Mobility & Transportation

This section considers a full complement of transportation modes – roads, pedestrian, bicycles, trails, transit, parking, railroads, and airports and airfields. It describes an evolving local transportation system built upon the Comprehensive Plan's Vision.

In so doing, the section not only serves as the City and County's transportation plan but also fulfills the Long Range Transportation Plan (LRTP) requirements of the Federal transportation planning process. While the Federally mandated LRTP is portrayed in this section of the Plan, the entire Comprehensive Plan – and the process followed to bring it about, as well as other supporting technical documentation – should be viewed as part of the community's commitment to fulfilling the letter and spirit of the Federal requirement.

Transportation Planning Principles

The Transportation System for Lincoln and Lancaster County involves different modes of transportation to achieve the safe, efficient and convenient movement of persons and goods. The transportation system includes streets and highways, public transportation, railroads, trails, sidewalks, and airport facilities. The transportation system is primarily influenced by land use, facility cost, operating cost, the environment and the socio-economic factors of the community.

The Mobility & Transportation section of the Comprehensive Plan guides decisions that will support the plan's overall objectives by allowing Lincoln and Lancaster County's transportation system to move people and goods around the community in a safe, efficient, and convenient way. However, the roles and effects of the transportation system are far more complex than simply moving people and vehicles. The characteristics which contribute to this complexity include:

- *The size of capital investment in the transportation system.* This system represents the community's largest single public works investment. Transportation projects are typically expensive, requiring that every dollar be spent to maximum advantage.

Federal Planning Requirements for the Long Range Transportation Plan

Address least a twenty year planning horizon and updated every five years;

Include long-range and short-range strategies/actions for operation and management activities;

Provide an integrated intermodal transportation system for the safe and efficient movement of people and goods;

Use latest estimates and assumptions for population, land use, travel, employment, congestion, and economic activity;

Maintain consistency with the projected transportation demand of persons and goods in the metropolitan planning area over the period of the plan;

Identify management and operations strategies, such as traveler information, traffic surveillance, incident response, freight routing, work zones management, weather response, pricing, fare payment alternatives, public transportation management, demand management, alternative routing, telecommuting, and parking management;

Plan pedestrian walkway and bicycle transportation facilities;

Consider and provide for congestion management system alternatives;

Assess capital investment and other measures to preserve existing system and to make the most efficient use of existing facilities;

Include design concept and scope descriptions of all existing and proposed transportation facilities in sufficient detail to develop cost estimates;

Reflect a multimodal evaluation of the transportation, socioeconomic, environmental, and financial impact of the overall plan;

Reflect consideration of local long-range land use plans, housing goals and strategies, community development and employment plans, and environmental resource plans, work force training and labor mobility plans; energy conservation goals, and the metropolitan area's overall social, economic, and environmental goals and objectives;

Indicate proposed transportation enhancement activities;

Include a financial plan demonstrating the consistency of proposed transportation investments with already available and projected sources of revenue.

Include an intelligent transportation systems (ITS) strategy.

- *The level of public interest in transportation issues.* People in American communities value their ability to move freely about their cities. We expect our transportation systems to respond to our needs with a minimum of inconvenience and congestion. We also interact with the transportation system every day during work, shopping, recreation, and social trips. Because of this, the transportation system attracts a high level of public interest and debate.

- *The relationship between land use and urban development patterns.* The transportation system both serves and shapes development. When most trips were made by walking and public transportation, cities exhibited relatively dense development patterns. The convenient access provided by the automobile to all parts of the City allowed people to live, work, and shop in more dispersed locations, creating lower density cities. This pattern of lower density was reinforced by the space required for streets and highways, parking lots, and other facilities. Finally, the construction of roads opens areas to development, helping to mold the City's future growth directions. So, just as the transportation system is primarily influenced by land use, land use can also be influenced by transportation.

- *The environmental impact of transportation facilities.* Of all public infrastructure investments, transportation facilities probably have the greatest visible effects on the most people. Street widening projects affect the quality of neighborhood environments, making residents extremely sensitive to them. Transportation is also a major energy user and producer of waste products in American cities. The character of the transportation system can help to determine the long-term sustainability of a community.

- *Conflicts between transportation constituencies.* Different people have different expectations of the transportation system, frequently creating conflicts. A resident of a newly developing area expects the system to provide a quick, convenient way to work. However, the expectations of this commuter can conflict with the concerns of a neighborhood along the commuting route.

Because of these and other issues, transportation planning must balance a variety of needs and priorities. The transportation system provides the links and tendrils that knit Lincoln and Lancaster County together as one community. Yet, the impact of that same transportation system can create physical barriers and conflicting interests that can also erode this sense of community. Four principles guide Lincoln and Lancaster County's transportation planning:

- *A Connected City.* In Lincoln and Lancaster County, the unifying qualities of transportation will be emphasized. The transportation network will sustain the One Community concept by linking neighborhoods together. Neighborhoods, activity and employment centers, rural communities, and open lands will be connected by a continuous network of public ways.

- *A Balanced Transportation System.* Transportation planning in Lincoln will be guided by the principle of balancing needs and expectations. It will recognize that transportation is a means to the goal of a unified, liveable, and economically strong community, and not an end in itself. Thus, the system will effectively move people and goods around the community, while minimizing impacts on established neighborhoods and investments. The concept of balance also applies to methods of transportation. While the system must function well for motor vehicles, it should also establish public transportation, bicycling, and walking as realistic alternatives now and in the future.

- *Transportation as a Formative System.* Transportation and land use are linked systems. The land use plan, which includes projections of future development, determines the character of the transportation plan. On the other hand, transportation has a major impact on the form of the City. Lincoln and Lancaster County will use major road projects to reinforce desirable development patterns.

- *Planning as a Process.* Transportation planning is a dynamic process, responding to such factors as community growth, development directions, and social and lifestyle changes. Therefore, the Comprehensive Plan should also establish an ongoing process that responds to these changes.

The overall objectives of the transportation plan include:

- Developing a balanced transportation system that meets the mobility needs of the community and supports Lincoln and Lancaster County's land use projections and plan.

- Using the existing transportation system to its best advantage.

- Creating a sustainable transportation network that minimizes energy consumption and environmental pollution.

- Increasing the use of alternate means of transportation, including public transportation, bicycle transit, and pedestrian movement, by improving and expanding facilities and services and encouraging compact, walkable land use patterns and project designs.

- Continuing Lincoln's street and trails network into newly developing areas.

- Designing a street and road improvement program that is both physically attractive and sensitive to the environments of urban neighborhoods.

- Maximizing the safe and efficient movement of railroad traffic, while minimizing street conflicts and reducing the creation of barriers created by rail corridors.

- Enhancing aviation facilities, while minimizing their effect on surrounding land uses.

The maintenance, improvement and expansion of the transportation system is fiscally constrained. The benefits and costs of alternative transportation improvements must be evaluated on an ongoing basis to assure that the public interest is best served.

This Plan acknowledges that the transportation planning process is both dynamic and ongoing. The planning process establishes a framework within which all possible transportation improvements are evaluated and prioritized for implementation. This process establishes a series of refinements that move projects from the general to the specific and from concept to construction.

Transportation Planning Requirements

Three pieces of Federal legislation dramatically affect the way transportation planning is conducted in the United States:

Clean Air Act Amendment (CAAA) of 1990: This legislation asks communities to explore modes of travel other than private vehicles to improve air quality while meeting the population's mobility needs.

