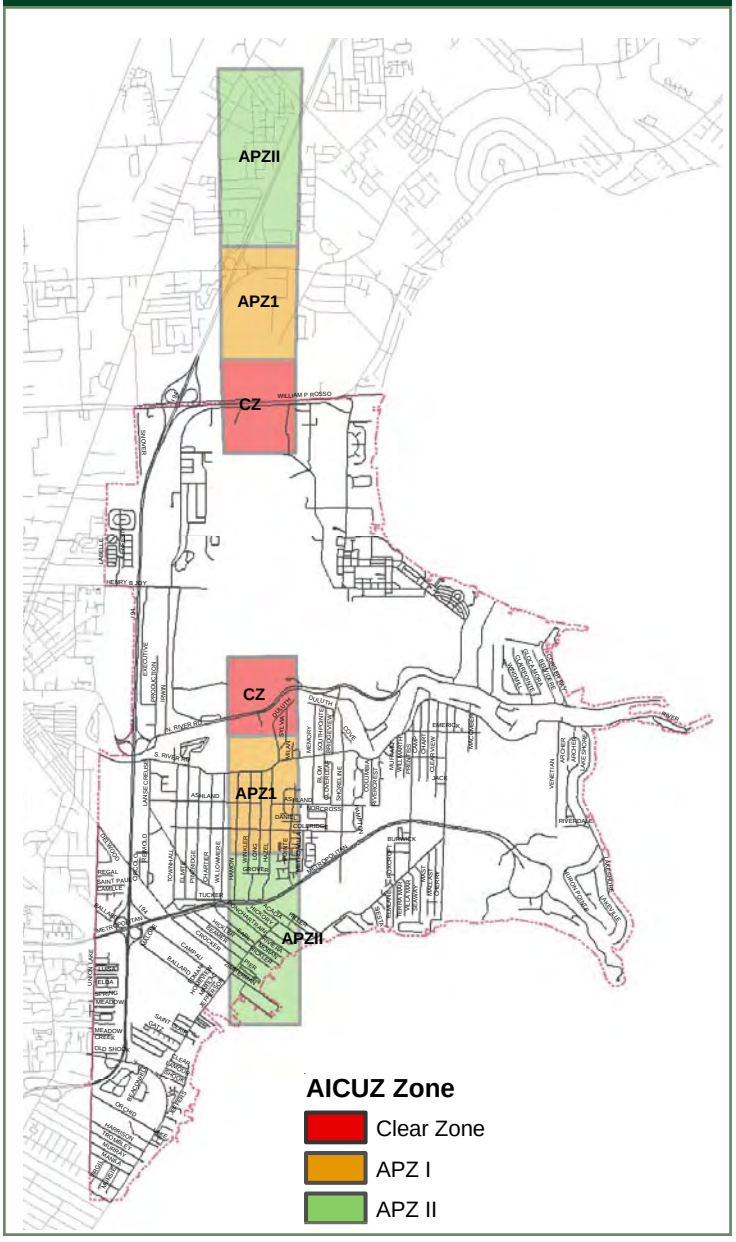
- **Clear Zone (CZ)** -These are areas located near each end of the runway. The areas are noted as the most hazardous with regard to the relative potential for accidents. CZ areas are generally acquired by the Department of Defense to prevent development.

- **Accident Potential Zone 1 (APZ I)** -This area falls beyond the CZ, but still possesses a high potential for accidents.

- **Accident Potential Zone 2 (APZ II)** -This area is beyond APZ I and has a "measurable" potential for accidents.

Lands located in APZ I and APZ II do not necessarily warrant acquisition, however, the study strongly encourages land use planning and controls for the protection of the public. The study provides an extensive list of land uses and the compatibility of such uses with the various zones outlined above.

Illustration 1-3
AICUZ Compatible Use Zones



While the AICUZ study is not binding on the local communities and does not carry the force of law, it does effect development. Since its publication, Harrison Township has attempted to coordinate land use with the AICUZ recommendations and the development community. The Township, in many cases, has been forced to negotiate a best case deal due to existing development patterns, previous land use decisions and market trends.

There is little doubt that the present operation of Selfridge Air National Guard Base has a substantial impact on the quality, rate, and extent of development within Harrison Township. Any changes to the use of this facility, either for military or other purposes, will need to be monitored closely to determine the potential future impact on the Township.

LOCAL PLANNING INFLUENCES

In addition to the broader regional planning concerns identified in this report, Harrison Township is also influenced by land use activities occurring in neighboring communities. Frequently, the planning policies of neighboring communities can have a significant influence on the future development of property on the opposite side of the municipal boundary. The master plans of those communities sharing a common boundary with Harrison Township were examined to identify their potential impact on the community.

Harrison Township shares a common boundary with Chesterfield Township on the north, Mt. Clemens and Clinton Township on the west, and St. Clair Shores on the south. Relevant planning polices of these communities, as they relate to Harrison Township, are described below.

Chesterfield Township

Chesterfield and Harrison abut one another along Rosso Highway. The influence of Chesterfield Township's planning policies on Harrison is somewhat muted by the location of Selfridge Air National Guard Base along the south side of this boundary. Industrial uses are planned along Rosso Highway, between I-94 and Jefferson Avenue. Marina development is proposed for the southeast corner of the Township, along the Lake St. Clair shoreline. While industrial development was planned from the Macomb Township boundary to I-94, Chesterfield has a mixed-use PUD, which includes a shopping center, restaurants and a big-box use. Similarly, on the east side of I-94, the Township has approved a PUD that will permit commercial developments along the southern areas of the property and industrial further north.

Mt. Clemens

The I-94 Freeway, between Joy Road on the north and the Clinton River on the south, forms the boundary between Harrison Township and the City of Mt. Clemens. This portion of the City is planned and developed for industrial purposes. Also, the downtown area of Mt. Clemens is less than one (1) mile from the Harrison Township boundary. With a centralized concentration of restaurants and bars, the downtown acts as an entertainment destination place for Harrison Township residents.

St. Clair Shores

Harrison shares a small boundary, approximately one-quarter mile in length, with the City of St. Clair Shores to the south. These two communities are linked by Jefferson Avenue, which runs parallel to the Lake St. Clair shoreline. This portion of St. Clair Shores is zoned for single-family residential purposes.

Clinton Township

Clinton Township shares an irregular boundary with Harrison, which is interrupted by the City of Mt.Clemens. A range of different land uses are planned for along this boundary. Industrial development is planned in the northeast section of Clinton Township, where it abuts Harrison. Residential uses, including both single and multiple-family development is proposed south of this industrial area.

South of the Clinton River, a large area of single-family development is noted, both north and south of Crocker Blvd. Multiple-family development is the most predominant planned land use pattern south of the spillway to Shook Road. A small industrial area is shown between Shook Road and I-94. The remaining portion of this common boundary is planned for single-family homes.

CONCLUSION

There is an interaction between adjacent communities and the uses they place on one another's boundaries. Sometimes the influence is subtle; a corner commercial facility in one community may well spawn a similar use in the adjacent community. If there is not agreement on land use policy, neighboring uses may evoke a transitional or buffer response across boundary lines. The industrial development in Clinton Township, south of Shook Road, evoked a similar change in zoning in Harrison Township. Uses in Chesterfield Township to the north may have such an influence if development ever takes place on Selfridge Air National Guard Base.

Regional development influences provide opportunities for each local unit of government. Planning should be imaginative and foster a quality response to each identifiable regional initiative.

Harrison Township Master Plan

Section 2

Physical Features Analysis

INTRODUCTION

The purpose of this study is to discuss the inventory of physical features in Harrison Township that have the potential of influencing the location and character of development. Specific topics covered in this inventory include geology, topography, soils, water, woodlands and wetlands.

Existing physical features exert important influences in shaping the development of any specific area. They are nature's contribution to the Township's environment. Collectively, these features can determine the overall physical character of the community.

When integrated thoughtfully into development proposals, physical features serve to enhance the character and appearance of the constructed environment. Conversely, ignoring physical features, or misusing them, can have significant, long-term negative consequences. Some well-defined physical features serve as a barrier to development and may be difficult to overcome, except at considerable expense. It is usually better to design with nature than to attempt to substantially change an area's physical environment.

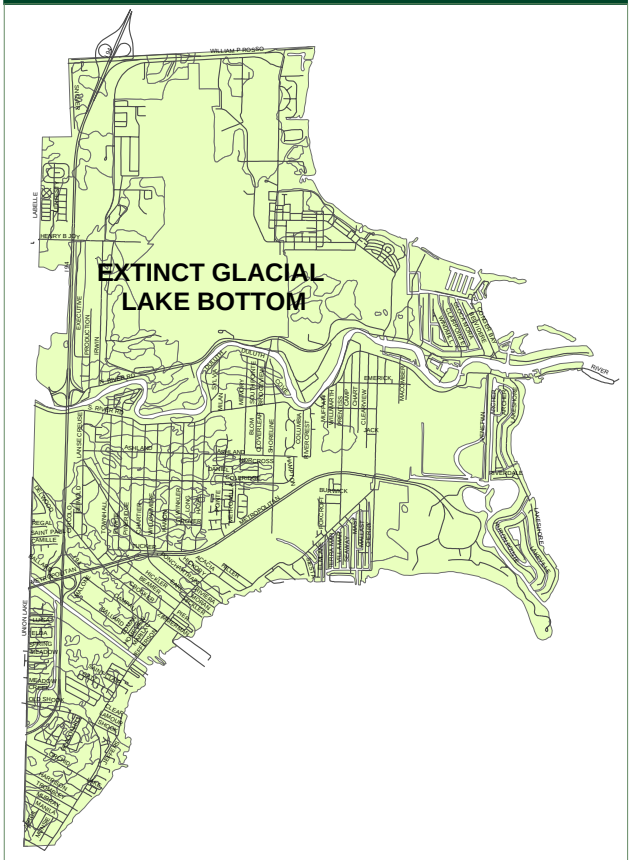
GEOLOGY

Michigan's physical setting, as we know it today, including the Great Lakes that surround the State, is the result of the interaction of glacial action on the bedrock formation that underlay the State. These bedrock formations consist largely of sandstone, limestone and shale, which were particularly vulnerable to the weight and movement of the glaciers. The movement and weight of the glaciers depressed the land mass surrounding Michigan, forming basins that eventually became the Great Lakes.

Harrison Township lies in an ancient lake bed covered by glacial material. This is part of a larger area known as the Erie-St. Clair Plain, which extends inland from the shoreline for a distance of approximately 25 miles. The plain stretches from Lake Huron on the north to Toledo on the south. It also extends east into Canada, encompassing the entire "panhandle" portion of southern Ontario. This plain is nearly level, rising gradually to the northwest. This plain was once the bottom of a large lake which existed during the last period of glacial action in the region. It is crossed by numerous channels which empty into the Great Lakes.

The Township's geological features explain some of Harrison's other physical characteristics, most notably its topography and flood hazard areas.

Illustration 2-1
Surface Geology



TOPOGRAPHY

Topographic conditions can have a significant influence on land development patterns. Topography, for example, can impact the site location, orientation and design of buildings, roads and utilities. Where topography is extreme, slopes become an important consideration due to concerns relating to the ability of the land to bear the weight of buildings and the danger of erosion. Sometimes, topographic variations offer opportunities to appreciate the scenic environment. The absence of significant changes in topography can result in the need for man-made drainage improvements.

Harrison Township's topography is a direct consequence of the glacial actions described earlier and its location on a broad, level glacial plain. The Township is nearly level, with a difference in elevation of less than 15 feet between its highest and lowest points. The lack of any significant changes in topography influences the drainage of storm water, which moves slowly toward the Clinton River and Lake St. Clair.

WATER

Surface water exists in many forms, such as lakes, rivers, creeks and open storm drains. Harrison Township contains a high proportion of these features. The most notable of these are Lake St. Clair, the Clinton River, and the Spillway (pictured).

The eastern boundary of the Township is formed by Lake St. Clair and Anchor Bay. The Clinton River flows through the community in an easterly direction, eventually emptying into Lake St. Clair at the Township's easterly-most point. The Clinton River spillway crosses the southeastern corner of the Township. Numerous man-made canals are present in many of the single-family subdivisions located proximate to the Lake. These canals provide a waterway system of channels for the pleasure boats owned by the residents of these neighborhoods.

The presence of an abundant amount of natural water bodies in and near Harrison Township is of great potential value as it applies to recreation and future development. Lake St. Clair has, in the past, been a strong attraction for both its recreational and aesthetic value. Since marinas and water-borne pleasure craft are increasing in number and popularity throughout the nation, it is evident that the Lake's attraction will increase in years to come. The location of the Clinton River in the Township also has an important significance for planning purposes. The River is also a physical barrier to the continuity of development. It also divides the residentially developed southern half of the Township from the northern half, which is dominated by the presence of Selfridge Air National Guard Base (S.A.N.G.B.).

Illustration 2-2
The Clinton River Spillway crosses the community in the area of Jefferson, south of Crocker

SOILS

Soil characteristics have an important influence on the ability of land to support various types of land uses, including roads, buildings, utilities and agriculture. Four specific soil characteristics influence their ability to be used for various purposes. These include the following:

- Bearing Capacity — the ability to support the weight of roads, buildings or vehicles.
- Erodibility/Stability — the susceptibility of the soils to erosion hazards and the ability to accept weight, without causing mass movements such as mud flows and slides.
- Drainage — the capacity of soils to transit and receive water. This characteristic is especially important for determining the ability of soils to accept on-site waste water treatment systems. Soil drainage characteristics are influenced by particle composition and water content.
- Resource Value — the economic worth of the soil for agricultural purposes, or as a fill or mined material.

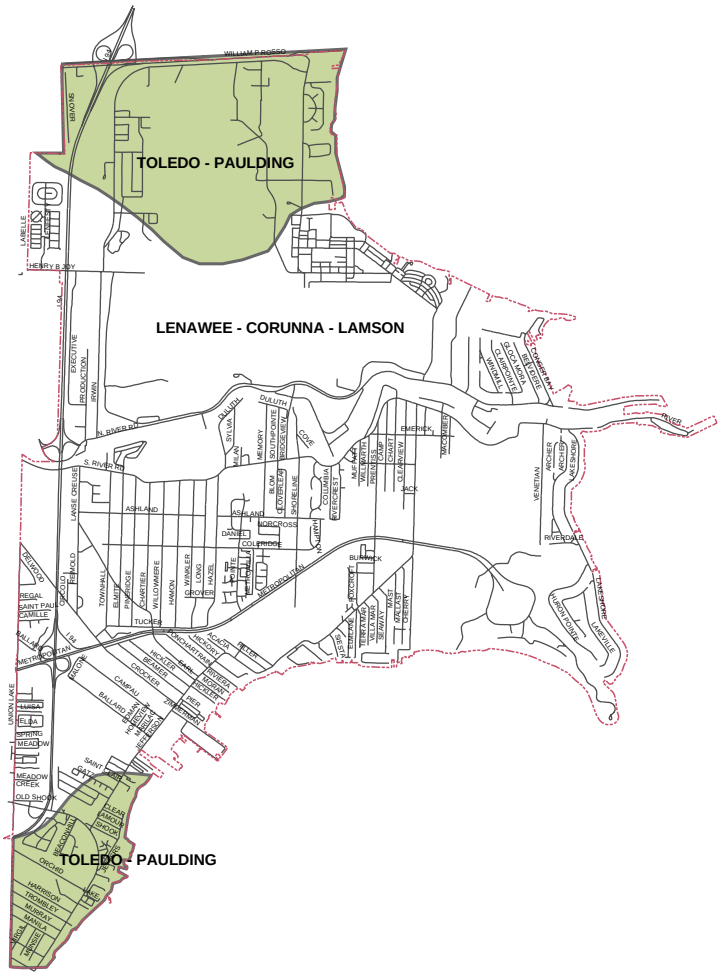
Harrison Township's soil characteristics were identified as part of the larger Macomb County Soil Survey conducted in 1967 by the United States Department of Agriculture Soil Conservation Service. Categories of soils with different characteristics and physical properties were identified as part of the survey. This process resulted in a patchwork or jigsaw-like pieces that fit together to portray a larger overall picture of existing soil characteristics. A large number of individual soils types are present in the Township.

These individual categories are grouped together into several generalized classifications of soils that share similar characteristics. A total of nine of these grouped categories are located in Macomb County. Two of these cover Harrison Township. The characteristics of these categories are described as follows:

Lenawee-Corunna-Lamson

This is the most dominant category of soils found in Harrison Township. These soils extend from the mid-point of Selfridge A.N.G.B. on the north to Shook Road on the south. Poor drainage characteristics are the chief limitations of these soils for development. A high water table and inadequate surface drainage present problems for the construction of streets, utility lines and buildings. Water ponds in low areas and the lack of suitable outlets further compound the poor drainage characteristics.

Illustration 2-3
Generalized Soils



Toledo-Paulding

These soils are found in the northern and southern-most portions of the Township. Soils in this association are comprised of poorly drained, nearly level soils that formed in lake-laid clay deposits. These soils have moderate limitations for farming due to the clay content which limits drainage. This characteristic also presents limitations for the construction of buildings and roads. Structures have a tendency to heave and crack because the soils swell when wet and shrink when dry.

Because sanitary sewers are available to much of the Township, the high water table and poor drainage characteristics of the Township soils do not pose as severe a limitation on development as would be true if on-site sewage disposal systems were more prevalent. These soil characteristics do, however, make the need for continued drainage improvements necessary for development purposes. The Township's drainage problems are compounded by the fact that Harrison lies at the end of the Clinton River drainage basin. Much of the storm run-off occurring within the boundaries of this drainage area eventually works its way through the Township.

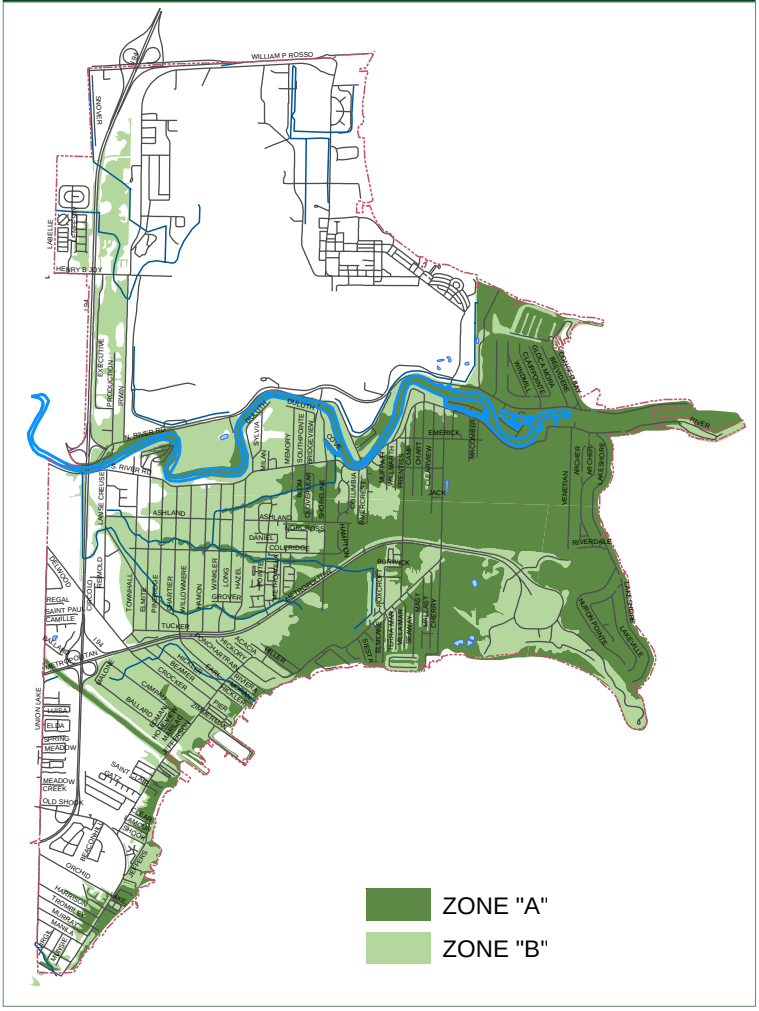
FLOOD HAZARD AREAS

Because of Harrison's nearly level terrain and proximity to the lake and river, it is subject to periodic flooding hazards. A floodplain is an area of land along a lake, river, or other water feature that is susceptible to being inundated by water as a result of heavy rains, snow melt, or other factors. Floodplains are naturally occurring physical features that provide for the temporary holding of this excessive water until such time as the receiving channel is capable of accepting the water.

Extensive flood hazard areas are evident in Harrison Township. These areas are shown in Illustration 10. The map, which indicates a 50-year and a 100-year floodplain, was taken from the U.S. Army Corps of Engineers' 1964 floodplain report for the Clinton River. As the map indicates, the 50-year floodplain in Harrison is very narrow and follows the river quite closely. In most cases, the 50-year floodplain only affects a portion of the properties bordering directly on the river.

The 100-year floodplain is much more pronounced and covers a large portion of the Township. The source of this 100-year floodplain is the U.S. Department of Housing and Urban Development, Federal Insurance Administration Flood Hazard Boundary Maps. These maps were prepared in order to designate those areas that are eligible for Federal flood hazard insurance. As the map indicates, the 100-year floodplain encompasses almost everything south of the Clinton River, east of L'Anse Creuse and Town Hall Road, and northeast of the Spillway.

Illustration 2-4
Floodplain Map



The extent of this 100-year floodplain has some very important implications for the future of Harrison Township. Most of the Township's remaining vacant land that is suitable for residential development lies within this 100-year floodplain. Careful planning of future drainage and utilities will be necessary if potential purchasers of homes in this area are to be able to obtain suitable financing.

WOODLANDS

At the time southeast Michigan was originally settled, the area was covered with dense hardwood forests. As the number of inhabitants increased, these forests were cleared for lumbering and farming purposes. Today, the quantity of land still occupied by mature vegetation has diminished. Where large contiguous woodlands remain, however, they provide benefits that need to be considered in the planning process.

Illustration 2-5
A woodland area located on Crocker

Woodlands are frequently only considered valuable as a visual amenity enhancing the natural or constructed environment. Trees serve many other useful environmental purposes that should be recognized for planning purposes. These include the following:

- Slope stabilization and erosion control
- Conserving water quality
- Maintaining a micro-climate
- Filtering pollution from the atmosphere
- Decreasing noise
- Providing a habitat for wildlife.

Recognizing these important physical properties and integrating woodlands into future development can improve the community's overall environmental quality and enhance the visual character of the constructed environment.

Large, undisturbed woodlands are no longer a dominant feature in the Harrison Township landscape. While there are many scattered locations of small wooded areas in Harrison, only two large stands of trees remain. One is found north and south of Metropolitan Parkway, between Hazel and Shoreline. The other is located south of the Spillway and east of I-94. Efforts should be made to respect and preserve the character of these natural areas for the future.

WETLANDS

Wetlands are an important element of Michigan's landscape. Before experiencing settlement in the late 18th and early 19th centuries, Michigan was thought to contain over 11 million acres of wetlands. Like the extensive forests that once covered the State, the unique physical characteristics of many of these wetlands were permanently altered as a consequence of the settlement of the State. This change occurred as forests were logged and swamps drained for farming purposes. Between 25 and 50 percent of these original wetlands remain in Michigan today.

Wetlands are areas characterized by the presence of water that either saturate the soil or cover the land most or all of the year. Because of this characteristic, wetlands have the ability to support unique varieties of plants and animals. Not all wetlands are similar, however. Several categories of wetlands are found in Michigan. These varieties are the result of differences in climate, bedrock geology, soil characteristics and landforms that are unique to different portions of Michigan. The characteristics of wetland vegetation provide the basis for making a distinction between different types of wetlands. The two basic types of wetlands are forested and unforested. The largest share of remaining State wetlands are of the former variety. Many of these forested wetlands have soils that are seasonally saturated with water during seasonal periods. These wetlands are commonly referred to as swamps. Swamps differ from unforested wetlands more commonly known as marshes, wet prairies, wet meadows, fens and bogs.

Illustration 2-6
Wetlands line the Clinton River Spillway

Marshes are those areas that normally occur along the edges of lakes and streams. These areas are flooded for much of the year with average depths of under five feet. Commonly occurring vegetation in marshes include emergent plants such as bulrushes, cattails, sedges, grasses and floating or underwater plants.

Wet prairies consist of land located between marshes and abutting farm land. Their existence is a result of fluctuating water levels and Indian fires, which prevented the establishment of more permanent vegetation, including trees and shrubs. Few of these unique wetlands exist today. Many of these areas have been absorbed into the adjoining agricultural acreage. Wet prairies are recognizable by the striking vegetation that inhabit these areas, such as asters, goldenrods, mints, rare milkweed, Indian plantain and assorted prairie grasses.

Fens are a common herbaceous wetland located in areas characterized by saturated, lime-rich soils. Fens are commonly found at the bottom of ridges where poor drainage conditions exist resulting in much soils. Like wet prairies, farming has absorb many of these wetlands.

The remaining category of non-forested wetlands are known as bogs. The most striking feature of a bog is the thick acidic peat mats that cover these areas. These are formed as a result of the decomposition of sphagnum mosses and sedges. Many bogs have been permanently changed as a consequence of peat mining activities, especially those located in the more populated portions of southeast Michigan.

In spite of these differing characteristics, wetlands share some common physical properties that have important consequences for planning purposes. Wetlands serve a number of necessary environmental functions. These include the following:

- Protecting downstream water supplies by providing clean ground water as a result of the nutrient retention and sediment removal. Wetland vegetation traps these sediments and pollutants, thereby preventing them from being deposited in surface water bodies.

- Functioning as effective natural storage basins for floodwater. Wetlands may be considered large sponges that absorb large quantities of seasonal precipitation, gradually releasing it when the receiving channels are able to accept it.

- Protecting the shoreline from erosion caused by wind and wave action and effectively serving as environmental shock absorbers.

- Providing a habitat for many types of plants and animals that thrive in the type of physical environment created by wetlands. These plants and animals provide an economic and recreational benefit as a result of hunting, fishing and other leisure activities.

Development in or around wetlands are regulated by several State statutes, the most prominent of which is Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, 1994, PA 451, as amended. This Act regulates the development of wetlands if they meet one or more of the following criteria:

- *Are contiguous to the Great Lakes or Lake St. Clair, an inland lake, pond, river or stream.*

- *Are not contiguous to one of the water features noted above, but are greater than five acres in area and are located in counties with populations exceeding 100,000 persons.*

- *Are less than five acres, not contiguous to any water feature, and are considered necessary to the preservation of the natural resources of the State from pollution, impairment or destruction.*

Permits are required by this legislation for the following activities: 1) depositing or placing fill material in a wetland; 2) dredging or removing soil from a wetland; 3) constructing, operating or maintaining any use or development in a wetland; and 4) draining surface water from a wetland. Specific categories of activities are exempt from the requirements of the Wetland Protection Act.

Other State statues that have the effect of regulating wetland development include the Inland Lakes and Streams Act, the Floodplains Regulatory Act, the Great Lakes Submerged Lands Act, and the Shoreline Protection and Management Act.

Three sources of wetland information are available for Harrison Township. The first sources is the National Wetland Inventory Maps prepared by the U.S. Department of the Interior. High altitude aerial photographs were used to identify wetlands based on vegetation, visible hydrology, and geography. Aerial photographs were also used by the Michigan Department of Natural Resources to map land characterized by the presence of wetlands. The third inventory map has been prepared by Macomb County. The first two sources classify wetlands on the basis of vegetation characteristics. The County's map relies more on the importance of the wetlands based on criteria defined in the County report. None of this information can be considered to offer conclusive evidence on the boundaries or extent of identified wetlands. On-site field investigations are necessary to verify this information.

Two basic types of wetlands are found in Harrison Township, lowland hardwood wetlands and shrub, emergent or aquatic bed wetlands. The latter category occurs principally east of Jefferson, between South River Road and Lake St. Clair. Most of these identified wetlands are located on HCMA's Metro Beach Metropark site. The lowland hardwood wetlands are most prominent along Metropolitan Beach Parkway.

Protecting the Township's natural wetlands is a legitimate concern of local planning. The preservation of wetlands may be best accomplished through cooperation with the Michigan Department of Natural Resources regulations that prevent development of these poorly drained geological areas.

WATERSHED PLANNING

The land area which drains into a specific waterway is considered the watershed for that body. The importance of watershed planning is to minimize the impacts that land use planning and development has on the water quantity and quality entering the specific water body. The State requires communities to prepare a watershed plan to address what steps will be taken by either specific communities or regions to minimize the impacts of development. Harrison Township lies within three different watersheds. These include the Anchor Bay, and two subwatersheds of the Clinton being Clinton River East and the Lake St. Clair Direct Drainage.

Anchor Bay Watershed

The majority of the land area north of the Clinton River lies within the Anchor Bay Watershed. Harrison Township is the southern tip of the watershed which traverses the shoreline northward to the City of Algonac. The Anchor Bay Watershed Plan was completed in 2003. This plan provides a number of recommendations for minimizing impacts on water quality.

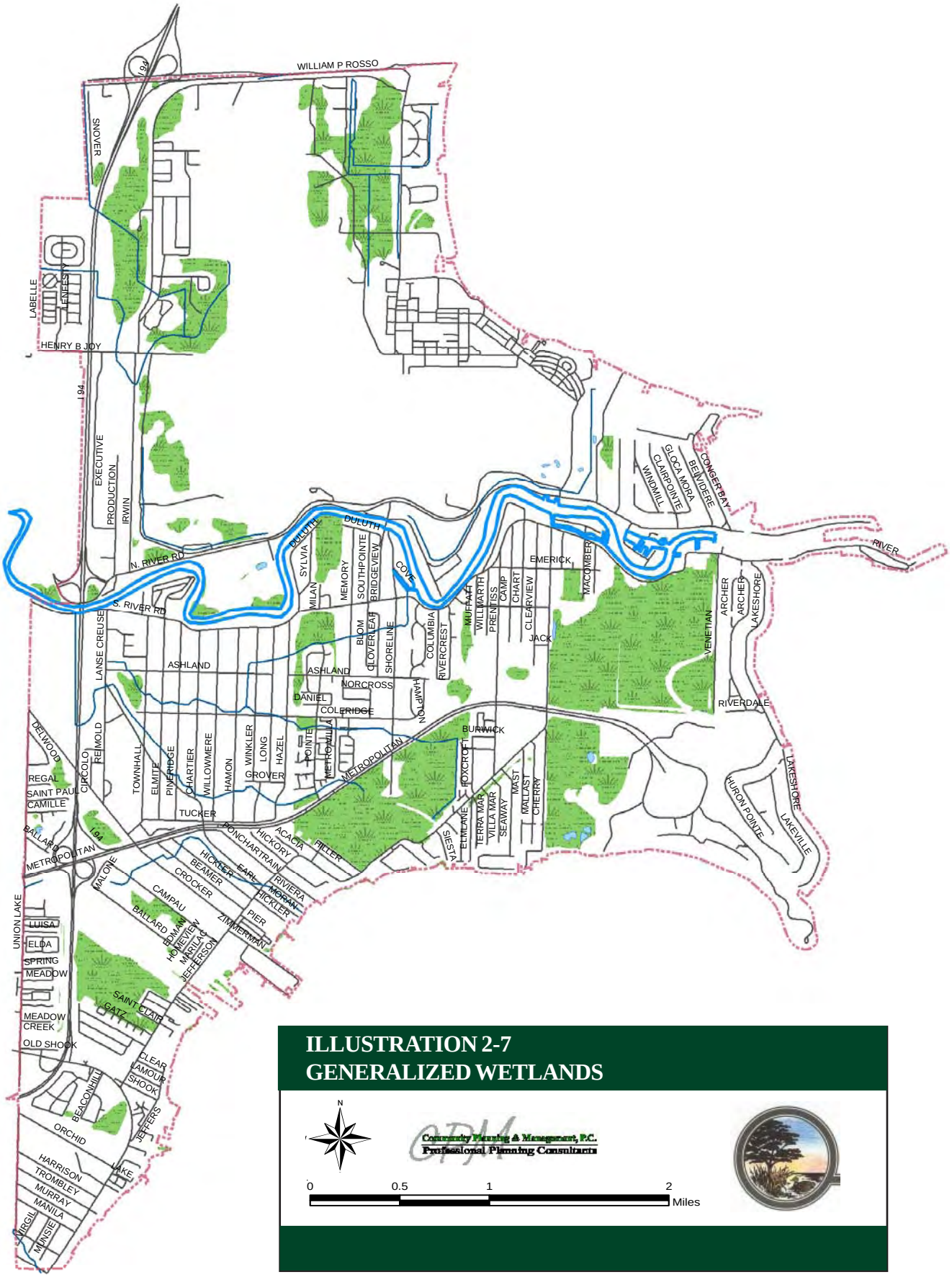


ILLUSTRATION 2-7
GENERALIZED WETLANDS

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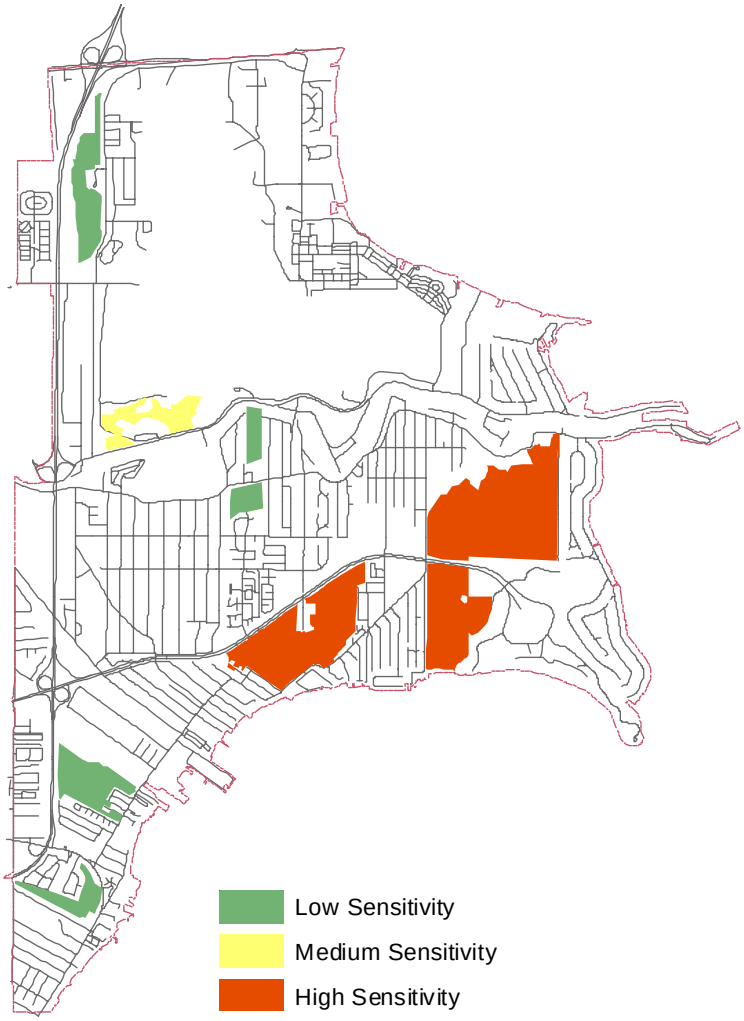
MICHIGAN NATURAL FEATURES INVENTORY

Potential Conservation Areas are defined as places on the landscape dominated by native vegetation that have various levels of potential for harboring high quality natural areas and unique natural features. In addition, these areas may provide critical ecological services such as maintaining water quality and quantity, soil development and stabilization, wildlife travel corridors, stopover sites for migratory birds, sources of genetic diversity, and floodwater retention. The delineation of sites was done through aerial photo interpretation, with emphasis placed on 1) intactness, 2) wetlands and wetland complexes, 3) riparian corridors, and 4) forested tracts.

The scoring system developed for the study included the following criteria: total size, size of core area, presence of stream corridor, landscape connectivity (percentage and proximity), restorability of surrounding lands, vegetation quality (percentage and area), parcel fragmentation, and number of element occurrences. For a more detailed description, refer to the overall report, "Macomb County Potential Conservation/Natural Areas Report."

Illustration 2-8
Michigan Natural Features Inventory Map



All identified sites, regardless of their ranking, have significance to their local setting. This is especially true in areas that have experienced a high degree of development and landscape fragmentation. However, field inventories should be conducted on identified potential conservation areas, particularly Priority 1 sites. This fieldwork would provide much needed additional site-specific data that should be considered when developing in and around such areas.

Clinton River Watershed

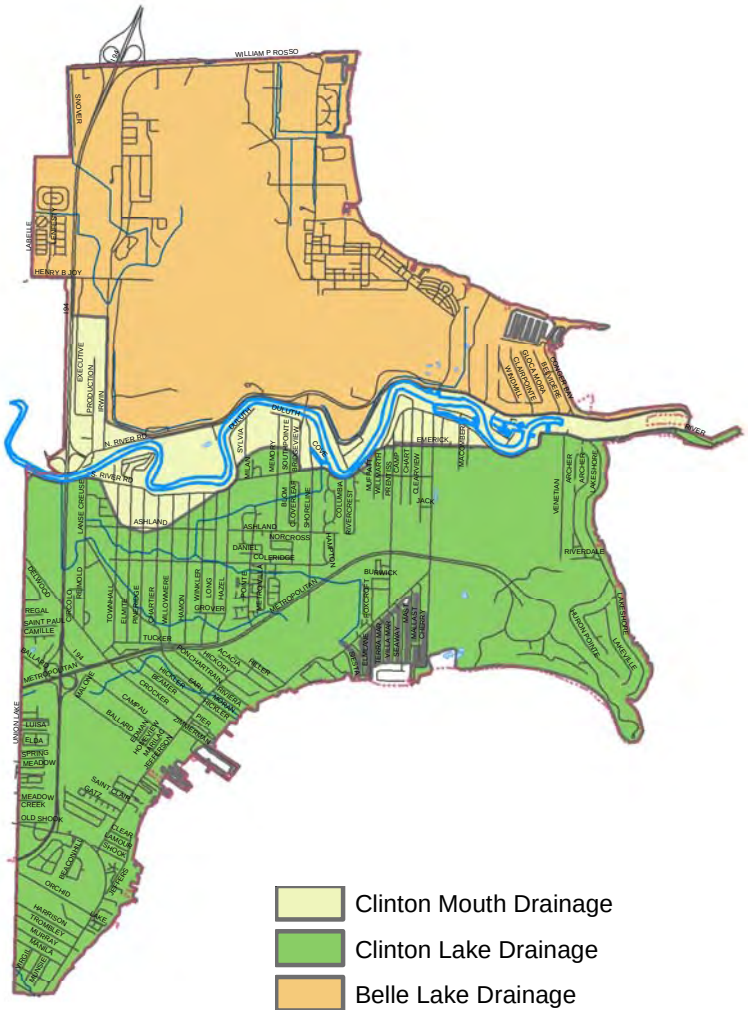
Clinton River East Subwatershed

The large portion of the land area south of the Clinton River lies within the Clinton River East Subwatershed. This watershed extends northward from the mouth of the Clinton through the City of Mount Clemens, the Charter Townships of Clinton and Shelby as well as Macomb, Ray, and Washington Townships.

Lake St. Clair Direct Drainage Subwatershed

The southern tip of Harrison Township lies within the Lake St. Clair Direct Drainage Subwatershed. The majority of this subwatershed contains the more densely developed communities of the City of Roseville, Harper Woods, Eastpointe, St. Clair Shores, and the Grosse Pointes.

Illustration 2-9
Watershed Map



CONCLUSION

As this chapter points out, the physical features of the community are nature's contribution to the Township's environment. For a variety of reasons, different communities have different endowments. Physical features appear to either enhance or limit development. Until recent times, development limitations were considered an adverse circumstance and engineered solutions were often employed to overcome natural limitations. Experience has proven that cooperation with nature, using imagination and creativity, is preferable to removing and/or paving over natural features. The Township should carefully examine each opportunity to complete its design in a manner that enhances the community's livability. Planning can best assist in accomplishing this by encouraging designs that respect and work with nature.

Harrison Township Master Plan

Section 3

Existing Land Use Analysis

INTRODUCTION

The character of our physical environment is influenced by many factors. Chief among these is the use of land, its distribution within the community, and the relationship of these uses to one another. These ingredients strongly influence the overall character and image of the community. They also influence quality of life and our relative degree of satisfaction with our surroundings.

Land use characteristics and relevant physical features are among the most perceivable aspects of the land use planning process. These features establish the observable setting upon which the future of the community will be based. They also influence the development potential of the community.

The main feature of this chapter is an examination of the Township's land use characteristics on a classification basis. Each of the Township's individual land use categories are discussed, including the amount of land devoted to each category and the distribution of the uses within the community. Current information will also be compared to previous land use surveys to illustrate trends.

METHODOLOGY

The County's physical arrangement, including the division of the County into townships, is a consequence of two factors: 1) the settlement patterns of the area's first French-speaking inhabitants; and 2) the Northwest Ordinance of 1787. Macomb County's Lake St. Clair shoreline was among the first areas of southeast Michigan that was settled by European explorers. These settlers divided the land into long, narrow lots that had frontage on the lake and extended a considerable distance in depth, often more than one mile into the interior portions of the community. Evidence of these property divisions, known as "French claims," can be seen in areas along the Township's Lake St. Clair shoreline. This pattern is most obvious south of Metropolitan Beach Parkway and west of Vandy Avenue.

The Northwest Ordinance of 1787 established a more uniform grid system of land divisions for the balance of the Township. This system was devised to assist in the eventual settlement of the vacant interior portions of the United States. Most Townships created as a result of this process were subdivided into 36 one-mile square divisions known as sections. Harrison Township is unique inasmuch as this standard grid-like pattern is not readily discernible anywhere in the community. The Township also encompasses a smaller area than the standard-sized township (14.5 versus 36 square miles).

Existing land use data for Harrison Township was gathered during a field survey of the community, conducted in the Spring of 2006. Land use features were recorded on a parcel-by-parcel basis on a Township base map. Aerial photographs and site plans were used as a secondary source of information and to verify the extent of land use patterns observed in the field. Information from both sources was subsequently transferred to an updated base map according to the individual categories identified. Each category was measured to determine the amount of land area occupied by each individual land use class. Land use information was aggregated on the basis of defined neighborhood areas and totaled for the Township as a whole.

