

Mobility

5.1 INTRODUCTION

A successful, thriving community depends, in part, on a well-planned transportation system. The system must address mobility needs at all levels, from the passer-by or cross-town traveler seeking a direct and uncongested route, to a resident focused on safe streets and convenient access to nearby, routine destinations. Options are essential, both in terms of ways to move around the city (via car or by transit, bike, or on foot) and multiple, alternative paths to get places.

The purpose of this chapter is to ensure orderly development, extension, and improvement of Valparaiso's transportation system, both within the corporate limits and throughout the future growth areas. The approach is "multi-modal" by considering not only facilities for automobiles but other modes of transportation as well, such as buses, pedestrian and bicycle circulation, public transit, and freight movement. The scope ranges from local neighborhood streets to local and major collectors and minor and principal arterial roadways, plus linkages to the region, state, and nation through regional expressways, county and state highways, and interstates, as well as air transport and the potential for commuter rail in the future.

This chapter also works hand-in-hand with *Chapter, 2, Land Use and Community Character*, by highlighting the need to establish and protect the distinct character of particular districts, neighborhoods, and corridors. From a transportation perspective, this may be accomplished through roadway design that is sensitive to its natural and built surroundings, as well as through a commitment to "complete streets" (see insert) improvements in areas where walking, biking, and/or transit uses are as much or more important than getting places by car. Options should apply not only in terms of offering different modes of transportation, but also multiple travel routes and choices on the roadway system. Providing improved mobility also requires promotion and regulation of compact development patterns that encourage alternative land use patterns and thus, shorter trip lengths and reduced vehicle miles of travel (i.e., mixed use developments and compatible commercial uses integrated within or in close proximity to neighborhoods).

Complete streets (sometimes referred to as livable streets) are roadways that are designed and operated to enable safe, attractive, and comfortable access and travel for all users, including pedestrians, bicyclists, motorists, and public transport users of all ages and abilities. Official policies that encourage or require such accommodation are known as complete streets policies. The often referenced reasons for complete streets is because they claim to improve safety, lower transportation costs, provide alternatives to private cars, encourage health through walking and biking, create a sense of place, improve social interaction, and generally improve adjacent property values.

Source: Wikipedia



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The transportation system has a strong influence on the type and quality of growth and should, therefore, be closely coordinated with the community's land use goals and policies for achieving improved community character.

City staff, a Comprehensive Plan Steering Committee, and significant cross-sections of citizens, stakeholders, and local officials participated in kick-off meetings in September 2011. In November 2011, the Comprehensive Plan Steering Committee participated in thoroughfare planning exercise at which time they provided input as to existing mobility constraints and both proposed and needed roadway extensions, new alignments, and other street and intersection improvements. These engagement processes revealed a number of key transportation issues, which are incorporated in this chapter. During this exercise, the group also highlighted the City's continuing commitment to making intersection improvements, including the installation of roundabouts.

5.2 PLANNING CONTEXT

Valparaiso's transportation system is unique in many ways. Among them is that the community is within a one hour drive to the Chicago metropolitan area (third largest in the U.S.); it is proximate to both I-80 (connecting eastward to Toledo and Cleveland, OH and New York, NY and West to Omaha, NE; Denver, CO; Salt Lake City, UT; Reno, NV; and Sacramento and San Francisco, CA) and I-65 (extending north to its intersection with I-80/I-94 and south through Indianapolis, IN; Louisville, KY; Nashville, TN; Birmingham and Montgomery, AL; to Mobile, AL); and, as a University community, it attracts significant external traffic for sporting and other special events and generates a higher propensity for non-vehicular trips due to student trip movements. For these reasons, existing conditions that warrant consideration in Valparaiso's mobility planning include those outlined below.

Regional Roadway System

Valparaiso is situated along U.S. 30 and SR-49, which provide good east-west and north-south intrastate access. These roadways connect to major freeway and highway connections to the north (I-80/I-94), and west (I-65). These area roadways provide efficient, convenient access to the larger cities and markets throughout Indiana, Illinois, and the surrounding states.

While access to the south is currently limited and may warrant improvement in the future, the lack of major destinations in that direction renders this issue a low priority until the location of the Illiana Expressway is finalized, for which the general location is displayed in **Figure 5.1, Illiana Expressway**. At that point, the City should consider amending this chapter and the Official Intermodal Transportation Plan (hereinafter referred to as the Thoroughfare Plan) to determine the means of connecting its street system to the new expressway.



The Comprehensive Plan Steering Committee invested countless hours in their significant contributions to this Plan and its policies and directions.

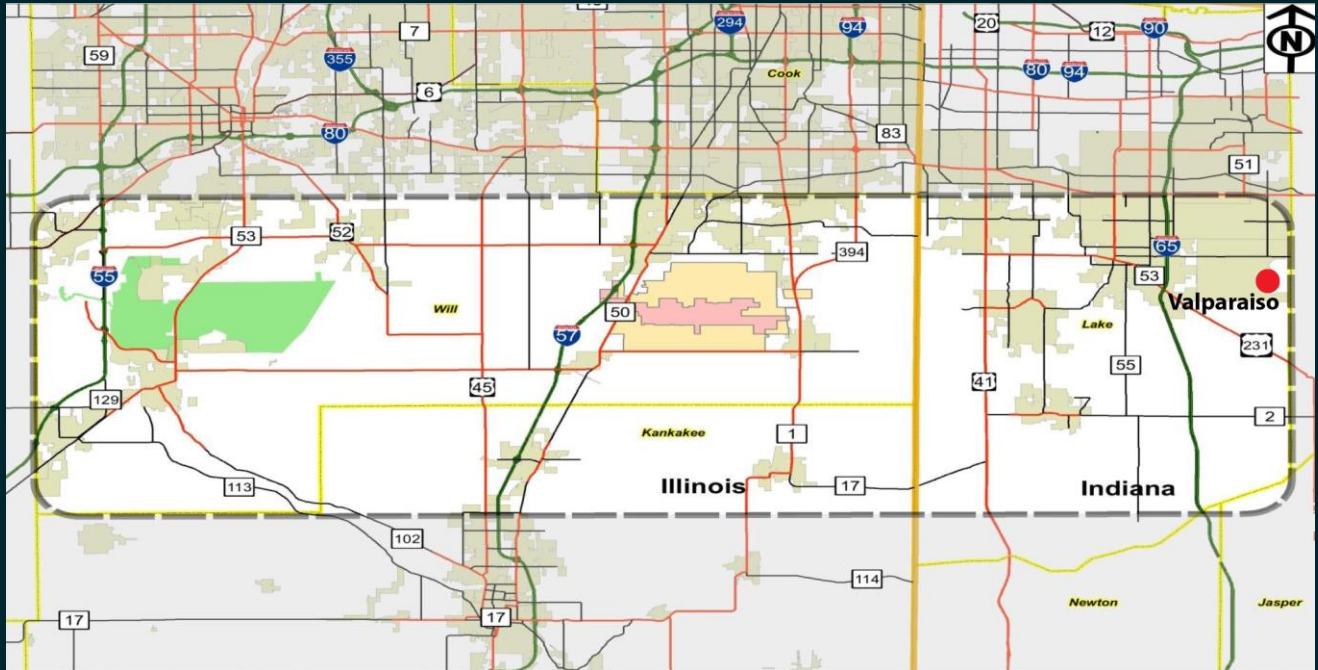


There are several major roads that traverse the City and carry pass-through traffic. The community is highly accessible from all directions. U.S. 30 and the combined SR-130/SR-2 provide good east-west connectivity. These state

routes function as a bypass, whereas U.S. 30 is a “business” roadway, conveying traffic through the southern part of Valparaiso. SR-2 provides access from the south to U.S. 30. Lincolnway / SR-130 is a highly travelled east-west corridor that carries traffic through Downtown and the heart of Valparaiso.

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Figure 5.1, Illiana Expressway



In 2010, legislation was signed to bring Indiana and Illinois together to build the Illiana Expressway, connecting I-55 from south of Joliet to I-65 near Lowell, Ind. The Illiana Expressway will connect drivers on I-55 in Western Will County to I-65 in Lake County, IN. In addition, the Illiana Expressway will serve as an alternate route for motorists traveling the I-90/94 corridor.

Source: Illinois Department of Transportation

SR-49 is an improved four-lane divided roadway from U.S. 30 north to I-94. To the south, it transitions to a two-lane rural highway. The former route of Old SR-49 is known as Calumet Avenue, which is fronted by a significant portion of the City’s older commercial development. There is a lack of east-west mobility in the northern half of the City. On the western side there is also a need to improve north-south connectivity between U.S. 30 and West Lincolnway/SR-130, which should link to Downtown and serve as a new gateway corridor entering the community from the northwest.

Other opportunities for gateways are where SR-2 and U.S. 30 intersect with SR-49. Eventually, the City hopes to coordinate efforts to bring commuter rail



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to the City on the western end near Lincolnway/SR-130, providing another opportunity for a gateway in the area known as “Central Place”.

Current Thoroughfare Plan

The City’s Official Thoroughfare Plan was adopted in 2003 with an associated Intermodal Transportation Plan included as a chapter of the Comprehensive Plan. The plan identifies two functional classes of roadways, including collectors and arterials. Collectors are the roadways that connect local roads to the larger arterial street network. Good examples of collector roads are Harrison Boulevard, Evans Avenue, Glendale Boulevard, and within the planning area, Tower Road through Aberdeen. Each of these collectors is fed by the local residential streets.

The arterial roadway classification is designed and intended to carry the highest volumes of local traffic within and through the community. These facilities have greater rights-of-way, are designed with four or five lane cross-sections, and carry traffic longer distances. Examples of arterial roadways are Lincolnway/SR-130, Vale Park Road, Calumet Avenue, Campbell Street, and Silhavy Road.

The 2003 plan also included a third designation, identifying unimproved gaps in the Thoroughfare Plan. These included:

- A northern extension of Silhavy Road from its current termination at Burlington Beach Road, curving back west to tie into Calumet Avenue;
- Two connections of Vale Park Road – one between Froberg Road and Campbell Street and a second completed connection between Campbell Street and Valparaiso Street;
- A continuation of Campbell Street south of Lincolnway/SR-130;
- A completed extension of Chicago Street east of Silhavy Road; and
- Extensions of both Eisenhower Avenue and McCord Road from their current termini to Calumet Avenue.

The Official Thoroughfare Plan follows typical roadway planning conventions by focusing on collectors and arterials. However, it appears to oversimplify the classifications, and their cross sections do not distinguish between different character areas. For example, Lincolnway/SR-130, U.S. 30, SR-49, and Burlington Beach Road are all shown as arterials, implying that they should all be built to the same standard. Yet, each of these roadways is in its own unique context, and traverses areas of different character. Roads like E. Lincolnway/SR-130 (particularly between S. Campbell Street and Michigan Street) are urban in character while the remaining sections of Lincolnway/SR-



130 and other arterial roadways have an auto-urban character. Still others like Burlington Beach Road and W. Harrison Boulevard are of suburban character. All of the major roadways that have a relatively narrow right-of-way eventually transition to a rural character as they leave the City.

