Reclaiming Franklin Street

Report of the Franklin Street Arterial Committee

Prepared for the Portland City Council

November 30, 2009

Project Consultants

smart mobility

MRLD
Landscape Architecture + Urbanism

This report is the result of many months of hard work by the following people, who each contributed significantly to a successful, community-based planning process. In addition, many members of the public contributed by attending meetings, providing comments, and thoughtful input.

This effort has been marked by a high level of mutual respect and cooperation of all parties, and should have lasting impact as the future of the Franklin Street corridor unfolds.

Franklin Street Arterial Study Committee

Boyd Marley and Markos Miller - Co-chairs
Alex Landry – Bayside Neighborhood Assoc.
Katie Brown – Munjoy Hill Neighborhood Assoc.
Catherine Debo – Casco Bay Lines
Laura Thibodeau – Chamber of Commerce
Cyrus Hagge – Downtown District
Michael Langella – Peaks Island
Robert Stevens – Real Estate
Greg Martin – East Bayside Neighborhood Assoc.
Jaime Parker – Portland Trails
Mark Adelson – Portland Housing Authority
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City of Portland, Maine

Executive Summary

The Franklin Study Committee was charged with developing three alternative design concepts that would address challenges and opportunities for the Franklin Street Arterial corridor. The outcomes of this study would then undergo a more detailed analysis in a follow-up Phase Two study. The Phase Two analysis, based on criteria established in Phase One – engineering and economic constraints, and stakeholder and community input – would inform a preferred final design for the Franklin corridor. The Phase One study process, which was carried out over twenty-one public bi-monthly meetings, followed a Context Sensitive Solutions model, bringing a holistic approach to traffic planning by viewing the roadway in the context of its physical, social, and economic environment.

> **Context sensitive solutions (CSS) is a collaborative, interdisciplinary approach that involves all stakeholders in providing a transportation facility that fits its setting. It is an approach that leads to preserving and enhancing scenic, aesthetic, historic, community, and environmental resources, while improving or maintaining safety, mobility, and infrastructure conditions.**
>
> –Results of the Joint AASHTO/FHWA Context Sensitive Solutions Strategic Planning Process Summary Report, March 2007

The core principles of the CSS planning approach apply to transportation planning processes, outcomes, and decision-making. They are:

1. Strive towards a shared stakeholder vision to provide a basis for decisions;
2. Demonstrate a comprehensive understanding of contexts;
3. Foster continuing communication and collaboration to achieve consensus;
4. Exercise flexibility and creativity to shape effective transportation solutions, while preserving and enhancing community and natural environments.

The CSS process is a multi-disciplinary and collaborative approach that integrates transportation planning and land-use planning with the goal of creating a vibrant and economically vital place that is in harmony with the community. In the urban context, land use, site design, and building design are important factors that inform the transportation design. The planning outcome is an infrastructure design that stimulates and supports a combination of public and private investment to create a human-scaled mixed-use environment.

Following the CSS process, Phase One of the Franklin Study has focused on developing a broad spectrum of possible solutions that balance the interests of all stakeholders. The study has been guided by a shared vision that a reclaimed Franklin Street can better serve vehicular traffic, pedestrians, and other modes, while creating opportunities for economic development and strengthening the urban character of the Franklin Street corridor. These solutions are presented in three alternative designs; however, many elements of these designs can be mixed and matched or refined in Phase Two to create an optimal design.

Phase Two of the Franklin Study will continue the CSS approach, evaluating the feasibility of the various design components of each alternative design. Using the guiding documents from Phase One (Vision Statement, Performance Criteria) as well as community input, this feasibility study will analyze the alternative designs through multiple lenses, taking into account

issues of engineering, economics, traffic and pedestrian needs, costs, and community interests. Phase Two will result in a preferred design and a clear accounting of the decision-making process.

The committee looked to the relevant sections of Portland's Comprehensive Plan to ground its work in what the City of Portland is and what it aspires to become. Portland's Transportation Plan and Transit Plan described important travel patterns and opportunities; the Housing Plan, along with the Eastern Waterfront Master Plan and the New Vision for Bayside, described the dense, mixed-use, self-sufficient development the city sought; the Open Space Plan and the Shoreway Access Plan clarified the city's value of access to open space and the water's edge.

In order to better understand the nature of Franklin Street Arterial, and its role in the region, the committee explored the mixed-use nature of the original neighborhood, examined historical traffic volumes, and studied the number of crash incidents. To provide context to this analysis, data was compared with similar streets in the city. State Street and High Street were found to carry similar or slightly higher volumes of traffic, and were informative in their scale and relation to the urban context of the Portland peninsula. Traffic volumes on Franklin have changed little over the last twenty years; data for recent years indicate a slight decline in daily averages. The committee also held a walking tour of Franklin Street Arterial to identify assets, concerns, and opportunities of the corridor. The Franklin corridor takes up over thirteen and a half acres of space in the downtown area; the roadway itself occupies less than half of this.

Based on this research, the study committee crafted a Vision Statement, found on page 1, to guide the ongoing redesign effort. To accompany this document, Performance Criteria were formulated to assess the design solutions that would come out of this multi-phased study. This can be found on page 24.

Once the committee had a firm understanding of the functioning of Franklin, it looked to see what other types of roadways functioned similarly while also maximizing opportunities for safety, economic development, and multi-modal use. This led to an exploration of a variety of road types found in other communities, including multi-way boulevards, reverse directional lanes, and parkways, to name a few. The committee also researched arterial redesigns and highway removal projects in other American urban centers. The committee found numerous examples of roadways that served similar or higher volumes of traffic, while safely accommodating diverse users and supporting mixed-use development in an urban context. The committee also explored the possibility of modern roundabouts as an intersection treatment at certain locations. This included field trips to Augusta and Auburn, interviews with Maine DOT staff and Auburn officials, and other exchanges with communities that have roundabouts.

The Context Sensitive Solutions model calls for an ongoing engagement with the public and stakeholder groups to ground the study in the context of the local community. The Study Committee utilized a variety of public engagement techniques to solicit input from key stakeholder groups, and from the public at-large. Property and business owners along the corridor were invited to learn about the study goals and to share their hopes and concerns early in the study process. Additionally, members of Portland's visually impaired community participated in several meetings as consultants to share their concerns about pedestrian safety issues and the importance of roadway design.

The committee also held various public forums to solicit input from the public. The committee worked with Portland Housing Authority and the East Bayside Neighborhood Organization to reach out to members of the Kennedy Park/East Bayside neighborhood. This included a neighborhood workshop facilitated by students from the Muskie School, which resulted in its own report by the students. Midway through the study the committee held a Public Design Workshop, "Rethinking Portland's Gateway," in which over ninety members of the public participated in design activities facilitated by volunteers from Portland's professional design community. This "brainstorming" activity produced a wide range of design solutions to address the challenges and to identify opportunities of the Franklin corridor. These diverse design solutions reaffirmed the committee's vision and informed the committee's final design alternatives.

To conclude the study, the committee held an interactive presentation of its findings and design proposals, with over sixty members of the public attending. Using a variety of information-gathering techniques, including small group discussions, a questionnaire, and a "like/dislike" sticky-note exercise, the committee received feedback on participants' responses to the study effort and the individual components of each design alternative. This public forum provided the committee with constructive feedback that will inform future design decisions while validating the overall study process.

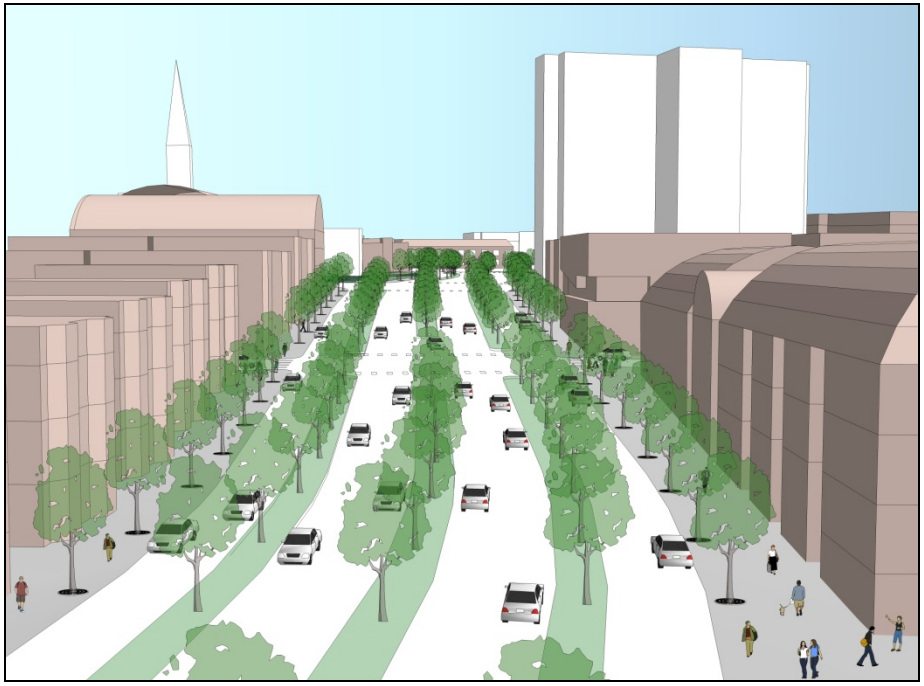
A summary of the three design alternatives follows. In addition, there are a number of unresolved issues that will need to be further studied in the feasibility study (Phase Two). These can be found on page 40 of this report. Finally, through this study, the committee has discovered a variety of short-term recommendations that should be considered to improve the functionality and safety of the Franklin corridor for all users. These are on page 40.

Three Alternatives for the Franklin Street Corridor

Each alternative can stand on its own; however, many of the individual components can be mixed or matched to maximize the opportunities of the corridor. Each alternative has a target speed of 25-30 mph; research indicates this speed range provides the maximum capacity for vehicles and an optimal balance between travel times and safety.

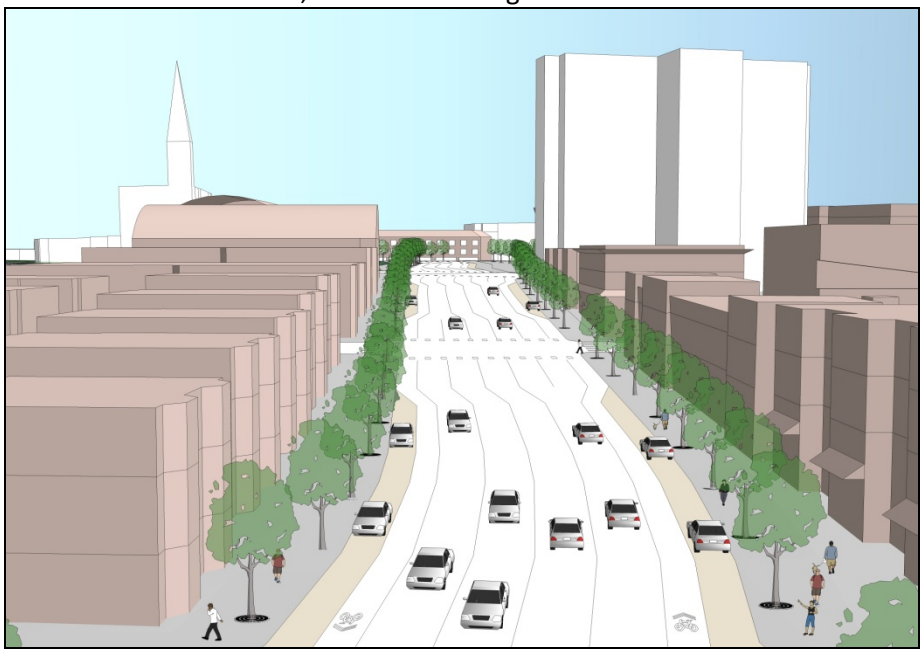
The Multi-Way Boulevard

The Multi-Way Boulevard provides high quality of service for all modes and is well suited for redevelopment of buildings of 5 or more stories in height. The Multi-Way Boulevard has the widest right-of-way, with two "through" lanes of traffic running each way up to Congress Street, and one lane each way from Congress Street to Commercial Street; transit service would travel along these through lanes. Additional access roads run parallel from Fox/Somerset Streets to Congress Street. These local access roads accommodate parking, bicyclists, and building access in a low-speed (15 mph), human-scaled environment. Sidewalks run the length of the corridor. The Multi-Way Boulevard reconnects Oxford Street to vehicles, and Lancaster Street, Federal Street, and Newbury Street for pedestrians. Lincoln Park is slightly expanded, with potential redevelopment along streets facing the park. The Multi-Way Boulevard has a target speed of 30 mph in the through lanes, yielding a travel time of 1 minute and 24 seconds from end to end, without traffic lights.



