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INTRODUCTION

A safe and dependable transportation system is the lifeline of every community. This chapter details the current condition and usage of Belfast's transportation system. The City's main goal is to plan for the efficient maintenance and improvement of the transportation system so it can accommodate and well serve existing and anticipated development.

KEY ISSUES

Safety:

See the Transportation Network Map for high crash locations where eight or more crashes have been reported within a three-year period. In 2015, Maine DOT reported four intersections and one road section as high crash locations in Belfast. These were the section of Church Street between Beaver Street and Spring Street, the intersection of Head of the Tide Road and West Waldo Road, Belmont Ave/Route 3 ramp coming off Route 1 south, High Street ramp coming off Route 1 north, and Route 7 ramp off Route One bypass. In 2006, the City, in coordination with Maine DOT, HNTB (traffic consulting firm) and the Federal Highway Administration, conducted a transportation safety audit of Route 1 as a supplement to the Gateway 1 strategic planning process. See the Safety Audit report for a full list of observations and specific recommendations. Many of the observations from the 2006 Safety Audit are still relevant today including:

1. Intersection improvements should receive the highest priority. More specifically:
 - a. Congress Street and Route 1 – MDOT constructed improvements to this intersection in 2007. It appears that the improvements have addressed some key safety issues, however, the City believes that additional improvements are warranted. For example, for northbound traffic, there is no lane for through traffic if a vehicle is turning left onto Congress Street by the Business Park and another vehicle is turning right onto Congress Street by the Tall Pines facility. Further, there is no signal light at the intersection.
 - b. Lincolnville Avenue/Rte 52 and Route 1 – In 2009, long awaited pedestrian improvements were constructed. The City, however, believes the intersection requires additional improvements, particularly for traffic on the westerly side of the intersection.
 - c. Belmont Avenue/Rte 3 and Route 1– Significant improvements were constructed to this road in 2005, however, the City believes that additional

improvements are needed to the current on and off ramp system for the intersection.

- d. Swan Lake Avenue/Rte 141 and Route 1 – The City and MDOT constructed initial pedestrian oriented improvements to this intersection in 2010 through a \$120,000 traffic calming grant. In 2012, the City worked directly with MDOT to conduct a follow-up Safety Audit that focused specifically on the Route 1/Route 141 (Swan Lake Avenue) intersection. In 2013 the City used a \$100,000 traffic calming grant to make additional pedestrian oriented improvements to the intersection, including a pedestrian signal. The City, however, believes that the long term approach is to reconstruct the intersection and that a roundabout could be a productive way to address current and future traffic volumes.
2. Enhance navigation signs, guide signs, and warning signs.
 3. Adjust street name signs and/or replace with larger signs for better visibility for drivers and for emergency response.
 4. Access management strategies:
 - a. Limit curb cuts by consolidating separate entrances that are close together, and regulating requests for new entrances.
 5. Install Maine Uniform Traffic Control Device compliant crosswalk warning signs.
 6. Coordinate impact fees charged by State and City for needed transportation improvements resulting from proposed development.
 7. Add dedicated bike lanes, marked on roadway, shoulder or paths off of Route 1 that provide linkages to East Coast Greenway project and which encourage and support bicycle use in Belfast.
 8. Examine if it is appropriate to establish greater consistency in traffic speeds along the Route 1 corridor in Belfast, including the by-pass area.

Beyond Route 1, longstanding safety concerns exist for other state and municipal roads. The volume and traffic along Route 52 presents ongoing concerns. Other key concerns regarding state routes include: speed of traffic on Route 141/ Swan Lake Avenue; and the lack of a viable emergency vehicle route if the Memorial Bridge is congested.

Traffic speed:

A concern which has often been voiced by residents for numerous City roads, particularly rural roads, is the speed of traffic, which people have stated has lessened their quality of life. In addition, the poor quality of initial construction (particularly a poor road base) of many local roads results in chronic problems for the City in trying to maintain a substandard road. The City faces high maintenance costs for such roads, but City lacks the funds to reconstruct most roads.

See the Transportation Posted Speeds and Compact Area Map for the speed limits of state and city roads. Speeding is of concern on Routes 1, 3 and 141 especially. Ongoing enforcement is costly. The City, in 2009 and 2013, constructed traffic calming improvements at the Rte 141/Rte 1 intersection. Further, the City has received numerous requests from local residents to consider the reduction of traffic speeds on the road on which they live. Examples of such requests in past years include but are not necessarily limited to: Doak Road, Stephenson Lane, Woods Road, Miller Street, High Street and Swan Lake Avenue. An additional concern is City interest in MDOT examining the desirability of establishing more consistent speed limits for Route 1.