These different character types should be reflected on the plan, each with corresponding cross-sections that distinguish their character. These cross-sections do not affect the functional design of these roadways. Rather, the differences in cross-section relate to the width of rights-of-way, number and width of lanes, width and treatment of parkways and medians, accommodation of pedestrians and bicycles, and other streetscape amenities. Also affecting the character of these areas is the site and building design on the abutting property, which is addressed by the character designations of the Future Land Use and Character Plan (refer to *Chapter 2, Land Use and Character*).

Growth Impacts

Valparaiso's steady population growth has impacted its street system as people travel to and from work, school, shopping, and other destinations. As a result, the service levels of some roads has deteriorated or become more congested and less safe. The City has responded with capital improvements aimed at increasing roadway capacity and improving intersections, including strategies for traffic calming and aesthetic enhancements, such as the roundabouts. The policies guiding the direction of future growth are outlined in *Chapter 7, Growth Capacity*.

Airport

The Porter County Regional Airport is managed by a six member Porter County Regional Airport Authority Board and an Airport Director. This is the second largest and busiest airports in terms of Fixed Based Aircraft in the State of Indiana. It serves local general aviation needs, as well as corporate air service. The airport has two runways – an east-west runway that is 7,000 feet long and a north-south runway that is 4,000 feet long. There are ongoing plans for the airport to expand its facilities and services. The Airport Authority is partnering with the City and Porter County to study the area around the airport in order to ensure that development is appropriate and will complement the long-term plan for airport operations. The Airport Zone Development Plan It is anticipated that the focus will be on office and light industry uses that will support, and will be supported by, airport services. This planning effort is further supported by the City's desire for additional vacant and shovel-ready land to attract and accommodate its target industries.

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 The logo for ENOVISION 2030 VALPARAISO. It features the word "ENOVISION" in a bold, sans-serif font, with a stylized "O" that is a circle containing a smaller circle. Below "ENOVISION" is the year "2030" and the word "VALPARAISO".

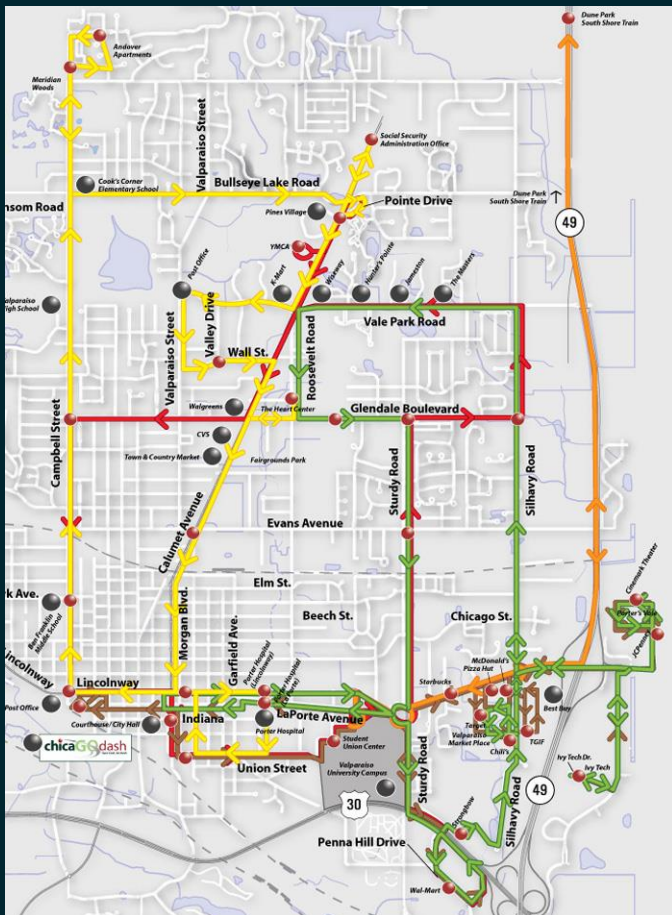

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Transit – Bus Service

The City offers bus service around Valparaiso and to the South Shore commuter train, as reflected by **Figure 5.2, Routes of the V-Line**. There are five routes, three of which provide access to Valparaiso University. The green and brown lines provide access to Downtown and the business hubs located on Silhavy Road and Porter's Vale Shopping Center. The yellow line provides access to the shopping strip along Calumet Avenue. The green, yellow, and red lines provide connections to residential areas. The orange line is a direct connection to the South Shore train. All lines run during varying times, depending on ridership needs.

Figure 5.2 Routes of the V-Line



Source: <http://www.ci.valparaiso.in.us/index.aspx?nid=499>

The City also provides bus service to and from Chicago. Termed “ChicaGo Dash”, the service runs out of the Valpo Village Station, located in the Central Place area just off Lincolnway/SR-130 adjacent to Downtown. The line connects with three areas in Chicago – one at North Michigan Avenue/West Randolph Street and another at West Wacker/North LaSalle Street. Morning drop-off and evening pick-up occur at South Franklin / Van Buren.

Transit – Commuter Rail

The South Shore commuter rail, owned and operated by the Northern Indiana Commuter Transit District (NICTD), provides service from a station in Dune Park to four separate locations in downtown Chicago. It makes six stops before reaching the outer edges of Chicago and within Chicago, the line makes four additional stops before reaching the Millennium Park station in Chicago.

As discussed in *Chapter 3, Sustainability*, the City has considered its own commuter rail connection to Chicago. The train depot location on Campbell Street just south of Lincolnway / SR-130 was chosen as the ChicaGoDash station in anticipation of a commuter train station as well. Recent studies have shown that, at this time, ridership would be too low to justify initiating the program. However, the concept warrants

revisiting in the future to improve commuter access to and from Chicago and thus, aid the City to continue its healthy, steady pace of growth.

Ongoing Improvements

The City has recently installed roundabouts at Lincolnway / SR-130 and Sturdy Road, Cumberland Drive and Cumberland Crossing Drive, and at



Vale Park Road and Silhavy Road. There are also plans to install roundabouts at Five Points. In addition, a new sidewalk connection was installed along Lincolnway / SR-130, extending from the edge of Downtown east to Garfield Avenue toward Valparaiso University. Other improvements may be made by the Redevelopment Commission who has jurisdiction within several different Tax Increment Financing (TIF) districts to make roadway improvements in and around each district.

Potential New Traffic Generators

There are several new businesses and developments that will alter traffic patterns and create increased demands on local and regional infrastructure. These include:

- The construction of the new Porter Hospital at the intersection of U.S. 6 and SR-49 will bring additional traffic to the area. The project is also sparking interest in the area from other related and complimentary health care service providers. Support services, such as hotels and restaurants, are likely to be constructed along both major roadways.
- The expansion of Valparaiso University by a projected 50 percent (from the current enrollment of 4,000 to 6,000 students) within the next five years will increase automobile, pedestrian, and bicycle traffic on and around the campus, as well as increased traffic for University sponsored events and campus activities.
- There will soon be renewed efforts to site uses that further the City's economic development goals near the Porter County Regional Airport as the City partners with the Airport Authority, Porter County, and other entities to implement the Airport Zone Master Plan.

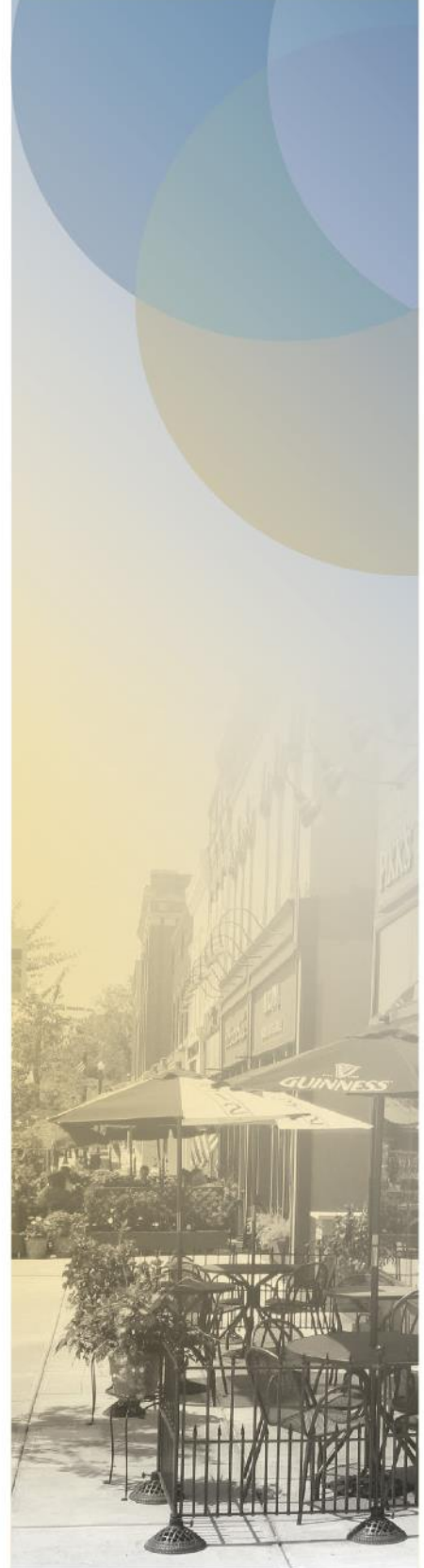
Bikeways / Trails

Valparaiso is known by its citizens to have a relatively strong system of bikeways and trails. The system includes off-street paths that traverse natural areas, as well as sidewalks within street rights-of-way, bike lanes, and bike routes. The City recently supplemented its adopted Pathways and Greenways Master Plan, which was intended to define its goals of enhancing the existing bikeways and trails system.

5.3 CONTEXT SENSITIVE SOLUTIONS / "COMPLETE STREETS"

This plan proposes the use of context sensitive solutions (CSS) to meet the City's transportation needs while at the same time achieving its community character objectives. This is a concept that is promoted by the Federal Highway Administration (FHWA) and the Institute of Transportation Engineers (ITE). It is a way of planning and building a transportation system that balances the many needs of diverse stakeholders and offers flexibility in

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 The logo for ENOVISION 2030 VALPARAISO features the word "ENOVISION" in a bold, sans-serif font. The letter "O" is replaced by a stylized circular graphic composed of overlapping blue, yellow, and red segments. Below "ENOVISION" is the year "2030" and the word "VALPARAISO" in a smaller, all-caps font.


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Figure 5.3, Transforming to a “Complete Street”



Source: Photographic simulations by Urban Advantage



the application of design features and guidelines, resulting in facilities that are safe and effective for all users regardless of the mode of travel they choose. The basic principles of CSS include:

- Balance safety, mobility, community, and environmental goals in all projects;
- Involve the public and stakeholders early and continuously throughout the planning and project development processes;
- Use an interdisciplinary team (civil engineers, planners, architects, and landscape architects) tailored to project needs;
- Address all modes of travel;
- Apply flexibility inherent in design standards; and
- Incorporate aesthetics as an integral part of good design.¹

The use of CSS in transportation planning can help ensure projects are responsive to the community’s transportation needs, values, and vision. It is intended to allow projects to move from design to construction faster and with less objection. The ultimate goal is to produce the most livable street environments possible. Therefore, it is closely tied with the concept of “complete streets”, contextual design, as well as community character. An example of the eventual transformation that may occur using CSS is shown by **Figure 5.3, Transforming to a “Complete Street”**.