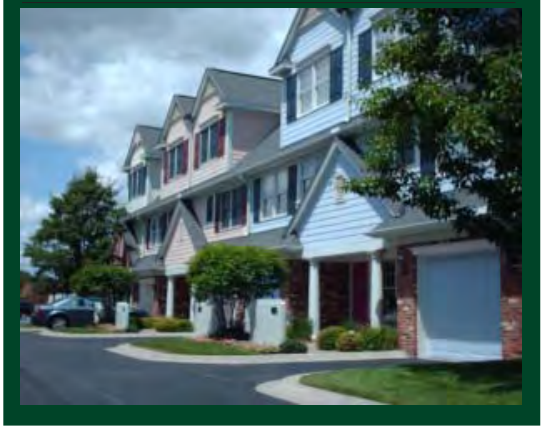
Single-Family Residential

Single-family home sites occupy 1,405 acres of land in Harrison Township. This represents nearly one-fourth of the Township's total land area, and 27.8 percent of all developed land in the community. Most existing single-family development is concentrated in platted subdivisions. Several subdivisions are located proximate to the Lake St. Clair shoreline.

Multiple-Family Residential

Multiple-family units occupy 381 acres of land, or 4.7 percent of the Township's total developed land area. A total of 47 separate multiple-family sites were identified during the field survey. These sites range in size from a low of four units to a high of 414 units. The size of the average multiple-family complex in Harrison Township is 61 units. The average density of development is 10.1 units per acre. Multiple-family units comprise more than one-quarter of the Township's total housing supply.

Illustration 3-1
Multiple-family development on Lake St. Clair



While multiple-family sites can be found throughout the Township, two concentrations are evident. The first of these is along the Township's western boundary, south of the Clinton River spillway and west of I-94. More than 1,000 units are located within this area, accounting for more than one-third of all multiple-family units in the community.

Other concentrations of multiple-family units are located along the Lake St. Clair shoreline and on the north side of Metropolitan Beach Parkway.

Manufactured Housing Community

Six mobile home parks are located in Harrison Township. These sites contain a total of 935 units and, collectively, occupy 86 acres of land. The largest concentration of mobile home units is located north of Joy Boulevard, west of I-94. Several smaller, older parks are located along Jefferson Avenue and the Lake St. Clair shoreline. The average density of mobile home development in the Township is 9.9 units per acre.

Commercial

Commercial land uses occupy approximately 91 acres of land. Harrison Township maintains a planned shopping center at Mariner's Pointe, located at the intersection of Crocker and Metropolitan Beach Parkway. This 15.5-acre site features a supermarket as the anchor tenant and ten supporting businesses. In addition, there are several commercial uses that require freestanding locations along major thoroughfares and rely heavily on easy visibility and convenient access. Automobile-oriented activities, including gasoline service stations, repair garages and car dealerships, are examples of this type of use. Commercial recreation activities, as well as nurseries, fall into this broader category.

Illustration 3-2
Commercial restaurant on South River Road

Commercial uses are distributed throughout the Township. The largest concentrations of commercial activity, both convenience and general, are located near the Jefferson Avenue/South River Road intersection and along Jefferson Avenue south of Metropolitan Beach Parkway. Much of the Township's commercial development is oriented towards meeting the needs of boaters.

Industrial

Industrial uses occupy 191 acres of land in Harrison Township. The vast majority of this acreage is located in a planned industrial park setting located between I-94 and the Selfridge Air National Guard Base, north of the Clinton River. Smaller, more isolated industrial sites are located elsewhere in the Township.

Illustration 3-3
Industrial development on Production Drive

Illustration 3-4
St. John's North Hospital on Crocker

Public/Semi-Public and Park

Public land uses occupy a prominent part of Harrison Township's landscape. Land occupied by a range of different public uses collectively occupies nearly 4,000 acres, accounting for 44.2 percent of the Township's total land area. Selfridge Air National Guard Base and Metropolitan Beach Metropark are the two most dominant public uses, and alone account for 96 percent of the Township's public land inventory.

Selfridge occupies almost 3,000 acres in the northern portion of the Township. Nearly three-quarters of the Township's total land area lying north of the Clinton River is occupied by Selfridge. Metropolitan Beach Metropark occupies a similar position at the far eastern end of the Township. This regional park covers more than 700 acres of land, including the active park site located from the entrance road south to the Lake St. Clair shoreline and the undeveloped wetland located south of North River Road.

The Township's remaining public uses include several school and park sites, as well as a public boat launching site, Township Hall, and the water plant. Semi-public uses include one golf course, several churches, a hospital, and private clubs.

Marinas

Harrison Township's extensive Lake St. Clair and Clinton River shoreline explains the significant amount of land being used for marinas. More than 230 acres are being used for this purpose. Most existing marinas are located along both sides of the Clinton River, from Jefferson Avenue east to the mouth of the River; along the Lake St. Clair shoreline, north of the spillway; and east of Selfridge Air National Guard Base.

Right-of-Way and Water

The quantity of land used for right-of-way purposes is one indicator of a community's degree of development. More land is required for road purposes in communities that have more land being used for residential, commercial, and industrial purposes.

A road right-of-way includes more than the land upon which the actual paved surface is built. It includes the wider path or corridor within which the paved surface is located. The width of the right-of-way varies, depending on the type of road. Two major regional highways cross Harrison Township which have wide rights-of-way and correspondingly occupy extensive land areas. Interstate 94, for example, crosses the far western portion of Harrison, running parallel to the Township line. Metropolitan Beach Parkway crosses the Township in an east-west direction. Both roads have rights-of-way exceeding 300 feet in several locations. Local subdivision streets have right-of-way widths of 60 feet.

Land reserved for road right-of-way and water purposes occupies 1,241 acres of land. This represents 13.3 percent of the Township's total acreage, and 14.7 percent of its developed land area.

The only railroad line in the Township consists of a spur track extending into Selfridge Air National Guard Base, north of Joy Boulevard. This spur occupies 3.9 acres of land.

The presence of water has had an important influence on the Township's land use features and overall development pattern, as previously discussed. Open water also occupies a significant area within the Township boundaries. The Clinton River, which separates the Township into distinctive northern and southern halves, occupies most of this area. An extensive series of canals, located throughout several of the Township's single-family subdivisions, account for much of the remaining water area.

Vacant

Approximately 1,293 acres of land remain vacant, or are currently under development in the Township and are reflected as such on the existing land use map.

MAJOR LAND USE RANKING

Tables 8 and 9 illustrate the Township's land use characteristics on a more generalized basis. Table 10 offers a summary of Harrison's land use features by major categories. The subsequent table describes developed land by major category.

Table 3-1
Generalized Land Use Ranking

Category	Acres	Percent
Public/Semi-Public & Park	4,044	43.3
Residential	2,233	23.9
Transportation	1,241	13.3
Vacant	1,293	13.9
Commercial	91	1.0
Marinas	238	2.6
Industrial	191	2.0
Total	9,331	100.0

Table 3-2
Developed Land Summary

Category	Acres	Percent
Public/Semi-Public	4,044	50.3
Residential	2,233	27.8
Transportation	1,241	15.4
Commercial	91	1.1
Marinas	238	3.0
Industrial	191	2.4
Total	8,038	100.0

COMPARATIVE LAND USE

Harrison Township's last published existing land use survey was conducted in 1990. Comparing the results of this earlier survey with the 2006 data dimensions the quantity of development that has occurred in the Township over the past 16 years. It should be noted that many of the differences in acreage can be attributed to changes in how the acreage calculations are totaled, rather than land use changes itself.

Table 3-3
Comparative Land Use Summary

Category	1990	2006	Change 1990-2006
Single-Family	1,946	1,766	-180
Multiple-Family	284	381	+97
Mobile Home Parks	94.0	86.0	-8
Office/Commercial	108	91	-17
Marinas	228	238	+10
Industrial	129	191	+62
Public/Semi and Park	4,118	4,118	-74
Right-of-Way/Water	1,111	1,241	+130
Vacant	931	1,293	+362
Total	9,331.0	9,331.0	

ZONING

Zoning is a form of policy adopted by a municipality that often reflects the existing land use pattern. All of the various zoning districts and regulations should add up to a statement of policy regarding how land is to be used. Sometimes, this does not happen. Land use policy may become the result of the sum of many individual decisions, each arrived at separately over time. Elections have the effect of changing the persons who establish policy and such changes may make the charting of a consistent direction quite difficult, unless a Master Plan is followed.

The quantity of land included within each of Harrison's 17 zoning districts is shown in Table 11. Over seventy-three (73) percent of the Township's total land area (minus rights-of-way and water areas), or some 6,827 acres, are zoned for one-family purposes. Land zoned for multiple-family purposes accounts for 433 acres, or 5.4 of the zoned land area reflected in Table 11. Commercial land occupies only 1.4 percent of all land in the Township. Manufacturing, primarily along the western border of the Township, accounts for approximately 3.6% of zoned land.

Table 3-4
Zoning Acreage - 2007

Zoning District	Acres	Percent
R-1-A One-Family Residential	349	4.3
R-1-B One-Family Residential	949	11.7
R-1-C One-Family Residential	3,998	49.4
R-1-D One-Family Residential	1,531	18.9
R-2 Two-Family Residential	4	0.0
MHP Mobile Home Park	108	1.3
RM-1 Multiple-Family Residential	185	2.2
RM-2 Multiple-Family Residential	54	0.7
RM-3 Multiple-Family Residential	147	1.8
HMR High & Mid Rise	47	0.6
O-1 Office Service	6	0.1
B-1 Local Business	9	0.1
B-2 Planned Shopping Center	10	0.1
B-3 General Business	92	1.1
RW Residential Waterfront Mixed Use	31	0.4
WF Waterfront	301	3.7
M-1 Manufacturing	288	3.6
Sub-Total	8,090	100.0
Right-of-Way and Water	1,241	
Total	9,331.0	

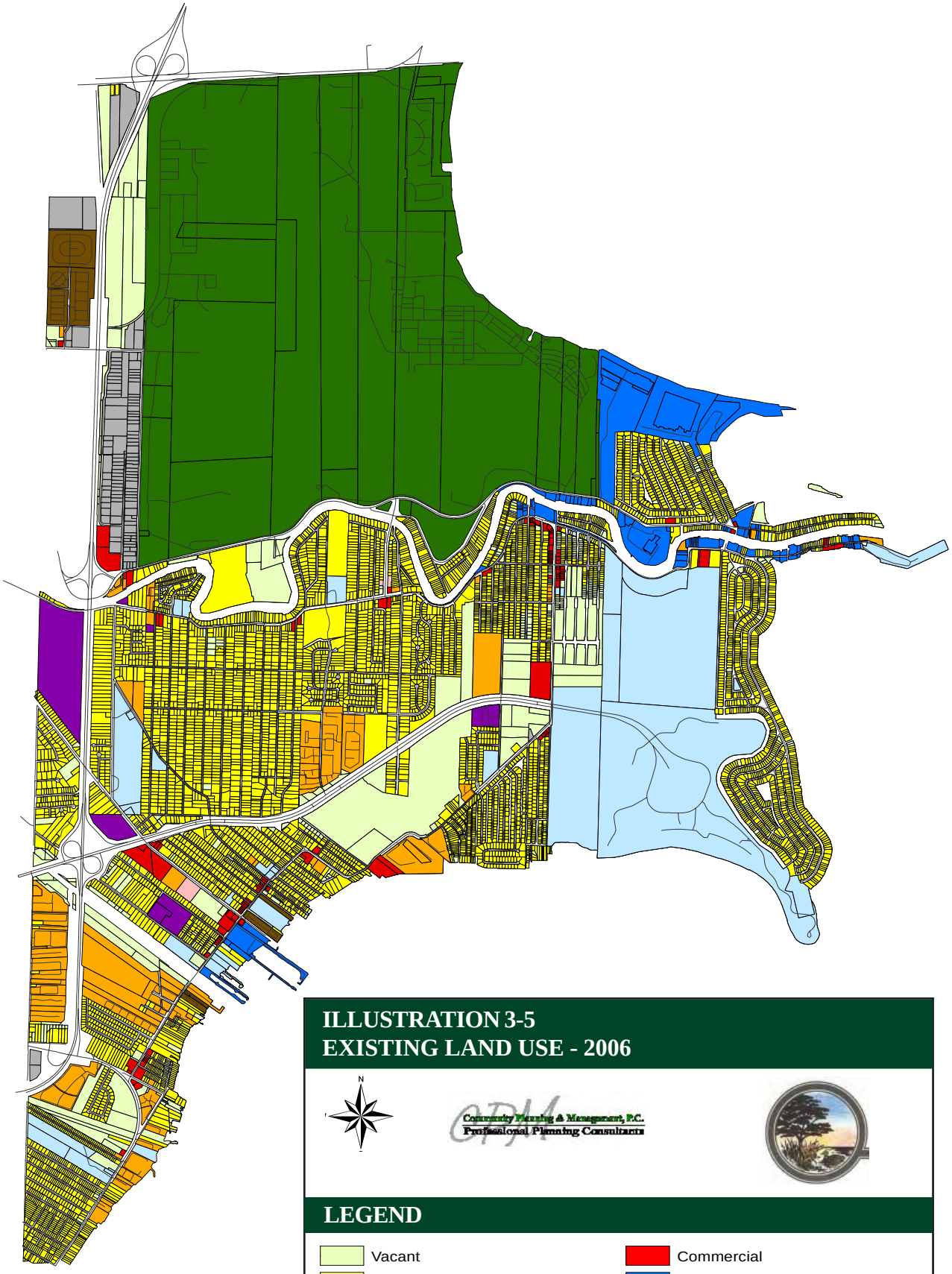


ILLUSTRATION 3-5
EXISTING LAND USE - 2006

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LEGEND

- Vacant
- Single Family Residential
- Multiple Family Residential
- High & Mid Rise Residential
- Manufactured Housing Community
- Office
- Commercial
- Marina
- Industrial
- Public
- Semi-Public
- Selfridge Air National Guard Base

Harrison Township Master Plan

Section 4

Demographic & Economic Analysis

DEMOGRAPHICS

The characteristics of a community's population are among the key ingredients given consideration in the long-range planning process. Historical and current population trends have several useful applications. They are especially relevant in identifying the need for various types of community facilities. Future land use and public utility demands are also related to population growth trends and demographic characteristics. Conclusions and potential future population and households are also noted.

The following items are important to a fuller understanding of the characteristics of Harrison Township's total population. These individual topics include the following:

- Population change over time
- Age characteristics
- Household characteristics
- Population projections

The most current available population data for Harrison Township is employed in the examination of each of the topics. Wherever possible, comparable data for Macomb County is also included. Information for the County is provided for the purpose of understanding the relationship of the Township to the larger geographical areas of which it is a part within southeast Michigan.

Population Change

At the national level, the U.S. population exceeded the two hundred million mark for the first time in 1970. An increase to 226 million was recorded in 1980. National population data for 1990 indicates approximately 250 million persons. The Nation's population again increased in 2000 to roughly 281 million. Michigan's share of the national population has remained at or near four (4) percent since 1930.

During the 70-year period between 1930 and 2000, Michigan's population increased from 4.8 million to 9.9 million. The State's greatest periods of population growth over these five decades occurred between 1940 and 1970. During this 30-year period, Michigan gained more than one million people for each ten-year census interval. Between 1970 and 1990, however, population growth slowed considerably. After only a one percent increase between 1980 and 1990, the 2000 U.S. Census shows the State population at 9,938,444. This amounts to an increase of nearly seven (7) percent.

Population change for Harrison Township and its neighboring communities over the 60-year period from 1940 to 2000 is shown in Table 12. During this period, the Township's population increased by approximately 20,000 persons, from 4,531 in 1940 to 24,461 in 2000. Five communities share a common boundary with Harrison. With the exception of Mt. Clemens, each of these neighboring communities experienced net population increases exceeding that of Harrison Township during this 60-year timeframe. Mt. Clemens had the smallest net gain of 2,943 persons.

Table 4-1
Comparative Population Growth 1940-2000

Community	1940	1950	1960	1970	1980	1990	2000
Harrison Township	4,531	8,052	12,910	18,755	23,649	24,685	24,461
Mt. Clemens	14,389	17,027	21,016	20,476	18,806	18,405	17,312
Clinton Township	5,942	10,076	25,668	48,865	72,400	85,866	95,648
St. Clair Shores	10,405	19,823	76,657	88,093	76,210	68,107	63,096
Chesterfield Township	2,004	3,722	5,888	9,378	18,276	25,905	37,405
Macomb County	107,638	184,961	405,804	625,309	694,600	717,400	788,149

The greatest sustained population growth occurred in Clinton Township, which grew by nearly 90,000 residents during this period. Clinton and Chesterfield Townships arethe only communities that reported population increases for each of the ten-year intervals reflected in Table 12. In contrast to this trend, Mt. Clemens and St. Clair Shores each reached peaks in 1960 and 1970, respectively, and have since experienced population declines. This past decade is the first decade in that Harrison Township has experienced a population loss.

Harrison Township experienced consistently even population increases over the four decades between 1940 and 1980. During this period, the smallest increase of 3,521 persons occurred between 1940 and 1950. The largest period of population growth was during the 1960's, when the Township grew by 5,845. During the 1950's and 1960's, increases of 4,858 and 4,894 persons, respectively, occurred. The Township's decrease of 224 residents over the past ten years departs from the pattern observed over the preceding five decades.

Table 4-2
Population Change by Decade

	1940-50		1950-60		1960-70		1970-80		1980-90		1990-00	
Community	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Harrison Twp.	3,521	78	4,858	60	5,845	45	4,894	26	1,036	4	-224	-1
Mt. Clemens	2,638	18	3,989	23	- 540	- 3	- 1,670	- 8	- 401	- 2	-1,093	-6
Clinton Twp.	4,134	69	15,592	154	23,197	90	23,535	48	13,466	18	9,782	11
St. Clair Shores	9,418	9	56,834	287	11,436	15	-11,883	-14	-8,103	-11	-5,011	-7
Chesterfield Twp.	1,718	86	2,166	58	3,490	59	8,898	95	7,629	42	11,500	44
Macomb County	77,323	71	220,843	119	120,505	29	69,291	11	22,800	3	70,749	10

Harrison Township's share of Macomb County's population decreased to a level of 3.1 percent in 2000. This represents a slight decrease over the 1980 and 1990 level of 3.1 percent. In 1950, the Township's population stood at 4.4 percent of the overall Macomb County population, which is the highest level in the past 50 years.

AGE

Age characteristics are among the more important demographic variables. They are useful as an indicator of anticipated demand for various types of municipal services and programs, including parks, employment needs, job training, day-care, schools, and services to various other age groups, including the elderly. The Township's future land use needs are also related to its age configuration.

Median Age

The steady aging of this Nation's population was among the more important trends dimensioned by the 1980 census, over twenty years ago. After reaching a high of 30.2 years in 1950, the median age for the Nation declined the following two decades to 29.5 years in 1960, and 28.3 years in 1970. These declines were largely a response to the high birth rates that occurred during the baby boom years following World War II. The aging of the baby boom children, during the 1960's and 1970's, partially explained the rise in median age revealed in the 1980 U.S. Census. Lower fertility rates and increasingly longer life spans have also contributed to the increase.

The aging trend is clearly reflected in the median age figures noted in Table 14. Each of the different geographic areas included below experienced an increase in median age levels between 1970 and 1980. The Nation's population reached a level of 30.0 years in 1980, according to the U.S. Census Bureau. Both Michigan and Macomb County reported median age levels approaching the National level in 1980. Harrison Township also reported an increase in median age from 25.3 years in 1970 to 28.3 years in 1980. The continued pattern that began in 1980 is reflected in 2000 Census data. Harrison Township's median age rose to 37.9 years in 2000, compared to the County-wide total of 36.9 years. The Township's totals are similar to State and National trends.

Table 4-3
Median Age

Geographic Area	1950	1960	1970	1980	1990	2000
Harrison Township	-	-	25.1	28.3	32.8	37.9
Macomb County	-	24.8	24.6	29.1	33.9	36.9
Michigan	31.5	28.3	26.3	28.8	32.6	35.5
United States	30.2	29.5	28.3	30.0	32.9	35.3

Population by Age

By reviewing the various age categories that make up Harrison's population, it is possible to determine how various segments of the Township's population have changed over time and what impact these changes have had on the Township's growth.

A more meaningful picture of the Harrison's population age distribution is possible when ages are categorized by identifiable stages of a normal human life cycle. Selected categories and the age intervals that they represent include: preschool (0-4), school (5-17), family formation (18-34), middle-age (35-64), and seniors (65+). The percent of the Township's population that falls into each of these categories is shown in Table 4-4. Available information for 1990 and 2000 is shown, along with the SEMCOG 2030 projection. Similar data for Macomb County is also provided for comparison purposes. Each of the life cycle stages reflected in Table 4-4 has important meaning for planning.

Table 4-4
Age % by Life Cycle Category

	Harrison Township		
Category	**1990**	**2000**	**2030***
Pre-School (0-4)	7	6	5
School (5-17)	16	16	13
Family Formation (18-34)	31	23	20
Middle-Age (35-64)	37	44	42
Seniors (65+)	9	11	20
	Macomb County		
Category	**1990**	**2000**	**2030***
Pre-School (0-4)	7	6	6
School (5-17)	17	18	15
Family Formation (18-34)	28	23	20
Middle-Age (35-64)	36	40	34
Seniors (65+)	12	14	25

The pre-school and school-age categories, for example, offer useful indicators of future school enrollment trends and the adequacy of existing facilities to meet these needs. Between 1990 and 2000, the pre-school age category declined as a percent of the Township's population, from 7 percent in 1990 to 6 percent in 2000. A similar trend is observed for Macomb County.

The school-aged category remained the same between 1990 and 2000. Macomb County actually showed an increase of one percent between 1990 and 2000.

Collectively, the family formation and middle-age categories comprise the foundation of the community. They are the largest segment of property owners and taxpayers. They are also among the largest consumers of goods and services and, therefore, provide a catalyst for economic growth. These two categories comprised 68 percent of the Township's population in 1990. By 2000, this proportion had slightly decreased to 67 percent. While Macomb County reported a similar decrease, a larger percentage of Township residents fall into the family formation category than is the case for Macomb County.

The remaining category includes all residents over the age of 65. Improved medical care and longer life expectancy are responsible for the increasing number of seniors nation-wide. Continued increases will generate demands for a variety of services targeted to this population category, including health care, transportation, housing and recreation, among others. Between 1990 and 2000, Township residents over the age of 65 increased from 9 percent to 11 percent. Macomb County experienced a similar increase.

HOUSEHOLDS

Household Growth Trends

The U.S. Census Bureau has two categories that it uses to describe living arrangements: households and families. A household is one person or a group of persons occupying a housing unit. The number of households and occupied housing units are, therefore, identical. Families, on the other hand, consist of two or more persons, related to each other, living in a household.

Household characteristics, in general, and the rate of new household growth have become increasingly important indicators of demographic change within a community. Changes in the number of households and their composition are recognized as a more valid measure of community growth and vitality than absolute changes in the number of persons. Several reasons account for this view.

At the local level, households generate property tax revenues regardless of how many people are living within the household. Households also generate a demand for durable goods, including cars and appliances, as well as energy (electricity, gas and telephone services) which serve to stimulate local and regional economic growth. Local governmental services are impacted by household growth trends, especially the need for public utilities (water and sewage disposal), police and fire services, and solid waste disposal, among others. The number of households also influence traffic levels and the need for future transportation system improvements.

The rate of household growth in Harrison Township declined over the last decade. Between 1990 and 2000, 773 new households were formed in the Township, for an increase of 7.7 percent. This was lower than the County-wide increase of 16.7 percent.

Table 4-5
Household Growth Trends

	1980	1990	Change 1980-90	% Change	2000	Change 1990-00	% Change
Harrison Twp.	8,693	9,947	1,254	14.4	10,720	773	7.7
Macomb County	229,805	264,991	35,186	15.3	309,203	44,212	16.7

Household Size

Accompanying these increases in household growth was a decline in the size of the average household. At the National level, household size has declined steadily since 1950, when it stood at a level of 3.37 persons per household. At the State level, this number had decreased to 2.56 persons per household by the year 2000.

Consistent with broader national and regional trends, average household size in Harrison declined over the past two decades. In 1980, the size of the average house-hold was 2.72 persons. This declined to 2.47 persons in 1990, and again to 2.28 persons in 2000. Similar declines are observed for Macomb County and Michigan.

Table 4-6
Household Size

	1960	1970	1980	1990	2000
Harrison Township	-	3.29	2.72	2.47	2.28
Macomb County	3.79	3.63	3.00	2.68	2.52
Michigan	3.49	3.27	2.84	2.66	2.56

Several factors are responsible for this decline, which include birth rate patterns, the distribution of the population on the age spectrum, and life style changes. The first of these factors is referred to as the baby-boom echo. America experienced a welldocumented population growth period following the Second World War, commonly known as the baby-boom. Children born during this period have reached the child-bearing years and started their own families, creating an echo of the earlier baby-boom. This echo is now being repeated for a second time. The baby-boom echo is not producing the same number of persons that occurred earlier due to significant declines in the birthrate. Women today are having fewer children than their mothers did. Fewer children mean smaller families and reduced household sizes.

Population distribution patterns also impact household size declines. The aging of the baby-boom generation has begun to increase the proportion of those persons that are no longer considered to be likely candidates for parenthood.

Finally, the increasing number of single-person households has contributed to this trend. Improved medical care has resulted in an increasing number of persons over the age of 65, many of whom are widows or widowers creating single-person households. Young persons have also shown a tendency to marry later and delay having children until later in their lives. Another consequence of this delay is a corresponding decision to have fewer children. Increases in the divorce rate has also increased the number of new households and contributed to the decline in their overall size.

Household Characteristics

The social characteristics of households are reported by the Census Bureau. Important changes are occurring to the composition of the average household. The traditional family household is not as dominant as it once was. Single-parent households are more common today than they were in the past.

Approximately 42.4 percent of the Township's 11,996 households consist of married couple families. Over seven percent of the Township's households have a female head. Approximately seventeen percent of all households in the Township are headed by someone over the age of 65.

Table 4-7
Household Characteristics - 2000

Total Households	11,996
Family Households	6,426
Married Couple Families	5,089
Percent of all Households	42%
Female-Headed Households	864
Female-Headed Households with Children	509
Households with Householder Over 65	2,017

PROJECTIONS

Projections provide a basis for anticipating future land use and various community service demands. As noted in the previous discussion, the factor that will have the greatest influence on these demands is the anticipated number of new households. While there is no precise way of absolutely predicting the future, past trends offer a useful method of anticipating expected changes in the number of households and the number of residents.

Southeast Michigan Council of Governments (SEMCOG) Small Area Forecasts

Every five years, SEMCOG prepares a series of Small Area Forecasts for each of 233 local units of government in the southeast Michigan region. The SEMCOG forecasts, including the projected number of households and persons per household, are included in Table 4-8. These forecasts anticipate little growth in the Township over the next 25 years for the total numbers of persons, and continued declines in the average household size to 2.01 persons per household by the year 2030.

Table 4-8
Population Projections

	1990 Census	2000 Census	2015 SEMCOG	2030 SEMCOG
Population	24,685	24,461	25,750	24,881
Households	9,947	10,720	12,304	12,366
Persons per Household	2.47	2.28	2.11	2.01

ECONOMIC BASE

Understanding the characteristics of a community's economy is important in the comprehensive planning process. The amount of land being used for economic generation purpose, its distribution within the community, and the characteristics of these uses have broad impacts on the future of the community. Customarily, these uses provide a source of jobs for local residents and a substantial portion of a community's overall tax base used to finance community facilities services.

The purpose of studying the economy of Harrison Township is to provide an understanding of the Township's economic characteristics and their relationship to the larger region within which it is located. Data available from the U.S. Census, as well as other sources, are reviewed to provide a perspective of Harrison Township's economy and its role in community planning.

Three components of Harrison Township's economy are considered: retail, employment and labor force. The first portion of this chapter examines the Township's retail characteristics, including the number of establishments by type. Future retail demands are also estimated based on previously projected households and assumptions regarding their spending patterns.

The employment section considers the number and characteristics of those persons working at locations in Harrison Township. These characteristics are examined in the context of Macomb County's principal economic activity centers.

The labor force portion of the report examines the occupational and industry of employment characteristics of the Township's resident labor force. Also included in this section is a review of labor force participation rates.

RETAIL CHARACTERISTICS

Inventory of Retail and Service Establishments

The land use survey of Harrison Township, conducted in 2006, revealed that approximately 91 acres of land were being used for commercial purposes. Information on the type of businesses at specific locations was also noted as part of this survey. This information describes the type and character of existing commercial uses in the Township by examining the range of available retail and service opportunities.

A total of 228 individual businesses were identified in Harrison Township. These businesses were divided into two general classes: retail businesses and service establishments. In 2006, retail businesses accounted for 35% of the Township's total commercial inventory; the service establishments comprised the remaining two-thirds. The Township's 13 marinas were included in the service category. These classifications were further divided into specific retail and service categories to provide a more complete profile of the number of such businesses.

Table 4-9
Inventory of Retail Establishments - 2006

NAICS Code	Category	Number	Percent
441	Motor Vehicle & Parts Dealer	17	21.5
442	Furniture & Home Furnishings	1	1.3
444	Building Material & Garden Equipment & Supplies Dealers	2	2.5
445	Food & Beverage Stores	11	13.9
722	Eating & Drinking Places	31	39.2
446	Health & Personal Care	2	2.5
447	Gasoline Stations	4	5.1
448	Clothing & Accessory	1	1.3
453	Miscellaneous Retailers	6	7.6
454	Nonstore Retailers	4	5.1
Total		79	100.0

Quantitatively, eating and drinking establishments and food stores collectively account for more than one-half (53.1 percent) of the Township's retail business inventory. Most of the establishments included in the food stores category consist of convenience markets. The Township's only full-scale grocery store, is located in the Mariner's Pointe Shopping Center. Many of the remaining uses included among the Township's retail businesses have a predominantly marine orientation, reflecting the Township's waterfront location. These include several boat sales establishments, as well as those selling marine hardware, sails, and bait and tackle equipment.

Table 4-10
Inventory of Service Establishments - 2006

NAICS Code	Category	Number	Percent
52	Banks/Credit Agencies	2	1.3
53	Real Estate	23	15.4
721	Motels	1	0.7
5412	Accounting	9	6.0
7139	Administrative & Support Services	56	37.6
71393	Marinas	13	8.7
80	Medical Offices	8	5.4
81	Other Services	37	24.8
Total		149	100.0

Development Characteristics

Commercial development can assume several different physical forms. Common and easily recognizable forms include traditional central business districts, planned shopping centers, and general businesses located within linear corridors along major traffic arteries. The pattern of commercial development in a community has a strong impact on the community's success.

Illustration 4-1
Free-standing commercial buildings similar to this one at the corner of Shook and Jefferson are typical in Harrison Township

Freestanding businesses, each occupying their own sites, are the most common form of commercial development in Harrison Township. These commercial uses are located in clusters along portions of North and South River Road and along the southern portion of Jefferson Avenue. Mariner's Pointe Shopping Center is the only large planned shopping center located in the Township. Like many of its contemporary suburban counterparts, Harrison does not have a traditional central business district.

Shopping centers are defined as a group of commercial or service establishments planned, constructed and managed as a single entity, with customer and employee parking provided on-site, provisions for loading and unloading separated from customer access, aesthetic controls and improvements (signage, landscaping and building appearance).

Planned shopping centers may further be identified by size (floor area), type (stores included within the center), and trade area (service radius). The most common shopping centers are identified as follows:

Neighborhood Strip Centers - Neighborhood centers generally provide goods and services necessary to meet the daily needs, occupy up to ten acres, offer up to 100,000 square feet of retail floor area, and typically draw their customers from a five-minute drive radius from the site.

Community Shopping Centers - These centers normally feature an anchor tenant, often a discount or general merchandise store and/or large food store. A minimum floor area of 150,000 square feet are generally provided by these centers. They occupy sites ranging in size from 10 to 25 acres and draw customers from a wider area, generally from a drive radius of ten-minutes.

Regional Centers - Two types of regional centers can be identified: regional shopping centers and super regional centers. The former contains a wide variety of both retail and service establishments, occupy sites of 50 to 100 acres, have one or more anchor tenants, and contain over 400,000 square feet of floor area. Shoppers may travel up to 45 minutes to reach such a center. Super region centers include retail, service and office uses, which collectively occupy more than one million square feet of gross leasable space. These sites are generally located on sites exceeding 100 acres in total area.

Not all shopping centers fit neatly into these three categories. This classification system does, however, offer a structured way of viewing a community's commercial development pattern and its relationship to the patterns in nearby communities and the region as a whole.

Trade Area

A trade area is the geographical area from which a single business or group of businesses draws most of its customers. This concept assumes that if all factors are equal, the customers will travel to the nearest business. Trade areas are frequently defined as a distance from the business measured as a radius. A community's trade area can be considered to be a sum of the trade areas of businesses located throughout the community.

For the purpose of this study, those households residing and expected to reside in the Township comprise the community's primary trade area. These households generate a demand for retail goods and services that can be absorbed either by locations within or outside of the Township.

Realistically, this concept is subject to other influencing factors which include physical barriers, accessibility, pricing policies, attractiveness, level of service, and the availability of nearby competing retail centers. In reality, a considerable amount of inter-community shopping trips are common. This is especially true within an urbanized region with easy access to competing retail centers in nearby communities. In this context, trade areas will overlap and cross community boundaries. More important, larger commercial concentrations have a drawing power that penetrates the community's primary trade area. This is so because of their size, the variety of merchandise, and other factors including accessibility (travel time).

Harrison Township is located within a reasonable travel distance from several of Macomb County's community and regional-scale shopping centers. The closest of these is Macomb Mall, located along Gratiot Avenue to the southwest. A larger complex is located along M_59 and is centered around Lakeside Mall. While neither of these regional centers is located on the Township's doorstep, they have a bearing on the demand for retail uses within the Township. The Mt. Clemens Central Business District has also traditionally served as an important commercial center for Harrison Township consumers.

Market Potential and Buying Power

Market potential is capable of being arrived at as a generally reliable commercial planning base through the an understanding of economic characteristics. The methodology, however, is not capable of forecasting the location of actual retail sales. The retail sales which take place at any given location are contingent upon the willingness of consumers to patronize the particular businesses in the light of available merchandise and alternative shopping opportunities available.

The point is that market potential can only describe the potential spending generated by a given group on the basis of buying power. The willingness of a consumer group to actually spend their monies at a given location becomes a question of motivation. This generally involves specific locational characteristics such as convenience, merchandising (advertising, service and pricing), access, parking circulation, beautification or aesthetics.

Other commercial developments outside of the immediate area can be expected to draw portions of their business from the same source, with the amount left to the subject commercial areas being termed that area's market penetration. The Township's buying power must be visualized as a dynamic phenomenon with changing population characteristics responding to additional competition, and changing shopping patterns reacting to site improvements and other opportunities.

Income

One of the most widely used indicators of affluence is income. Household incomes offer an indication on the type of housing that the community can support, as well as the amount of money that is available to purchase other goods and services. Household incomes are among the variables used to predict the quantity of commercial development that a community may be able to support. According to the 2000 Census, Harrison Township reported a median household income of $51,892. The median household income for Macomb County in 2000 was $52,102.

Estimated Retail Needs

It is possible to estimate the Township's future retail needs based on several assumptions regarding disposable income levels and spending habits, resulting in the acreage necessary to support a given quantity of retail floor area.

Assuming that disposable income is equal to 50 percent of the total income, the Township's estimated disposable income for 2000 is $25,946. Subsequent retail sales projections are based on constant 2000 dollars to allow for a comparison of anticipated changes in retail demand over time. The Township's estimate on total households for the years 2006 and 2030 are based on recent estimates presented in the demographics section.

Table 4-11
Estimated Spending By Retail Category

	Harrison Township		
Retails Category	**Sales ($) (x 1000)**	**%**	**Sales ($) (per household)**
Lumber/Hardware	6,382 (est.)	4.4	1,141
Food	29,481	20.3	5,267
Motor Vehicle & Parts	52,237	36.0	9,341
Gasoline	9,105	6.3	1,635
Apparel	5,038 (est.)	3.5	908
Furniture	2,178 (est.)	1.5	390
Eating/Drinking	20,441	14.1	3,658
Health & Personal Care	5,150 (est.)	3.5	908
Marina	12,855	8.8	2,283
Other Retail	2,393	1.6	415
Total	145,260	100.0	25,946

The next step in determining retail sales potential involves allocating the Township's estimated disposable income into various retail categories that can be related to commercial land use. Information on total retail sales for Harrison Township for 2002 was broken down by percentage for ten separate retail categories and applied to the Township's disposable income.

The market potential generated on the following tables, shows the projection of dollar and square footage capable of being supported by Township spending for 2006 and 2030.

The estimated total retail need for 2006, based on the preceding methodology, is 269.8 acres. The quantity of land currently developed for commercial purposes, as revealed by the Existing Land Use Survey, is 91 acres, or approximately one-third of the demand. This apparent imbalance is further magnified by the fact that much of the Township's existing commercial acreage is occupied by uses which are intended to principally serve the needs of boaters, rather than the retail and service needs of the Township's households. Retail demand is expected to increase to 333.9 acres by the year 2030.

Table 4-12
Estimated Retail Needs-2006

Retail Group	% of Retail Sales	Retail Sales from Study Area ($000's)	Sales per Sq. Ft.	Sq. Ft. Supported by Study Area	Equivalent Commercial Acreage
Lumber, Hardware	4.4	13,742	$191	71,948	8.3
Food	20.3	63,404	$282	224,837	25.8
Motor Vehicle & Parts	36.0	112,442	$91	1,235,626	142.0
Gasoline	6.3	19,677	$121	162,620	18.7
Apparel	3.5	10,931	$259	42,205	4.8
Furniture	1.5	4,685	$187	25,053	2.9
Eating/Drinking	14.1	44,039	$255	172,702	19.8
Health & Personal Care	3.5	10,931	$228	47,943	5.5
Marina	8.8	27,485	$80	343,563	39.4
Other Retail	1.6	4,997	$221	22,611	2.6
TOTALS	100.0	312,333		2,348,748	269.8

Table 4-13
Estimated Retail Needs-2030

Retail Group	% of Retail Sales	Retail Sales from Study Area ($000's)	Sales per Sq. Ft.	Sq. Ft. Supported by Study Area	Equivalent Commercial Acreage
Lumber, Hardware	4.4	17,058	$191	89,309	10.3
Food	20.3	78,704	$282	279,092	32.0
Motor Vehicle & Parts	36.0	139,572	$91	1,533,758	176.1
Gasoline	6.3	24,425	$121	201,860	23.2
Apparel	3.5	13,569	$259	52,390	6.0
Furniture	1.5	5,815	$187	31,096	3.6
Eating/Drinking	14.1	54,666	$255	214,376	24.6
Health & Personal Care	3.5	13,569	$228	52,390	6.0
Marina	8.8	34,117	$80	426,463	49.0
Other Retail	1.6	6,204	$221	28,072	3.2
TOTALS	100.0	387,699		2,908,806	333.9

The difference between the supply and demand of commercial development in Harrison Township is a consequence of three physical factors: 1) the location of the Township on a peninsula of land surrounded by Lake St. Clair; 2) the presence of Selfridge Air National Guard Base, which occupies almost 3,000 acres of land in the northern half of the Township; and 3) the location of the Clinton River, which bisects the community. These factors serve to limit accessibility and the potential for a full-circle trade area that most retailers depend on for a majority of their customers.

EMPLOYMENT CHARACTERISTICS

To more fully understand the Township's local economic base, its relationship to the larger southeast Michigan regional economy needs to be assessed. Southeast Michigan consists of more than 200 individual units of government. Economic activities within each of these communities collectively comprise the region's economic base. This larger regional economy transcends municipal boundaries and is the sum of many individual parts. This portion of the report examines Harrison Township's position within the regional economy. The relationship will be considered with respect to the region's major economic centers and the employment characteristics of those persons employed at businesses within Harrison Township.

Table 4-14
Employment by Place of Work

Community	1980	1990	2002
Harrison Township	3,658	4,364	5,593
Mt. Clemens	9,004	15,572	14,070
Clinton Township	22,774	26,119	34,297
St. Clair Shores	13,234	15,215	16,079
Chesterfield Twp.	2,994	4,164	12,868
Macomb County	263,197	330,532	313,207
Harrison Township (% of County)	1.4	1.3	1.8

Employment by Place of Work

A good measure of the Township's economy and its relationship to southeast Michigan's economic base is employment by place of work data collected by the U.S. Census and SEMCOG. In 1980, the Census Bureau reported that nearly 3,658 workers were employed at businesses located in Harrison Township. This represented approximately 1.4 percent of the County's total work force. By 2002, the number of jobs within Harrision had risen to 5,593, making up approximately 1.8 percent of the County's total employment. Among Harrison's neighboring communities, Clinton Township, Chesterfield Township, Mt. Clemens and St. Clair Shores all have larger employment bases.

Table 4-15
Labor Force Participation

	1980	1990	2000
Civilian Labor Force:	11,517	13,611	14,003
Employed	10,327	12,761	13,508
Unemployed	1,190	850	495
Not in Labor Force:	5,588	5,492	5,457
Labor Force Participation:			
All Persons over Age 16	64.0	72.0	71.0
Females over Age 16	52.0	61.4	63.3
Females in Labor Force with Children under Age 6	-	49.4	40.3
Females in Labor Force with Children Ages 6 - 17	-	71.8	66.1
Females as a Percentage of Total Labor Force	39.8	42.5	44.5

RESIDENT LABOR FORCE

Labor Force Participation

The 2000 Census reported that Harrison Township had a resident civilian labor force of 14,003 persons, which is approximately 71 percent of those Township residents over the age of 16. Since 1980, the size of the Township's civilian labor force has increased by 22 percent. This increase can be explained by two factors: 1) the increase in the number of persons living in the Township; and 2) increased participation by females in the labor force.

Harrison Township also has a large non-civilian labor force, due to the presence of Selfridge Air National Guard Base in the community. The size of the Township's non-civilian labor force has declined since 1970, when it reached a level of 1,293 workers. In 1990 employment in the Armed Forces numbered nearly 525 workers. By 2000, the number of residents in the Armed Forces was down to 256.