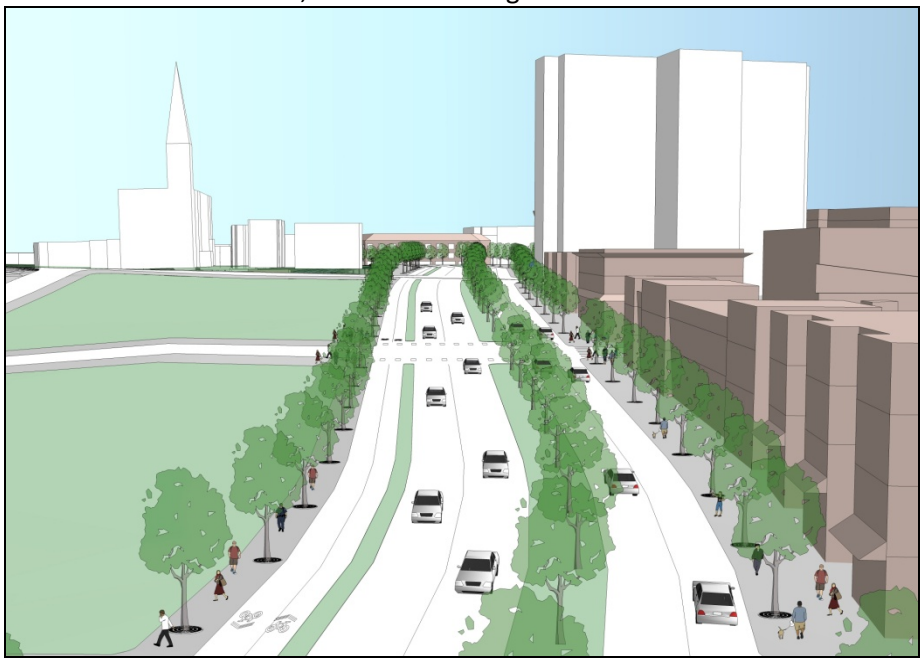
The Urban Street

The Urban Street supports mixed-use redevelopment of the Franklin Street corridor with 3-4 story buildings facing the street, and has the narrowest right-of-way width. The travel lanes are compressed together, accommodating two lanes of traffic each way up to Congress Street, and one lane of traffic each way from Congress Street to Commercial Street, accommodating up to a 20% growth in traffic volumes. Sidewalks run the length of the corridor. Bicycle travel is provided by bicycle lanes and shared travel lanes, as well as a parallel Bicycle Boulevard. There is parallel parking on segments of the street to support commercial development. Curbside bus stops can be provided as transit service is introduced. The Urban Street provides reconnection of Oxford Street, Federal Street, and Newbury Street, as well as right-hand turns at Lancaster Street. Pedestrian crossings are also provided at all reconnected cross streets. The Urban Street has a target speed of 25 miles per hour, yielding a travel time of 1 minute and 40 seconds from end to end, without traffic lights.



The Urban Parkway

The Urban Parkway provides an emphasis on public green space and parks, enlarging Lincoln Park and providing redevelopment opportunities along the streets facing the park. The travel lanes are compressed together, accommodating two lanes of traffic each way up to Congress Street, and one lane of traffic each way from Congress Street to Commercial Street, accommodating up to a 20% growth in traffic volumes. Sidewalks run the length of the corridor. Bicycle travel is provided on a shared pedestrian path/greenway along the east side of Franklin and in shared travel lanes. Parallel parking is limited to future development sites near Cumberland Avenue and Congress Street. Transit is supported with curbside bus stops, or possibly by using the median for a future light rail system. The Urban Parkway provides reconnections of Oxford Street and Federal Street for vehicles, and all cross streets for pedestrians. The Urban Parkway has a target speed of 30 miles per hour, yielding a travel time of 1 minute and 24 seconds from end to end, without traffic lights.



Study Background and Process

The City of Portland has received federal and state funding through the Portland Area Comprehensive Transportation Committee (PACTS) to evaluate and consider concepts and strategies for improving the safety of pedestrians, bicyclists and motorists on Franklin Arterial – from I-295 to the waterfront – while also considering the arterial's urban context and potential future development along the corridor. This study has followed a Context Sensitive Solutions model, drawing upon flexible design standards responsive to the urban context of the corridor. The various functional requirements of the corridor are considered, including but not limited to: street network connectivity, multi-modal accessibility, mixed-use development, streetscapes, and public/open space. This process has included a strong public participatory component.

Franklin Street Arterial does not accommodate safe bicycle and pedestrian travel. It lacks sidewalks, bicycle lanes and adequate pedestrian crossings. Instead of being a "place," Franklin Arterial now serves primarily as a pass-through for automobiles bound for other destinations. Additionally, the wide footprint of the four-lane arterial cuts through historic Lincoln Park, separates Portland's east end from the downtown, and creates unusable open space. Franklin Arterial's current configuration limits the potential for economic development such as housing, commercial and other places of employment along the corridor.

The Corridor Study primarily shall serve to develop concepts and strategies for creating a welcoming gateway to the heart of the city that improves the safety of pedestrians, bicyclists and motorists, and creates economic development opportunities.

The following are goals of this Corridor Study:

- Further articulate the community vision for Franklin Street.
- Assess opportunities and challenges along and across the corridor from a land-use and multi-modal transportation perspective.
- Educate stakeholders, officials, and the public in a flexible, Context Sensitive Solutions planning and design approach.
- Broad-based participation and engagement of the public and stakeholders.
- Identify conceptual alternatives to Franklin's current design and assess them in relation to evaluation criteria.
- Recognize Franklin's role as a major travel corridor onto the peninsula.
- Assess development implications including connectivity, parcels, potential scale, and massing.
- Articulate tangible short-, medium- and long-term goals for improving the functioning of Franklin Arterial for all users.

The Franklin Street Arterial Corridor Study Area

Vision Statement of the Franklin Street Arterial Study Committee

Franklin Street will be a critical transportation facility for all modes of travel, linking the highway & Back Cove to the waterfront & island ferries.

Franklin Street will be a vibrant urban corridor serving as an attractive gateway to the city, connecting neighborhoods and destinations while enhancing the urban fabric of the city through the mixed use development of appropriate and functional residential, commercial and recreational space in the midst of attractive streetscapes.

All modes of travel, including motor vehicle, public transit, bicycle and pedestrian shall be able to coexist in a design that is safe and environmentally sound for an urban setting through state-of-the-art design utilizing optimum architecture, street widths, curbs, sidewalks and street level crosswalks, and other appropriate amenities such as vegetation, trees and art.

History of Franklin Street

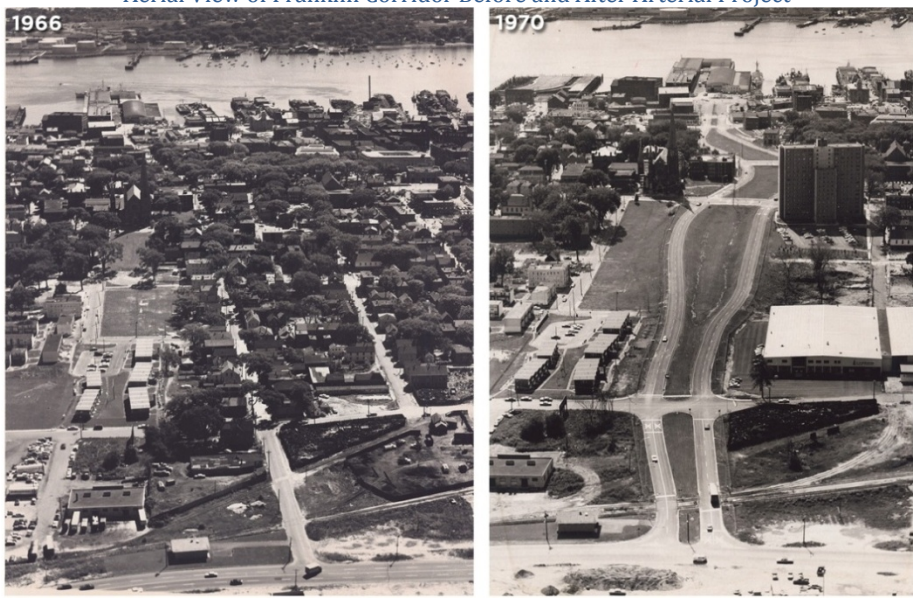
Franklin Street began in the 18th century as Essex Street, running from Back (now Congress) Street to Tyng's Wharf at Fore Street. By 1823 a new street named Franklin Street, more or less aligned with Essex Street, extended from Congress Street to Back Cove (which had yet to be filled and extended nearly to where Oxford Street is now located). In the 1850s the street was connected to the newly-built Commercial Street and extended out into the harbor on the new Franklin Wharf. The entire street, from Back Cove to the waterfront, was named Franklin Street.

Almost all of the buildings on Franklin Street were destroyed in the Great Fire of 1866. During the rebuilding of the city, Portland's first public park, Lincoln Park, was created, helping to make the redeveloped Franklin Street a desirable residential address. The Franklin Street corridor was a residential neighborhood with mixed-use buildings found at the intersections of Franklin and its many cross streets.

Following the development of the West End as a more desirable neighborhood for many of Portland's upper middle-income families in the later 19th century, homes along Franklin Street began to be converted to apartments. This corresponded with the settlement in the neighborhood of various immigrant communities: Italian, Jewish, Armenian and others in the early 20th century. The 1924 Portland tax photos for the most part show well-maintained houses along a tree-lined street.

Following the Great Depression and the general decline in building maintenance caused by the material and labor shortages of World War II, the area was considerably less attractive by the 1950s. "Maintenance Free" siding materials had obscured much of the architectural detail and character of some buildings, and further subdivision into smaller and smaller residential units had increased the population density of the neighborhood.

Aerial View of Franklin Corridor Before and After Arterial Project



Source: Portland Press Herald 2009.

In 1958 Portland's Slum Clearance and Redevelopment Administration demolished the "Little Italy" neighborhood, which bordered Franklin. The buildings of Vine, Deer, and Chatham Streets, home to 64 families, 28 individuals, and 27 small businesses, were deemed "substandard" and were razed. That year also saw the demolition of the mixed-use area between Lancaster, Pearl, Somerset, and Franklin Streets in another phase of "slum

clearance'," making way for the "Bayside West" project. This area included 44 housing units, at least 31 households, and was home to more than 85 residents. Across Franklin Street another 54 units were razed for the "Bayside Park" urban renewal project. This area, now called "Kennedy Park," had through streets that were truncated in an attempt to limit access to outside traffic. The razing of Franklin Street began in 1967; 100 structures were demolished and an unknown number of families re-located.