This plan includes long-range planning for the City’s transportation system, in which CSS facilitates the planning of a transportation network integrated with the Future Land Use and Character Plan (refer to *Chapter 2, Land Use and Community Character*). This approach allows the City to improve existing roadways, and to design new roadways as “complete streets” in specifically chosen locations over time. This is a concept whereby alternative modes of transportation are accommodated on a roadway. However, it is not just the roadway itself that defines the complete street – it also includes the buildings and sites that front it. The complete street does not have a line separating public right-of-way and private property. Rather, it includes semi-public (such as a bike lane) and semi-private (such as a front porch on a home) areas. CSS defines the mobility needs of each of the system users. The transportation network should ensure preservation of rights-of-way needed for the ultimate thoroughfare width based on its long-term need. The spacing of thoroughfares should be standardized and support the strategies of the plan. For example, arterials spaced as far as one-mile apart may carry the

¹ *Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities*, ITE: 2006

anticipated volume of traffic, but will typically require four lanes, which may be inappropriate in some contexts, such as Downtown or the surrounding rural areas. Closer spacing of arterials could carry the same volume of traffic and reduce the number of lanes. Likewise, collectors spaced closer together (one-eighth mile) result in shorter block lengths and promote greater pedestrian and bicycling activities. Local streets should connect as frequently as practical to the collector network to keep block lengths short and to promote a more even distribution of traffic.

In general, context sensitive solutions are focused on streets that play the most significant roles in the local transportation network and that offer the greatest multi-modal opportunities – arterials and collectors. While they too, may benefit from the integration of complete street improvements, the application of CSS is less practical along primary mobility routes and freeways, such as U.S. 30 and SR-49, because their intended function is to move very high volumes of high speed traffic. Instead, these arteries should be the focus of their own unique planning and design processes. The City recently completed such a process for the U.S. 30 corridor, and is in the process of implementing that plan. A similar process should be considered for SR-49.

Local streets are also not the focus of CSS. However, they should be interconnected to one another and to the larger transportation network. Issues unique to one local street, such as a lack of sidewalk connectivity or street lighting, should be addressed through development regulations (for new local streets) and through the City's capital improvements program (for existing local streets).

Policies

- 5.a. Public input should be part of the pre-design stage of all capital improvements projects.
- 5.b. During a CIP project management phase, arterial and collector roadways should be designed for multi-modal functionality, including pedestrian and bicycle facilities.
- 5.c. When private development is proposed that involves construction of an arterial or collector street, adherence to the UDO standards for pedestrian and bicycle facilities should be required.

Actions

- 5.1. Include the following roadways in the City's Capital Improvements Program (CIP) for additional study, with the implementation of design elements as an ultimate goal:
 - SR-49 through the City;
 - Joliet Road;

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Capital Improvements Program (CIP) is one way for cities to continue to uphold and further the quality of life for their citizens. CIP projects should be aligned with comprehensive planning efforts. Many cities ensure this occurs by requiring input from planning commissions into the annual approval process

Source: Kendig Keast Collaborative



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- Washington Street from U.S. 30 to Lincolnway / SR-130 (complete street concept);
- Sturdy Road along Valparaiso University;
- Lincolnway / SR-130 through the City (complete street concept);
- Calumet from Poplar Street to the City Limits;
- Morgan Boulevard from Lincolnway / SR-130 to Calumet Avenue (complete streets concept);
- Calumet Avenue south of Morgan Boulevard;
- Franklin Street south of Calumet Avenue to Lincolnway / SR-130 (complete streets concept);
- Campbell Street from Sheffield Drive to Vale Park Road;
- The interchange of SR-49 with U.S. 30;
- The interchange of SR-49 and Vale Park Road; and
- Laporte Avenue from the round-about to Porter's Vale Boulevard.

5.2 Amend the UDO to include street design standards (rights-of-way, number and width of lanes, bikeway and pedestrian improvements, etc.) that are tied to the character of development. These standards should remain generally consistent with the standards of each functional class, although variations may be warranted in certain circumstances.

5.3 Adopt a policy for context sensitive design and subsequently, develop applicable standards and criteria. For instance, street cross-sections should be developed for each of the City's designated character types, e.g. rural, suburban, auto-urban, and urban.

5.4 Specify within the street cross-sections the provision for and dimensions of individual design elements including sidewalks and crosswalks, trails, bike routes or striped lanes, and parkways and medians.

5.5 Consider amending the UDO to include performance standards for local streets, where the type of access, number of dwelling units served, and the units' average frontages determine the right-of-way, pavement width, parking lanes, curb width, parkways, and sidewalks. Therefore, the right-of-way and street design of local streets are directly tied to development density and hence, traffic volumes.

5.4 EFFICIENCY OF THE STREET SYSTEM

Most of the recent development in Valparaiso generally follows a standard hierarchy of streets, whereby local streets connect to collectors, which, in turn, convey traffic to the arterial road network. However, the curvilinear system



The recent sidewalk and crosswalk improvements along Lincolnway / SR-130 are good examples of complete streets enhancements.



of roadways, particularly within individual, larger-scale developments, has also allowed disconnected streets and a multitude of cul-de-sacs. While marketable for their seclusion and safety, an incomplete network creates congested conditions elsewhere, often on streets that were not designed to bear the burden of increased traffic.

The original part of the City, such as the historic Banta area, follows a traditional “grid” street pattern, where the collector system is effectively replaced by multiple connections between local streets. Such system allows traffic to distribute more evenly. In these areas, some streets naturally collect higher volumes of traffic and thus, function as collector roadways. Care must be taken however, on these roadways so as not to burden or negatively impact the quality of life for the residents that abut them.

Future thoroughfare development must achieve continuity and connectivity to be functionally efficient. To do so, this plan and the development requirements and approval procedures must stipulate and enforce standards to avoid discontinuous and irregular street patterns, particularly on the fringe and in the outlying areas where development is occurring in a noncontiguous manner. The traffic carrying capacity of roadways must be preserved and improved through appropriate design of the street system and adequate standards for property access.

The policies listed in this Subsection, below, should apply in the case of infill development, new development, and redevelopment. They should not apply in the case of minor development, such as the reconstruction of an existing home or an addition.

Policies

- 5.d. Property access to principal arterials should be restricted. Marginal access roads should connect only to intersecting arterial streets where access already exists, joint and cross access agreements should be required where feasible upon a change of use, rezoning, or application for a building permit.
- 5.e. Principal and minor arterial streets are to be reserved for locations where the abutting land use and development within the traffic shed does not exceed 60,000 vehicles per day (VPD) and 30,000 VPD, respectively.
- 5.f. Access to high-intensity land uses along principal and minor arterials should be limited by way of cross- and joint-access standards and, in appropriate locations, marginal access roads.
- 5.g. Property access points should be a minimum distance of 120 feet from street intersections.
- 5.h. A depressed or raised median should be included in the design cross-section of all new principal arterial streets where the abutting property

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Traffic Calming involves changes in street alignment, installation of barriers, and other physical measures to reduce traffic speeds and/or cut-through volumes, in the interest of street safety, livability, and other public purposes. Improvements include:



Speed Humps



Roundabouts



Narrowed Entrances



Chokers

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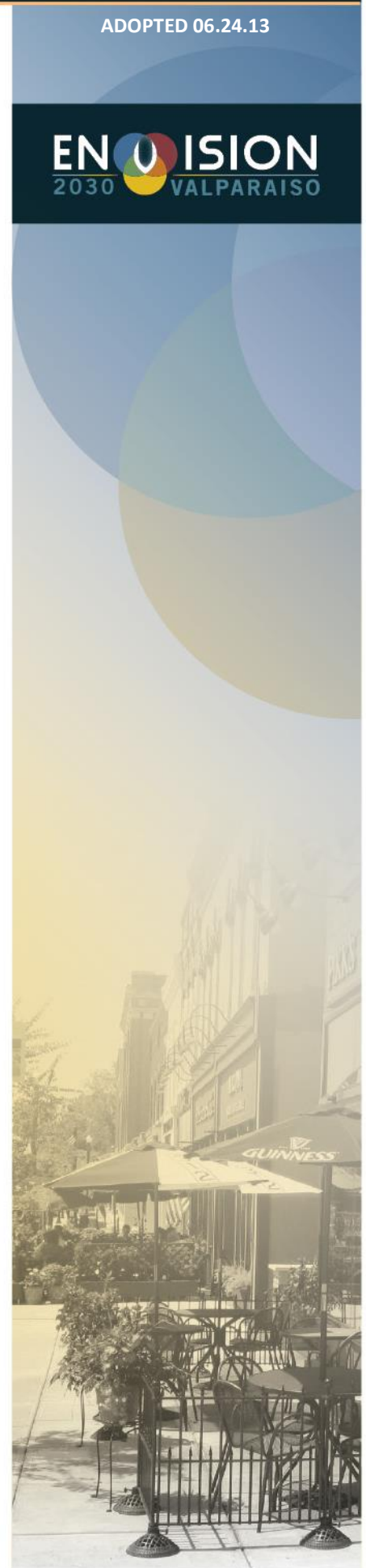
is not yet developed. A median may be included for minor arterial streets, where warranted. For largely developed areas, an access study should be prepared to determine the feasibility of medians.

- 5.i. Access points should be aligned with median breaks, where applicable, and access points across the street.
- 5.j. Access from local streets to principal arterial roadways should be minimized. Rather, they should access a marginal access road or a collector roadway to minimize the impedance of traffic and maximize the traffic carrying capacity of the principal arterial street.
- 5.k. Residential driveway access should not be allowed onto minor or principal arterial streets.
- 5.l. Collector roadways should maintain a spacing of approximately one-quarter to one-half mile, which may be signalized with a principal arterial street.
- 5.m. As warranted by a traffic impact study, acceleration and deceleration lanes should be provided at major points of ingress/egress to facilitate safe turning movements.
- 5.n. Parking should not be permitted on principal or minor arterial streets, except within downtown.
- 5.o. Signal warrant studies should be conducted to determine the location of signalized intersections. The study should include recommendations for additional roundabouts.
- 5.p. Pedestrian crossing improvements should be limited to stop or signalized intersection locations. Such improvements should include crosswalk delineation via reflective paint or pavement texturing, American's with Disabilities Act (ADA) improvements, pedestrian and bicycle actuated signals, pavement markings, and signage. Mid-block crossings should only be installed pursuant to traffic and pedestrian safety studies, where feasible.
- 5.q. An eight-foot wide trail section should be incorporated on one side of all principal and minor arterial streets. The side that will receive the larger sidewalk should be determined by the City Engineer on a case-by-case basis unless a sidewalk master plan has been adopted that identifies the side of the road where the wide sidewalk will be located.
- 5.r. Collectors should be installed concurrent with development and in accordance with the general spacing and policies of this plan.
- 5.s. Additional collectors should be installed according to the recommendations of traffic impact analyses, and pursuant to the following guidelines:
 - Local collector streets are for spacing between arterial and major collector streets where there are no more than 10,000 vehicles per day (VPD).