Table 4-16
Industry of Employment

	Harrison Township		Macomb County
Category	**No.**	**%**	**%**
Manufacturing	3,310	24.5	26.1
Transportation/Communi-cation/Utilities	412	3.1	3.2
Construction	1,067	7.9	6.7
Wholesale/Retail	2,246	16.6	16.3
Finance, Insurance & Real Estate	638	4.7	5.5
Arts, Accommodation, Food & Entertainment Services	908	6.7	7.1
Public Administration	374	2.8	3.0
Professional Services	1,424	10.5	9.9
Educational, Health and Social Services	2,249	16.6	15.6
Information	354	2.6	2.0
Other	526	3.9	4.6
Total	13,508	100.0	100.0

Industry of Employment

Approximately 28 percent of the Township's resident labor force are employed in manufacturing-related industries. This is consistent with the characteristics of the County's overall labor force and reflects the dominance of auto manufacturing in the County's economy. Wholesale/retail trade and professional services are the next largest industry of employment categories, employing 24.2 and 18.6 percent of the Township's labor force, respectively. Harrison Township and Macomb County share similar industry of employment characteristics, as reflected in Table 27.

Since 1980, there has been a slight decline in the proportion of workers employed in manufacturing industries. For Harrison Township, the decline was from a level of 31.9 percent in 1980. A much larger drop is noted for Macomb County, which declined from 35.9 percent in 1980. This decline is also evident for Michigan as a whole.

Occupational Characteristics

More than one-half (61.5 percent) of the Township's resident labor force are employed in white-collar professions and defined as either managers/professionals or sales and officeoccupations. This is only slightly higher than the County figure of 59.2 percent. Skilled workers and operatives/ laborers comprise 27.0 percent of the Township's labor force, compared to 27.6 percent for Macomb County.

Table 4-17
Occupational Characteristics

	Harrison Township		Macomb County
Category	**No.**	**%**	**%**
Managers/Professionals	4,368	32.3	30.9
Sales & Office Occupations	3,948	29.2	28.3
Service	1,541	11.4	13.1
Farming, Forestry & Fishing	0	0.0	0.1
Construction, Extraction & Maintenance Operations	1,341	9.9	9.9
Production, Transportation & Material Moving Operations	2,310	17.1	17.7
Total	13,508	100.0	100.0

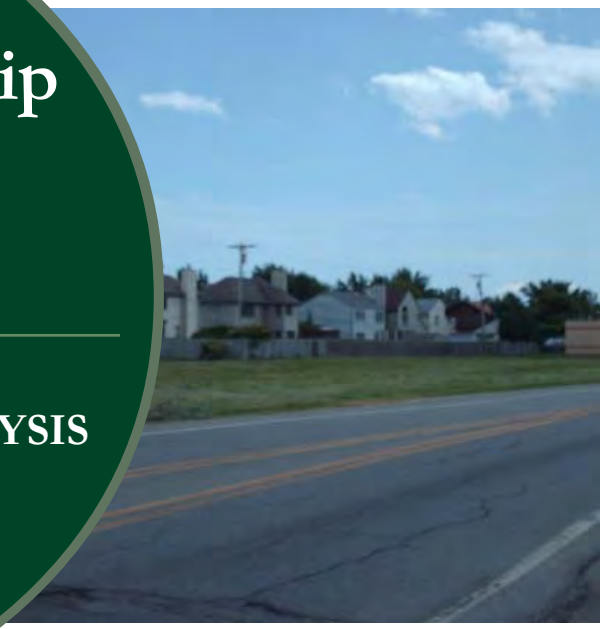
CONLUSIONS

Over the next twenty (20) years Harrison Township will continue to see its population age. Modest increases in the number of households coupled with a decrease in the number of persons per household will allow the Township to maintain a population level that is comparable to existing levels. From an economic standpoint, the Township remains underserved in its commercial base due to limited through traffic in the community. Entertainment and boat themed attractions must be examined to generate new commercial interest in existing commercial areas.

Harrison Township Master Plan

Section 5

Thoroughfare Analysis



INTRODUCTION

Preparation of a Thoroughfare Plan has several practical applications that have important consequences for the community's ultimate development pattern. Through the identification of future right-of-way locations and standards, a community establishes the system of streets and roads that will provide access for future development. Furthermore, the cost of acquiring future road right-of-way can be significantly reduced if the necessary reservation is done well in advance of future road construction.

Establishing right-of-way locations and standards through the Master Plan process provides the community with some authority to request right-of-way reservations through the land development process. Designating right-of-way widths also helps a community establish consistent setback requirements, which are accomplished through the administration of a Zoning Ordinance. This minimizes the potential of having to acquire homes or businesses when road widening becomes necessary.

The Thoroughfare Plan provides the community with an opportunity to coordinate local transportation planning activities with those occurring on a regional or State-wide basis. Roads are the physical improvements that link communities together. Coordinating the planning associated with the regional transportation system offers some opportunities to consider mutually compatible land use policies relating to these needs. Finally, roads make a significant contribution to the community's image and identity. Streets offer an opportunity for urban design improvements in the way of landscaping and monuments.

Three topics are considered in this report. The first of these is an identification of thoroughfare planning concepts. Broadly accepted concepts are offered as a way of providing a common basis of understanding or vocabulary. The next section describes the characteristics of St.Clair Township's local road system. The report concludes with a description of the Thoroughfare Plan. Major proposals and recommendations for the future are also offered.

CONCEPTS AND STANDARDS

Transportation Planning Concepts

Roads are grouped into a number of different classifications necessary for administrative, design and planning purposes. Most classification systems make a distinction based on the intended purpose of the road and the geographic areas it is intended to serve. Common road classifications include freeways, arterials, collectors and local roads. Each classification carries with it suggested minimum design standards.

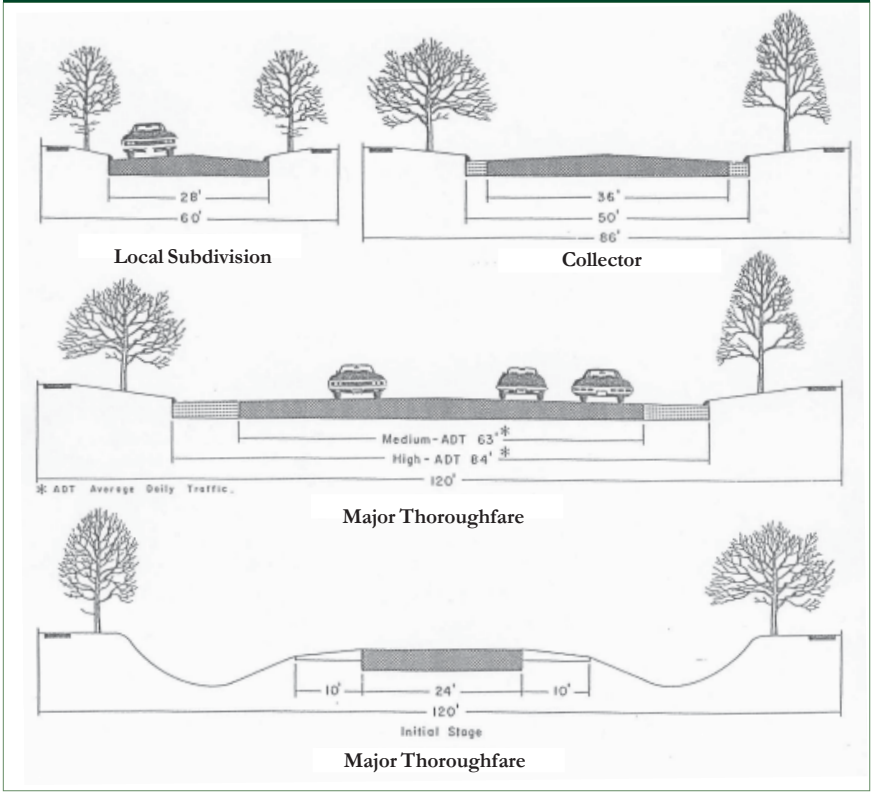
The benefit of a classification system extends beyond providing a common understanding or transportation planning vocabulary. Such a system establishes a functional system, permitting a community to relate categories of streets to various land use activities that they are best suited to serve.

Classification systems should reflect the specific category and intensity of land use that they are designed to serve. In applying a classification system, the through-traffic movements and the access requirements of abutting property should be considered. A commonly accepted classification system prepared by the National Committee on Urban Transportation is identified on the following page.

Interstate - This class is devoted entirely to traffic movement with little or no land service function. Thus, it is characterized by at least some degree of access control. Except in rare instances, this classification should be reserved for multi-lane, divided roads with few, if any, intersections at grade. Expressways serve large volumes of high speed traffic and are primarily intended to serve long trips.

Major Thoroughfare/Arterials - This class of streets brings traffic to and from the expressway and serves those major movements of traffic within or through the urban area that are not served by expressways. Major Thoroughfares interconnect the principal traffic generators within the community, as well as important rural routes. Major Thoroughfares handle trips between different areas of the community and should form a reasonably integrated system. The length of the typical trip on the system should exceed one mile.

Illustration 5-1
Cross-Section Standards



Collector - This class of streets serves internal traffic movements within an area of the community, such as a subdivision, and connects this area with the arterial system. Collectors do not handle long through-trips and are not, of necessity, continuous for any great length. In grid-iron street patterns, however, a street of several miles in length may serve as a collector, rather than an arterial, if the predominant use is to reach the next junction with an arterial and turn at that point.

Local - The sole function of local streets is to provide access to adjacent land. These streets make up a large percentage of the total street mileage of the township, but carry a small proportion of the vehicle miles of travel. In and around the central business district (CBD), local streets may carry traffic volumes measured in thousands, but this is the exception. Local residential streets, in most cases, carry daily volumes of 1,000 or less.

Standards

Standards for road development vary by the type of road and the level of government that has jurisdiction over the development and maintenance of the road. In Macomb County, this responsibility is shared by the Michigan Department of Transportation (MDOT) and the Road Commission of Macomb County (RCMC). A summary of relevant road right-of-way and pavement requirements for Macomb County Roads is included.

Table 5-1
Summary of Roadway Planning Standards

Standards For:				
Element	**Major Thoroughfares**		**Collector**	**Local**
Right-of-Way	150 feet	120 feet	86 feet	60 feet
Pavement Width (initial stage)	88 feet	64-88 feet (24 feet)	36-50 feet	28 feet
Number of Lanes	7	4 or more	2-4	2
Spacing	-	1 mile	½ mile	-

EXISTING CONDITIONS

Street Inventory

The configuration of the highway system throughout much of the nation, including southeast Michigan and much of Macomb County, is, in large part, a product of the Northwest Ordinance of 1787. This milestone legislation continues to exert a broad and lasting impact on land use and transportation patterns.

The Northwest Ordinance of 1787 divided the Country into one-mile square grids, which serve as the paths for an extensive network of major thoroughfares. The alignment of collector roads generally follows quarter section lines. Harrison Township is an exception to this rule. The Township's road system is influenced by the early French claim property divisions along the Lake St. Clair shoreline and by the Clinton River which bisects the Township.

Illustration 5-2
Historical Street Pattern

Excluding the Selfridge Air National Guard Base road system, Harrison Township contains approximately 118.7 linear road miles, as measured from the current Township road file. This mileage is allocated among the following road classification categories.

Table 5-2
Road Mileage

Road Classification	Linear Mileage
Freeways	5.9
State Highways	0.4
County Primary	24.2
County Local	5.1
Subdivision and Other	83.1
Total	118.7

Traffic Volumes

Traffic counts were taken from available SEMCOG data from the years 2003, 2004 and 2005. The heaviest traffic volumes in Harrison Township occur along the I_94 Freeway, which crosses the western portion of the Township. Volumes along portions of I_94 in the Township exceed 70,000 vehicles per day. The next busiest roads include Metropolitan Beach Parkway, Rosso Highway (M-59), North River Road and Crocker. Metropolitan Parkway has average daily traffic volumes of 22,092 vehicles. Both North River Road and Crocker maintain counts of approximately 13,500 vehicles per day. Rosso Highway, which forms the Township's northern boundary, has average daily traffic volumes of 14,078 vehicles. Jefferson Avenue had a count of 9,800 vehicles, south of Metropolitan Parkway and approximately 5,500 vehicles north of Metropolitan Parkway.

Accident Locations

As traffic volumes increase, so do the difficulties of accommodating the traffic. The number of accidents generally rises along with the increase in traffic volume. The major exception is freeways, which have considerably fewer accidents than may be expected from their volumes owing to their limited access design.

Accident totals were added up for the years 2001-2005. Based on the combined totals for these years, the most likely accident locations within the Township occur at the intersection of the three (3) expressway interchanges (Metropolitan Parkway, North River Road and Rosso Highway). Outside of the expressway interchange locations, the most accident prone locations within the Township are located at the intersection of Pointe and Metropolitan Parkway, Crocker and Metropolitan Parkway and Crocker and Jefferson.

Freeway Availability

The ability of a community to support various categories of business and industry is somewhat related to the availability of freeway access. Interstate 94 is the only freeway that crosses Harrison Township. Four interchanges are located along I_94 in Harrison Township. These occur at M-59 (Rosso Highway), North River Road, Metropolitan Beach Parkway, and a partial one at Shook Road. A second, limited access road serving the Township is Metropolitan Beach Parkway, which crosses the south-central portion of the community.

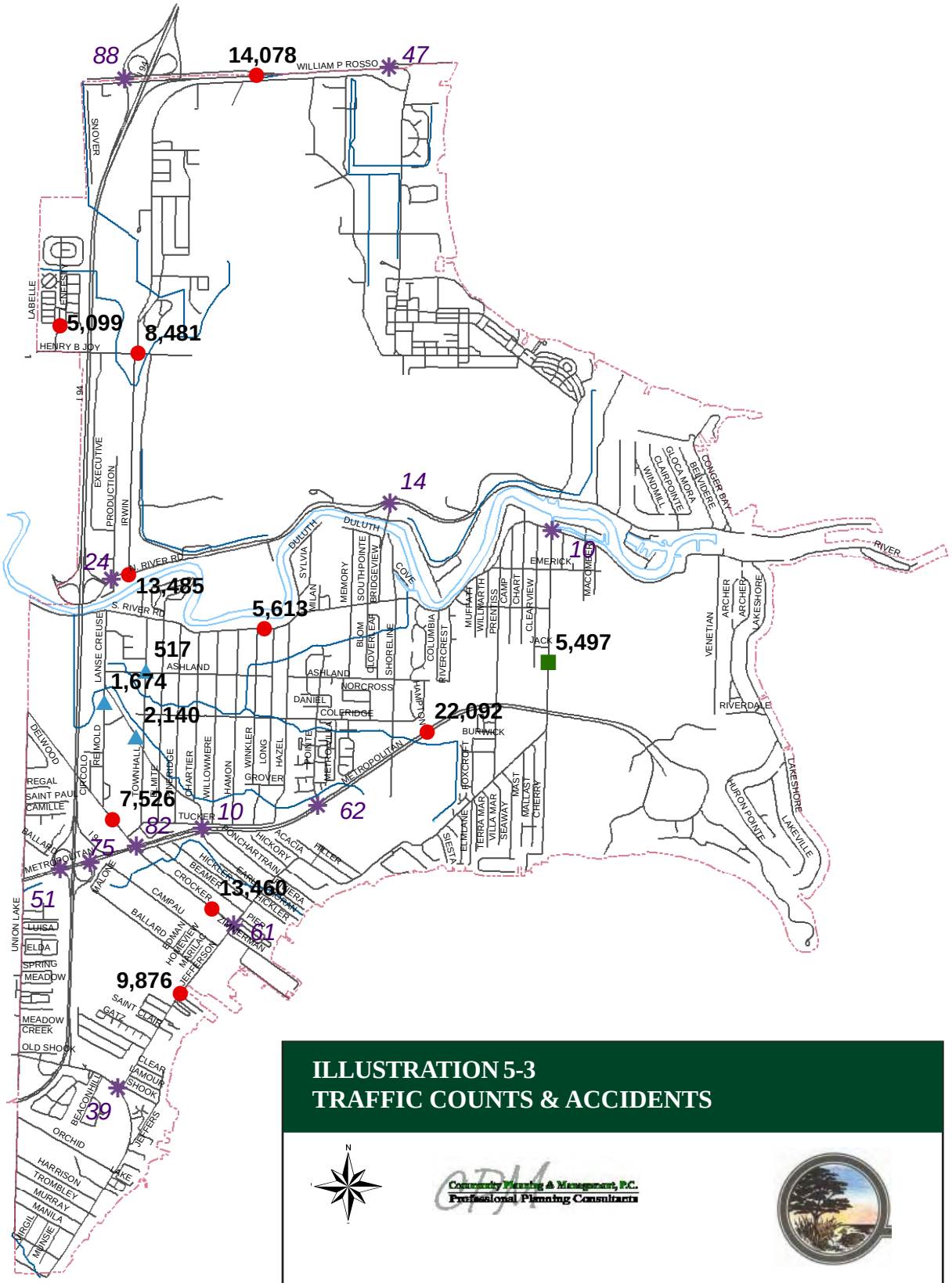


ILLUSTRATION 5-3
TRAFFIC COUNTS & ACCIDENTS

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LEGEND

Traffic Count Year

- ■ 2003
- ● 2004
- ▲ 2005

2001-2005 Accident Count

- ✱ Accident Location

Traffic Generation

Land use patterns have a significant and measurable impact on traffic volumes. Several national studies offer estimates of the number of trips generated by various land use categories. These estimates are useful in assessing the impact of various land uses on a site-specific basis and for the community as a whole.

The frequency of these trips is directly related to the availability of employment and retail opportunities in the community. A final category of vehicle trip includes through-traffic, where neither the origin or destination point is located in the community. This type of trip is likely where an interstate freeway or State trunkline traverses the community.

A considerable amount of traffic is generated by Harrison Township's nearly 10,000 households. Individual residential units create between 3 and 12 vehicle trips per day, depending on the type of unit. The actual number of trips generated by residential uses is influenced by several factors, such as household employment, car ownership and household composition.

The amount of traffic generated by commercial and industrial development in Harrison Township is limited to identifiable portions of the community. For example, both North and South River Roads carry traffic to and from the numerous marinas located along the Clinton River. Traffic along Irwin Road and Production Drive primarily serves the industrial development bordering the freeway. The presence of Metro Beach Metropark at the eastern end of the Township also represents a significant traffic generator. Much of the traffic intended for this park occurs along Metro Beach Parkway. Development during the past decades in the vicinity of Crocker and Jefferson is now generating significant added traffic.

Because of Harrison Township's location at the eastern end of Macomb County along the Lake St. Clair shoreline, few roads cross the Township or serve as regional thoroughfares. I-94 and Metro Parkway are the only roads in the Township that function as regional traffic routes serving through-traffic.

Each of the traffic generators identified above places demands on the Township's road system and should be carefully considered in the relationship between land use and transportation planning.

Adequacy of Existing System

Major Roads - Many of the limitations of the Township's road system are a consequence of the shoreline and river influences and the presence of Selfridge Air National Guard Base in the northern half of the Township. Selfridge and the Clinton River effectively limit access in a northerly direction. A single bridge along Bridgeview Avenue is the only bridge crossing the Clinton River, aside from I-94. Reasonably convenient access to the north is available from the three interchanges along I-94.

Subdivision Streets - There are some subdivision streets in Harrison Township that are not built to the Road Commission of Macomb County standards, which incorporate a 60-foot right-of-way width and 28-foot wide pavement cross-section measured from the back of the curb. These streets are confined primarily to these older residential neighborhoods located in the shoreline areas. Many of these streets need drainage improvements and paving.

Many of the Township's neighborhood streets also display a unique design pattern that is a function of the numerous canals that wind through these neighborhoods. One consequence of this is long cul-de-sacs, with limited access between these streets or to the major road system.

Mass Transportation - Limited mass transit service is available to Harrison Township by the SMART bus system, via the Jefferson East Express route. Service along this route is offered Monday through Friday, during rush hours only. It provides transit service between Crocker/ Metropolitan Beach Parkway and Grand Circus Park in Downtown Detroit. Selected trips are also available along Crocker to Mt. Clemens and to Selfridge Air National Guard Base.

Bicycle Paths - The Freedom Trail bicycle/pedestrian path was reconstructed to a 10 foot width through the entire length of Harrison Township during the 1990's. The first phase of this regional system was built by the Township in the late 1980's and extends from Harrison's western boundary east to the entrance of Metro Beach Metropark. Another leg of this system extends along the Clinton River Spillway as far as Jefferson Avenue. Aside from these two routes, sidewalks and other pedestrian paths in the Township are limited and discontinuous.

Table 5-3
Trip End Generation Rates
By Land Use

		Weekday Trip End Generation Rates	
Type of Land Use	**Type of Development**	**Average ***	**Range**
Residential	Subdivision	9.5 TE per Occupied Dwelling Unit	6.4 - 12.7
	Apartment	5.7 TE per Occupied Dwelling Unit	3.1 - 7.9
	Mobile Home Park	5.4 TE per Occupied Dwelling Unit	2.8 - 6.8
Institution	High School	1.3 TE per Student	1.1 - 2.1
	Elementary School	1.0 TE per Student	0.7 - 1.2
	Government Office Building	44 TE per 1,000 SqFt. Floor Area	25 - 139
	Church	44 TE per Employee (Sunday)	30 - 191
Commercial	Shopping Center (regional)	315 TE per Net Acre	149 - 671
	Shopping Center(neighborhood)	949 TE per Net Acre	800 -1,064
	Commercial Store (freestanding)	47 TE per 1,000 SqFt. Floor Area	35 - 330
	Commercial Office Building	15 TE per 1,000 SqFt. Floor Area	8.8 - 23.6
	Medical Office	41 TE per Doctor	31 - 53
	Motel	10.1 TE per Occupied Unit	4.7 - 14.6
	Restaurant (sit-down)	14 TE per Employee	9 - 22
	Restaurant (fast-food)	75 TE per Employee	62 - 89
	Bank, Savings & Loan	43 TE per Employee	31 - 76
	Service Station	57 TE per Employee	41 - 79
Industrial	Various Types of Industry	79 TE per Net Acre	9 - 350
	Industrial Park	64 TE per Gross Acre	52 - 140
	Warehouse	81 TE per Net Acre	28 - 256
	Mass Production	93 TE per Net Acre	38 - 191
	Administration	60 TE per Net Acre	28 - 229
	Research and Development	31 TE per Net Acre	20 - 127
	Specialty Production	39 TE per Net Acre	9 - 159
	Truck Terminals	56 TE per Net Acre	43 - 128

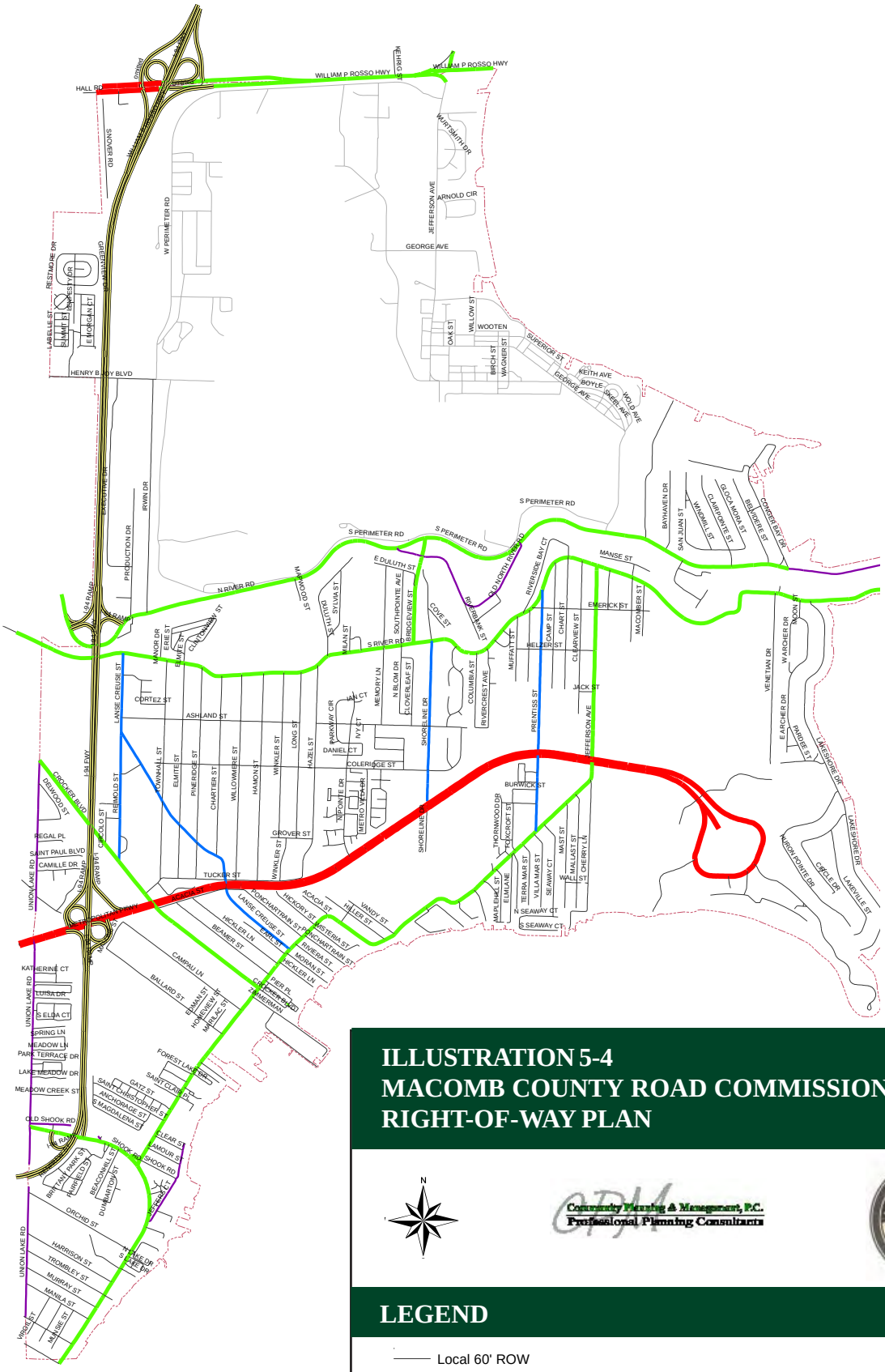

ILLUSTRATION 5-4
MACOMB COUNTY ROAD COMMISSION RIGHT-OF-WAY PLAN

N

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LEGEND

- Local 60' ROW
- Local 66' ROW
- Collector 86' ROW
- Major 120' ROW
- Regional 204' or Greater ROW
- I-94 Expressway
- Selfridge Base Road

Harrison Township Master Plan

Section 6

Visions & Strategies

INTRODUCTION

The Master Plan is a general policy document. It identifies various visions of how and when the Community should develop. These visions are the result of several public workshops and public hearings designed to collect a variety of ideas from the Harrison Township residents, business owners and other stakeholders to guide this Community's development. Each vision is supported by strategies designed to serve as a guide to consistent and rational public and private decisions in the use and development of land and public improvements. Where possible, the strategies are further supported by programs that may promote the supported strategy and vision.

PURPOSES OF THIS MASTER PLAN

The purposes of this Master Plan are:

1. To improve the physical environment of the Township as a setting for human activities to promote the general health, safety and welfare by making the Township more functional, beautiful, decent, healthful, interesting and efficient.

2. To promote the public interest, the interest of the Township at large, rather than the interests of individuals or special groups within the Township.

3. To facilitate the democratic determination and implementation of Township policies and physical development. By placing the responsibility for researching and assisting in determining policies with the Planning Commission and providing an opportunity for citizen participation, the Plan facilitates the democratic process.

4. To affect political and technical coordination in community development.

5. To inject long-range considerations into the determination of short-range actions.

6. To bring professional and technical knowledge to bear on the making of political decisions concerning the physical development of the Township.

Illustration 6-1
The Master Plan is designed to assist the Township in the improvment of the overall physical environment.

As an expression of desirable physical development, the Master Plan is an affirmation of visions and strategies (goals and objectives). The Plan constitutes a declaration of short and long-range strategies necessary to achieve stated visions. The strategies and programs are designed to make the vision a future reality.

POLICY BASIS

Only through careful analysis of existing conditions and the forces which have brought them about, can the Township understand their interrelationship, identify their underlying purpose, anticipate future problems, and devise solutions.

Accordingly, the Township Master Plan identifies a vision. The vision is then analyzed for implementation. In essence, what assets are available for implementing the vision, and further, what hurdles or road blocks may prevent the vision from becoming reality? The Township, based on existing conditions, future estimates and projections, and local knowledge must identify all current and anticipated future issues which must be addressed to facilitate the vision.

No strategies or set of objectives, however carefully and analytically developed, will be equally relevant at all times. Movements of people and the stimulation of activities relieve one set of problems and leave others in their wake. For example, when the automobile replaced the horse, the streets became cleaner but the air dirtier. As our production rises, distribution, rather than production of consumer goods, becomes the problem. As urbanization continues, flooding becomes a problem in previously well-drained areas because of increased water run off. Increases in population and income affect recreation demand and create weekend traffic congestion in areas usually free of such conditions.

This section attempts to reflect the community structure and quality of community life which the Township desires. Decisions cited in this report and the resulting objectives are translated in a Master Plan that reflects Harrison Township's key decisions in selecting future development patterns.

POLICY PURPOSE

Administration by Township Officials, legislative action by the Township Board, quasi-judicial rulings by the Zoning Board of Appeals, and administrative action and recommendations by the Planning Commission are sometimes criticized as being capricious and arbitrary. Clear-cut statements of policy can go far to minimize the perceived arbitrariness of certain planning and planning-related actions. They can guide and substantiate honest, intelligent decisions. They can also serve the community planner and the Planning Commission as an anchor of objectivity. Another useful function performed by visions and strategies is in the area of informing the public about the thinking of the Planning Commission with regard to land use decisions.

DOCTRINE FOR VISION IMPLEMENTATION

Without adhering to the following principles and/or tenets, the ability of the Township to realize the visions herein will be placed at grave risk.

THE DOCTRINE

I. Administrators of this Master Plan must separate themselves from decision-making which is based on the many pressures, both politically and emotionally, applied by self interest groups and individuals.

II. Administrators of this Master Plan must avoid short-range decisions inconsistent with the long-range strategies herein, which will result in the incremental destruction of the intent of this Plan.

III. Administrators of this Master Plan are charged with an ethical and professional responsibility for obtaining a strong working knowledge of this policy document. This entails understanding the doctrine, the visions, the strategies, the programs and the overall intent of this Plan.

The General Vision

A safe, walkable, aesthetically pleasing, fully-functional, integrated waterfront community with a nautical theme, harmonious with the natural environment, including several architecturally and functionally defined village mixed-use areas accessible to surrounding neighborhood residential by recreational modes of travel.

Vision:

Community facilities and thoroughfares that are designed, developed and maintained in a safe and fully-functional state.

Strategy:

Ensure emergency service providers are readily accessible, adequately equipped, trained and staffed.

Programs:

1. Provide more proximate public safety services to the industrial area.

2. Actively pursue grants and carefully budget for adequate services.

Illustration 6-2
Existing fire station on Crocker, northwest of Jefferson

Strategy:

Prepare standards to mandate that adequate infrastructure exists to handle proposed and existing demands.

Programs:

1. Ensure that adequate water pressure is available to accommodate new or increased development for safety and health purposes.

2. Require concurrency of all infrastructure improvements relative to requests for increased land use intensities or densities.

Strategy:

Improve and maintain the thoroughfare network to ensure safety and function.

Programs:

1. Work with the RCMC and MDOT to achieve and maintain a level of service of "C" to facilitate existing and future traffic flow. Where levels exist below "C", such levels should be maintained or elevated to a minimum level of service of "D".

2. Develop zoning ordinance provisions which require traffic impact studies and minimum level of service requirements.

3. Reassess right-of-way needs based on the distinct characteristics of each specific area in the Township.

4. Develop design standards and ordinances to facilitate safe and functional circulation within the Township, such as: access management standards, traffic calming techniques, cross access and marginal access drives.

5. Improve the geometrics or enhance the visibility and awareness associated with these hazardous curve areas. Lighting, landscaping and signage can all be utilized to help define the curves.

Strategy:

Adopt and enforce, when feasible, the recommendations of the Air Installation Compatible Use Zone study (AICUZ Study) prepared for Selfridge Air National Guard (SANG) Base.

Programs:

1. Continue to improve communications between the Township and SANG.

2. Ensure that all development plans are forwarded to SANG for review and comment.

3. Re-examine the allocation of uses within the AICUZ Accident Potential Zones and Clear Zones.

4. Re-examine Building Code requirements with regard to sound attenuation.

5. Encourage the preservation of Selfridge as a military base. As a part of this Plan, prepare reuse concepts which would deal with an unfortunate base closing process.

Vision:

A community linked by hike/bike pathways, sidewalks and trails to encourage modes of transportation outside of automobile and similar motor vehicles.

Illustration 6-3
The Freedom Trail is the primary bikepath in the Township

Strategy:

Require sidewalks in new developments and identify and target existing areas without sidewalks for sidewalk development.

Programs:

1. Conduct a gap analysis study.

2. Identify financing mechanisms such as special assessment districts, downtown development authorities, corridor improvement authorities and grant opportunities.

Strategy:

Create and maintain multi-use pathways in areas that are optimal and feasible.

Programs:

1. Implement the pathway plan currently adopted in the Township's Recreation Plan.

Strategy:

Provide a welcoming and aesthetic environment with nodes of interest.

Programs:

1. Develop Ordinance provisions that require landscaping and pedestrian and bicycle amenities.

Strategy:

Link residential subdivisions and areas with commercial nodes, parks, and regional attractions.

Strategy:

Work with MDOT, RCMC and any other transportation authorities to develop a rail transit or similar type of mass transit system to link the Community and surrounding communities to Metropolitan Beach via the Metropolitan Parkway median and any other resources.

Vision:

Promote a nautical theme throughout the Community that establishes a sense of place and enhances the aesthetic quality of the Community.

Strategy:

Incorporate design standards applicable to the diverse areas in the Township.

Programs:

1. Develop Zoning Ordinances provisions which require high quality building materials, unique aesthetic design and create an overall design theme.

2. Explore Form-Based Coding as a means of implementing design criteria.

3. Establish a unified lighting theme for specific areas of the Township which define the areas and compliment the nautical theme.

4. Re-utilize nautical memorabilia for decorative purposes throughout the Township.

Illustration 6-4
The Township aims to promote a nautical design theme to highlight the importance of boating in the community.

Strategy:

Encourage subdivisions to enhance or create entrance features at major road intersections.

Programs:

1. Utilizing the nautical theme, encourage neighborhoods through competitions and awards to create or enhance neighborhood entranceways.

Strategy:

Improve marina / boat livery aesthetics while maintaining and promoting economic viability.

Programs:

1. Work with marina owners and yacht clubs to establish ordinance requirements which provide flexibility in the storage of boats, the amount and location of parking, etc., in exchange for aesthetic improvements such as screening and landscaping.

2. Institute the use of CPR (Compliance Planning for Redevelopment) to help revive and accentuate the waterfront marina and yacht club areas.

Strategy:

Rehabilitate and/or redevelop economically and aesthetically deteriorated residential and commercial areas.

Programs:

1. Reassess setback requirements and other zoning standards which severely curtail the ability of property owners to maintain or improve their properties.

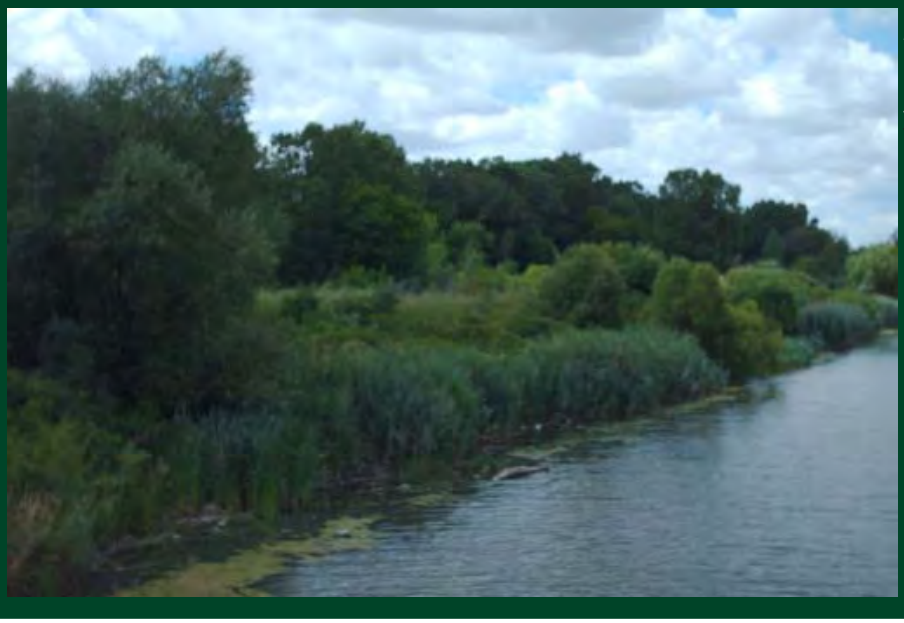

Illustration 6-5
The Clinton River Spillway.

Strategy:

Have the Township take the lead in nautical design and theme.

Vision:

Integrate the Township's natural environmental systems into all developments in a harmonious manner and require full preservation of natural feature quality and quantity, when feasible.

Strategy:

Preserve and enhance wetlands.

Programs:

1. Work with the existing environmental committee to adopt a community wide wetlands ordinance which allows local regulation of such.

2. Utilize both the County Wetland Indicator mapping as well as the Township's wetland study during the review of all site plans.

Strategy:

Preserve and enhance woodlands.

Programs:

1. Develop new Zoning Ordinance regulations or Regulatory provisions for the preservation of wooded areas.

2. Work with the Macomb County Department of Planning and Economic Development to further refine the Natural Features Inventory Mapping.

Strategy:

Eliminate or substantially reduce pollutants being discharged into the lake and other water bodies.

Programs:

1. Work with Watershed groups in identifying source and non-source discharges within the tributaries of the Township and developing remedies to remove such.

2. Ensure that Zoning and Engineering practices require appropriate separation devices and best management practices for the removal of pollutants.

3. Investigate programs similar to the "Lake Safe" Lawn Fertilizer Sticker Program.

Strategy:

Provide low impact access to natural areas.

Programs:

1. Develop Zoning Ordinance and Engineering standards for unobtrusive and low impact access to naturally sensitive areas such as raised boardwalks with railings.

2. Develop outdoor observation and classrooms for interpretive use by Township residents and school districts.

Strategy:

Create Low Impact Development (LID) standards for all developments within the Township.

Programs:

1. Develop Zoning Ordinance and Engineering standards for rain gardens, sedimentation basins, impervious surface ratios, increased landscaping standards, etc.
2. Re-evaluate landscaping standards to ensure limited impact on Selfridge Air National Guard Base.

Strategy:

Create and implement a significant greenway plan.

Programs:

1. Secure riparian and other natural feature easements in those areas identified on the Township's Greenway Plan.

Vision:

Encourage mixed-use, village-type nodes (architecturally and functionally defined village areas).

Strategy:

Identify existing commercial enclaves with redevelopment potential.

Programs:

1. Prevent the introduction of new commercial areas outside of planned commercial nodes.

Strategy:

Ascertain the assets and liabilities regarding aesthetics, function and location of identified commercial nodes.

Programs:

1. Reassess zoning standards for uses, setbacks, parking, signage, loading/unloading to encourage redevelopment and mixed-use development.

Strategy:

Create an overall layout and design plan for each node (establish basic criteria).

Programs:

1. Consider utilizing form-based code provisions and/or adopting overlay zoning districts which establish design criteria for development.

Strategy:

Identify tools for the development / redevelopment of village nodes.

Programs:

1. Create a downtown development authority, corridor improvement authority and associated financing tools to assist in the redevelopment of identified areas.

Vision:

Promote, restore and maintain the economic viability and aesthetics of the industrial corridor.

Strategy:

Identify assets and liabilities of aesthetics, function and location.

Programs:

1. Explore opportunities to access the Township's industrial areas from Rosso Hwy (M-59).

2. Provide more proximate public safety services to the industrial area by coordinating contractual services with other public and private entities or through the construction of additional Township facilities when economically practical.

3. Reassess setbacks, storage areas and lot use limitations with regard to the small lot and double frontage configurations faced by many industrial users.

4. Develop increased landscape and screening requirements in return for decreased setbacks and increased building and storage area in an effort to improve Community aesthetics.

5. Improve site access and visibility from North River Road by removing visual impediments and adding entrance features to the subdivision.

Strategy:

Create an overall layout and design plan with the assistance of the industrial owners for the entire industrial subdivision – Establish Basic Criteria.

Programs:

1. Using the existing conditions analysis noted previously, create potential lot layouts for building, parking and storage expansion.

Strategy:

Implement tools for development / redevelopment.

Programs:

1. Create a streamlined industrial development review process for owners who implement the "Established Basic Criteria".

2. Re-examine permitted and special land uses for the industrial use districts in an effort to expand potential uses and to maximize marketability of the area.

3. Work with owners to determine the feasibility for CPR Program use in the area.

Vision:

Continue to create subdivisions and residential developments that sustain value and offer residents a high quality of life.

Strategy:

Provide Zoning Ordinance and other ordinance provisions which ensure high quality new developments and protect and promote long-term value for all housing developments.

Programs:

1. Provide standards that require existing platted substandard residential lots to be modified to meet minimum community standards, when possible.

2. Promote provisions which Maintain the primarily owner-occupied character of the community.

3. Plan medium and high density residential development only in specific areas properly served with public utilities, proper drainage, and high accessibility.

4. Separate established single-family and two-family residential areas from other incompatible uses and uses of greater intensity, excepting planned mixed use areas.

5. Protect residential neighborhoods from the intrusion of incompatible areas with the use of buffers and transitions.

Vision:

Improve the viability of commercial uses by improving market opportunities, aesthetics and growth opportunities.

Strategy:

Plan for commercial uses only where there is an existing or projected sufficient support population, or where there will be adequate draw from the highway or the trade area.