Inter-Model Surface Transportation Efficiency Act (ISTEA) of 1991: This legislation emphasizes inter-modal and multi-modal transportation planning. Plans must conform to air quality and fiscal requirements. It also calls for transportation planning to include the movement of people and goods.

Transportation Equity Act for the 21st Century (TEA-21) of 1998: This latest legislation extends and molds many of the ideas embodied in the ISTEA measure. Meeting the challenges of continued increases in traffic, protecting the natural environment, and advancing economic growth are but some of the legislation's objectives.

The Transportation Equity Act for the 21st Century (TEA-21) lists seven factors to be considered in the Long Range Transportation Plan:

- *Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;*
- *Increase the safety and security of the transportation system for motorized and non-motorized users;*
- *Increase the accessibility options available to people and freight;*
- *Protect and enhance the environment, promote energy conservation, and improve quality of life;*
- *Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;*
- *Promote efficient system management and operation; and*
- *Emphasize the preservation of the existing transportation system.*

PEDESTRIANS

Walking is an essential part of our daily activities, whether it be trips to work, shop, or play. Often pedestrian facilities are overlooked or merely added onto street improvement projects. However, to preserve and enhance the quality of life for Lincoln, consistent maintenance of the existing pedestrian system and additional facilities are needed. Planning and developing pedestrian facilities should consider many factors:

- Location of existing and planned activity centers and districts, such as shopping malls, older neighborhood centers, libraries, community centers and schools.
- Programs to retrofit established sections of town with pedestrian amenities.
- Design standards for pedestrian facilities in new residential and mixed-use developments.
- Requirements from the Americans With Disabilities Act (ADA).
- Needs of a growing senior population.

The Comprehensive Plan's Pedestrian Plan serves to make pedestrian facilities an integral part of the planning and development from the earliest stages of the planning process.

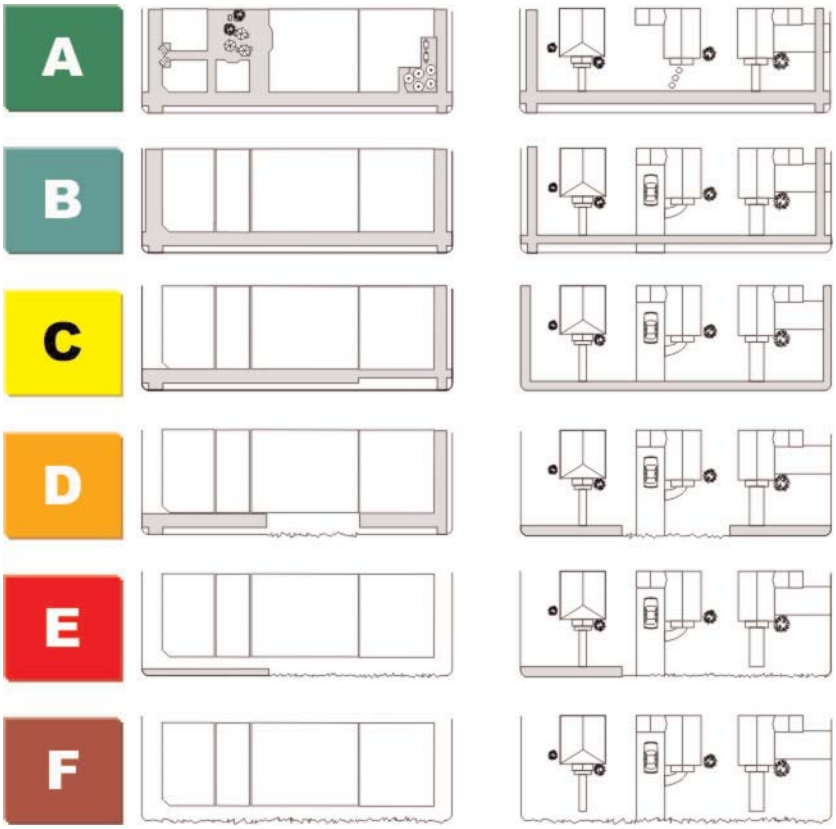
Pedestrian and Bicycle Workshop Vision Statement

"Elevate status of pedestrians and bicyclists in the community to be an integral part of the Transportation Plan."

PEDESTRIAN LEVEL OF SERVICE FACTORS

Five factors make up the quality of the pedestrian environment and define pedestrian level of service:

- **Continuity** - The sidewalk system should be complete and without gaps. The pedestrian network in shopping centers should be integrated with adjacent activities.

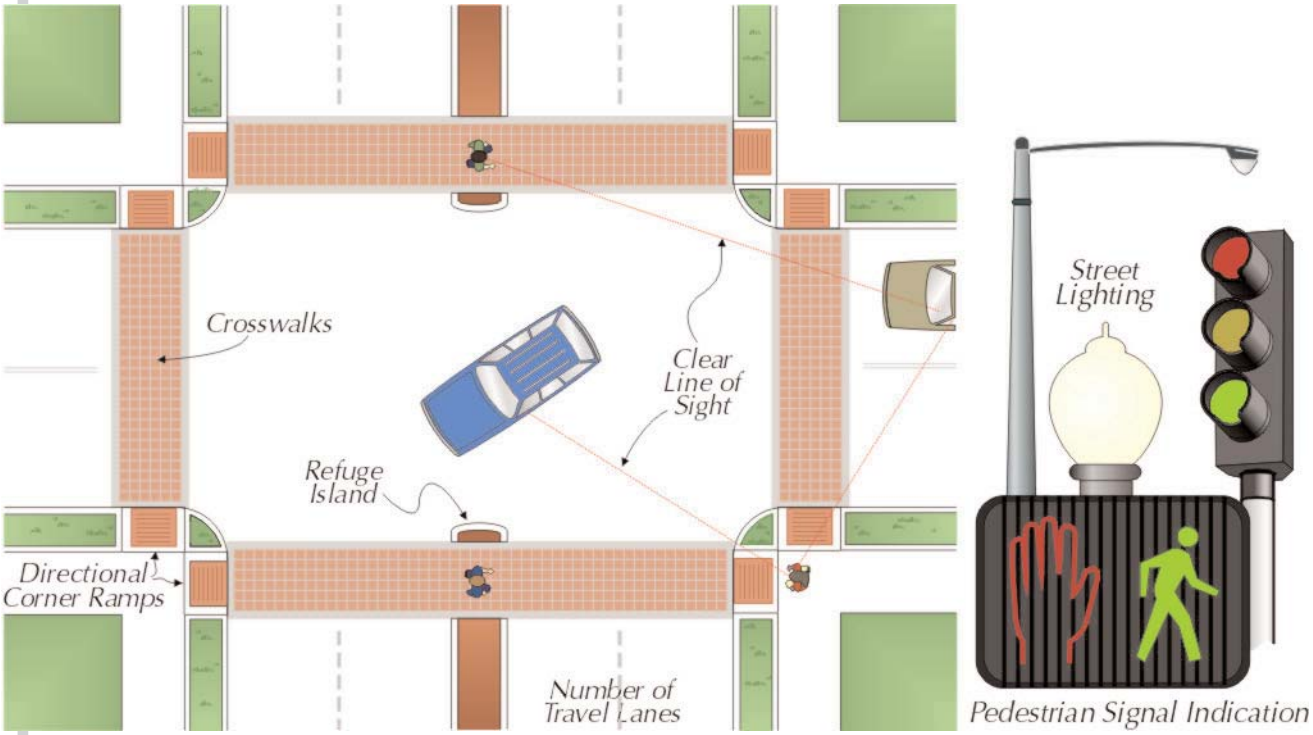


- **Security** - Pedestrians should be visible to motorists and other pedestrians. Pedestrians should be separated from motorists and bicyclists. Adequate lighting should be provided.