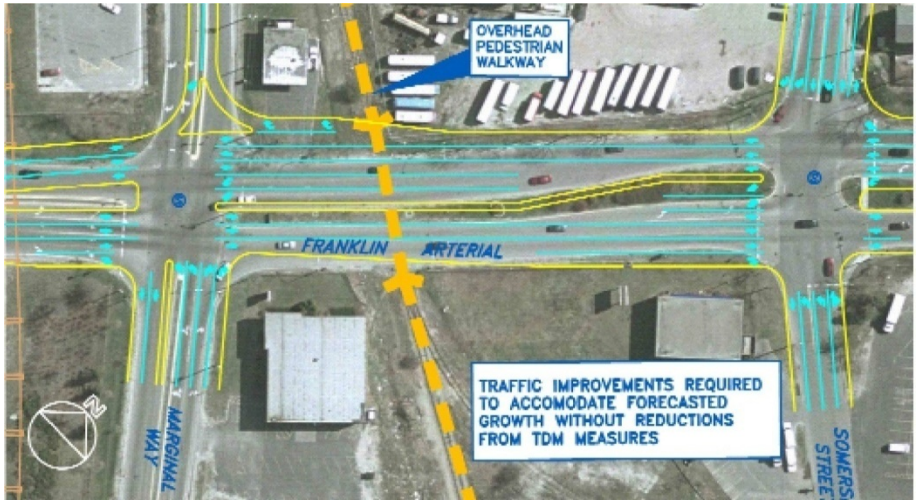
The Franklin Arterial

The current configuration of Franklin Arterial was laid out in Victor Gruen's *Patterns for Progress* plan for Portland, with 2 lanes in each direction, separated by a wide, undeveloped median. To promote uninterrupted automobile movement, connections between the east and west sides of Lancaster, Oxford, Federal, and Newbury Streets were severed. The plan called for future high-speed lanes to be tunneled underneath Cumberland Avenue and Congress Street in the center median. It was projected that this would be needed by the late '70s or early '80s.

The Peninsula Traffic Study

Portland's Peninsula Traffic Study, completed in 2006, sought to accommodate future traffic projections based on a maximum build-out of the Portland peninsula, as well as strengthening some of the pedestrian amenities and open space assets that had been denigrated by the arterial expansions of the '60s and '70s. However, the Traffic Study was based on a "worst-case scenario" projection of high traffic growth and sought to shift this projected traffic from other corridors onto Franklin Street. To accommodate this traffic, Franklin was envisioned to expand up to twice its current size - four lanes of traffic in each direction. The study failed to address pedestrian needs and other community concerns, and was widely rejected.

Excerpt from Peninsula Traffic Study showing Proposed Widening of Franklin



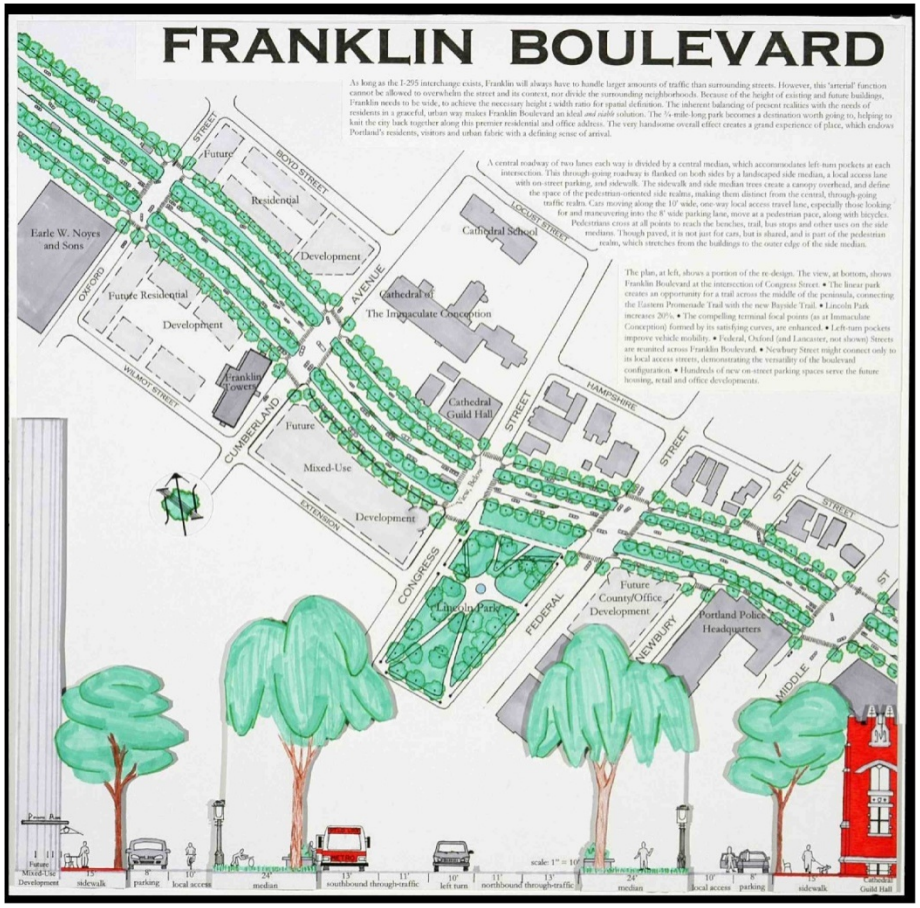
Source: Peninsula Traffic Study, Gorrill Palmer, Inc.

The assumptions underlying the traffic projections were questioned, and anticipated costs were prohibitive. While the Traffic Study failed to address needs and opportunities on Franklin other than for improving the movement of vehicles, it did draw attention to these, and provoked a community debate about how Portland should bring people onto the peninsula in a sustainable manner in the future.

Community Visioning

The community discussion around the future of Franklin Street continued after the tabling of the Traffic Study. Architalx, a local architecture and design non-profit that focuses on raising awareness of quality design, held a local design competition titled "Lost Sites," for which underutilized or abandoned sites on the Portland Peninsula were selected for revisioning by the design community. The majority of the submissions focused on revisioning Franklin Street. This event helped stimulate a community brainstorm to see beyond what currently exists in the Franklin Corridor and to envision a corridor that serves multiple users and connect the peninsula.

Example of Architalx Vision Plan



Source: www.franklinstreet.us

In the spring of 2007 the Bayside Neighborhood Association and the Munjoy Hill Neighborhood Organization came together to form the Franklin Reclamation Authority, which held a community workshop "Re-Thinking Franklin Street Arterial." Over seventy members of the public attended. Following a consensus-based process, participants created a Problem statement and a Vision for Franklin. The workshop and the outcomes were documented in a report and shared with city staff and others in the community. This report led to the creation of Portland's Franklin Street Arterial Study Committee.

Other Related Projects and Planning Activities

A number of related planning efforts are underway throughout the Franklin Street study area, and are described below.

I-295 Exit 7 Off-Ramp and Auxiliary Lane Improvements

The single-lane northbound and southbound off-ramps at I-295 Exit 7 carry a combined annual average daily traffic (AADT) of 12,000 vehicles per day and an a.m. peak-hour volume of 1,700 vehicles. The unsignalized junction of these two off-ramps becomes congested to the point where vehicles queue up on both ramps and encroach on the I-295 mainline. Routinely, northbound off-ramp traffic queues up side-by-side on the one-lane ramp. An additional problem area is the short two-lane cross-section on the I-295 southbound mainline between Exit 8 and the Exit 7 off-ramp. This segment of I-295 has a.m. peak-hour volumes that approach 4,000 vehicles and operates poorly (at level of service E, which is a measure of traffic congestion on a scale of A through F).

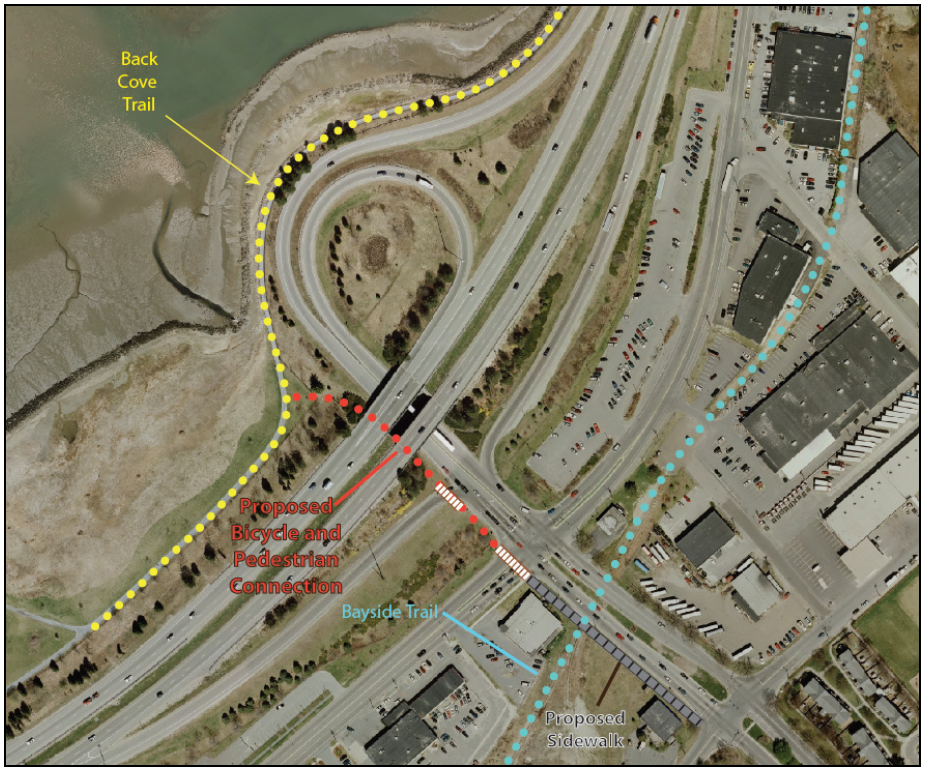
The Maine Department of Transportation (MDOT) has been evaluating options for improvement, and the following are recommended actions:

1) Construct an auxiliary lane to relieve the southbound two-lane constriction between Exit 8 and Exit 7 and a second lane on both the northbound and southbound off-ramps.
2) At the intersection of the two off-ramps, install a traffic signal coordinated with the signal at the Franklin/Marginal intersection, and provide a three-lane approach from the southbound off-ramp and a four-lane approach to the Franklin/Marginal intersection.

Congestion will be reduced on both off-ramps, resulting in shorter queues and greater safety for off-ramp and mainline traffic. In addition, on the southbound mainline between Exits 8 and 7, the 2025 level of service in the a.m. peak hour will improve from F to E.

The project should include a bicycle and pedestrian link between the Franklin-Marginal intersection and the Back Cove trail. There is strong community support for an appropriately scaled connector at this location. The widened southbound off-ramp should remain compatible with the pedestrian/bicycle path along Back Cove, which may require use of a retaining wall treatment to accommodate the second lane of the ramp.

Exit 7 Trail Connections



This key trail access issue, however, is not fully resolved and should be incorporated into the design and engineering of the Exit 7 improvements. The opportunity exists to create a trail connection that will serve the adjacent neighborhoods and connect with the Bayside Trail, currently under construction. MDOT has expressed concerns about the safety of such a connection, although the new traffic signal can be designed with appropriate features to allow safe crossings for non-motorized users. The Franklin study committee and many community members have identified this connection as a high priority that should be accommodated with an appropriately scaled multi-use (bike/pedestrian) connector under I-295 at the westerly edge of the Exit 7 ramps and intersection from Marginal Way to the Back Cove trail. While MDOT has indicated that a five-foot connector is possible, a minimum of ten to twelve feet is necessary for an adequate multi-use trail connection.