- Collector streets should cross creeks, major drainageways, and other barriers to provide for street continuity.
 - Collector roadways should not be designated as truck routes, unless special precautions are taken with respect to design (curb return radii, minimum tangent lengths between reverse curves, construction specifications, etc.) and the abutting land uses.
 - Driveways should not access major collector streets and should be allowed for properties abutting no more than 20 percent of the lot frontage abutting local collector streets.
 - Collectors should extend continuously between other collectors and arterial streets or highways.
 - Traffic calming improvements should be used to slow traffic along continuous sections of collector roadways.
 - Sidewalks should be located on both sides of all collector streets.
5. t. Shared driveways and cross-access easements should be required between adjacent and abutting properties to eliminate the need to use the public street for access between adjoining businesses.

Actions

- 5.6 Regularly synchronize traffic signals along arterial roadways to minimize congestion and emissions, maximize efficiency, and maximize traffic carrying capacity.
- 5.7. Review the UDO for possible amendments to allow the design of collector and arterial in accordance with the character designations denoted on the Future Land Use and Character Plan. Regulations for roadways should take the following guidelines into consideration:
- *Performance-based street standards.* The type of access, number of dwelling units served, and the units' average frontages determine the right-of-way, pavement width, parking lanes, curb width, parkways, and sidewalks. The rights-of-way and street design should be directly tied to development density and traffic volumes.
 - *Functional street cross-sections.* Incorporate street design standards, supplementing the requirements for right-of-way with specific standards regarding pavement and lane width, location and width of sidewalks and/or trails, and provisions for on-street bike lanes. The standards should be linked to the functional classification of the street, as well as other operating characteristics.
 - *Safety.* Traffic calming techniques should be incorporated to slow traffic, particularly adjacent to schools, parks, and public buildings.
- 5.8. Perform a street network study to evaluate the connectivity of the existing street system. The study should identify opportunities for extending existing roadways. A subsequent traffic study should



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Access management studies, when implemented, will reduce the incidences of vehicle crashes. Strategies include making improvements such as:

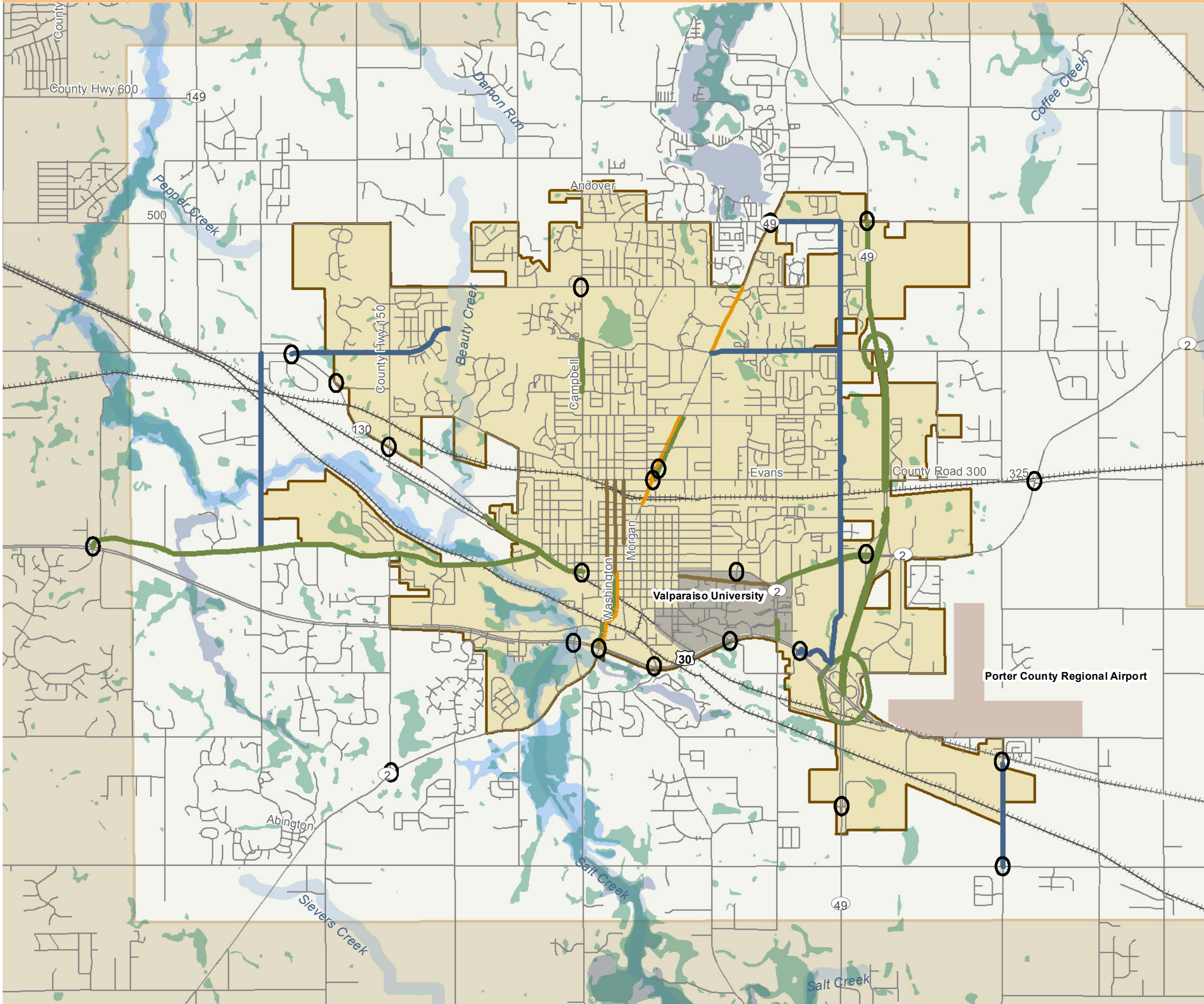
- Adding deceleration/acceleration lanes
- Changing traffic signal operations
- Closing driveway connections
- Installing off-street, site-connecting roadways
- Redesigning intersections

Source: Kendig Keast Collaborative



determine and prioritize those that would improve safety and ease congestion.

- 5.9. Review and modify, as needed, the UDO provisions that specify the required right-of-way widths of each designated collector and arterial street to determine which may require more or less right-of-way.
- 5.10. Review the UDO to ensure that private subdivisions will not terminate an existing or planned collector or arterial roadway. Allow for a private subdivision to propose a realignment of a collector or arterial road as long as its function and intent is preserved.
- 5.11. Given certain trip generation threshold criteria, require submission of a Traffic Impact Analysis (TIA) prior to the official acceptance of an application for subdivision or property development.
- 5.12. Perform localized traffic calming studies for existing roadways that are experiencing higher speeds than are considered acceptable. The study should identify the recommended traffic calming measures based upon site-specific conditions. As displayed in **Map 5.1, Future Mobility Projects**, roadways to consider in the study include:
 - Laporte Avenue between Sturdy Road and South Garfield Avenue;
 - Franklin Street;
 - Washington Street; and
 - Lafayette Street.
- 5.13. Study the following roadways for access management improvements and implement recommendations through the City's redevelopment strategies (see Map 5.1, Future Mobility Projects):
 - Sturdy Road from U.S. 30 to the round-about;
 - Calumet Avenue north of Vale Park Road to the City Limits;
 - Calumet Avenue between Poplar Street and West Glendale Boulevard;
 - Sturdy Road between Lincolnway and U.S. 30;
 - Washington Street between East Brown Street and U.S. 30; and
 - SR-2 from U.S. 30 south to the City Limits.
- 5.14. Several sections of roadway need expansion to accommodate increased traffic volumes. The following should be considered for improvement in the City's capital improvements program (see Map 5.1, Future Mobility Projects):
 - 400 North Road from Froeberg Road to U.S. 30;
 - North Sturdy Road between Flemming Road and its terminus near East Glendale Boulevard;
 - Sturdy Road between the round-about and Martin Drive;



Map 5.1

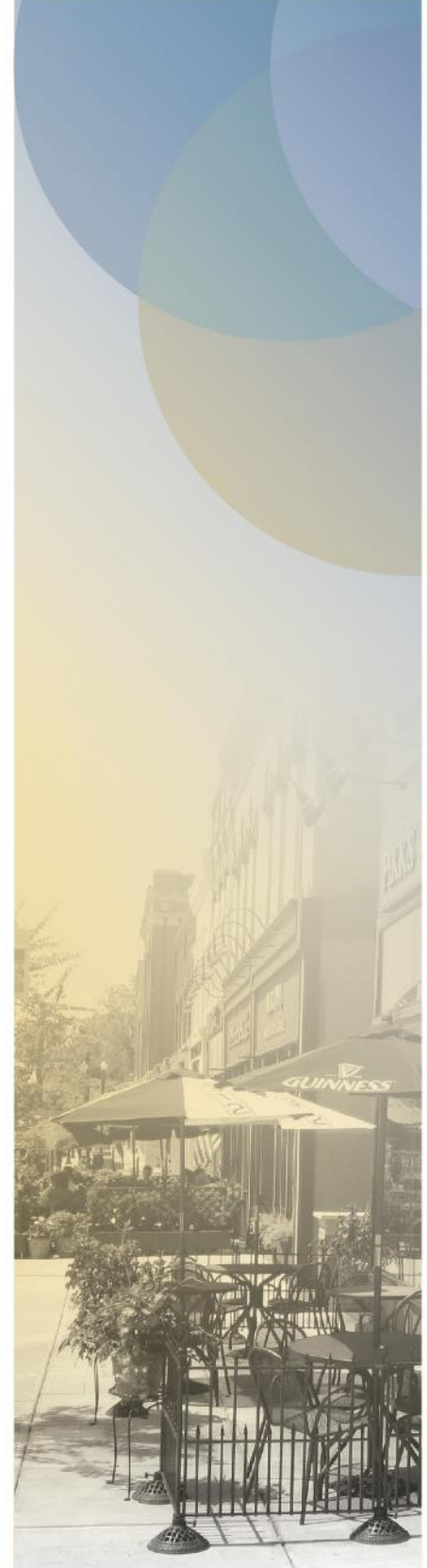
Future Mobility Projects

- Legend**
- Street Improvements
 - Context Sensitive Enhancements
 - Traffic Calming Improvements
 - Access Management Improvements
 - Unsafe Intersections
 - Valparaiso University
 - City Limits
 - Study Area
 - Airport
 - Wetlands, Ponds, and Lakes
 - Flood Zone (A)
 - Flood Zone (AE)
 - Streams and Rivers
 - Railroad