Congestion and travel delay:

The Belfast Comprehensive Plan map titled Transportation Network shows the customer service level (CSL) of State and local roads in Belfast. CSL is a measure of safety, condition and service. The lowest CSL found in Belfast is on Route 52 extending southwest from Route 1 into Northport. This road is rated as a Level D on an A-F scale, indicating the level of safety, condition, and service of the road. The CSL takes into account crash history, paved roadway width, pavement rutting, bridge reliability, pavement condition, roadway strength, bridge condition, ride quality, posted road or bridge, and congestion. Congestion at the following locations has been noted by residents and municipal officials: Route 1 and Route 52, Route 1 and Route 141, Route 1 and Route 3, and Route 1 and Congress Street.

Travel volume and type:

The Belfast Comprehensive Plan maps titled Transportation Network Traffic Volumes show factored annual average daily traffic volumes at key points on state, state aid and municipal roadways in Belfast from 2020. The Route 1 bypass, serving the purpose for which it was built, has a higher volume than local downtown streets.

Traffic problems caused by such things as road and driveway locations and design, road maintenance needs, traffic control devices, growth patterns, and lack of transportation options:

Road maintenance is an ongoing effort and municipal budgets are stretched as the cost of such maintenance increases much faster than the costs of other goods and services, due principally to the costs of petroleum and petroleum-based products like asphalt. The state and federal match for such work has always been important and has become even more crucial to maintain safe roadways. The City has worked with property owners to maintain the safety and mobility (traffic

flow at the posted speed) of roadways by addressing access management within the urban compact boundary. New entrances and driveways are approved in accordance with access management goals while balancing private property rights to allow for the use of properties abutting roadways.

The City understands that encouraging growth within and near the in-town area will reduce transportation costs and auto-dependency. The City's minimum lot size of 7,500 square feet for most of the area located within the Route 1 by-pass underscores its efforts to encourage dense growth in areas near services. This area also features an existing system of interconnected streets that create multiple ways for a person to travel to their destination. In addition, the City has encouraged most larger scale employers and retail development to occur in the area immediately adjacent to the Route 1 by-pass. At the same time, there is concern about the amount of congestion that might develop in these areas from new development.

Current state access management rules apply to all state roads located outside of the urban compact area, and to the Pitcher Road. The City has cooperatively worked with MDOT in the implementation of these rules, and recognizes that good quality access management rules are warranted to improve public safety and manage traffic. That said, the City is concerned that current MDOT rules and the implementation of such may conflict with the City's intent to allow greater development in some areas, such as along Searsport Avenue.

The City's current access management standards are less strict than the state standards. That said, the City believes it has often been effective in managing the number of curb cuts on state roads located within the urban compact area, including efforts to reduce the number of curb-cuts at existing businesses when they apply for new permits. The City also recognizes that it should review its current access management standards to ensure its standards well address public safety needs, while also allowing appropriate types of development.

Belfast and the surrounding communities lack effective alternative transportation options in comparison with more densely developed communities in other areas of the State. There is no daily, City-wide bus service for all residents, and public transportation options are very limited. Thus, residents are largely dependent on their privately-owned vehicles for daily trips to work, stores and elsewhere. Reference section B.3. for a description of current public transportation services.

Lack of transportation links between neighborhoods, schools, recreation, shopping, and public gathering areas:

Much of the densely developed area located within or near the Route One by-pass has a well-established system of neighborhood blocks connected by sidewalks and streets. The area features most of the City's parks, two of its schools, and the downtown retail and service area. Outside of the bypass, Belfast is accessible primarily by roadways. Much of the development in these areas occurs linearly along the adjacent road. There are few neighborhoods and even fewer connecting roads/streets and sidewalks. That said, the City has worked to use both City and MDOT monies to install pedestrian oriented improvements on Route 1 to foster greater connectivity and to provide safer routes to the City schools located outside of the bypass.

The City believes that parking is generally adequate for current and projected future use at most schools, recreation, shopping and public gathering areas. Some downtown parking lots require improvements, and there likely always will be a need for more parking near the harbor in the summer, but on the whole, the City does not feel that Belfast has a significant shortage of parking. Municipal parking lot locations and capacity are noted in C.3. (below), and this public parking augments the onsite parking provided at shopping and other locations. Current and recommended pedestrian and bicycle routes are noted in both sections B.8. and C.2. Concern for improving the safety of these routes has helped shape the recommendations in this chapter. Residents in general, especially children and the elderly, should be able to get around portions of the City without depending exclusively on motor vehicles.

Closed or posted bridges or roads:

There are no closed bridges or roads. The City, however, routinely posts seasonal weight limits on many of its roads in the early spring when such roads are most susceptible to damage because of 'break-up' and a poor road base.