Bayside Trail

The Bayside Trail will connect the Eastern Promenade Trail at Tukey's Bridge to Deering Oaks along the abandoned Union Branch rail right-of-way. It is part of a plan to extend a trail to the Fore River and along West Commercial Street to create a continuous bike/pedestrian trail around the entire peninsula.

In the New Vision for Bayside process, the Bayside Trail was an important component to provide recreational resources and stimulate redevelopment of brownfields. The City acquired the rail property from MDOT for the trail, which will be funded by the City, MDOT, Portland Trails, and Trust for Public Land. The trail must cross Franklin near the Marginal Way intersection, and will introduce significant pedestrians and bikes to the corridor for multiples purposes (recreational, commuting, local travel).

There has been discussion of a pedestrian/bicycle bridge crossing, but no consensus has been reached. However, the trail reinforces the stated needs and goals of the Franklin Street Arterial Study Committee – safe, at-grade pedestrian and bicycle crossings of Franklin. The trail will need to be part of a safe, seamless pedestrian network along the Franklin Corridor. The trail will draw people to cross Franklin, but also to travel along it by foot or bicycle to reach the trail. The trail also further emphasizes the need for a trail connection to the nearby Back Cove Trail, via the Exit 7 underpass.

Marginal to Fox/Somerset

Funding is available through the MDOT to address engineering issues on Franklin Street from the Marginal Way to the Somerset intersections, as a separate project from the above Exit 7 work. While engineering work has not yet begun, it is thought by MDOT that the functionality of the interchange approach to the Franklin/Marginal intersection could be enhanced by an additional eastbound lane of traffic through this intersection along Franklin.

The project should also be designed to be compatible with a potential rail line located parallel to and between I-295 and Marginal Way, with an at-grade railroad crossing between the Exit 7 ramps and the Franklin/Marginal intersection. The location of this railway should be clarified by MDOT officials, in collaboration with City of Portland officials, before this project proceeds much further, as the rail line will impact the functioning of the Marginal/Franklin intersection. In the long-term, the north leg of Marginal Way and some left turn movements may be eliminated at this intersection per an agreement between MDOT and the City of Portland. This agreement also calls for monitoring of I-295 mainline traffic conditions on the approaches of both Exit 7 off-ramps.

It is recommended that the design of these improvements not proceed until the Phase Two study identifies a preferred alternative for the Franklin corridor. In that way, the results of the Franklin corridor can be implemented in an orderly fashion, beginning with this critical segment. Discussions with MDOT and City officials have occurred over combining the Phase two study with the Marginal-Somerset-Fox Intersection engineering work as a means to ensure proper coordination of these two aligned planning and engineering efforts. The pros and cons of this option are still being reviewed by City officials.

Maine State Pier

The Maine State Pier is a vitally important resource for Portland and the State of Maine. It has a critically important relationship with the Franklin Street corridor, which serves as its primary access.

The Maine State Pier Historical Overview

The Maine State Pier, which is owned by the City of Portland, was constructed in the 1920s. The original superstructure consisted of timber caps and stringers with a mix of concrete and timber decking. The steel and wood framed "Transit Shed" is supported by concrete piles caps atop timber clusters. Fendering and passenger handling systems were incorporated.

ECONOMIC SIGNIFICANCE

The following policy statement was adopted by the City of Portland for the Maine State Pier as an amendment to the Eastern Waterfront Master Plan, September 2006:

> **Statements of Fact for the Maine State Pier**
> The Maine State Pier is a regionally significant asset . . .as a transportation hub and economic development generator. The Maine State Pier provides deep water and recreational connections between the sea and the City's people . . . use and vitality as a marine passenger facility are primary goals for the City of Portland. Maine State Pier is . . . in need of significant structural investment. The Portland Waterfront has . . . has always supported *both* marine and non-marine uses in a mutually beneficial relationship. . . . provid(ing) adequate revenue streams dedicated to stabilizing marine infrastructure.

Cruise Ship Activity (current and projected)

Among the growing uses of the pier are cruise ship dockings, which have been increasing:

- 2008 – 34 ships and 47,000 passengers
- 2009 – 48 ships and 70,000 passengers
- 2010 – 68 ships expected

The economic impact of cruise ship passengers in Portland was evaluated in July 2009 by Todd Gabe and James C. McConnon, Jr., with the University of Maine Orono School of Economics. The results of that work include the following:

In 2008, the City hosted an estimated 47,841 passengers from 32 ships. Information collected from surveys distributed, during the fall of 2008, suggests that cruise ship passengers spend an average of $80.51 on goods and services in the Portland region. This amount increases to $109.68 with the inclusion of passenger expenditures on cruise-line sponsored tours. The total economic impact of cruise ship passenger spending, including multiplier effects, is between $5.8 million and $8.0 million in sales revenue throughout the Portland region. Economic activity associated with this spending supported between 69 and 96 full- and part-time jobs, and provided between $2.0 million and $3.2 million in wages and salaries.

MAINE STATE PIER DEVELOPMENT DIRECTION

During 2008, competing developer proposals to redevelop the Maine State Pier and adjacent "upland" property were considered, but not acted upon. During the first part of 2009, City staff led a number of workshops to receive community input on preparing a master plan for redeveloping the Maine State Pier. The community workshops were followed by work with the City's Community Development Committee. The outcome of this effort resulted in City Council consensus and a unanimous vote on the near-term Maine State Pier development program (City Council Order #54). The longer-term Maine State Pier build-out plan needs further refinement and City Council consensus.

The 2009 national and global economic down-turn has affected market demand to attract private sector investment to the Maine State Pier. The current City approach is to support attracting private investment to a number of privately owned sites in the waterfront area, including the East End and along Franklin Street, prior to embarking on an intensive commercial development program for the Maine State Pier.

FRANKLIN STREET RELATIONSHIP

The Maine State Pier will continue to be a major economic and transportation hub for Portland and the State of Maine. Future plans for

Franklin Street corridor must take into consideration the transportation infrastructure needed to support future desired East End and Maine State Pier development programs. Further, the recent Peninsula Transit Study offers new models and approaches for reducing traffic generated by new development. Appropriate mass transit and pedestrian connections to the waterfront and Franklin Street corridor are also needed to fulfill these goals.

Supporting Policy

The following sections summarize key policies and planning activities that have implications for the Franklin Corridor.

A New Vision for Bayside

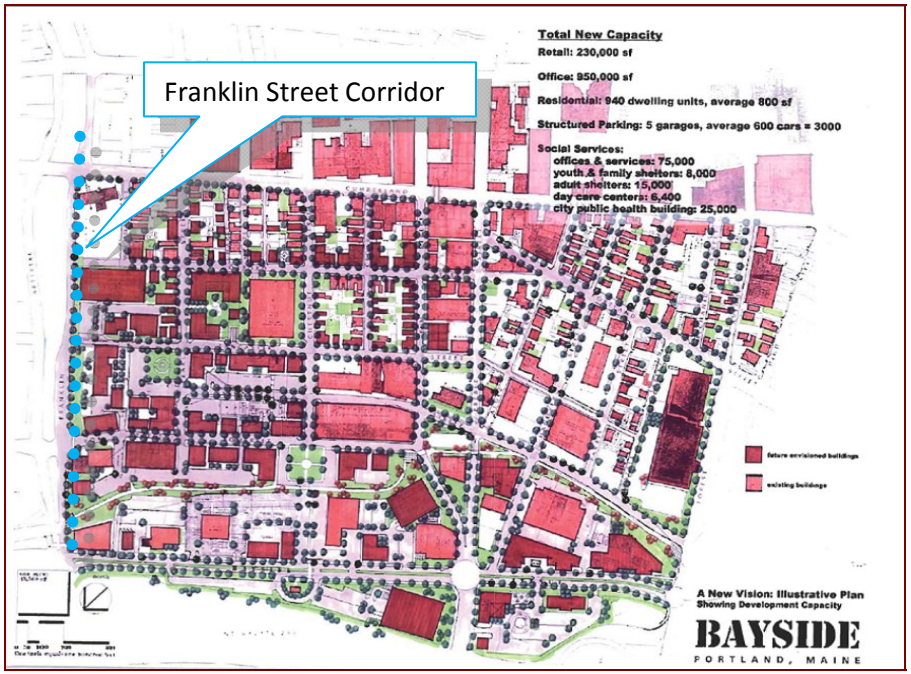
A New Vision for Bayside is a comprehensive redevelopment plan for Bayside – the area bounded by Forest Avenue, I-295, Franklin Street, and Cumberland Ave. The Bayside Vision was adopted by the City Council in December 2008 as part of the Portland Comprehensive Plan. Bayside is progressing in its transformation into an attractive urban gateway to Portland. It will feature a mix of uses in a compact, transit-oriented development district. This district is creating a new face of the city with housing, workplaces, services, transportation, recreation, dining, and shopping, all within comfortable walking distances of each other and the downtown.

Anchoring Bayside is a major new trail and associated open space that will connect the Eastern Prom Trail at Tukey's Bridge to Deering Oaks along the abandoned Union Branch rail right-of-way. Plans are being developed to extend the trail to the Fore River and along West Commercial Street to create a continuous bike/pedestrian trail around the entire peninsula.

There is developable land along the trail between Franklin and Elm Streets, including seven lots totaling 3.5 acres owned by the City and available for sale to private developers, which used to be rail and scrap metal yards. The trail will provide a transportation and recreation resource, can serve as a catalyst for new development, and will provide urban vitality along its cross-street frontages, including Franklin Street.

The future of Franklin Street is tied to the redevelopment plans for Bayside. These plans for Franklin Street share the urban vision of a multimodal, lively and attractive infrastructure to support the growth and development of Portland in a sustainable pattern that contributes to the quality of life and urban character of the Portland community.

Overall Plan Concept for *A New Vision for Bayside*



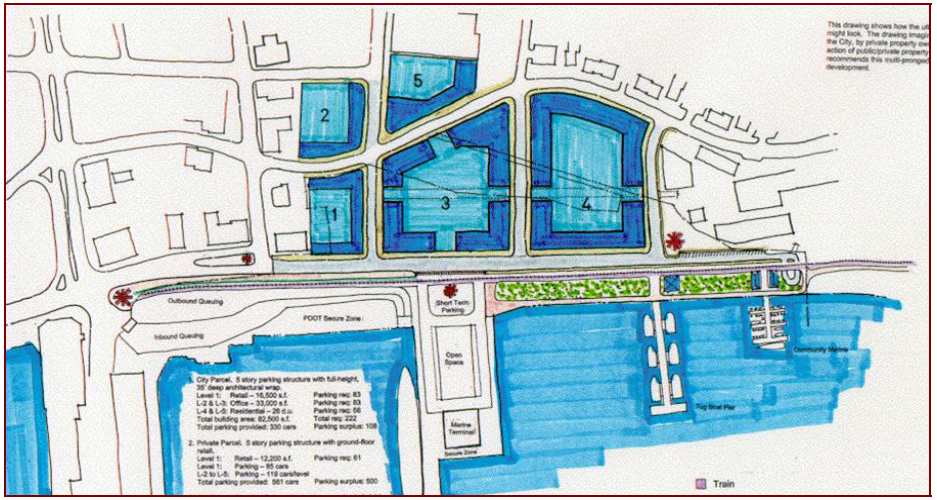
Easter Waterfront Master Plan

The City of Portland has undertaken a nearly continuous ten-year process to plan and implement the transition of the city's Eastern Waterfront from an underutilized industrial facility into a vital mixed-use maritime asset for the region. Starting in 2000, and significantly amended in 2006 to further plan

for the Maine State Pier, the Eastern Waterfront planning process continues to the present.