Programs:

1. Allow convenience commercial development only in planned areas and strive to avoid spot and random locations.

2. Encourage commercial development in areas where it is most likely to successfully develop (at the intersection of major roads). Place commercial uses at locations of easy access where ingress and egress will not impede traffic flow.

Strategy:

Develop building material requirements to ensure long-term durability of commercial structures and create commercial design guidelines to share the nautical vision with developers.

Programs:

1. Discourage large and/or flashing and generally distracting signs in commercial developments.

2. Create building requirements in the Zoning Ordinance that will ensure only high quality, long-term durable building materials such as fire baked clay brick and other similar materials are utilized for commercial construction.

3. Create design guidelines to assist developers in gaining an understanding of the Community's visions.

4. Promote transient mooring facilities on the Clinton River to complement commercial development such as restaurants and shops.

Vision:

Continue to protect and enhance structures and landscapes that are significant to thehistory of Harrison Township.

Strategy:

Work with the Historical Commission to document the historically significant properties of the community.

Programs:

1. Conduct a reconaissance level survey of the Township to detemine where structures of historic significance are located.

2. Following the completion of the survey, consider the creation of local historic districts to ensure that historically significant proeprties are protected.

3. Incorporate the Historical Commission into the site plan review process to ensure development does not negatively impact historic sites.

Vision:

Enhance local recreation opportunities and preserve the community's natural assets and sufficient open space.

Illustration 6-6
Tucker/Spillway Park

Strategies:

Harrison Township shall create a recreation plan that addresses the needs and desire of its population and it shall be considered a part of this Master Plan.

Programs:

1. Ensure the plan identifies and prioritize the undeveloped natural features of the Township that are feasible for recreation and open space purposes.

2. Correlate recreation facilities positively with population densities.

3. Recognize the need for a variety of recreation facilities encompassing the full range from home yard to Township-wide facilities.

4. Provide adequate park and recreation space as an integral part of each development (subdivision, multiple, and mobile home park).

5. Encourage continued cooperation with the school district in providing recreation facilities and programs.

Overall Concept

Harrison Township's land use pattern will largely be determined by existing land use patterns, zoning patterns, densities, infrastructure availability, and, in conjunction with the previous factors, the visions and strategies developed in this section.

Generally speaking, the Township's land use concept involves residential infill at densities consistent with the overall patterns surrounding the area. Commercial areas with the Township will be consolidated to where concentrations currently exist. The principal difference will be the creation of defined "nodes" in the three locations illustrated in the Concept Map. New industrial areas are not proposed to be introduced due to current vacancies, current and projected markets, and limited suitable expansion areas.

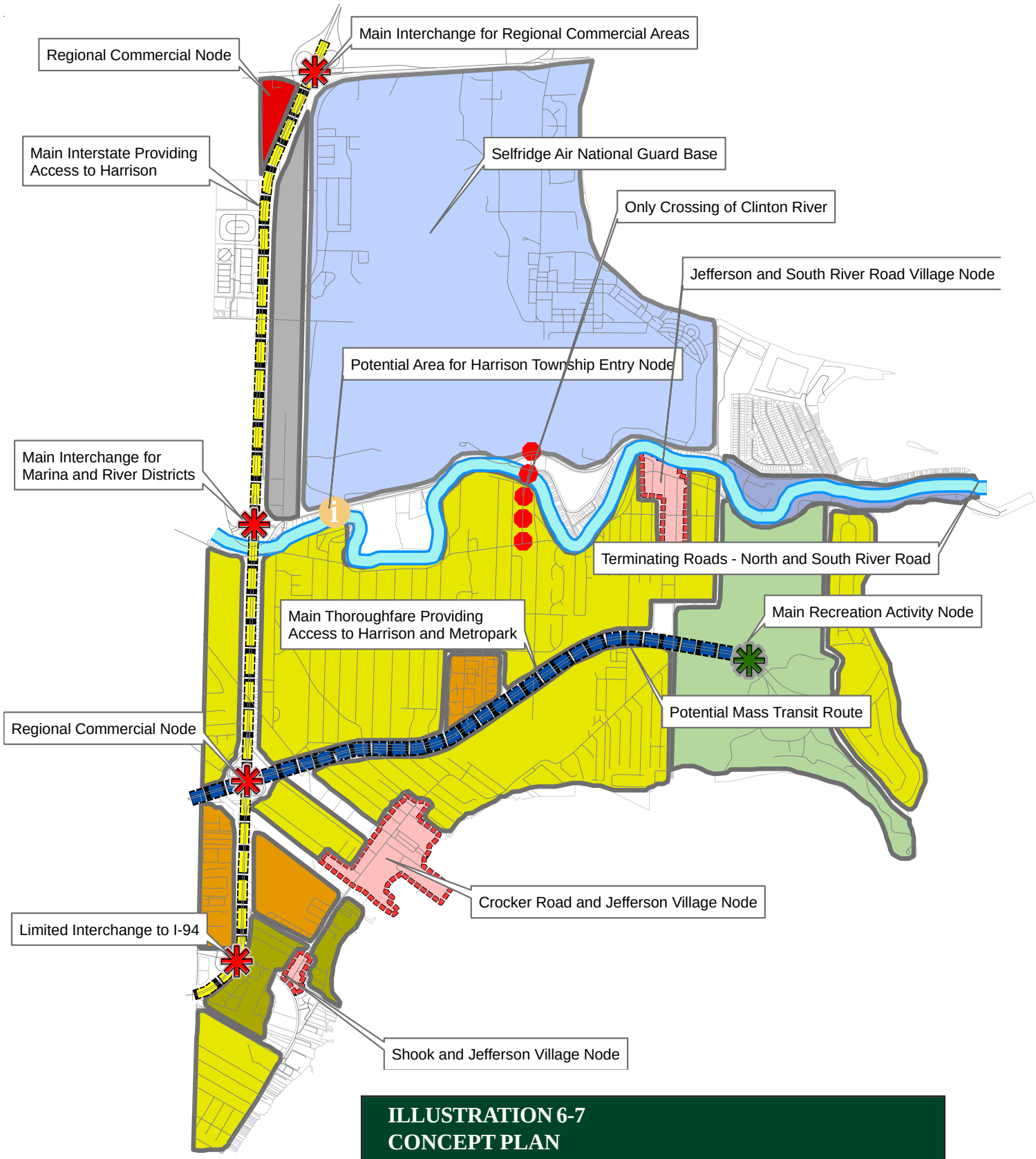

ILLUSTRATION 6-7
CONCEPT PLAN

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Harrison Township Master Plan

Section 7

Residential Areas Plan

RESIDENTIAL AREAS PLAN

Residential development plans for the community largely involve infill development and improvements to existing subdivisions. Field surveys were conducted to analyze both infill and improvement needs and are the basis for the residential uses and development intensities planned for within the Township. The results of this survey is provided for on the following pages. To provide a more detailed analysis of specific areas, the residential areas of the Township were divided into five (5) distinct sub-areas. These sub-areas are identified on the following illustration.

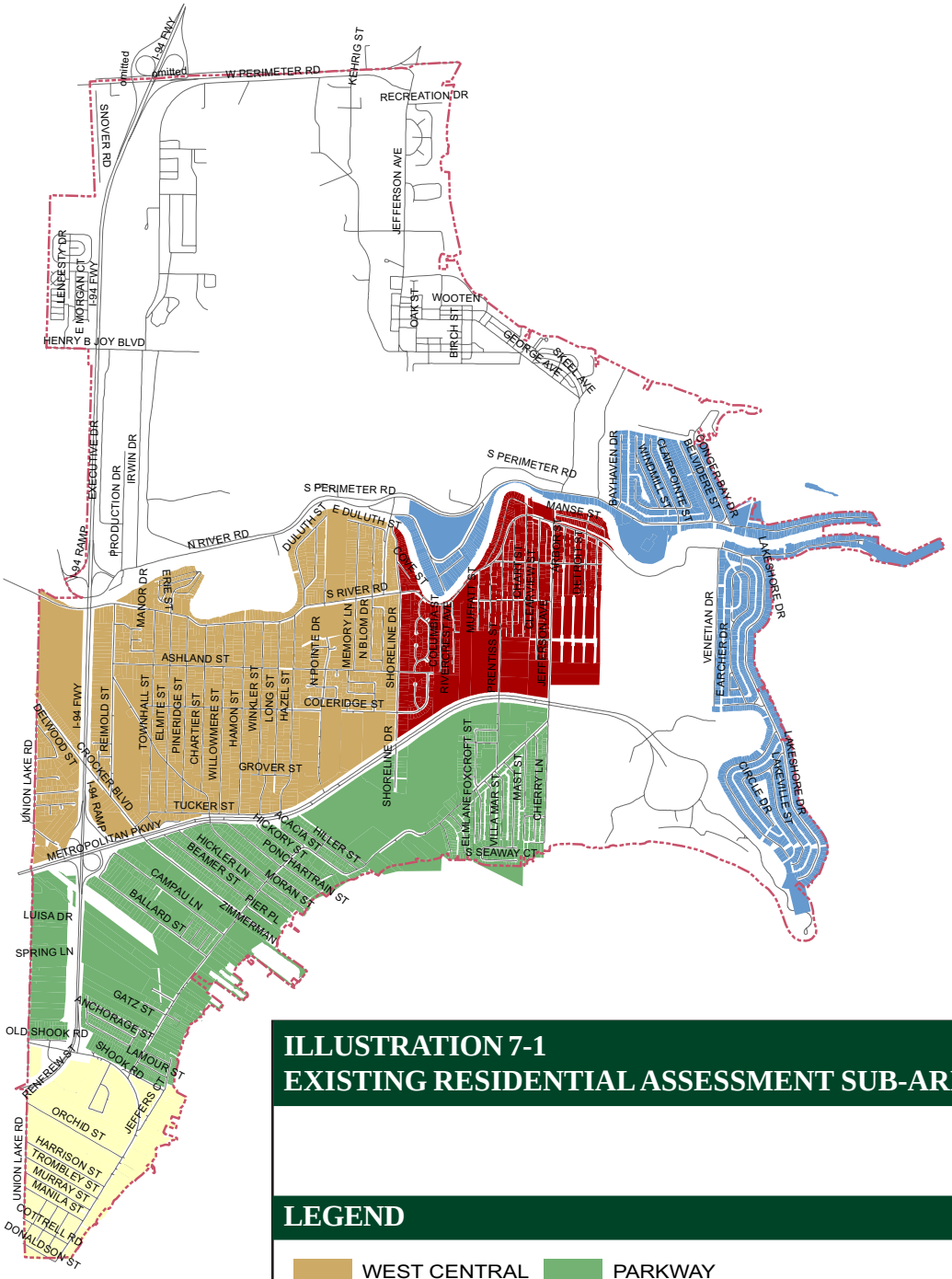

ILLUSTRATION 7-1
EXISTING RESIDENTIAL ASSESSMENT SUB-AREAS

LEGEND

- WEST CENTRAL
- CENTRAL
- EASTERN
- PARKWAY
- SOUTHERN

Existing Single Family Residential Lot Characteristics

For the purposes of this assessment, the Township was divided into five (5) primary residential areas. These areas each maintain there own distinct character and are identified on the Residential Sub-Area Map. This section concludes with an overall Township density map. This map represents gross residential densities within the Township and provides a graphic depiction of the development intensity within the Township. The sub-areas are described as follows:

West Central Neighborhood

- ***Boundaries*** - South of the Clinton River, east of I-94, north of Metropolitan Parkway, and stopping at Shoreline Drive on the east boundary.

- ***Typical Developed Lot*** - ranging from 15,000 square feet to greater than 20,000 square feet in size (average of 18,000 square foot lots).

- ***Single Family Residential Density*** - Estimated at approximately 1.7 units per acre (minus roads and other non-single family residential areas).

ILLUSTRATION 7-2
WEST CENTRAL RESIDENTIAL SUB-AREA TYPICAL LOT SIZES

LEGEND

- < 8,000 sq. ft.
- 8,000 - 9,999 sq. ft.
- 10,000 - 11,999 sq. ft.
- 12,000 - 14,999 sq. ft.
- 15,000 - 17,999 sq. ft.
- 18,000 - 19,999 sq. ft.
- 20,000 - 30,000 sq. ft.
- >30,000 sq. ft.

Central Residential Sub-Area

- ***Boundaries*** - Shoreline to Metropolitan Beach Metro Park and respecting the same north-south boundaries as the West Central Sub-Area.

- ***Typical Developed Lot*** - The Central Residential Sub-Area is characterized by a smaller lot, higher density single-family home type of development. Lots at or below 8,400 square feet in size comprise a majority of the area within this potion of Harrison Township.

- ***Single Family Residential Density*** - Estimated at approximately 4.0 units per acre (minus roads and other non-single family residential areas).

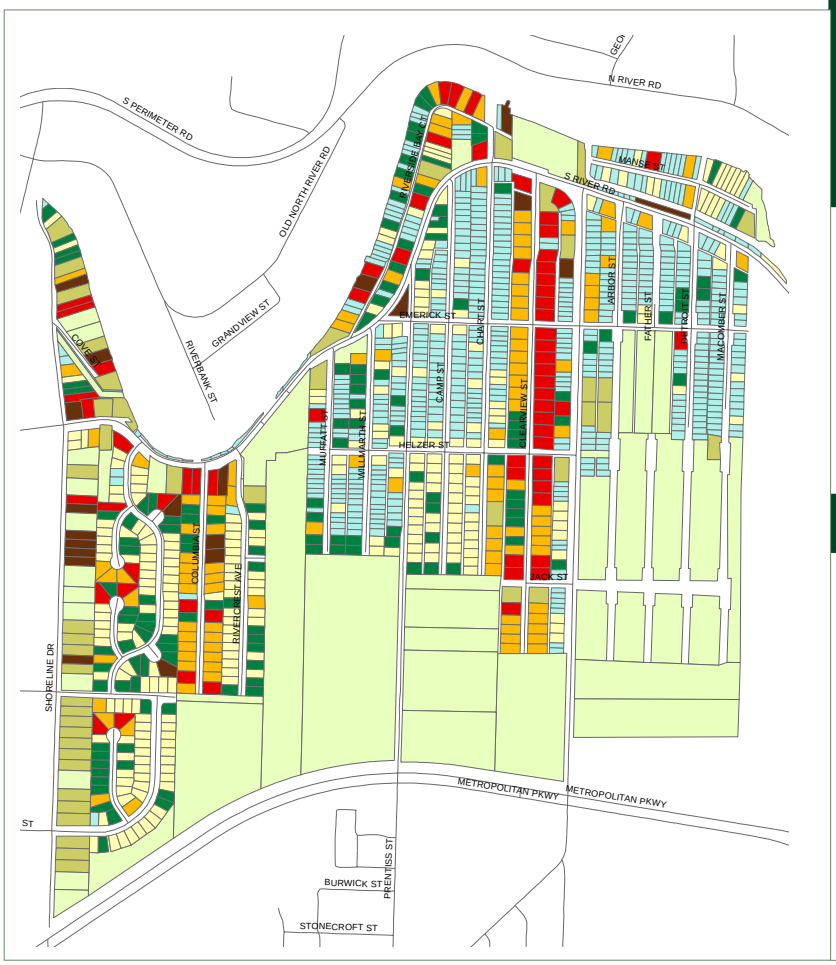

ILLUSTRATION 7-3
CENTRAL RESIDENTIAL SUB-AREA
TYPICAL LOT SIZES

LEGEND

- < 8,000 sq. ft.
- 8,000 - 9,999 sq. ft.
- 10,000 - 11,999 sq. ft.
- 12,000 - 14,999 sq. ft.
- 15,000 - 17,999 sq. ft.
- 18,000 - 19,999 sq. ft.
- 20,000 - 30,000 sq. ft.
- >30,000 sq. ft.

Eastern Residential Sub-Area

- ***Boundaries*** - North side of the Clinton River and the easternmost portion of the Township abutting Lake St. Clair.

- ***Typical Developed Lot*** - Characterized by lot sizes ranging from 12,000 to 15,000 square feet in size on the north side of the Clinton River. Lot sizes tend to decrease and densities tend to increase in proximity to the Lake. On the south side of the River, densities increase and larger lots are generally fronting the Lake.

- ***Single Family Residential Density*** - The north side of the Clinton River maintains an estimated density of 2.4 units per net acre. South of the River, along Lake St. Clair, the average net density is estimated at approximately 3.0 units per net acre (minus roads and other non-single family residential areas).

ILLUSTRATION 7-4
EASTERN RESIDENTIAL SUB-AREA
TYPICAL LOT SIZES

LEGEND

- < 8,000 sq. ft.
- 8,000 - 9,999 sq. ft.
- 10,000 - 11,999 sq. ft.
- 12,000 - 14,999 sq. ft.
- 15,000 - 17,999 sq. ft.
- 18,000 - 19,999 sq. ft.
- 20,000 - 30,000 sq. ft.
- >30,000 sq. ft.

Parkway Residential Sub-Area

- ***Boundaries*** - Located between Anchor Bay on the south and Metropolitan Parkway on the north, and the Township's westernmost boundary and Metropolitan Beach MetroPark on the east.

- ***Typical Developed Lot*** - Lots are generally around 8,400 square feet in size, with larger lots closer to the Lake. Further west, and south of Metropolitan Parkway, a diverse mix of lot sizes and density exist. Northwest of Jefferson, larger lots exist in the general area of 12,000 square feet in size, while the area southeast of Jefferson is characterized by a majority of lots below 10,000 square feet.

- ***Single Family Residential Density*** - The typical density within the central portion of this area is approximately 2.8 units per acre, while the easternmost residential area closest to the MetroPark maintains a density of approximately 4.0 units per acre (minus roads and other non-single family residential areas).

ILLUSTRATION 7-5
PARKWAY RESIDENTIAL SUB-AREA
TYPICAL LOT SIZES

Community Planning & Management, P.C.
Professional Planning Consultants

LEGEND

- < 8,000 sq. ft.
- 8,000 - 9,999 sq. ft.
- 10,000 - 11,999 sq. ft.
- 12,000 - 14,999 sq. ft.
- 15,000 - 17,999 sq. ft.
- 18,000 - 19,999 sq. ft.
- 20,000 - 30,000 sq. ft.
- >30,000 sq. ft.

Southern Residential Sub-Area

- ***Boundaries*** - Located between the Township's southern boundary on the south, Shook Road on the north, the Township's westernmost boundary on the west and Anchor Bay on the east.

- ***Typical Developed Lot*** - At the southernmost end of the Township, lots are generally smaller and fall into the 8,400 to 9,600 square foot range.

- ***Single Family Residential Density*** - The typical density within this area is approximately 4.0 units per ace (minus roads and other non-single family residential areas).

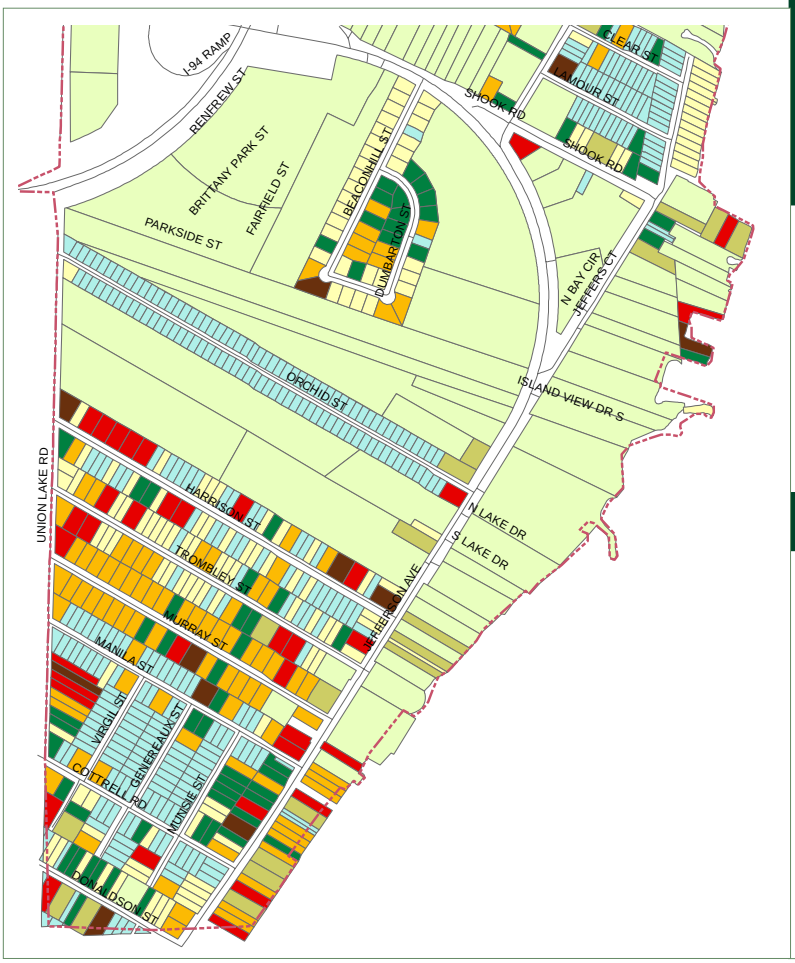

ILLUSTRATION 7-6
SOUTHERN RESIDENTIAL SUB-AREA
TYPICAL LOT SIZES

LEGEND

- < 8,000 sq. ft.
- 8,000 - 9,999 sq. ft.
- 10,000 - 11,999 sq. ft.
- 12,000 - 14,999 sq. ft.
- 15,000 - 17,999 sq. ft.
- 18,000 - 19,999 sq. ft.
- 20,000 - 30,000 sq. ft.
- >30,000 sq. ft.

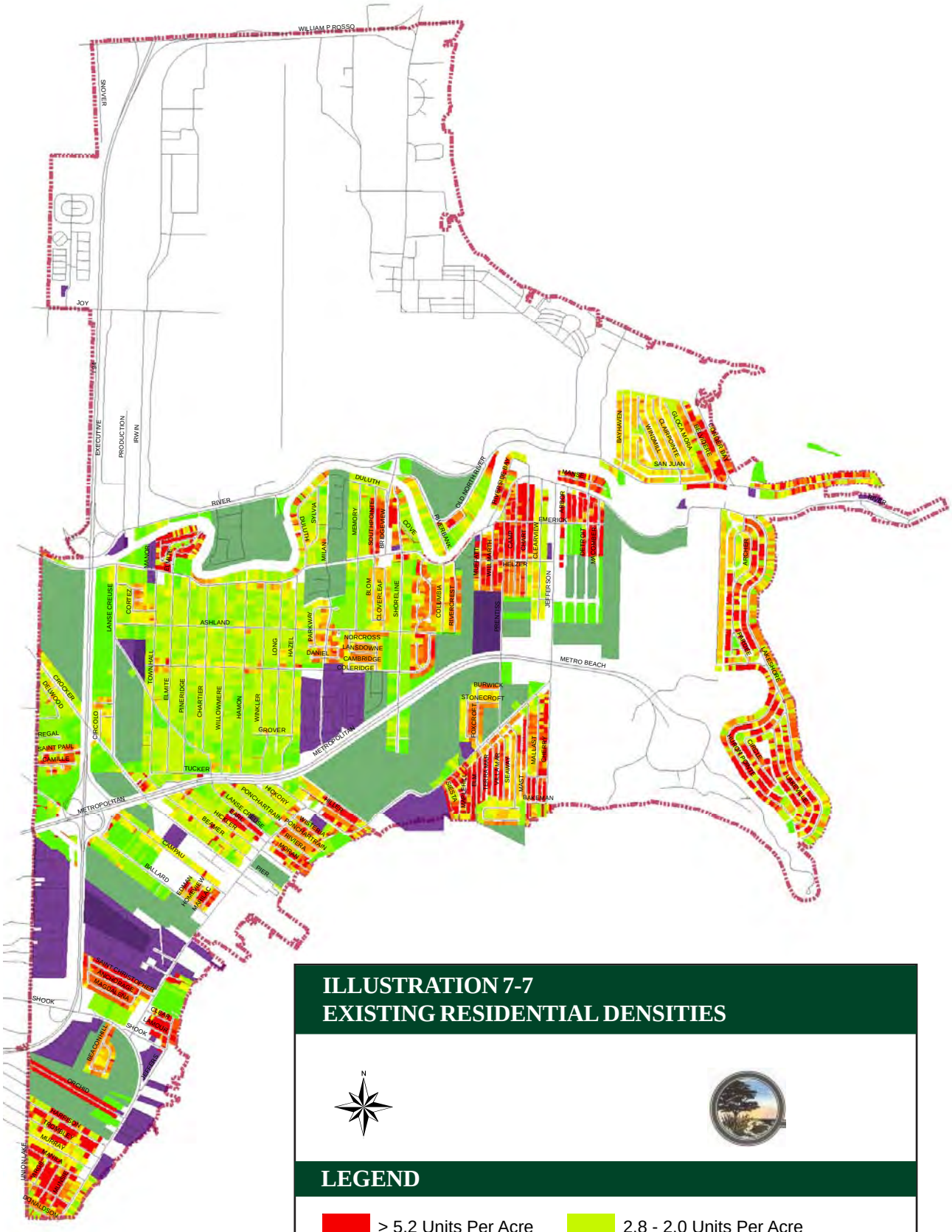

ILLUSTRATION 7-7
EXISTING RESIDENTIAL DENSITIES

LEGEND

- > 5.2 Units Per Acre
- 5.2 - 4.5 Units Per Acre
- 4.4 - 4.0 Units Per Acre
- 3.9 - 3.6 Units Per Acre
- 3.5 - 2.9 Units Per Acre
- 2.8 - 2.0 Units Per Acre
- 1.9 - 1.0 Units Per Acre
- 0.9 - 0.2 Units Per Acre
- 0.1 - 0.0 Units Per Acre
- Multiple Family > 5.0 Units Per Acre

Single Family Residential Land Use Plan Designations

Many of the Township's visions for single-family residential development focus on improvements to existing subdivisions such as adding sidewalks, paving roads and providing accessible parks and pathways. From a future land use standpoint, the visions also include ensuring adequate emergency service response, protecting natural resources, ensuring the provision of adequate infrastructure (roads, sewage, water, storm drains, etc.) and providing appropriate densities based on these visions and other guiding principals discussed previously in this Master Plan.

Gross density is utilized in this plan for designating planned residential development intensities. The number of units anticipated on a parcel of land is based on gross acreage. When applying gross density for purposes of zoning, street right-of-ways and undevelopable acreage such as floodplains and wetlands should not be included in the overall acreage. The densities provided are designed to give the Township the maximum number of dwelling units that will be allowed in each classification based on the character of the area.

Based on the studies presented, the Land Use Plan Illustration provided presents the planned densities of all single family residential areas in the Township. These designations are described as follows:

Single Family Residential Low Density
Expected Density - Maximum of 1.7 units per acre.
Planned Acreage - 784 Acres
Location - This designation can be found in the least dense residential areas in the Township, primarily in the central portion of the Township, and on the westernmost boundary of the Township. This designation has also been placed at the site of the Gowanie Country Club should the golf course close down and become available for redevelopment.

Single Family Residential Medium Density
Expected Density - Maximum of 2.5 units per acre.
Planned Acreage - 185 Acres
Location - The area designated as Medium Density can be found in the area of Memory Lane and Shoreline Drive, north of Metropolitan Parkway.

Single Family Residential Medium High Density
Expected Density - Maximum of 3.0 units per acre.
Planned Acreage - 922 Acres
Location - Medium High Density areas in the Township are located along the Clinton River, south of Metro Parkway, as well as abutting the Metro Beach MetroPark.

Single Family Residential High Density
Expected Density -Maximum of 4.0 units per acre.
Planned Acreage - 1,141 Acres
Location - This designation can be found in existing high density single family areas abutting the Clinton River, Anchor Bay and at the southernmost boundary of the Township.

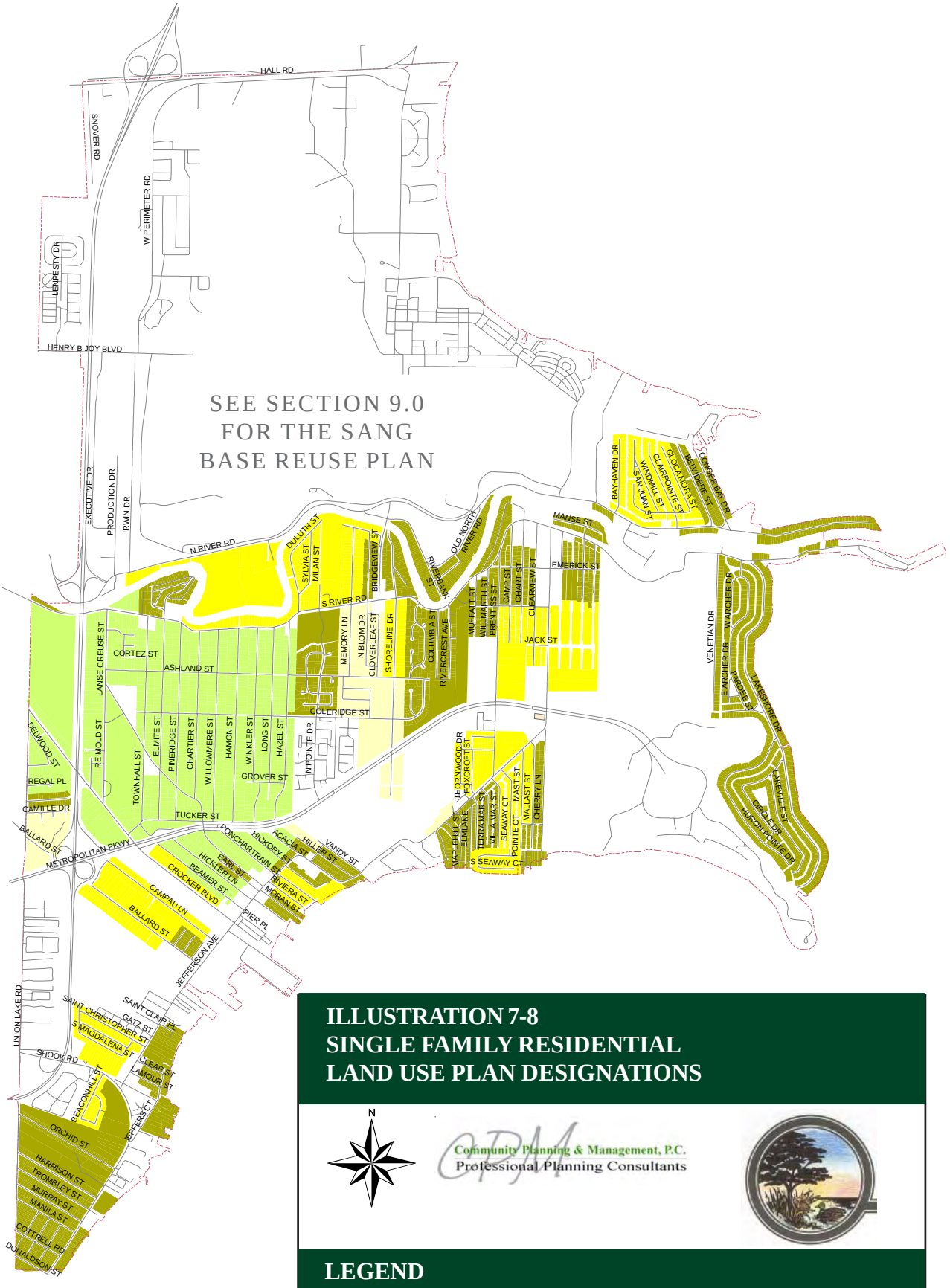

ILLUSTRATION 7-8
SINGLE FAMILY RESIDENTIAL LAND USE PLAN DESIGNATIONS

N

CPM Community Planning & Management, P.C. Professional Planning Consultants

LEGEND

- SINGLE FAMILY RESIDENTIAL LOW DENSITY
- SINGLE FAMILY RESIDENTIAL MEDIUM DENSITY
- SINGLE FAMILY RESIDENTIAL MEDIUM HIGH DENSITY
- SINGLE FAMILY RESIDENTIAL HIGH DENSITY

Multiple Family Residential

Multiple-family residential uses maintain a substantial presence in Harrison. As of 2000, there were almost 4,500 multiple family units within the Township, representing nearly 40% of the total housing stock in the community. As a comparison, only 26% of the County's total housing stock is made up of multiple family uses. Densities within these developments range from a low of 3.0 units per acre to a high of approximately 20.0 units per acre.

Master Plan Recommendations

- ***Work with developers to ensure the provision of site amenities such as decorative entranceway features and clubhouse uses -*** Newer developments in the Township have often made available amenities such as clubhouses or boat slips within their developments to improve marketability. The Township should continue to encourage new development to provide such amenities.

Illustration 7-9
Landscape entranceways and clubhouses are some of the site amenities that the Township should encourage during the development process.

- ***Ensure adequate landscape buffering between new development and single family residential neighborhoods*** - With a majority of the remaining parcels of developable land being "difficult" pieces for development, it becomes even more important to pay careful attention to the buffering and separation between proposed developments and existing neighborhoods.

- ***Work with existing developments to improve road frontage aesthetics and make sidewalks available*** - While many of the multiple family developments in the Township maintain elaborate entranceways, several older sites would benefit from additional landscaping and entranceway features.

- ***Reassess the density and setbacks within the multiple family zoning districts*** - As the Township nears the build-out of its multiple family land area, it should reassess its zoning ordinance to determine if revised setbacks or the reduction in the number of multiple family districts is necessary. Of specific note is the possible elimination of the Multiple Family High Rise District. There is a limited number of high-rise uses within the Township that currently exist, and this would provide a substantial decrease in the possible density that could be achieved for any new development.

Illustration 7-10
The limited number of high-rise uses in the community should prompt the Township to consider elimination of the high-rise district.

Multiple Family Residential Land Use Plan Designation

The sole designation for multiple is identified below. The multiple family designation utilizes a gross density calculation. Gross density is utilized in this plan for designating planned residential development intensities. The number of units anticipated on a parcel of land is based on an estimated gross acreage. When determining gross density, street right-of-ways and undevelopable acreage such as floodplains and wetlands should not be included in the overall acreage. The density range provided below is designed to give the Township an approximation of the number of units that could potentially be expected based on the character of the area.

Multiple Family Residential
Expected Density - Between 5.0 and 10.0 units per acre.
Planned Acreage - 542 Acres
Location - Typical developments in this category will include attached condominiums, rowhouses and apartments. The majority of multiple-family development will occur south of Metropolitan Parkway, where the most concentrated number of these uses currently exists. Due to the varied densities associated with the existing multiple family developments in the community, when determining the appropriate multiple-family zoning district for an area, consideration must be given to existing land uses surrounding the property and the impact such development will have. In addition, consideration must be given to the existing infrastructure and its ability to accommodate multiple family development at the density requested. Areas within close proximity to high density multiple family uses and commercial uses would be more likely to accommodate a higher density multiple family zoning district, while areas with a predominant character of single family residential would be more appropriate for a lower density multiple-family zoning district.

Manufactured Housing Community
Planned Acreage - 82 Acres

There are currently four (4) manufactured housing communities within the Township. Of these four (4) communities, the Township has planned for one (1) to remain over the next twenty (20) years. The Township does not anticipate any new or expanded manufactured housing communities during the timeframe of this Master Plan. The three (3) communities located on the lake are older and on land that is much smaller than current manufactured housing development standards would dictate. Therefore, these areas are planned to eventually be redeveloped into multiple family uses.

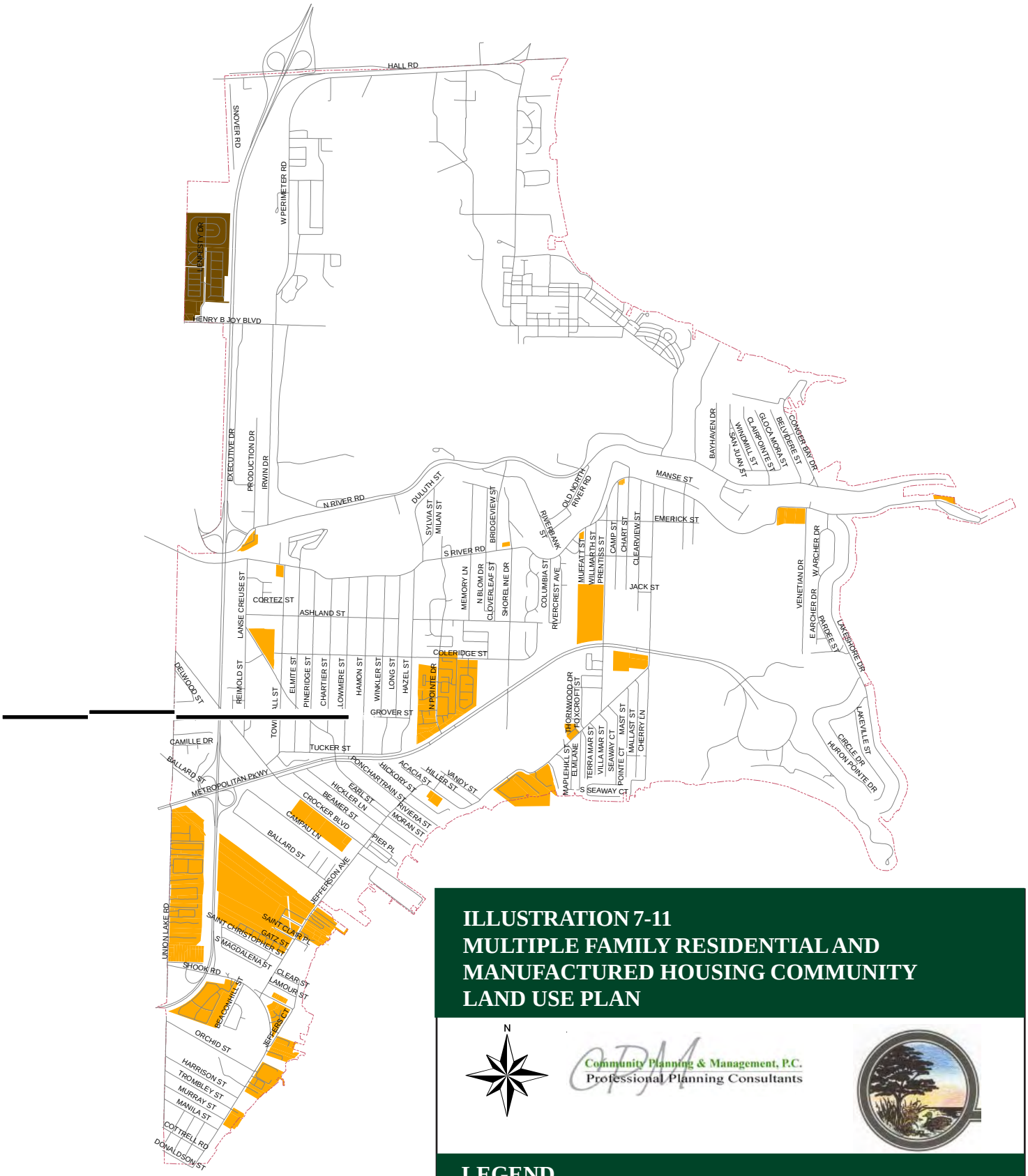

ILLUSTRATION 7-11
MULTIPLE FAMILY RESIDENTIAL AND MANUFACTURED HOUSING COMMUNITY LAND USE PLAN

N

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LEGEND

- MULTIPLE FAMILY RESIDENTIAL
- MANUFACTURED HOUSING COMMUNITY

Harrison Township Master Plan

Section 8

Commercial & Industrial Areas Plan

COMMERCIAL/MARINA & OFFICE AREAS PLAN

The Master Plan examines Harrison Township's existing commercial base and the extent to which new commercial development may be needed to accommodate anticipated market demands. The methodology used to make this determination includes analysis of the nature and extent of the Township's existing commercial establishments and the types of retail goods and services that they provide. Commercial characteristics are related to the market projections to determine, in more detail, anticipated commercial demand by retail category. Market demand is also related to geographic location, accessibility, transportation, land use patterns, and zoning patterns. All of these factors impact whether or not existing and anticipated commercial acreage quantitatively meets future needs. Based on this analysis, the extent and potential of commercial areas in the Township are identified.

Commercial Needs

The economic analysis completed in the study portion of this plan indicates that a market could exist within the Township to accommodate approximately 270 acres of commercial land. The actual amount of commercial acreage within Harrison only amounts to 91 acres. Economic forecasts, such as the one above, assume that market share lost to outside trade areas will be filled from outside trade areas. A comparison of the existing commercial acreage with the projected acreage needs clearly shows this assumption to be flawed in the case of Harrison Township. The following factors contribute to the reduced commercial demand:

- Harrison Township, being a peninsula, lacks through-traffic.
- Interchanges from I-94 are poorly designed to capture on/off freeway traffic.
- Metropolitan Parkway, the primary highway in the Community, is a limited access road.
- Selfridge Air National Guard Base occupies almost 3,000 acres of the north end of the Township and creates a market and thoroughfare barrier.
- Only one bridge exists to connect the north and south banks of the Clinton River.
- The commercial demand figures ignore convenience commercial activities and entertainment services (dining and beverage) offered by marinas and boat clubs.

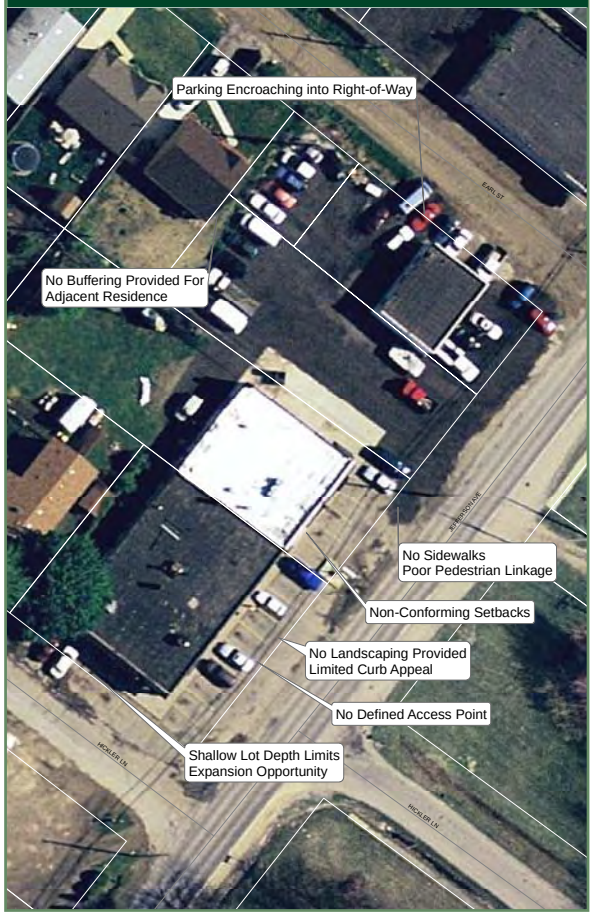
In contrast to these factors, regional commercial uses favor areas with 360 degree market pull, high traffic counts, high accessibility and significant housing counts. Currently unable to address many of these concerns, the Township loses its regional commercial market to surrounding communities.