Pedestrian and bicycling safety:

Belfast has devoted increasing attention and resources to enhance pedestrian and bicycle safety in the past 20 years. Two of the premier projects are the reconstruction of the Armistice Bridge (Footbridge) across the Passagassawakeag River which the City completed in 2006 at a cost of \$3.6 million (\$2.6 million in City funds), and the Harbor Walk project which created connectivity along the Belfast waterfront between the Armistice Bridge and the Boathouse at Steamboat Landing; a project which was completed in 2013 at a cost of \$1.6 million (\$800,000 in City funds).

In 2010, the City also purchased the former right-of-way owned by the Belfast and Moosehead Lake Railroad. In 2016 the City completed construction of the Rail Trail, a 2.2 mile multi-use path within the rail corridor, which runs along the upper stretches of the Passagassawakeag River. In addition to the Harbor Walk and Rail Trail projects, the City has made improvements to key

intersections, extended and reconstructed sidewalks and explored avenues to foster greater pedestrian and bicycle use to increase connectivity.

In 2008 the Belfast Bay Watershed Coalition and Belfast Trails prepared a report entitled The Vision for Pedestrian, Biking, and Hiking Mobility in Belfast, which identified pedestrian and bicycling safety concerns and which was produced at the request of the Belfast Vibrancy Committee. Key concerns included: Route 1 crossings at Route 52, Belmont Ave/Route 3, and Route 141; all of which are heavily used pedestrian and bicycle routes that connect downtown Belfast with key destinations outside the bypass. As noted in the report, “We view them as critical because they are the most lacking in infrastructure and planning in terms of safety relative to their high rate of pedestrian use (or potential use) and because they involve routes and intersections with heavy auto traffic.” This report helped spur actions on several of the most critical projects, and prompted the City Council to appoint and designate a Pedestrian, Biking and Hiking Committee to regularly advise the Council.

ROAD USE CONFLICTS

Routes 1 and 3 are major State routes that serve a large volume of through traffic. See the Transportation Map for these figures. These roads also serve for local commerce in Belfast. These different uses can create conflicts, especially in regards to speed. The installation of traffic signals at key intersections on Route 3 (Belmont Ave & Main Street) has helped regulate traffic. Enforcement of posted speeds is crucial. The limited use of traffic calming measures in some areas of Route 1, particularly along Searsport Avenue, have been or are being implemented. A sizable portion of Belfast’s business activity is located downtown, not on Routes 1 or 3.

Conflicts in Belfast also occur between how the City and State may view use of a road. The main area of conflict appears to be Searsport Avenue (Route 1). Belfast extended public sewer service to this area in the mid-1990’s and views Searsport Avenue as an area which can support significant development. In contrast, it appears that MDOT would prefer the City limit the amount of development along much of Searsport Avenue. At present, few use conflicts occur westerly of Crocker Road on Route 3, and the main concerns on state roads, such as Routes 52, 137, and 141, appear to be the speed of traffic in areas which often support residential development.

STATE & REGIONAL TRANSPORTATION PLANS

MDOT's Long Range Transportation Improvement Plan provides general goals for the maintenance and improvement of the state transportation system to meet the need of residents and businesses. These goals are in agreement generally with the Belfast Comprehensive Plan. There are no Belfast specific projects or impacts included in this plan; however, a lack of adequate funding to preserve and enhance the state transportation network will impact Belfast along with many other Maine communities over the next twenty years. The community will

need to lobby Maine DOT directly for adequate transportation investments in Belfast and the region.

The 2019-2021 Maine DOT Work Plan includes these projects in Belfast:

- Belfast, pedestrian facility improvements along Route 1, Route 52, Chestnut Street, Bayview Street, and Mechanic Street. \$614,143.
- Belfast Municipal Airport, safety and infrastructure improvements that may include obstruction removal – Phase 2, runway 33. \$221,450.
- Belfast, Poor Mills Road, Sheldon Bridge replacement over Goose River, located 0.89 of a mile east of Shepard Road. \$715,000.
- Belfast, Goose River Bridge replacement over Goose River, located 0.15 of a mile east of Mitchell Street. \$2,355,000.
- Belfast, Waldo Avenue, painting bearings and beam ends on the Waldo Avenue Bridge over Route 1. Located 0.05 of a mile northwest of Field Street.

ROAD DESIGN STANDARDS

The proposed major land uses (see the Land Use Chapter of this plan) including the mixed use/growth along US 1 in East Belfast and along portions of the US 1 bypass, and the area labeled ‘encourage new residential’ along the bypass, will incorporate access management controls along state roadways, shared entrances/ driveways, and new internal street networks that avoid dead-end subdivision roads wherever possible. In following these strategies, the City seeks to maintain the mobility, capacity and posted speeds of US Route 1 and Route 3. That said, potential conflicts may arise, particularly with respect for Searsport Avenue (Rte 1) because the City believes this area is well-suited for additional development. Overall, the City seeks to encourage patterns of development that do not degrade the capacity of the overall road network. For example, the City hopes to concentrate future larger retail development into the area near the Routes 1 and 3 intersection that is presently used for intense retail and office development, but in doing such, the City also recognizes that road improvements will be needed.