Central to this process has been the development of the Ocean Gateway Marine Passenger Terminal which moved the international ferry service to the former Bath Iron Works ship repair site. Ocean Gateway, when combined with the existing Casco Bay Lines ferry service and cruise ship operations at the Maine State Pier, positions the Eastern Waterfront as a principle marine passenger center for the city, the State of Maine, and the region.

Eastern Waterfront Master Plan Sketch



Along with passenger activity, the planning process recognized and promoted redevelopment of surface parking areas and underutilized sites into a new urban district. The Eastern Waterfront district is envisioned as a dense mixed-use neighborhood constructed among a network of new streets designed in a traditional block-and-lot development pattern. The Master Plan estimates that over 500,000 square feet of new development is likely over time, which could result in over 900 new peak hour vehicle trips to the eastern Portland peninsula roadway system, assuming conventional traffic generation factors. Under a transit-oriented, mixed-use development scheme, with alternative modes of transportation promoted, the vehicular traffic generation could be substantially lower.

Full build-out of the Eastern Waterfront district is still years away, but development has occurred including the Ocean Gateway Terminal, a 700-car parking garage, a 180-room hotel, and extensions of public streets at Commercial Street (Thames Street) and Hancock Street.

The Role of Franklin Arterial

Throughout the Eastern Waterfront master planning process, Franklin Arterial played a central role in analysis of future conditions and traffic management for the district. The Eastern Waterfront Master Planning Committee, active from 2000 to 2002, was greatly concerned that traffic from new development should not have a negative impact on the quality of life for Munjoy Hill and the India Street residential neighborhoods. As the primary route to the I-295 corridor, Franklin Arterial was identified as the preferred traffic conduit to and from the district. Due to peak hour congestion issues, a 2002 Gorrill Palmer Engineers traffic assessment suggested a set of improvements to the arterial to ensure that neighborhood traffic concerns were addressed. Quoting the Gorrill Palmer traffic assessment:

> . . . it is important to understand that the proposed improvements to the transportation network play a crucial role to minimizing affects on the local streets at Munjoy Hill. Without these improvements, particularly those to Franklin Street Arterial, delay for drivers along major travel corridors would become unacceptable, with resulting traffic diverted to local streets.

To be consistent with the city's long-range goal of developing the Eastern Waterfront, adequate traffic capacity for Franklin Arterial needs to be maintained. More recent planning work, specifically the Peninsula Transit Study, suggests that alternatives to traditional traffic management are available that will allow attractive and economically beneficial development, without necessarily generating as many vehicle trips as previously assumed. Re-visioning the Franklin Street corridor needs to be accompanied by a

rigorous application of Transportation Demand Management and promoting alternatives to driving on the peninsula to avoid undue negative traffic impacts to surrounding neighborhoods.

Transportation Plan

A review of the Portland Transportation Plan provides further support for the concepts and approach for the Franklin Street corridor, as presented in this report.

A Century of Retrofitting Portland for Automotive Traffic

Historically speaking, Portland was built predominantly as walking environments for the people who lived and worked in them, along a traditional grid layout. This resulted in many relatively short blocks, affording convenient options for walking from point A to point B, no matter where you were in the city. Today we experience the efficiency of the traditional layout best by walking the city's streets.

The rise of the automobile and the intercity mobility it afforded led to a century of retrofitting our cities - including Portland - for motorized vehicles, with little if any consideration for the traditional and dominant transportation mode in the city: as a pedestrian on foot. The creation of Franklin Street Arterial represents the pinnacle of an era when the automobile had dominance over other modes. Not only was the Arterial engineered and built exclusively for high-speed vehicles, with the complete absence of pedestrian considerations, but its very design created a nearly-impenetrable structure, creating a psychological if not physical barrier dividing what was formerly a very walkable and livable neighborhood.

The work of reversing these impacts that the Arterial created for the Bayside and East End neighborhoods, and the entire Portland peninsula, began with the Bayside Plan and continues with every new development. The recent addition of sidewalks in the vicinity of the new Whole Foods Market represents the beginning of a re-retrofitting with long overdue pedestrian accommodations.

Portland adopted policies in its *Portland Transportation Plan of 1993* that provide a basis of support for the work the Franklin Street Arterial Study Committee has undertaken. Portland's Transportation Plan includes many Goals and Policies that the committee has drawn on in the Franklin Street Revisioning effort. Although there are other Goals and Policies that support the committee's recommendations and the reclaiming of Franklin Street, below are the most relevant.

Relevant Goals and Policies for Franklin Street from the Portland Transportation Plan - 1993:

In Goal #1: ENVIRONMENT AND ENERGY

- Reduce the percentage of trips by single-occupant motor vehicle.

In Goal #2: INTEGRATED INTERMODAL

- Make improvements that are contextually appropriate.
- Provide the maximum modal choice for transportation commuters at the greatest convenience level possible, with special attention to the needs of the handicapped and elderly.
- Foster a sense of mutual respect among the various modes of transportation so that, for example, pedestrians and bicyclists will not feel threatened by motorists.
- Foster a sense of safety and security so that riders of mass transit will not feel threatened.

In Goal #3: STRUCTURED SYSTEM

- Create a neighborhood street system characterized by a network of interconnected streets which minimizes through-traffic in residential neighborhoods.
- Appropriately scale and design streets and highways and other transportation infrastructure to serve local traffic, destination traffic, and through-traffic.

In Goal #4: LAND USE AND TRANSPORTATION LINK

- Future growth should not foster auto dependencies.
- Weigh investment decisions for automotive infrastructure against investments in alternative transportation modes.

In Goal #6: DESIGN AESTHETIC

- Build visually attractive and durable infrastructure such as roadways, pathways, and bridges.

In the Portland Transportation Plan's Neighborhood Issues and Policies section, the City's relevant Policy is:

> The City should promote the interconnection of neighborhood streets and pathways, so that there are multiple paths of travel to get to destinations within and between neighborhoods by foot and bicycle, as well as auto.

The following excerpts from the Plan further illustrate the intent of these policies:

> By giving multiple ways to reach the same point, it spreads out local traffic, and it is less likely that any one street will be burdened with the problem of cross-cutting. It allows the neighborhood's residents to get to neighborhood destinations…without having to venture onto an arterial. It makes trips more direct, often cutting down distance and making it easier to think about walking or biking.
>
> If neighborhoods are thoughtfully located within larger transportation districts, with arterials and collectors treated in a way that respects the integrity of neighborhoods…the need for the dead-end street as a defense against heavy traffic flows is lessened. In turn, the opportunities for the neighborhood to function as a social unit, which depend on the physical interconnections of its streets and pathways, are heightened.

For the Franklin Street Revisioning effort the City's relevant Policy on Streets as Public Places is:

> Neighborhood streets, downtown streets, and streets through the City's parks should be considered to be and designed as multipurpose, public spaces.

The following excerpt from the Plan further illustrates the intent of these policies:

> The paved street itself should be designed for multiple purposes: in addition to the movement of automobile traffic, there can be provision for bicycling, the parking of vehicles, and informal, spontaneous recreation and socializing. These purposes usually are limited or eliminated on arterials and collectors that have been entirely given over to automobile traffic. They should be selectively reintroduced where the goal is to slow down ("calm") or divert through traffic to other roads.

In the Portland Transportation Plan's City Issues and Policies, for the Franklin Street Revisioning effort the City's relevant Policy on Land Use is:

> The City should allow development along transit corridors and near community commercial centers to evolve at a density sufficient to make public transit, walking and biking viable options…

It is in this context that the Bayside neighborhood and especially the entire Franklin Street corridor should seriously be considered for significant mixed-use, multi-story development in support of transit.

City Issue 4 Bicycles and Pedestrians

For the Franklin Street Revisioning effort the City's relevant Policies on bicycles and pedestrians are:

> The City should recognize and encourage the bicycle and walking as important modes of everyday transportation and a reasonable choice to the automobile for commuting, utilitarian, and recreational purposes.
>
> Bicycling should be integrated and included on equal terms with other modes in the ongoing transportation planning and funding process.

The City should provide greater safety for bicyclists of all levels of ability and safer interaction with other modes of transportation.

A comprehensive and continuous system of bicycling facilities should be systematically implemented over a 5-to 10-year period.

For the Franklin Street Revisioning effort the City's relevant Policies on arterials in neighborhoods are:

As set forth in policies on regional traffic, the City should take steps and urge steps by others that would shift through-traffic to other more appropriate modes and routes.

Beyond these steps, the City should develop and implement a strategy that balances the integrity of the neighborhood against the need to move traffic on the arterials.

The City should take all reasonable steps to assure that motor vehicle laws are strictly enforced, especially in neighborhoods where the balance between traffic and he needs of the neighborhood is delicate.

The following excerpt from the Plan further illustrates the intent of these policies. The underlined areas speak specifically to the neighborhoods adjacent to Franklin Street Arterial:

The treatment of arterials, whose role is to carry through-traffic, requires different approaches on different roadways. Balancing the need to move goods and people and the need to protect the internal functioning of transportation districts and their neighborhoods is critical. In some cases it is appropriate to encourage more efficient use of the roadway and to mitigate the impacts. In others it is appropriate to give up some efficiency in the movement of traffic in response to the needs of the neighborhood.

Sustainable Communities Partnership: Federal Level

The new Administration in Washington has initiated an important new development that is a high-level interagency partnership for *sustainable communities*, among the U.S. Department of Transportation, the U.S. Environmental Protection Agency, and the U.S. Department of Housing and Urban Development.

These three agencies are coordinating so that that housing and transportation goals are met while protecting the environment, promoting equitable development, and helping to address climate change.

These principles for livability should be incorporated into the Franklin Street feasibility planning as there will likely be competitive funding sources available for projects that can demonstrate consistency with them.

Livability Principles:

Provide more transportation choices. Develop safe, reliable, and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health.

Promote equitable, affordable housing. Expand location- and energy-efficient housing choices for people of all ages, incomes, races, and ethnicities to increase mobility and lower the combined cost of housing and transportation.

Enhance economic competitiveness. Improve economic competitiveness through reliable and timely access to employment centers, educational opportunities, services and other basic needs by workers, as well as expanded business access to markets.

Support existing communities. Target federal funding toward existing communities – through strategies like transit-oriented, mixed-use development, and land recycling – to increase community revitalization and the efficiency of public works investments and safeguard rural landscapes.

Coordinate and leverage federal policies and investment. Align federal policies and funding to remove barriers to collaboration, leverage funding, and increase the accountability and effectiveness of all levels of government to plan for future growth,

including making smart energy choices such as locally-generated renewable energy

Value communities and neighborhoods. Enhance the unique characteristics of all communities by investing in healthy, safe, and walkable neighborhoods – rural, urban, or suburban.

Peninsula Transit Plan

The Transit plan, as well as this Franklin Study, is in many ways a reaction to the Peninsula Traffic Study, which illustrated the potential need for a significant expansion of Franklin if conventional, vehicle-oriented traffic planning is relied upon. There was strong negative reaction from the community to further widening of Franklin, which is seen as a major barrier to neighborhood connectivity, vitality, and economic development.