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- Along Silhavy Road just north and south of the intersection with East Glendale Boulevard (as an alternative, widen the entire length of Silhavy Road);
 - East 500 North from Calumet Avenue to SR-49 and east of SR-49 to 300 East Road;
 - The railroad crossings at N. Roosevelt Road, N. Sturdy Road, and Silhavy Road;
 - Burlington Beach between Oakgrove Drive and SR-49;
 - North 250 West / Tower Road;
 - North 325 East between East Division Road and U.S. 30;
 - Vale Park Road between Silhavy Road and Calumet Avenue; and
 - Vale Park Road from Froberg Road to its current eastern terminus.
- 5.15. Commission a traffic engineering study to evaluate the warrant for the one-way pair on Jefferson Street / Chicago Street in Downtown and subsequently implement recommended changes or improvements.
- 5.16. Conduct traffic engineering and design studies (to include analysis for the potential installation of roundabouts), for the following intersections (see Map 5.1, Future Mobility Projects):
- Silhavy Road / East Glendale Boulevard;
 - Linwod Avenue / U.S. 30;
 - East Evans Avenue / SR-2;
 - University Drive / Lincolnway / SR-130;
 - All intersections along U.S. 30;
 - North Campbell Street / Lincolnway;
 - Morgan Boulevard / Union Street / Axe Avenue;
 - Union Street / South Garfield Avenue;
 - Laporte Avenue / SR-40;
 - Burlington Beach Road / SR-49;
 - Cool Springs Drive / U.S. 30;
 - Hays Leonard Road / SR-2;
 - Porter County Jail access road at Bertholet Boulevard;
 - East Division Road / North 325 East;
 - North 325 East / U.S. 30;
 - Evans Avenue / SR-49;
 - Evans Avenue / North Sturdy Road;
 - Evans Avenue / Calumet Avenue;

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 The logo features the word "ENOVISION" in a bold, sans-serif font, with a stylized circular graphic element between the "O" and "V". Below it, "2030" and "VALPARAISO" are written in a smaller font.
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- Calumet Avenue / East Harrison Boulevard;
- Calumet Avenue / Burlington Beach Road;
- Lincolnway / Froberg Road;
- Lincolnway / Milkhouse Road;
- Lincolnway / 400 North Road; and
- North Campbell Street / Bullseye Lake Road.

5.5 BICYCLE AND PEDESTRIAN MOBILITY

A dense and comprehensive grid of bikeways, walking trails, and other non-motorized linkages is among the highest priorities according to the input of residents, received during the preparation of this plan as well as the City's Pathways and Greenways Master Plan. Achieving a pedestrian mobility system requires advanced planning and effective ordinance provisions to secure the necessary rights-of-way or easements and to assure sustainable design standards. Reconstruction or installation of new sidewalks is an essential element of a complete pedestrian system and for achieving improved walkability.

The City already has a relatively robust system of pedestrian and bicycle linkages. In 2005, the City adopted the Pathways and Greenways Master Plan, and supplemented it with an update in December 2010. This plan indicates that the next steps for the City are to fill in gaps and to continue to extend the system along major roadways including Glendale Boulevard, Evans Avenue, Silhavy Road, and Bullseye Lake Road. A third-level priority is the mostly outlying roadways, many portions of which are not yet within the City Limits.

Additional focus for the pedestrian and bicycle pathway system includes improvements to the existing system through branding and signage, additional amenities, and a maintenance program.

Policies

- 5.u. Trails should be considered in all subdivisions, subject to standards as to the minimum required connections. For subdivisions with rural street standards and an average lot size of one acre or more, trails may be constructed in lieu of sidewalks, subject to certain standards and requirements.
- 5.v. Accessibility provisions should be incorporated in the UDO requiring public access easements at intervals of 600 feet, which should be shown on a primary plat. In the case of private subdivisions, the trail system may also be private provided the connectivity and continuity of the City-wide trail network is not interrupted.



Pathways within greenways have taken a high priority in Valparaíso.



Actions

- 5.18. Amend the UDO to clarify that sidewalks are required along both sides of all streets and one side of every arterial and collector street shall be improved with a sidewalk that is eight feet in width. The side that will not have the eight foot sidewalk should be required to have a five foot wide sidewalk at a minimum.
- 5.19. Prepare and regularly update a sidewalk inventory of all existing and needed ADA accessible ramps and curb cuts. Subsequently, budget annually and include sidewalk projects in the capital improvement program (CIP) with prioritization assigned to areas around schools, parks, and other public areas.
- 5.20. Make regular applications for the INDOT Safe Routes to School Program to improve the conditions and safety of sidewalks around Valparaiso University and in and around the community schools.
- 5.21. Consider adopting requirements for the installation of bicycle racks at commercial developments over 15,000 square feet and for businesses employing more than 10 persons.

5.6 ADEQUATE TRANSPORTATION INFRASTRUCTURE

The pattern of development contributes substantially to the adequacy of the transportation infrastructure. Scattered, peripheral development limits the continuity of streets, sidewalks, and trails; prematurely burdens existing infrastructure systems; and creates unsafe conditions and other unintended outcomes. Furthermore, it places a fiscal strain on public resources to prematurely improve infrastructure in an inefficient manner. Therefore, growth management has a direct, causal link to the adequacy and efficiency of the transportation system.

Actions

- 5.22. Inventory all roads within the planning area outside of the City Limits to include descriptions and measurements of right-of-way widths, surface types and widths, types of cross-section, locations and widths of culverts and bridges, traffic control devices, and roadway obstructions. Integrate this data into the geographic information system (GIS) for use in capital infrastructure planning and for considering development requirements in these areas. Assign a requisite design capacity for each roadway to identify a level of service standard and the threshold at which the capacity will be exceeded.
- 5.23. Explore the practicality and validity of different approaches for ensuring adequate transportation infrastructure concurrent with new development, particularly in the areas on the fringe and in the periphery of the City. Among the options is concurrency management, which allows development up to a maximum allowable density that does not exceed a threshold of roadway capacity. Alternatively, traffic

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The Indiana Safe Routes to School Safe Routes to School Program (SRTS) is based on the federal program designed to make walking and bicycling to school safe and routine. INDOT is responsible for administering the Indiana SRTS Program that makes federal funding available for eligible activities and improvements. Parameters for funding eligibility include:

- 70-90 percent of funds will be available for eligible infrastructure projects
- 10-30 percent of funds will be available for encouragement, education, enforcement and other non-infrastructure activities to increase safe biking and walking to school
- Children in kindergarten through 8th grade are the primary target for this program
- Projects should help improve access for children with physical disabilities
- High school students, adults, residents, children traveling to school by bus and motorists may be considered secondary beneficiaries
- Trips for non-school purposes are only secondary considerations
- Construction improvements must be located within a two mile radius of the intended school or schools
- The SRTS program is available for private and public schools
- Eligible applicants include individual schools, school districts, local government agencies, state agencies and MPOs
- Non-profit organizations can partner with eligible applicants, but cannot directly receive SRTS project funding in Indiana

Source: www.in.gov

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sheds proportionally allocate allowable densities across the area for which the generated trips originate, which may be coupled with development clustering to allow continued development as there is added capacity.

- 5.24. Prepare a capital improvement plan that identifies the timing and sequencing of capital roadway and other infrastructure improvements, consistent with the Future Annexation and Growth Plan (refer to *Chapter 7, Growth Capacity*). The recommended capital plan should describe the existing roadways and the costs to expand, improve, or reconstruct them; an analysis of the total capacity, level of current usage, and commitments for usage; proposed improvements and the costs attributable to new development; and a quantified generation by land use type, among other requirements.
- 5.25. Consider the use of development agreements within the planning area outside of the City Limits to provide for street, drainage, water, wastewater, and other utility systems. Such agreements would allow the City to extend its planning authority and enforce its development regulations in exchange for continuation of the extraterritorial status for a prescribed period of time.
- 5.26. Continue working with representatives of Porter County to coordinate City and County development review.

5.7 PUBLIC TRANSPORTATION

Due to a concern for rising gasoline prices, commuters are increasingly interested in the opportunities for high capacity transit. In the same way, communities are continuously seeking ways to expand their public transportation options. Advanced planning must occur to avoid short-sighted decisions that may hinder the long-term economic growth of the City and region. Here again, the growth policies of this community and the resulting form and density of development will help determine the warrant for and feasibility of an expanded public transportation system.

Actions

- 5.27. Continue to closely monitor ChicaGo Dash ridership and respond to increased demand by expanding services.
- 5.28. Continue to develop Central Place, including evaluating the benefits of mixed use development in support of this area, as well as Downtown.
- 5.29. During the horizon of this plan, re-initiate a high-capacity transit options study to evaluate the feasibility of transit investments, such as a coordinated, expanded regional bus system; bus rapid transit; and commuter rail transit. A feasibility assessment should forecast future ridership to determine when an increased investment in public transit may be warranted. The study should recommend future funding needs, revenue options, and financing strategies. An organizational



Valparaíso's ChicaGo Dash



approach and governance structure should specify the roles of the transit provider. The transit study should consider transit needs, the propensity for transit use, and the requirements and limitations of collecting and sharing revenues between involved entities.

- 5.30. Coordinate the operating schedules of the V-Line, ChicaGo Dash, and other area transportation providers in a consistent format and in a manner to allow timely and convenient transfers. Establish a regional call center that centralizes the dispatch function and facilitates improved coordination and transit needs matching. A single website for all local and regional carriers providing service would be highly beneficial.
- 5.31. Develop an advertising and marketing campaign to inform the public as to the services and schedules available in Valparaíso, as well as inter-city and regional connections.
- 5.32. Ensure that the development review process includes transit representation, with enough authority to require sites and subdivisions to include provisions for transit connections in strategic parts of the City. This is particularly important for the siting of affordable and higher density housing and mixed use projects in proximity to transit routes. This input into site planning is essential for on-site vehicle routing, safe patron access, and provision of bus stop facilities.
- 5.33. Develop an inventory and GIS database of all transit properties and fixed improvements. Subsequently, prepare a needs assessment to identify capital acquisitions such as shelters, kiosks and displays, signage, benches, refuse containers, public art, and other patron and pedestrian improvements and amenities.
- 5.34. Conduct a feasibility study for connecting the V-Line with the transit services provided in Chesterton, Portage, and Merrillville.
- 5.35. Research and evaluate the feasibility of installing monitors at bus stops to provide real-time information on the arrival and departure of buses, and to display other route information.
- 5.36. Study peer transit systems that are operating their fleet with alternative fuels to discern the costs and benefits of implementing an alternative fuels program for the V-Line.

5.8 CORRIDOR APPEARANCE

One of the City's strengths is that many of its roadways are well designed and attractive. This is due to a combination of high quality development, and, in other areas, the City's redevelopment projects. City standards are responsible for the form of development, including the location and design of buildings, arrangement of parking areas, extent of open space and vegetation, perimeter fencing and bufferyard treatments, and size and placement of signage. It is

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Tree-lined streets make Valparaíso a memorable place.

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important to recognize too, that the design of the roadway itself also forms a sense of place and conveys the character of the community.