ROAD MAINTENANCE

The City Department of Public Works performs a wide variety of tasks associated with maintaining, and in some cases, upgrading its extensive network of City roads. For example, the City regularly resurfaces City roads on a 10 – 12 year schedule, and typically replaces culverts every other scheduled road resurfacing, about every 20 – 25 years. The City regularly maintains open drainage swales adjacent to the road, repairs and extends sidewalks, installs warning signage, sweeps many of the streets, and grades several remaining roads which have a gravel surface.

The City is concerned that all roadways and bridges that are constructed be well engineered and built to last so that potential damage from flooding and adverse weather and use can be

minimized. Substandard design or construction will result in higher costs to taxpayers and/or subdivision associations for repair and remediation. Road damage from flooding, adverse weather conditions and from use, especially heavy trucking activity, requires that roads be built to appropriate standards, including sufficient sub-bases, drainage systems and grading. While this may cost more in development costs upfront, it will reduce costs for the taxpayers, residents, and business owners, all of whom depend on the road network, in the long term. To that end, the City has adopted and enforced good quality road construction standards through implementation of its subdivision and site plan regulations, and the City Council will only accept a road for public ownership if it is engineered and construction of the road is inspected by City engineer to determine compliance with City requirements.

PARKING

Parking is generally sufficient in most parts of the City. The City owns and maintains 2 large public parking areas (60 – 100 vehicles each), an additional 4 smaller public parking lots, and a significant amount of designated on-street public parking in its downtown and waterfront areas. While this is a significant amount of parking, there are concerns that the increased amount of growth which has occurred in the downtown in the past several years, and an increase in the number of major events may lead to temporary shortages in the amount of parking. At present, there is no cost (no meters) to use any City parking space or facility.

Municipal Parking Lots	# of Spaces	Condition	Use
Washington Street	95 paved	Fair	Heavy
Cross Street	28 paved	Fair	Moderate
Beaver Street	60 paved	Good	Heavy
Steamboat Landing (2 areas)	45 paved	Good	Moderate
Belfast Commons	16 paved	Excellent	Moderate
Belfast Harbor	40 paved	Good	Heavy/Seasonal

Most issues associated with the use of existing public parking areas fall into the category of a nuisance rather than a crisis. Examples of these conflicts are as follows:

- Employees of downtown businesses and offices park in on-street parking spaces rather than the off-street parking lots which limits the amount of parking readily available to customers. In 2012 the City revised its parking ordinance, increased enforcement and worked cooperatively with Our Town Belfast (local Main Street organization) and local business owners to address this concern and it appears that these efforts have helped to lessen problems.
- There often is a conflict between short-term and longer-term users at the limited amount of parking near the City harbor.
- There is more public parking along lower Main Street than upper Main Street.
- Periodic events which involve a significant amount of customers can overburden the amount

of public parking available in a select area, including events such as the call for jury duty at the Superior Court House.

- Similar to many communities, there is not enough parking to support a major event, which results in the need to use off-site satellite parking lots and the transport of people to the event.

Belfast believes it has adopted progressive parking standards which support attracting small scale development to its downtown and working waterfront area. For example, Belfast does not require any on-site parking in much of the downtown area, and the Planning Board has the authority to grant reductions in the amount of on-site parking required in other areas in the downtown and along the working waterfront. Also, through the contract zoning provisions the City has adopted for some uses, larger-scale proposals could have some flexibility regarding the amount of parking provided to complement existing, traditional downtown development patterns.

Clearly, there also is market demand to locate retail, office and job creation activities outside of the downtown area. Certain retail facilities want to locate directly on Routes 1 or 3 to take advantage of the large volume of through-traffic, some of which make brief stops at these facilities on their way to destinations beyond Belfast. Belfast believes the amount of parking it requires is consistent with industry norms. Further, the City restricts the maximum amount of parking which can be provided on a site and its standards encourage the use of shared parking. The City updated its parking standards in 2010, and these standards can be found in its Code of Ordinances, Chapter 98, Technical Standards Article VIII. Parking and Loading Facilities).

Safety of vehicles and pedestrians is one of the stated purposes of the parking and loading facilities section of the Belfast Code; reference Chapter 98, Technical Standards, Article VIII, Parking and Loading Facilities. To that end, specific standards to ensure clearly defined entrances and adequate parking and space for circulation patterns are included in this ordinance provision.

The City, in 2010, commissioned the development of a master plan for its downtown and waterfront area which examined realistic approaches the City could implement to increase the amount of on-street and off-street parking in this area. A recommendation of this study which has now been completed was the construction of improvements to the Cross Street/Miller Street/Spring Street area which created an additional 35 on-street parking spaces. This project was funded by a \$500,000 CDBG Grant, which was matched by City funds.