- **Visual Interest** - Pedestrians enjoy a visually appealing environment. Street lighting, fountains, and benches should match the local architecture. Pedestrian amenities should include landscaped parkways with street trees between the street and sidewalk.

- **Directness** - Pedestrians should be able to walk in a direct path to destinations like transit stops, schools, parks, and commercial and mixed-use activity centers. Directness is the ratio of actual distance along a sidewalk or pathway divided by the minimum distance the trip would take on a grid system.

- **Street Crossing** - Street crossings should feel safe and comfortable. Factors to consider are number of lanes to cross, traffic volumes, turning movements, speed of traffic, signal indication, curb radius, crosswalks, lighting, raised medians, visibility, curb ramps, pedestrian buttons and convenience.

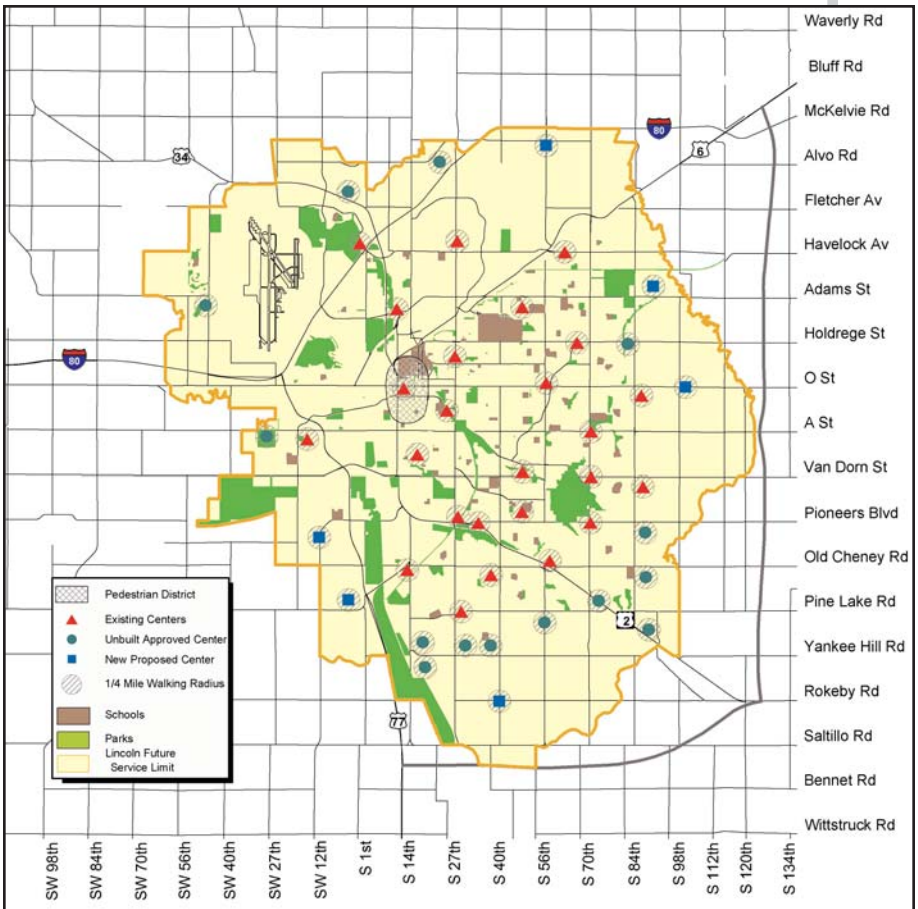


Pedestrian Activity Centers Plan

Pedestrians are found throughout the community. Their needs can vary by where they are located:

- **Pedestrian Districts** - These areas are typically located in settings where people go to walk around, shop, eat, or conduct business.

  These districts attract large numbers of pedestrians on a regular basis. They include the Downtown (along with the main campus of the University of Nebraska-Lincoln), University Place, College View, and Havelock. Pedestrian level of service standards in these areas should be high. These areas should have direct, continuous sidewalks with safe street crossings. Visual interest and amenities should serve to attract people to these districts. Future large scale, mixed- use activity districts should be considered members of this category of pedestrian activity centers.



Pedestrian Activity Centers Plan

- **Activity Corridors and Centers** - These areas tend to be located along arterials, particularly where two major arterials might intersect. These locations often have strip commercial or "L" shaped neighborhood shopping centers. Directness and safety for pedestrians going to, from, and within these corridors and centers should be stressed.

- **Schools** - While it might not be critical for the route to school to be picturesque and visually captivating, a safe and secure environment must be provided for students going to and coming from schools. Sidewalks should be direct and continuous with safe street crossings.

- **Transit Corridors** - Transit trips begin and end as pedestrian trips. Directness and safety are critical elements.

- **Other Areas** - All areas of the community should have safe, secure, and reasonably direct pedestrian connections. Activities of daily living should be available within walking distance. Neighborhoods should include homes, stores, workplaces, schools, and places to recreate. Interconnecting streets, trails, and sidewalks should be designed to encourage walking and bicycling, reduce the number and length of automobile trips, and conserve energy.

Strategies: Pedestrian Activity Centers Plan

- Target pedestrian improvements in areas shown on the Pedestrian Activity Centers Plan. Refine map as necessary. Use pedestrian standards.
- Establish dedicated funding discussed later in this section.
- Give priority consideration to funding pedestrian facilities within the capital improvements programming process.
- Maintain and improve the existing school crossing protection program.

In order to create greater pedestrian opportunities, particularly in the construction of new "multi-modal" roads and the reconstruction of existing roads, sidewalks and safe street crossings should give consideration to pedestrian push buttons, crosswalk enhancements, median refuge islands, bulb-outs, and other design features. In the older built environment, design considerations should be given to similar options with special flexibility sought to minimize impacts to adjacent uses.

Pedestrian Standards

Pedestrian standards should be prepared for public and private developments. These standards should consider existing and future pedestrian activity centers. The standards should be realistic and easy to understand. Checklists may be used to implement the standards.

Pedestrian standards should identify key destinations, and plan for pedestrian facilities to and from these locations. Key destinations include schools, parks, trails, and activity centers.

Strategies: Pedestrian Standards

- Develop minimum pedestrian standards for all new public works projects, including new roadways and reconstruction of existing roadways. These standards should include street crossing treatment, sidewalk design, and landscaping.
- Develop minimum pedestrian standards for private developments to provide pedestrian facilities connecting key destinations such as schools, parks, trails, and activity centers.
- Select a short-term public works demonstration project embracing best practices pedestrian design standards.
- Develop a city-wide database of pedestrian facilities and crosswalks. Develop a dedicated funding mechanism and prioritization process for implementing improvements.
- The planning process is to develop standards that define pedestrian level of service concepts.