With these factors generally constant, the forecast for commercial need in 20 years must now be reduced proportionally by one-third to recognize the above-mentioned limitations. The forecast for the year 2030 of approximately 334 acres will net a demand of roughly 111 acres.

Commercial Redevelopment and Improvements

Based on current commercial patterns formed within the Township, the Plan focuses on the redevelopment of existing commercial sites, rather than the establishment of a large number of new locations. Redevelopment, however, can prove difficult based on the several non-conformities that exist with these aged commercial locations. For example, lot sizes in the majority of the more heavily concentrated commercial areas (e.g. Jefferson between Ballard and L'Anse Creuse and Jefferson at the South River Road intersection) generally maintain lot depths that are less than one hundred and fifty feet. This limitation creates a substantial burden on business owners who are not able to meet current setback, parking and landscaping requirements due to the limited amount of land area. The lack of room for required improvements and the fear of being required to bring the site into complete compliance with the standards of the Zoning Ordinance often can act as a deterrent to business owners interested in making improvements to their site.

Illustration 8-1
Existing Commercial Constraints



Commercial Area Recommendations

One of the primary visions of this plan focuses on the Township's ability to improve the viability of commercial uses by improving market conditions, aesthetics and growth opportunities. To accomplish this goal, the Master Plan proposes the following:

- ***Improve Communication with the Business Community*** - Encourage development and redevelopment of commercial properties by promoting procedures that encourage the community and the land owner to work together to improve the marketability and aesthetic appeal of non-conforming sites.

- ***Expand the Lot Depth for Commercial Land*** - Carefully consider permitting the expansion of commercial zoning onto neighboring residential sites to create a more viable and useable piece of commercial real estate. As stated previously, the existing commercial lot depths prohibit business owners from making substantial improvements to their properties. By expanding commercial lot depths to a total depth of approximately 300-400 feet, adequate parking, landscaping and access improvements can be made to improve commercial viability. With careful planning, the Township can ensure that appropriate landscape buffers are provided to protect the residential neighborhood, while at the same time giving the business owner adequate room to meet expansion and improvements needs that are consistent with Ordinance requirements.

- ***Improve Aesthetics*** - Develop zoning ordinance requirements that require high quality building materials.

- ***Develop a "Design Theme" for Harrison Township*** Develop design guidelines based on a "nautical theme" to assist developers in gaining an understanding of the Community's vision for development in the Township.

- ***Increase Customer Traffic To Existing Businesses*** Promote transient mooring facilities on the Clinton River to increase the Township customer base and complement commercial developments such as restaurants and shops.

- ***Review Zoning Ordinance*** - Re-examine the existing commercial zoning classifications to provide a more simplified zoning district approach. There are currently four (4) commercial zoning classifications (O-1, B-1, B-2 & B-3). A reduction to two (2) classifications would allow for a simplification of the zoning ordinance, while still maintaining a separation between smaller, less intense commercial types and the more highway-oriented types of commercial business.

Illustration 8-2
The Township should work to develop an ordinance that requires quality building materials similar to what was used by the new bank development on the southeast corner of Metorpolitan Parkway and Crocker.

Commercial Land Use Plan Designations

The distribution of commercial land in the Township is based primarily around existing established commercial nodes on the heaviest traveled roads. The Plan emphasizes the fact that the Township should not provide for random or "spot" commercial areas that are not consistent with planned areas identified on the map. Beyond the graphic portrayal of commercial property, the Township must also consider the appropriate depth of commercial land based on the surrounding uses of the area, the potential impacts on the neighborhood, market needs and the physical constraints of the parcel of land to ensure the long term success of the development. The three (3) village nodes identified on the map are given special consideration for commercial use in the sub-area section of the plan. The commercial designations are described below:

Local Commercial
Expected Uses - Local Commercial activities consist of those uses intended primarily to meet the daily retail and service needs of nearby residential neighborhoods. They may occur as freestanding buildings or be included in a smaller planned center sharing floor space, parking and access with other tenants. This category of commercial development tends to have trade areas located within a five-minute drive of the business. These uses are commonly located along major roads, in close proximity to the neighborhoods that form their primary trade area.
Planned Acreage - 17 Acres

General Commercial
Expected Uses - The General Commercial land use classification includes commercial uses that serve a market area extending several miles beyond the site. Uses in this category will experience more intense auto and truck traffic than in local commercial areas. Typical uses in this commercial district include shopping centers occupying sites generally exceeding ten acres in size, restaurants, and auto-oriented businesses such as gas stations and car washes.
Planned Acreage - 90 Acres

Marinas

Marinas are an important part of the land use fabric of Harrison Township. The marinas of Harrison Township are part of the identity of the community and are one of the main draws to the Township for non-residents. Because of the importance of marinas to the Harrison Township economy, the Township held a visioning session during the Master Plan process with several marina owners to determine issues that were a detriment to the long-term viability of these uses. As a result of this meeting the following issues were identified by the marina owners:

- *Current economic conditions in Southeast Michigan and the resulting declining boating market.*
- *Competition from residential home owners renting boat slips.*
- *Decreasing water levels on Lake St. Clair.*
- *The inability to make incremental or phased improvements to a site without major improvements being required by the Township.*

In addition to the concerns outlined by the marina owners, the Township also identified the following issues related to existing marinas in Harrison:

- *A lack of landscape screening for boat storage.*
- *Inadequate lot sizes to maintain proper setbacks.*
- *A lack of fencing provided around storage areas and along road frontages that is decorative in nature.*
- *A lack of paved parking surfaces at many sites.*
- *Ancillary uses such as restaurants being operated without adequate parking*
- *Ground and water contamination.*

Illustration 8-3
The long-term success of marina uses is vital to the economy of Harrison Township. The Township aims to work with marina owners to improve the marketability and aesthetics of these sites.

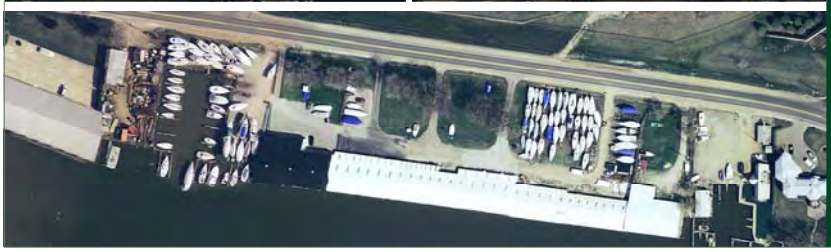


Illustration 8-4
The placement of marinas on small parcels with shallow lot depths can result in the storage of boats within the road right-of-way and a lack of landscaping on site. This often results in both aesthetic and safety issues along the road frontage.

Marina Master Plan Recommendations

- ***Require boat storage be located in the side or rear yard where possible. Work with the road commission to remove storage from the existing road right-of-way.***

- ***Require landscaping and fencing improvements along the road frontages*** Where storage cannot be relocated elsewhere on the site, ensure that decorative fencing and landscaping improvements are provided to improve road frontage aesthetics.

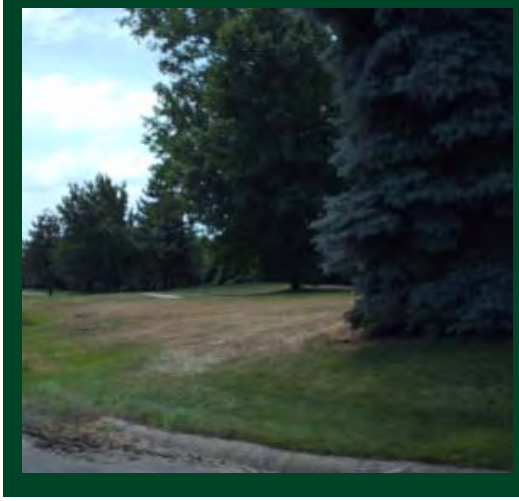
- ***Develop a review procedure that allows marina owners to phase required improvements (CPR Procedure) -*** The visioning session with the marina owners highlighted the fact that without a planning process that allows for phased improvements over time to a site, it would often not be economically feasible to make improvements. Developing a procedure that results in a working relationship between the Township and the marina owner should be developed to coordinate improvement needs over a specific period of time.

- ***Work with environmental interests to educate residents and marina owners about lake contamination*** Provide education through the County, State and Regional planning agencies regarding the fueling, painting and general maintenance of boats through published information.

- ***Highlight marina uses as part of a nautical design theme within the Township*** As stated earlier, the marinas are one of the biggest economic draws to the Township. Creating a nautical design theme around the water attractions of the Township accentuates the importance of the marina uses and creates a character in the Township that is distinguishable from other communities in Southeast Michigan.

Illustration 8-5
Decorative fencing and landscaping should be provided in front of all boat storage facilities. The example below maintains decorative fencing but lacks any significant amount of landscaping.

Illustration 8-6
A heavily landscaped greenbelt in front of Markley Marina creates an aesthetically pleasing frontage on North River Road.



Marina Land Use Plan Designation

The land use plan does not foresee any new marina development over the next twenty (20) years and therefore focuses on the preservation of the existing marinas in the Township. Approximately 311 acres of land are dedicated for marina use in the Township. Uses ancillary to the marina use such as restaurants and convenience stores may also be permitted when the site is large enough to accommodate the increased parking needs.

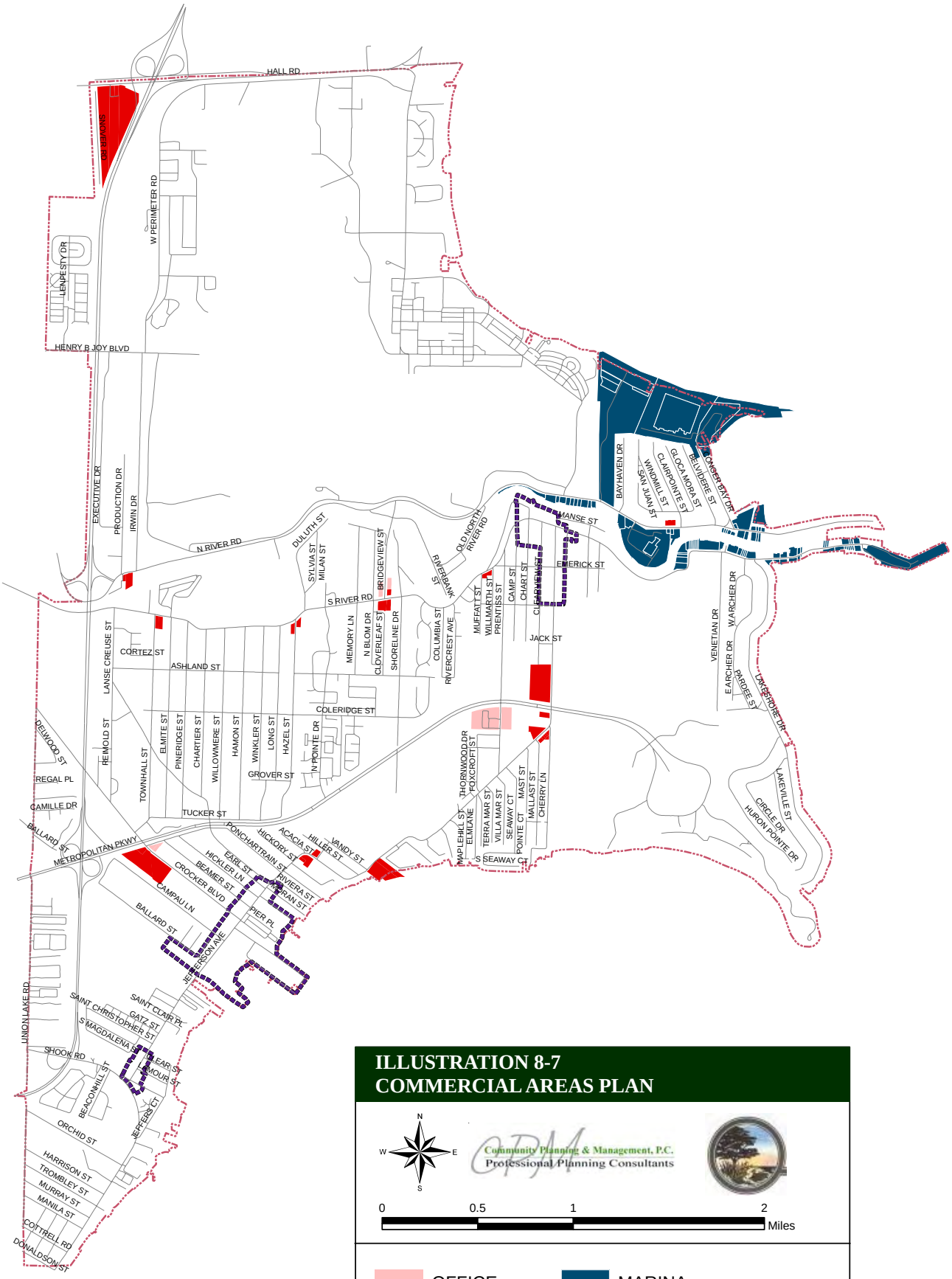


ILLUSTRATION 8-7
COMMERCIAL AREAS PLAN

N
W E
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Community Planning & Management, P.C.
Professional Planning Consultants

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OFFICE
COMMERCIAL
MARINA
VILLAGE NODES

INDUSTRIAL AREAS PLAN

Land reserved for industrial purposes provides important economic benefits for the community. Not only does industrial development offer a source of jobs, it also makes a strong contribution to the Township's tax base.

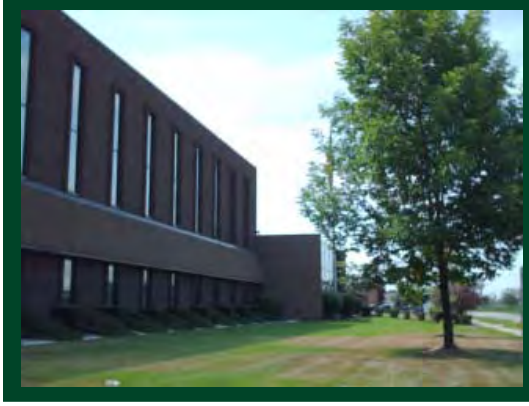
Recognizing the importance of the Township's industrial base, this element of the Land Use Plan examines the characteristics of this land uses in more detail. This examination includes a review of existing industrial development and zoning patterns. It also considers the relationship of these industrial uses to broader regional trends. This section concludes with a quantitative estimate of the amount of industrial development at capacity for the Township.

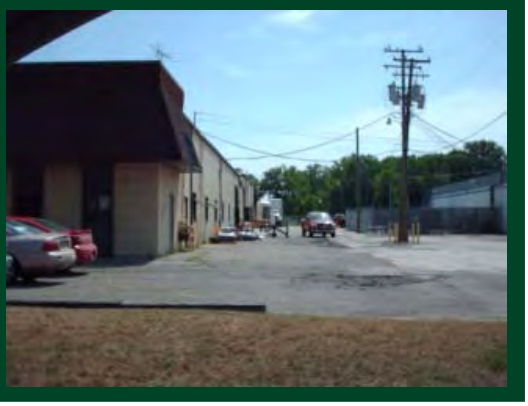
Existing Characteristics

The 2006 existing land use survey revealed that a total of 191 acres of land were developed for various industrial purposes in Harrison Township. This accounts for approximately two percent of the Township's total and developed acreage. Existing industrial uses are confined primarily to a single location in the Township, along I-94 between North River Road and Joy Boulevard.

Industrial zoning in the Township largely reflects the previously described development pattern on a locational basis. Most of the land zoned for industry is located within the I-94 corridor.

Illustration 8-8
Harrison Township's primary industrial area along Production and Executive Drive maintains a wide variety of uses and building types ranging from newer industrial/ office uses with significant landscaping at the front of the site to older sites with no landscaping, no defined points of entry and a substantial amount of visible outdoor storage.





Industrial Redevelopment Strategies

Much of the focus of various visioning sessions held within the Township focused on industrial redevelopment and site aesthetics, not expansion of land use opportunities. Industrial building owners expressed concerns with regard to open storage, poor maintenance and other blight issues that reduce value for the area. In addition, the group pointed to improvements in access visibility and access aesthetics as another issue that would add value to the area.

Access Visibility, Identification and Aesthetics

The common theme throughout the visioning session with the industrial owners focused on the visibility of the access drive. Concerns were further specified that drivers commonly miss the entrance to the site and areas to turn large rigs around were few and far between if such turn were missed. Easements should be secured and obstacles removed to place large identification entrances to the subdivision. The entrances must not only highlight the location of the subdivision, but also improve the appearance and value of the Community.

Illustration 8-9
A decorative entranceway with a nautical theme will help make the Township's primary industrial subdivision more visible from North River Road.

Blight Issues

Many of the industrial sites within the Township's principal industrial area front on two streets and include paving throughout a large portion of the site. The buildings typically run the length of the site from road to road with parking on the remaining portion of the site. Most of the sites were not designed for outdoor storage type uses. As uses change, the Township is seeing site plan applications for use changes. Each site plan must include significant modifications to the site for successful redevelopment to solve blight issues. The improvements will most likely involve concrete removal, landscape additions and the additions of screening walls. The Zoning Ordinance should be clearly reviewed to ensure that the following standards are reviewed and determined to be understandable, reasonable and flexible, where necessary:

- *Outdoor Storage Screening – Increase and enforce screening requirements.*
- *Landscape Requirements – Mandate landscape improvements throughout.*
- *Parking Space Requirements – Reassess parking requirements.*
- *Loading and Unloading – Consider allowing flexibility to load in drive aisles.*
- *Building Setbacks – Reassess based on many existing nonconformities.*

Adaptive Re-Use

Re-development is dependant on re-use. If no new users are willing to occupy a building, redevelopment is stifled by lack of investment by the owners. It will be in the Township's best interest to re-evaluate use allowances within the district to allow a diverse mix of users to occupy the area without creating inherent conflicts between users, or further declining the property values with users that maintain significant outdoor storage needs on properties with inadequate space.

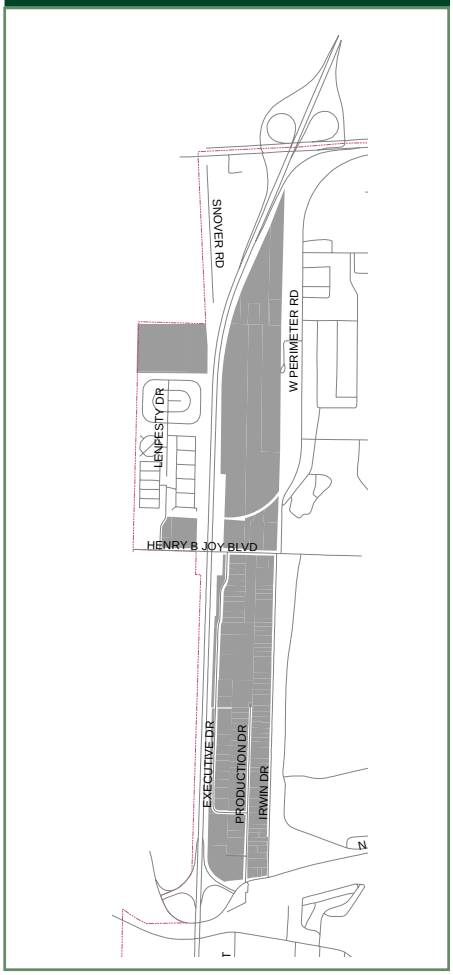
Master Plan Recommendations

- *Code Enforcement Initiative for Blight in Industrial Areas.*
- *CPR presentation and invitation to Industrial Site Owners.*
- *Zoning Ordinance Review of Setbacks, Screening, Loading and Parking.*
- *Zoning Ordinance Review of Use Allowances.*
- *Redesign the Entrance to the Industrial Subdivision with Cooperation from the RCMC, Township and Subdivision Association.*

Land Use Plan Designations

To more fully understand the Township's existing industrial development pattern and future development potential, it is necessary to view Harrison Township in a larger regional context. Harrison Township is located outside of Macomb County's two dominant industrial corridors: Van Dyke/ Mound and Groesbeck/Gratiot. Because of this, Harrison Township cannot realistically expect to participate in potential industrial growth of either area. Industrial development on a reduced scale, however, can be expected within the I-94 corridor in the northwest corner of the Township. The interchange at North River Road, current land use patterns, and proximity of compatible land uses make this portion of the Township particularly well-suited to support continued industrial use. Global economic trends indicate a reduced demand for industrial property in Michigan and the Country as a whole, both in the short and long term. Recognizing these factors, the Master Plan allocates 305 acres of land for industrial purposes, most of which is located in the existing industrial locations of the Township.

Illustration 8-10
Land Use Plan - Industrial Subdivision



Harrison Township Master Plan

Section 9

Sub-Areas Plan

VILLAGE NODES

Introduction

As mentioned previously in the commercial areas section, commercial development in Harrison requires special attention from the Township due to the several issues that commercial businesses face; i.e. access, limited through traffic and lot size limitations. One of the ways the Master Plan proposes to promote a unique character within these commercial areas and generate a renewed interest in redevelopment, is through the creation of "village" oriented commercial nodes. Three (3) areas have been identified for this type of development:

- The Shook Road/Jefferson Avenue Intersection
- The Jefferson Avenue/South River Road Intersection
- The Crocker/Jefferson Avenue Intersection

While this plan indicates general uses within these areas, it is anticipated that a mixture of uses will occupy these nodes based on market demand.

Shook/Jefferson

Existing Area Attributes

This area maintains the largest lots of the three (3) village nodes chosen with lots as deep as 250 feet. It is also the smallest of the three village areas in regards to actual land area. Two (2) small stripmall shopping centers anchor the intersection of Shook and Jefferson with a motel on the west side of Jefferson. On the east side of Jefferson, north of the shopping center, there are five (5) older commercial buildings. These lots are small (40' wide for the three (3) smallest lots) and maintain frontages that are primarily paved. There are no sidewalks and no defined access points on these sites. The west side of Jefferson also consists of a one (1) acre vacant lot and a one (1) acre lot with a single family residence. The road right-of-way on Jefferson is sixty-six (66) feet in this area.

Illustration 9-1
SHOOK/JEFFERSON VILLAGE NODE
EXISTING LAND USE

Illustration 9-2
Existing shopping center on the east side of Jefferson at the intersection of Shook Road.

Planned Land Uses/Building Layouts

The Master Plan for this area identifies general commercial uses at the road intersection and local commercial as one travels north on Jefferson Avenue. While the Township encourages expansion of commercial development in this area, careful attention must be given to providing adequate buffering to the adjacent residential neighborhoods. Due to the lack of room, walls may sometimes be necessary in place of landscaped greenbelts. The following recommendations are made for the Shook/Jefferson Village Node:

Building Arrangement – East Side of Jefferson

- Require front yard setbacks of between fifty-three (53) and sixty-three (63) feet from the centerline of the road.
- Expand the existing strip mall on the corner of Shook and Jefferson towards the street for a portion of the site.
- Redevelop the five (5) parcels north of the existing shopping center with two (2) buildings (approximately 100' wide by 70' deep).
- Work with the ice cream shop to remove pavement, define access points and provide landscaping improvements.

Building Arrangement – West Side of Jefferson

- Require front yard setbacks of between fifty-three (53) and sixty-three (63) feet from the centerline of the road.
- Redevelop the existing motel with two (2) commercial buildings.
- Develop the vacant property and single family house property (approximately 2 acres) with two (2) 12,000 square foot commercial buildings.
- Utilize the expanded right-of-way on Shook to develop a landscaped village gateway/pocket park.

Roadway Configuration

- An eighty-six foot (86') wide right-of-way configuration should be reserved to accommodate two lanes of traffic, on-street parking, and designated bike lanes.
- Joint use parking lots should be provided wherever possible. Cross access should also be provided to facilitate a continuous maneuvering lane at the rear of buildings.
- On-street parallel parking should be provided along Jefferson Avenue to provide quick access to proposed commercial developments.
- Designated pedestrian crossings should be provided along with sidewalks.

Illustration 9-3
SHOOK/JEFFERSON VILLAGE NODE PLANNED LAND USE

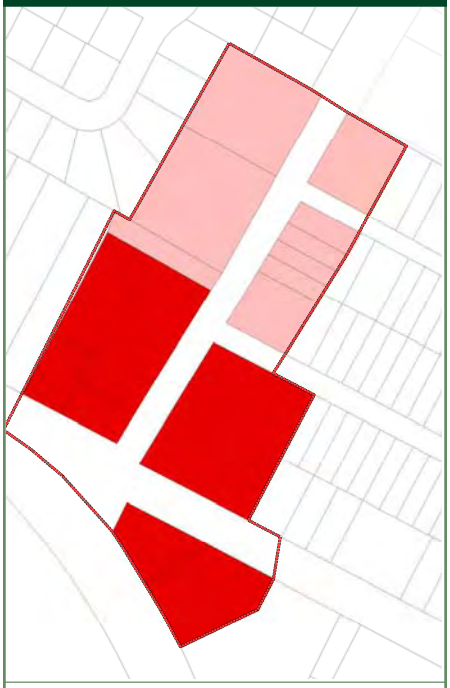


Illustration 9-4
The Crocker/Jefferson Village Node Plan calls for the addition of landscaping at the front of the ice cream shop site and the development of well-defined access points along the road frontage.

ILLUSTRATION 9-5
SHOOK/JEFFERSON VILLAGE CONCEPT

Crocker/Jefferson

Existing Area Attributes

The Crocker/Jefferson Village Node maintains the most diverse range of existing uses out of the three (3) village node areas. Among the more notable uses are four (4) marinas, two (2) manufactured housing communities, the MDNR boat launch site, a Township Park and the Township water treatment facility.

The west side of Jefferson is occupied by several commercial businesses on extremely shallow depth lots (less than 150' deep). The east side of Jefferson is characterized by several large parcels with boat oriented users. Jefferson's right-of-way varies from sixty (60) feet to approximately ninety (90) feet at the intersection of Crocker. The Crocker right-of-way is approximately one hundred (100) feet wide in this area.

Illustration 9-6
CROCKER/JEFFERSON VILLAGE NODE
EXISTING LAND USE

VACANT
SINGLE FAMILY RESIDENTIAL
MULTIPLE FAMILY RESIDENTIAL
MANUFACTURED HOUSING COMMUNITY
OFFICE
COMMERCIAL
MARINA
SEMI-PUBLIC
PUBLIC

Illustration 9-7
The east side of Jefferson has several large parcel users such as the City of Mt. Clemens Water Treatment Plant (pictured on the left), Tucker Park, the MDNR public boat launch site and Beacon Cove Marina (pictured on the far left).

Illustration 9-8
Left: The west side of Jefferson has several smaller older commercial buildings suitable for redevelopment.
Far Left: A new office building recently constructed.

Planned Land Uses/Building Layouts

The Master Plan for this area identifies General Commercial and Public uses along the Jefferson road frontage. The Township encourages the long-term existence of the marinas and aims to assist in preserving them by developing policies that would allow for phased improvements on these sites. The aged and out-of-date manufactured housing communities located on the Lake are planned to be converted to multiple family residential that will most likely take the form of townhomes. The following recommendations are made for the Crocker/Jefferson Village Node:

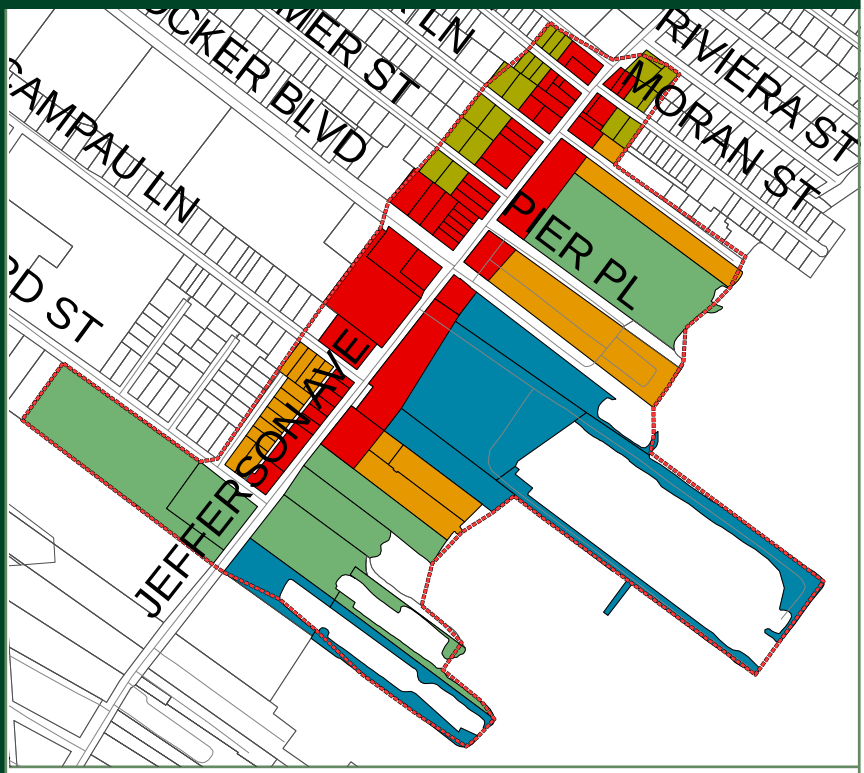
Building Arrangement – East Side of Jefferson

- Require front yard setbacks of between fifty-three (53) and sixty-three (63) feet from the centerline of the road to respect an eighty-six (86) foot wide planned right-of-way for Jefferson.
- Encourage the development of marina frontage with commercial development. This will allow for the removal of boat storage from the Jefferson frontage.
- Encourage the redevelopment of the existing manufactured housing communities on the lake.
- Provide landscaping and signage enhancements to create a linkage to the MDNR boat launch site and the Township park.

Illustration 9-10
The plan encourages the redevelopment of the existing manufactured housing communities on the lake.

Illustration 9-11
Improvements should be made to Jefferson to ensure a safe connection to the lakefront. Tucker Park is pictured above.

Illustration 9-9
CROCKER/JEFFERSON VILLAGE NODE
PLANNED LAND USE



Building Arrangement – West Side of Jefferson

- Require front yard setbacks of between fifty-three (53) and sixty-three (63) feet from the centerline of the road.
- Redevelop vacant and/or aged commercial buildings with approximately seventy (70') deep commercial buildings.
- Develop a parking lot between Crocker and Beamers Street to act as a shared facility for the proposed commercial buildings on that block.
- Work with the boat sales facilities to make landscaping improvements.

Illustration 9-12
The plan proposes the development of a shared parking between Crocker and Beamers to service the businesses on this block.

Illustration 9-13
The redevelopment of aged commercial buildings with seventy (70) foot deep buildings is proposed by the plan.

Roadway Configuration

- 86' right-of-way configuration should be reserved to accommodate two lanes of traffic, on-street parking, and designated bike lanes.
- Joint use parking lots should be provided wherever possible. Cross access should also be provided to facilitate a continuous maneuvering lane at the rear of buildings.
- On-street parallel parking and defined curbing should be provided along Jefferson Avenue to provide quick access to the proposed commercial development.
- Designated pedestrian crossing points should be provided that provide safe linkages to the public park and boat launch site.

ILLUSTRATION 9-14
CROCKER/JEFFERSON VILLAGE CONCEPT

Jefferson/S. River Road

Existing Area Attributes

This area is characterized by its location on the Clinton River and the presence of several shallow depth parcels (less than 120') on the road frontage. There are a number of vacant parcels, particularly on the east side of Jefferson. Marinas are the dominant use on South River Road with McMachen Marina being the largest in the area. A gas station is located on the corner of Jefferson and South River Road and the new Township Fire Station is at the southern end of the study area.

There are several older buildings suitable for redevelopment on both South River Road and Jefferson. There is a limited amount of curbing and defined access points within this area and there are no sidewalks on Jefferson. The road right-of-way is approximately one hundred feet (100) feet on Jefferson. South River Road maintains a right-of-way of sixty-six (66) feet on the eastern portion of the study area, increasing to one hundred (100) feet at the Jefferson intersection and reaching a full one hundred and twenty (120) feet in front of McMachen Marina.

Illustration 9-15
SOUTH RIVER/JEFFERSON VILLAGE NODE
EXISTING LAND USE

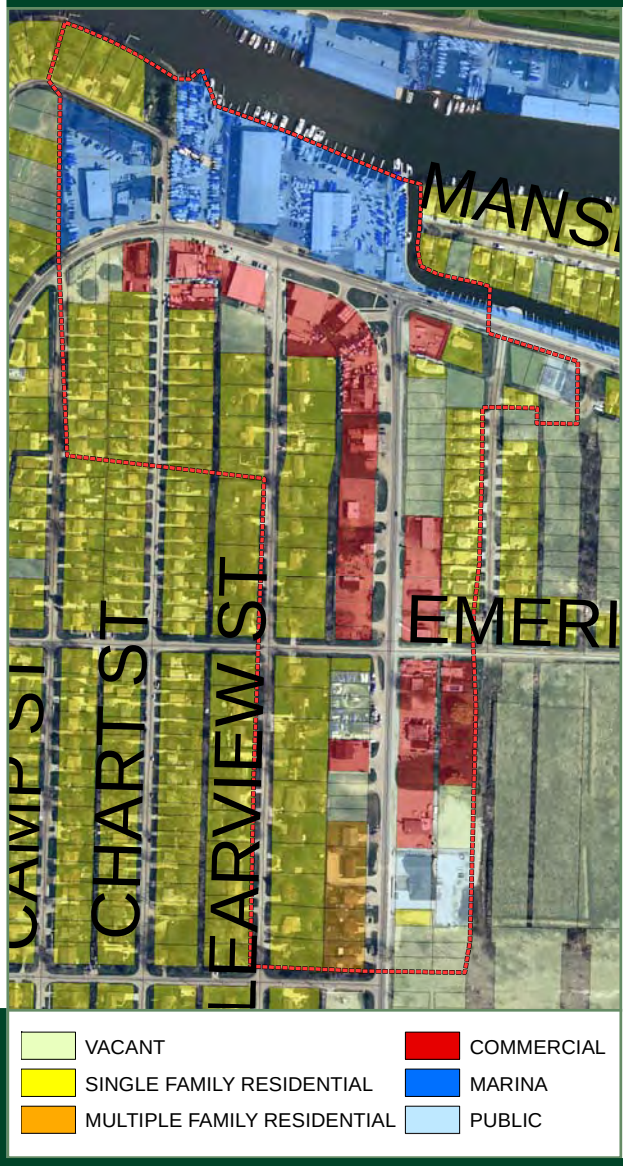


Illustration 9-16
Below: Limited landscaping and no defined curb cuts are a prominant feature on the south side of South River Road and on Jefferson.

Illustration 9-17
Right: The south side of South River Road, east of Jefferson is underutilized and ready for redevelopment.

Planned Land Uses/Building Layouts

The Master Plan for this area identifies General Commercial uses along the road frontage, with small areas on both South River Road and Jefferson dedicated to Multiple Family use. Once again, the development area is faced with the issue of shallow commercial lot depths and neighboring residential uses. The marina uses are proposed to remain as a main draw to this area. The following recommendations are made for the Shook/Jefferson Village Node:

Building Arrangement – Jefferson

- Require front yard setbacks of between sixty-five (65) and seventy-five (75) feet from the centerline of the road to respect a one hundred and twenty (120) foot wide planned right-of-way for Jefferson.
- Consider multiple story buildings with residential uses above first floor commercial and restaurant uses.
- Require parking in the rear or side yard. Utilize deepest parcels at Jefferson and South River Road intersection for a shared parking lot at the rear of the buildings.
- Encourage design and building materials that complement the village node's location on the river.

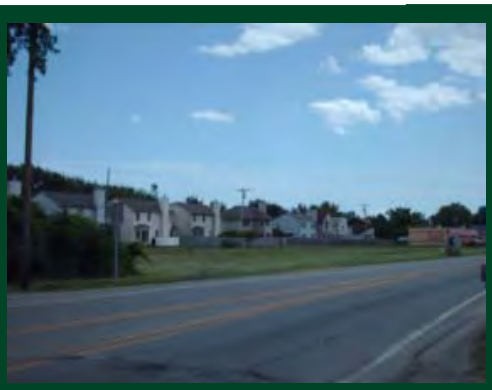
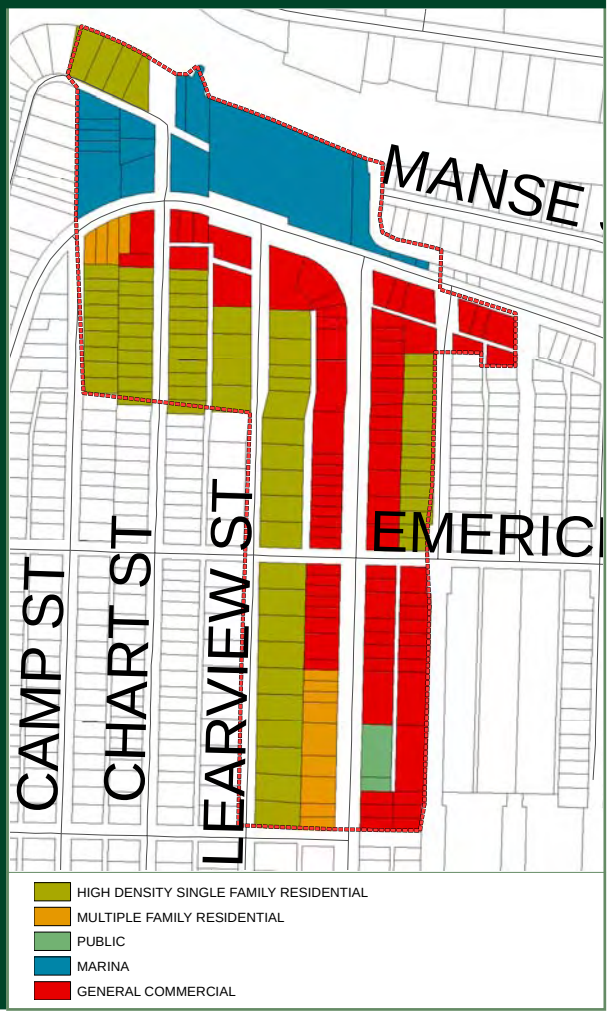


Illustration 9-19
Above: The existing vacant lots on the east side of Jefferson are planned for commercial use in a "downtown setting". Attention should be given to providing adequate screening from the neighboring residential uses.

Illustration 9-20
Below: McMachen Marina on South River Road is planned to act as the "activity center" of the Jefferson/South River Village Node.

ILLUSTRATION 9-18
JEFFERSON/SOUTH RIVER VILLAGE NODE
PLANNED LAND USE



Building Arrangement/Design Considerations – South River Road

- Require front yard setbacks of between fifty (50) and sixty (60) feet from the centerline of the road to respect an eighty-six (86) foot wide planned right-of-way for South River Road.
- Work with the marina owners to make landscaping improvements. Limit the visible impact of boat storage from the road frontage.
- Redevelop existing buildings on the south side of South River Road with multi-story buildings close to the road. Require parking in the rear or side yard.
- Encourage design and building materials that complement the village node's location on the river.
- Develop a nautical themed entranceway into the Village area. This entraceway could be an arch that spans the width of the road.

Roadway Configuration

- 86' right-of-way configuration should be reserved on South River Road to accommodate two lanes of traffic, on-street parking, and designated bike lanes.
- 120' right-of-way configuration should be reserved on Jefferson to accommodate four lanes of traffic and a turn lane, on-street parking, and designated bike lanes.
- Joint use parking lots should be provided wherever possible. Cross access should also be provided to facilitate a continuous maneuvering lane at the rear of buildings.
- On-street parallel parking and defined curbing should be provided along Jefferson and South River Road.
- Designated pedestrian crossing points should be provided that provide safe linkages from the commercial businesses and the riverfront.

Illustration 9-21
The southwest corner of of Jefferson and South River Road provides an example of how the area could develop under the concepts outlined in this plan. Requiring the building to be placed closer to the road with a second floor creates a much more desirable pedestrian environment. Landscaping and sidewalk improvements will also add to the experience of visiting this "unique" area of Harrison Township. Working with the RCMC to allow for on-street parking will create a buffer area between pedestrians walking in the area and vehicles traveling on Jefferson.

Photo Courtesy of Mark Bacha

Illustration 9-22
The following illustration provides an example of how the south side of South River Road, east of Jefferson could develop. The renderings provide a visual representation of how the removal of parking from the street and the increased height in proposed buildings can make for a desirable outdoor space for residents to walk.