ALTERNATIVE TRANSPORTATION MODES

WaldoCAP (Community Action Partners) – Waldo County Transportation provides the Downtown Area Shuttle (DASH), a limited scheduled shuttle-style bus route service around Belfast. The DASH operates Monday through Friday from 8AM to 12PM and 1PM-5PM. Fares range from \$2.00 one-way to \$50.00 for a monthly pass.

WaldoCAP also operates a bus route service between Belfast and shopping venues in other towns. Twice monthly trips are made from Belfast to Waterville with stops in Waldo, Brooks, Knox, Thorndike, Unity and Burnham. Twice monthly trips are made from Belfast to Augusta with stops in Belmont, Morrill, Searsmont, Montville, Liberty and Palermo. Twice monthly trips are made from Belfast to Rockland with stops in Northport and Lincolnville. Weekly trips are made from Belfast to Bangor, with stops in Searsport, Stockton Springs, Prospect, Frankfort, and Winterport. Weekday trips are made between Belfast and Searsport. Once a week trips are made from Belfast to these communities Troy, Unity, Thorndike, Freedom, Knox, Jackson, Belmont, Brooks, Waldo, Swanville, Liberty, Morrill, Monroe, Montville, Winterport, Frankfort, Palermo, Prospect, Stockton Springs, and Searsport. Trips three times a week are made from Belfast to Lincolnville Center, Lincolnville Beach and Northport. Fares for all these trips are \$3.50 or less. Waldo CAP also offers door-to-door transportation to Belfast from all towns in Waldo County and is available for grocery shopping, personal business and medical appointments for low-income families. This service requires an application process. Waldo CAP provides transportation by bus, van or automobile for MaineCare members to medical appointments for clients that cannot arrange their own medical transportation. Medical transportation is provided by agency and or volunteer drivers.

Concord Coach (Trailways) offers daily service on their Maine Coastal Route between Orono and Logan Airport. In addition to Belfast, other key stops include Bangor, Rockland, Portland and Boston.

The frequency of scheduled bus service is not sufficient for most individuals to be able to partake on a regular basis, as would be required for commuting to work daily. The community's relatively small total population and its dispersed location of residents and of workplaces inhibit public transportation to some extent. However, with an aging population and rising fuel costs, public transportation may become a more feasible future option. Service between the in-town area and local stores, such as Hannaford and Reny's, may prove feasible. Strategies to address this need are presented at the end of this chapter.

BELFAST MUNICIPAL AIRPORT

The Belfast Municipal Airport (KBST) is located at the edge of the Airport access road off of Lower Congress Street near the Route 1 intersection (see the Transportation Network map). The Airport offers a range of services to charter services and private aircraft, however, there are no scheduled carriers that offer flights between Belfast and other locales. As such, the Airport is a significant facility, but it is not a critical part of the transportation system for most residents. Information regarding the Airport is provided below.

The Airport, which is adjacent to the Belfast Airport Business Park has a paved runway 4,002 feet long and 100 feet wide, Runway 15-33. It is lighted and open 24 hours a day. Aviation fuel services are available. Tie downs are available. There are about twenty t-hangars currently at or

under construction. The Fixed Base Operator (FBO) is Maine Scenic Airways. According to the FAA, in 2019 there were about 15 aircraft based on the field, and an average of 27 aircraft operations daily, of which 60% were general aviation, 20% transient general aviation, and 20% air taxi. An Airport Layout Plan Update was published in 2008 and the City is working to implement the plan and is constructing a new runway 15 partial parallel taxiway and a runway 33 bypass taxiway.

The City has made a significant number of improvements to the airport in the past 5 years. Athenahealth, one of the City's major employers, is particularly interested in the use of private jets, as is the Front Street Shipyard (major boatbuilder) which opened for business in 2011. Strategies from the plan recommended for implementation are presented at the end of this chapter.

Belfast has zoned the Belfast Municipal Airport (a municipal airport) and land around the airport as either Business Park-Airport District or Airport Growth District. Within both of these districts, aviation uses are permitted, there are structure height limitations, and residential uses are prohibited. Also, the Future Land Use Plan that has been adopted as part of this Comprehensive Plan recommends that the current Airport Growth zoning district be replaced by an Airport Overlay District which can be used to better manage uses and activities which could conflict with the airport. The land use regulations the City has established for the areas surrounding its Airport are consistent with FAA guidelines. There are no private airports in Belfast.