Pedestrian Facilities Coordination

There is currently not a single clearing house for pedestrian planning, design, and engineering in the City of Lincoln. Instead, a number of departments address pedestrian mobility and sidewalks with varying perspectives as part of other job assignments. Often either these conflict with the objectives for pedestrian design, or the specific job descriptions put pedestrian planning, design, and engineering at a lower priority than other tasks.

The City should clearly identify the organizational responsibility for pedestrian facility planning, design, engineering, and implementation. This should include responsibility for reviewing and developing pedestrian policies and standards for public and private developments, addressing pedestrian improvements needs, developing and updating the Pedestrian Activities Center Plan map, applying for state and federal grants, and prioritizing pedestrian improvements.

+++ Extremely Important
++ Very Important
+ Important

		Directness	Continuity	Street Crossings	Visual Interest and Amenity	Security
Pedestrian Districts	Routes to/ within	+++	+++	+++	+++	+++
Activity Corridors and Centers	Routes to/ within	++	++	++	++	++
School/ Parks	Routes to	+++	+++	+++	+	+++
Public Facilities	Routes to	+	+	++	+	++
Transit	Routes to	+++	+	++	+	+

Strategies: Pedestrian Facilities Coordination

- Identify the City agency (or agencies) responsible for coordinating pedestrian and bicycle planning activities and for overseeing all pedestrian and bicycle activities within the City.

Pedestrian Education and Enforcement

The Pedestrian Plan should also contain an ongoing educational element regarding air quality, vehicular laws, the health benefits of pedestrian activities, and the potential contribution of pedestrian activities to the reduction of congestion. This should be part of an overall city communication and education program. In addition, enforcement of the vehicle code for both the pedestrian and automobile driver is necessary to promote a safe environment.

Strategies: Develop a Pedestrian Education Program and Enforce Traffic Laws

- Develop a pedestrian education program as part of the City's overall communication and education program.
- Provide police resources and manpower to enforce pedestrian and vehicular traffic laws.

Bicycles and Trails

Bicycles can play an important role in the community by providing a healthy alternative to the automobile, reducing traffic congestion, improving air quality, and creating a more balanced transportation system.

Improvement to existing street and trail facilities that are presently suitable for bicycles, and the development of an expanded system of bicycle-friendly roads and trails for the City of Lincoln and Lancaster County's future have been expressed as strong community goals. This is emphasized by the Pedestrian and Bicycle Workshop Vision Statement: "Elevate status of pedestrians and bicyclists in the community to be an integral part of the Transportation Plan."

Bicycle and Trails Standards

The community has an existing system of bicycle trails and on-street bike routes. The present system serves both commuter bicyclists who use their bicycles daily for work and shopping trips,
and tend to travel from point to point, and recreational bicyclists who tend to ride their bicycles on a more occasional basis, seeking attractive and safe routes. Planning for future bike trails should be guided by the goal of having a bike trail within one mile of all residences in the city.

The future system should include a combination of bicycle trails, bike routes, and bicycle lanes.

Strategies: Bicycle and Trails Standards for Existing Areas

- Extend the bicycle and trails system into the new neighborhoods as the city grows. Connections should be made to schools, parks, and other activity areas.
- Explore options to establish a dedicated funding plan to complete the bicycle and trails facilities plan, and for the continued maintenance of these facilities.
- Identify critical segments offering greater system continuity and connections for major activity centers, schools and the University of Nebraska. Undertake projects to complete identified gaps in the system.
- Evaluate existing bicycle routes and other travel corridors for opportunities to provide bicycle lanes.
- Maintain existing route maps for all trails and routes and provide appropriate signage.
- Implement a public information and education program encouraging bicycles as an alternative mode of transportation.

Bicycle Facilities Planning Lingo

Bikeway – Any street or trail specifically designated for bicycle travel. May be designated exclusively for use by bicycles or may shared with other transportation modes.

Bicycle Path and Trail – Bikeway or trail that is physically separated from motor vehicle traffic by open space or a barrier. May be within the road right-of-way or have its own right-of-way. Also referred to as a "shared use" or "multi-use path,' "recreational trail," or Class I bikeway.

Bicycle Lane – Bikeway on a street designated for preferential or exclusive use of bicycles by striping, signage, and pavement markings. Also referred to as a Class II bikeway.

Bicycle Route – Streets with "Bike Route" signs installed along them. Intended for the shared use of automobiles and bicyclists without striping or pavement markings. Sometimes referred to as a Class III bikeway.

Trail Head – Major entry point onto a trail system often providing public facilities, such as parking, water fountains, bicycle racks, picnic facilities, and restrooms. A trail head is not necessarily at the beginning or end of a trail.

Bicycles in the Downtown

Providing for the mobility needs of motorists and bicyclists in the Downtown will require careful planning and engineering.

Strategies: Bicycles in the Downtown

- Develop and implement a Downtown Bicycle Facilities Plan. This Plan shall include north-south and east-west bicycle lanes. Identify and develop at least one north-south and one east-west corridor to pilot dedicated bike lanes within one year of the Downtown Bicycle Facilities Plan approval.
- Work with the Downtown Lincoln Association, the Lincoln Public Works and Utilities Department, the Lincoln Parks and Recreation Department, and other agencies interested in the creation of a Downtown Bicycle Facilities Plan.

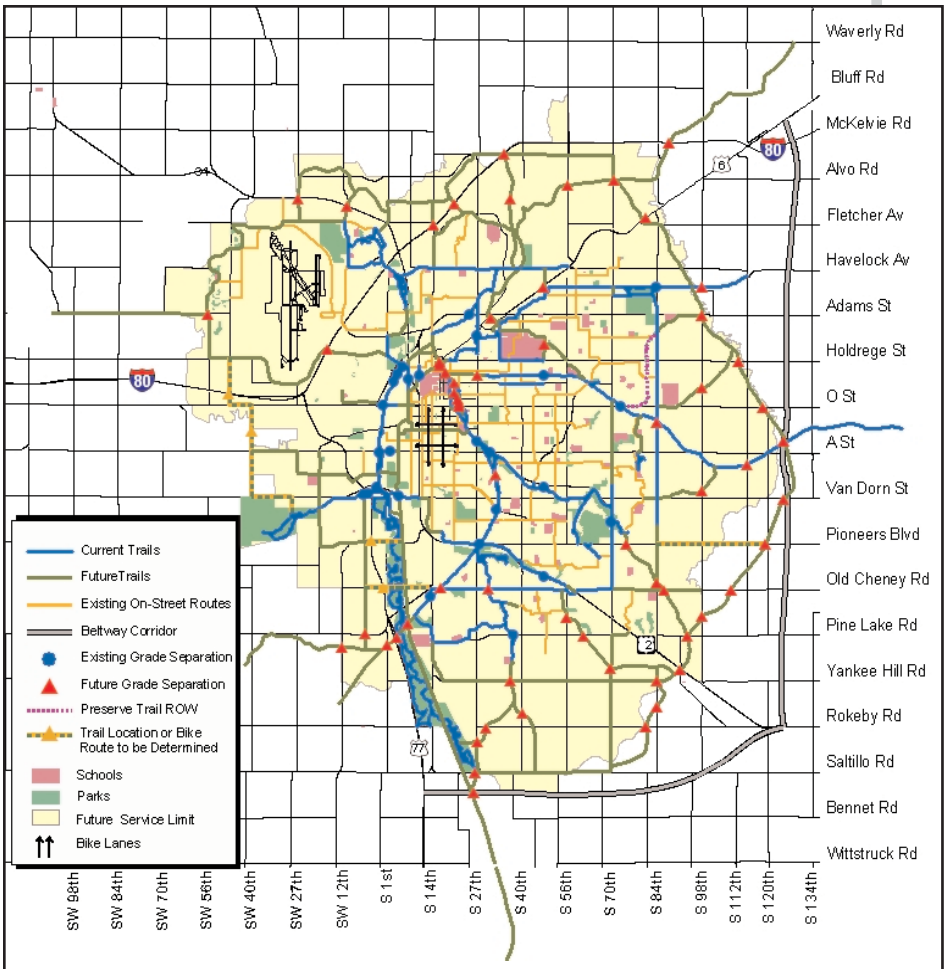
Bicycle and Trails Standards for Developing Areas