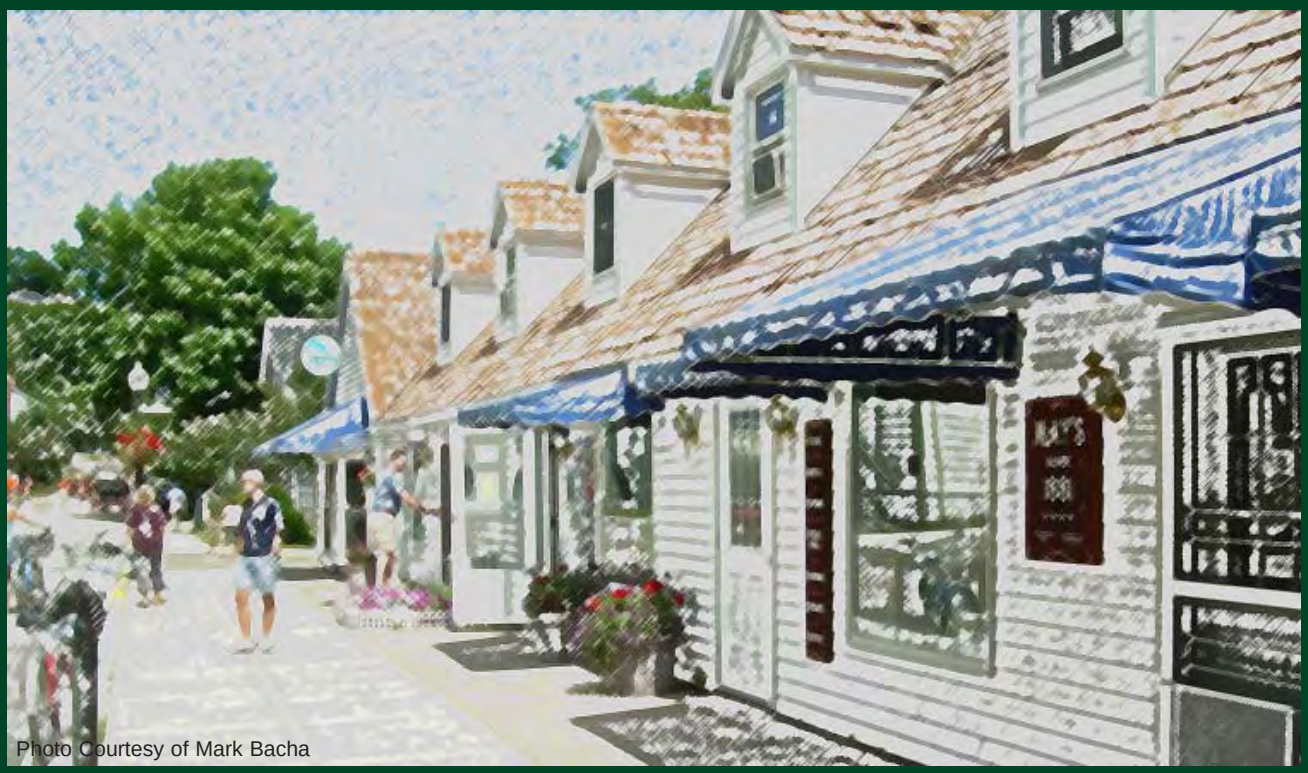


Photo Courtesy of Mark Bacha

Photo Courtesy of Mark Bacha

Photo Courtesy of Mark Bacha

ILLUSTRATION 9-23
CROCKER/JEFFERSON VILLAGE CONCEPT

SELFRIDGE AIR NATIONAL GUARD BASE

Contingency Reuse Concept Plan

Introduction and History

Selfridge Air National Guard Base has long been a star attraction in Macomb County, and more specifically Harrison Township. Marie Ling McDougal, in her book "Harrison Township Michigan", traces the origins of Selfridge back to the early 1900's as an airfield created by Henry B. Joy. The airfield was originally leased to the military and eventually became the property of the Air Force in 1947. Selfridge Air National Guard Base is named after the first Army Officer (Lt. Thomas Etholan Selfridge) to fly an airplane and the first Army casualty in an airplane – not the same flight. A much more detailed and interesting history of the Base can be read in the aforementioned book by Marie Ling McDougal.

More recently, the Base has been the subject of base closure discussions. The Township is grateful that the decision has not been made to close the base and **it is very clearly the long-term vision of this Community to see Selfridge remain as a military base**. This re-use plan is being introduced only to address the contingency of a base closing and readiness preparation and guidance for such a negative occurrence.

Existing Selfridge Conditions

In general, Selfridge is the northern portion of Harrison Township. It is bounded by Lake St. Clair on the east, North River Road (Clinton River) on the south, I-94 on the west (separated by an industrial area), and Hall Road (M-59) to the north.

Illustration 9-24
Selfridge Air National Guard Base

Existing Structures

Existing structures should be utilized as possible within each use district. In some cases, use district boundaries may have to change to facilitate the re-use of structures. The condition of the structures is unknown at this time and would probably not warrant inspection unless a full re-use plan was authorized as part of a BRAC (Base Realignment and Closing) process.

Redevelopment Concept Plan

Access and Circulation

The site is accessible from I-94 at North River Road and at M-59. From the south, the only access from south of the river comes from Bridgeview to North River Road. The Contingent Re-use Plan includes a variety of access points from North River Road and M-59 into the site. It also proposes the construction of a bridge over the Clinton River at Jefferson to facilitate the north-south movement of the additional traffic created by the Selfridge development. This would provide a continuous Jefferson Avenue connection from Detroit to its northern terminus in Chesterfield Township at 23 Mile Road. Any bridge constructed should be decorative in nature and act as an architectural feature that is an identifiable feature of Harrison Township.

Internally, the road network utilizes the existing runway as a main north-south thoroughfare and looks at the potential of a ring-road concept around the remaining portion of the site. The runway use offers a multitude of "U.S. Air Force" thematic use designs. A grid patterned street layout is envisioned in the "Town Center" area. A series of canals for boaters living in the community are also planned to highlight the nautical theme that Harrison Township wishes to maintain and promote.

Illustration 9-25
Selfridge Thoroughfare Plan

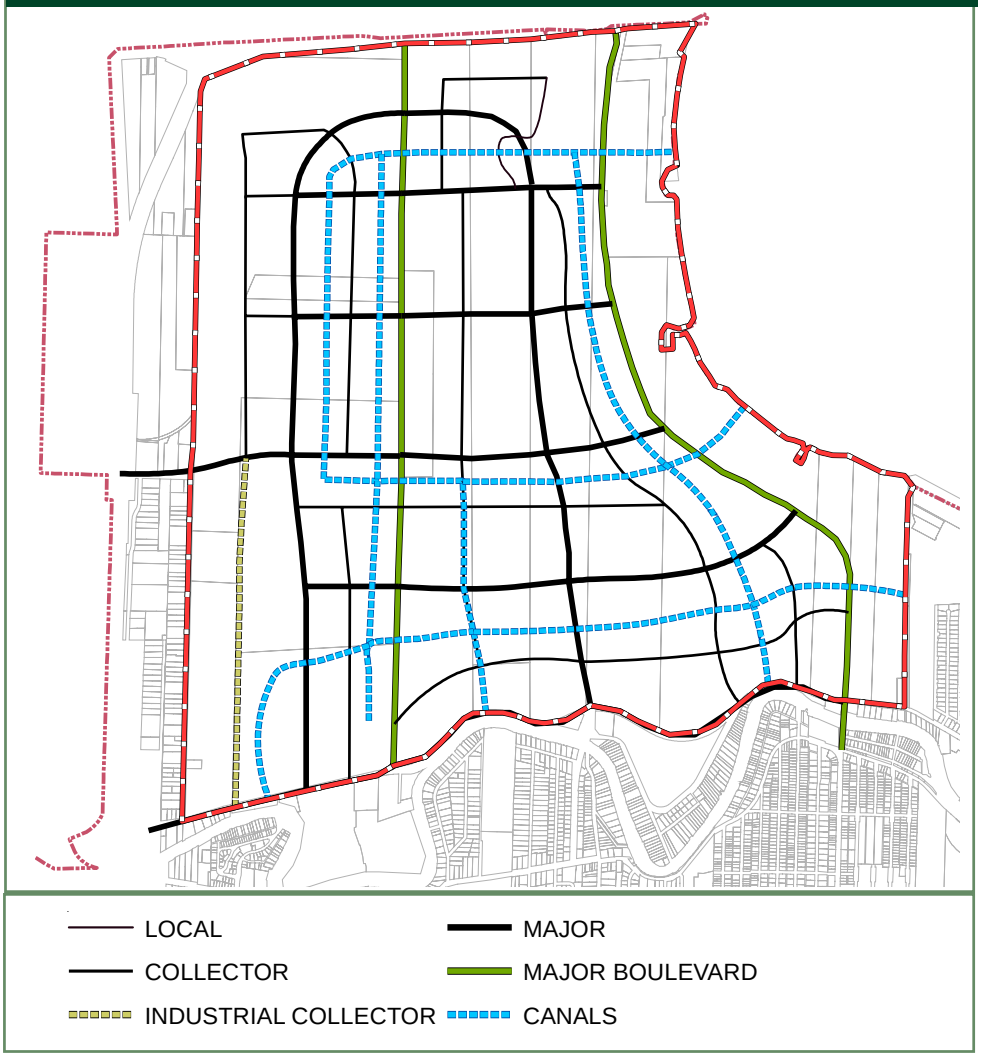
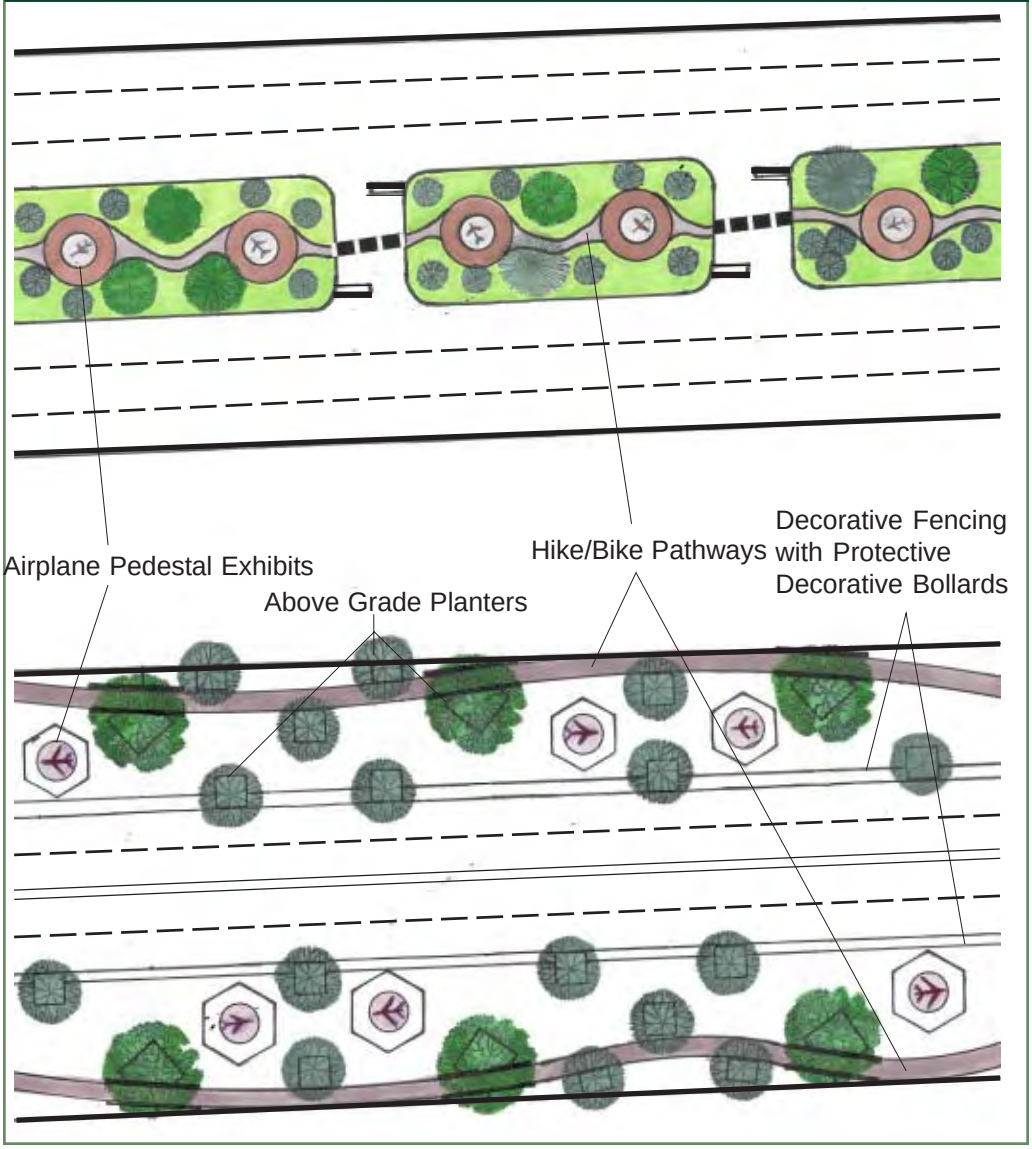


Illustration 9-26
Runway Road Concepts



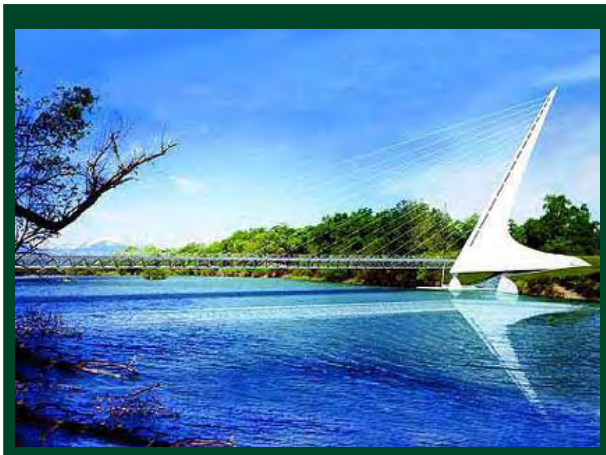


Illustration 9-27
Bridge Concept - Any bridge constructed shall have architectural significance and be considered a cornerstone of the Community. Such bridge shall have a limited impact on surrounding neighborhoods.

- Bridge in photo designed by Santiago Calatrava.

Land Use Designations

Through several visioning sessions the Township was able to develop a land use scenario for Selfridge that focuses on a mixture of integrated uses that would provide a mixture of residential uses and types for differing living needs and age groups, recreational uses, industrial uses and shopping within a downtown environment. Through the creation of this plan for the Selfridge area, it is the Township's hope that a community can be developed that is unique, practical and desirable. The land use categories are described as follows:

M-59 Commercial
Expected Uses – The land area along M-59 should be developed with traditional general shopping uses to service not only the residents within the plan area, but also those traveling along I-94 and M-59.
Acreage – 120 Acres

High Tech Research
Expected Uses – The high tech research designation envisions office buildings and research facilities for alternative fuels, renewable energies, green technologies, and the like. The buildings within this area should be developed in a "park" like setting due to the proximity of the planned residential.
Acreage – 145 Acres

Industrial Corridor
Expected Uses – Building off of the Township's existing industrial park, the plan envisions an expansion of the industrial area to the east. Uses within this area should complement those within the existing park as well as those in the planned high tech research area.
Acreage – 115 Acres

Shoreline Protection/Open Space
Expected Uses – The entire shoreline has been identified in the reuse plan for park type purposes and public marina use. Much of the shoreline is envisioned as passive park with boardwalks, pathways and picnic areas. The remainder would include active recreation facilities at the south end of the shoreline area. The overall intent is to provide public access and use of the entire shoreline and not block views from the downtown and residential areas. The feasibility of including a deep water port was also talked about near the north end of the site at M-59. This would involve significant dredging and environmental intrusions and would require in-depth study.
Acreage – 330 Acres

Civic/Recreation Node
Expected Uses – The Shoreline Protection Area and Open Space designation is intended to preserve a linear park and environmental corridor along the Anchor Bay shoreline, as well as throughout the plan area.
Acreage – 112 Acres

Town Center
Expected Uses – With the redevelopment of the base, the ability to create a new town center core arises. The Town Center is envisioned to be a mixture of uses including residential, office, commercial, etc. Multiple story mixed use buildings provide a density necessary to support such a concept. A new downtown area would allow for the relocation of the existing Township Hall. The vision included a new Township Hall located in the Downtown, along with a library and other related Township Office needs. Such buildings would be intended to set a standard for development in the area.
Acreage – 500 Acres

Town Center Single Family Residential
Expected Uses – The area plan provides a total of 360 acres of neo-traditional type housing. It is envisioned that lots of 60, 70 and 80 feet in width would be acceptable. Setbacks within the area should also respect building massing and setbacks associated with traditional housing.
Acreage – 360 Acres

Illustration 9-28
The high-rise concept proposed keeps the taller buildings off the road, setback into the interior of the developed area, so the view of the water is preserved. This rendering demonstrates the Township's concept reqarding the placement of these high intensity uses.

Photo Courtesy of Mark Bacha

Mid-Rise Townhouse Residential
Expected Uses – Approximately 580 acres have been designated for mid rise/townhouse residential. It is envisioned that these units would be 2-8 stories in height to provide the dense urban living environment necessary to support the town center development.
Acreage – 580 Acres

Mid High-Rise Residential
Expected Uses – The mid-high rise residential housing designation is intended to provide residential towers of 8 stories and above. These towers will be able to provide a multitude of living styles ranging from condominium units to high-end penthouses with views of the Bay. The high-rise use was located towards the center of the development so the view of the lake would be preserved along the lakeside road.
Acreage – 130 Acres

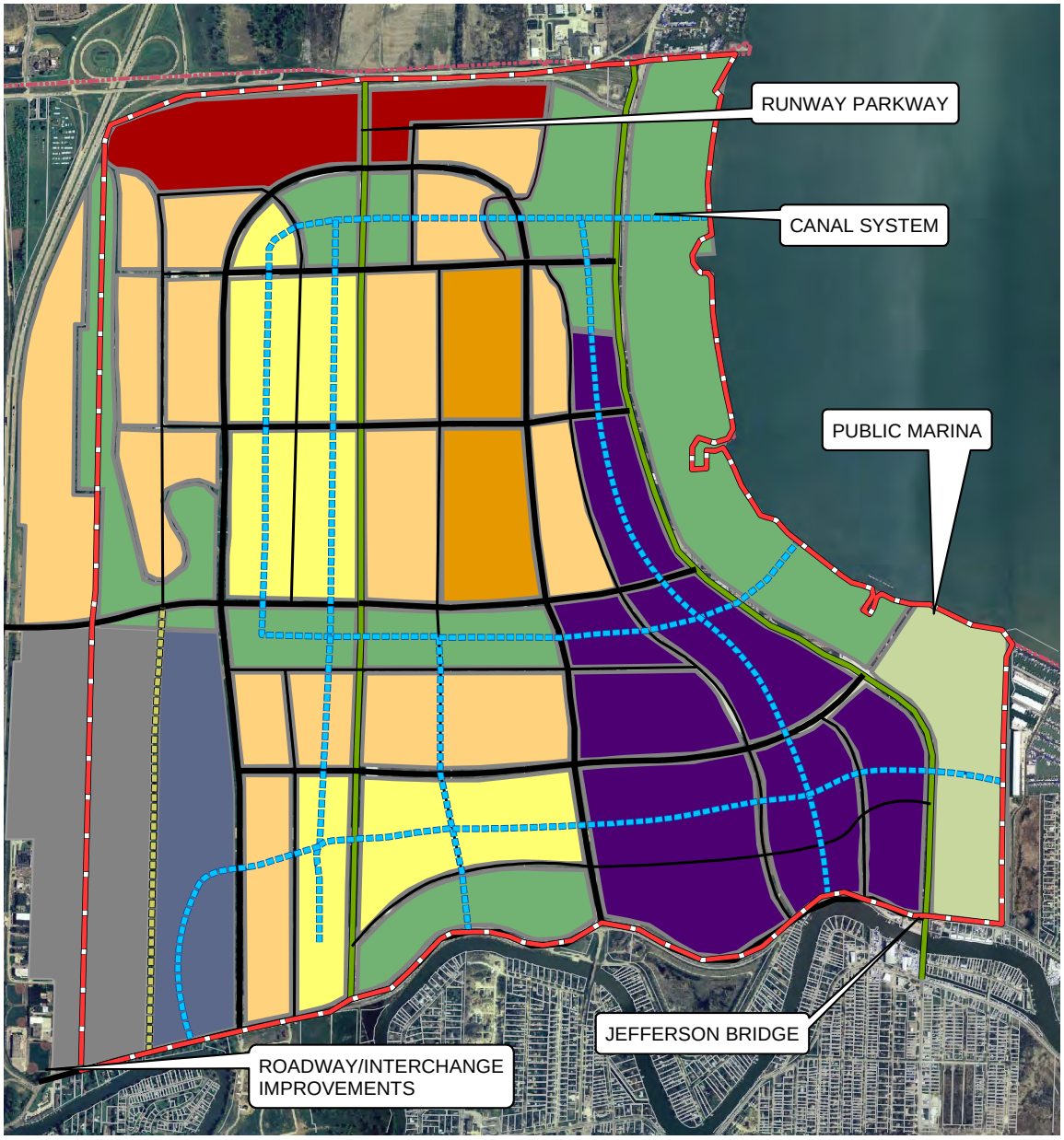


ILLUSTRATION 9-29
SELFRIDGE CONCEPTUAL BASE RE-USE PLAN

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W E
S

Community Planning & Management, P.C.
Professional Planning Consultants

LEGEND

TOWN CENTER SINGLE FAMILY RESIDENTIAL	*AVG 3-5 UNITS/ACRE*
MID-RISE TOWNHOUSE RESIDENTIAL	*AVG 8-10 UNITS/ACRE*
MID HIGH-RISE RESIDENTIAL	*8 STORIES AND ABOVE*
TOWN CENTER	
M-59 COMMERCIAL CORRIDOR	
HIGH TECH RESEARCH	
INDUSTRIAL CORRIDOR	
SHORELINE PROTECTION/OPEN SPACE	
CIVIC/RECREATION NODE	

THOROUGHFARE

- LOCAL
- COLLECTOR
- INDUSTRIAL COLLECTOR
- MAJOR
- MAJOR BOULEVARD
- CANALS

Harrison Township Master Plan

Section 10

Environmental & Recreation Plan

ENVIRONMENTAL PLAN

As identified in the Physical Features section of the Master Plan, Harrison Township still maintains a substantial number of natural resources worthy of protection, despite nearing build-out. The protection of environmental features was an important issue during the visioning process with the community. During the visioning process, the following vision was established for environmental features:

> *Integrate the Township's natural environmental systems into all developments in a harmonious manner and require full preservation of natural feature quality and quantity, when feasible.*

Master Plan Recommendations

Develop Ordinances to Protect the Natural Resources of the Community

Zoning Ordinance amendments as described below should be considered by the Township:

Impervious Surface Reduction

In an effort to reduce the overall amount of pavement and building on a site, it is important to provide regulation in regards to total impervious surfaces. As a part of an overall Ordinance rewrite, the Township should review standards for the maximum amount of coverage permitted onsite. Typically, in a community similar to Harrison Township, a maximum coverage may be between sixty five (65) to eighty five (85) percent. Studies for all of the Township's non-residential districts should be conducted to determine what the appropriate percentages would be for Harrison. These standards would be developed for each section much like setbacks, building heights, etc. By managing runoff from impervious surfaces before it enters the storm sewer system or nearby waterbody, peak flow rates, total volume runoff, and pollutant concentrations can be reduced.

Illustration 10-1
The Master Plan recommends the adoption of ordinances that require a reduction in the amount of impervious surface on a site.

Minimum Greenbelt Requirement

As noted above, in an effort to reduce the overall amount of impervious surface, minimum greenbelt requirements should be established for all non residential uses. A minimum greenbelt of ten (10) feet would provide a usable greenbelt to allow for additional landscaping, building and parking separation, and the like. Consideration will need to be given to the number of existing nonresidential sites which may not have ample area to provide such a greenbelt due to existing condition. If an Ordinance is developed the impacts of the existing conditions will need to be considered.

Natural Resources Setback

As shown in the physical features section of the Plan, the Township has a number of substantial woodlands, wetlands and rivers and drains within the Township. In an effort to preserve these natural features, the Township should develop a natural resource greenbelt. A typical setback of twenty five feet would provide an acceptable greenbelt area. This area should be required to be left in a natural state. This twenty-five (25) foot wide buffer zone provides an area where sediment and other potential contaminants can be caught before reaching the adjacent waterbody or wetland area. Further, the natural area will limit the potential for erosion of the banks of the waterbody. These sediments and contaminants cause algae blooms, decrease in water quality, etc. In those areas which are already developed with surrounding lots, the Township in conjunction with the watershed groups should educate the adjacent property owners on the benefits of implementing a natural resource greenbelt.

Consider the Development of a Township Wetlands Ordinance

The Township should work with the Environmental Committee to develop a wetlands ordinance that protects the wetlands of the community but is not overly burdensome on individual homeowners. An ordinance can be developed that is both equitable in regards to property rights and environmentally friendly.

Illustration 10-2
Development of a wetlands ordinance will help the community protect the remaining wetlands of significance within the community.

Create Low Impact Development (LID) standards for all developments within the Township
Specific LID techniques include, but are not limited to, the following:

- Use permeable pavers for emergency stopping areas, crosswalks, sidewalks, road shoulders, on-street parking areas, vehicle crossovers and low-traffic roads. These types of changes could be incorporated into the Township's Zoning and Engineering regulations.

- Disconnect the downspouts from roofs and direct the flow to permeable pavement or other vegetated infiltration and filtration practices. One could also redirect the flow from gutters and downspouts to a rain barrel for later on-lot use in lawn and garden irrigation. This type of program would need to be established through education of residents and business owners.

- Use multi-functional open drainage systems in lieu of more conventional curb-and-gutter systems. The implementation of open, natural drainage systems would need to be coordinated with the Township Engineering regulations as well as with the regulations of the Road Commission of Macomb County.

- Use green roofs for runoff reduction, energy savings, improved air quality, and enhanced aesthetics. The Township should lead by example in the development of Green Roof implementation. As a part of renovating or building new structures for municipal purposes, green roofs should be utilized. Further, the Township could help private business seek grant opportunities for funding the cost of implementing green roof technology on private buildings.

- Landscape with a rain garden to provide on-lot detention, filtering of rainwater, groundwater recharge, and to reduce runoff volume. On an individual residential basis, the installation of rain gardens would drastically help water quality in the canals and associated waterways. Again, much like the downspouts this would be implemented through education through entities like the Clinton River Watershed Council.

Rain Gardens

Rain Gardens have a ponding area, but they are not technically ponds. They often are planted with wetland plants, but they are not wetlands. The garden absorbs and filters rain that would otherwise run off the property and down the storm drain or stormwater retention facility. This stormwater runoff usually comes from an impervious surface that rain cannot soak into, such as a roof or parking lot, or even a lawn. Many of the plants in the garden are native to the region, and have extensive deep roots that help the garden absorb rain. The native plants do not need special attention once they are established.

Illustration 10-3
With coordination between the Township and the Road Commission, rain gardens could be provided within the road right-of-way.

There is a bowl-shaped dip in the garden, which holds the rain while it soaks into the soil. The garden bed is prepared or sometimes replaced to a depth of two feet in order to de-compact the soils and make the garden able to absorb water. A native plant garden that does not have rain directed into it from a hard surface of your property will still be a valuable asset, and will help absorb rain much better than a traditional landscape. But unless stormwater runoff is directed into the garden, it is not a rain garden.

- When traffic or parking demands do not dictate, build narrower residential streets or restrict parking and sidewalk areas to one side of the road rather than both. Replace the space gained with pervious areas, bioretention (planted areas designed to retain and filter runoff), or vegetated channels. For parking areas, allow reserve parking areas to remain undeveloped or be constructed with grass pavers.

- Finally, the Southeast Michigan Council of Governments (SEMCOG) is currently finalizing a Low Impact Development Manual which can be utilized by local communities as well as residents and developers alike. This document will provide a comprehensive list of Best Management Practices for LID's as well as case examples of each. The Township should provide links to this document from their website or hard copies of the document at Township Hall (once it becomes available) for persons interested in LID.

***Support LEED certified building techniques, as well as the use of alternative/renewable energy*:**

What is LEED?

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings. LEED gives building owners and operators the tools they need to have an immediate and measurable impact on their buildings' performance. LEED promotes a whole building approach to sustainability by recognizing performance in five (5) key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. LEED provides a roadmap for measuring and documenting success for every building type and phase of a building lifecycle. More information relative to LEED can be found at http://www.usgbc.org.

In addition to LEED, the National Association of Homebuilders have developed their own, voluntary certification program for residential construction, which the Michigan Association of Homebuilders have adopted as part of their program known as GreenBuilt. GreenBuilt is a program intended to allow Michigan homebuilders to create more sustainable home developments that are energy efficient and more respectful of natural resources. The GreenBuilt program requires that all members who elect to secure GreenBuilt status attend a 3-hour Green Built training session. GreenBuilt also provides professional assistance to members. Harrison Township as a part of the implementation of this Master Plan should direct builders to this program and its benefits.

Finally, individual residents can go to http://www.greenhomeguide.org/, to learn more about building and maintaining green homes. This website is maintained by the U.S. Green Building Council and provides a large amount of information regarding green homes, ranging from the LEED scoring system to a "Green Know How To" section.

In terms of generating regulations for requiring LEED certified buildings, the Township has limited control. The building code for the State makes local changes to the code very difficult and any such change must be approved by the State. However, an incentive based approach and general education on the benefits of LEED certification may encourage developers/builders to participate in the program voluntarily.

Sustainable Design - LEED Neighborhood Development

The term sustainable can have a number of different definitions depending on how the term is being used and who is providing the definition. A simple, common definition for sustainable development is as follows: development that meets the needs of the present without compromising the ability of future generations to meet their own needs and creating a zero net impact on the environment. One way of moving closer to a sustainable society, is to produce developments which strive to meet the principals of sustainability, like LEED-ND.

The LEED for Neighborhood Development Rating System integrates the principles of smart growth, urbanism and green building into the first national system for neighborhood design. LEED certification provides independent, third-party verification that a development's location and design meet accepted high levels of environmentally responsible, sustainable development.

Using the framework of other LEED rating systems, LEED for Neighborhood Development recognizes development projects that successfully protect and enhance the overall health, natural environment, and quality of life of our communities. The rating system encourages smart growth and new urbanist best practices, promoting the location and design of neighborhoods that reduce vehicle miles traveled and communities where jobs and services are accessible by foot or public transit. It promotes more efficient energy and water use—especially important in urban areas where infrastructure is often overtaxed.

Currently, LEED ND is in its pilot period and is being reviewed against the pilot projects which were developed under the initial concept. LEED for Neighborhood Development is a collaboration among the USGBC, the Congress for the New Urbanism and the Natural Resources Defense Council.

As a part of guiding future development within Harrison Township to become more eco-friendly and sustainability, codes and ordinances will need to be reviewed against the final, adopted draft of the LEED-ND system.

Source: www.usgbc.org

Alternative Energy

Many renewable or alternative sources of energy are to some degree feasible in Harrison Township. The primary principle for reviewing the feasibility of individual renewable sources is to balance the initial costs, actual efficiencies, lifespan cost benefit and maturity of the technology.

Several of these alternative energy sources may include the following:

- individual wind turbines where sufficient space is available
- Solar panels may also be considered, but do have initial costs.
- Ground source heating and cooling is appropriate (geo thermal), but again, often has a high initial cost.
- Users with large energy needs may also want to consider the latest advances in fuel cell technology, some of which can be powered by wind.

The Plan encourages the use of these alternative means of providing energy for homes and businesses within the Township. The Township's proximity to the Lake provides a potential asset of wind energy for small or individual users. However, for mainstream energy, the wind potential for Harrison is limited based on wind studies conducted for the area.

The Township as a part of the implementation of the Master Plan should incorporate some of these technologies into their building design as appropriate, thereby leading by example. Typically, new technologies only become acceptable and used if and when a leader provides a real life example to show the usefulness of the technology and Harrison can be that leader.

These technologies will continue to evolve and change as advances are made in each specific industry. In implementing alternative energy sources, the constant review of these energies by the Township will be necessary. This would include regulations which may impact land use or zoning decisions.

Township Leading the Way

There are many benefits of the Township choosing to set such a standard for sustainable design and the leaders in implementing such standards. Some of the most significant are:

- Affirmation of the Township's commitment to becoming a model sustainable community.
- Serving as an example for private sector building projects
- Increased value, marketability and economic growth possibilities for the Township
- Reduction in energy consumption and utility costs
- Mitigation of health risks for Township employees
- Increased worker productivity
- Improved overall environmental performance of the Township

RECREATION PLAN

Historically, Harrison Township's investment in recreation services has been modest. With the elimination of a Recreation Department, simply administering recreation programming and maintaining existing parks has become a major responsibility of the Township administration and the Recreation Committee. The Township adopted a Recreation Plan in 2006. This plan was designed to meet the needs of the Township through 2011. Existing park locations are shown on the following map.

While Harrison will continue to experience additional population and housing growth during this planning period, the quantity of growth will be less than it was in earlier decades. One of the principal reasons for this expectation of more modest growth is declining quantity of vacant land in the Township. Not only is the quantity of vacant land declining, much of the remaining vacant sites zoned for residential purposes have physical limitations such as wetlands and floodplains that restrict development potential.

These factors have important consequences for recreation planning purposes. While the demand for park and recreation facilities is expanding, the inventory of potential sites is shrinking. The next five-year planning period is pivotal for the Township. Actions taken during this period of time will influence the delivery of recreation services for years to come.

The recreation challenges facing the Township can be grouped into several broad categories which include the following:

- Acquisition of new park sites, particularly a community-level park.
- Renovations and improvements to existing Township parks.
- Expansion of the range of recreation programming activities available to Township residents and administering these programs.
- Financing recreation services, including; administration, maintenance and land acquisition consistent with recognized needs and demands.

Illustration 10-4
HCMA's Metro Beach is a major recreation attraction in the Township.

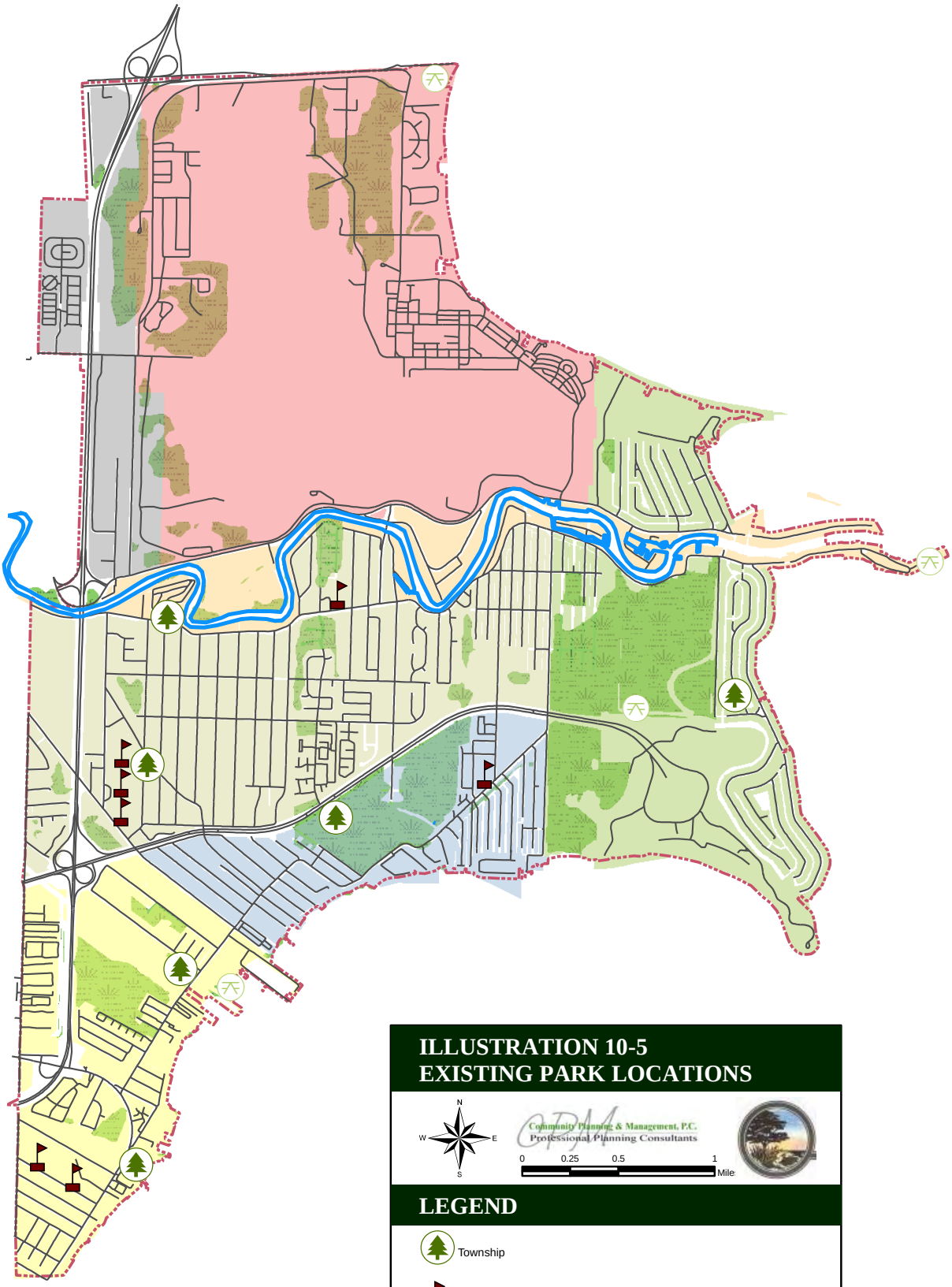
ILLUSTRATION 10-5
EXISTING PARK LOCATIONS
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Community Planning & Management, P.C.
Professional Planning Consultants
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0.25
0.5
1
Miles
LEGEND
Township
School
Other
Generalized Wetlands

Acquisition

Many of the Township's park and school sites are located on the periphery of established neighborhoods rather than within the neighborhood. Because of this, there is sufficient justification to consider the acquisition of additional park sites at several locations within the Township. In some locations, L'Anse Creuse School sites offer the only neighborhood-level recreation opportunities. Investments by the School District in new playground equipment and the park-like appearance of three elementary schools in Harrison Township make an important contribution to the Township's recreation inventory. However, these sites are not large enough to provide the play fields or sports facilities needed to accommodate organized athletic activities, especially little league baseball and soccer. In addition, these sites are not under the control of the Township. The Recreation Plan identifies several areas for potential acquisition. The primary location was the Ventre de Beuf site. This site was recently purchased by the Township and is described as follows:

Ventre de Beuf Acquisition

This site was identified as a primary acquisition priority due to its location on the Ventre de Beuf drain/wetland/ woodlands area. The approximately 155 acre area site is located in the center of the Township with the Metropolitan Parkway and Freedom Trail as the north boundary and Jefferson Avenue as the south boundary. The Township also owns a 7.8 acre tract which is adjacent to the north central portion of the subject site. In addition, 15 acres of mitigated wetlands abut the southeast corner of this tract.

Illustration 10-6
The Township recently purchased the 155 acre Ventre de Beuf site on the south side of Metropolitan Parkway for recreation use.

As part of the Master Plan process, a visioning session was held specifically to gain input from the Township regarding how the Ventre de Beuf site will be utilized. As a result of the visioning session, the Township has determined that the site should be utilized as a passive park area with trailways. This use will have minimal impacts on the existing environmental features located on the site.

Park Development/Redevelopment

In addition to expanding the inventory of public land available for recreation purposes, the range of equipment and facilities at existing recreation sites also needs to be explored over the next five-year planning period encompassed by the Recreation Plan. Suggested improvements to each site are described in the following discussion.

Tucker Park/Spillway Park

The Recreation Plan offers a plan for the continued and integrated development of these two adjoining sites. The plan for Tucker Park includes several different recreation functions and activities and extends development to the adjoining parcel at the corner of Jefferson and Ballard. Improvements are as follows:

Illustration 10-7
Tucker/Spillway Park

- Development a picnic area and a boardwalk with an overlook terrace along the Clinton River Spillway.
- Develop an additional ADA compliant parking lot and access drive to serve a proposed picnic area and fishing pier along the spillway.
- Expand and modernize playground areas/equipment.
- Provide a hard-surface game area which may include basketball courts, or a surface for roller blade hockey.
- Provide passive open space/nature interpretation areas.
- Provide electricity in the area fronting Lake St. Clair along with decorative lighting along the boardwalk.
- The open space area at the north end of the site may be large enough to accommodate playfields for organized sports, such as youth soccer or little league.
- Incorporate the existing building facing Ballard Street into the design of the park as a senior center.
- Develop an extension to the pedestrian trail that ties into the Freedom Trail. To minimize the potential for accidents, the trail should be extended underneath Jefferson Avenue, if this is feasible. If not, a pedestrian bridge at Jefferson is the only other alternative. A temporary alternative would include pavement striping, signage, or other suitable improvements to improve pedestrian safety. Provide handicapped accessible restroom facilities.
- The plan for the Spillway portion of the park could also include the development of overlook terraces at several locations along the pedestrian path. These terraces could include benches to permit pedestrians, joggers and bicyclists with an opportunity to stop and view the waterfront.
- Develop fitness/exercise stations along the linear portion of Spillway Park.
- Install sidewalks along the roadway that abuts the park.

Trombley Park

Two little league baseball diamonds currently occupy this site. The parcel is not large enough to accommodate any additional activities. Proposed future improvements involve paving the two small parking lots that serve the site, developing permanent restroom facilities and upgrading the existing fencing to a decorative, more aesthetically pleasing style. Acquisition of the vacant land on the east side to the river should also be explored.

Waterfront Park

Additional development at Waterfront Park is somewhat limited by the size of the site and its limited opportunities for expansion. The current design of the site, however, does not take full advantage of the park's waterfront orientation. To better accommodate the use of this site for family and group picnics, the following improvements are proposed:

- Develop pavilion facilities.
- Provide a hard-surface game area which may include basketball courts, or a surface for roller blade hockey.
- Purchase new playground equipment.
- Repair concrete at the northwest corner of the gazebo.
- Extend a walking path around the perimeter of the site. It may also be appropriate to move Relocate the sand volleyball courts to the center of the site to minimize conflicts with picnic area users and the neighboring condominiums.
- Provide additional landscaping/aesthetic improvements throughout the park.
- Pave the parking lot and include handicapped parking spaces.
- Extend a fishing pier into the lake.
- To improve handicap accessibility, a paved ramp should be provided from the parking lot to the existing paved walk. The paved walk which currently exists should be extended to make all existing and proposed facilities in the park handicapped accessible, including the boardwalk.

Orville Aune Park

This one (1) acre park within the Huron Pointe Subdivision neighborhood has limited improvements proposed. The upgrading of the existing swingset to meet modern standards and the future development of a small parking area are the extent of the proposed improvements.