The Transit Plan attempts to reduce single occupant vehicle (SOV) use by providing better alternatives. It points to Franklin as a major barrier, and a "hot spot" for needed improvements. Recommendations include:

- International standard (zebra stripe) crosswalks at all intersections
- Curb extensions, pedestrian refuges
- Lighting and improved signalization
- New crossings of Franklin at Federal, Oxford and Lancaster Streets
- Added bike facilities
- Transit along Franklin – busses and light rail.

The Peninsula Transit Plan describes a significant change in direction that Portland can pursue, in terms of actions, projects and policies that could have a substantial affect on the future vehicular traffic volumes that the Franklin corridor will have to serve. In later sections of this report, many concepts from the Transit Study will be discussed further, and have been considered carefully in this report's recommendations.

Housing Plan

In 2002, the housing component of the Portland Comprehensive Plan, Housing: Sustaining Portland's Future, was adopted. Its primary theme is to encourage and manage growth over the next 10 to 20 years in a manner that will preserve and enhance Portland's quality of life.

The following is an excerpt of the primary housing goal:

Portland will strive to provide a sufficient supply of quality housing commensurate with a manageable level of growth to sustain the city as a healthy urban center in which to live and work, and its position as a growing regional economic and service center.

The following plan components relate to the Franklin Street Study area:

- Ensuring an adequate and diverse supply of housing
- Encouraging high-density mixed-use development through zoning and incentives near public transit, schools, businesses and services
- Implementation of the Bayside Plan.

The development opportunities created by the redesign of Franklin Street and the reconnection of neighborhoods will help to stabilize and rebuild the integrity of the Bayside neighborhood, both east and west. The plan supports development of livable neighborhoods through:

- A mix of uses
- Bicycle/pedestrian access
- Public amenities and open space
- Public safety.

A manageable level of growth is encouraged to sustain Portland as a healthy urban center, and sustainable development patterns by promoting:

- Efficient land use
- Conservation of natural resources
- Easy access to public transportation, services and amenities.

Open Space Plan

Portland's Open Space Plan calls for fostering a balance between the natural and built environments, and providing connections between parks, shoreway access points, residences, and destinations to enhance quality of life of Portland's residents. This includes the goal of extending sidewalks and trails to address gaps in the neighborhood walkway system (including safe pedestrian crossings across busy streets), especially along streets/connections linking residential areas to schools and parks. There are numerous examples of these gaps along Franklin. The Open Space Plan states that these pedestrian linkages should be as direct and convenient as possible. Sidewalks along Franklin, safe crossings across Franklin, and connections from the Franklin corridor to the waters edge at Back Cove and the waterfront are supported by the Open Space Plan. The plan also calls for the establishment of a system of arborways in the city along streets and boulevards. Franklin Street is an ideal candidate to serve as a link in such a system.

Connections to the Islands

Franklin Street Arterial is a major connector for residents of and guests to Portland's island communities. It provides important access from the Casco Bay Ferry Terminal and the waterfront to the downtown, the highway, and other parts of the city. The seasonal nature of this population results in different travel demands at different times of the year. There has been some discussion of a rail system running to the ferry terminal, either from Franklin, or along Commercial Street or the Eastern Promenade Trail. This could include an enhanced multi-modal connection near the intersection of Commercial Street and Franklin Street.

Shoreside Access Plan

In 1989, the Portland Shoreway Access Plan was formally adopted by Portland's City Council. It presented an inventory of open spaces and identified opportunities to increase the city's open space systems through an idea called Waterlinks, which built upon the vision of Mayor James P. Baxter and the Olmsted Brothers' 1905 General Plan for Park System. The Shoreway Access Plan included a series of open spaces, trails and public access opportunities – with Back Cove serving as "the heart of the water access concept…Back Cove was recognized as the center of the planning model because of its success as a public open space and its ability to pump life into the extremities radiating from it."

One of the "extremities" envisioned in the Shoreway Access Plan was Franklin Street Arterial: "Treat the Franklin Arterial as the main artery into the City, which it is, making it a showcase unto itself, rather than just a road to pass through to get someplace else." It would "interconnect…Back Cove and the Waterfront" once the recommendations to "install a continuous sidewalk along the western side of the Franklin Arterial from the Back Cove to the Maine State Pier" and to "…study the need for a bicycle lane paralleling the roadway between I-295 and waterfront" were implemented. Some anticipated users would be "commuters from Park & Ride…who would walk downtown; people going to and from Back Cove; and downtown workers at lunch time, out for a jog or a walk, with Back Cove as a destination."

The plan encourages access between Franklin and the Back Cover trail by directing the City and MDOT to "install a gate in the existing chain link fence which separates the interchanges and Back Cove to allow more direct access to the Cove from the east end and downtown."

Public Involvement

The Franklin Street Arterial Study Committee held over twenty study committee meetings to date, and all have been open to the public. In addition, City staff from the Department of Public Services maintained an "interested parties" listing, which totaled 97 people, who were sent notifications of upcoming meetings and invited to attend as well. All meetings were held at Portland City Hall, with the exception of the initial Public Workshop held on April 29, 2009, which was held at the Ocean Gateway Terminal, and the September 2 public meeting held at the Merrill

Rehearsal Hall. Several meetings were held to reach out to specific stakeholder groups, as described in the following sections.

Meeting for abutting residents and property owners

To further guide the work of the Study Committee, a public meeting was held with abutting residents and property owners adjacent to and along Franklin Street Arterial on March 4, 2009 at Portland City Hall. The public meeting served to help the committee determine if the preliminary concept alternatives for a future Franklin Corridor were consistent and supported by abutting property owners and residents most affected by any changes made to this key link into Portland. Committee members felt seeking this information was important and helped with putting design alternatives in proper perspective. In addition, given future land use opportunities created by future realignments for the Franklin Corridor, it was important for the committee to seek feedback from current landowners that may be affected by these changes.

The committee's presentation consisted of historical perspectives, performance criteria for new design, use of context sensitive solutions in design proposals, graphics of preliminary design proposals, general traffic forecast information, safety improvements for motorists, pedestrians and bicyclists, providing transit opportunities and land redevelopment opportunities. In addition, brief updates were provided about related projects including proposed improvements to Exit 7 and the Bayside Trail development.

Participants were able to view preliminary corridor concepts, ask questions and offer feedback. Overall feedback was positive and helpful with respective to the early work of the committee. Representatives of the private land owners, local government and interested residents attended the interactive meeting. In addition to public notice announcing the meeting, special invitations went out to abutting residents and property owners near the Franklin Corridor.

East Bayside Workshop w/ Muskie School

USM's Muskie School's Planning Workshop began working with the East Bayside Neighborhood Organization (EBNO) in January 2009. Professor Alan Holt and his students studied the neighborhood as a whole, as well as focusing on a few challenging spots. After several community meetings both in East Bayside and Portland High school, the Workshop identified the Franklin Street Arterial as one of the biggest challenges to the neighborhood, creating both a physical and psychological barrier to the rest of the city. The well-worn footpaths across Franklin bear testimony to the need for safe crossing options along the arterial.

Augusta Rotary and Auburn Roundabout Site Visits

In April of 2009 members of the Franklin Street Arterial Study Group traveled to Augusta and Auburn Maine to learn more about modern roundabouts. The group was particularly interested in assessing how the roundabouts serve pedestrians' needs for safe crossing. The group first visited the roundabout in Augusta, Maine during week-day rush hour traffic. The roundabout at the intersection of routes 9, 100/201, 105, and 202 is oversized, consisting of up to three travel lanes. Lanes and crosswalks had yet to be painted and signage was just beginning to be installed. Some members of the group declined to try and cross the routes at the roundabouts for safety reasons. This experience highlighted the importance of human-scaled design in informing vehicular behavior.

The group also traveled to Auburn, Maine to experience two roundabouts at the Auburn Mall. The group also met with Auburn Economic Development Director Roland Miller and a member of the Auburn police department to learn about the roundabouts' functionality and safety record. They considered the roundabout to be a significant improvement over the signalized intersections that had previously been there. Traffic flowed much better, and there were significantly fewer collisions. While enthusiastic about the roundabouts, they both stressed the importance of educating the public in the use of roundabouts. A strong public education campaign is essential.

Both roundabouts accommodated significant volumes of traffic, one lane each direction, but less than the heaviest volumes of Franklin. These roundabouts, with a tight, human-scaled design, and good signage, felt much safer to cross than the Augusta roundabout. This highlighted the importance of design, lighting, and strong visual cues to drivers to maintain safer speeds. A critical consideration must be made for the fact that these roundabouts are in a suburban setting compared to Franklin Street Arterial in Portland.

Franklin Corridor Site Walk

In May 2009 during a week-day rush hour wrap-up, the Franklin Street Arterial Study Committee walked the length of Franklin Street Arterial, accompanied by City planning staff. The committee was interested in experiencing first-hand what pedestrians might experience negotiating the length and crossings of Franklin Street Arterial, and to observe existing conditions, particularly during the busy evening traffic hour.

The group first took a look at the area along the southbound off-ramp, Exit 7, under the I-295 overpass to gauge if they thought a pedestrian/bike-way might be feasibly installed to connect to the Back Cove trail. There has been strong interest in establishing this connection for pedestrians. At this time pedestrians must walk approximately one mile out of the way to access this part of the Back Cove Park. While the intersection of Marginal Way and Franklin currently lacks pedestrian crosswalks, there is a paved sidewalk under the overpass. There appears to be sufficient width under the overpass to accommodate a 10-foot trail.

The group then headed north on Franklin on the west side toward Commercial Street, noting the swaths of unused land abutting the roadway. The disturbance Franklin causes to the urban street grid was apparent. Pedestrian pathways and holes in chain-link fences demonstrated local residents' desire to cross Franklin at multiple locations.

Public Design Workshop

On April 29, 2009 a public workshop entitled, "Rethinking Portland's Gateway: A Community Workshop for Franklin Street" was held at the Ocean Gateway Marine Terminal. The workshop was publically noticed in the Portland Press Herald and widely publicized through neighborhood list serves, non-profit organizations, and local media. The workshop attracted a total of 141 participants including 97 general members of the public, the 15 members of the Franklin Corridor Study Group, 15 volunteers from the local design community, 8 staff-members from the City of Portland, Portland Area Comprehensive Transportation System (PACTS), the Federal Highway Administration (FHWA), and the study group's 2 independent consultants.

At the close of the breakout sessions, the entire workshop regrouped for about 45 minutes, in which each breakout group presented a brief overview of their most significant observations and recommendations. Participants presented specific desires with regard to location and quality of preferred street cross-sections and intersection types. The predominant responses to questions of the corridor's current limitations centered on a lack of safe bicycle and pedestrian access, poor aesthetics, and excessive vehicle speeds. In turn, the predominant visions for a new Franklin Street corridor were centered around creating a better balance between the needs of vehicles and those of bicyclists and pedestrians, supporting a broad mix of uses on vacant and underutilized parcels, creating a higher-quality, more human-scaled environment, increasing connectivity, and preserving historic character.

This workshop resulted in 14 different breakout groups developing conceptual designs that were used in the development of the alternatives described later in this report.

Public Meeting

On September 2, 2009 the Franklin Committee held a public meeting to share its findings with the public and to get community feedback on its three main design alternatives. The Portland Press Herald, e-mail notification, and other local press were used to inform the public of the meeting. Over sixty members of the public attended. After a presentation of the principle findings of the committee, members of the public met in small groups to learn more about the proposed alternatives and the various design components. After a question and answer/discussion session,

participants used colored dots, sticky notes, and comment sheets to offer feedback to the Committee members. This activity provided valuable information, which should be taken into account in Phase Two of this study. This can be found on page 40.

Participants also completed a standardized questionnaire to provide more specific input on design considerations. The responses indicate a high level of support for the goals of the study and study process. The following are the questions and responses to this questionnaire.

