



Chapter 6

OBJECTIVES, PRINCIPLES, STANDARDS, AND URBAN DESIGN CRITERIA

INTRODUCTION

This Plan's objectives, principles, standards, and related urban design criteria presented in this chapter reflect both the collective aspirations and developmental policies--or development guidelines--of the City's citizens and officials. In general, these guidelines were drafted recognizing both the commodity and resource protection values of the City's land and natural resources.

Good planning is a rational process for preparing and meeting objectives. Thus, community plans should be based upon community produced and accepted objectives and principles and their supporting standards and urban design criteria. This will ensure that the plans prepared are realistic, gain public support, and are, consequently, implemented.

Therefore, the preparation of sound and rational community objectives is an essential task which must be undertaken before the preparation of this Plan and its various elements can take place. This chapter sets forth the City's community development objectives and principles and their supporting standards and urban design criteria. These objectives relate primarily to the maintenance of the City's current mixed urban, suburban, and rural character; the allocation and distribution of the various land uses; and the provision to those land uses of essential community facilities and services required to meet the needs of the existing and probable future resident population of the City of Franklin to the year 2010.

DEFINITIONS AND TERMINOLOGY

The planning-related terms "objective," "principle," "standard," "design criteria," "plan," "policy," and "program" have been known to be subject to a range of interpretations. In order to clarify their meanings, as they are used within the context of this Plan, these terms are defined as follows:

1. **Objective:** a goal or end toward the attainment of which plans and policies are directed.
2. **Principle:** a fundamental, generally accepted tenet used to support objectives and prepare standards and plans.
3. **Standard:** a criterion used as a basis of comparison to determine the adequacy of plan proposals to attain objectives.
4. **Design criteria:** a body of information which can be applied to the development of a solution or solutions to a specific design problem or set of problems.
5. **Plan:** a design which seeks to achieve agreed-upon objectives.
6. **Policy:** a rule or course of action used to ensure plan implementation.
7. **Program:** a coordinated series of policies and actions to carry out a plan.

Although this chapter deals with only the first five of these terms, an understanding of their interrelationship and the concepts they represent is essential to better understand this Plan and its various elements. The development objectives, principles, standards, and related urban design criteria deal primarily with the following general topical areas:

1. The conceptual framework for the preparation of this Plan and its various elements;
2. The maintenance of the City's various community character classes including urban, suburban, and rural;
3. Natural resource base features and agricultural lands protection;
4. Open space preservation/protection;
5. Land use allocation;
6. Land use spatial distribution;
7. Land use buffering;
8. Housing;
9. Recreation;

10. The transportation and circulation system;
11. Fire protection;
12. Public library facilities;
13. Annexation;
14. Sanitary sewer service area; and
15. Plan implementation.

Each City development objective, together with its supporting principles and standards, follow.

CITY DEVELOPMENT OBJECTIVES, PRINCIPLES, AND STANDARDS

1. **Conceptual Framework for Plan Preparation Objective** - Develop a comprehensive master plan for the City and its neighborhood areas which is responsive to both local cultural and natural conditions.

Principle - Existing local Franklin conditions (both natural and cultural) should determine, in part, the boundaries of planning areas and the plan for those areas not a single preconceived planning model. In using this approach, the following facts are recognized:

- a. Preparing a plan for a city is both an art and a science;
- b. The form of a city does not nor cannot fit into any single model for growth;
- c. City form and its diverse functions should be planned integrally with the existing natural environment and desirable cultural features;
- d. Due to the existing natural and cultural features of the City, several alternative planning approaches may have to be used in concert with one another to properly recognize these factors.

Standard - This Plan for the City of Franklin and its planning areas shall be generally developed and structured into a planning hierarchy as illustrated in Figure 6.1. This planning hierarchy calls for the Plan and its elements to be developed within the regional context of which the City is a part, the planning of

the City as a whole, and the planning of the component parts or areas of the City. These component parts or areas of the City shall include special planning districts and neighborhoods as described below:

- a. The special planning districts shall include the "City Center," villages, and strips. The "City Center" shall be the center or "heart" of the City and shall be effectively integrated into the City as illustrated conceptually in Figure 6.2. The "City Center," villages, and strips of the City are specifically delineated and described in detail in Chapters 4, 8, and 12 of this Plan.
- b. Neighborhoods shall consist of subordinate subneighborhood areas as illustrated in Figure 6.3. Subneighborhoods shall consist of subordinate residential clusters as illustrated in Figure 6.4. Clusters are illustrated in Figure 6.5. Neighborhoods are specifically delineated and described in detail in Chapters 4, 8, and 12 of this Plan.
- c. The residential neighborhoods are to be organized based upon one of two general concepts--the neighborhood school/park alternative (as illustrated in Figure 6.6) or the school cluster alternative (as illustrated in Figure 6.7). The neighborhood school/park alternative shall be the predominant and prevailing form. The school cluster alternative shall only be used where such facilities currently exist in this form or where adequate land has already been purchased for these uses.

Standard - Certain man-made and natural features shall be used for structuring the boundaries of the various planning areas in the City as enumerated in Figure 6.8.

2. **Community Character Objective** - The retention, preservation, maintenance, and enhancement of the existing and desired community character of established City neighborhoods and special planning districts and the promotion of the planned and desired community character of developing City neighborhoods or special planning districts.

Principle - The retention, preservation, maintenance, and enhancement of the community character of established City neighborhoods and special planning districts and the promotion of the planned and desired community character in developing City neighborhoods or special planning districts further the appropriate use of land, the conservation of natural resource features, preserve and promote the beauty of the community, lessen congestion, promote the safety and efficiency of streets, prevent overcrowding, and stabilize and protect property values.

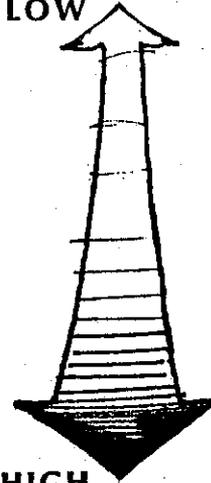
Figure 6.1

PLANNING STRUCTURE HIERARCHY

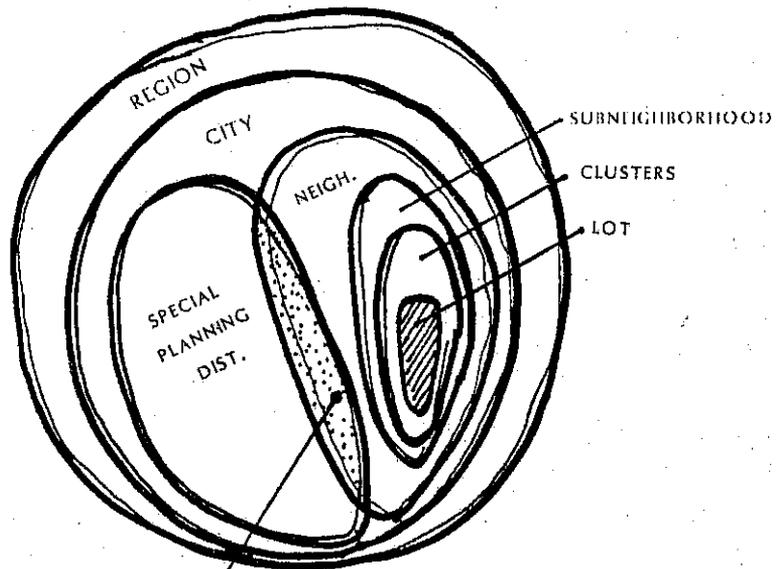
- REGIONAL CONTEXT
- CITY (i.e. CITY OF FRANKLIN)
 - SPECIAL PLANNING DISTRICTS
 - CITY CENTER
 - VILLAGES
 - STRIPS
 - NEIGHBORHOOD
 - SUBNEIGHBORHOOD
 - CLUSTERS
 - INDIVIDUAL LOT

LEVEL OF SPECIFICITY

LOW



HIGH

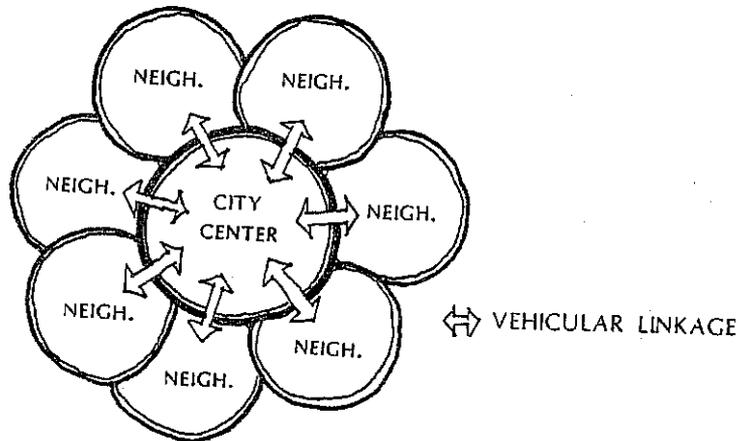


AREA OF PLANNING OVERLAP BETWEEN SPECIAL PLANNING DISTRICTS AND NEIGHBORHOODS

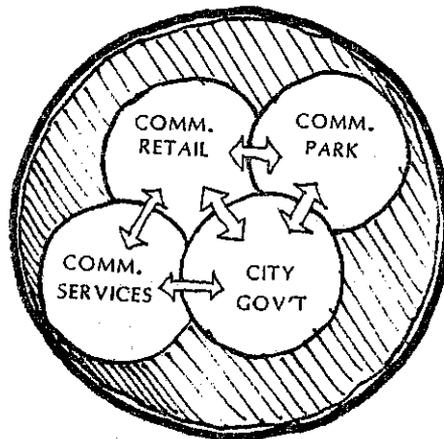
Figure 6.2

CITY CENTER CONCEPT

WITHIN THE COMMUNITY/NEIGHBORHOOD FRAMEWORK:



CITY CENTER COMPONENTS:



↔ PEDESTRIAN AND VEHICULAR LINKAGES BETWEEN COMMUNITY ORIENTED FACILITIES

Figure 6.3

SUBNEIGHBORHOODS WITHIN NEIGHBORHOODS

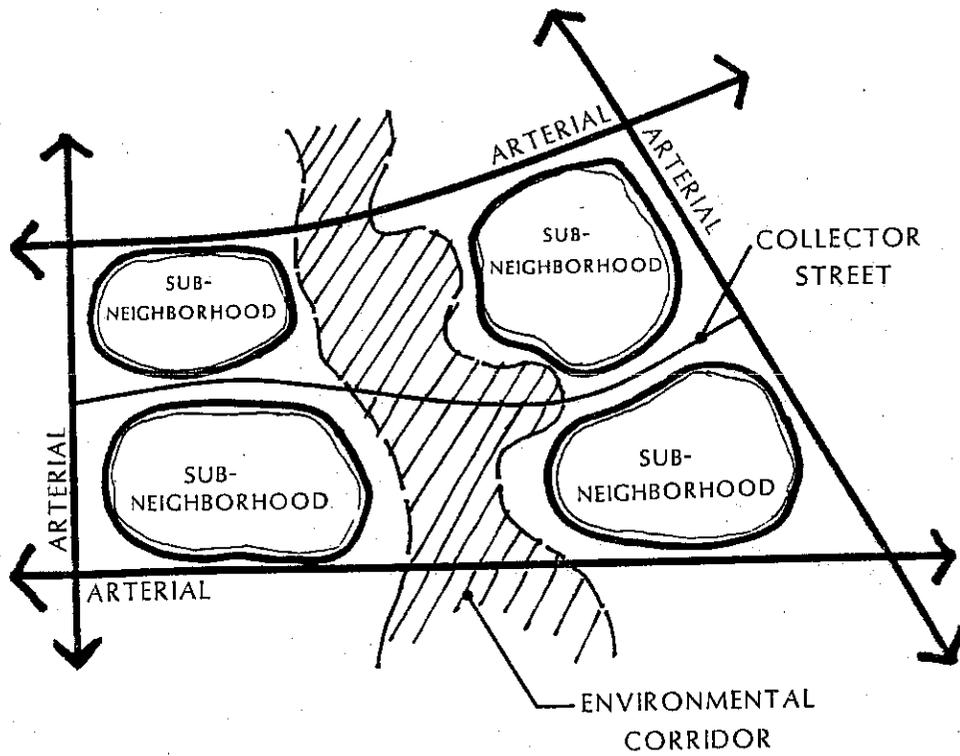


Figure 6.4

RESIDENTIAL CLUSTERS WITHIN SUBNEIGHBORHOODS

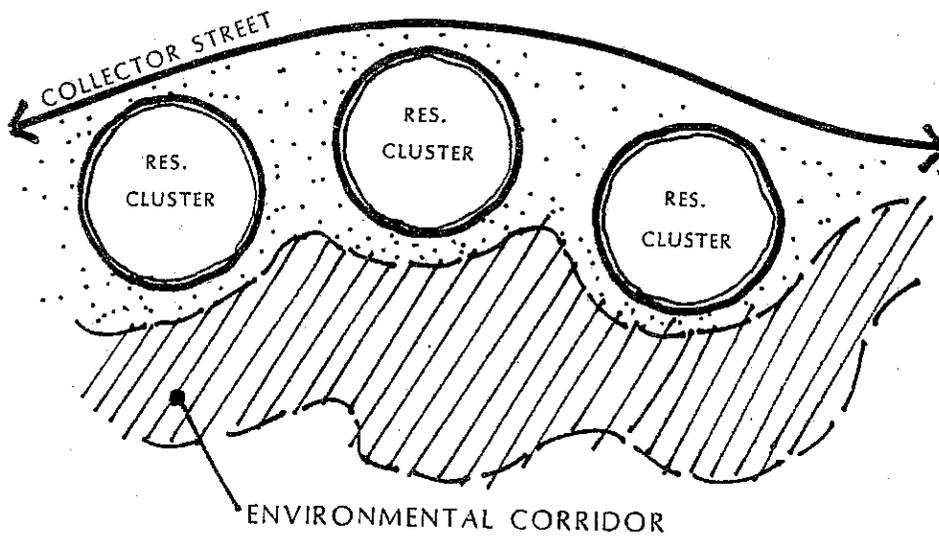


Figure 6.5

RESIDENTIAL CLUSTERS

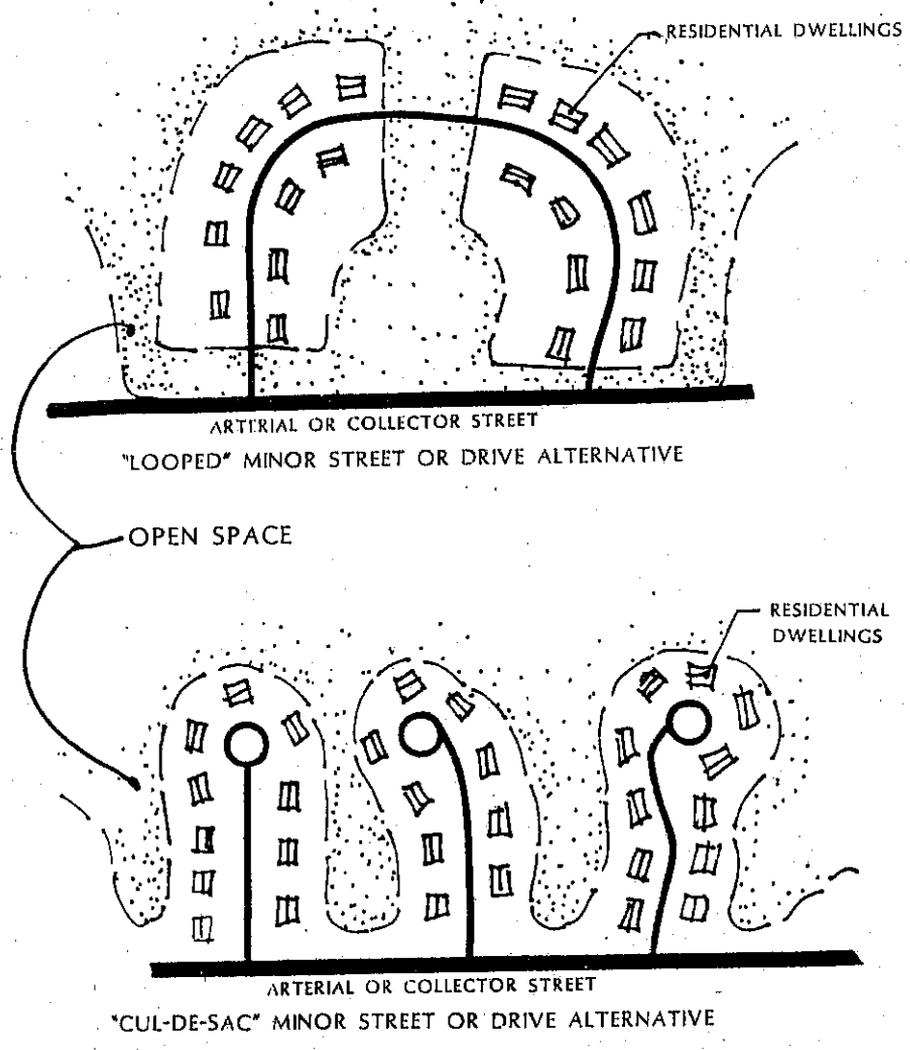
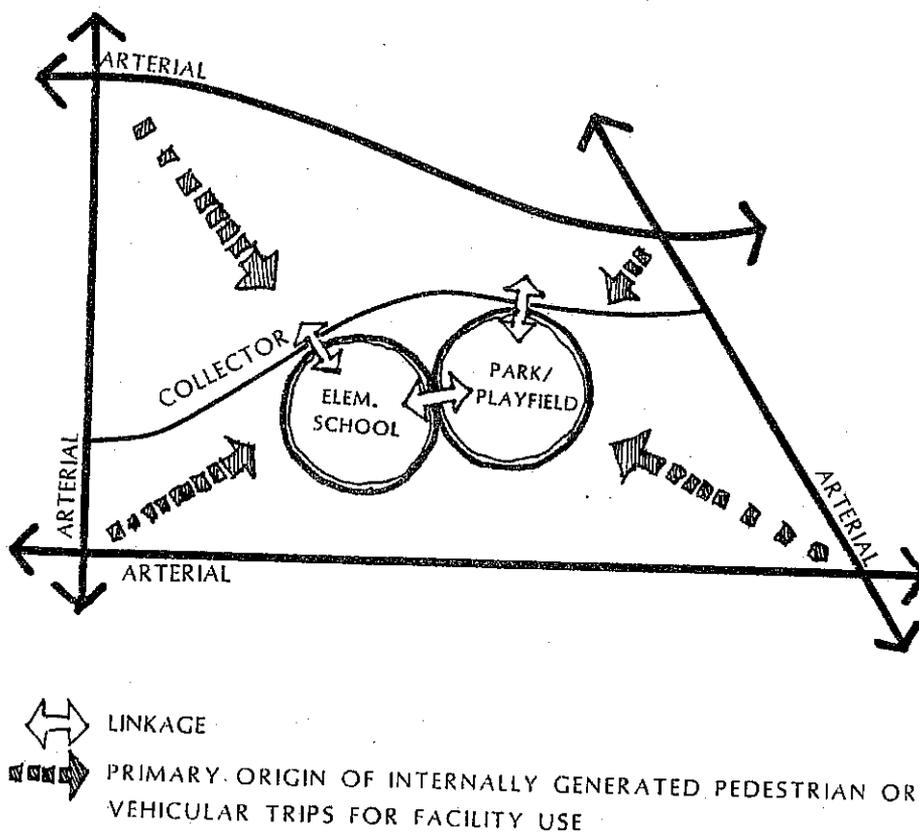