Veterans Memorial at Township Hall

The Recreation Plan proposes the addition of a gazebo and the removal of the horseshoe shaped drive at the front of Township Hall where the Veterans Memorial is currently located. Park benches and other landscaping amenities could also be included within this passive area.

Pedestrian Connection

The Freedom Trail bicycle/pedestrian path was reconstructed to a 12 foot width through the entire length of Harrison Township during the 1990's. The first phase of this regional system was built by the Township in the late 1980's and extends from Harrison's western boundary east to the entrance of Metro Beach Metropark. Another leg of this system extends along the Clinton River Spillway as far as Jefferson Avenue.

Illustration 10-8
The Freedom Trail on Metro Parkway is the main bikepath within the Township.

Aside from these two routes, sidewalks and other pedestrian paths in the Township are limited and discontinuous. An important goal of the Recreation Plan is to provide a Township-wide series of pedestrian connections offering continuous circulation between existing and proposed park and school sites. Some of the most important pathway improvements/ connections are identified below:

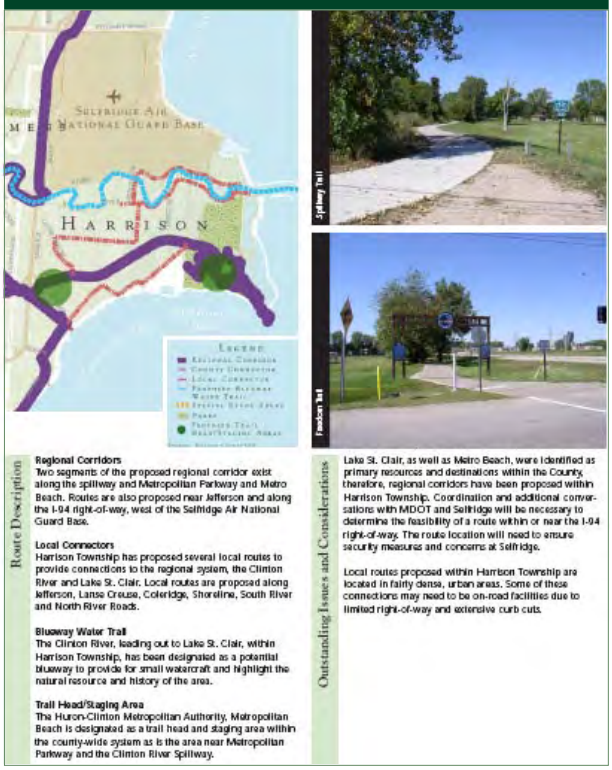
- Provide a pedestrian pathway at Bridgeview.
- Establish a pedestrian walkway over Jefferson Avenue in order to connect both portions of Tucker Park.
- Provide a pedestrian bridge over the Clinton River Spillway as a connection to the existing path at Tucker Park.
- Provide pedestrian walkways at Crocker Boulevard and Shore Line.

Proposed Pedestrian Path Route

The proposed pedestrian path system takes advantage of the existing regional path located along Metropolitan Parkway and the extension along the Clinton River Spillway. The Plan envisions the eventual development of a network of paths feeding into the regional route which bisects the Township's developed residential neighborhoods. The Harrison Township Recreation Plan recognizes the The Macomb County Trailways Plan and promotes the completion of the trail system identified in this document. The County Plan indicates the following:

- In addition to the Freedom Trail, the County proposes the development of two (2) additional "regional corridor" routes along Jefferson and the I-94 Freeway.
- The design of the Clinton River as a "Blueway Water Trail" which would provide for small watercraft and highlight the natural resources and history of the area.
- Utilization of Metro Beach as a trail head and staging area within the County-wide system.
- Utilization of the Metro Parkway/Clinton River Spillway intersection as a trail head and staging area.

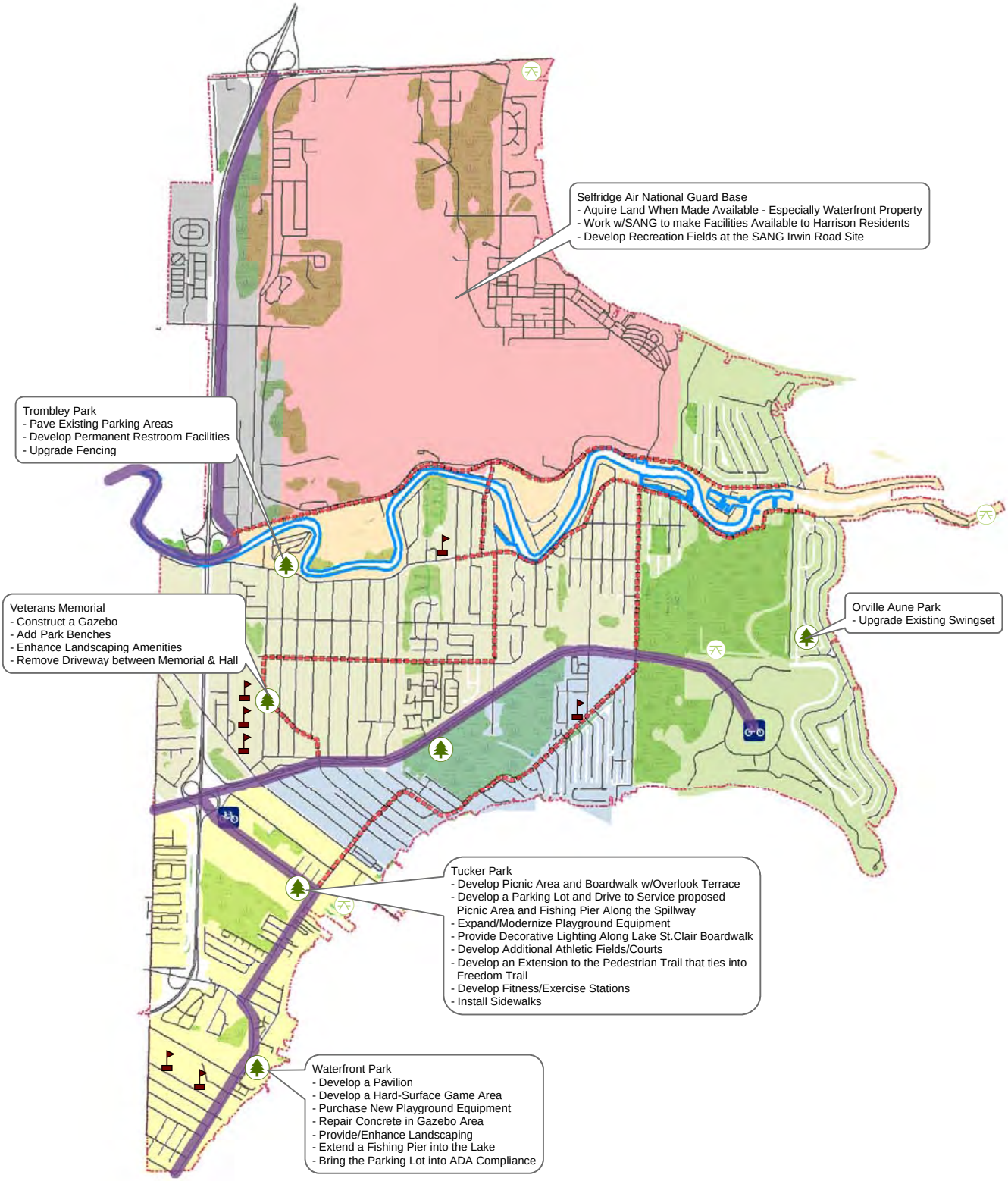
Illustration 10-9
Macomb County Trailways Plan For Harrison Township



Local Connectors

Local routes are necessary throughout the Township to provide local access to the regional corridors. Local connectors are proposed along the following roads:

- Jefferson Avenue
- L'Anse Creuse
- Coleridge
- Shoreline
- South River Road
- North River Road (extension to connect to Mt. Clemens fishing pier).



LEGEND

Park Locations
- Township
- School
- Other
- Generalized Wetlands

Proposed Pathways
- Trailheads

ILLUSTRATION 10-10
2006 Recreation Plan

N W E S

Community Planning & Management, P.C.
Professional Planning Consultants

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Harrison Township Master Plan

Section 11

Thoroughfare & Community Facilities Plan

THOROUGHFARE PLAN

The Thoroughfare Plan incorporates the relevant visions and strategies considered earlier, along with the inventory information and concepts and standards introduced in the Thoroughfare Analysis. Major proposed improvements needed to support the land use and community facility elements of the Plan are identified below:

Traffic Planning Principles

Certain general principles have been recognized by planners and traffic engineers as conducive to sound transportation planning for urbanizing communities. These principles may be summarized as follows:

- There must be coordination between the Thoroughfare Plan and existing and proposed land usage in order to achieve a trafficway system that may efficiently service the land use patterns.
- Because of its permanency, the existing road system must form the basis for long-range transportation planning, with modifications in the system made, where necessary, to accommodate future needs.
- Existing and anticipated traffic volumes must be considered and provisions made to accommodate the increased traffic and changing trip movements generated by population growth.
- There must be correlation between the Thoroughfare Plan and residential neighborhood units so that the Plan will provide for adequate service to the neighborhoods but, wherever feasible, not bisect them with heavily travelled routes.
- A comprehensive network of direct, continuous routes must unite all parts of the Township insofar as is compatible with geography and land use so that improvement is achieved in the overalls traffic flow and trip time in the Township.
- Modern design standards must be utilized in planning width of right-of-way and pavement and other development characteristics of the roads.
- The Plan must consider the proposals of road planning agencies throughout the region in order to achieve a complete and functional road system.

Master Plan Recommendations

The Thoroughfare Plan places a great deal of weight on the Road Commission of Macomb County Thoroughfare Plan and the right-of-way designations provided in that plan. However, based on the visions and strategies outlined within this Master Plan, certain portions of that Plan must be reconsidered. The Thoroughfare Plan Map is provided on Page 11-3. A summary of major proposals to the Harrison Township road system are listed as follows:

ILLUSTRATION 11-1
TOWNSHIP THOROUGHFARE PLAN

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Community Planning & Management, P.C.
Professional Planning Consultants

0 0.5 1 2 Miles

LEGEND

- Local 60' ROW
- Local 66' ROW
- Collector 86' ROW
- Major 120' ROW
- Regional 204' ROW/Planned Rail Transit on Metro Parkway
- I-94 Expressway
- Selfridge Base Road

Reduce the Planned Jefferson Right-of-Way, between Metropolitan Parkway and Shook *- Based on the limited traffic generation on Jefferson, the lack of need of additional right-of-way to accomplish the village node goals, and the numerous developed properties in this area, it is best to reduce the planned right-of-way to eighty-six (86) feet. The majority of Jefferson currently functions within a 66' right-of-way.*

Work with the Road Commission to allow for on-street parking within the planned village node areas **-** The Township should diligently pursue this goal with the Road Commission with the understanding that no on-street parking should be provided until some of the planned improvements in the subject areas have begun.

Reduce the right-of-way on North River Road and South River Road from 120' to 86' - The lack of need for the additional right-of-way in the village node area of South River Road and the substantial number of residences on North River Road makes it more realistic to anticipate an eighty-six (86) foot wide right-of-way in the future.

If feasible, work with the Road Commission to develop a boulevard on Jefferson - As a means of improving the aesthetics of Jefferson in Harrison Township, Township officials should work with the Road Commission to introduce a boulevard concept. If this becomes possible, the Commission will have to consider allowing for a one hundred and fifty (150) foot right-of-way.

Plan for Rail Transit on Metropolitan Parkway - With the growing push for a regional mass transit system in Metro Detroit, Harrison Township aims to promote this concept on Metro Parkway. The system should be coordinated with Clinton Township to connect activity nodes. A functioning rail system on Metro Parkway could provide quick access from Metro Beach to Gratiot, The Mall at Partridge Creek, the Troy Business Center including Somerset Mall, and Woodward Avenue, proximate to downtown Birmingham and other activity nodes.

Access Management

Access management and internal circulation are critical elements in creating a safe and efficient roadway system. The capacity of a regional or major thoroughfare can be enhanced, and its useful life extended, by careful attention to access controls and circulation between adjacent sites. This coordination and review will also likely reduce the total number of access drives as well as the total number of conflict points. The Township has the ability to implement access management standards which will allow for the proper planning and placement of access drives in the Township. If not implemented as new development occurs, the Township will be faced with the difficult task of eliminating access drives on a piecemeal basis. During the life of this Plan, the two primary areas of focus for access management will be along Jefferson Avenue and on South River Road.

The concept of access management is based on granting owners of property along a specified roadway, specifically those owning commercial, office or industrial, access to their property, but not unlimited access. There are many access management standards which can be implemented within the Township. These include driveway spacing, limiting the number of access drives, and shared drives. When implementing access management policies, the Township should utilize the Michigan Access Management Guidebook prepared by MDOT as a guide to assist in determining appropriate standards. As part of the Master Plan, the Township has noted the following objectives for access management.

Joint Access Easement

One method of reducing the need for access drives onto major thoroughfares is to provide joint or cross access easements between sites. During the site planning process, consideration should be given to the alignment of parking lot maneuvering lanes which would allow for continuous and safe travel between parking lots. Joint access easements allowing for such travel should be required prior to site plan approval. These documents will require review by the Township Attorney, as well as the Township Engineer.

Maximizing Corner Clearance

Curb cuts for properties located on a corner parcel require special attention. Access drives and curb cuts should provide the maximum amount of spacing possible from the intersection to the curb cut. Further, in most cases, the access drive should be limited to the secondary roadway rather than the primary. This will help in channeling vehicles to a common intersection rather than creating new turning areas. AASHTO standards for intersection and corner clearance should be utilized as a guide when implementing this access management technique.

Maximize Clear Vision

Particular attention should be given to the areas of the Township where commercial access drives would be located on curves or portions of roadways with varying topographic height. Clear vision for motorists in this area should be reviewed carefully due to potential blind spots. If possible, access drives should be located in such a manner where clear vision in both directions is maximized.

Maximize Drive Offset

The Planning Commission, in their review of site plans, needs to pay particular attention to driveway offsets. Driveways and roadways on opposite sides of the road can increase the potential for conflict. Therefore, if drives cannot be aligned across a street, the distance between driveway centerlines should be maximized.

COMMUNITY FACILITIES

Community facilities are an important part of a municipality's overall development and, consequently, need to be considered in the preparation of the Master Plan. Community facilities have an impact on the community's future land use pattern and are important to the operation of a community. These facilities also make a significant contribution to a community's overall identity. Often, the impression created by a particular community is directly related to its municipal buildings, schools, libraries and other public buildings. This is particularly true for those suburban communities where development is dispersed over a large geographic setting, as compared to the more compact physical form of many older cities.

Schools

While the Township has no control over the school operations and functions, school needs, particularly the location of school sites, impact the community's overall land use plan. While it is not anticipated that there will be an expansion of the number of schools due to the limited projected population growth over the next twenty (20) years, the Plan still recommends that the Township develop a relationship with the School District so that issues can be raised and discussed when additions or other construction projects are undertaken.

Illustration 11-2
South River Elementary School

All of Harrison Township is located within the boundaries of the L'Anse Creuse School District. Portions of the School District also extend into the neighboring communities of Chesterfield, Macomb and Clinton Townships. Six (6) school are located in Harrison Township including four (4) elementary schools, one (1) middle school and one (1) high school.

Utilities

As Harrison moves toward final build-out sanitary sewer and water capacity issues are not as prevalent due to the fact that the current system is more than adequate to account for both today and tomorrow's future growth. The utility infrastructure is also sufficient to support the planned development at Selfridge should development ever occur on that site.

Fire Protection

Harrison Township provides a full service Fire Department, which offers a range of rescue and prevention services. In addition to the department's emergency response capabilities, the Harrison Township Fire Department conducts a full range of preventative measures. These include fire prevention inspections and fire education programs.

Two (2) fire stations are located in the Township. The first of these is on Crocker Boulevard, near Jefferson in the central portion of the Township. The second location is a brand new building located on the east side of Jefferson, south of South River Road. A third fire station, north of the River, is warranted to protect the northern portion of the Township, due to limited access from the south. Currently, the northern portion of the Township is protected through mutual response agreements.

Police

Full-service police services are offered to Harrison Township through a contractual agreement with the Macomb County Sheriff's Department.

Township Hall

Township Hall is currently located at the intersection of L'Anse Creuse and Town Hall. The site is ideally situated in the central portion of the Township, making it easily accessible to all residents of the community. The buildings were recently remodeled and reorganized to improve efficiency. Due to the limited amount of growth the Township is projected to experience over the next twenty (20) years, the existing facilities should be adequate to service the community. Should the Township decide to add additional staff or departments, a space-needs study may be necessary to determine the potential for expansion or a need for new buildings. In addition to the existing facilities, any new municipal facilities, such as a library, should be located at the current Township Hall site.

The current plan for the Township Hall site is based on the assumption that property at Selfridge is not available for civic development. If Selfridge (SANG) were abandoned for military use, a contingency plan is provided for future Township office facilities to locate on that property (refer to Section 9.0).

Land Use Designation - Public

All community facilities in the Township are designated as "Public" on the Land Use Plan Map. Over 850 acres of land are set aside for public use. The majority of this acreage is part of Metro Beach. The remainder of the acreage is occupied by other municipally owned land. Should any of this property be sold, the most appropriate use should be determined based on the surrounding conditions and the general character of the area.
Acreage - 852 Acres

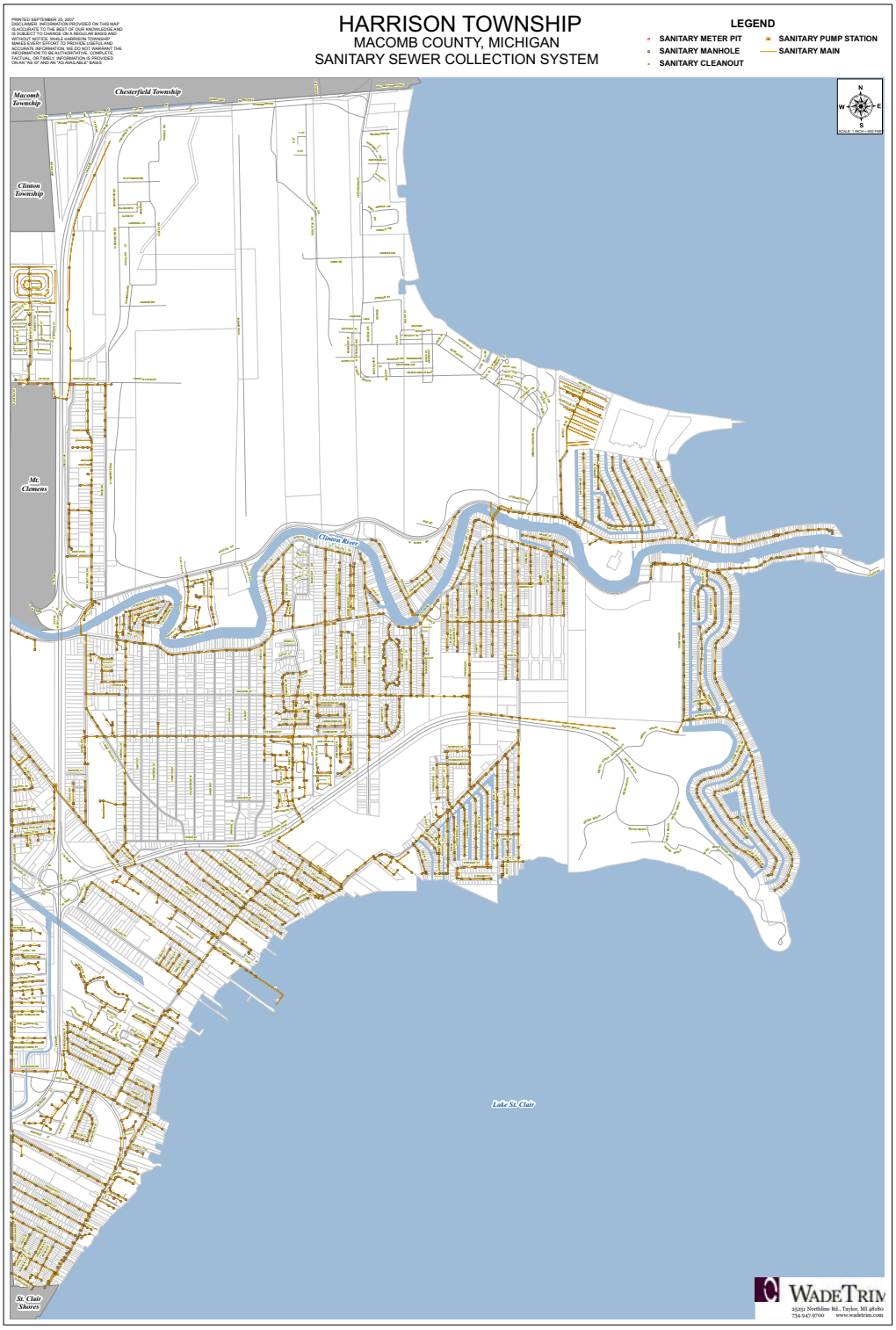

ILLUSTRATION 11-3
TOWNSHIP SANITARY SEWER SYSTEM

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Community Planning & Management, P.C.
Professional Planning Consultants

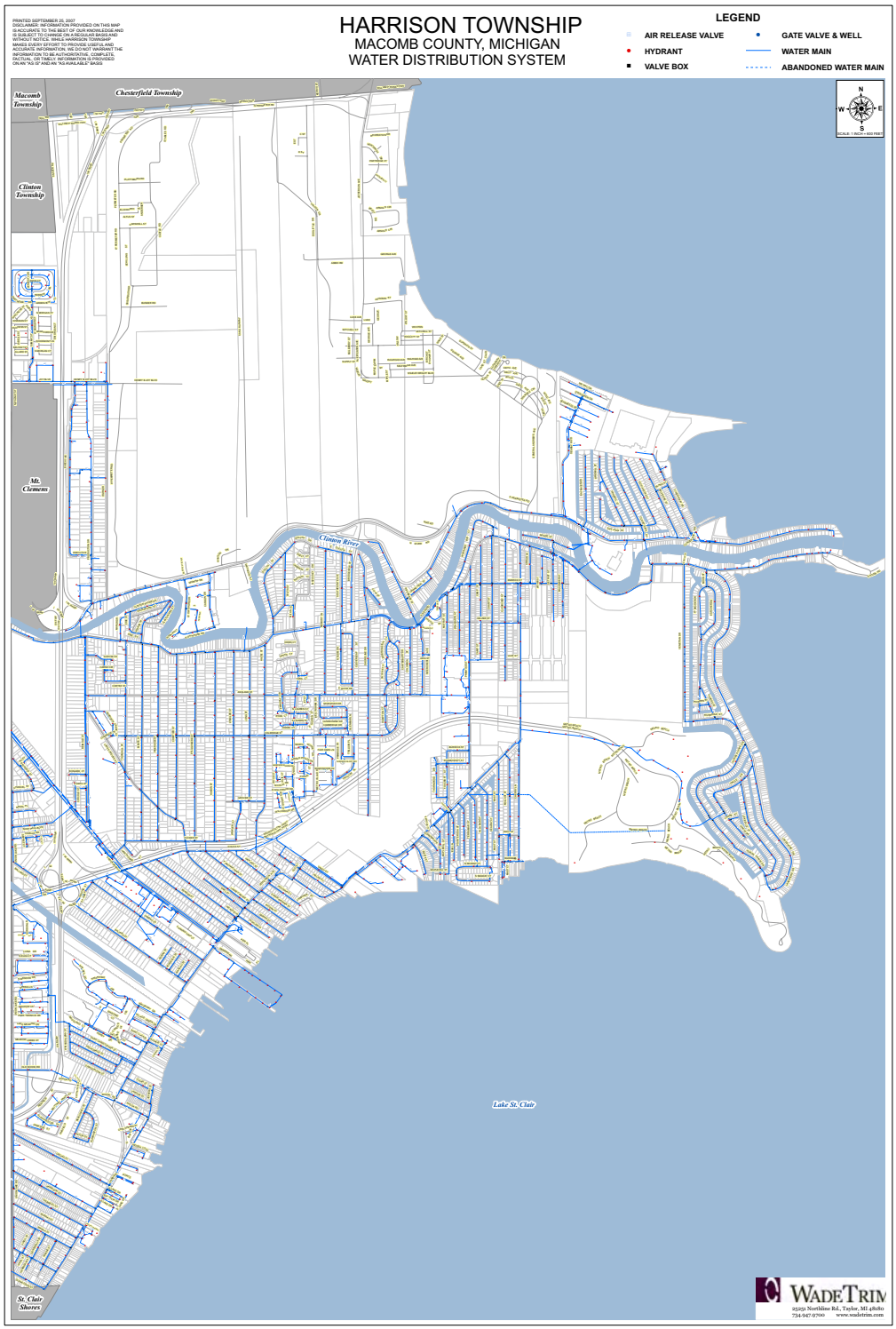

ILLUSTRATION 11-3
TOWNSHIP WATER DISTRIBUTION SYSTEM

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Community Planning & Management, P.C.
Professional Planning Consultants

Harrison Township Master Plan

Section 12

Implementation Plan

Introduction

The objective of the Master Plan is to provide the guidelines through which the Township can improve and operate. A Plan is of little value to the community unless it is used to guide decisions and operations of the Township. The implementation of the various planning elements requires the development and effectuation of ordinances and techniques, along with a public information program to inform residents of the merits and objectives of the Master Plan.

Likewise, in order to achieve maximum benefits, the planning process must be designed to permit periodic assessment of data and the continued review of Plan elements. The Township should continue to promote new and updated zoning provisions, code enforcement, and create a capital improvements plan in accordance with the visions and strategies used to develop the Master Plan.

Implementation Tools

Following is a brief discussion of several key implementation tools available to the Township.

Zoning Ordinance Amendments

The Township's most effective tool to implement the land use arrangement of the Master Plan are zoning standards and zoning districts. A zoning ordinance is meant to be a fluid document, catering to the ideals and needs of the community. The experiences communities undergo in the application of their zoning rules and the review of unusual new land uses constantly change the body of professional knowledge related to planning and zoning standards. Periodic review of the zoning ordinance will result in the application of the most up-to-date standards in the design of new uses and the maintenance of existing developments. Review sessions may be appropriate at least annually, unless otherwise needed throughout the year.

Special Design Plans and Functional Plans

Much like the Zoning Ordinance, the Master Plan needs to be constantly reviewed. Sometimes a Master Plan must be followed by more detailed data or design studies in order to further identify issues, provide data for decisions making or to illustrate specific concepts that can only be covered briefly in the plan. These smaller, more specific plans can also help to implement certain ideals outlined in the Plan.

Compliance Planning For Redevelopment (CPR)

A relationship between the business owners of the community and the municipality can often be confrontational. Issues arise between compliance with the zoning ordinance and improvements the business owner feels are necessary for the survival of their business. This relationship can be even more strained where the majority of a community's existing commercial land is already developed. In these instances, business owners who developed their site under different ordinance requirements would have an extremely difficult time bringing their site into compliance with modern zoning ordinance requirements due to site limitations and costs associated with the improvements.

Harrison Township held a separate visioning session with both the marina and industrial owners of the community. As a result of these meetings it became apparent that business owners were willing to make improvements to their site, however, were reluctant to do so because of their concern that additional costly improvements to the site would be required by the Township during the site plan review process. As a result of these meetings the Township Master Plan recommends the development of a Compliance Planning for Redevelopment (CPR) program to assist business owners in improving older non-conforming sites. This program allows the business owner and the Township to work on an overall plan for the site and phase required improvements over time. The business owner then knows what improvements will be required at specific points in the development stage of their plan for improvements on the site.

The CPR Procedure

- ***Ordinance to be Created as part of Master Plan Implementation*** - Zoning Ordinance provisions must be amended/developed to allow the Township to institute this program.

- ***Business owner and Township work on plan for site***
  - Identify improvement goals of both the Township and the business owner for the property.

- ***Submit CPR Plan to Tech Team***
  - Tech team to make recommendation on an overall concept plan to Planning Commission (Reviewed under the same process as a PUD).

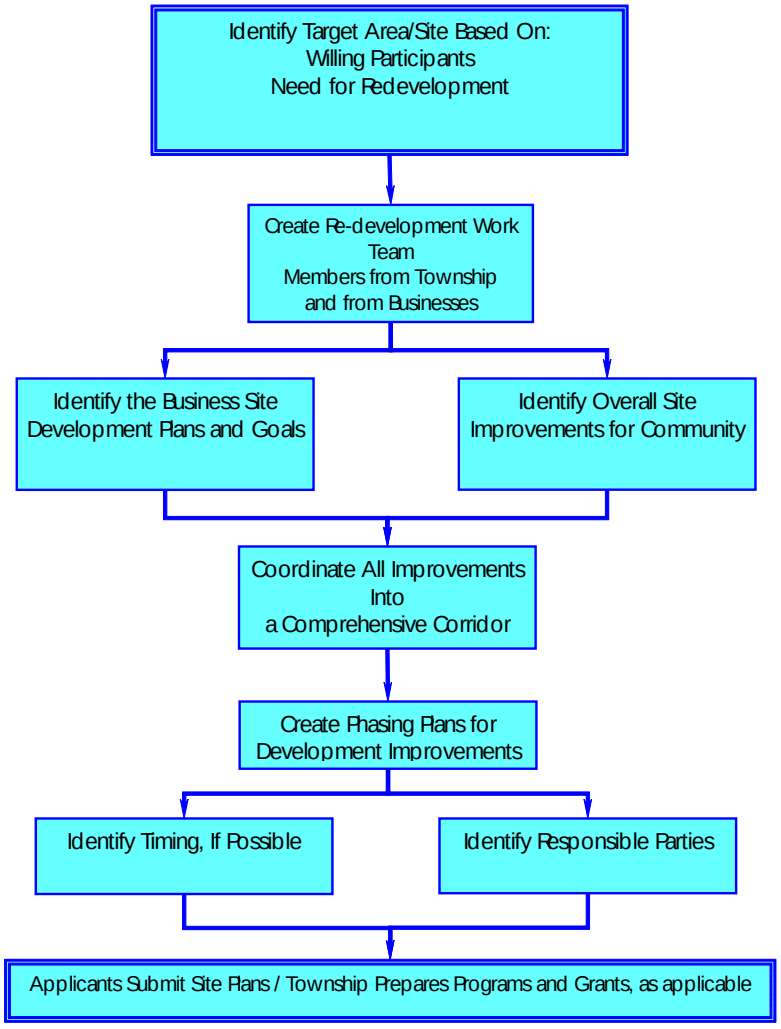
- ***Specific plans for each phase are developed by the business owner consistent with the approved concept and submitted to the CPR Review Committee (Township members of the CPR Committee) - No Planning Commission Review***

- ***Minor changes to be reviewed by CPR Review Committee***

- ***Major Changes to be reviewed by PC under CPR ordinance provisions developed***

CPR (Compliance Planning for Redevelopment)

Illustration 12-1
CPR Flowchart



Downtown Development Authority (DDA)

Harrison can encourage and promote the development of the proposed village areas by creating a Downtown Development Authority as a means of generating funds for improvements. Either the Crocker/ Jefferson Village Node or the Jefferson/S. River Road Node would be the most likely candidate for a DDA. A DDA is a public/private entity created to plan and finance the redevelopment and revitalization of a central business district. Most commonly, the DDA finances infrastructure and public facility improvements. In addition, a DDA promotes urban redevelopment and creates a mechanism for municipalities to compete more effectively with outlying shopping areas and newer commercial districts.

There are two (2) mechanisms for financing a DDA. The method that is recommended for Harrison Township is the Tax Increment Financing method. This means that from the time the DDA receives full approval until the completion of the DDA project (estimated time = 30 years) any SEV increase above the capped values will be used as DDA funding. The second mechanism for financing a DDA is a 2% millage. This method is more controversial due to the increase in taxes for property owners within the DDA boundary.

Corridor Improvement Authority (CIA)

For those village nodes that are not designated as a DDA, the Township may wish to explore the potential of a Corridor Improvement Authority (CIA). A CIA is similar to a DDA in that it allows for the establishment of a tax increment financing (TIF) program, but is more applicable to linear commercial corridors not traditionally considered "downtown" areas**.** The act allows a municipality to define a corridor, establish a base of taxable value, and in the future "capture" new taxable value tax dollars to be used specifically within the district, instead of having those funds dispersed throughout the municipality as a whole.

Requirements for Establishing a CIA

To establish a corridor authority, the area must meet all of the following criteria:

- Must be adjacent to an arterial or collector road as defined by the Federal Highway Administration
- Must contain ten (10) contiguous parcels or at least five (5) acres
- More than ½ of the existing ground floor square footage must be classified as commercial real estate
- Residential, commercial or industrial use has been allowed and conducted under the zoning ordinance for the past 30 years.
- Must be served by municipal sewer and water
- Must be zoned to allow for mixed uses that include higher density residential.

Implementation Matrix

Section	Recommendation	Responsible Party	Type of Action	Timeframe
Land Use/ General	Explore the potential of creating a Corridor Improvement Authority for Jefferson Avenue	Township Board	Plan/ Ordinance Development	Long Term
Land Use/ General	Work with existing development to improve road frontage aesthetics	Township Administration	Administrative Meetings	Long Term
Land Use/ General	Adopt and enforce the AICUZ study developed by SANG	Township Board/ Planning Commission	Site Plan Review	Ongoing
Land Use/ General	Reassess setback requirements and other zoning standards which limit the ability of property owners to maintain or improve their property	Township Board/ Planning Commission	Zoning Ordinance Amendment	Short Term
Land Use/ General	Ensure that the Township's greenbelt and screening requirements are adequate for future development. Size of trees, number and spacing of trees should be reviewed.	Township Board/ Planning Commission	Zoning Ordinance Review	Short-Term
Land Use/ General	Review sign requirements within the Township Zoning Ordinance. Requirements for ground monument signs, smaller signs, landscaping and architectural features for signs may be appropriate.	Township Board/ Planning Commission	Zoning Ordinance Amendment	Short Term
Land Use/ Residential	Work with subdivision representatives to create or enhance entranceways into residential areas	Township Administration	Administrative Meetings	Long Term
Land Use/ Residential	Reassess densities and setback requirements within the multiple family zoning districts. Consider the elimination of the Multiple Family High Rise District	Planning Commission/ Township Board	Zoning Ordinance Amendment	Short Term
Land Use/ Village	Create a Downtown Development Authority for the South River Road/Jefferson Village Node	Planning Commission/ Township Board	Master Plan/ Ordinance Development	Short Term
Land Use/ Village	Develop a new zoning district and standards for the three (3) proposed village nodes	Planning Commission/ Township Board	Zoning Ordinance Amendment	Short Term
Land Use/ Village	Consider developing Form Based Codes for the "Village Nodes" to ensure quality design consistent with the Township's desired design theme	Planning Commission/ Township Board	Zoning Ordinance Amendment	Short Term

Section	Recommendation	Responsible Party	Type of Action	Timeframe
Land Use/ Commercial & Industrial	Develop a Coordinated Planning for Redevelopment (CPR) program to assist property owners in making improvements to existing non-conforrming sites.	Planning Commission/ Township Board	Zoning Ordinance Amendment	Short Term
Land Use/ Commercial & Industrial	Examine the possibility of reducing the number of commercial districts in the zoning ordinance.	Planning Commission/ Township Board	Zoning Ordinance Amendment	Short-Term
Land Use/ Commercial & Industrial	Develop zoning ordinance provisions which require high quality building materials and a unique aesthetic design	Planning Commission/ Township Board	Zoning Ordinance Amendment	Short Term
Land Use/ Commercial & Industrial	Require landscaping and fencing improvements along the road frontage for Marinas when site improvements are proposed.	Planning Commission	Site Plan Review	Ongoing
Land Use/ Commercial & Industrial	Work with marina and boat club owners to establish ordinance requirements which provide flexibility in the storage of boats and parking	Planning Commission/ Township Board	Zoning Ordinance Amendment	Short Term
Land Use/ Commercial & Industrial	Develop a gateway feature to the Township's industrial park on Production Drive	Planning Commission/ Township Board	Administrative	Long Term
Land Use/ Commercial & Industrial	Improve code enforcement in the industrial area to decrease blight issues.	Township Board	Administrative	Ongoing
Land Use/ Commercial & Industrial	Review permitted and special land uses within the Industrial District.	Planning Commission/ Township Board	Zoning Ordinance Amendment	Short Term
Community Facilities	Actively pursue grants that would help improve public services	Township Board	Grant Application	Ongoing
Community Facilities	Prepare Ordinance standards mandating that adequate infrastructure exists to handle proposed demand prior to any development request approvals	Planning Commission/ Township Board	Zoning Ordinance Amendment	Short-Term
Community Facilities	Continue working to implement the plans for each park site within the Township.	Township Board	Parks and Recreation Plan Amendment	Ongoing
Community Facilities	Work with the school district to ensure that proper planning, screening, access management standards, etc. are included within site designs.	Township Administration	Site Plan Review	Ongoing

Section	Recommendation	Responsible Party	Type of Action	Timeframe
Environment	Identify source and non-source discharges within the tributaries of the Township.	Township Administration	Study	Long Term
Environment	Develop "green" Zoning Ordinance regulations to reduce storm water runoff and increase storm water quality.	Planning Commission / Township Board	Zoning Ordinance Amendment	Short Term
Environment	Develop ordinance requirements for unobtrusive and low impact access to naturally sensitive areas such as raised boardwalks with railings.	Planning Commission/ Township Board	Zoning Ordinance/ Regulatory Ordinance	Short Term
Environment	Develop ordinance standards for low impact design (LID) such as rain gardens, sedimentation basins, impervious surface ratios,etc.	Planning Commission/ Township Board	Zoning Ordinance/ Regulatory Ordinance	Long Term
Environment	Develop a Wetlands Ordinance	Township Board	Regulatory Ordinance	Short Term
Environment	Develop zoning ordinance or regulatory ordinance provisions for the preservation of wooded areas	Planning Commission/ Township Board	Zoning Ordinance Amendment/ Regulatory Ordinance	Short Term
Environment	Work with environmental interests to educate residents and marina owners about lake contamination	Township Administration	Administrative Meetings	Ongoing
Thoroughfare	Implement access management principles to improve roadway efficiency.	Planning Commission / Road Commission of Macomb County	Zoning Ordinance Amendment & Site Plan Review	Implementation: Short Term Review: Ongoing
Thoroughfare	Work with the Road Commission of Macomb County to establish a review process for access management on all roadways within the Township	Planning Commission/ Township Board/ RCMC	Site Plan Review	Ongoing
Thoroughfare	Develop an Ordinance to require traffic impact studies for rezonings along with a maximum permitted level of service	Planning Commission / Township Board	Zoning Ordinance Amendment	Implementation: Short Term Review: Ongoing
Thoroughfare	Work with the Road Commission of Macomb County to remove boat storage from the road right-of-way	Township Administration/ RCMC	Administrative Meetings	Long Term
Thoroughfare	Work with the Road Commission of Macomb County to allow for on-street parking in the planned village areas	Administrative Meetings	Adminstrative	Long Term
Thoroughfare	Work with the Road Commission of Macomb County to improve safety at hazardous curves and intersections	Township Administration/ RCMC	Administrative Meetings	Short Term

Zoning Plan

Act 33 of 2008 requires a Township to complete a Zoning Plan as part of the Master Plan. The following descriptions identify how the proposed land use designations in the Master Plan relate to the Township's current Zoning Ordinance.

***Single Family Residential Low Density** - R1-A One Family Residential or Future Zoning District of lesser intensity.*

At the current time, the R1-A One Family Residential Zoning District is the most compatible district to support this plan designation. In the future, the Township may elect to create a new zoning designation(s) to better suit areas characterized by existing larger lots.

***Single Family Residential Medium Density** - R1-B One Family Residential*

***Single Family Residential Medium High Density** - R1-C One Family Residential*

***Single Family Residential High Density** - R1-D One Family Residential*

***Multiple Family Residential** - R-2, RM-1, RM-2, RM-3 and HMR Multiple Family Residential*

The appropriate zoning designation will be based on surrounding character and zoning of adjacent areas.

***Manufactured Housing Community** - MHP Mobile Home Park Residential*

***Local Commercial** - O-1 Office Service and B-1 Local Business*

***General Commercial** - B-2 Planned Shopping Center and B-3 General Business*

***Marinas** - WF Waterfront District and RW Residential Waterfront Mixed Use*

*I**ndustrial** - M-1 Manufacturing or OR Office Research*

Future Zoning Considerations

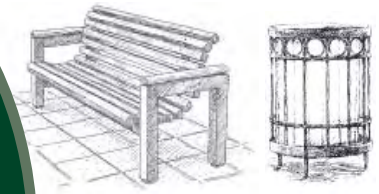
The Plan considers revamping the current zoning designations. As part of this process the Plan considers the following:

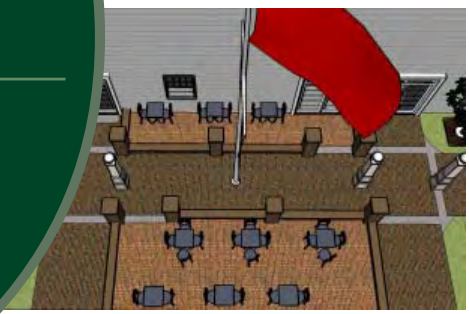
- *Reducing lot width and increasing lot depth requirements to better facilitate rear yard utility easements.*
- *Elimination/consolidation of one or more multiple family residential districts*
- *Elimination/consolidation of one or more commercial/office districts*
- *Creation of Village node zoning district - Utilize Form Based Code*
- *Develop Ordinance criteria for nautical design*
- *Creation of a single family residential district to accommodate areas of the Township that are characterized by larger lot sizes.*

Harrison Township Master Plan

Section 13

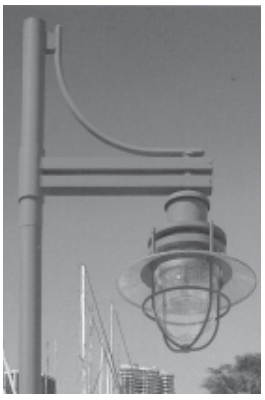
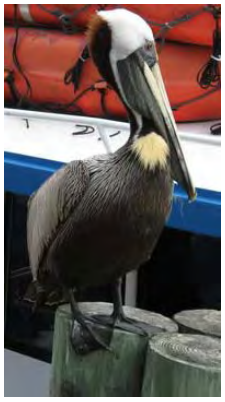
Design Guidelines





DESIGN GUIDELINES

The Visions & Strategies Section of the Master Plan identifies the development of a "nautical theme" as an important part of creating an identifiable architectural character in Harrison Township. In an effort to create a graphic representation of what the Township wishes to promote, the following illustrations are provided. It is the Township's hope that the ideas presented in this Section will provide a basis for which design themes and concepts can be created for development proposals in the Township. This Section of the Master Plan also includes design recommendations for site layout, screening and buffering between residential and commercial, access management recommendations and street cross-sections within the planned "Village Node" areas of the Township.