Bicycle and trails standards should be prepared for public and private developments. These standards should consider existing and future activity centers. The standards should be realistic and easy to understand. Checklists may be used to implement the standards.

Bicycle and trails standards should identify key destinations, and plan for bicycle and trails facilities to and from these locations. Key destinations include schools, parks, trails, and activity centers.

Strategies: Bicycle and Trails Standards for Developing Areas

- Develop minimum bicycle and trail standards for all new roadways and reconstruction of existing roadways.
- Encourage minimum bicycle and trail standards for private developments to provide bicycle and trails facilities connecting key destinations such as schools, parks, and activity centers.
- Select and implement a near term bicycle facilities demonstration project embracing best engineering practices, bicycle design standards, and minimum Federal guidelines.
- Explore opportunities to develop trails within rail corridors proposed to be abandoned as an interim transportation use.
- Explore opportunities to combine trails within active rail corridors where linkages are needed, and rail traffic volume is low.



Trails & Bicycle Facilities Plan

- Develop an interconnected system of trails that utilizes drainage channels and greenway corridors when feasible. Trail routes adjoining major streets should only be considered in establishing trail connections over ridgelines between drainage basins.
- Consider the location and alignment of trails in reviewing development applications. Request that the platform for trails be graded in conjunction with the associated development.
- Grade separated crossings are to be considered in conjunction with all new construction and reconstruction of transportation projects at all trail/arterial street intersections that do not coincide with arterial/arterial street crossings.

Bicycle and Trails Facilities Coordination

The City should clearly identify the organizational responsibility for bicycle and trails facility planning, design, engineering, and implementation. This should include responsibility for reviewing and developing bicycle and trails facilities policies and standards for public and private developments, addressing bicycle and trail improvements needs, developing and updating the Bicycle and Trails Facilities Plan Map, applying for state and federal grants, and prioritizing improvements.

Strategies: Bicycle and Trails Facilities Coordination

- Identify the City agency (or agencies) responsible for coordinating each aspect of the Bicycle and Trails Facilities Plan.

Lancaster County Bikeways

The community should seek to expand bicycling opportunities throughout all of Lancaster County.

Strategies: Lancaster County Bikeways

- Identify potential bicycle corridors in rural areas of the County based upon existing and planned activity centers and land uses.
- Identify corridors linking County bikeways to existing and planned City bicycle facilities.
- Explore opportunities for widening the shoulders of County roads adjacent to the City of Lincoln. This should occur when reconstruction or resurfacing of the road is planned. Safety should be a primary consideration.

Bicycle Amenities

A major element of the overall bicycle plan is the provision for adequate bicycle facilities as part of the built environment. For example, while parking for cars is routinely planned for, rarely is there a place where the bicyclists can lock or store their bicycle. These facilities can be public facilities or part of private development. In addition to basic bicycle locking and storage facilities, many communities and larger mixed-use centers provide basic shower facilities for commuter bicyclists.

Bicycle amenities should be considered during the planning of public and private developments.

Strategies: Bicycle Amenities

- Develop bicycle rack and storage requirements for new developments. Requirements should address design, location, and number. Requiring locker facilities in major developments should be considered.
- Provide functional bicycle racks and storage facilities in all major destination areas.
- Explore opportunities for trail head facilities for heavily used trails.

Bicycle Education and Enforcement

The potential environmental, health, and traffic reduction benefits of bicycles should be promoted. Enforcing the vehicular code for both bicycles and motorists should also be pursued.

The potential environmental, health, and traffic reduction benefits of bicycles should be promoted. Enforcing the vehicular code for both bicycles and motorists should also be pursued.

Strategies: Bicycle Education and Enforcement

- Develop a bicycle education program to promote bicycle awareness and safety.
- Provide police resources to enforce bicycle and vehicular traffic laws.
- Use the City and County's Internet sites and Cable Access Channel 5 to inform and educate the community about bicycles.

Public Transportation

Public transportation is an essential component of the transportation system and should be integrated with all other transportation modes. StarTran - the City operated transit system - provides fixed-route service, paratransit (Handi-Van), and taxi door-to-door demand responsive disability service. These public services are critical to those persons that are dependent on public transit services. These services are necessary for compliance with the Federal Americans with Disabilities Act. In addition to providing services for the transit dependent, StarTran also offers services as an alternative to the automobile for the non-transit dependent.

As a public service, StarTran transit service should be funded and supported similar to any other public service. A public transit system of a size and quality commensurate with the needs of future City of Lincoln and Lancaster County residents and businesses is an important element of the Transportation Plan.

Transit service, whether fixed-route or demand-responsive service, is intricately linked to many other governmental and planning actions. Providing transit fixed-route service relies upon direct pedestrian connections from the place where the trip begins to where the trip ends. Transit service reacts to the density of the City, transportation corridors and activity centers, as well as to the design of activities along those corridors and centers it serves. High travel corridors and activity centers with a mix of uses provide the demand that can effectively support higher levels of transit service.

Public investment and future development must balance all transportation modes. This balance includes accommodating the pedestrian and the private automobile - through construction of arterial roadways and construction and subsidies for high cost multi-level parking structures - while also investing in fixed-transit and demand-responsive services. The design of the City's infrastructure and roadway system must consider all transportation modes, including transit.

The evolution of an auto-oriented Lincoln has occurred over decades. It will similarly take time to restructure development patterns and uses to achieve an environment which can promote productive transit service.

To achieve viable long range transit service for the City of Lincoln and Lancaster County in the year 2025, a number of broad policies and actions are needed to guide successful implementation and expansion of public transit. These

policies and action items are described below.

Balanced Transit System

Providing transit services throughout the city requires balancing the number of routes, the frequency of service, and the hours of service.

Strategies: Balanced Transit System

- Monitor and modify transit services in response to changes in development patterns and users' needs.
- Consider transit service changes supporting the Comprehensive Plan's Vision of Downtown as a diverse center of activity. Such transit services should aid mobility within the Downtown and further the Downtown's role as an entertainment center.

Transit-Friendly Development

Effective public transportation service requires good pedestrian connections to and from transit stops, density of activities, and development designs supportive of transit riders. Pedestrian connections to transit must be direct and the sidewalk system must have continuity. Street crossings to transit stops must be safe. Productive transit service requires high-density land development patterns which link residential areas and employment, retail, and service centers. Development design needs to be transit friendly providing convenient access to transit services.