LAND-SIDE & WATER-SIDE TRANSPORTATION FACILITIES

The City of Belfast has an authentic working waterfront. The waterfront supports two boat building operations (Front Street Shipyard established in 2011 and French & Webb established in the 1990's), a tugboat operation (serves Mack Point), three private marinas, two public marinas, a cadre of small restaurant and retail operations, and three public parks (Steamboat Landing, Heritage Park, and land near the Armistice Bridge). The establishment of the Front Street Shipyard, which purchased and redeveloped the former Stinson Seafoods property in 2011, has had a transformative impact on the waterfront, including use of the Inner Harbor area. The Shipyard has the largest marine travel-lifts (165 and 400 tons) located north of Newport, Rhode Island.

Unfortunately, the amount of area which can be used for the working waterfront is very limited. There is only about 2,500 lineal feet of shore land which has the water depth to support significant marine development, and the deeper waters only occur on the westerly side of the River. This area is framed by the Armistice Bridge to the north, and the Steamboat Landing area to the south. The lack of additional land underscores the need for the City to obtain maximum beneficial use of on-shore public and private lands in this area, and to wisely use its inner harbor to support commercial fishing and working waterfront uses.

Belfast, like many smaller coastal harbors, needs float and docking facilities that can support larger private and commercial vessel operations. For example, while Belfast is now among the top 10 ports in Maine regarding the number of cruise ship passengers per year, the size of a cruise ship that may call on Belfast is limited by our current docking facilities. Further, more dock space is needed for transient vessels, and the Harbor Committee would like to install better quality fuel facilities. The 2013 construction of an expanded commercial fisherman's wharf has helped address the needs of a small but active commercial fishing fleet (mostly lobsters), however, more area is needed land-side to support operations of the public harbor.

The City enforces its state-approved shoreland zoning and floodplain management ordinance provisions. In 2004 the City worked with the Maine Department of Environmental Protection to overhaul its shoreland and zoning regulations for its working waterfront. The City's regulations allow intense use of the working waterfront area; for example, 100 percent lot coverage, no setback from the high water mark and flexibility on structure height. The City regularly advises applicants to insure compliance with applicable state and federal regulations relating to development of marine transportation facilities. Further, the City has routinely worked with the Maine DOT, Maine Dept of Conservation, and Army Corps of Engineers regarding the construction of marine facilities, and to have the ACOE conduct a maintenance dredge of the Belfast Harbor channel.

There are no current or potential seaport terminals in Belfast. There are no current or potential public ferry services in Belfast. Two small cruise ship lines, however, now call on Belfast during the summer months, and there is some interest from larger cruise ship lines. In addition, there are boat charter rentals in Belfast, including sailing and motorized tour boats that regularly provide excursion tours during the summer months.

TRANSPORTATION & LAND USE

The City can and has encouraged housing development in areas close to existing public and private services, so that residents can choose to walk rather than drive, and so that public transportation with fixed-routes becomes more practical at sufficient development densities to provide adequate ridership levels. In rural portions of the City, the use of conservation subdivisions/cluster can help to preserve habitats by setting aside ecologically sensitive but developable land into permanent conservation. See the Land Use Chapter of this plan.

Aside from the WaldoCAP bus service, there are no major transportation facilities in Belfast, nor are any proposed. Improvements to bike and pedestrian pathways have been a priority of the City in recent years. Existing facilities would be enhanced with development as proposed in the Land Use Chapter of this plan.

The City's adopted future land use plan recommends encouraging denser residential

development and more intense non-residential development in the following areas: areas located within the Route 1 by-pass, such as the downtown area; in areas immediately adjacent to the Route 1 by-pass, such as the Belfast Business Park and the area that supports Bank of America, athenahealth and most of the City's larger retail establishments; and adjacent to Searsport Avenue (Rte 1 on eastside). These areas have existing services and are more likely to attract development.

The Belfast Planning Board, through its existing land use ordinances, particularly its site plan, subdivision plan and technical standards ordinances, must consider factors such as safety, congestion and mobility in its review and approval of a development permit. The City's ordinance includes access management standards and the Board often uses the services of the professional traffic consultant to analyze traffic impacts.

Densities within many areas located inside the Route 1 by-pass are quite high, often 7,500 square feet for single family and two-family residential units, and there are no density limits in the downtown commercial zoning district. These are sufficient densities to foster public transportation and, through the allowance of mixed uses within downtown, promote walking from home to stores and such. Unfortunately, Belfast's relatively small population, about 6,714 persons, impedes development of a good quality public transportation system. Also, there are no freight rail lines in Belfast, and there does not appear to be any demand for rail freight. See the Land Use Chapter of this plan.

CONDITIONS AND TRENDS

The Transportation Data Set data set has been incorporated and updated in the Belfast Comprehensive Plan maps titled: Transportation Network, Transportation Network (Downtown), and Transportation Posted Speeds and Compact Urban Area.