Actions

- 5.34. Ensure that the fencing standards outlined in the UDO² are adequate and sufficiently detailed. In particular, consider added specificity as to the type, design (e.g. decorative support columns and horizontal relief), and, in the case of subdivisions and larger developments, the uniformity of fences, walls, and hedges. Furthermore, clarify the submission and approval requirements.
- 5.35. Require neighborhood associations to be responsible for the repair and/or replacement of subdivision fencing and fully compliant with the ordinance standards. For neighborhoods that do not have a neighborhood association, the City should require a provision is added on the land title notifying the owner of record as to the requirements for fencing adjacent to street rights-of-way. Alternatively, the City could make the necessary repairs and assess the property owner.
- 5.36. Amend the cross-section standards of arterial and collector roadways to acquire or require the dedication of sufficient lands for increased green space adjacent to the abutting use (in accordance with the corridor and development character). Additionally, it is important for there to be maintenance agreements and guarantees on behalf of the subdivider and/or neighborhood association regarding the ongoing care and responsibility for this common area.
- 5.37. Coordinate the alignment of new arterials with underground drainage and/or utility transmission lines to incorporate green space adjacent to the streets right-of-way.
- 5.38. Review the “Signature Corridor” regulations and consider additional width for tree protection along major roadways that have significant, mature trees.
- 5.39. Commit funding to prepare a SR-49 Corridor Plan, as was done with the recently completed U.S. 30 Corridor Plan. The design plans should include regulatory recommendations and identified improvements and their costs. An implementation plan should identify priorities, funding options and sources, and a timeline. Design principles for corridor design and enhancement may include:
 - A landscape plan within the highway rights-of-way and particularly at the interchanges of U.S. 30 and SR-2, as well as the at-grade intersections. The plan should incorporate xeriscaping to be more natural in appearance, environmentally sustainable, and to require minimal maintenance.

² Sec. 2.302, Fences, Garden Walls, and Hedges, Art. 2, Permitted Uses and Supplemental Standards



- Increase the vegetative buffer, wherein mature trees would be preserved and landscaping enhanced in areas where few or no mature trees exist, on either side of the highway.
- Design plans for the bridges and road and railroad overpasses, to include decorative treatments for the purpose of aesthetic enhancement and community branding.
- Integration of “signature” gateways at the entries to the community, including earthen berms or mounding, monumentation, landscaping, and lighting improvements.
- Enhanced standards for traffic control devices at the at-grade intersections.
- Heightened site and building design standards for properties abutting and adjacent to the roadway corridor.

5.41. Establish gateway treatments at each of the community entranceways, including the following locations:

- Vale Park east of Silhavy Road;
- Lincolnway / SR-130 west of Central Place;
- North Meridian Road just inside of the future City Limits;
- SR-2 within the Porter County Regional Airport study area; and
- The intersection of SR-49 and U.S. 30.

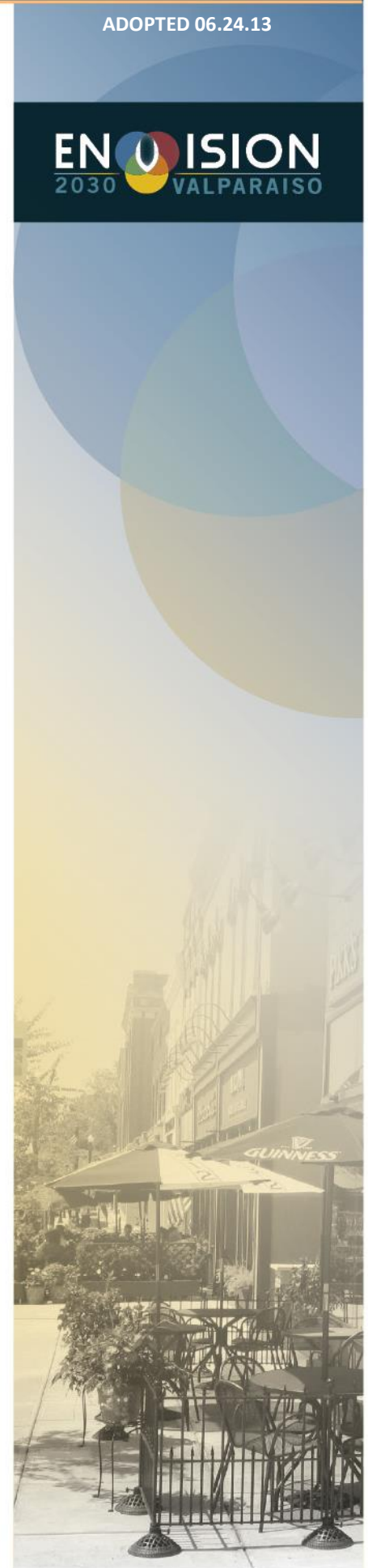
5.42. In coordination with the Valparaiso University Center for the Arts, consider formation of a public arts commission to create standards for the placement of public art throughout the community, including at highly visible junctions and within road rights-of-way.

5.43. Acquire or require dedication of a triangular area as part of the right-of-way at all new or reconstructed intersections of collector and arterial streets to be used as public open space.

5.44. In developments that include future intersections, require a study of the area that includes an analysis of the potential for installation of a round-about.

5.9 THOROUGHFARE PLANNING

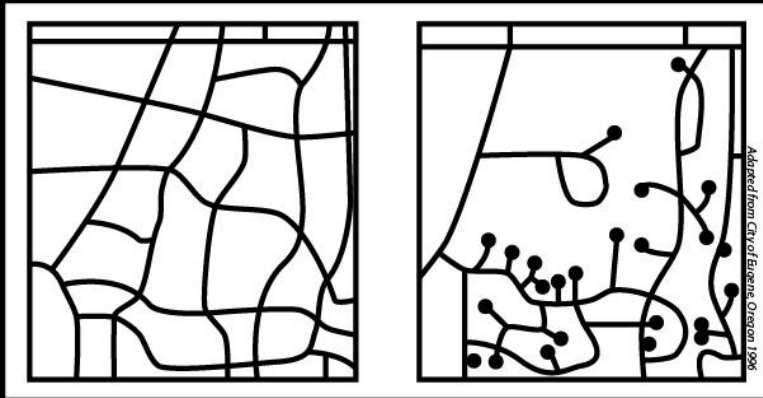
Thoroughfare system planning is a process to assure development of a good and efficient street system to meet future travel needs. The objective of a thoroughfare plan is to preserve adequate rights-of-way on appropriate alignments to allow the orderly and efficient expansion and improvement of the thoroughfare system. Proposed alignments are shown for planned new roadways and roadway extensions. Actual alignments will vary depending on the design and layout of development. Requirements for rights-of-way dedication and construction of street improvements apply to all subdivision of land.



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The proposed thoroughfare system is displayed on **Map 5.2, Thoroughfare Plan**. The plan shows alignments for planned thoroughfares that will be considered in the platting of subdivisions, rights-of-way dedication, and construction of major new roadways or roadway extensions. While consistency is advocated by this plan, there are also standards that directly relate to the individual goals and objectives of this community that merit supplemental standards to the roadway cross-sections. These are outlined below in the following section entitled, *Roadway Classifications*.



Proper thoroughfare planning and implementation ensures continuity of the street system, which is vital to mobility.

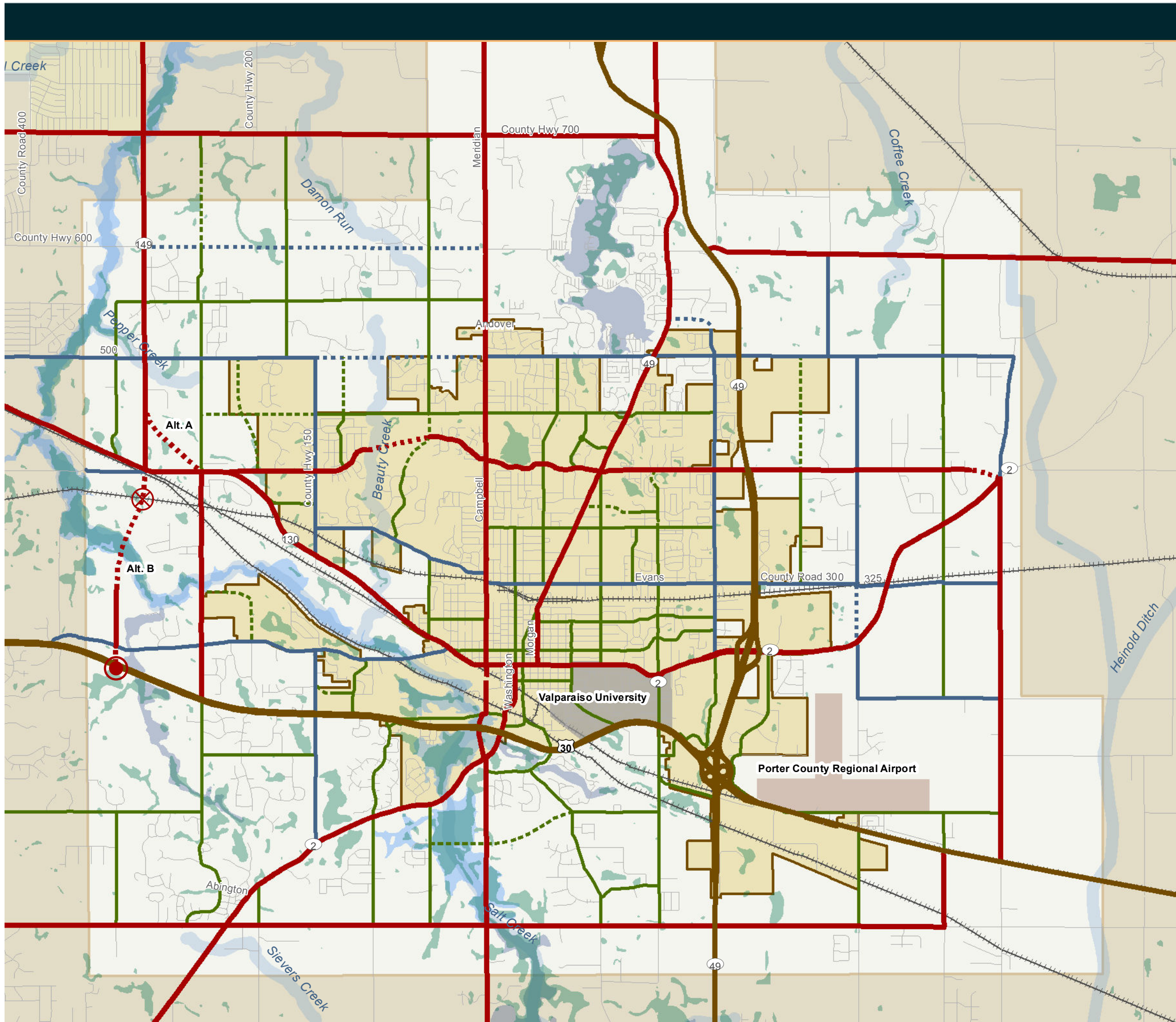
Some of the thoroughfares denoted by the Thoroughfare Plan may be developed as two-lane or multi-lane roadways with various cross-sections depending on the nature of abutting development and the circumstances of each particular roadway. Some existing roadways may warrant widening to mitigate congestion and to adequately convey traffic while other streets identified as arterials or collectors may not ever be widened due to right-of-way limitations. Therefore, the Thoroughfare Plan designation signifies the traffic-handling role of each roadway and the importance of maintaining it in superior condition to maximize traffic capacity.