Figure 6.6

NEIGHBORHOOD SCHOOL/PARK ALTERNATIVE

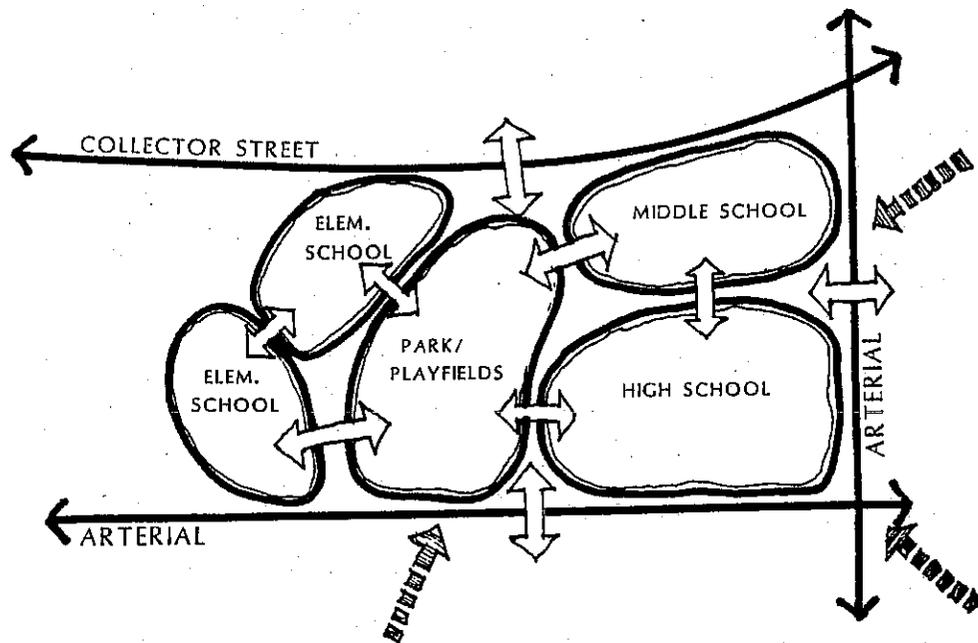
NEIGHBORHOOD SCHOOL/PARK ALTERNATIVE



NOTE: This concept maximizes both pedestrian and vehicular safety by internalizing the bulk of trips to the facility

Figure 6.7

SCHOOL CLUSTER ALTERNATIVE



⇄ LINKAGE

➔ PRIMARY ORIGIN OF EXTERNALLY GENERATED PEDESTRIAN OR VEHICULAR TRIPS FOR FACILITY USE

NOTE: This concept maximizes community-wide vehicular trips and does not foster pedestrian or bicycle access to facilities.

Figure 6.8

**FEATURES FOR STRUCTURING THE BOUNDARIES
OF PLANNING AREAS**

NEIGHBORHOOD AND SPECIAL PLANNING DISTRICTS:

Arterial Streets (Existing or Planned)
Environmental Corridors and Open Space
Rivers and Streams
Significant Areas of a Single Land Use Type
(Commercial, Industrial, and Institutional)

NEIGHBORHOOD:

Neighborhood Boundaries
Arterial Streets (Existing or Planned)
Collector Streets (Existing or Planned)
Environmental Corridors and Open Space
Rivers and Streams
Significant Changes in Elevation
Significant Utility Easements/Rights-of-Way
Significant Areas of a Single Land Use Type
(Commercial, Industrial, and Institutional)
Significant Woodlands and Hedgerows
Other Natural Features

CLUSTERS:

Subneighborhood Boundaries
Neighborhood Boundaries
Arterial Streets (Existing or Planned)
Collector Streets (Existing or Planned)
Minor Streets (Existing or Planned)
Environmental Corridors and Open Space
Rivers and Streams
Significant Changes in Elevation
Utility Easements/Rights-of-Way
Woodlands and Hedgerows
Land Uses of a Higher Intensity
Other Natural Features

Standards - Detailed community character standards for the City and the City's neighborhood and special planning areas are set forth in Chapters 4, 8, and 12 of this Plan.

Standards - Detailed zoning and land division regulations, with appropriate urban design and land use standards, shall be developed and adopted. These shall recognize and promote the retention, preservation, maintenance, and enhancement of the community character of the City as defined in this Plan and which assist in the implementation of this Plan.

3. **Natural Resource Base Protection Objective** - A spatial distribution of land use types which results in the protection, preservation, and wise use of the City's natural resource base.

Principle - The proper distribution of land use types can assist in maintaining an ecological balance between the activities of man and the natural environment which supports him.

Soils Principle - The proper relation of land use development to soil type and distribution can serve to avoid costly environmental and developmental problems, aid in the establishment of better settlement patterns, and promote the wise use of soils.

Standard - Development served by public sanitary sewers should not be located in areas covered by soils identified in the publication titled Soils of Southeastern Wisconsin (Waukesha, WI: SEWRPC, June 1966) as having severe or very severe limitations for such development except in areas which may be overcome by sound engineering practices and which are not delineated protected wetlands.

Lakes, Ponds, and Streams Principle - Inland lakes, ponds, and streams contribute to the atmospheric water supply through evaporation; provide a suitable environment for desirable and sometimes unique plant and animal life; provide the population with opportunities for certain scientific, cultural, and educational pursuits; constitute prime recreational areas; provide a desirable aesthetic setting for certain types of land use development; serve to store and convey flood waters; and provide certain water withdrawal requirements.

Standard - Floodlands, including floodways and floodplains, should not be allocated for development which would cause or be subject to flood damage.

Standard - The floodwater storage capacity of natural floodlands should not be reduced by urban, suburban, or rural development. To achieve this end, stormwater detention facilities should be utilized when properly planned and coordinated with areawide watershed and stormwater drainage planning activities.

Standard - The flow capacity of perennial stream channels, and associated floodlands should not be reduced below existing conditions.

Standard - Lakes, ponds, and streams in the City should maintain a natural resource base protection standard, as set forth in Chapter 3 of this Plan, in order to foster their preservation.

Wetlands Principle - Wetlands support a wide variety of desirable and sometimes unique plant and animal life; assist in the stabilization of lake levels and stream flows; trap and store plant nutrients in runoff, thus reducing the rate of enrichment of surface waters and obnoxious weed and algae growth; contribute to the atmospheric oxygen supply; contribute to the atmospheric water supply; reduce stormwater runoff by providing area for floodwater impoundment and storage; trap soil particles suspended in runoff and thus reduce stream sedimentation; and provide the population with opportunities for certain scientific, educational, and recreational pursuits.

Standard - Under State law, all wetlands 5 acres or more in size in floodland and shoreland areas must be preserved pursuant to Chapter NR 117 of the Wisconsin Administrative Code. Other wetland areas in the City cannot be dredged or filled without obtaining a Federal permit under Section 404 of the Federal Clean Water Act (CWA Sec. 404). Wetland areas should maintain a natural resource base protection standard, as set forth in Chapter 3 of this Plan, to foster their continued preservation.

Woodlands Principle - Woodlands assist in maintaining unique natural relationships between plants and animals; reduce stormwater runoff; contribute to the atmospheric oxygen supply; contribute to the atmospheric water supply through transpiration; aid in reducing soil erosion and stream sedimentation; provide the resource base for the forest product industries; provide the population with opportunities for certain scientific, educational, and recreational pursuits; and provide a desirable aesthetic setting for certain types of land use development.

Standard - Mature and young woodland areas should maintain natural resource base protection standards, as set forth in Chapter 3 of this Plan, to foster their continued preservation.

Wildlife Principle - Wildlife, when provided with a suitable habitat, will supply the population with opportunities for certain scientific, educational, and recreational pursuits; comprise an integral component of the life systems which are vital to beneficial natural processes, including the control of harmful insects and other noxious pests and the promotion of plant pollination; provide food sources; offer an economic resource for the recreation industries; and serve as an indication of environmental health.

Standard - The most suitable habitat for wildlife--that is, the area wherein fish and game can best be fed, sheltered, and reproduce-- is a natural habitat. Since the natural habitat for fish and game can best be achieved by preserving or maintaining in a wholesome state other resources such as soil, water, wetlands, and woodlands, the standards for each of these other resources, if met, would ensure the preservation of a suitable wildlife habitat and population.

Steep Slopes Principle - The preservation of the natural slope of land contributes to the overall community aesthetic appearance; when vegetated, assists in the erosion reduction, stormwater runoff hazards, and sediment reduction; affords views and vistas of the community landscape; and provides for wildlife habitat.

Standard - Steep slope areas should maintain natural resource base protection standard as set forth in Chapter 3 of this Plan, to foster their continued preservation.

Drainageway Principle - The preservation of the City's existing drainageways and drainageway soils assists in: permitting the flow of stormwater to reduce flooding; reducing sediment and siltation in downstream lakes, ponds, wetlands, and streams; decreasing potential soil erosion hazards; and filtering water suspended solids and related water pollutants and thus improving water quality.

Standard - Drainageways as defined by the City's detailed topographic maps and drainageway soils as defined by the publication titled Soils of Southeastern

Wisconsin (Waukesha, WI: SEWRPC, June 1966) should maintain a natural resource base protection standard, as set forth in Chapter 3 of this Plan, to foster their continued preservation.

4. **Open Space Preservation/Protection and Agricultural Lands Preservation/Protection Objective** - The preservation of sufficient high-quality open space lands--including environmental corridors, isolated natural areas, and agricultural areas--for the protection of the underlying and sustaining natural resource base and enhancement of the social and economic well-being and environmental quality of the area.

Principle - Ecological balance and natural beauty are important determinants of the City's ability to provide a pleasant and habitable environment for all forms of life and to maintain the City's social and economic well-being. Preservation of the most significant aspects of the natural resource base, that is, environmental corridors, isolated natural areas, and agricultural lands, contributes to the maintenance of ecological balance, natural beauty, and economic well-being of the City.

Standard - Preserve and enhance the City's existing scenic and visual corridors and areas along the City's arterial streets and highways through the use of bufferyards as generally described under Objective No. 7 and as described in this Plan and its various plan components and elements.

Environmental Corridors and Isolated Natural Areas Principle - The primary and secondary environmental corridors and isolated natural areas are a composite of the best individual elements of the natural resource base including lakes, rivers, and streams and their associated floodlands (floodplains and floodways), wetlands, woodlands, and wildlife habitat areas; rugged terrain consisting of slopes 12 percent or greater; wet, poorly drained or organic soils; and significant geological formations. By protecting these elements of the natural resource base, flood damage can be reduced, soil erosion abated, water supplies protected, air cleansed, wildlife population enhanced, and continued opportunities provided for scientific, educational, and recreational pursuits.

Standard - All remaining undeveloped lands within the designated primary environmental corridors in the City should be encouraged to be preserved in essentially natural, open uses.

Standard - All remaining undeveloped lands within the designated secondary environmental corridors and isolated natural areas in the City should be considered for preservation as urban or suburban development proceeds and used as drainageways, flood water detention areas, and parks.

Standard - To the extent practicable, environmental corridors and isolated natural areas should be linked with the public parks located in the City. This concept is illustrated in Figure 6.9.

Prime Agricultural Lands Principle - The preservation of prime agricultural lands ensures that the most productive existing farmlands will remain available for the provision of food and fiber; contribute to the agricultural and agricultural-related economy of the area; maximize the return on capital invested in agricultural irrigation and drainage systems and soil and water conservation practices; minimize conflicts between farming operations and activities associated with urban and suburban land uses; and contribute to energy conservation since prime agricultural soils require less energy to farm than do other soils.

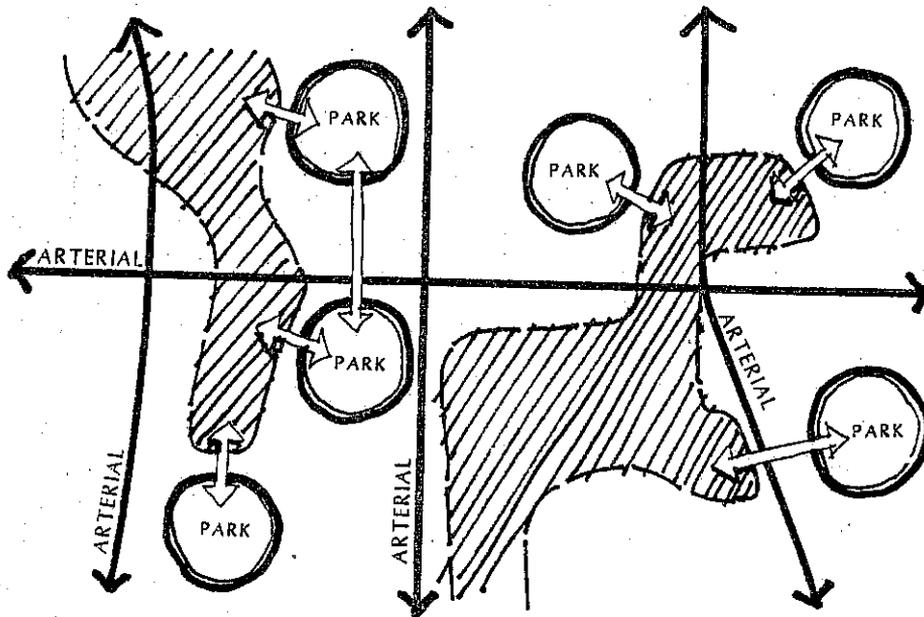
Standard - Prime agricultural lands in the City, located outside of the planned year 2010 sanitary sewer service area, should be preserved for agricultural use through the application of agricultural zoning districts and a land division ordinance which permit only agricultural uses and agricultural-related uses and which specify a relatively large parcel size--such as 35 acres--to foster farmland preservation in the rural areas of the City.

Agricultural Lands of Local Significance Principle - Agricultural lands of local significance, although not meeting criteria for prime agricultural lands, constitute an important part of the agricultural base of the City and thereby warrant preservation in agricultural use. Farms with soils having limited agricultural capability which are devoted to orchards and specialty crops typify this category of farmland. The preservation of such farmland also serves to maintain the local economic base (to a limited degree), preserves the rural life-style and community character, controls urban and suburban sprawl, and controls the public costs typically associated with urban and suburban sprawl.

Standard - Farmlands of local significance in the City of Franklin should be preserved for agricultural use to the maximum extent practicable through the application of zoning and land division ordinances which permit only agricultural uses and agricultural-related uses and which specify a relatively large minimum parcel size, such as 35 acres.

Figure 6.9

LINKAGE OF NATURAL OPEN SPACE WITH PARKS



ENVIRONMENTAL CORRIDOR



LINKAGE

Other Agricultural Land Principle - While less important to the production of food and fiber than prime and locally significant agricultural lands, other agricultural lands serve many useful functions. Such lands lend form and structure to urban and suburban development and contribute to the agricultural heritage and natural beauty of the City of Franklin. Moreover, these agricultural lands contribute to the preservation of non-agricultural environmental areas by providing an important open space buffer around major educational and recreational sites. The preservation of all agricultural lands, including those of marginal value, promotes a compact and efficient form of urban and suburban development and discourages diffused urban and suburban growth thus avoiding the potential adverse impacts of urban and suburban sprawl development.

Standard - Agricultural lands not classified as prime agricultural lands or farmland of local significance should be protected to the maximum extent practicable.

5. **Land Use Allocation Objective** - A balanced allocation of space to the various land use categories which meets the social, physical, and economic needs of the City of Franklin.

Principle - The planned supply of land set aside for any given use should approximate the known and anticipated demand for that use.

Standard - The amount of land area set aside for accommodating forecast growth in the City of Franklin should be determined by the application of the standards set forth in Table 6.1.

6. **Land Use Spatial Distribution Objective** - A spatial distribution of the various land uses which is properly related to the supporting transportation, utility, and public facility systems to assure the economical provision of transportation, utility, and public facility services and which will result in a compatible arrangement of land uses.

Principle - The transportation and public utility facilities and the land use pattern which these facilities serve and support are mutually interdependent in that the land use pattern determines the demand for, and loadings upon, transportation and utility facilities; and these facilities in turn, are essential to, and form a basic framework for, land use development.

Table 6.1

LAND USE STANDARDS FOR THE CITY OF FRANKLIN

<u>Land Use Category</u>	<u>Development Standard (gross area)^a</u>
<u>Residential (Single-Family Dwellings):</u>	
Rural	20+ acre lots
Countryside	5 to 20 acre lots
Estate	1 to 5 acre lots
Suburban	1/4 to 1 acre lots
Urban	< 1/4 acre lots
<u>Residential (Multi-Family Dwellings):</u>	
Medium-Density Urban	4.4 to 6.9 DUs/acre
High-Density Urban	6.9 to 8.0 DUs/acre
<u>Commercial:</u>	6 acres/100 commercial employees
<u>Industrial:</u>	9 ^b acres/100 industrial employees
<u>Governmental/Institutional:</u>	
Major:	12 acres/1,000 persons
Schools:	
Public Elementary	0.3 acres/100 students
Public Middle School	0.3 acres/100 students
Public High School	0.3 acres/100 students
Church:	2.5 acres/1,000 persons
Other:	12 ^c acres/1,000 persons
<u>Public Outdoor Recreation:</u>	
Regional and Multi-Community:	As recommended in the Regional Park and Open Space Plan
Community:	
In Park Sites	2.2 acres/1,000 persons
In Middle Schools or High School Sites	0.9 acres/1,000 persons
Neighborhood:	
In Park Sites	1.7 acres/1,000 persons
In Elementary School Sites	1.6 acres/1,000 persons

Table 6.1 (continued)

LAND USE STANDARDS FOR THE CITY OF FRANKLIN

Note: DUs = dwelling units

- ^a Gross areas include associated street rights-of-way and off-street parking for each land use category. These standards have been based upon existing land use studies of the Southeastern Wisconsin region since 1963 performed by the Southeastern Wisconsin Regional Planning Commission (SEWRPC) and are reasonably responsive to expected future as well as present conditions. These standards exclude any additional required open space or areas with natural resource features protected under the various resource protection standards.*
- ^b Assuming a net land-to-building ratio of from 5:1 to 7:1. If the net land-to-building ratio is between 3:1 and 5:1, then 6 acres/100 employees is a more realistic standard to use.*
- ^c Including major educational and health care facilities.*

Source: Lane Kendig, Inc. and SEWRPC.

Standard - Urban and suburban development should be located so as to maximize the use of the existing transportation and utility systems. In this respect, certain selected and planned arterial street and highway intersections may be used as potential urban activity nodes. This concept is illustrated in Figure 6.10.

Standard - All lands developed or proposed to be developed for urban or suburban use should be located in areas serviceable by an existing public sanitary sewerage system and, preferably, within the gravity drainage area tributary to such system.

Standard - All land developed or proposed to be developed for urban and suburban use should be located in areas serviceable by an existing public water supply system.

Standard - Adequate storm water drainage facilities should be provided for all development.

Principle - The proper allocation of uses to land can avoid or minimize hazards and dangers to health, safety, and welfare and maximize amenity and convenience in terms of accessibility to supporting land uses.