The Transportation network map shows the locations roads and bridges. Similar to roads owned by the State of Maine, nearly all City streets are paved, however, the sub-base for many of these roads is inadequate which leads to frequent and long-term maintenance problems. In short, such roads are usually in reasonable condition during the warmer months, but suffer frost heaves and similar problems in the winter. The City has reconstructed several of its major streets located within the Route 1 by-pass, such as Front Street from Main Street to Pierce Street, Miller Street and Northport Avenue; however the total number of streets and rural roads which warrant reconstruction dwarf the available funds. As such, the City commits to regular maintenance of its streets.

The City also has committed significant local monies to maintaining its bridges. In 2006, the City completed reconstruction of the Belfast Footbridge, which was the original MDOT Rte 1 bridge, at a cost of nearly \$3.6 million. In 2009, the City reconstructed the culvert bridge on Oak Hill Road, and it also regularly replaces culverts.

Lastly, *Pedestrian and Bicycling Safety*, above, for recommended pedestrian improvements to address safety concerns. Sidewalks are located along many of the roads within the downtown and area within the Rte 1 by-pass.

Connectivity

The City has undertaken several in the last 5+ years to examine how to achieve better connectivity through-out the City. In 2006, the City completed reconstruction of the Belfast Footbridge across the Passagassawakeag River. In 2013 the City constructed the Belfast Harbor Walk project along .75 mile of its working waterfront with a total cost of \$1.8 million. In 2009 – 2010, the City used MDOT monies to construct pedestrian crossing improvements at the Rte 1/Rte 52 and Rte 1/Rte 141 intersections. In 2016 the City completed construction of the Rail Trail, a 2.2 mile multi-use path within the rail corridor, which runs along the upper stretches of the Passagassawakeag River.

Continuing, the City Council, in 2009, established a Pedestrian, Biking and Hiking Committee, and their recommendations are included in this Chapter. The Council also charged the City Parks and Recreation Committee with identifying options for preservation and development of the City's range-ways, most of which provide public access to the coast. The City has begun implementing a range-way management plan which has included public art installations and pedestrian-way identifiers to preserve the use of these coastal access points.

Further, the City has focused on connectivity both in-town and regionally, connecting pedestrians to recreation, cultural, and scenic routes within the City in addition to connecting the local trails to neighboring trail systems and communities. Museum in the Streets is an example of a local program developed and implemented by the Belfast Historical Preservation Society that connects recreation with cultural and educational programs.

Regional Trails:

This section describes trails (either existing or envisioned) that connect the City of Belfast with other trail systems, other communities, or other destinations outside the immediate City. We envision initiative, funding and maintenance for these trails to come from other organizations, such as the BBWC, Coastal Mountains Land Trust. Support from the City would be in the form of cooperation in planning, letters of support for funding, and acknowledgment of the value trails bring to the community.

1. Rail Trail to City Point Bridge
2. Little River Trail (Belfast River Water District to Stover Preserve via Little River Community Trail, Troy Howard, and the Hutchinson Center). *This trail forms a ring around Belfast, from the Little River Water District to the Stover Preserve on the Passy River at Doak Rd.*
3. East Coast Greenway, *an interurban pedestrian and bicycle route connecting the entire East Coast, from Florida to Maine and the Maritimes*
4. Maine Birding Trail: Belfast is part of the Maine Birding Trail (see Mainebirdingtrail.com)
5. Inter-town trail connectors for hiking and skiing
 - a) Moose Point State Park and Searsport
 - b) Frye Mountain
 - c) Durham State Forest & Northport
 - d) Hurds Pond
6. Passagassawaukeag Canoe Trail and Goose River Canoe Trail

Traffic

Major Traffic Generators	Hours of Operation
Waldo County General Hospital	24 hours per day
Bank of America/Athena Health Care	7AM-6PM
High School	7AM-2PM
Middle School	7AM-3PM
Elementary Schools	7AM-3PM

In addition to traffic associated with the above schools and employers, there are a number of public events that occur mostly in the summer that result in additional congestion. Further,

overall summer traffic is much heavier than winter traffic.

Road Standards

The City has an adopted standard which it uses to determine if a newly constructed street can become a City owned road. This standard is consistent with good quality road construction standards and includes standards such as but not limited to: 18 inches of road base, 4 inches of asphalt, 20 feet of travel width with 3 feet gravel shoulders and such. Unfortunately, most current City roads were constructed prior to the adoption of the above standards and most do not satisfy current requirements. The City regularly maintains all City streets, including any accompanying stormwater and sidewalk improvements.