The plan does not show future local streets because they function to provide access to individual parcels and their alignments will vary greatly depending upon land development plans. Local street alignment will be determined by the City as part of the subdivision development process. Likewise, collectors are required with new development, but are not shown in all cases on the Thoroughfare Plan. Nevertheless, they are vital to an efficient transportation network and must not be overlooked during the subdivision development process. Collectors should be situated to connect arterial streets with other arterial, collectors, and local streets.

Key features and policies of the Thoroughfare Plan are as follows:

- Review of general development plans and primary and secondary plats must be made in comparison with the Thoroughfare Plan.
- The general location and alignment of thoroughfares must be in conformance with the Thoroughfare Plan. Any thoroughfare alignment that is inconsistent with the plan may require a Thoroughfare Plan amendment, with a recommendation of approval by the Planning and Zoning Commission and final approval by the City Council. A change includes any proposal that adds or deletes a thoroughfare, proposes





Map 5.2

Thoroughfare Plan

PLANNED/ EXISTING THOROUGHFARES

- Highway
- Principal Arterial
- Minor Arterial
- Collector
- Intersection (Proposed)
- RR Crossing (Proposed)
- City Limits
- Study Area
- Valparaiso University
- Airport
- Wetlands, Ponds, and Lakes
- Flood Zone (A)
- Flood Zone (AE)
- Streams and Rivers
- Railroad

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adjusting its designation, or significantly changes the alignment that would affect adjacent lands.

- Variances from the Thoroughfare Plan should not be approved unless there is substantial evidence through a qualified traffic circulation and impacts study establishing a warrant for such amendment and showing how an alternative alignment or area street plan will provide improved circulation and an equal or improved level of service on all affected roadways.
- The necessary rights-of-way, in accordance with the roadway classification and corresponding cross-sections, must be dedicated at the time of secondary platting. Properties proposed for subdivisions that include or are adjacent to an existing thoroughfare with insufficient right-of-way should be required to dedicate land to compensate for any deficiency.
- Existing streets adjacent to land proposed for subdivision should be continued so as to meet the continuity objectives of the Thoroughfare Plan. The arrangement of streets in a new subdivision – including private subdivisions - must make provision for continuation of the existing arterial, collector, and in certain instances, local streets in the adjacent areas.
- Land owners are responsible for the dedication of rights-of-way and may be responsible for constructing sections of roadways located within or adjacent to their property.
- The total width of street rights-of-way must be dedicated at the time of development. The dedication of one-half of the required right-of-way should not be accepted unless the other half already exists or there is a secondary plat on file for the adjacent land.
- To maximize mobility, collector streets must provide access and circulation both within and between neighborhoods. Collectors should connect arterial streets rather than allowing development to have a street system with no points of ingress and egress other than a single point of entrance.
- Collectors must be situated to connect arterial streets with other arterials, collectors, and local streets. Their continuity in the roadway system is essential to its function of distributing traffic within the hierarchical system.
- The fact that a thoroughfare is shown on the Thoroughfare Plan does not represent a commitment to a specific timeframe for construction or that the City or other governing body will build the roadway improvement.

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 The logo for ENOVISION 2030 VALPARAISO. It features the word "ENOVISION" in a bold, sans-serif font, with a stylized "O" that is a circle containing a smaller circle. Below "ENOVISION" is the year "2030" and the word "VALPARAISO".

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- Individual thoroughfare improvements may be constructed by a variety of implementing agencies, including the City, Porter County, Indiana Department of Transportation, the Redevelopment Commission, private developers, and/or intra-governmental agencies.
- The future alignments of local streets are dependent upon land development plans and, thus, are not set forth by the Thoroughfare Plan. However, they shall be in accordance with the City's street design objectives and performance standards.

Roadway Classifications

Roads are grouped into functional classes according to their role for traffic movement and land access. Characteristics of each functional class differ to meet the intended purpose. The functional classification of area roadways includes freeways; principal and minor arterials; major and local collectors; and local streets. Detailed in **Table 5.1, Functional Classifications**, is the roadway type, function, and other characteristics that are typical for each type of roadway.

Standards for development within the City limits, with rare exception, should reflect its urban, auto-urban, and suburban character, with provision for curb and gutter construction, sidewalks, street lighting, signage and sufficient open space.



Table 5.1, Functional Classifications

Criterion	Freeway	High Speed and Principal Arterial	Minor Arterial	Major and Minor Collector	Local Street
Functional Role	Entirely through traffic movement with no direct access to property.	Mobility is primary, access is secondary. Connects Freeways and other Arterials.	Connects Freeways, Principal Arterials, and lower classification roadways. Access is secondary.	Collects traffic destined for Arterial network. Connects Arterials to Local Streets. Also land access.	Access is primary. Little through movement.
Roadway Continuity	Inter-city, regional, and interstate.	Connects Freeways to lower classification roadways. Connects major activity centers.	Connects Freeways and Principal Arterials to lower classification roadways.	Continuous between Arterials. May extend across Arterials.	Discontinuous. Connects to Collectors.
Roadway Length	Usually more than 5 miles	Usually more than 5 miles	Usually more than 3 miles	Varies from roughly 1/2 mile to 2 miles	Generally less than 1 mile
Traffic Volumes (VPD = vehicles per day)	40,000 + VPD	20,000 to 60,000 VPD	5,000 to 30,000 VPD	1,000 to 15,000 VPD	100 to 5,000 VPD
Desirable Spacing	5 miles or more	2 miles or more	Generally 1/2 to 2 miles	Generally 1/4 to 1/2 mile	Varies with block length (at least 125 feet between)
Posted Speed	55 to 70 mph	40 to 55 mph	30 to 45 mph	30 to 35 mph	20 to 30 mph
Access	Controlled access. Grade separated interchanges and frontage / service roads.	Intersects with Freeways, Arterials, Collectors, and Local Streets. Restricted driveway access.	Intersects with Freeways, Arterials, Collectors, and Local Streets. Restricted driveway access.	Intersects with Arterials and Local Streets. Driveways limited.	Intersects with Collectors and Arterials. Driveways permitted.
On-Street Parking	Prohibited	Restricted	Restricted	Normally permitted	Permitted
Community Relationship	Defines neighborhood boundaries	Defines neighborhood boundaries	Defines and traverses neighborhood boundaries	Internal and traverses neighborhood boundaries	Internal
Through Truck Routes	Yes	Yes	Permitted	No	No
Bikeways	No	Limited	Permitted	Yes	Yes
Sidewalks	No	Yes	Yes	Yes	Yes

Local Streets

Local streets allow direct property access within residential and commercial areas. Through-traffic and higher speeds should be discouraged by geometric designs, traffic control devices, and traffic calming techniques. Local streets typically comprise about 65 to 80 percent of the total street system.



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The Thoroughfare Plan does not designate future local streets. This plan establishes standard cross-sections, with alternatives based upon such performance characteristics as type of access, number of dwelling units served, and the units' average frontage. For illustrative purposes, displayed in **Table 5.2, Performance Standards for Local Streets** are variable standards for rights-of-way and street widths based on lot frontage and size and the number of units served. Of course, these must be tailored to the City.

Table 5.2, Performance Standards for Local Streets

Performance Measures		Development Standards								
Lot Frontage (ft) / Lot Area (sf)	No. of Dwelling Units	Total ROW	Travel		Parking		Curb Width (Total)	Parkway Each Side	Sidewalks	
			No. of Lanes	Lane Width	No. of Spaces	Width			Side	Width
Greater than 130' 1 acre +	10 or less	40'	1	12'	0	-	0	14'	0	5'
	11-44	44'	2	8'	0	-	0	14'	0	5'
	45-159	52'	2	11'	0	-	0	10'	2	5'
	160-240	54'	2	12'	0	-	0	10'	2	5'
90' – 129' 15,000 sf - 40,000 sf	10 or less	39'	1	14'	0	-	0	10'	1	5'
	11-44	50'	2	9'	0	-	1	10'	2	5'
	45-159	59'	2	10'	1	7	1	10'	2	5'
	160-240	64'	2	12'	1	7	1.5	10'	2	5'
50' – 89' 5,000 sf– 14,999 sf	10 or less	50'	2	8'	1	7	1	10'	1	5'
	11-44	67'	2	10'	2	7	1.5	10'	2	5'
	45-159	71'	2	12'	2	7	1.5	10'	2	5'
	160-240	71'	2	12'	2	7	1.5	10'	2	5'
Less than 50' Less than 4,999 sf	10 or less	61'	2	9'	2	7	1.5	8'	2	5'
	11-44	65'	2	11'	2	7	1.5	8'	2	5'
	45-159	67'	2	12'	2	7	1.5	8'	2	5'
	160-240	67'	2	12'	2	7	1.5	8'	2	5'

According to the City's Unified Development Ordinance and the City Specifications for Municipal Improvements, the current standard for a local street is a right-of-way width of 50 feet and a pavement width of 30 feet, with two 11-foot travel lanes. These standards do not account for situations where less right-of-way and pavement width may be allowable where there is lower density and hence, fewer trips generated. As a result, there is more rights-of-way and pavement than necessary, which adds to development costs and consumes additional land thereby reducing development efficiency and increasing impervious cover and hence, storm water runoff. Wider local streets are also known to have higher speeds. This plan proposes alternative street cross-sections that better reflect the development character and are more sustainable.

As an alternative to the use of performance standards, the current street standards may include variations, as displayed in **Figure 5.4, Local Street Section Alternatives**. The two alternate cross sections require a minimum 50 feet of right-of-way with minimum pavement widths of 22 and 26 feet. A local



street with a pavement width of 26 feet would be limited for developments with fewer, larger lots taking access to a local street. On-street parking would not be allowed on the narrower street width, while it would be allowed on only one side of the 32-foot street. Such parking restrictions necessitate review of lot sizes, setbacks, and on-lot parking provisions to accommodate parked vehicles out of the public right-of-way. These pavement widths are designed to adequately carry local traffic and sufficiently accommodate fire apparatus, yet are of a width to allow traffic calming. Narrower streets encourage reduced travel speeds, an increased distance between the street and sidewalk, and a wider streetscape.

Local streets may also be adapted to agriculture rural character to include an open or closed ditch system, rather than curb and gutter. The right-of-way within these environments may be reduced to 40 feet with a 20-foot pavement width. The cross section must include provision for stormwater management by way of a sufficient ditch cross section. For very low-density developments, trails may be constructed in lieu of sidewalks. Alternatively, a striped pedestrian/bicycle lane may be used within the right-of-way assuming a minimum pavement width of 24 feet.