Standard - Sites for commercial, educational, transportation, recreational, and employment facilities to serve the neighborhood and community should be provided in accordance with the standards set forth in Table 6.2.

Standard - Land uses shall be so organized in the City, its neighborhoods, and its planning areas to minimize through vehicular traffic and, where practical, foster internal vehicular and pedestrian trips. Two alternative concepts for achieving this standard are illustrated in Figure 6.11.

Standard - Urban and suburban residential uses should be located in planned areas which are served with centralized public sanitary sewerage and water supply facilities and contain, within a reasonable walking distance, necessary supporting local service uses such as parks, commercial, and elementary school facilities. These uses should have reasonable accessibility through the appropriate component of the transportation system to employment, commercial, cultural, and governmental centers and secondary school and higher educational facilities. Housing types should be provided pursuant to Objective 8 and at densities consistent with those shown in Table 6.1.

Figure 6.10

**ARTERIAL STREET AND HIGHWAY INTERSECTIONS AS
POTENTIAL URBAN ACTIVITY NODES**

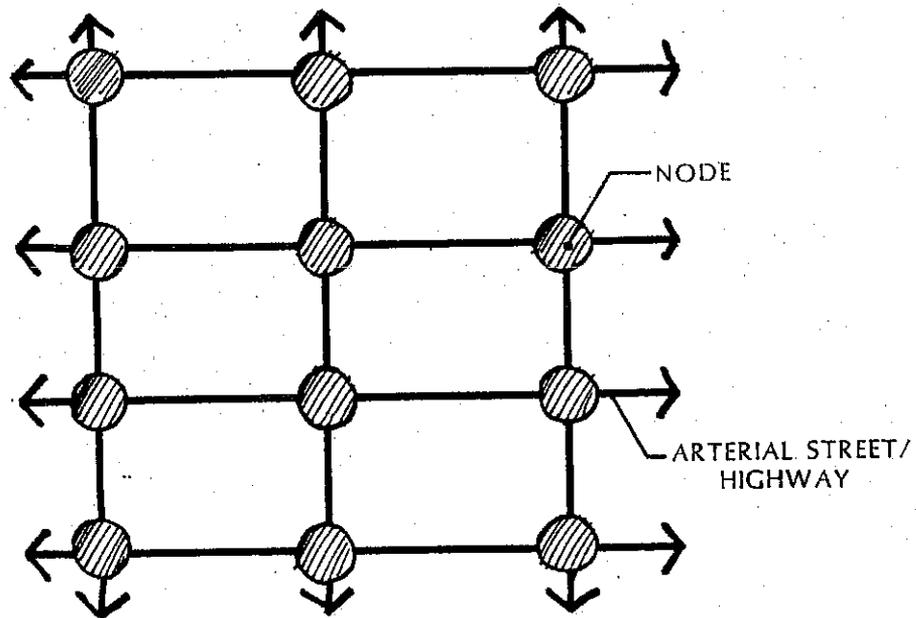


Table 6.2

FACILITY SITE AREA AND SERVICE RADIUS STANDARDS

<u>Type</u>	<u>Typical Number of Persons Served</u>	<u>Typical Min. Required Site Area (Gross Acres)</u>	<u>Walking Distance (miles)^d</u>
<u>Commercial Facilities</u>			
Neighborhood Retail and Service Center	4,000 - 8,000	6.5 minimum	3/4
Community Retail and Service Center	10,000 - 75,000	15 - 40	1 1/2
Highway-Oriented Commercial Develop.	15,000 ^a	5-25	--
Community Office Development	1,000 minimum	20 minimum	--
Other Retail and Service	--	1	--
<u>Community Industrial Facility</u>			
	300 - 3,500 employees	20-320	--
<u>Regional Industrial Facility</u>			
	3,500 minimum	320 minimum	--
<u>Local Transit Facilities</u>			
	--	--	1/4
<u>Educational Facilities</u>			
Public Elementary School (grades K-6)	500 students	3 ^b	1/2
Public Middle School (grades 7-8)	800 students	19 ^b	1 1/2
Public Senior High School (grades 9-12)	1,800 - 2,000 students	48 ^b	--
<u>Outdoor Recreational Facilities</u>			
Subneighborhood	-- ^c	-- ^c	-- ^c
Neighborhood	6,500	21.5 ^c	1/2
Community	--	25-99	--
Multi-Community	--	100 - 249	4-suburban
Regional	--	250 or more	10-rural 10

Table 6.2 (continued)

FACILITY SITE AREA AND SERVICE RADIUS STANDARDS

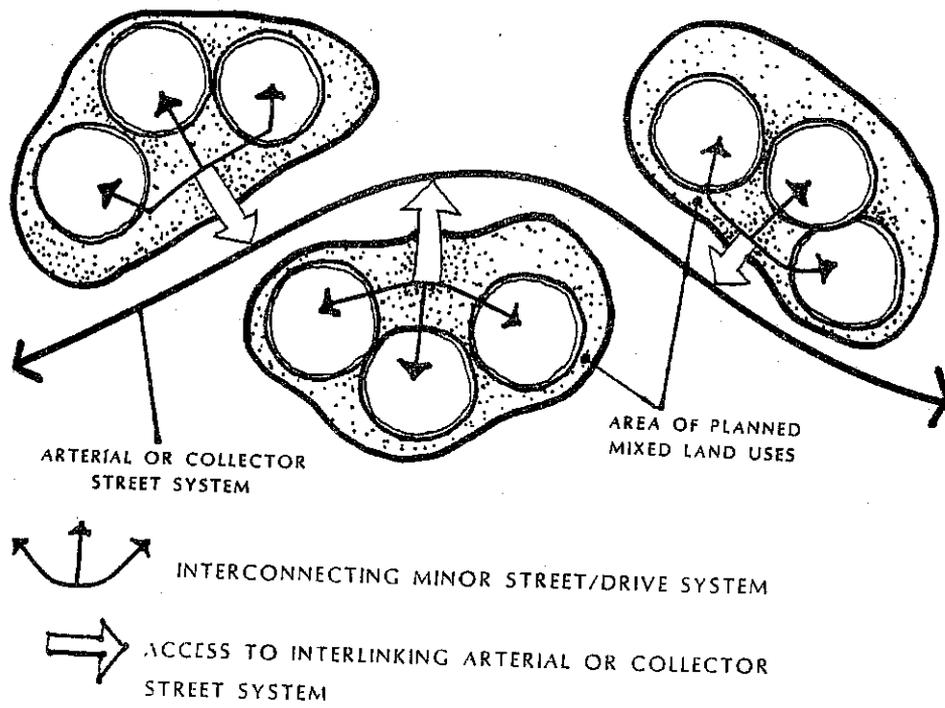
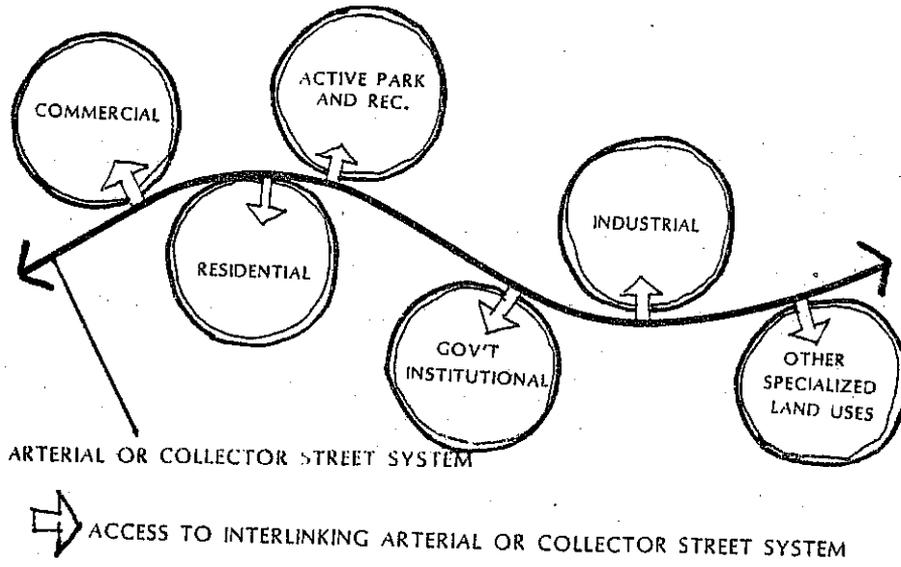
NOTES

- ^a Indicates minimum average weekday traffic volume required on abutting freeway or arterial street or highway.*
- ^b Includes land for the school building and off-street parking but does not include the eight (8) required acres of school-related outdoor recreation and playground facilities (also see the standard for neighborhood parks as shown below).*
- ^c To be determined on an individual subneighborhood basis for those subneighborhoods which are not an integral part of a specific delineated neighborhood area.*
- ^d Typical maximum walking distance from neighborhood served.*
- ^e Includes both land for neighborhood park (13.5 acres) and associated neighborhood school-related outdoor recreation and playground facilities (8 acres). Also see Table 6.3.*

Source: Lane Kendig, Inc. and SEWRPC.

Figure 6.11

ALTERNATIVE APPROACHES TO MINIMIZING THROUGH VEHICULAR TRIPS



Standard - Highway service-related commercial development, in particular activities primarily associated with serving the needs of the highway traveler, should be afforded direct access to the supporting arterial street and highway system and should meet the following minimum standards:

- a. A minimum gross overall site or district area of five acres;
- b. Direct access to the arterial street and highway system;
- c. Provision of a high degree of visual exposure from the arterial street or highway;
- d. Available adequate storm water drainage facilities;
- e. Available adequate power supply;
- f. Where located in areas served by public sanitary sewer facilities, coverage of the site by soils identified in the regional soils survey as having very slight, slight, or moderate limitations for commercial development;
- g. The provision of adequate off-street parking and loading facilities;
- h. The provision of properly located and controlled points of vehicular ingress and egress to prevent safety problems and traffic congestion on adjacent arterial streets;
- i. The provision of adequate landscape screening to serve as a buffer between commercial uses and adjacent noncommercial uses;
- j. The provision of adequate building setbacks from abutting major arterial streets and highways;
- k. Available adequate water supply;

Standard - Neighborhood and community level commercial land uses should be located in established centers of concentrated retail and service activity and should be afforded direct access to the arterial street system. Sites for neighborhood and community serving facilities should be provided in accordance with the standards set forth in Table 6.2.

Standard - Community office development should be located in planned office parks which meet the following standards:

- a. Minimum gross site area of 20 acres or a minimum employment of 1,000 persons;
- b. Direct access to the arterial street and highway system;
- c. Access to a General Utility Stage II airport within a maximum travel time of 30 minutes;
- d. Available adequate water supply;
- e. Available adequate public sanitary sewer service;
- f. Available adequate storm water drainage facilities;
- g. Available adequate electric power supply;
- h. Coverage of the site by soils identified in the regional soils survey as having very slight, slight, or moderate limitations for commercial development;
- i. To the extent possible, locate office park sites to maximize visibility and offer potential for public identity;
- j. Site configuration or shape, so as to accommodate the use of the site as an office park;
- k. Available telephone communication systems;
- l. Available natural gas supply;
- m. Allowance for the internal expansion of the office development area to accommodate future office land needs;
- n. Adequate off-street parking and loading areas on-site;
- o. Available internal street system which provides convenient access from individual parcels in the office park to the supporting arterial street and highway system;

- p. The provision of properly located and controlled points of vehicular ingress and egress to prevent safety problems and traffic congestion on adjacent arterial streets and highways;
- q. The provision of adequate landscape screening to serve as a buffer between office uses and adjacent incompatible non-office uses;
- r. The provision of adequate building setbacks from abutting major streets and highways.

Standard - Other retail sales and service facilities should be provided in accordance with the standards set forth in Table 6.2 and as indicated on the appropriate plan maps.

Standard - Regional industrial development should be located in planned industrial districts which meet the following standards:

- a. Minimum gross site area of 320 acres or a minimum employment of 3,500 persons;
- b. Direct access to the arterial street and highway system and access within two miles to the freeway system;
- c. Access to a General Utility-Stage II airport within a maximum travel time of 30 minutes;
- d. Available adequate water supply;
- e. Available adequate public sanitary sewer service;
- f. Available adequate storm water drainage facilities;
- g. Available adequate electric power supply;
- h. Coverage of sites by soils identified in the regional soils survey as having very slight, slight, or moderate limitations for industrial development;
- i. Desirably, maximum grade of any street in an industrial area not to exceed three percent. Lands with slopes generally exceeding six percent may not be suitable for industrial-related development;

- j. To the extent possible, locate industrial sites so as to maximize visibility and offer potential for public identity;
- k. Site configuration or shape, should accommodate the use of the site as a planned industrial district;
- l. Available telephone communication systems;
- m. Available natural gas supply;
- n. Adequate fire protection services for protecting plant and employees against the hazards of fire at or near the planned industrial district. A planned industrial district should not be located greater than one and one-half miles from a fire station providing engine, hose, or engine-ladder company;
- o. Allowance for the internal expansion of the industrial area to accommodate some future industrial land needs;
- p. Adequate off-street parking and loading areas on-site;
- q. Available internal street system which provides convenient access from individual parcels in the planned industrial district to the supporting arterial street and highway system;
- r. The provision of properly located and controlled points of vehicular ingress and egress to prevent safety problems and traffic congestion on adjacent arterial streets;
- s. The provision of adequate landscape screening to serve as a buffer between industrial uses and adjacent incompatible non-industrial uses;
- t. The provision of adequate building setbacks from abutting major streets and highways;

Standard - Community industrial development should be located in planned industrial parks which meet the following standards:

- a. Minimum gross site area of 80 acres;
- b. Convenient access to the arterial street and highway system;
- c. Access to a General Utility-State II airport.

- d. Available adequate water supply;
- e. Available adequate public sanitary sewer service;
- f. Available adequate storm water drainage facilities;
- g. Available adequate electric power supply;
- h. Coverage of sites by soils identified in the regional soils survey as having very slight, slight, or moderate limitations for industrial development;
- i. Desirably, maximum grade of any street in an industrial area not to exceed three percent. Lands with slopes generally exceeding six percent may not be suitable for industrial-related development;
- j. To the extent possible, locate industrial sites to maximize visibility and offer potential for public identity;
- k. Site configuration or shape should accommodate the use of the site as an industrial park.
- l. Available telephone communication systems;
- m. Available natural gas supply;
- n. Adequate fire protection services for protecting plant and employees against the hazards of fire at or near the industrial park. An industrial park should not be located greater than one and one-half miles from a fire station providing engine-hose, or engine-ladder company;
- o. Allowance for the internal expansion of the industrial area to accommodate future industrial land needs;
- p. Adequate off-street parking and loading areas on-site;
- q. Available internal street system which provides convenient access from individual parcels in the park to the arterial street and highway system;
- r. The provision of properly located and controlled points of vehicular ingress and egress to prevent safety problems and traffic congestion on adjacent arterial streets;

- s. The provision of adequate landscape screening to serve as a buffer between industrial uses and adjacent incompatible non-industrial uses;
- t. The provision of adequate building setbacks from abutting major streets and highways;

Standard - General industrial uses should be located in planned industrial districts so as to have direct access to arterial street and highway facilities and reasonable access through an appropriate component of the transportation system to residential areas and should not be intermixed with commercial, residential, governmental, recreational, educational or institutional uses. In addition, industrial uses should be provided adequate water supply, public sanitary sewer, stormwater drainage facilities, and adequate power supply, including natural gas and electricity.

7. **Land Use Buffering Objective** - The provision of adequate barriers or the provision of transitional land uses which block out or ameliorate adverse conditions which may be caused by such things as higher intensity land uses, noise, visual nuisances, lights, glare, transportation systems, air pollution, and other negative factors.

Principle - The buffering of obnoxious land uses from those land uses which do not exhibit such characteristics promotes the health, safety, and general welfare of the citizens of the City.

Standard - The proper location of transitional land uses--that is, abutting land uses which are tapered in their relative intensity--shall be used to ameliorate or block out either existing or potentially adverse conditions. To effectively accomplish this, a system of land use transition or buffering shall be used for land use planning purposes in conjunction with other buffering systems. Such transitional land uses shall form a land use buffering hierarchy by land use intensity and type similar to that as illustrated in Figure 6.12.

Standard - A system of bufferyard standards shall be developed and included in the City's Zoning Ordinance utilizing setbacks and distance, plant and landscaping materials, earthen berms, walls, and fences to effectively block out or ameliorate either existing or potentially adverse conditions. General examples of the effective use of various types of bufferyards are illustrated in Figure 6.13. Said system shall effectively deal with street and peripheral areas of properties as set forth and specified in the various chapters of this Plan. Bufferyards shall also be

used to promote the preservation of scenic and visual corridors in the City (also see Objective No. 4).

Standard - A letter of credit or performance bonding shall be required to ensure the installation of all required plant and landscaped bufferyards.

8. **Housing Objective** - The provision of adequate location and choice of housing and a variety of housing types for varying age and income groups for different size households.

Principal - Adequate choice in size, cost, and location of housing units will assure equal housing opportunity.

Standard - Housing units within the City of Franklin should be geographically well distributed and include a full range of housing type, size, and cost including detached single-family dwellings, attached two-family dwellings, attached multi-family rowhouses or townhouses, and attached multi-family garden apartments or condominiums.

Standard - The supply of vacant and available housing units should be sufficient to maintain and facilitate ready housing consumer turnover. Rental and homeowner vacancy rates should be maintained at a minimum of 4 percent and a maximum of 6 percent for rental units and a minimum of 1 percent and a maximum of 2 percent of homeowner units over a full-range of housing types, sizes, and costs.

Standard - Residential densities for new residential development in the City of Franklin should be generally provided in accordance with the following guidelines:

1. Approximately 10.2 percent of the total net residential development area should consist of rural density (20+ acre lot size) single-family residential development.
2. Approximately 10.2 percent of the total net residential development area should consist of countryside density (5 to 20 acre lot size) single-family residential development.