Strategies: Transit-Friendly Development

- Develop direct and continuous pedestrian access standards for new development and redevelopment projects.
- Promote mixed-use, high-density activity centers and corridors integrating transit-oriented standards as the project's design.
- Develop and implement transit-oriented design standards for new development.

Maximize Transit Productivity

The 2025 Plan needs to address both the coverage requirements for serving the transit dependent population as well as productive routes for capturing new riders and reducing congestion. Achieving higher productive routes requires strategic planning effort to direct growth patterns along transit corridors and concentrate activity into mixed-use activity centers.

Maximum transit coverage and maximum transit productivity forms the continuum of options for the transit provider. At one end of the continuum is the provision of fixed route transit services which should strive to balance geographic coverage with ridership productivity.

Strategies: Maximize Transit Productivity

- Develop incentives and land development policies promoting mixed-use, high-density development along transit corridors or areas with proximity to existing or future transit service.
- Monitor and modify transit services to maximize transit ridership.

Maximize Transit Connections When Structuring Routes

As the city develops the need to serve additional populations and destinations will change and grow. StarTran routes should be modified to recognize this change in ridership and transit user needs.

Strategies: Maximize Transit Connections When Structuring Routes

- Near-Term: Maintain the current radial network to the Downtown and provide supplemental service to other portions of the urban area with convenient transfer options.
- Long-Term: Expand the modified grid system while maintaining the productive elements of the radial system serving Downtown. Reallocate less productive radial service into grid services by targeting emerging mixed-use activity centers and corridors.

Accommodate Transit When Designing Roadway Improvements

Roadway design should consider the needs of public transit, including bus turnouts, sidewalk connections to transit stops, safe street crossings, street lighting for security, and bus stops and benches.

Strategies: Accommodate Transit When Designing Roadway Improvements

- Develop and apply roadway design standards that support and promote public transit use. These standards should accommodate transit operations and rider safety and comfort.

Explore Regional and Commuter Transit Service Options

Travel between Lincoln and regional destinations (such as the Omaha metropolitan area) will increase during the planning period. The travel will include routine commuter trips as well as other discretionary travel. Public transportation may support this travel using a variety of transit delivery options including various vehicle types and service configurations. Planning and improvements might be considered to help promote and support the possibility of commuter rail for Lincoln beyond 2025. These strategies might include developing a multi-modal center in the Downtown area with immediate access to the existing rail service.

Strategies: Explore Regional and Commuter Transit Service Options

- Consider rail service and other transit modes to provide regional public transportation services (particularly between Lincoln and Omaha) during the interim and long term.

StarTran Transit Contract Service

Contract transit services typically operate with a higher level of ridership productivity and generate greater revenues than do traditional fixed route services.

Strategy: StarTran Transit Contract Service

- Pursue contract transit services funded by various local and federal government funds and rider fares. Other local options for collecting rider fares are through contracted services. One example is the University of Nebraska, which contracts for an inter-campus shuttle and city wide transit service. Through direct contract funding, all University faculty and staff pay no fares when using the service.

Contract service is common in university cities as it (1) provides the transit operator a large and compact ridership base to service, and (2) provides university students and faculty with convenient transit access. This type of contract

also benefits a city in which the university is located by reducing congestion.

Strategies: Pursue Expanded Contract Transit Service Contracts

- Pursue contracted transit service opportunities with employment, entertainment, and commercial uses.
- Develop a policy for encouraging major employment, entertainment, and mixed-use centers to utilize contract transit services.

Special Needs Demand Responsive Transit

StarTran provides special transportation services for persons with disabilities in compliance with the Americans with Disabilities Act. Services include accessible fixed route buses, the Handi-Van service, brokerage, and taxi programs.

Special needs transit services are also offered to their clients by various local private organizations. Area-wide coordination of all special transportation services would make better use of available equipment and better meet the needs of persons with disabilities.

Strategies: Special Needs Demand Responsive Transit

- Pursue coordination with special transit service providers to promote improved operational efficiency and cost effectiveness of special needs transportation services. This will include the coordination of such services to be determined through a planning process with stakeholders, including clients, agencies, and Startran.

Park-and-Ride Opportunities

Establishing park-and-ride locations along outlying areas of the community could support transit connections to the Downtown and other mixed use centers. As Lincoln grows and expands its urban boundary, trip numbers will increase. Shifting some automobile trips to transit can reduce traffic impacts within the existing community, reduce the cost of parking in the central core, and provide increased mobility options for both future and existing development.

Strategies: Park-and-Ride Opportunities

- StarTran and the City-County Planning Department should define strategic locations in the community for park-and-ride facilities.
- Encourage future developers to work with StarTran and the City to include park-and-ride opportunities in their developments.

Long Term Public Transportation Funding Approach

Enhancing transit usage should consider ways to ensure that public transportation service has committed, adequate

financial support over the entire planning period.

StarTran fixed-route and demand-responsive transit services account for less than two percent of the current six-year City of Lincoln Transportation Improvement Program (TIP). While this level of funding might be adequate to provide for the basic transit services for the disabled and transit dependent, the funding level is not sufficient to provide the frequency, route coverage, and structure to compete with the level of service offered by the automobile.

Public funds and policies subsidize parking in the Downtown area against which transit then competes. Transit funding is not seriously considered as a way to provide mobility along congested corridors. There are significant fiscal, neighborhood, and environmental impacts when those corridors are widened. The long term strategy to enhance mobility though a wide range of alternative transportation modes requires long term funding commitments for StarTran.

Strategies: Long Term Public Transportation Funding Approach

- Conduct a funding and subsidy study to determine the trade-off costs and benefits of various transit funding levels.
- Establish a long term funding commitment to public transportation to provide for transit services for existing and future developments within the City.

Parking in the Downtown Area

Downtown Lincoln will continue as the largest commercial district within the city and county. As both new construction and reuse of existing structures occurs, the demand for parking services will remain strong. These parking services will be needed to support office workers, students, residents, and entertainment goers. Parking planning and management will include:

- New parking facilities are programmed in the near term for the Haymarket area and the eastern edge of Downtown.
- The Antelope Valley Project will alter the long term land use and traffic patterns in the Downtown area.
  The provision of parking and other transportation services in and around Downtown will need to be considered as this redevelopment project moves forward.
- A new parking facility is being contemplated by the Public Building Commission to ease parking limitations near the County-City Building and Hall of Justice facilities.
- Pending further study on its future, the Pershing Auditorium complex could require the expansion of parking in that area of Downtown.
- Subarea studies will need to be completed on a periodic basis to determine the need for additional parking or managing existing parking as new employment, residential, and entertainment centers arise.

Strategies: Parking in the Downtown Area

- Employ management techniques to promote the efficient use of parking facilities in the Downtown, including promotion of parking garages (especially for long term uses by offering discounts, time limits

on meters, and contracts with commercial establishments) and reduced rates on fringe meters to attract parking away from core areas with high occupancy rates.

- Continue and enhance a comprehensive approach to managing and maintaining Downtown parking, encompassing public and private parking facilities, on-street parking, and fines.

Future Street and Road Network

Cars and trucks will continue to be the primary mode of travel for Lincoln and Lancaster County residents throughout and beyond the planning period of this Plan. These vehicles depend upon the expansion and continued maintenance of a street and road network allowing ease of mobility throughout the region.