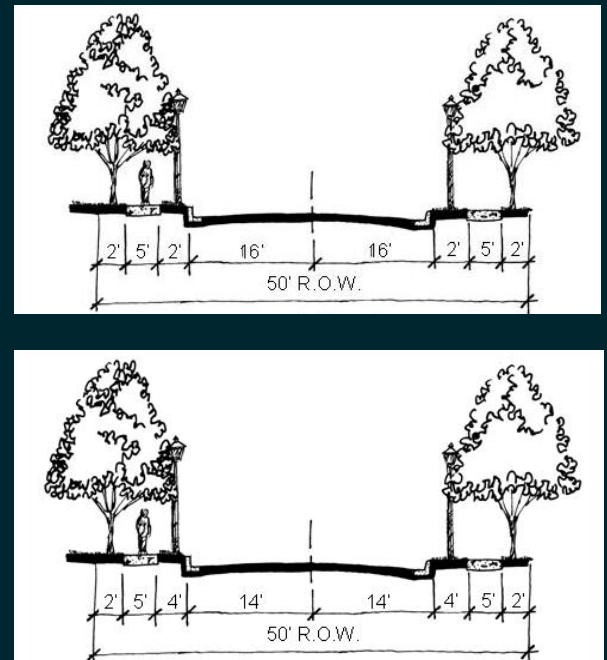
Classifications for alleys and marginal access streets are a function of service and property access and, therefore, are not included in the classification system. This is not to indicate that the plan ignores the use of alleys. In fact, the plan recognizes the valuable contribution of alleys to the urban fabric and establishment of community character and proposes that they be used, as appropriate.

Collector Streets

Subdivision street layout plans and commercial and industrial districts must include collector streets to provide efficient ingress/egress and traffic circulation. Since collectors carry higher traffic volumes than local streets, they require a wider cross-section and added lanes at arterial street intersections to provide adequate capacity for both through-traffic and turning movements. However, since posted speeds are slower and more turn movements are expected, a higher speed differential and thus, closer intersection spacing, may be used. Collectors typically make up about five to 10 percent of the total street system.

This plan proposes classifications of major and local collectors distinguished by volume of traffic. A major collector is designed for 7,500 to 15,000 vehicles per day (VPD), which requires a pavement width of 44 feet. Alternatively, a local collector may allow a pavement width of 36 feet, which is for 1,000 to

Figure 5.4, Local Street Section Alternatives



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 The logo for "Envision 2030 Valparaíso" features the word "ENVISION" in a bold, sans-serif font. The letter "O" is replaced by a stylized circular graphic composed of overlapping colored segments (blue, green, yellow, and red). Below "ENVISION" is the year "2030" and the word "VALPARAÍSO" in a smaller, all-caps font.

7,500 VPD. The review standards must include provisions to distinguish the warrant and criteria for major and local collector roadways.

An option for rural development is collector roads without sidewalks or curb and gutter. This permits development to maintain a rural character and provide a natural versus structural drainage system. In this case, an interior trail system would be necessary to compensate for the loss of sidewalks. Pavement width would be reduced to 32 feet, while the right-of-way requirement would remain at 60 feet to account for the space required for open or covered ditches.

Arterial Streets

Arterial streets form an interconnecting network for broad movement of traffic. Although they usually represent only five to 10 percent of the total roadway network, arterials typically accommodate between 30 and 40 percent of the total travel volume. Since traffic movement rather than land access is the primary function of arterials, managing access is essential to avoid congestion, delays, and unsafe conditions caused by turning movements. Likewise, intersections with other streets should be designed to limit speed differentials between turning vehicles and through traffic to no more than 10 to 15 miles per hour. Signalized intersection spacing should be long enough to allow a variety of signal cycle lengths and timing plans that can be adjusted to meet changes in traffic volumes and maintain traffic progression (preferably one-third to one-half mile spacing) unless signal interconnection is implemented.

The cross-section of arterial streets may vary from four to five (and in some cases six) lanes to a two-lane roadway in the developing rural fringe where traffic volumes do not yet warrant more traffic lanes. Functional classification is not dependent on the number of lanes since the functional role typically remains constant over time, while the roadway's cross-section is widened and improved to accommodate increased traffic volumes. Thus, lower-volume roadways that are continuous over long distances may function as an arterial, particularly within the planning area. A good example of this is Joliet Road, which is a two-lane roadway that may warrant widening as development continues.

This plan advocates a raised or depressed median in all new principal arterial roadways where the land development pattern is not yet established. Medians within the developed and developing areas should be evaluated on a case-by-case basis, based upon warrants and constraints, accident records, fatality incidents, and specific design considerations. Minor arterial roadways are proposed to have an undivided street section.



New Roadways / Extensions

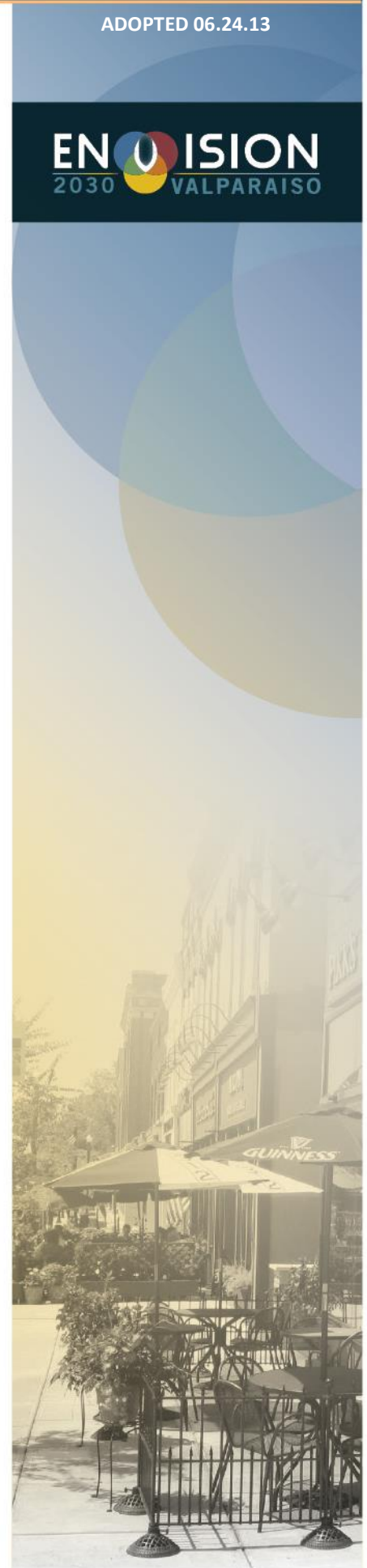
There were several roadway extensions identified that are added to the Thoroughfare Plan:

- A new road between Sturdy Road and State Route 49 about halfway between Laporte Avenue and U.S. 30;
- A new road from the one described above south to connect with Silhavy Road (as an alternative, a connection of Dove Drive to the new road and again to the south to connect with Silhavy Road);
- A connection between Carrsbrook Drive and Eisenhower Avenue and connecting all existing portions of Eisenhower Avenue;
- A connection of North Sturdy Road to Glendale and from just south of Flemming Road northwest to meet Vale Park Road;
- A connection between Campbell Road at its terminus to U.S. 30;
- Extension of State Route 149 from State Route 130 all the way to U.S. 30 (as an alternate, a connection between the intersection at State Route 149 / State Route 130 to North 250 West);
- A connection between West Harrison Boulevard and Lincolnway / SR 130;
- A connection between West 500 North and Burlington Beach Road;
- A State Route 49 “bypass” road to the east in general alignment with Porter’s Vale Boulevard all the way to East 500 North; and
- An extension of Montdale Park Drive east to North 325 East.

Plan Implementation

Implementation of the thoroughfare system will occur as the City grows and, over many years, builds toward that reflected by the Official Intermodal Transportation Plan. The Thoroughfare Plan may be used to make decisions related to the planning, coordination, and programming of future development and other infrastructure improvements. Review of primary and secondary plats in accordance with Article 6, Subdivision Design and Land Development of the UDO must comply with the Thoroughfare Plan to ensure continuity and availability of sufficient rights-of-way for the roadway alignments shown on the plan. It is of particular importance to provide for continuous roadways and through connections between developments to ensure efficient citywide mobility. By identifying locations where rights-of-way are needed, landowners and subdividers may consider the roadways in their subdivision planning, dedication of public rights-of-way, and provision of setbacks for new buildings, utility lines, and other improvements located along the rights-of-way for existing or planned thoroughfares.

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Requirements and Standards

The following criteria are intended to provide policy support for Article 8, Streets and Utilities of the UDO. These policies are to be regulated by the UDO as means of implementing this plan.

- Location and alignment of thoroughfares* - The general location and alignment of thoroughfares must be in conformance with the Thoroughfare Plan. Subdivision plats should provide for dedication of needed rights-of-way for thoroughfares within or bordering the subdivision. Any changes in thoroughfare alignment that are inconsistent with the plan require the approval of the Planning and Zoning Commission through a public hearing process. A "change" includes any proposal that involves the addition or deletion of a thoroughfare, or change in designation or alignment of thoroughfares that would affect parcels of land beyond the specific tract in question.
- Location and alignment of collectors* - To adequately serve their functional role, collectors should be placed between arterial streets, with a spacing of one-quarter to one-half mile for local and major collectors, respectively. Collectors must be shown for all proposed subdivisions of land consistent with the Thoroughfare Plan. Where a collector is not shown on the plan, but is warranted due to development density and projected traffic volumes, it is also required and must be shown.
- Roadway continuity* - To maximize mobility it is essential that collector streets traverse adjacent neighborhoods to provide access and circulation within and between neighborhoods. Collector streets should connect arterials, rather than allowing developments to have a street system with limited points of ingress/egress other than a single point of entrance. The subdivision regulations should be amended to identify warrants and criteria for exemption.
- Right-of-way and pavement width* - The pavement and right-of-way width for thoroughfares must conform to minimum standards. Properties proposed for subdivision that include or are bordered by an existing thoroughfare with insufficient right-of-way must dedicate land to compensate for any right-of-way deficiency of that thoroughfare. When a thoroughfare extension is proposed to connect with an existing thoroughfare that has a narrower right-of-way, a transition area must be provided. An alternative to the current practice of requiring street widening at the time of subdivision development is a street escrow program whereby funds for street construction are held in escrow until such time as widening of the complete street section is warranted.
- Continuation and projection of streets* - In accordance with the policies of this plan, existing streets in adjacent areas should be continued, and,



when an adjacent area is undeveloped, the street layout must provide for the continuation of streets into the undeveloped area. In particular, the arrangement of streets in a new subdivision must make provision for continuation of right-of-way for the principal existing streets in adjoining areas – or where new streets will be necessary for future public requirements on adjacent properties that have not yet been subdivided. Where adjacent land is undeveloped, stub streets must include a temporary turnaround to accommodate fire apparatus.

- *Location of street intersections* - New intersections should be planned to align with existing intersections to avoid off-set or "jogged" intersections and to provide for continuity of existing streets.
- *Angle of intersection* – The angle of street intersections should be as nearly at a right angle as possible. Corner cutbacks or radii should be required at the acute corner of the right-of-way line to provide adequate sight distance at intersections.
- *Offset intersections* – It is advisable to have a standard for offset or "jogged" street intersections of 200 feet between the centerlines of the intersecting streets.
- *Cul-de-sacs* - Through streets and perpendicular intersections are preferable to cul-de-sacs. Care should be taken so as not to over utilize cul-de-sacs, which limit through-access, restrict pedestrian circulation, increase *response times*, and generally confuse motorists.
- *Roundabouts* – The City should continue to encourage the installation of roundabouts at intersections.