Figure 6.12

**LAND USE BUFFERING HIERARCHY BY
LAND USE TYPE AND INTENSITY**

- INDUSTRIAL
- COMMERCIAL
- GOVERNMENTAL/INSTITUTIONAL
- HIGH-DENSITY RESIDENTIAL
- MEDIUM-DENSITY RESIDENTIAL
- LOW-DENSITY RESIDENTIAL
- RURAL
- OPEN SPACE

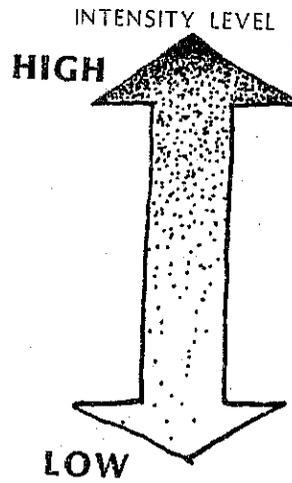
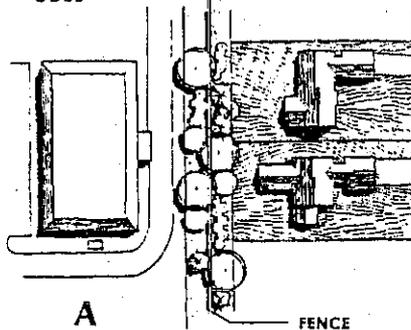


Figure 6.13

ALTERNATIVE BUFFER PROVISIONS

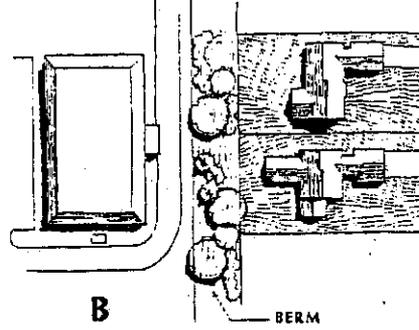
COMMERCIAL
USES

RESIDENTIAL
USES



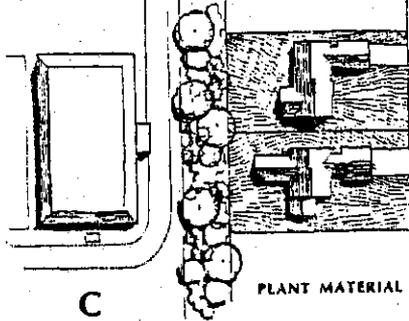
COMMERCIAL
USES

RESIDENTIAL
USES



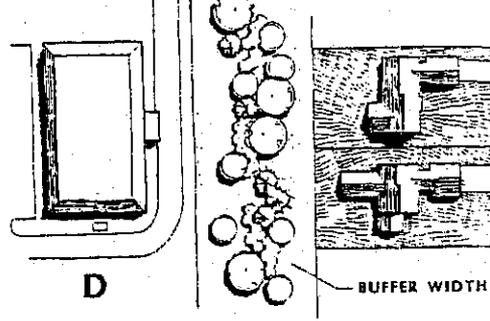
COMMERCIAL
USES

RESIDENTIAL
USES



COMMERCIAL
USES

RESIDENTIAL
USES



3. Approximately 11.5 percent of the total net residential development area should consist of estate density (1 to 5 acre lot size) single-family residential development.
 4. Approximately 48.9 percent of the total net residential development area should consist of suburban (1/4 to 1 acre lot size) single-family residential development.
 5. Approximately 11.8 percent of the total net residential development area should consist of urban (1/4 acre lot size) single-family residential development.
 6. Approximately 2.0 percent of the total net residential development area should consist of medium-density urban (4.4 to 6.9 dwelling units per acre) multiple-family residential development.
 7. Approximately 5.4 percent of the total net residential development area should consist of high-density urban (6.9 to 8.0 dwelling units per acre) multiple-family residential development.
9. **Recreation Objective** - The provision of an integrated system of public general use outdoor recreation sites and related open space areas, areas for intensive non-resource-oriented outdoor recreational activities, areas for intensive resource-oriented outdoor recreational activities, land-based outdoor recreational activities, and water-based outdoor recreational activities which will allow the resident population of the City of Franklin adequate opportunity to participate in a wide range of outdoor recreation activities.

Principle - Attainment and maintenance of good physical and mental health is an inherent right of all residents of the City. The provision of outdoor recreation sites and related open space areas contributes to the attainment and maintenance of physical and mental health by providing opportunities to participate in a wide range of activities. An integrated park and related open space system properly related to the natural resource base, such as the existing surface water network, can generate the dual benefits of satisfying recreational demands in an appropriate setting while protecting and preserving valuable natural resource amenities. Finally, an integrated system of outdoor recreation sites and related open space areas can contribute to the orderly growth of the City area by lending form and structure to urban and suburban development patterns.

Public General Use Outdoor Recreation Sites Principle - Public general use outdoor recreation sites promote the maintenance of proper physical and mental health both by providing opportunities to participate in such athletic recreational activities as baseball, swimming, tennis, and ice-skating--activities that facilitate the maintenance of proper physical health because of the exercise involved--as well as opportunities to participate in such less athletic activities as pleasure walking, picnicking, or just rest and reflection. These activities tend to reduce everyday tensions and anxieties and thereby help maintain proper physical and mental well-being. Well designed and properly located public general use outdoor recreation sites also provide a sense of community, bringing people together for social and cultural as well as recreational activities, and thus contribute to the desirability and stability of residential neighborhoods and therefore the City of Franklin as a whole.

Standard - The public sector should provide general use outdoor recreation sites sufficient in size and number to meet the recreation demands of the resident population. Such sites should contain the natural resource or man-made amenities appropriate to the recreational activities to be accommodated therein and be spatially distributed in a manner which provides ready access by the resident population. To achieve this standard, the site requirements for outdoor recreational facilities indicated in Tables 6.2 and 6.3 should be met.

- 10. Transportation System Objective** - An integrated transportation system which, through its location, capacity, and design, will effectively serve the existing and proposed land use pattern and promote the implementation of this Plan, meeting the anticipated travel demand generated by the existing and proposed land uses.

Principle - An integrated area transportation system serves to freely interconnect the various land use activities within the neighborhoods, City, and region, thereby providing the attribute of accessibility essential to the support of these activities.

Standard - The transportation system should provide access not only to all land presently devoted to urban and suburban development but also to land proposed to be used for such development, as well as an orderly functional hierarchy of arterial streets and highways, collector streets, minor streets, and bicycle and pedestrian paths to service the area. All streets and highways in the City of Franklin should be placed into one of the following functional classifications and should form a circulation system hierarchy as illustrated in Figures 6.14.

Arterial Streets: The primary function of arterial streets is to provide for the expeditious movement of through traffic into, out of, and within the community. Arterial streets should be located to minimize the penetration of existing and proposed residential areas. Arterial streets should be designed to convey an average daily traffic (ADT) of 3,000 and greater.

Collector Streets: The primary function of collector streets is to collect traffic from urban and suburban uses abutting land access streets and convey it to arterial streets and/or activity centers. Where neighborhoods are abutting along arterial streets or highways, collector streets should be planned to align to provide secondary interconnections between abutting neighborhood areas as illustrated in Figure 6.15. Collector streets should be designed to convey an ADT of between 500 and 3,000.

Minor streets: The primary function of minor streets is to conduct traffic to and from individual building sites. Residential minor streets which are designed as either looped or "through" streets should be designed so that no section conveys an ADT greater than 500. Residential minor land access streets which are designed as permanent cul-de-sac streets should be designed that no section conveys an ADT greater than 250.

Bicycle Paths: Bicycle paths shall be provided along all newly improved arterial streets, highways, and collector streets. Pedestrian path systems shall also be provided in high-density urban residential areas and within publicly-owned parks. Such paths and path systems shall be designed to effectively and safely link various centers of activity in the City and its neighborhood areas.

Standard - Streets and highways in the City should be improved to the cross-sections similar to those shown in Table 6.4 as related to functional classification.

Standard - Transportation-related terminal facilities, such as off-street parking and off-street truck loading, should be located in proximity to the principal land uses to which they are accessory.

Table 6.3

**DETAILED NEIGHBORHOOD OUTDOOR RECREATION
FACILITY REQUIREMENTS**

<u>FACILITY</u>	<u>Min. Standard Public Facility Requirement</u>	<u>Number of Facilities Required</u>	<u>Total Acerage Required</u>
<u>Active Recreation</u>			
Baseball Diamond	0.09 per 1,000	0.59 = 1	4.50
Basketball Goal	0.91 per 1,000	5.90 = 6	0.42
Ice-Skating Rink ^b	0.15 per 1,000	0.98 = 1	0.35 min
Playfield ^b	0.39 per 1,000	2.50 = 3	4.95 min
Playground	0.35 per 1,000	3.40 = 2	1.24 min
Softball Diamond ^b	0.53 per 1,000	3.40 = 2	5.36
Tennis Court	0.50 per 1,000	3.30 = 3	<u>0.96</u>
<i>Subtotal</i>	--	--	17.78
<u>Passive Recreation</u>	<i>Add 10% of active recreation area total</i>		1.8
<u>Other Recreation^a</u>	<i>Add 10% of active recreation area total</i>		<u>1.8</u>
TOTAL	--	--	21.38

^aPicnicking facilities should be provided in a neighborhood park.

^bCan also be used for soccer field.

Source: Lane Kendig, Inc. and SEWRPC.

Figure 6.14

CIRCULATION SYSTEM HIERARCHY

- ARTERIAL STREETS AND HIGHWAYS

- STATE TRUNK HIGHWAYS
- COUNTY TRUNK HIGHWAYS
- LOCAL (FRANKLIN) ARTERIALS

- COLLECTOR STREETS

- MINOR STREETS

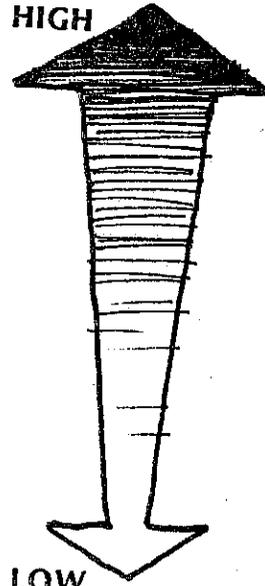
- PUBLIC

- OTHER

- BICYCLE
- PEDESTRIAN

CAPACITY AND SPACE
(R.O.W.) REQUIREMENTS

HIGH



LOW

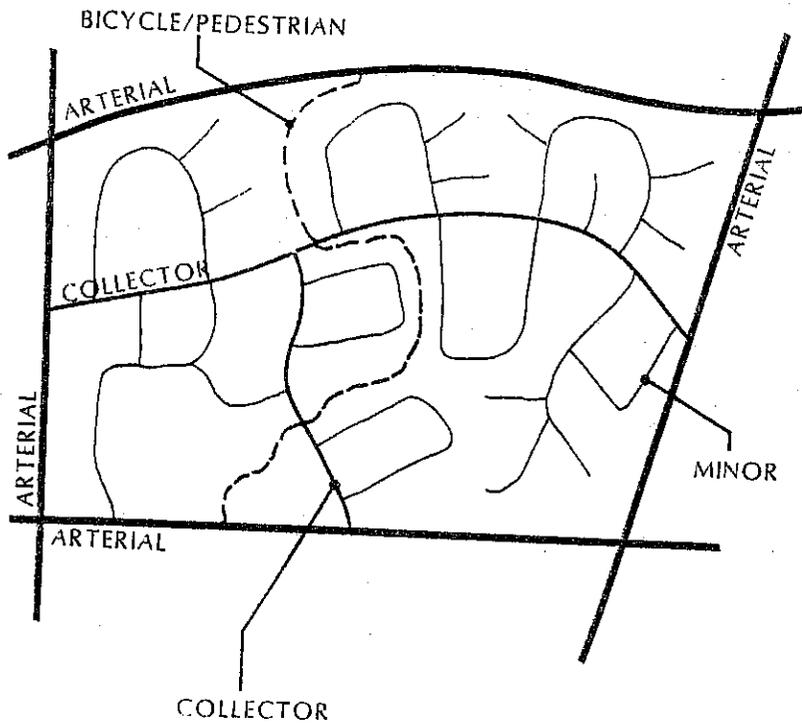
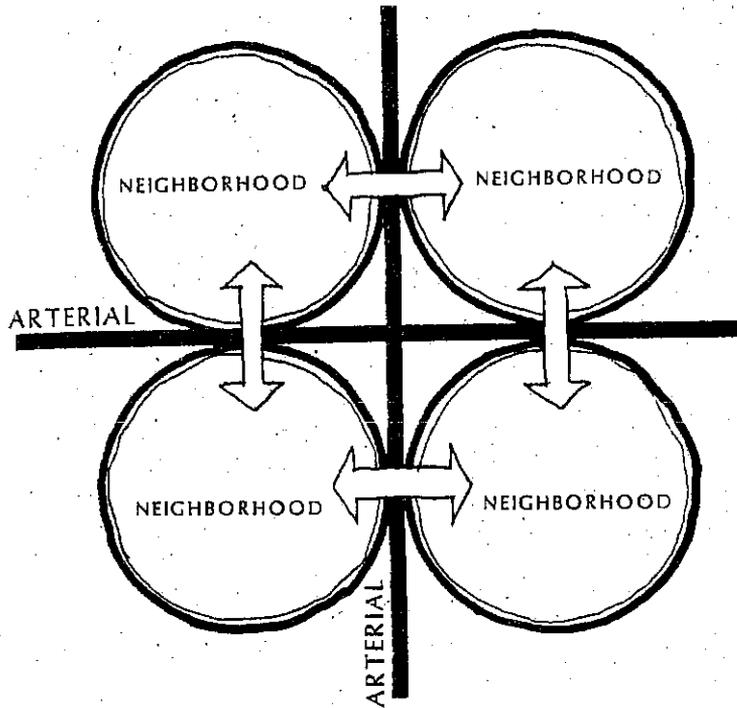


Figure 6.15

**NEIGHBORHOODS ABUTTING AT ARTERIALS:
ALIGNMENT OF COLLECTOR STREETS**



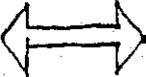
-  ARTERIAL STREET PROVIDING PRIMARY INTERCONNECTIONS BETWEEN NEIGHBORHOOD AREAS
-  COLLECTOR STREET ALIGNMENT BETWEEN ABUTTING NEIGHBORHOODS PROVIDING SECONDARY INTERCONNECTIONS BETWEEN NEIGHBORHOOD AREAS

Table 6.4

**TYPICAL CROSS-SECTION DESIGN FOR STREETS AND PUBLIC WAYS
IN THE CITY OF FRANKLIN**

<u>Type of Street</u>	<u>Minimum Right-of-Way to be Dedicated</u>	<u>Minimum Dimensions</u>
Arterial Streets <i>(Four lane)</i>	130 feet	Dual 36-foot pavement (face of curb to face of curb) 26-foot median 10-foot tree banks (curb lawn) 5-foot sidewalks 1-foot outside sidewalks
Arterial Streets <i>(Two lane rural to suburban/urban transitional)</i>	130 feet	24-foot pavement 8-foot paved shoulder (balance of right-of-way to accommodate future improvements)
Collector Streets	80 feet	40-foot pavement (face of curb to face of curb) 14-foot tree banks/curb lawn 5-foot sidewalks 1-foot outside sidewalks
Land Access or Minor Streets <i>(Multiple-Family Area)</i>	66 feet	36-foot pavement (face of curb to face of curb) 9-foot tree banks/curb lawn 5-foot sidewalk 1-foot outside sidewalks
Land Access or Minor Streets <i>(Typical)</i>	60 feet	28-foot pavement (face of curb to face of curb) 16-foot tree banks/curb lawn
Land Access or Minor Streets <i>(Difficult site option)</i>	50 feet	28-foot pavement (face of curb to face of curb) 11-foot tree banks/curb lawn
Cul-de-sac <i>(Turnaround)</i>	60-foot radius	45-foot outside face of curb radius 24-foot inside pavement radius (island)
Bicycle Paths and Pedestrian Ways	20-foot average	15-foot tree banks/curb lawn To be determined by the City of Franklin on a <u>site-specific basis</u> .

Source: City of Franklin and Lane Kendig, Inc.

- 11. Fire Protection Objective** - Provide the fire protection facilities necessary to maintain high quality fire protection throughout the City.

Principal - The adequacy of fire protection in the City is dependent upon the relationship between the size and distribution of the City population and the location of facilities available to service that population.

Standard - Fire stations and equipment should be distributed based upon, in part, the standards shown in Table 6.5.

- 12. Public Library Facilities Objective** - Provide library facilities, in conjunction with those facilities provided by the Milwaukee County Federated Library System, to meet the social, educational, informational, and recreational needs of the residents of the City.

Principle - The provision of adequate library facilities is important to the social, educational, informational, and recreational well-being of the residents of the City.

Standards - The proper planning for library facilities in the City should be based upon recognized library planning standards as published in Anders Dahlgren's Planning the Small Library Building (Chicago: Library Administration and Management Association, American Library Association, 1985) and in the Wisconsin Department of Instruction's Wisconsin Public Library Standards (Madison, Wisconsin: Wisconsin Department of Public Instruction, 1987 or the most current edition).

- 13. Annexation Objective** - When deemed in the best interest of the City of Franklin by the City Common Council, the City of Franklin may pursue annexation of lands located within unincorporated areas and within its extraterritorial plat jurisdiction area.

Principle - Although the City of Franklin does not anticipate the annexation of unincorporated areas during the planning period (i.e. to the year 2010), the City does have concerns relating to the proper planning of lands located both within nearby unincorporated areas and within its extraterritorial plat jurisdiction area due to their potential impacts upon the City.

Standard - Pursuant to Chapters 62.23 and 236 of the Wisconsin State Statutes as amended, the City shall endeavor to review and consider all subdivision plats, certified survey maps, and other planning-related matters concerning those lands located within the City's extraterritorial jurisdiction.

Table 6.5

**FIRE COMPANY DISTRIBUTION STANDARDS
FOR THE CITY OF FRANKLIN**

Type of General Area Land Use	Optimum Service Radius in Miles From Engine, Hose, or Engine-Ladder Company
Urban (nonresidential)	1 1/2
Urban (residential)	1 1/2 to 2
Suburban	2
Rural	4

Note: The above distances should be considered as direct street travel distances. Also, these distances should be reduced if a severe hazard to life exists; if streets are narrow or in poor condition; if traffic, one-way streets, topography, or other unusual locational conditions hinder response; or if other circumstances peculiar to the area indicate that such a reduction is needed. All development proposals shall be reviewed on an individual basis by the appropriate City departments including the Fire Department, Engineering Department, and Water Utility.

Source: City of Franklin Fire Department and Lane Kendig, Inc.

- 14. Sanitary Sewer Service Area Objective** - To retain a refined sanitary sewer service area which is in conformance with both the adopted areawide water quality management plan and this Plan.

Principle - Section NR 110.08(4) and Section ILHR 82.20(4) of the Wisconsin Administrative Code require that the Wisconsin Department of Natural Resources, with respect to public sanitary sewers, and the Wisconsin Department of Industry, Labor, and Human Relations, with respect to private sanitary sewers, make a finding that all proposed sanitary sewer extensions be in conformance with adopted areawide water quality management plans and the sanitary sewer service areas identified in such plans, and thus assuring the maintenance of areawide water quality.

Standard - All development proposed to be located within the City's delineated sanitary sewer service areas shall be served by public sanitary sewers.

- 15. Plan Implementation Objective:** The City of Franklin shall endeavor to use all of the Comprehensive Master Plan implementation tools legally available to the City in order for this Plan to be implemented.

Principle - Comprehensive Master Plan implementation will assist in guiding and accomplishing a coordinated, adjusted, and harmonious development of the City which will, in accordance with existing and future needs, best promote public health, safety, morals, order, convenience, prosperity, or the general welfare, as well as efficiency and economy in the process of development.

Standards - Implementation tools to be used by the City of Franklin to implement this Plan and its various elements shall include, but not necessarily be limited to, the following:

- a. Appropriate amendments and revisions to the City's Zoning Ordinance. Such amendments shall serve to effectively link this Plan to its implementing Zoning Ordinance;
- b. Appropriate amendments and revisions to the City's land division ordinance relative to subdivisions and certified survey maps. Such amendments shall serve to advance both this Plan and its urban design standards;

- c. The preparation of an "Official Map" of the City pursuant to the requirements of Chapter 62.23(6) of the Wisconsin Statutes. Such Map shall show: streets, highways, parkways, parks, and playgrounds laid out, adopted, and established by law; the location of waterways and public transportation facilities; the exterior lines of planned new streets, highways, parkways, public transit facilities, waterways, parks, or playgrounds, or to widen, narrow, extend, or close existing streets, highways, parkways, public transit facilities, waterways, parks, or playgrounds;
- d. The preparation and maintenance of a five-year based capital improvements program for the City to be updated on a yearly basis;
- e. Other plan implementation measures deemed necessary by the City Plan Commission and/or the Common Council which will implement this Plan and its elements.