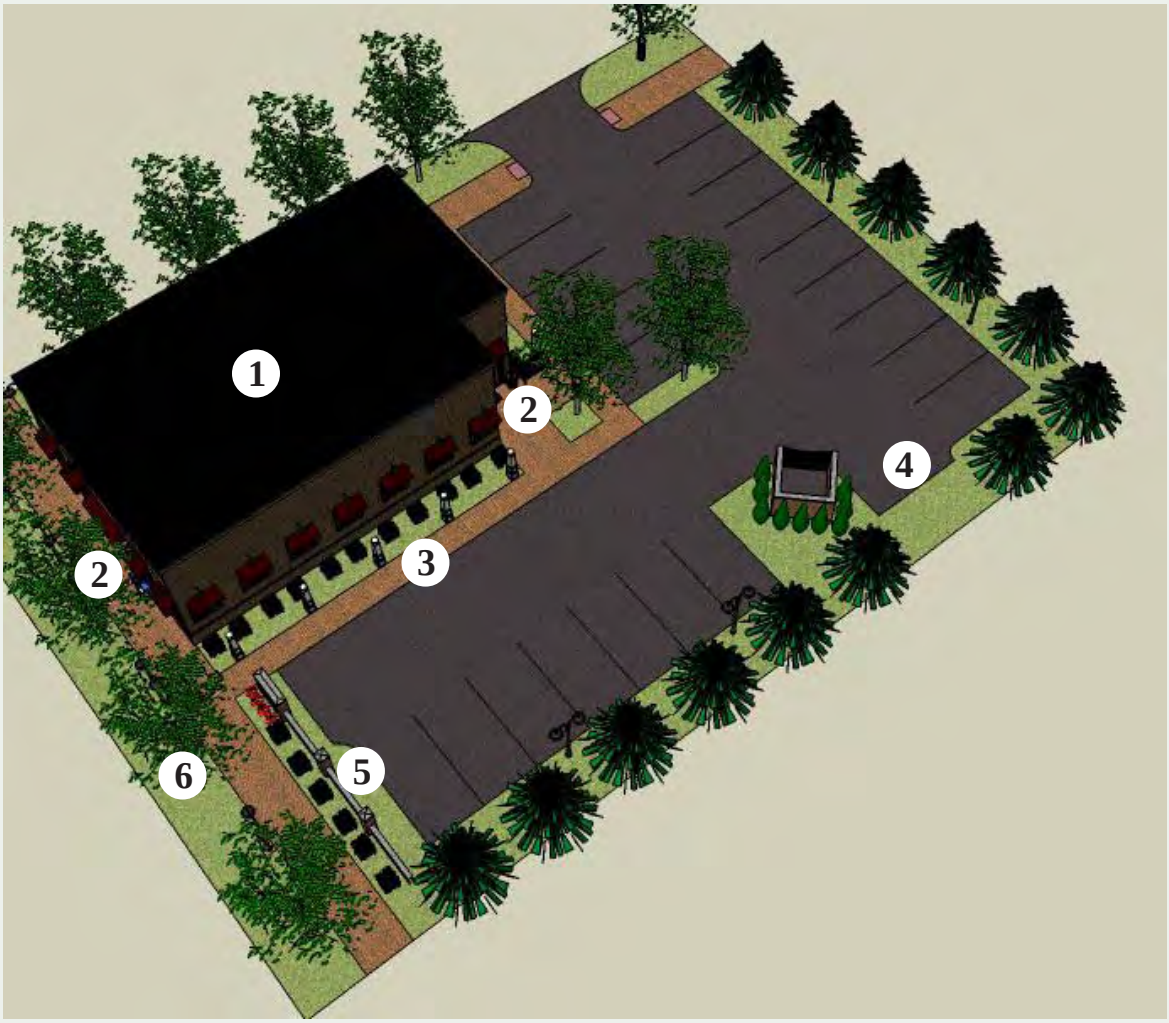
Architectural Accent Features (Pictured Above)
Architectural accent features should be incorporated into all developments. The photos above offer an example of some of the accent features that could be utilized. Lighting that resembles a nautical latern, statuary and design elements that incorporate a waterfront theme (such as a pillar that resembles a pier).

Architectual Elements (Pictured Below)
Architectural elements such as canopies, towers or cupolas can promote a nautical theme. Postmodern architecture can incorporate these concepts into new and innovative designs.

Architectural Elements (Pictured Above)
The use of wood plank boardwalks or decking helps promote a waterfront themed style of development.

Facade Treatment (Pictured Right & Below)
Fiber cement, or Hardie plank siding is encouraged as a primary facade treatment within Harrison Township. This type of building treatment is more durable than standard wood siding and creates a similar visual effect.

Site Amenities



1 *Building Setbacks*
Buildings should maintain a limited setback from the proposed road right-of-way (Village Nodes).

2 *Rear Entry*
Buildings are encouraged to provide both front and rear entrances to accomodate pedestrians.

3 *Front to Rear Access*
Sidewalks should be provided from the front to the rear of the site.

4 *Cross Access*
Future connections to adjacent properties should be accomodated by requiring cross access easements during the site plan review process.

5 *Parking Lot Screening Wall*
A three (3) to four (4) foot high decorative brick wall built between sideyard parking and the road right-of-way should be provided.

6 *Street Trees*
One (1) decidous tree for every thirty (30) feet of street frontage should be provided.

Site Amenities

1. *Parking Lot Screen Walls*
   Parking screen walls should be between thirty-six (36) and forty-two (42) inches in height, constructed of decorative brick that is consistent with the principle structure.

2. *Building Entries*
   Building entries should be recessed to help draw customers into the shop.

3. *Sidewalks*
   Eight (8) foot wide concrete sidwalks, stamped with a brick imprint along the outside two (2) feet should be required in areas designated as "Village Node" in the Master Plan.

4. *Street Furniture*
   Street furniture should be placed outside of entries/exits to shops to provide sitting areas for those who wish to wait outside.

Site Amenities

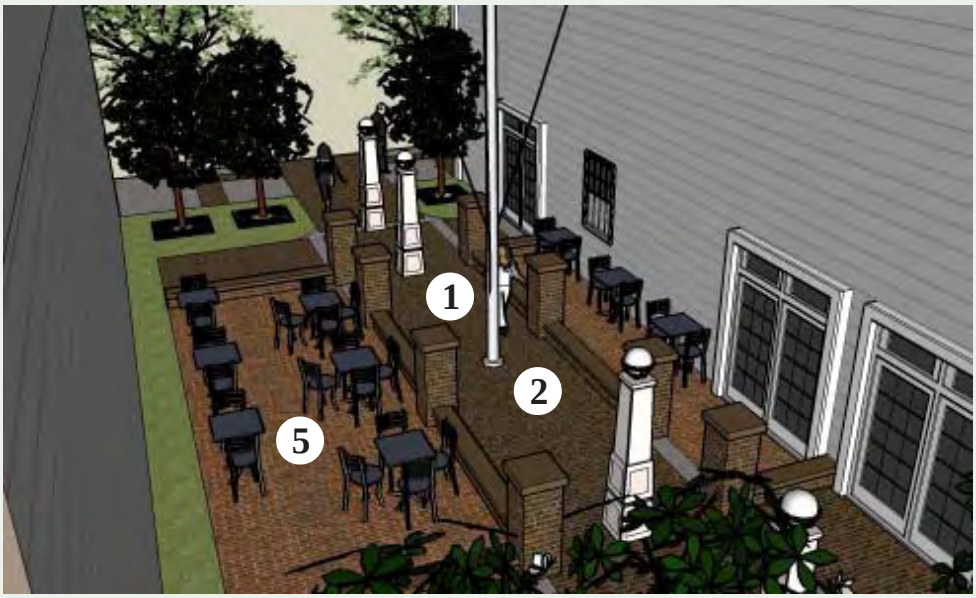
1 ***Lighting***
Ornate lighting which is mounted on the building is encouraged if it is consistent with the remainder of the site lighting.

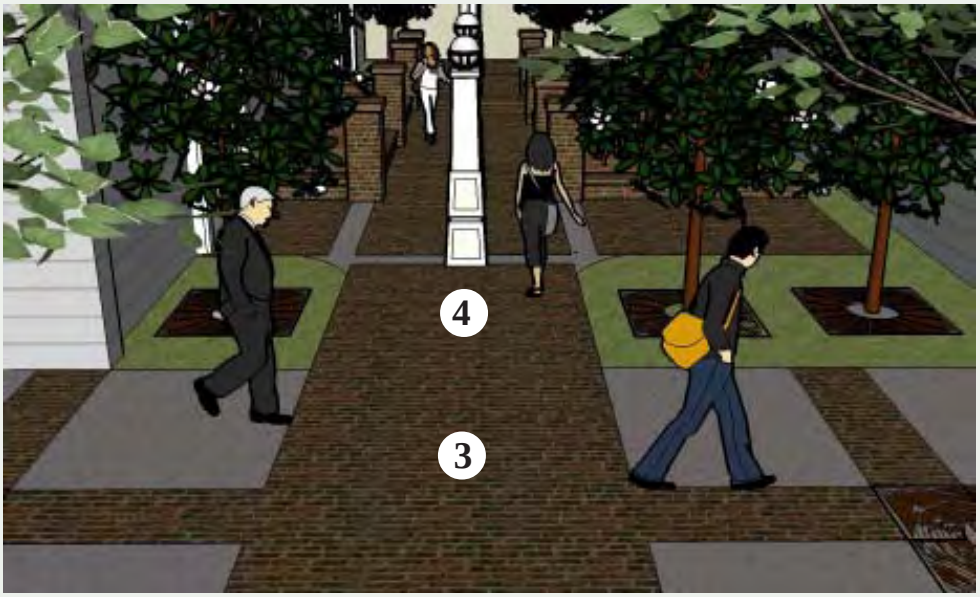
2 ***Lighting***
Pedestrian orientated parking lot lighting should be provided to light the parking areas. Lighting should not exceed eighteen (18) feet in height.

3 ***Defined Entrance Points***
Brick pavers can be used to help define the entry into a building.

4 ***Shade***
Awnings and trees should be used to regulate climate.

Site Amenities





1 *Courtyards and Patios*
Buildings are encouraged to provide spaces where congregating can occur.

2 *Courtyard and Patios*
All outdoor areas should be properly lit to ensure safety. Architectural lighting should complement the design of the site.

3 *Courtyards and Patios*
Courtyards should be designed to draw pedestrains into the space.

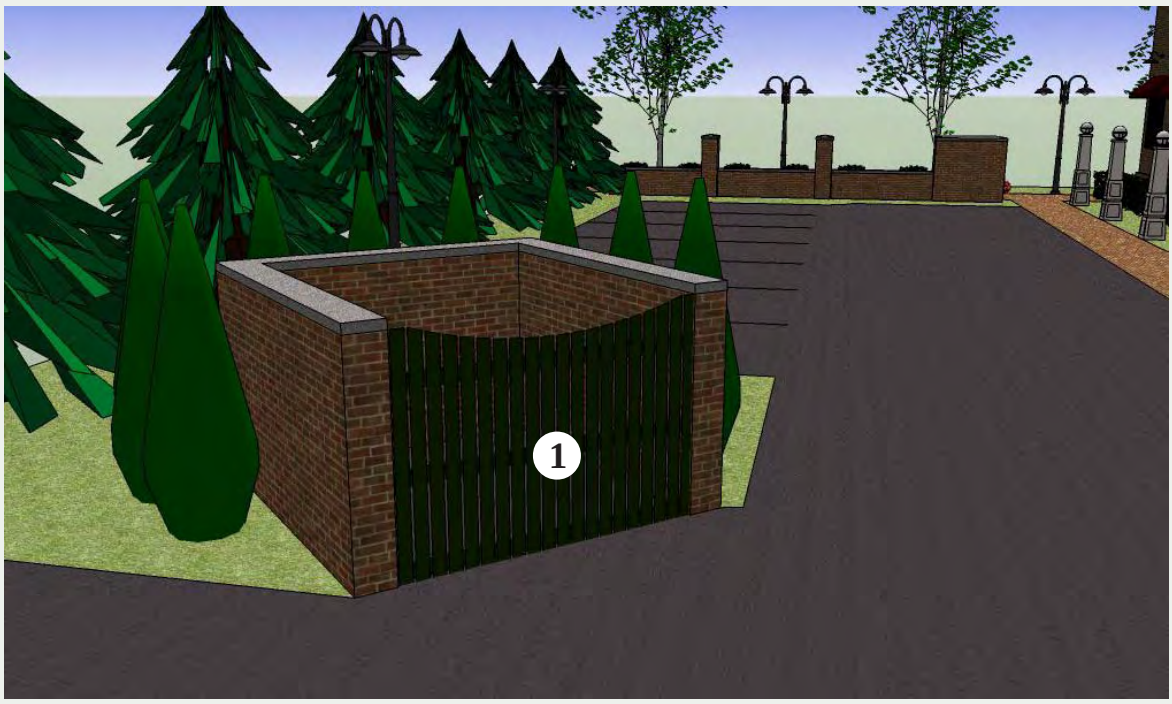
4 *Courtyards and Patios*
Coutyards should incorporate decorative paving materials to differeniate pedestrian vs. automotive uses.

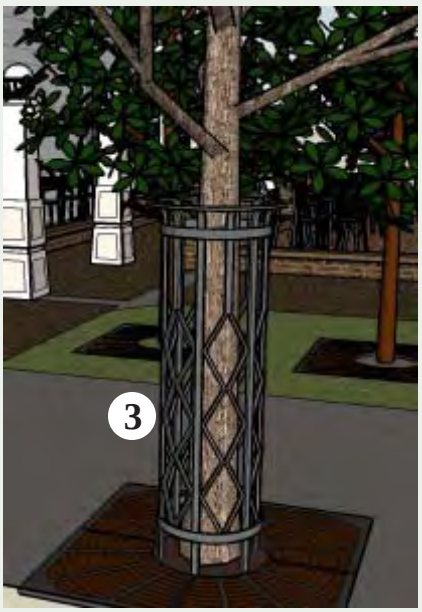
5 *Outdoor Seating*
Seating areas should be incorporated into the design, using either benches or brick ledges.

❑ *Design Elements*
All design elements should be in scale and harmony with the pedestrian.

❑ *Design Elements*
Planters, fountains, sculpture, etc. should be used to add interest to the space.

Site Amenities



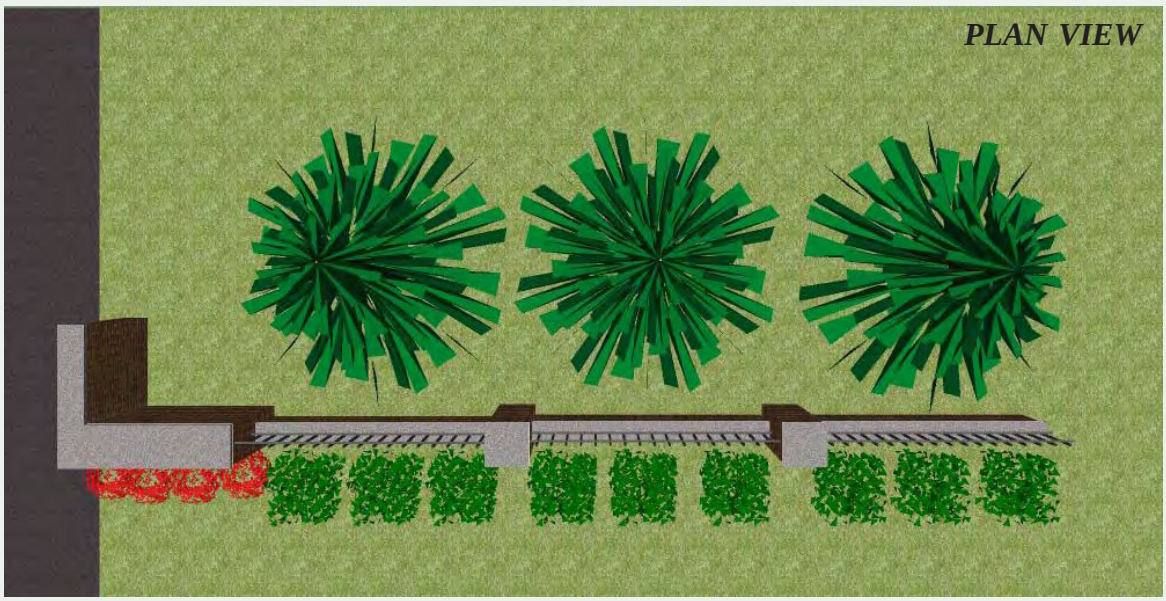


1 *Dumpsters*
Dumpsters must be properly screened with a decorative screening wall and proper landscaping.

2 *Street Furniture*
Street furniture should be provided at a spacing of approximately one (1) bench for every forty (40) feet of street frontage.

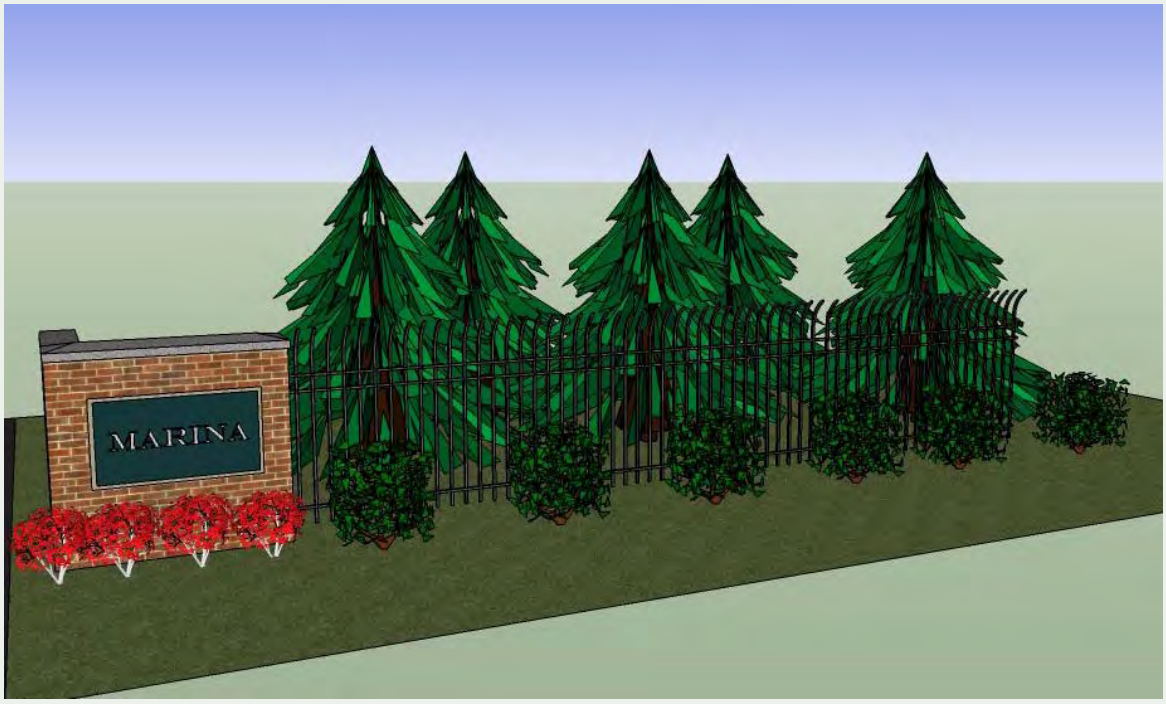
3 *Street Furniture*
Tree guards should be used to protect the street trees from potential damage.

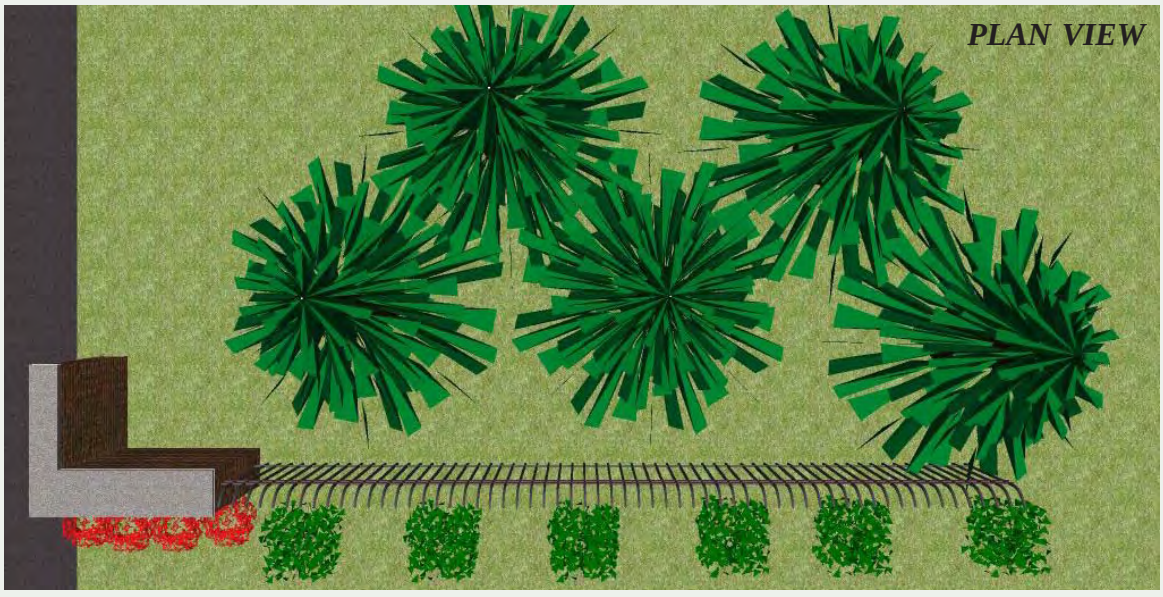
Screening Detail - Outdoor Storage and marinas



- A low-level screening wall should be constructed on all property lines between parking and/or storage areas and the public thoroughfare.
- Low-level ground cover should be planted at the base of the decorative screening wall.
- Large evergreen spaced at fifteen (15) feet on-center should be provided behind the screen wall.

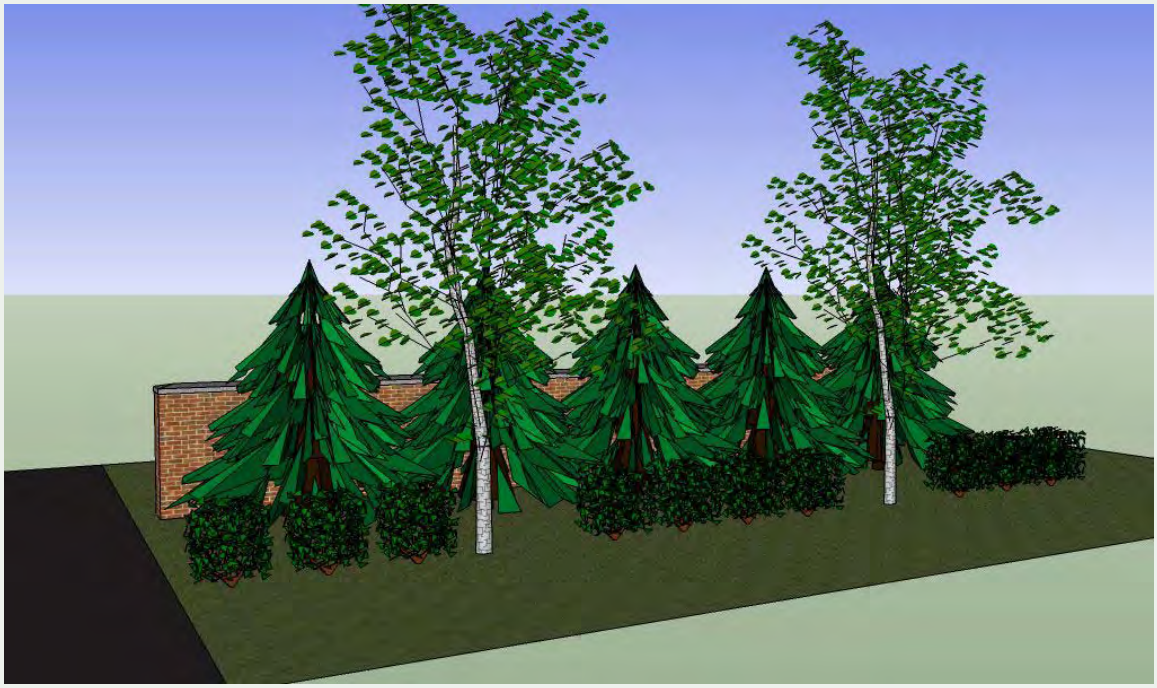
Screening Detail Alternative - Outdoor Storage and marinas

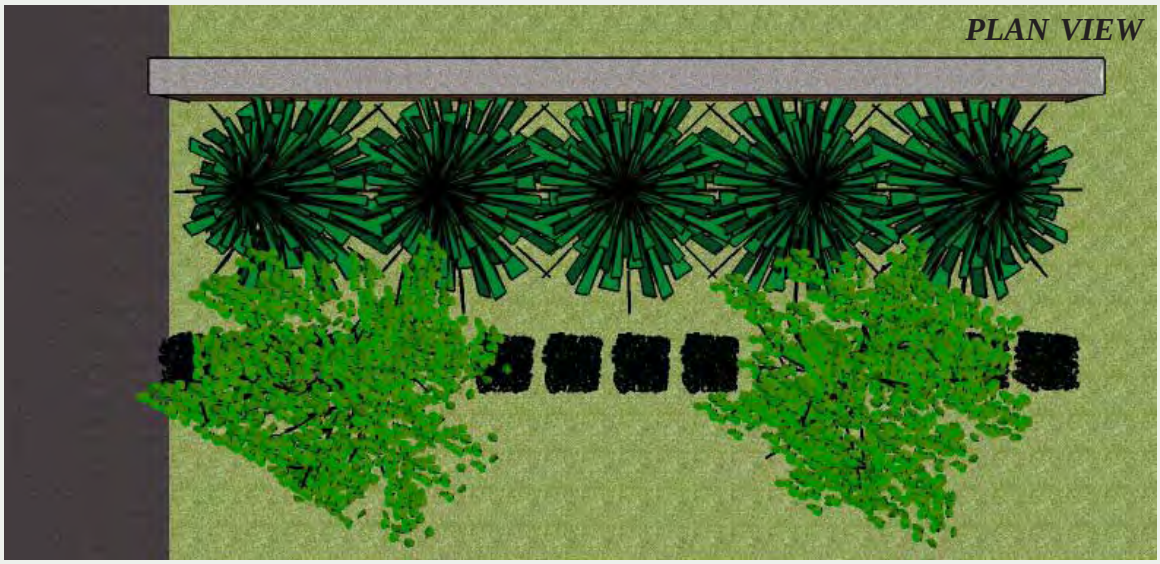




- As an altenative to the screening scenario recommended previously, a combination of fencing and dense evergreen screening can also achieve similar results. A double row of staggered evergreens should be planted with each row of trees planted at a spacing of fifteen (15) feet on center.

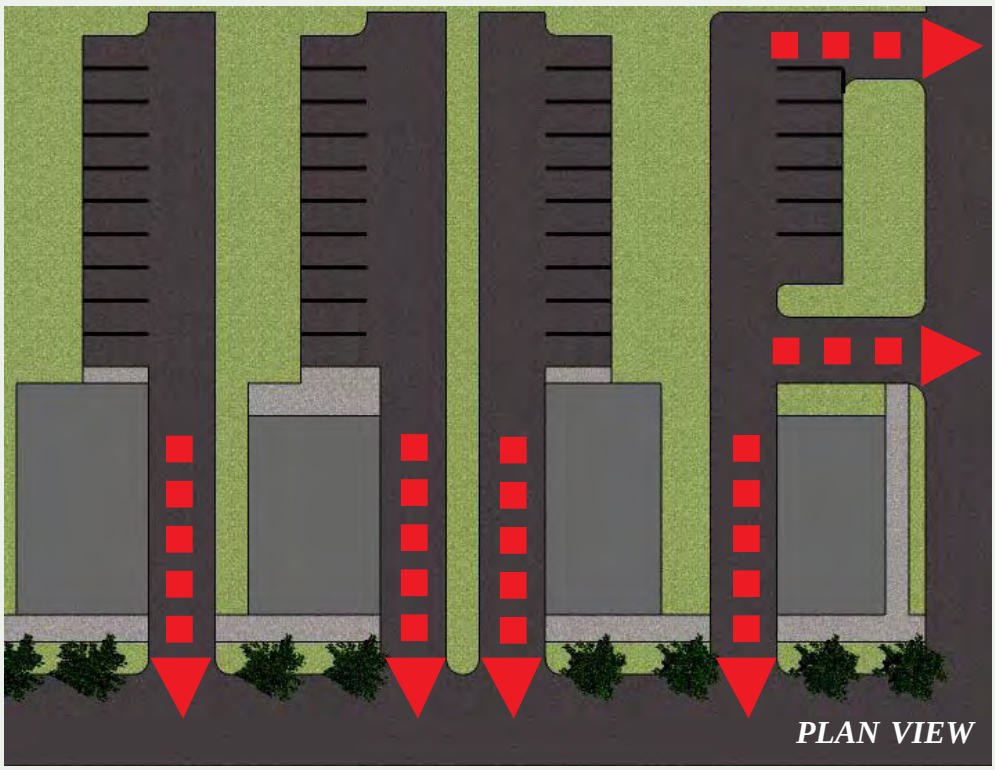
Screening Detail - Commercial Abutting Residential





- Screening walls and buffering should be provided when any commercial property abuts a residentially zoned property. Deciduous and evergreen plantings should be utilized to soften the impact of the brick wall. Low-level bushes and shrubery should be provided between large trees.

Site Circulation - Poor Example



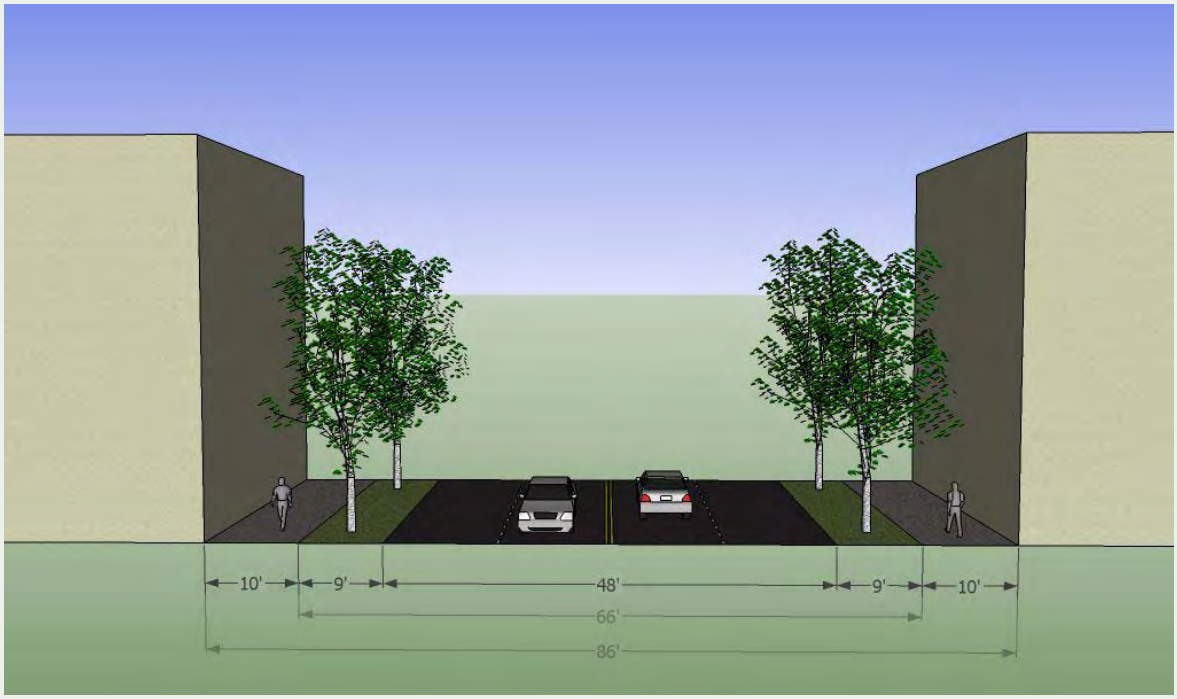
- An increase in the number of curb cuts reduces the arterial roadway's level of service.
- Individual curb cuts reduce the usable land area for building.
- Individual access drives should be avoided and/or minimized.
- The greater the number of access drives, the greater the number of conflict points between automobile and pedestrian.
- Disconnected parking lots require patrons to re-enter the roadway to access an adjacent parking lot.

Site Circulation - Recommended Scenario

- Joint access agreements provide for the reduction of unnecessary curb cuts and allow for a continous "alley" system.
- With controlled access points, the potential conflicts with automobiles and pedestrians are significantly reduced.
- The reduction of curb cuts reduces the visual clutter and overall "disarray" of the area.
- The reduction of curb cuts allows more room for building area and pedestrian accomodations.

Recommended Building Relationships - Village Nodes

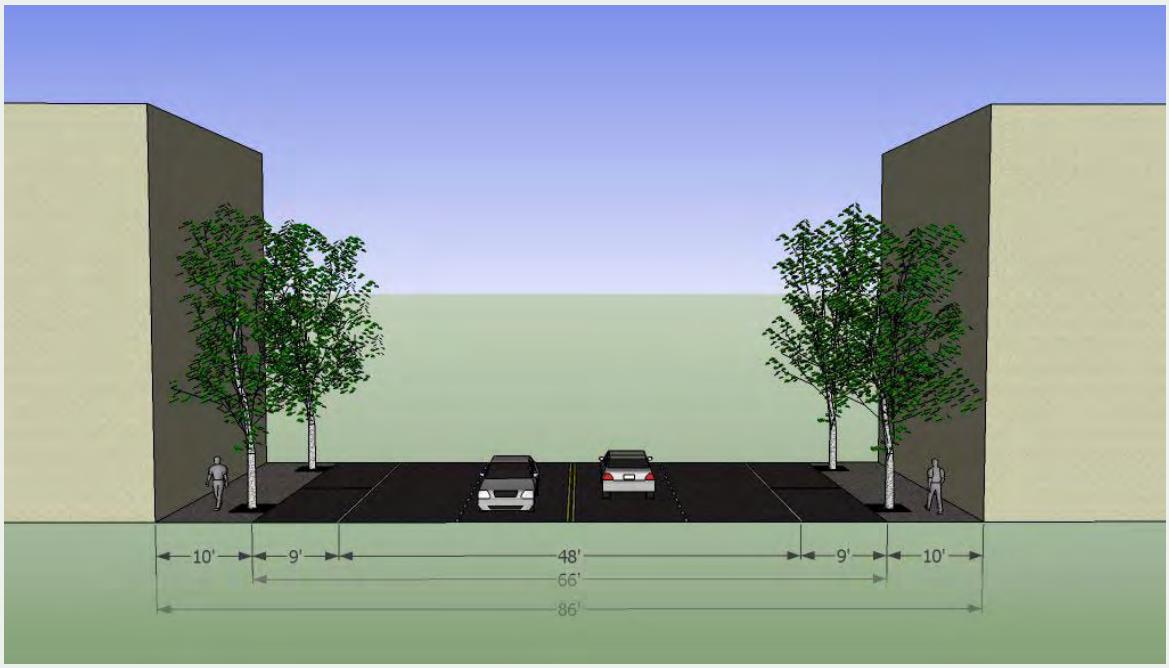
Collector Road Cross Section - No On-Street Parking



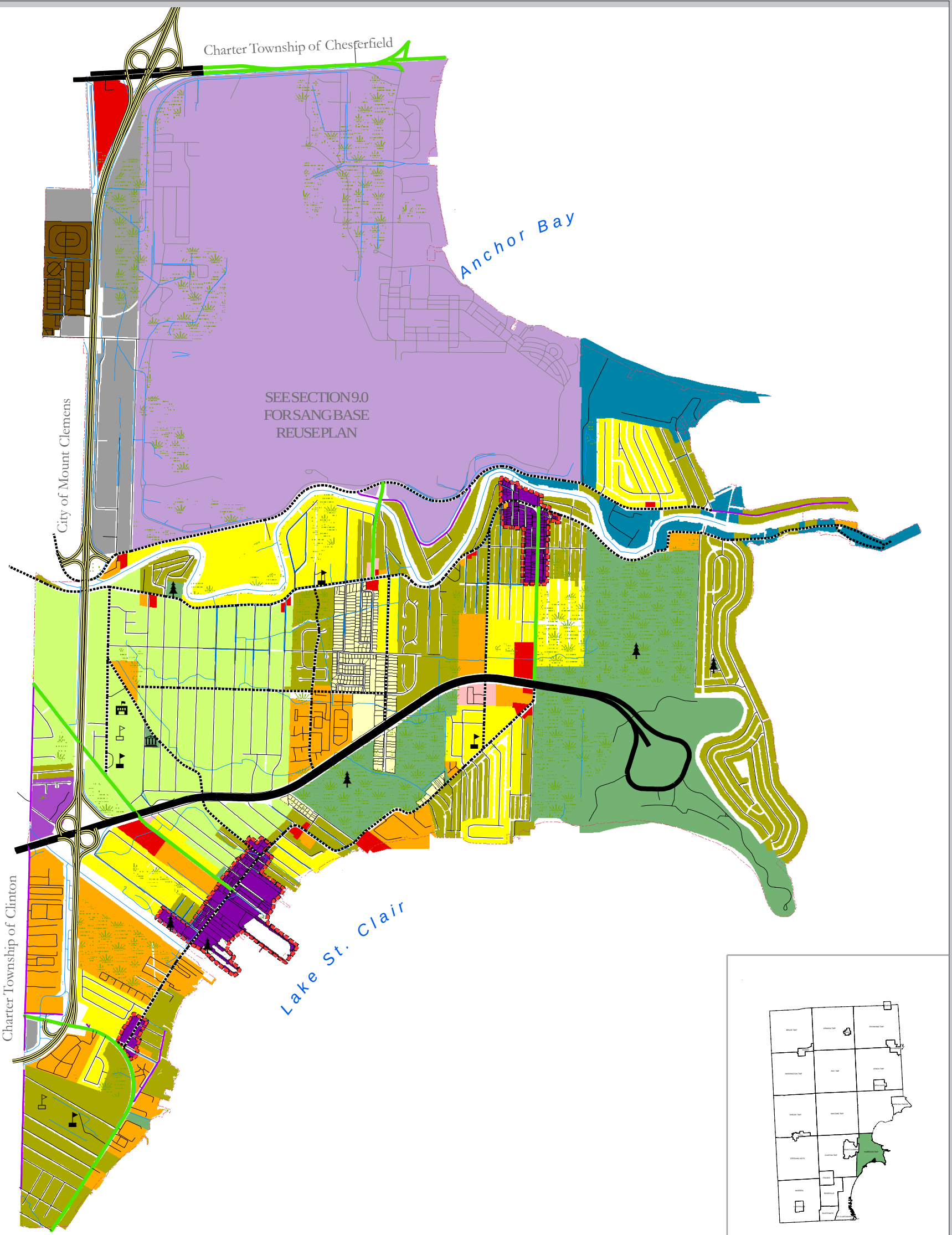
- The cross-section illustration provides a visual representation of a four (4) lane roadway with a ten (10) foot sidewalk, separated by a nine (9) foot vegetative strip.
- The height ratio between buildings in each Village Node should range from one (1) foot of building height for each two (2) to four (4) feet of horizontal distance between buildings. Maintaining this type of building relationship will help foster an enviornment that encourages pedestrian activity.

Recommended Building Relationships - Village Nodes

Collector Road Cross Section With On-Street Parking



- The cross-section illustration provides a visual representation of a four (4) lane roadway with on-street parking and a ten (10) foot sidewalk.
- The height ratio between buildings in each Village Node should range from one (1) foot of building height for each two (2) to four (4) feet of horizontal distance between buildings. Maintaining this type of building relationship will help foster an enviornment that encourages pedestrian activity.



- SINGLE FAMILY RESIDENTIAL- LOW (1.7 DU/Acre Max.)
- SINGLE FAMILY RESIDENTIAL - MEDIUM (2.5 DU/Acre Max.)
- SINGLE FAMILY RESIDENTIAL - MEDIUM HIGH (3.0 DU/Acre Max.)
- SINGLE FAMILY RESIDENTIAL - HIGH (4.0 DU/Acre Max.)
- MULTIPLE FAMILY RESIDENTIAL
- MANUFACTURED HOUSING COMMUNITY
- OFFICE
- COMMERCIAL
- SPECIALTY PLANNING AREA (SPA)
- INDUSTRIAL
- MARINA
- SELFRIDGE AIR NATIONAL GUARD BASE
- PUBLIC
- Village Node

- POTENTIAL WETLANDS
- River or Drain
- Local 60' ROW
- Local 66' ROW
- Collector 86' ROW
- Major 120' ROW
- Regional 204' ROW - Planned Metro Parkway Rail Transit
- I-94 Expressway
- Selfridge Base Road
- Township Hall
- High School
- Middle School
- Elementary
- Park
- Fire Station
- Proposed Fire Station

Charter Township of Harrison
Macomb County, Michigan

Illustration 13-1
MASTER PLAN SUMMARY MAP

Adopted By:
The Charter Township of Harrison Planning Commission, February 18, 2010

Resolution of Support Adopted By:
The Charter Township of Harrison Board of Trustees, March 8, 2010

CPM
Community Planning & Management, P.C.
Professional Planning Consultants

0 0.5 1 2 Miles

Base Map Provided By:
Macomb County Planning & Economic Development Department