1. Do you favor traffic lights over roundabouts?
   - 7 Definitely
   - 24 Depends on where
   - 11 No
   - 3 Don't know

If roundabouts are used, where would you prefer them?
   - 22 Marginal
   - 20 Commercial
   - 6 Other

2. Which streets do you favor reconnecting?

For:	Cars	Pedestrians
Lancaster/Boyd	20 Y/23 N	26 Y/18 N
Oxford	24 Y/20 N	26 Y/18 N
Federal	26 Y/18 N	26 Y/18 N
Newbury	18 Y/26 N	26 Y/18 N

3. Do you favor on-street parking:
   - 20 Entire length of street
   - 6 Marginal to Congress
   - 9 Congress to Commercial
   - 6 None or very limited parking

4. Do you favor a speed limit of:
   - 23 25 mph
   - 21 30mph
   - 1 35 mph

5. Do you favor bike lanes that are separated from vehicle travel lanes?
   - 27 Yes
   - 13 No

6. Should Lincoln Park be:
   - 22 Restored to its original size?
   - 11 Left as is?
   - 7 Other (most in favor of development)

7. From Marginal to Congress do you favor:
   - 40 Four lanes of traffic
   - 3 Six lanes of traffic

From Congress to Commercial do you favor:
   - 28 Two lanes of traffic
   - 12 Four lanes of traffic

(left-turn lanes are provided where needed)

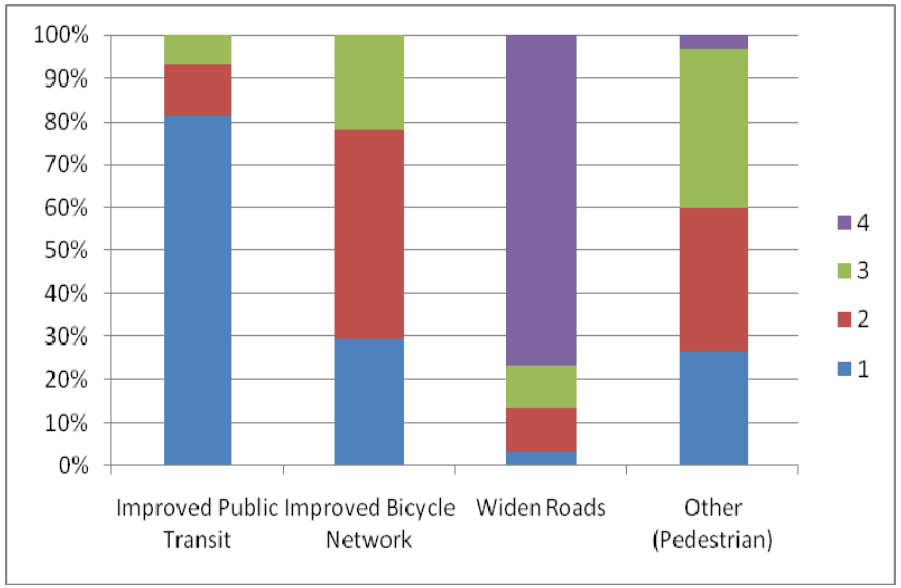
8. Do you favor banning left turns from new connecting streets?
   - 19 Yes
   - 13 No

9. Do you favor development (where possible and feasible) in the following locations?
   - 23 Marginal to Congress (both sides)
   - 12 Marginal to Congress (west side only)
   - 1 Marginal to Congress (east side only)
   - 31 Congress to Commercial (both sides)
   - 6 Congress to Commercial (west side only)
   - 3 Congress to Commercial (east side only)

11. How much growth in traffic should the Franklin Street corridor be designed to accommodate?

13	No growth
22	10 % above today's traffic
4	20% above today's traffic
2	35% above today's traffic

13. How should Portland be accommodating future growth in the need to travel? Please give a priority rank to each element, with 1 being the highest priority and 3 or 4 being the lowest priority.



A review of the tabulated responses shows strong support for the development of a mixed-use urban setting along Franklin, and to improve transit and bicycle options for visitors to the peninsula, as opposed to accommodating more traffic. In general, public feedback supports further exploring the components of each of the three alternatives to find an optimal design.

Franklin Street Design Considerations

The primary study area is the Franklin Street corridor between Marginal Way and Commercial Street, approximately 0.7 miles. However, consideration is also given to the street network and context on either side of this corridor, and to the I-295 Exit 7 vicinity.

Current Conditions

The Franklin Street Arterial is currently a major corridor for traffic entering the east side of the Portland peninsula from I-295. Franklin was designed to function more like a highway than other arterial roads on the peninsula.

For the pedestrian or bicyclist, the road poses severe challenges, and is considered the most significant barrier to the safe and effective movement of pedestrians in the city. Franklin Arterial has never been reintegrated into the fabric of the urban environment. It is a place only for cars, without adequate pedestrian, bicycle, or transit infrastructure. The long blocks necessitate travel away from pedestrian desire lines, forcing people up to 1200 feet out of their way. Nevertheless, the old cross streets have never died; to this day holes in chain link fences and footpaths worn into the median attest to the local residents' demand to cross.

Pedestrian Desire Line Across Franklin Street Arterial

Source: www.franklinstreet.us

In addition to the physical barriers Franklin poses, its configuration presents definite psychological barriers to non-automotive travel. Its wide footprint and undeveloped roadside present a distinctly non-pedestrian scale. Almost no buildings face the street; it is the backside of the surrounding neighborhoods. Franklin serves as a distinct end to the texture of the neighborhoods one passes through when approaching the road, creating a significant "border effect."

Cross Section

The Franklin Street corridor generally has two lanes in each direction of approximately 12 feet in width, with few auxiliary lanes for turning traffic. There is a continuous median along its length, which varies considerably from 20 to 130 feet in width.

Intersections

When the arterial configuration was established on Franklin Street, intersection access was significantly limited, both to limit access and due to significant grade changes that resulted from the reconfiguration. There are signalized intersections at Marginal Way, Somerset/Fox, Cumberland, Congress, Middle, Fore and Commercial Streets. There are no unsignalized accesses to Franklin Street.

There are only two intersections which provide left-turn lanes: Somerset Street and Marginal Way. The lack of left-turning lanes at the other intersection creates both safety and operational problems at the remaining intersections, as any vehicles stacking for left turns block the oncoming through-traffic, essentially narrowing the street to one through lane. The queues of vehicles waiting to turn left result in rear-end collisions or weaving maneuvers by oncoming traffic to avoid and bypass the traffic queues.

Users

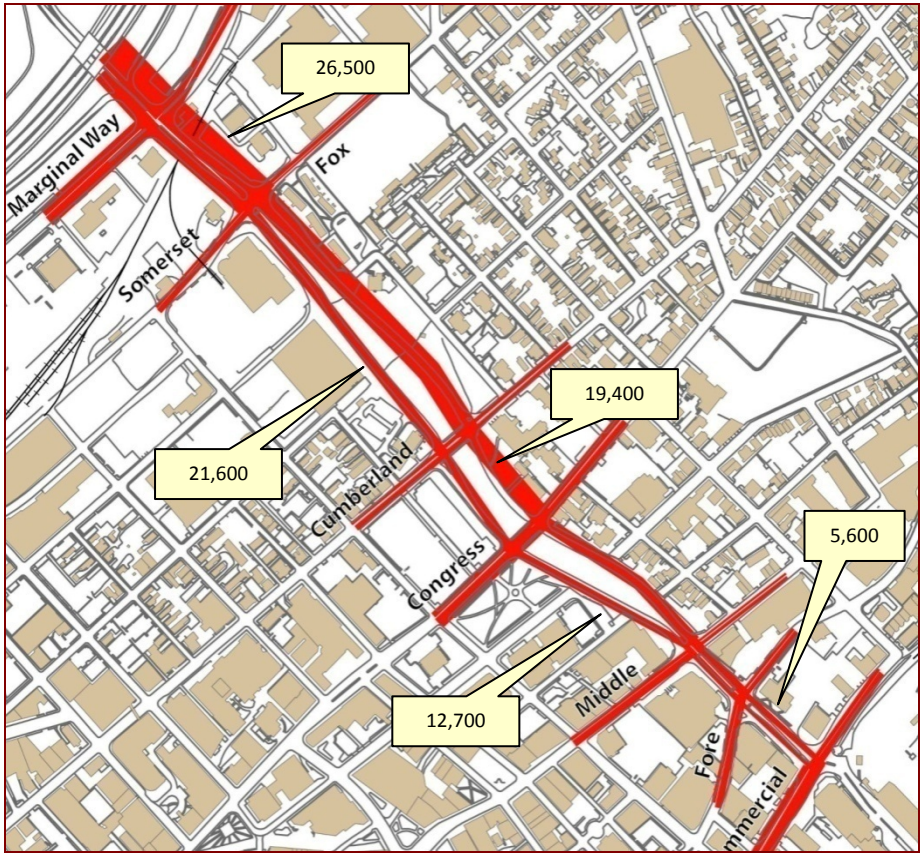
The following sections describe how the Franklin corridor currently serves the variety of users that are planned for: motor vehicles, bicyclists, pedestrians, and transit riders.

Vehicular Traffic

Traffic volumes vary considerably along the corridor, with the highest volumes at the approach to Marginal Way, and lowest on the approach to Commercial Street, shown. The highest hourly volumes are found in the p.m. peak hour. The traffic counts show a high "directional" flow, with 69% of morning traffic flowing south, and 66% heading north in the afternoon peak. This demonstrates the important role of Franklin Street in serving commuter traffic.

Traffic Volumes along Franklin Street Corridor

(average daily traffic in both directions)

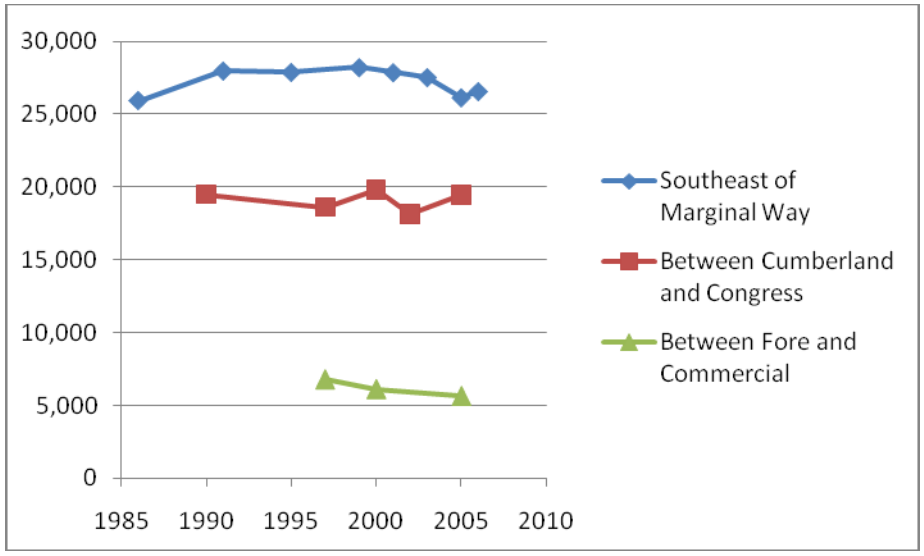


Source: Maine Department of Transportation Traffic Counts for Cumberland County

However, traffic on Franklin diminishes considerably along its length, with peak hour traffic of 2,750 vehicles at Marginal Way and only 600 at Commercial. In fact, Commercial Street has higher traffic than Franklin at that intersection, indicating that the lower portion of Franklin plays a very different role in the transportation system than at the heavily traveled northern end.