The objectives, principles, and standards presented in this Chapter express the basis for the development intent of the City of Franklin. The standards perform a particularly important function in designing this Plan, since they form the basis upon which estimates of future City land use needs are based. Community land use requirements are developed in Chapters 7 through 12 of this Plan for the year 2010 based, in part, upon the these objectives, principles, and standards.

URBAN DESIGN CRITERIA

Certain urban design criteria must be established to properly prepare the detailed neighborhood plans presented in Chapter 8, assist the City Plan Commission and Common Council in reviewing development proposals, and assist the City in developing some of the necessary Plan implementation tools outlined in Chapter 12. As presented earlier in this Chapter, "urban design criteria" is defined as a body of information which can be applied to the development of a solution or solutions to a specific urban design problem or set of problems. The City of Franklin recognizes that sound planning decisions made by both the City Plan Commission and the Common Council should be based, in part, upon sound urban design criteria, as well as the underlying objectives, principles, and standards presented earlier in this chapter. These criteria are to be used by City officials to provide detailed guidance and assist in the evaluation of development proposals and their attendant site and building plans. In this respect, it is necessary that urban design criteria be of a high level of specificity to assist in the development of detailed urban design solutions to highly specific urban design problems. In addition, these design criteria are further intended to be embraced and further refined and expanded by this Plan's implementing zoning and subdivision control ordinances.

In this chapter, the City Plan Commission sets forth the general criteria to be used by the City with respect to residential, industrial, general commercial, and "village area" commercial development. As stated earlier, modifications and amendments to both the City's zoning and subdivision ordinances are anticipated by both the City Plan Commission and the Common Council as presented and recommended in Chapter 12. Such modifications to these two important Plan implementation tools are intended to carry these objectives, principles, standards, and urban design criteria into greater detail.

RESIDENTIAL DEVELOPMENT URBAN DESIGN CRITERIA

Criteria for residential development are described in this section. These criteria address residential neighborhood recreation facilities; street, block, and lot layouts and arrangements; general landscaping; utility easements; and stormwater drainage and erosion/sedimentation control.

Neighborhood Recreational Facilities

Recreational lands at the neighborhood level should provide a focal point for neighborhood activities and may, where possible and practical, be located and developed in conjunction with an abutting neighborhood elementary school. Where such recreational facilities are developed in conjunction with an abutting neighborhood elementary school, the recreational facilities should be provided on a common site available to serve the recreation demands of both the school's students and the resident neighborhood and subneighborhood population. Where such recreational facilities are not developed in conjunction with a neighborhood school, adequate recreational facilities shall be provided for the resident population of the neighborhood and its subneighborhood areas. The individual recreational facility requirements should be based upon the values listed earlier in Table 6.3.

Streets

Limitation of Access to Arterial Streets: Whenever proposed residential land uses abut an arterial street or highway, the character of the residential uses and the capacity and safety of the arterial facility should be preserved and protected by limiting access from the abutting land uses, and by separating through and local traffic, where possible, as conceptually shown in Figure 6.16. In addition, a landscaped bufferyard of adequate opacity should be provided in a vehicular nonaccess reservation along the rear property line as conceptually illustrated in Figure 6.16. In such situations, vehicular access to such residential lots shall be provided by an abutting minor land access street. Such vehicular

nonaccess reservations should be so noted on both subdivision plats and certified survey maps prior to their approval by the City.

Street and Other Public Way Cross-Section Design: Street and other public way cross-section design criteria for arterial streets, collector streets, land access, or minor streets (typical and difficult site option), cul-de-sac streets, bicycle paths, and pedestrian ways were indicated earlier in Table 6.4 of this chapter.

Storm Water Drainage and Street Location: Wherever practical, streets should follow lines of natural storm water drainage.

Street Grades: Unless necessitated by exceptional topography, the maximum grade of any street should not exceed the following: arterial streets, 5 percent; collector streets, 6 percent; and minor streets, alleys, and frontage streets, 8 percent. In addition, the grade of any street should not exceed 10 percent or be less than 0.5 percent. Street grades should be established so as to avoid excessive grading, the promiscuous removal of ground cover and tree growth, the unnecessary leveling of the topography, and the minimization of adverse impacts to other natural resource base features of the site.

Street Intersections: Streets should intersect each other at as near to right angles as topography and other limiting factors of design permit. In addition, the number of streets converging at one intersection should be held to a minimum, preferably to not more than two streets at one intersection; the number of intersections along arterial streets and highways should be held to a minimum, and the distance between such intersections should generally not be less than 600 feet.

Street Alignment: Minor and collector streets should not necessarily continue across arterial streets. If the distance between the intersections of any proposed street and any intersecting arterial street is less than 250 feet as measured from the intersecting rights-of-way of the intersecting streets, or if the distance between the rights-of-way of two adjacent intersecting minor or collector streets along such an arterial is less than 125 feet, then the street location should be adjusted so that the distance is increased or the adjointment across the intersecting street is continuous, thus avoiding a jog in the flow of traffic. This concept is illustrated in Figure 6.17.

Half Streets: Half-streets shall be prohibited in the City. Half streets put an unrealistic reliance on the chance that adjacent property owners will develop their adjacent properties at the same time. If half streets are allowed and then improved, their narrow width may result in street maintenance as well as traffic circulation problems.

Figure 6.16

**REVERSED FRONTAGE LOTS WITH BUFFERYARD PROVISIONS
FOR THE LIMITATION OF VEHICULAR ACCESS TO
ARTERIAL STREETS AND HIGHWAYS**

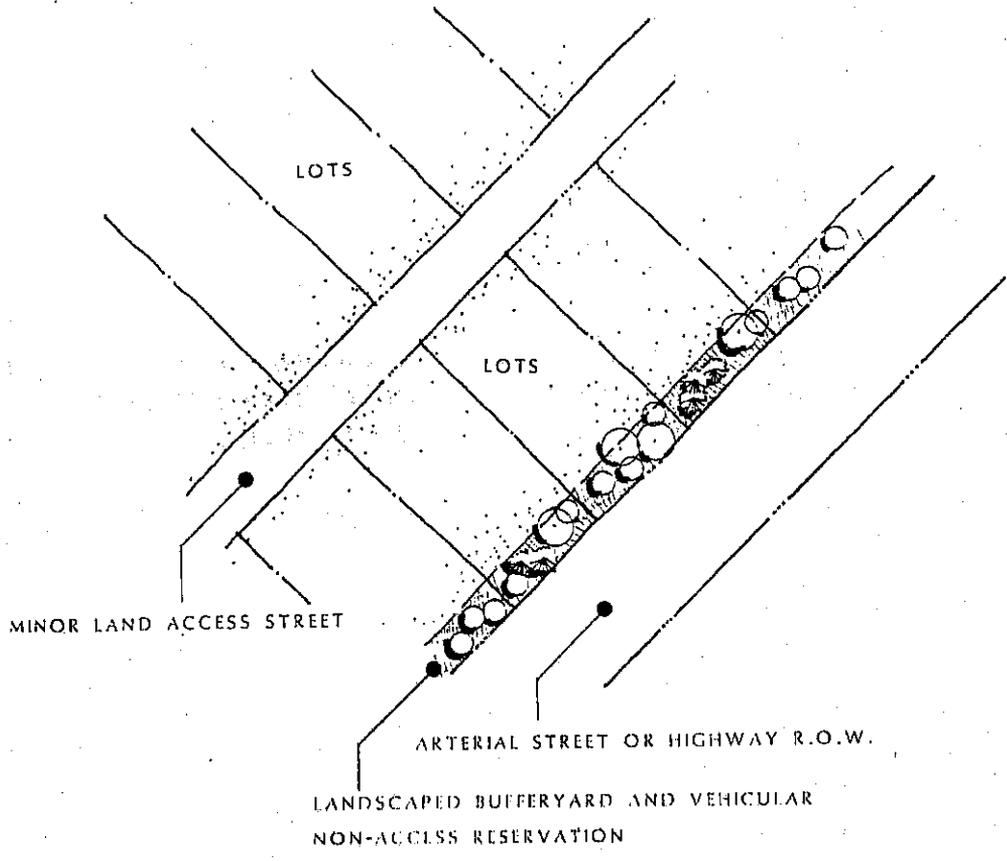
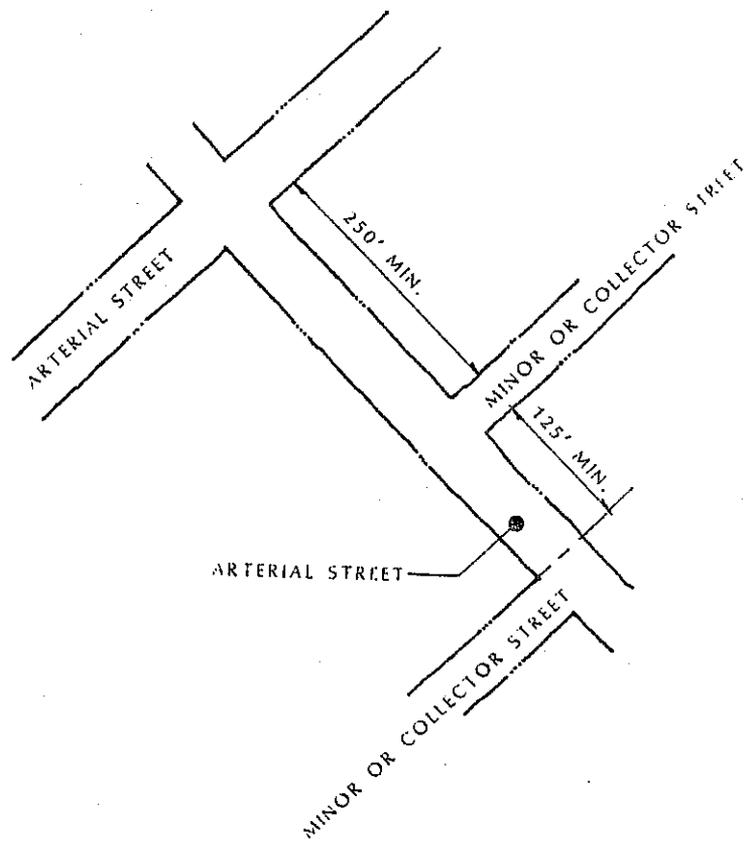


Figure 6.17

**ARTERIAL AND HIGHWAY ACCESS AND
ABUTTING STREET INTERSECTIONS**



Cul-de-sac Streets: Cul-de-sacs which are designed to have one end permanently closed should generally not exceed 800 feet in length. Such cul-de-sac streets should terminate in a circular turn around having a design similar to the design described in Table 6.4 described earlier in this Chapter.

Handicap and Bicycle Access: Wheelchair and bicycle curb ramps should be installed at street intersection crosswalks pursuant to Section 66.616 of the Wisconsin Statutes.

Pedestrian Sidewalks: Concrete pedestrian sidewalks should be provided to special planning districts, neighborhoods, subneighborhoods, and clusters under the following conditions:

- a. On the school side of a collector street;
- b. On minor, collector and/or arterial streets which provide adjacent access to school sites;
- c. On arterial street with an urban type of cross-section;
- d. On one side of designated collector streets.

Blocks

General: The widths, lengths, and shapes of blocks should be suited to the planned use of the land; subdivision ordinance requirements; the need for convenient access, control, and safety of street traffic; the adequate preservation of and minimization of adverse impacts upon natural resource features of the City including the limitations of and opportunities provided by topography.

Length: Blocks in residential areas should not be less than 600 feet nor generally more than 1,500 feet in length unless otherwise dictated by the preservation of natural resource features including exceptional topography or other limiting factors of good design.

Pedestrian Ways: Pedestrian ways with a right-of-way of not less than 20 feet in width may be required near the center and entirely across any block of more than 900 feet in length to provide adequate pedestrian circulation or access to schools, parks, shopping centers, churches, transportation facilities, or other land uses as required by the City Plan Commission.

Width: Unless warranted by the protection and preservation of natural resource base features, generally blocks should be wide enough to provide for two tiers of lots of appropriate depth except where required to separate residential development from through traffic.

Utilities: Telephone and electric power lines should, where practical, be placed on mid-block easements of not less than 20 feet in width centered on the property line and, where possible, along rear lot lines for the underground construction of such utilities.

Lots

General: The size, shape, and orientation of lots shall be appropriate for the location of the subdivision in the City, for the appropriate preservation of existing natural resource base features, and for the type of development and use contemplated. The lots should be designed to provide an aesthetically pleasing building site and a proper architectural setting for the type of residential building contemplated.

Side Lot Lines: Unless warranted otherwise by the preservation or maintenance of the natural resource base features of the site, generally side lot lines should be at right angles to straight street lines or radial to curved street lines on which the lots face. Lot lines should follow municipal boundary lines rather than cross them.

Double Frontage: Double frontage or "through" lots should be prohibited except where necessary to provide separation of residential development from arterial traffic or to overcome specific disadvantages relative to natural resource base protection including topography and orientation.

Access: Unless warranted by the preservation of existing natural resource features on the site, generally every lot should front or abut a public street for a distance of at least 30 feet.

Lot Size: Area and dimensions of all lots should conform to the requirements of the City of Franklin Zoning Ordinance.

Lot Depth: Excessive depth of residential lots in relation to width should be avoided unless warranted by the preservation of the existing natural resources of a site, and a proportion of 2.5 to 1 should be considered a maximum depth-to-width ratio. Lot depth should be increased adequately when abutting an arterial street or highway where no direct access is permitted to the arterial to allow for a landscaped bufferyard between the arterial and the residential land use.

Lot Width: Lots within the interior of a block should have the width at building setback required by the City of Franklin Zoning Ordinance for the district in which the subdivision is located.

Corner Lots: Corner lots should have additional width as required in the City of Franklin Zoning Ordinance to provide for increased side yard setback from the second adjoining street.

General Landscaping

Every effort should be made to protect and retain all existing trees, shrubs, vines, and grasses not actually lying in public roadways, drainageways, paths, and trails. Trees should be protected and preserved during construction in accordance with sound tree conservation practices, including the use of wells or islands or retaining walls whenever abutting grades are altered.

Natural Resource Features Protection Easements: Where natural resource features are to be preserved and retained as specified by the adopted natural resource features preservation standards of this Plan and under the requirements of the City of Franklin Zoning Ordinance, natural resource features preservation easements shall be required on all subdivision plats and certified survey maps approved by the City of Franklin in areas of such subdivision plats and certified survey maps where such features are to be retained and preserved. These easements shall indicate the location of all such areas, the resource feature(s) to be preserved, and the limitations placed upon the use and destruction of the preservation areas. It is the City's general intent to retain many of these preservation areas under private ownership through innovative land planning techniques.

Establishment of Landscaped Bufferyards: Objective 7 of this chapter and its subordinate principles and standards set forth the sound planning rationale for providing adequate buffering between abutting land uses of varying intensities and the creation of landscaped bufferyards. In these terms, a landscaped bufferyard is a combination of a setback and a visual buffer or barrier, and is located in a yard or area together with the landscape plantings and/or structure necessary to provide the desired amount of buffering. Both the amount of land and the type and amount of plant material and/or structures specified for bufferyard requirements shall be designed to ameliorate nuisances between certain adjacent land uses within the same zoning district or between different zoning districts. Bufferyards shall also be designed to ensure a desired visual character along public streets and roads—particularly arterial streets and highways as well as collector and minor land access streets.

Plant units shall be required for the provision of adequate bufferyards and shall be calculated based upon their relative opacity to ensure that they do, in fact, function as "buffers." These plant unit standards for landscaped bufferyards are illustrated in Figure 6.18.

Bufferyards function to eliminate or minimize potential nuisances such as dirt, litter, noise, glare of lights, signs, and unsightly buildings or parking areas, or to provide spacing to reduce adverse impacts of noise, odor, or danger from fires or explosions. Bufferyards shall be required to separate both different zoning districts, and different land use intensities within the same zoning district, from each other. In addition, bufferyards shall be located along the outer perimeter of a lot or parcel and shall extend to the lot or parcel boundary line. Bufferyards shall not be located on any portion of an existing or dedicated public street or right-of-way.

In order to properly determine the type of bufferyard required on a parcel or between two parcels, or between a parcel and a street, to meet the functions and standards described above, the standards and procedures set forth in the City of Franklin Zoning Ordinance shall be followed.

Cutting and Clearing: Tree cutting and shrubbery clearing should not exceed those levels permitted by the natural resource features protection standards in this chapter or under the cutting and clearing provisions of the City of Franklin Zoning Ordinance. Where permitted, such cutting and clearing should be conducted to prevent erosion and sedimentation and preserve and improve the scenic qualities of the City of Franklin.

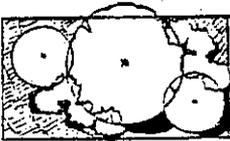
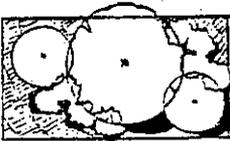
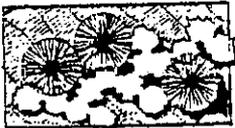
Paths: Easements for paths and trails in wooded and wetland areas should not exceed 12 feet in width unless otherwise approved by the City, and should be designed and constructed so as to result in the least removal and disruption of trees and shrubs and the minimum impairment of the natural beauty of the area.

Street Trees: At least one street tree of at least 1 1/2 inches in diameter at breast height shall be planted for each 85 feet of frontage on public street rights-of-way. The species of such street trees should be planted according to the planting plan established by the City of Franklin Engineering Department.

Noise and Landscape Planting: Groups of trees, shrubs, and other landscape masses, such as earth berms, can serve as noise barriers and should be utilized where noise could create problems for neighboring land uses. Landscaped noise barriers are most effective when the barrier is near the noise source or receiver. Landscape planting noise barriers should be used whenever possible to assist in solving existing or potential noise problems associated with urban design. To assist in the mitigation of adverse environmental noise,

Figure 6.18

ALTERNATIVE STANDARD PLANT UNITS FOR
LANDSCAPED BUFFERYARDS

	<u>Plant Unit Alternative</u>	<u>Quantity Required</u>	<u>Type & Size of Plant</u>
	ALTERNATIVE UNIT A	1	3" caliper Canopy Tree
		2	1 1/2" caliper Understory
		8	3' high Shrubs
	ALTERNATIVE UNIT B	1	4" caliper Canopy Tree
		1	2" caliper Understory
		3	3' high Shrubs
		2	6' high Evergreen Trees
	ALTERNATIVE UNIT C	1	4" caliper Canopy Tree
		9	3' high Shrubs
		2	6' high Evergreen Trees
	ALTERNATIVE UNIT D	3	8' high Evergreen Trees
		14	3' high Shrubs
	ALTERNATIVE UNIT E	2	4' high Canopy Trees
		10	3' high Shrubs

the detailed bufferyard standards set forth in the City of Franklin Zoning Ordinance shall be followed.

Storm Water Drainage and Erosion/Sedimentation Control

Storm water drainage facilities should be adequate to serve the subdivision, certified survey map, or land development and may include curbs and gutters, catch basins and inlets, storm sewers, road ditches, culverts, open channels, water retention structures, and settling basins as required by the City Engineer. The facilities should be of adequate size and grade to hydraulically accommodate design flows through and from the development, and shall be so designed as to prevent and control soil erosion and sedimentation and to present no hazards to life or property.