In addition, much of the area's freight movement occurs on local streets and highways; StarTran buses use local streets to transport their patrons around the City; and bicyclists often utilize the street system for their travel.

Although investment in other modes of travel may decrease reliance on the automobile, roads will continue to form the backbone of the entire region's transportation system.

This subsection examines the future streets and highway system designed to serve the future community form of the City of Lincoln and Lancaster County as presented in this Comprehensive Plan. This subsection describes the future roadway projects, studies, and programs forming the Plan's transportation element in terms of:

- Functional Classification
- Urban Area Street System
- County Rural Road System

Functional Classification

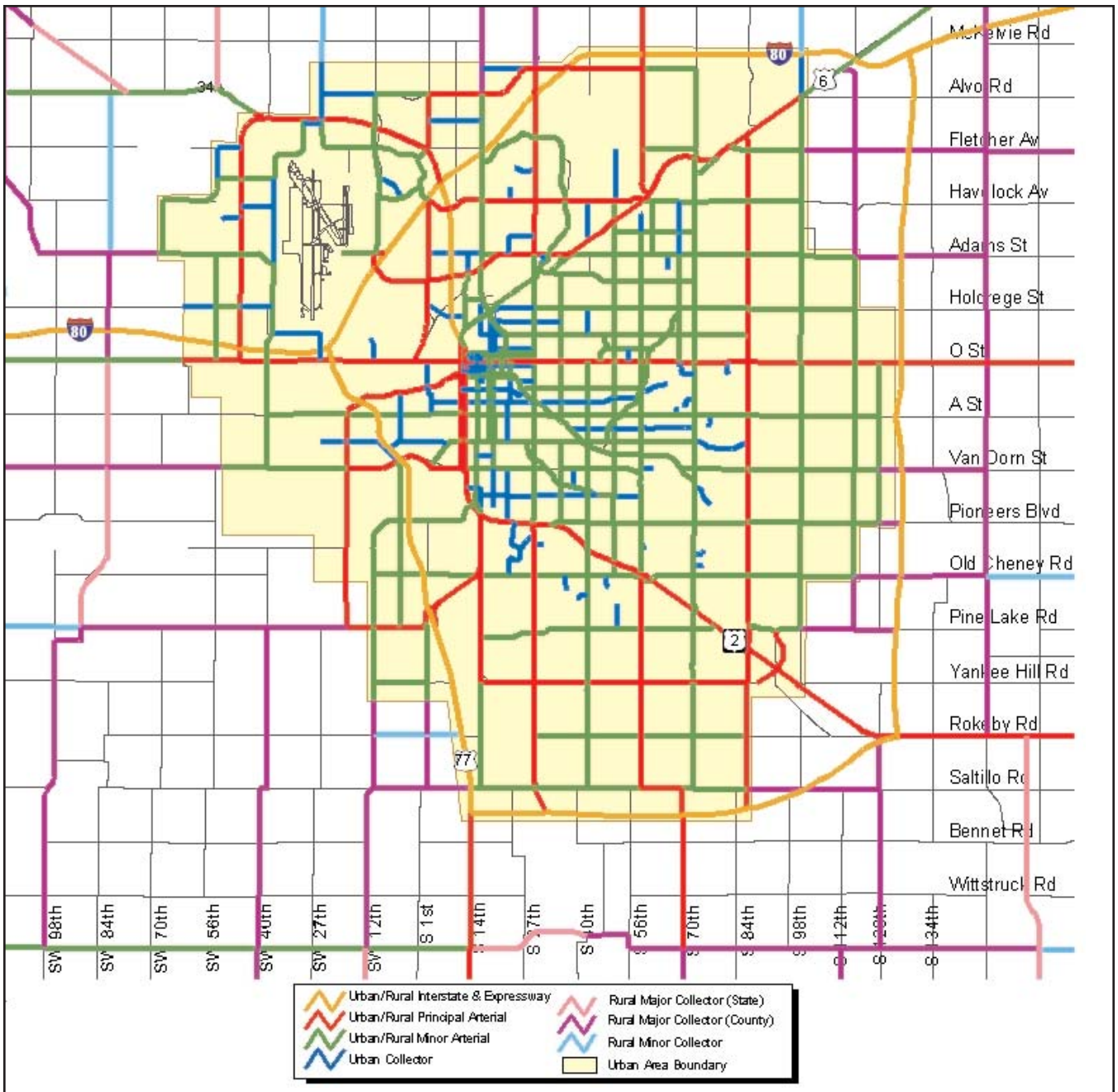
Roadways are classified based on the function they serve. All roadways fall under one of four broad categories: principal arterials, minor arterials, collectors or local streets.

"Arterials" are multiple use corridors that carry large volumes of through traffic. "Collectors" equally serve to carry traffic but also provide access to neighborhoods and abutting properties. "Local" streets primarily provide access to abutting properties. These three primary functional classifications may be further classified for design purposes. The following describes the functions of the various street classifications used in the Lincoln-Lancaster County transportation planning area:

A. Principal Arterials: This functional class of street serves the major portion of through-traffic entering and leaving the urban area and is designed to carry the highest traffic volumes. These serve intra-area traffic such as between the CBD and outlying residential areas and traffic between major inner-city communities or suburban centers. Included in this class are fully controlled access facilities and partially controlled access facilities. The principal arterial system is stratified into the following two subsystems:

- **Interstate Highway, Freeway and Expressway:** These are divided, limited access facilities with no direct land access. The freeway does not have at-grade crossings or intersections. The expressway is similar to a freeway except it may have some cross streets that intersect at grade and access is either full or partially controlled. Both the freeway and expressway are intended to provide the highest degree of mobility serving potentially large traffic volumes and long trip lengths.