There are about 150 privately owned roads in Belfast. Many of the roads are unpaved, less than 500 feet in length and serve only 3 – 6 houses. Other private roads, however, are paved and serve a significant number of residences. For example, the streets in the Crosby Manor Estates project will ultimately serve about 60 units, the Tara Mews Subdivision about 26 units, and the Oceans East Housing Project about 38 units. Some of these roads are associated with major condominium or affordable housing projects, while others, such as Bowling Green Lane and Birch Street serve single family residential subdivisions. In most larger and recent developments, the City required establishment of a homeowners association to maintain the private road. For a sizable number of the private roads that serve smaller projects, which often were initially developed through the exempt division of property provision, there is no homeowner's association, which can lead to poor road maintenance and problems for emergency vehicles to reach all residences.

In the case of most private roads, there is little likelihood that the adjacent homeowners could successfully request that the City accept the road unless they made significant and costly improvements at their expense to satisfy City road acceptance standards. In recent years, several neighborhood associations have proposed that the City accept their street in its current condition, however, the Council refused to do such because the road was substandard.

Evacuation Routes

Route 3 is identified as an evacuation routes in the FEMA-approved Waldo County Hazard Mitigation Plan. Route 3 would serve as the principal evacuation route inland, while Route 1 would serve as the south or northeast evacuation route.

An area identified in the Route 1 Safety Audit that MDOT conducted with City representatives in 2006 was the Route 1/Route 137 exchange. The concern was inadequate lighting. Concern also has been raised regarding inadequate lighting for both pedestrians and motorists on Starrett Drive. A lack of lighting on Front Street was addressed during the reconstruction of Front Street. Belfast has a policy of not installing street lights on most rural roads, except at intersections

where streets connect. Belfast has gained control of street lighting throughout the City. Led lights have been installed to increase energy efficiency and cost savings.

Transportation Noise

State law sets noise level limits for motor vehicle operation, motor vehicle engines and exhaust, and vehicle sound systems. Enforcement is the responsibility of the police. Violations are traffic infractions. Two nuisance issues which warrant additional attention are noise generated by motorcycles with no mufflers or illegal mufflers, and jake brakes associated with truck traffic.

Preservation or Protection of Scenic, Historic, or Cultural Resources Adjacent to Transportation Facilities

Transportation projects in historically sensitive areas should be designed in a context sensitive manner that preserves the historic qualities of the areas whenever possible. Most of the City's downtown is designated as a Historic District and a portion is designated as a Commercial Historic District. These districts are on the National Register of Historic Places. Further, the City, through its In-town Design Review Ordinance, has established a permitting process that applies to new construction, renovation of the exterior of an existing structure, or the demolition of an existing structure to ensure such development is compatible with the existing character of buildings in the surrounding area. Continuing, the Belfast Planning Board, through its Subdivision and Site Plan Ordinances, has the authority to consider "aesthetic, cultural and natural values" in its review of an application.

Belfast's downtown has significant historic resources, as reflected in the designation on the National Register of Historic Places; see the map titled Belfast Historic District/Belfast Commercial Historic District. Accordingly, transportation infrastructure improvements in this area including sidewalk treatments and street lighting, among other investments, should be in keeping with the historic character of the downtown.

The City is unaware of any City road which has had a major impact on disrupting a significant wildlife habitat area as identified on the IF&W habitat maps. Most identified habitat areas in Belfast are located in areas in which there are no publicly owned roads. One potential area is near the intersection of Smart Road and Achorn Road which is identified as waterfowl habitat, however this is a minor road crossing. The City's main approach will be to ensure that new road construction, both public and private, considers habitat related concerns.

Access Management

Belfast has adopted access management standards; reference Chapter 98, Technical Standards, City Ordinances. The Belfast Planning Board applies these standards in its review of applications for a subdivision, site plan, and use permit. At present, City standards are not as strict as MDOT access management standards, however most streets to which these standards apply support

different volumes and speeds of traffic than are typical of most state roads. That said, Belfast intends to review and refine its current access management standards when it pursues implementation of its future land use plan.

Future Land Use

The City Future Land Use Plan encourages denser residential development and more intense non-residential development in areas in which public services are located. The Future Land Use Plan also encourages mixed used development in many of these areas.

The Future Land Use Plan, particularly in areas located within the Route 1 by-pass, typically allows minimum lot size requirements of 7,500 square feet with 60 feet of street frontage for single family and two family houses. In addition, in areas in which multi-family housing it to be allowed, density can approach 15 or so units per acre, and the City does not apply density standards to elderly housing and congregate care facilities.

The City has adopted Subdivision, Site Plan, Zoning, Shoreland, Floodplain, Technical Standard and Building Regulation Ordinances to assist in managing impacts associated with new development or the redevelopment of existing sites. The City also employs professional staff to assist the Planning Board in the administration of these Ordinances. Belfast notes that it adopted its first Zoning Ordinance in 1934, and that it is accustomed to performing reviews of minor and major development projects. The City's standards clearly address transportation and traffic concerns, as well as requiring sidewalks and bicycle facilities when appropriate.

The City Future Land Use Plan lays out how the City intends to address future development in Belfast.