Earthmoving activities such as grading, topsoil removal, mineral extraction, road cutting, waterway construction or enlargement, excavation, channel clearing, ditching, drain tile laying, dredging, and lagooning should be conducted so as to prevent erosion and sedimentation and to least disturb the natural fauna, flora, watercourse, water regimen, and topography. Construction activities should be planned so that the soil is disturbed a minimal amount of time. Cut and filled lands outside of street rights-of-way should be graded to a maximum slope of the angle of repose of the soil.

The subdivider or developer should plant those grasses, trees, and vine, the species and size of which should be determined by the City. The City may require the subdivider or developer to provide or install certain protection and rehabilitation measures, such as fencing, slopes, seeding, trees, shrubs, rip-rap, wells, revetments, berms, jetties, clearing, dredging, snagging, drop structures, brush mats, willow poles, and grade stabilization structures.

INDUSTRIAL DEVELOPMENT URBAN DESIGN CRITERIA

Urban design criteria relating to industrial development are also proposed with respect to street, block, and lot layouts and arrangements; automobile parking; easements; storm water drainage and erosion sedimentation control; and general landscaping.

Industrial-Related Streets

Limitation of Access to Arterial Streets: Whenever proposed industrial land uses abut an arterial street or highway, the capacity and safety of the arterial facility should be

preserved and protected by limiting access from the abutting land uses, and by separating through and local traffic, where possible as was illustrated in Figure 6.16. In addition, a landscaped bufferyard of adequate opacity should be provided in a vehicular nonaccess reservation along the rear property line (see Figure 6.16). In such situations, vehicular access to such industrial lots shall be provided by an abutting minor land access street. Such vehicular nonaccess reservations should be so noted on both subdivision plats and certified survey maps prior to their approval by the City.

Street and Other Public Way Cross-Section Design: Street cross-section design criteria for industrial development were indicated in Table 6.4. The desirable cross-section for a collector street, which shows a minimum right-of-way width of 80 feet, shall be used as the land access street cross-section for industrial development in the City of Franklin.

Street Grades: Unless necessitated by exceptional topography, the maximum grade of any street in an industrial area should not exceed 3 percent. In addition, the grade of any street should in no case be less than five-tenths of 1 percent. And finally, street grades should be established so as to avoid excessive grading, the promiscuous removal of ground cover and tree growth, the unnecessary leveling of the topography, and the minimization of adverse impacts to other natural resource base features of the site.

Storm Water Drainage and Street Location: Wherever practical, streets should follow lines of natural storm water drainage.

Street Intersections, Alignment, and Half Streets: Street intersections, alignment, and half streets should follow the same design criteria outlined earlier for residential development.

Industrial-Related Blocks

General: The widths, lengths, and shapes of blocks should be suited to the planned industrial use of the land; subdivision ordinance requirements; the need for convenient access, control, and safety of street traffic; the adequate preservation of the minimization of adverse impacts upon the natural resource features of the City including the limitations of and opportunities provided by topography.

Block Width: Unless warranted by the protection and preservation of natural resource base features, blocks should be wide enough to provide for two tiers of industrial lots of appropriate depth. The width of lots or parcels reserved or designated for industrial use shall be adequate to provide for off-street service and parking required by the use contemplated and the area zoning restrictions for the use.

Industrial Lots

General: The size, shape, and orientation of lots should be appropriate for the type of development and use contemplated. Lots should be designed to provide an aesthetically pleasing building site and a proper architectural setting for the industrial buildings contemplated. Side lot lines, double frontage lots, and lot access should follow the same design criteria outlined earlier for residential development.

Lot Size: Area and dimensions of all industrial lots should conform (at a minimum) to the requirements of the City of Franklin Zoning Ordinance for industrial uses. Generally, however, minimum lot sizes in industrial areas shall be one (1) acre with minimum frontage of 150 feet.

Lot Shape: The shape or configuration of an industrial lot should not be so irregular as to hamper efficient development of the site. The shape of the lot should facilitate the development required by the industry locating on it, and should assist in promoting the assembly of individual lots into larger parcels of industrial property under one ownership. In this respect, industrial lots should typically be elongated to allow for the further amassing of the land to accommodate a variety of industrial user types.

Lot Depth: The depth of lots or parcels designated for industrial use should be adequate to provide for off-street service and parking required by the use contemplated. Industrial lots backing onto lands of a lesser intensity of land use shall have adequate depth to permit the designation of proper bufferyard areas which act as a buffer area between the two land uses. Lot depths which permit the assembly of individual lots to create large parcels of industrial property under one ownership shall be encouraged.

Lot Width: Lots within the interior of an industrial block should have the minimum average width required in the industrial zoning districts for the City.

Corner Lots: Corner lots should have an additional width, as required in the City of Franklin Zoning Ordinance, to provide for increased side yard setback from the second adjoining street.

Automobile Parking Lot Design Criteria

Site Placement of Off-Street Parking Lots: Employee off-street parking should not be permitted within the front yard setback line of any industrial lot. However, visitor or customer parking may be allowed within the front setback from the street right-of-way line when approved by the City Plan Commission.

Parking Spaces: Parking spaces for industrial uses shall be provided based, in part, upon standards derived from the Institute of Transportation Engineers Parking Generation--2nd Edition (Washington, D.C.: Institute of Transportation Engineers, 1987). Parking stalls should be added on each property as needed to accommodate all employees as building facilities expand. In addition, two percent of all parking stalls provided shall be properly designed for the physically handicapped.

Parking Lot Drive Width: Parking lot drives should be a minimum of 24 feet wide for two-way traffic and a minimum of 12 feet wide for one-way traffic.

Parking Lot Surfacing and Size: All off-street parking areas should be graded and hard surfaced so as to be dust free and properly drained and with concrete curb and gutter. Any parking area for more than five (5) vehicles should have the aisles and parking spaces clearly marked in order to distinguish between parking stalls and vehicular circulation areas. Minimum dimensions for parking lots are specified in the City of Franklin Zoning Ordinance.

Parking Lot Lighting: One (1) footcandle of uniform lighting should be provided all off-street parking lots which provide for ten (10) or more off-street automobile parking spaces. The luminaires used for such lighting should be of the cut-off type.

Easements, Stormwater Drainage, Erosion/Sedimentation Control: Design criteria for these elements of an industrial area should follow those already established earlier for residential development.

Landscaping

Urban Landscape Plant Selection: Landscape plantings are an important part of an attractive area. Landscape plantings have functional as well as aesthetic characteristics which would improve an area to a great extent. Plantings of trees and shrubs can provide shade and shelter, act as limited noise buffers and visual screens, assist in the channeling of pedestrian and vehicular traffic, act as wind breaks, and decrease insolation (incoming solar radiation) before it reaches the ground, thus preventing re-radiation (long-wave radiation) from asphalt and concrete surfaces. The City Plan Commission shall review all landscape plans for proposed development.

Parking Lot Landscaping: All off-street parking areas which serve five (5) vehicles or more shall be provided with accessory landscape areas totaling not less than five percent of the total surfaced parking area. The minimum size of each landscape area should not be less than 180 square feet. Location of landscape areas, plant materials, protection

afforded the plantings, including curbing and provision for maintenance, should be considered. Off-street parking should not be closer than ten (10) feet to the base building setback lines. Landscaping elements should be placed where they will not interfere with the act of parking, parking lot maintenance, vehicular egress and ingress, or snow removal.

Shade Tree Location: At least one shade tree of at least 1 1/2 inches in diameter at breast height should be planted for each 85 feet of frontage. Columnar varieties of shade trees may require shorter distances between plantings.

URBAN DESIGN CRITERIA FOR COMMERCIAL DEVELOPMENT EXCLUDING CITY "VILLAGE AREAS"

Vehicular Circulation

The vehicular circulation system serving commercial land uses in the City of Franklin should be developed for easy access to the commercial parking facilities from the community. Vehicular and pedestrian conflicts should be avoided where possible, and conflicts should be minimized where conflicts cannot be totally avoided. Arterial streets and highways should be designed in accordance with those arterial street cross-sections presented earlier in Table 6.4.

Limitation of Arterial Street and Highway Vehicular Access

Arterial Street and Highway Access and Street Intersections: No new direct public or private access shall be permitted to an arterial street or highway within 115 feet of the intersection of the right-of-way lines of another arterial street or highway. Where land parcel size permits, no new direct public or private access should be permitted to an arterial street or highway within 250 feet of the intersection of the right-of-way lines of another arterial street as shown earlier in Figure 6.17.

Arterial Street and Highway Access Barriers: Access barriers, such as curbing, fencing, landscaping, or other topographic barriers, should be erected to prevent undesirable vehicular ingress or egress to arterial streets or highways and to properly and safely channelize traffic movements. When a landscaped area is used as an access barrier, the width of such landscaped area should be a minimum of ten (10) feet as shown in Figure 6.19 or as specified by the bufferyard requirements of the City of Franklin Zoning Ordinance.

Limitation of Access to Arterial Streets: The design criteria outlined earlier for residential development should be used.

Looped Land Access Streets and Drives: Looped land access streets and drives should be used when feasible to assist in reducing the potential number of drive intersections along an arterial street or highway as illustrated in Figure 6.20.

Land Access Drive: Land access driveways should intersect each other at as nearly right angles as topography and other limiting factors of good design permit. Driveway entrances along both sides of an arterial should be aligned as illustrated in Figure 6.21 to assist in reducing the number of driveways needed and limit some of the confusion caused by unaligned driveways. Also, the use of shared driveways and parking lots in commercial areas should be promoted as shown in Figure 6.22. In such cases, the driveway centerline may be the property line between two parcels of land or may be a mutually agreed upon land access easement.

Driveway Design for Entering Vehicles: Driveway design in commercial areas should allow an entering vehicle a turning speed of 15 mph to assist in reducing interference with through arterial street traffic. Driveway design and placement should be in harmony with internal site circulation and off-street parking design such that the driveway entrance to the site can absorb the maximum expected rate of inbound traffic during a normal weekday peak traffic period.

Sight Distance and Driveway Placement: Direct access driveway placement on abutting arterial streets and highways should be such that an exiting vehicle has a minimum unobstructed sight distance according to Table 6.6 based upon the operating design speed of the abutting arterial street or highway.

Figure 6.19

MINIMUM DESIGN OF HIGHWAY ACCESS BARRIERS

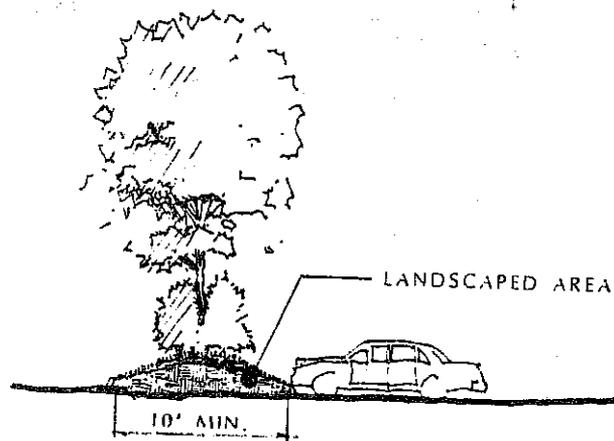
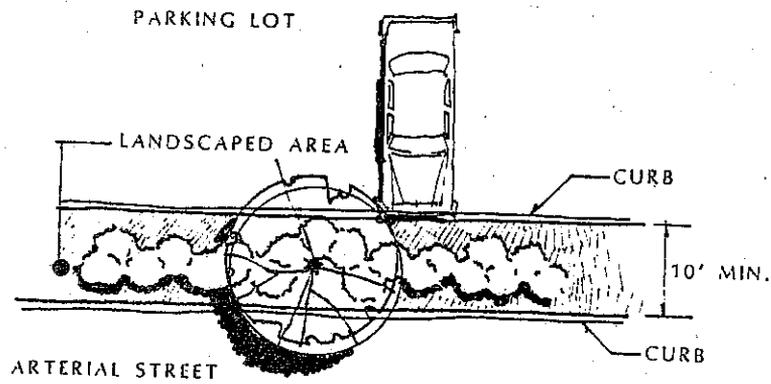


Figure 6.20

**DESIRABLE USE OF SHARED DRIVEWAYS AND
PARKING LOTS IN COMMERCIAL AREAS**

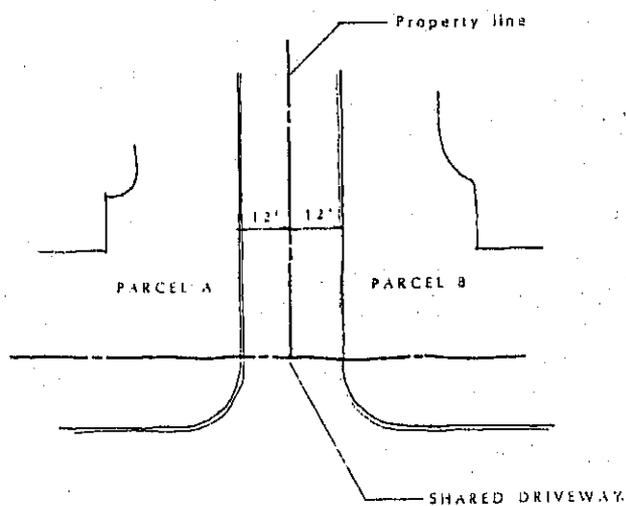
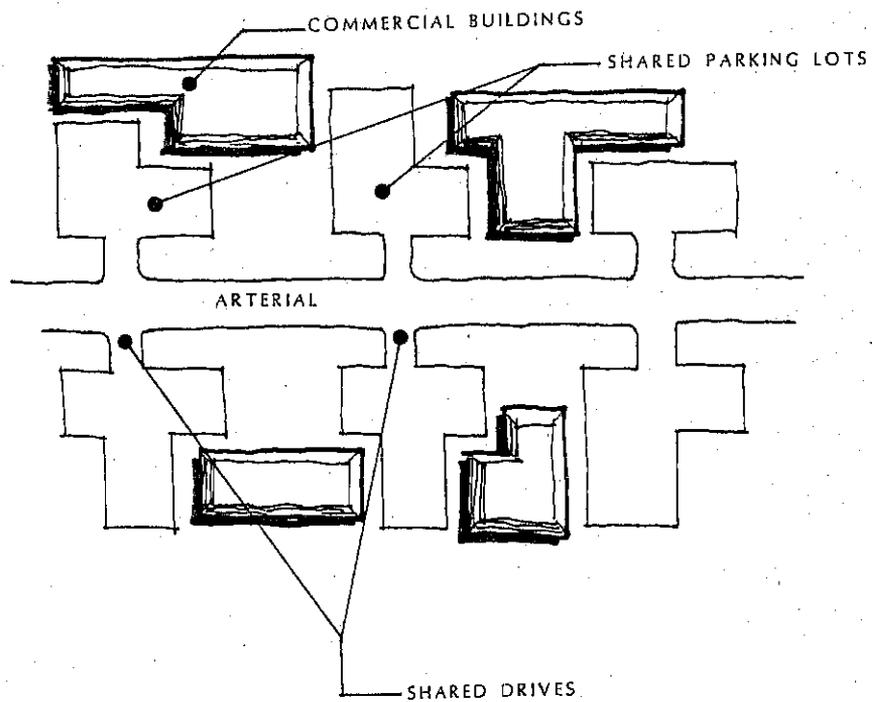
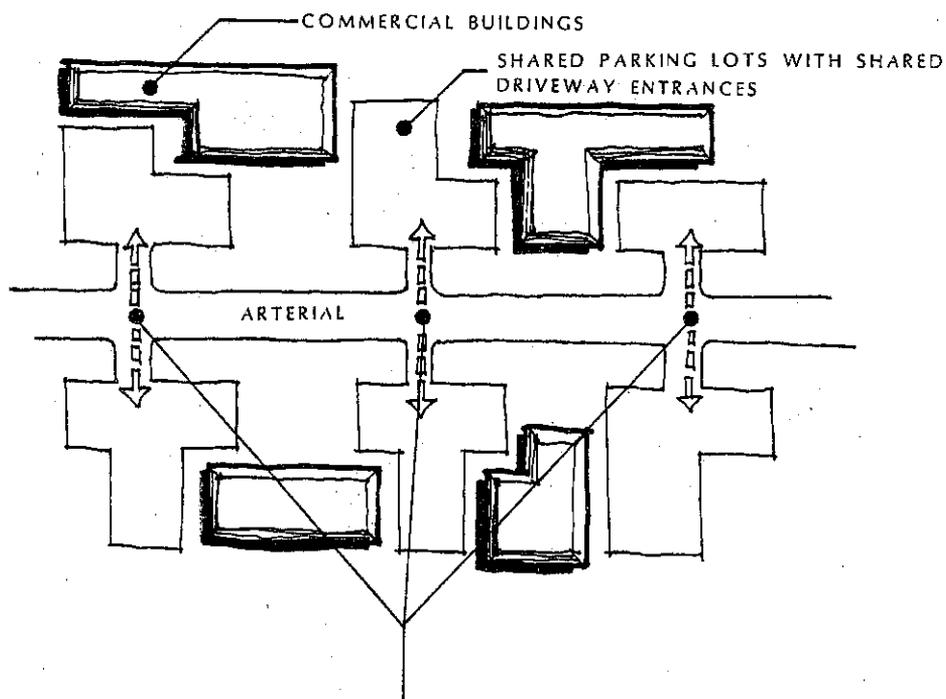


Figure 6.21

DESIRABLE DRIVEWAY ALIGNMENT ALONG ARTERIAL STREETS AND HIGHWAYS IN COMMERCIAL AREAS



ALIGNED DRIVEWAY ENTRANCES ON BOTH SIDES OF THE ARTERIAL HIGHWAY

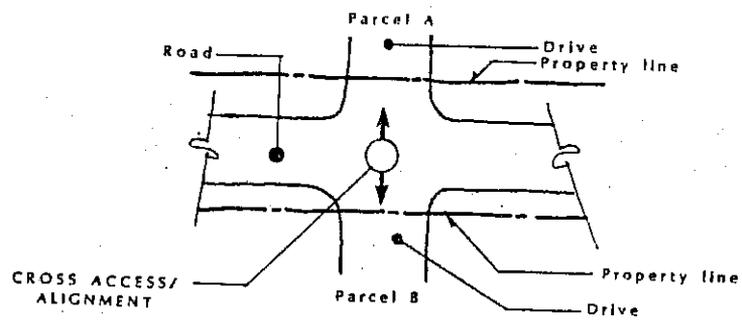


Figure 6.22

**DESIRABLE LOOPING OF LAND ACCESS STREETS
AND DRIVES IN COMMERCIAL AREAS**

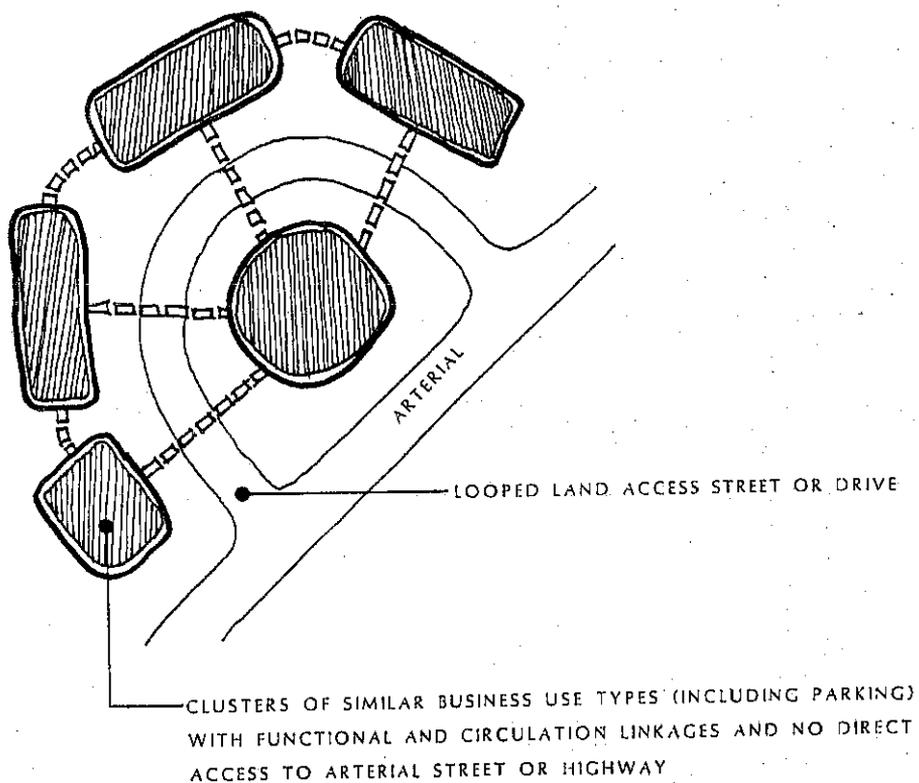


TABLE 6.6

**HIGHWAY DESIGN SPEED AND MINIMUM REQUIRED SIGHT
DISTANCE FOR DIRECT ACCESS DRIVEWAY PLACEMENT**

<u>Highway Design Speed (feet)</u>	<u>Minimum Sight Distance (feet)</u>	<u>Desirable Sight Distance (feet)</u>
30	200	200
35	225	250
40	275	325
45	325	400
50	400	475

*Source: American Association of State and Highway Transportation
Officials, 1984; Wisconsin Department of Transportation
Facilities Development Manual; and SEWRPC.*

Driveway Spacing: Driveway spacing should be determined as a function of arterial street and highway operating speeds. The minimum spacing between access driveways along an arterial street or highway should be determined according to Table 6.7. These spacings are based upon average vehicle acceleration and deceleration rates and are considered necessary to maintain safe traffic operation.