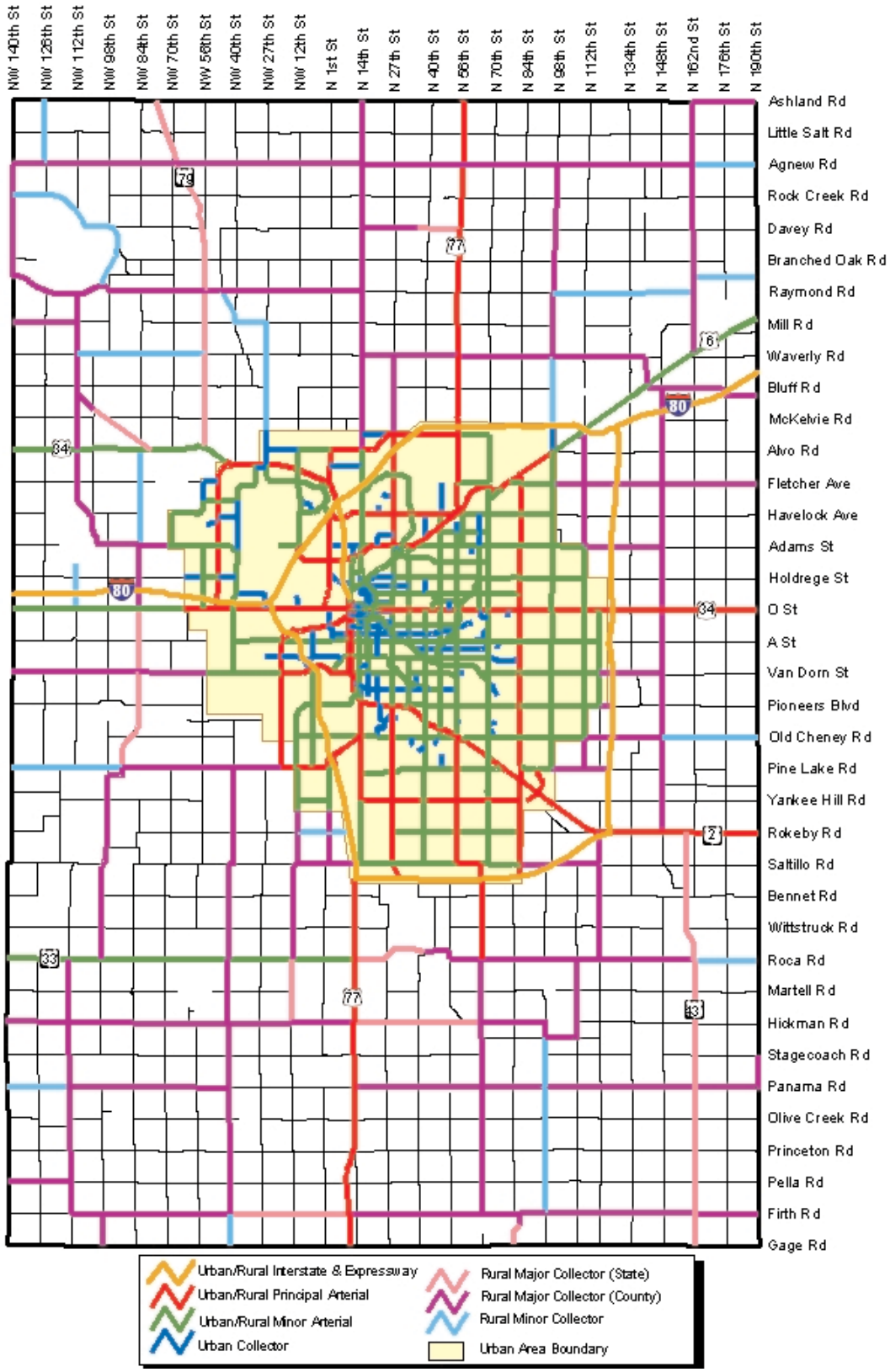
- **Other Principal Arterials:** This functional class of street serves the major portion of intercommunity and intracommunity traffic movement within the urban area and is designed to carry high traffic volumes.



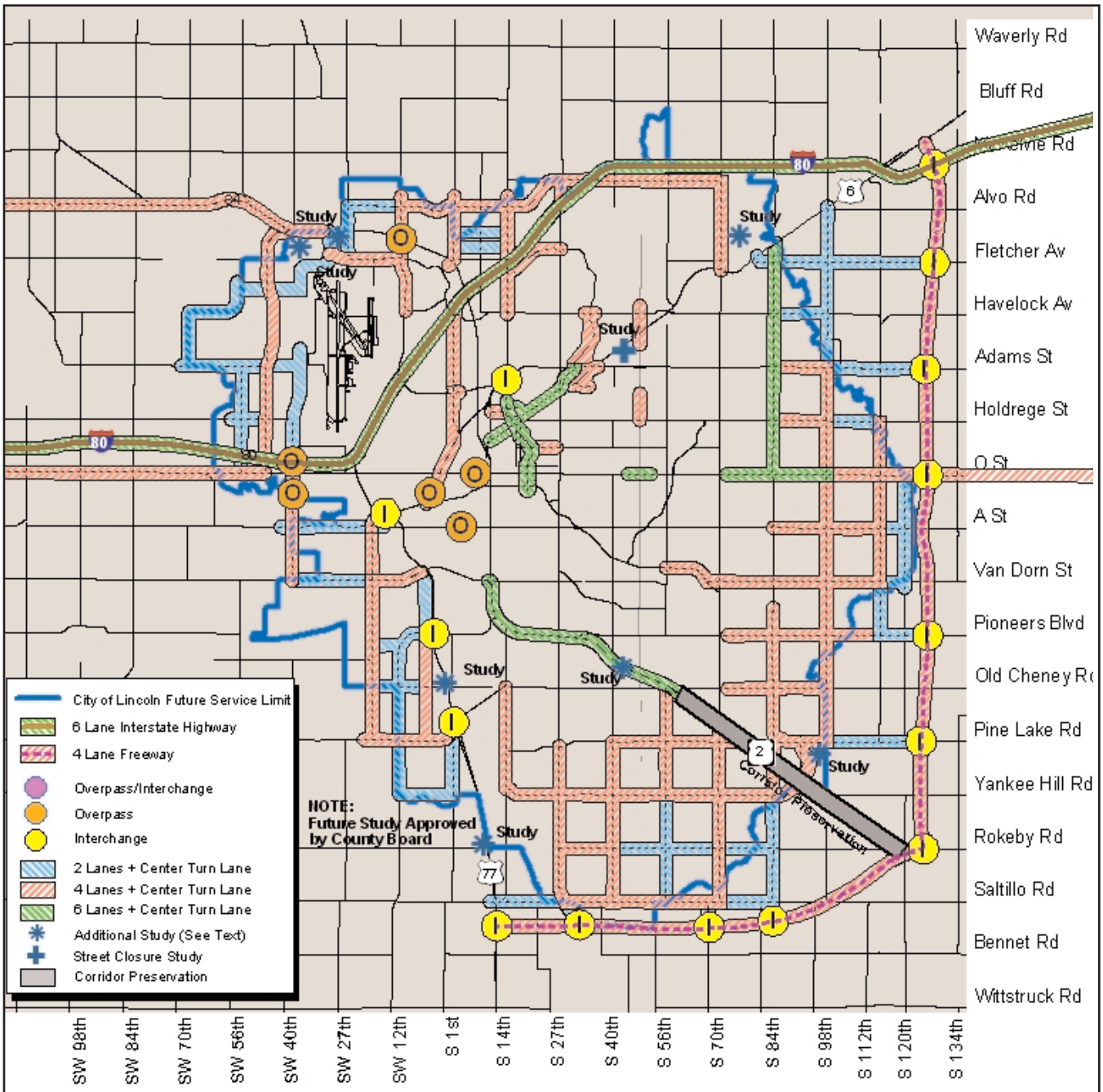
Future Functional Classification: City Streets

For other principal arterials, the concept of service to abutting land is subordinate to serving major traffic movements. Facilities within this classification are capable of providing direct access to adjacent land but such service is to be incidental to the primary functional responsibility of moving traffic within this system.

B. Minor Arterials: This functional class serves trips of moderate length and offers a lower level of mobility than principal arterials. This class interconnects with, and augments principal arterials, distributes traffic to smaller areas, and contains streets that place some emphasis on land access. These are characterized by moderate to heavy traffic volumes.



Future Functional Classification: County Roads



Projects & Studies: Lincoln Area Street & Roadway Improvements 2025

C. Collector Streets: These streets serve as a link between local streets and the arterial system. Collectors provide both access and traffic circulation within residential, commercial, and industrial areas. Moderate to low traffic volumes are characteristic of these streets.

D. Local Streets: These are composed of all lower order facilities that essentially serve as a conduit between abutting properties and higher order streets. Local streets provide the lowest level of mobility and generally exhibit the lowest traffic volumes.