Maximum Number of Driveways per Parcel: Generally along arterial streets and highways, where abutting street frontage is less than 400 feet, a maximum of one driveway opening should be permitted to a particular site from each of any one or two abutting arterial streets and highways. One additional driveway entrance along a single continuous parcel of land with frontage in excess of 400 feet may be permitted by the City Plan Commission. When a shared driveway is used, it should be considered as one single direct-access driveway.

Parking Lot Access from Arterial Streets

Parking Visibility from Arterial Streets: Commercial parking lot entrances should be clearly visible from an arterial street or highway, have clearly marked entries and exists, and be visually distinguished from public rights-of-way.

Off-Street Parking: All parking areas in the City of Franklin serving commercial development shall be off-street. Parking perpendicular to arterial street rights-of-way with direct access to the right-of-way without a service drive, shall be prohibited.

Pedestrian Circulation

The pedestrian movement system in commercial areas shall form linkages between the various commercial activities and commercial sites. The system should not conflict with vehicular circulation or, if conflicts cannot be totally avoided, the conflicts should be minimized. Spatial sequences, visual aspects, and pavement texture should also be taken into consideration in the placement of sidewalks, so that the pedestrian is offered a variety of visually pleasing experiences which add to the pedestrian's overall enjoyment of the commercial area. Sidewalks shall be provided along all public rights-of-way of commercial land uses by the developer of such properties at the time of development. A minimum sidewalk width shall be five (5) feet. Provisions for the handicapped in sidewalk construction should also be made. In highway commercial areas, a pedestrian path system should be provided on both sides of the arterial where there are activities on both sides. A safe pedestrian crossing along such arterials shall be provided at least every 600 feet and preferably every 300 feet in areas of moderate to heavy pedestrian flow.

Table 6.7

**HIGHWAY OPERATING SPEED AND MINIMUM SPACING
BETWEEN DIRECT ACCESS DRIVEWAYS**

<u>Highway Speed Limit (mph)</u>	<u>Minimum Spacing (feet)</u>
25	105
30	125
35	150
40	185
45	230
50	275

Source: American Planning Association; the Wisconsin Department of Transportation; and SEWRPC.

Within commercial developments, off-street parking areas shall be separated from buildings with pedestrian walkways and planting areas not less than thirteen feet in total width. The foundation planting area along the building shall be a minimum of eight feet in width and the walkway shall be a minimum of five feet in width as illustrated in Figure 6.23.

Land Use Spatial Considerations

Commercial Business Clustering: Businesses with similar characteristics should form commercial clusters and be located within proximity of one another to better define identifiable commercial areas for the user, provide functional linkages between the various commercial use types, reduce travel distances, and provide circulation linkages for both vehicular and pedestrian traffic as illustrated in Figure 6.24. Businesses may be located to form the following five general types of clusters based upon use and general site area requirements:

Figure 6.23

**PEDESTRIAN WALKWAYS AND BUILDING FOUNDATION PLANTING
AREAS ADJACENT TO COMMERCIAL BUILDINGS**

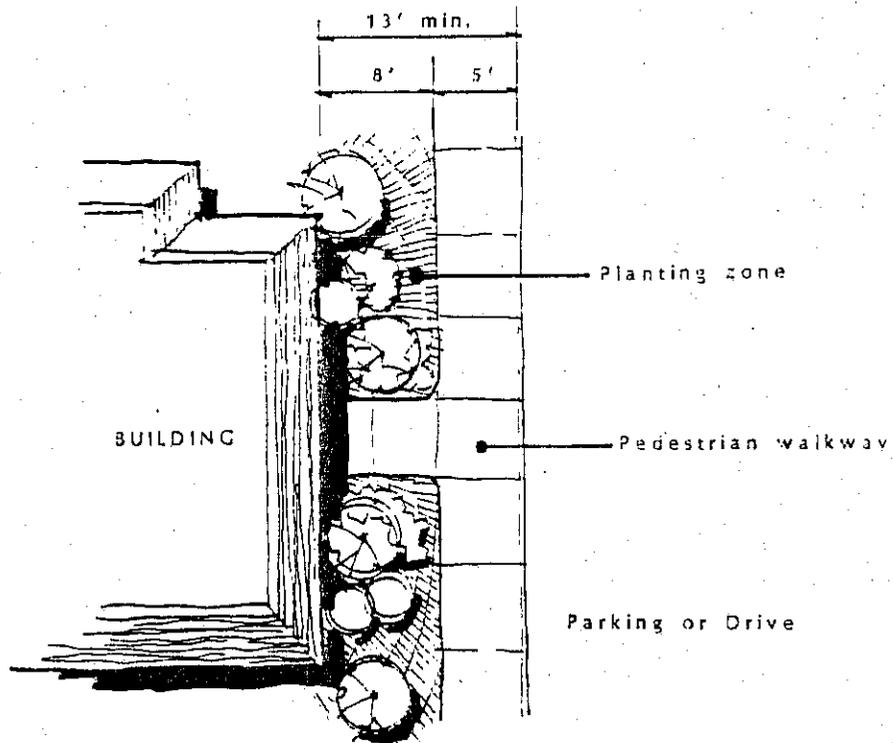
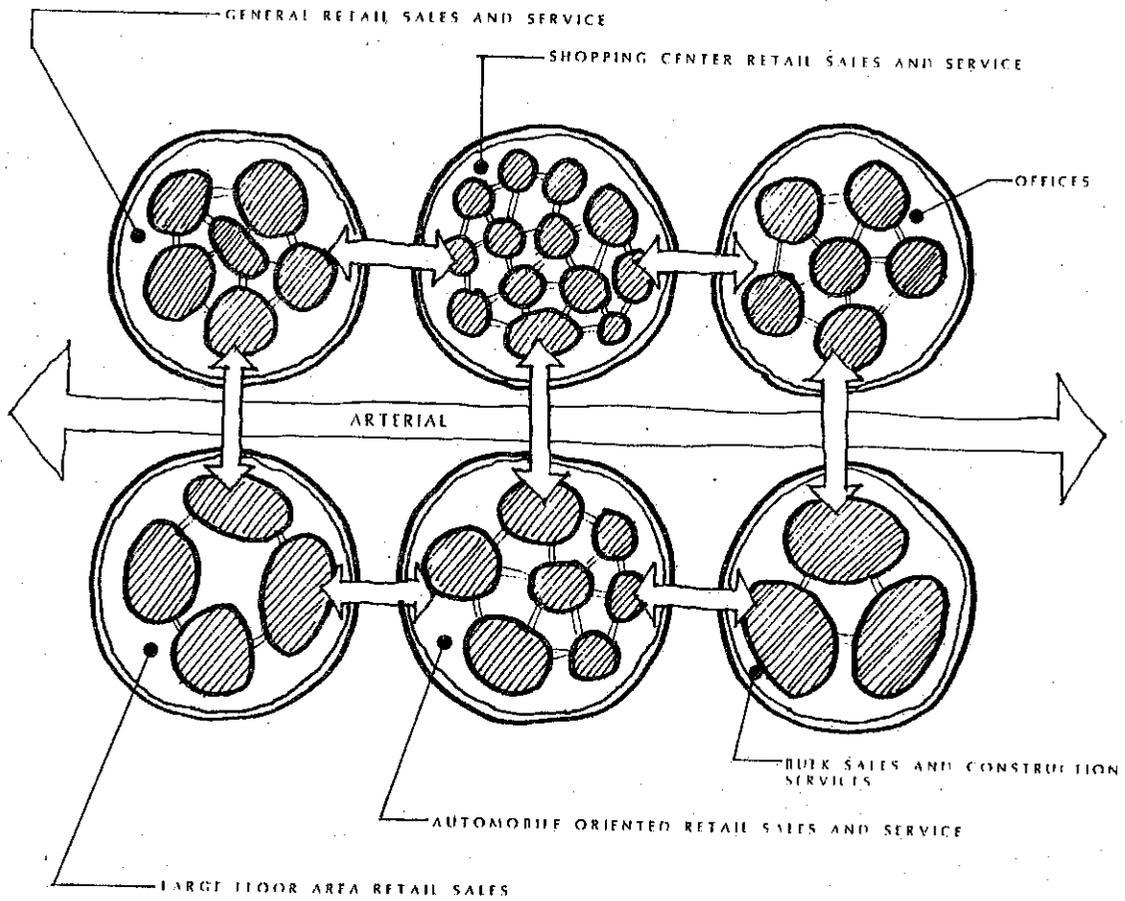


Figure 6.24

COMMERCIAL CLUSTER TYPES BY LAND USE TYPES



1. General retail sales and service characterized by on-site parking for customer automobiles and generally not a pedestrianized environment. Uses in this category would include general merchandise stores, food stores, apparel and accessory stores, drug stores, department stores, gift shops, personal services, banks/savings and loan institutions, and restaurants (not drive-in or drive-thru).
2. Shopping center retail sales and service characterized by on-site parking for customer automobiles and a pedestrianized shopping environment. Uses in this category would include general merchandise stores, food stores, apparel and accessory stores, drug stores, department stores, gift shops, personal services, banks/savings and loan institutions, and restaurants (not drive-in or drive-thru) in a shopping center environment.
3. Offices including professional offices, medical offices, dental offices and clinics.
4. Large floor area retail sales characterized by on-site parking for customer automobiles, customer off-street loading facilities, and a limited pedestrianized shopping environment. Uses in this category would include furniture sales, appliances sales, factory outlet stores, and garden centers.
5. Automobile-oriented retail sales and services characterized by sales and service to commercial customers in the automobile. These types of commercial uses are not pedestrian oriented on-site. Uses in this category include gasoline stations, automobile sales/service, bowling alleys, car washes, drive-in theaters, drive-in banking, drive-in/drive-thru restaurants, and motels.
6. Bulk sales and construction services characterized by on-site parking for customer automobiles, on-site outdoor areas for merchandise storage and sales, customer off-street loading facilities, and open outdoor pedestrian areas for bulk sales of merchandise. Uses in this category include building supplies, equipment sales, septic system service, and LP gas sales/storage.

Minimum Commercial Lot Sizes: Minimum lot sizes in certain designated commercial areas along arterial streets and highways should be one (1) acre with minimum frontage of 150 feet. In addition, commercial lot sizes should meet at least the minimum lot size requirements specified by the City Zoning Ordinance.

Internal Site Circulation

Vehicular Circulation Between Adjacent Properties: Provision for circulation between adjacent commercial uses should be provided through coordinated land access drives and/or jointly used parking lots as illustrated in Figure 6.22.

On-Site Vehicular Circulation: The vehicular circulation system within and around separate parcels of land should be developed so as to provide easy access to parking facilities from the larger community without destroying the safety or capacity of arterials. Vehicular pedestrian conflicts should be avoided where possible. Where conflicts cannot be totally avoided, conflicts should be minimized. Also, delivery and service circulation patterns on the site should not conflict with customer circulation.

On-Site Queued Vehicular Storage: There shall be sufficient on-site space to accommodate at least three (3) queued vehicles waiting to park or exit the parking lot without utilizing any portion of the arterial street right-of-way or in any other way interfere with arterial street traffic and safety. For drive-up services, queuing area to accommodate a minimum of ten (10) vehicles on-site shall be provided.

On-Site Parking Areas

Parking Lot Surfacing and Size: All off-street parking areas should be graded and hard surfaced so as to be dust free and properly drained and with concrete curb and gutter. Any parking area for more than five (5) vehicles should have the aisles and parking spaces clearly marked to distinguish between parking stalls and vehicular circulation areas. Minimum dimensions for parking lots are specified in the City of Franklin Zoning Ordinance.

Parking Spaces: Parking spaces for commercial land uses shall be provided based, in part, upon standards derived from the Institute of Transportation Engineers Parking Generation--2nd Edition (Washington, D.C.: Institute of Transportation Engineers, 1987).

Parking Lot Drive Width: Parking lot drives should be a minimum of 24 feet wide for two-way traffic and at least 12 feet wide for one-way traffic.

Parking Lot Lighting: Parking lot lighting in commercial areas should serve four purposes. First, the lighting should provide for the safe movement of pedestrian and vehicular traffic. Second, it should aid in the provision of an environment which promotes security and crime prevention. Third, the lighting should aid in creating an aesthetically pleasing environment at nighttime as well as during the daylight hours. Fourth, the lighting should assist in promoting the use of the commercial facilities both day and night.

Recommended illumination for commercial parking areas should be 1.0 footcandles. All other outside lighting should be arranged and shielded to prevent glare or reflection, nuisance, inconvenience, or hazardous interference of any kind on adjoining streets or residential properties. The design criteria specified in the City of Franklin Zoning Ordinance shall be used to construct outdoor lighting of parking areas.

Parking Lot Location: Parking lots should be so located on the site to minimize customer walking distances to the facility the parking lot is serving.

On-Site Service and Loading Areas

Service and loading areas should be located for easy service vehicle access. Service and loading areas should not conflict with pedestrian or general vehicular traffic in the area. Also, service and loading areas which are generally not aesthetically pleasing should be so oriented or designed to obscure visual contact from the customers of the area. On-site service and loading areas shall be designed using the minimum site design standards illustrated in Figure 6.25.

All garbage and trash containers or compactors, loading docks, oil tanks, bottled gas tanks, irrigation pumps, and the like, must be underground or screened from view with walls and/or landscaping. Such facilities shall be internalized within the site. Methods used must be architecturally compatible with the building architecture. High quality solid gates for trash enclosures are required similar to that shown in Figure 6.26.

Landscaping of Commercial Areas

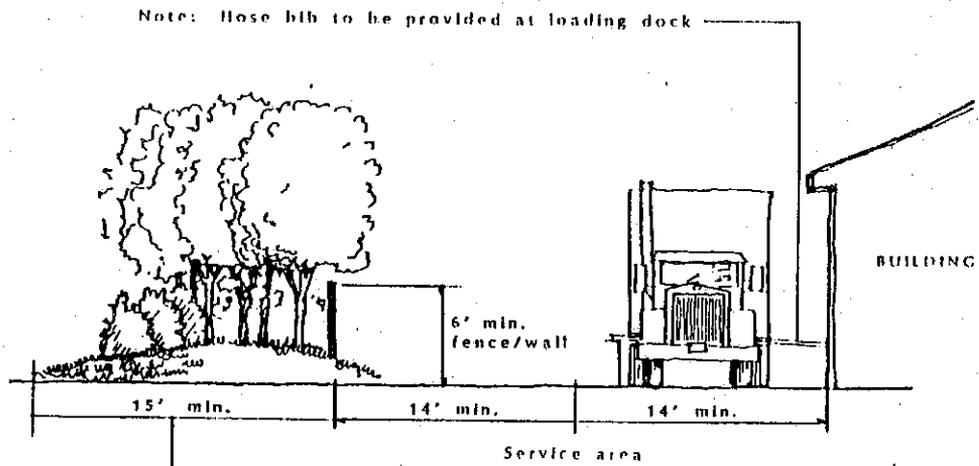
Landscaping design criteria for commercial areas shall follow those landscaping design guidelines described earlier for industrial areas.

Site Furniture and Amenities

Site furniture and amenities include a myriad of man-made objects which have the functions of serving pedestrian needs and adding visual variety in a commercial area. Site furniture and amenity items include lighting luminaires and posts, plant containers, street seating, fences and gates, handrails, drinking fountains, water fountains, sculpture, clocks, play equipment, bicycle racks, garbage receptacles, fire hydrants, telephones,

Figure 6.25

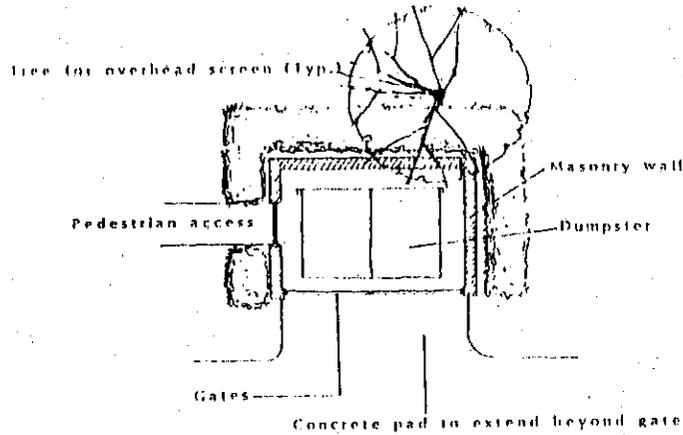
**MINIMUM SITE DESIGN CRITERIA FOR ON-SITE
LOADING AND SERVICE AREAS**



Screen service areas with heavy landscape material
(trees, shrubs & wall)

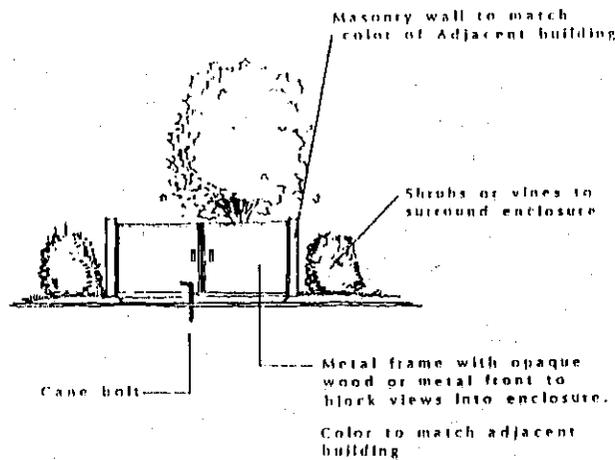
Figure 6.26

**MINIMUM CRITERIA FOR TRASH ENCLOSURES
WITH GATES, WALL AND LANDSCAPING**



Note: Hose bib to be provided

Plan



Note: 8' high wall provides screening
when lid is propped open

Elevation

bollards, kiosks, newspaper boxes, sun shading devices, parking meters, and signage. The design and placement of such items should contribute to the overall design theme of the commercial area, serving an aesthetic function as well as a utilitarian function, while adding a sense of design continuity and human scale.

Above-Ground Utilities

General: The location or relocation of above-ground utilities underground should be considered, since these wires detract from the overall appearance of the commercial area and typically add to visual clutter.

Utility Easements: Utility easements of widths adequate for the intended purpose, but not less than ten (10) feet on each side of all rear lot lines and on side lot lines or across lots, may be required by the City where necessary or advisable for electric power and communication wires and conduits; storm and sanitary sewers; and gas, water, and other utility lines. An easement should be provided for drainage purposes where a land division is traversed by a watercourse, drainageway, or street.

Storm Water Drainage and Erosion/Sedimentation Control

Storm water drainage and erosion/sedimentation control should be in conformance with the design criteria already established earlier in this chapter for residential development.

General Commercial Area Maintenance

A complete and thorough public maintenance program for public lands, as well as individual private maintenance programs in commercial areas, should be established to ensure attractiveness. Improvements to buildings and their continued positive appearance is dependent upon proper maintenance attitudes and procedures. However, during the urban design process, certain future maintenance requirements should be considered, including the provision of easy access for window and building facade cleaning, painting, and repairing and selecting building materials with an insight into their durability and future maintenance requirements. Maintenance programs should be established which include the watering, maintenance, and pruning of any landscape planting areas; the cleaning up of litter and emptying of trash containers in a timely fashion; sweeping, cleaning, and repairing of paved surfaces; and the care and maintenance of site furniture, replacement of broken and/or vandalized parts, and the replacement of burned out light bulbs.

"VILLAGE AREAS" URBAN DESIGN CRITERIA

Vehicular Circulation

The vehicular circulation system should be developed for easy access to the City of Franklin "village areas" parking facilities from the community. Vehicular and pedestrian conflicts should be avoided where possible. Where conflicts cannot be totally avoided, conflicts should be minimized. Also, delivery and service circulation patterns should not conflict with customer circulation. The vehicular circulation system should also provide visually pleasing experiences to the motorist.

Parking

Parking spaces in the City of Franklin "village areas" should be provided pursuant to City Zoning Ordinance requirements. The size and design of parking areas in the "village areas" should be such that the character of the City of Franklin "village areas" is maintained, and parking areas should be attractively landscaped. The walking distance between parking and commercial areas should be minimized.

Delivery and Service Areas

Service and loading areas in the City of Franklin "village areas" should be located for easy service vehicular access. Service and loading areas should not conflict with pedestrian or vehicular traffic in the City of Franklin "village areas." Also, service and loading areas which are generally not aesthetically pleasing should be so oriented or designed so as to obscure visual contact from the customers of the area. The site design criteria illustrated in Figure 6.25 shall be used where possible.

Pedestrian Circulation

The pedestrian movement system in the City of Franklin "village areas" should form linkages between the various activities in the "village areas." The system should eliminate conflict with vehicular circulation or, if conflicts cannot be totally avoided, the conflicts should be minimized. Spatial sequences, movement patterns, visual aspects, and pavement texture should also be taken into consideration in the placement of new sidewalks, so that the pedestrian is offered a variety of visually pleasing experiences adding to the pedestrian's overall enjoyment of the City's "village areas." A recom-

mended minimum minor sidewalk width is five feet but can be larger depending upon the design intent. Provisions for the handicapped in sidewalk construction should also be made pursuant to Section 66.616 of the Wisconsin Statutes.

Village Area Landscape Plant Selection

Landscape plantings are an important part of an attractive "village area." Landscape plantings have functional as well as aesthetic characteristics which would improve the "village areas" to a great extent. Plantings of trees and shrubs can provide shade and shelter, act as limited noise buffers and visual screens, assist in the channeling of pedestrian and vehicular traffic, act as wind breaks, and decrease insolation (derived from incoming solar radiation) before it reaches the ground, thus preventing re-radiation (long-wave radiation) from asphalt and concrete surfaces.

Street Lighting

Generally, primary lighting luminaires in the "village areas" should be mounted on posts at a height of 10 to 15 feet. This height allows for the lighting to relate to both human and building scale. Where deemed necessary by the City Plan Commission, lighting fixtures or luminaires should be placed so that light overlaps at a height of about seven feet. Post and luminaire design should reflect the overall character of the City of Franklin "village areas." Recommended overall illumination for the City of Franklin "village areas" should be about 2.0 footcandles.

Street Furniture

Street furniture includes a myriad of man-made objects which serve the functions of adding variety and serving pedestrian needs in a "village area." Street furniture items include lighting luminaires and posts, plant containers, street seating, fences and gates, handrails, drinking fountains, water fountains, sculpture, clocks, play equipment, bicycle racks, garbage receptacles, fire hydrants, telephones, bollards, kiosks, newspaper boxes, sun shading devices, parking meters, and signage. The design and placement of such items should contribute to the overall design theme of the City of Franklin "village areas," serving an aesthetic function as well as a utilitarian function, while adding a sense of design continuity and human scale to the "village areas."

Above-Ground Utility Wires

In the "village areas," the relocation of above-ground utilities either underground or, where possible, to alleys, should be considered, since these wires detract from the overall appearance of the "village areas" and typically add to visual clutter.

General Maintenance

A complete and thorough public maintenance program, as well as private maintenance programs in the "village areas" should be established or maintained to ensure the attractiveness of the area. Improvements to building facades and their continued positive appearance is dependent upon proper maintenance attitudes and procedures. However, during the urban design process, certain future maintenance requirements should be considered, including the provision of easy access for window and building facade cleaning, painting, and repairing and selecting building materials with an insight into their durability and future maintenance requirements. A maintenance program should be established or maintained which includes the watering, maintenance, and pruning of any landscaping planting areas; the cleaning up of litter and emptying of trash containers in a timely fashion; sweeping, cleaning, and repairing of paved surfaces; and the care and maintenance of street furniture, replacement of broken and/or vandalized parts, and the replacement of burned out light bulbs.

COMMERCIAL AND "VILLAGE AREA" ARCHITECTURAL DESIGN

The following architectural design criteria are set forth to serve as a guide for both the City Plan Commission and the City's Architectural Review Board. These various design criteria should assist both of these bodies in reviewing the architectural appearance plans of proposed developments in highly visible commercial areas of the City. These criteria address such issues as commercial streetscape facades; front yards, rear yards, and side yards; urban scale and mass; streetscape rooflines and roof shapes; materials; colors; architectural details; accessory buildings; and mechanical equipment for commercial districts.

Commercial Streetscape Facades

Generally, the structural shapes of buildings, their proportions, the placement of openings such as door or windows, the placement of signs, and various other building details all contribute to the overall commercial streetscape appearance--in both the general commercial areas of the City as well as in its "village areas" such as St. Martins. Although the building facades of two adjacent buildings may be different, their overall appearance can be made compatible through the proper use of these visual elements. Individual building facade treatment plans should be developed based, in part, upon the design character of the surrounding commercial area and the various urban design criteria set forth in this Plan, thus assuring a degree of compatibility of architectural design with neighboring structures.

In the "village areas" such as St. Martins, many of the storefronts, store entries, and general urban facades still retain to some degree their original architectural character. Every effort should be made to enhance or recapture this original character. While it is recognized that the St. Martins area has not received National Register of Historic Places status, this may be done pursuant to the standards promulgated by the U. S. Secretary of Interior for historic preservation projects for buildings of local historic significance.

Canopies and awnings, in addition to providing shade from direct sunlight and providing protection to pedestrians from elements of the weather, can both preserve and promote the overall visual horizontal continuity of the "village areas" and can assist in the development of a uniform and visually compatible signage system. Maintaining the cornice or soffit line of a building or group of buildings also assists in assuring horizontal continuity and maintaining scale.

Front Yards, Rear Yards, and Side Yards

Front, rear, and side yards should be kept clean and proper garbage receptacles used. Other unsightly features should be covered from view in a creative fashion. Entrances which are used by the general public should provide a walkway which exhibits safe and attractive features including landscape plantings when practicable. Where a building site and/or yard is exposed to public view, consideration of its urban features should be given to its impact on the surrounding area. Setbacks should be determined by the City of Franklin Zoning Ordinance.

Urban Scale and Mass

The relative proportion or scale of a building to its neighboring buildings, of a building to the pedestrian or observer, or of a building to the surrounding area, in general, should be considered when new commercial buildings are built or when existing commercial buildings are remodeled or altered. A number of visual elements which contribute to this overall scale and mass in commercial areas include: the visual rhythm and proportion of the elements of the building facades, the architectural detailing, the visual directional emphasis of the streetscape (which can be either horizontal or vertical line direction), the symmetrical or asymmetrical character of the building facades, the mass of individual buildings; the presence or absence of landscape planting materials; the size and configuration of site open spaces; the use of building materials; the use of color, building height, and width; and the presence or absence of street furniture. These elements of urban scale and mass should be considered whenever possible to create an attractive environment. Figure 6.27 illustrates an example of the relationship of urban scale to the commercial streetscape.

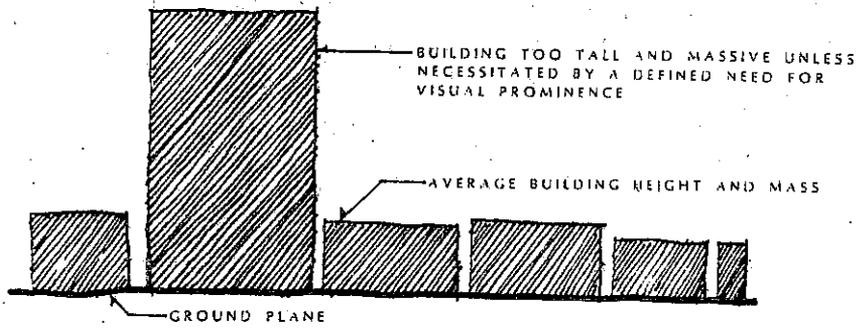
Streetscape Roof Lines and Roof Shapes

The upper edges of building roofs or roof lines visually define the upper edge or height of the building and/or streetscape. The visual continuity of these roofline urban design elements should be maintained if warranted. Building development or redevelopment with opposing roof lines should be discouraged. Figure 6.28 illustrates the relationship of roof lines and roof shapes to an overall commercial streetscape.

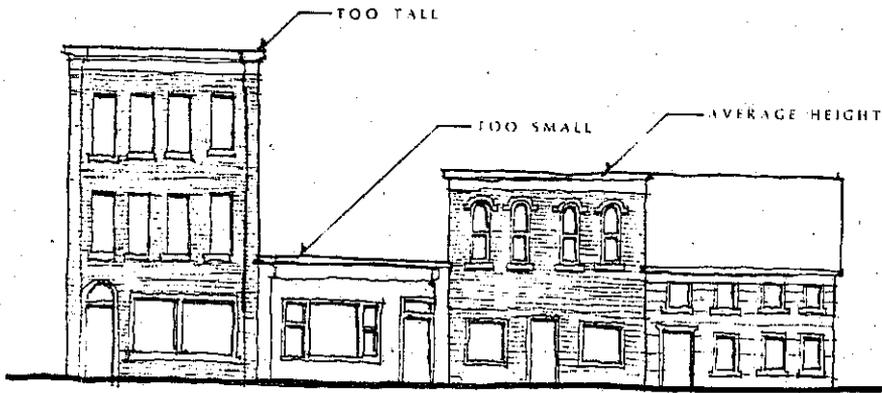
The majority of the roofs in St. Martins are easily viewed from the road. The roof lines and parapet walls of many of these structures have pronounced and similar details which create both interest and visual unity among some of the structures. These upper edges of the buildings visually define the upper edge or height of the building and/or streetscape. The visual continuity of these urban design elements should be maintained if warranted. Building development or redevelopment with opposing roof lines should be discouraged.

Figure 6.27

URBAN SCALE AND MASS OF COMMERCIAL BUILDINGS



GENERAL COMMERCIAL STREETSCAPE SILHOUETTE
AS VIEWED FROM PASSING AUTOMOBILE

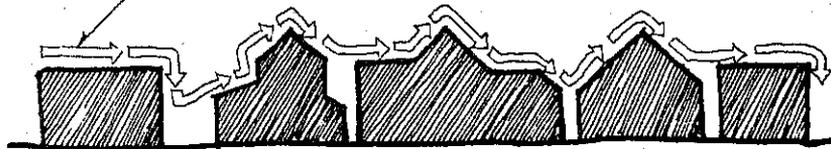


VILLAGE AREA STREETSCAPE ELEVATION AS VIEWED BY THE PEDESTRIAN

Figure 6.28

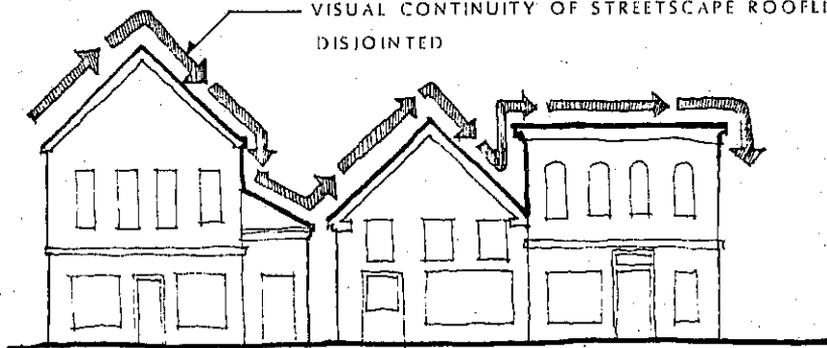
COMMERCIAL STREETSCAPE ROOFLINE AND SHAPES

DISJOINTED CONTINUITY OF STREETSCAPE ROOFLINES
CAUSED BY A VARIETY OF ROOF SHAPES AND HEIGHTS



GENERAL COMMERCIAL STREETSCAPE SILHOUETTE
AS VIEWED FROM PASSING AUTOMOBILE

VISUAL CONTINUITY OF STREETSCAPE ROOFLINE IS
DISJOINTED



VILLAGE AREA COMMERCIAL AS VIEWED BY PEDESTRIAN

Materials

Material selection for both architectural and landscape design in commercial areas should be based upon several areas of concern including material unity, the atmosphere desired, the material composition of surrounding buildings and landscape features, the material compatibility with other materials, and climatic considerations. Through the use of predominant materials--that is, compatible materials which are found on other buildings in the City--the overall building facade texture of commercial areas will be maintained. Conflicting material use and relationships, such as those shown in Figure 6.29, should be avoided.

Colors

The selection of colors for privately owned commercial buildings is generally an individual decision. However, the use of colors does have significant effect upon the overall appearance of a commercial area. Colors should be selected based upon the colors of the existing surrounding man-made environment and the natural environment. Colors which clash with the overall visual character of the commercial area should be avoided and discouraged.

Architectural Details

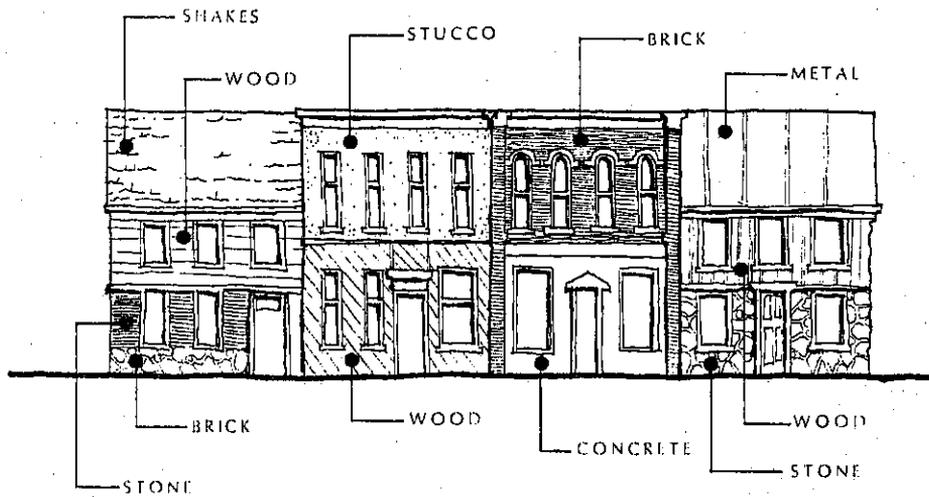
Architectural details and building ornamentation (if present) often represent historic elements of architecture and are important components of the overall character of a commercial area. The distinctiveness of older commercial buildings is directly associated with their architectural details. Unsympathetic design changes on a building can destroy both the architectural character of a building and the overall commercial streetscape as well. Significant architectural details, where they exist, should not be lost in rehabilitation or "modernization" of existing buildings. Remodeling efforts should attempt to retain any rich architectural details. Efforts to transform an existing building into an earlier period through the use of details that were not originally used on the structure do not usually retain the original architectural integrity of the building. Consequently, if there is an introduction of modern detail or a mixture of old and new parts on the building, the overall visual character of the building should not be spoiled.

Accessory Buildings

Accessory buildings and structures in commercial areas should be compatible with principal structures in terms of building facade, character, scale and mass, roof lines and

Figure 6.29

**THE USE OF MATERIALS ON COMMERCIAL
STREETSCAPE FACADES**



THE USE OF MANY CONFLICTING MATERIALS
RESULTS IN VISUAL CHAOS

roof shapes, materials, colors, and architectural details, particularly if these accessory structures are visible from public areas.

Mechanical Equipment for Commercial Buildings

Mechanical equipment visible from public areas should be installed to be unobtrusive and/or shielded from view. Rooftop and grade level mechanical equipment should be effectively screened from public view.

Signage

In addition to conforming with the rules and regulations of the City's sign ordinance, signs should be designed so that they keep the overall character of the area where they are being placed and its buildings. Lettering on signs in the City should be functional as well as visually pleasing. Truly functional lettering is of a type-face which is properly spaced, is easy to read, and makes its message clear from the distance it is intended to be read. Generally, the fewer the words on the sign face, the more likely people will be able to read the sign with ease.

Since the building facades in the "village areas"(St. Martins) have predominantly flat storefronts and are oriented parallel to streets, flush mounted face signs should be used. Standard "franchise" and "brand name" signs should be avoided.

Signs should be placed in visually pleasing and logical places of the facade which can include areas of the building facade which are void of openings, projections, and architectural details. Signage height should be consistent between stores in the same streetscape facade.