While over the past 30 years traffic volumes on this route have increased, there has been little or no growth over the past 10 years, based on traffic volume trends, as shown on the following figure.

Traffic Count History along Franklin Street Corridor, 1986 to 2006



Source: Maine Department of Transportation Traffic Counts for Cumberland County

It will be important to consider the likely future traffic volumes on the corridor, as they are a primary determinant for the future traffic design of the Franklin Street corridor. While adequate capacity to meet future traffic demand is desirable to avoid congestion, there is also a risk of designing more traffic capacity than will be needed at the expense of other modes of transportation, and of the corridor's aesthetics and environment of the corridor.

Pedestrians

Pedestrian accessibility across and along the Franklin Street Arterial corridor is one of the most significant problems that have been identified by neighborhood residents. There are no pedestrian facilities along the length of Franklin Street, except for a recently constructed sidewalk along the frontage of the Whole Foods Market, just south of the Somerset intersection. There are pedestrian crosswalks at each signalized intersection, although some of the crossing signals are not adequate to provide sufficient crossing time, particularly for slower moving pedestrians.

There are no other crossing points, although there are clear signs of active crossing at Boyd, Oxford, and Federal Streets, evidenced by well-worn paths across the median and breaks in the chain link fence, as shown below.

Aerial View of Pedestrian Desire Lines across Franklin Street Arterial at Oxford

The recently completed Peninsula Transit Study provides an overview of pedestrian improvements that would be important to support a robust transit system, as transit users generally need to travel on foot at either end of their transit trips. The figure to the right shows the highest priorities, which include sidewalks along the length of Franklin, and crossing improvements at some of the heaviest pedestrian crossings (Cumberland, Congress and Commercial Streets).

Pedestrian Priority Improvements

Source: Peninsula Transit Study, Nelson Nygaard, 2009.

Bicyclists

There is limited use by bicycles of the Franklin Street corridor, and there are no facilities to accommodate them. The need for basic bicycle facilities along the Franklin Corridor was also identified in the recent Peninsula Transit Study (see figure to the right). There is potential for substantially increased bicycle demand on the corridor due to the Bayside Trail and connection to the Back Cove Trail, and a possible loop to connect to the Eastern Promenade Trail.

Bicycle Priority Improvements

Source: Portland Peninsula Transit Study, Nelson Nygaard, 2009.

Public Transportation

There is no public transit service currently along the corridor. The Peninsula Transit Study recommends several high priority routes which would use Franklin Street between Congress and Commercial Streets, connecting the ferry terminal with the rest of the city.

In addition, Franklin Street was identified as a potential corridor for light rail in the long-term. However, there were no specifics as to design. Light rail systems in a more congested downtown area often run in the street rather than in an exclusive right-of-way, so the alternatives described in this report could all be compatible with light rail in the Franklin Corridor.

Transit System Recommendations

Source: Portland Peninsula Transit Study, Nelson Nygaard, 2009.

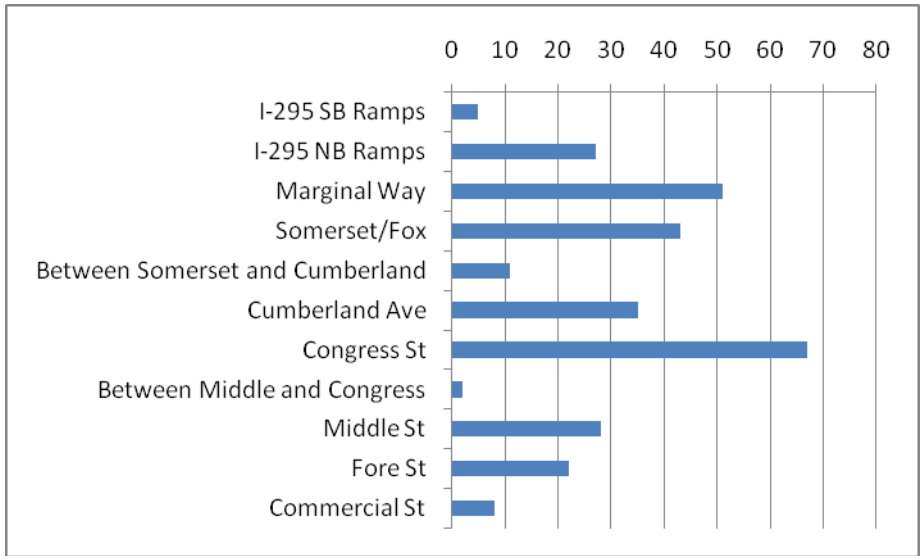
For example, the photograph below shows a relatively new light rail system in downtown Salt Lake City, which has been highly successful. The general concept for this light rail network is that in the more suburban areas, stops are less frequent, and rail speeds are higher, requiring a separate right-of-way. However, as the line enters the downtown area, it moves at a slower speed, with more frequent stops, and shares the right of way with vehicle traffic.

UTA Trax Light Rail Line, Salt Lake City

Safety

Accident statistics available from the Maine Department of Transportation indicate that several intersections have high frequencies of crashes. These are likely due to the operational problems and poor intersection design, such as rear-end collisions between traffic queued for a left turn and through-moving vehicles. Compared to other streets in Portland with similar traffic volumes, Franklin Street has a lower incidence of crashes, as well as accidents involving pedestrians. The crash frequency at each intersection between 2003 and 2007 is shown on the following page.

Franklin Arterial Crashes, 2003 through 2007



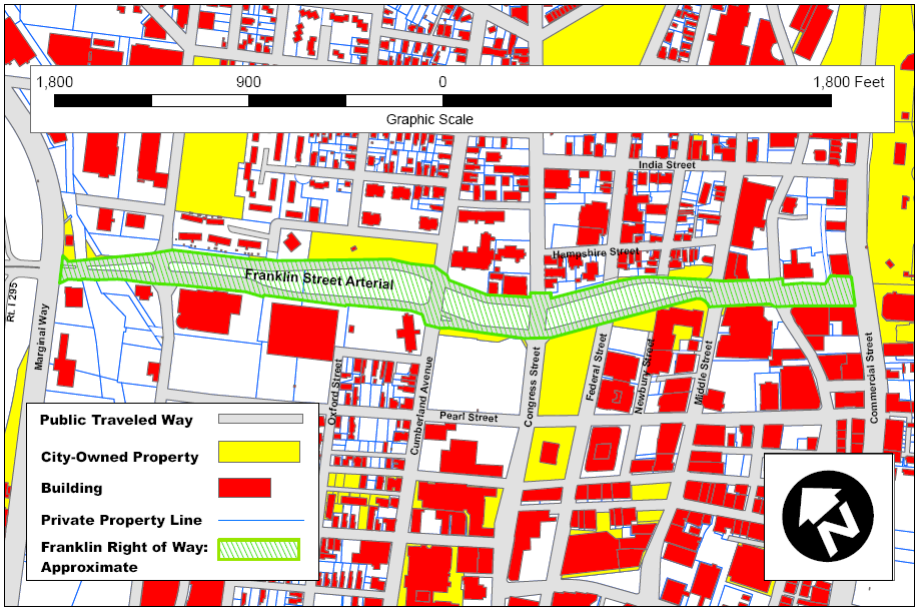
Source: Maine Department of Transportation

The data above show that several intersections have frequent crashes, especially at Congress Street. Overall, there were 299 crashes on Franklin over the five-year period of 2003 through 2007. During this same period, there were 420 crashes on High Street, and 294 on State Street between I-295 and York Street. High and State Streets both have lower volumes than Franklin, indicating that they have higher crash rates (crashes per million vehicle miles).

Land Ownership

The land ownership along the length of Franklin Street corridor is primarily private, although there are a number of publicly owned parcels, as shown on the map to the right which highlights property owned by the City of Portland.

Franklin Street Right of Way and Adjacent City Owned Property



Source: City of Portland Planning Department

Open space

There are several significant open space features along the corridor. Starting from the I-295 interchange, these include the Back Cove Trail on the north side of I-295, the future Bayside Trail corridor, City-owned land adjacent to Kennedy Park currently used as open space and community gardens, Lincoln Park, and the waterfront promenade area. Some of these spaces are somewhat underutilized, and possible reasons include difficult pedestrian access and the noise and impact of high-speed traffic on Franklin Street.

Opportunities for Underutilized Space

There are several significant undeveloped parcels that should be considered in the planning for this corridor. Among the most significant include the "top of the hill" block bounded by Cumberland, Congress, Franklin and Pearl; reutilization of the parking area on the Franklin Towers site; and the City-owned property along the east side of Franklin north of Cumberland.

There are several small City-owned parcels between Federal and Middle Streets that could be better utilized.

Several other properties could potentially see redevelopment or reconfiguration in the future as land ownership or property owners' goals change. Accommodating possible long-term redevelopment of these locations in a manner compatible with the current planning policies for these areas has been considered in this effort.

Performance Criteria

The following performance criteria were established by the Study Group to reflect the goals and vision for the Franklin Street corridor.

Urban Context

- Gateway experience
- Historic preservation
- Creates a pedestrian-scaled environment
- Width of travel lanes for all users
- Access to businesses, buildings.

Connecting Neighborhoods

- New connections for pedestrians to or across Franklin
- New connections for vehicles to or across Franklin.

Neighborhood Enhancements

- Maintains and improves "local" quality of neighborhood streets
- Utilizes redundancies of interconnected street grid
- Pedestrian connections from neighborhoods to amenities or services
- Creates a "sense of place."

Land Use

- Acres of land made available for redevelopment, especially if contiguous with other vacant parcels
- Appropriate on-street parking to support adjacent/nearby development (include cross streets and Franklin corridor)
- Opportunity frontage for pedestrian-oriented development
- Provide access to green space, expand Lincoln Park
- Building heights/massing/shadows
- Consistent with state and local planning
- Appropriate mix of land-use type.

Motor Vehicles

- Intersection function (level of service)
- Predictability of travel time (system redundancy and route choices when incidents occur)
- Safety (potential of each alternative to reduce accidents)
- Slow and constant movement
- Appropriate design speed
- Urban experience for drivers.

Public Transportation

- Transit friendly development
- Quality public transportation and amenities along corridor
- Compatibility with future public transportation.

Bicycles

- Quality of bicycle facilities (continuity, safety, compatibility with vehicles, turning options, travel time, delay, etc.).

Pedestrians

- Quality of sidewalks along length (continuity, separation from street, safety, amenities, etc.)
- Quality of street crossings (number, length, delay time, safety, turning movements, etc.).

Economic

- Impacts on diverse businesses, existing and future
- Commercial traffic access
- Development and tax revenue opportunities
- Sustainability/maintenance of infrastructure
- Funding opportunities.

Environmental Quality

- Air quality impact (emissions)
- Noise (residential)
- Low impact development (storm water)
- Amount of green space.

Implementation

- Funding opportunities
- Ability to phase construction
- Feasibility
- Disruption.

Design Issues and Concepts

The design concepts for Franklin Street have been developed with an eye to both the official guidance from the Maine Department of Transportation, and other widely accepted sources, in particular the recently revised *Designing Walkable Major Urban Thoroughfares: A Context Sensitive Solutions Approach*, published by the Institute for Transportation Engineers (ITE). Both of these guides are consistent with the policies and standards of the American Association of State Highway and Transportation Officials (AASHTO) "Green Book," which is also a requirement of the MDOT.

In addition to the basic dimensional standards, MDOT has published a chapter specifically devoted to flexible roadway design for state and federal highways. The following excerpt from Chapter 15: Flexible Design Practices of the *Maine DOT Highway Design Guide* states:

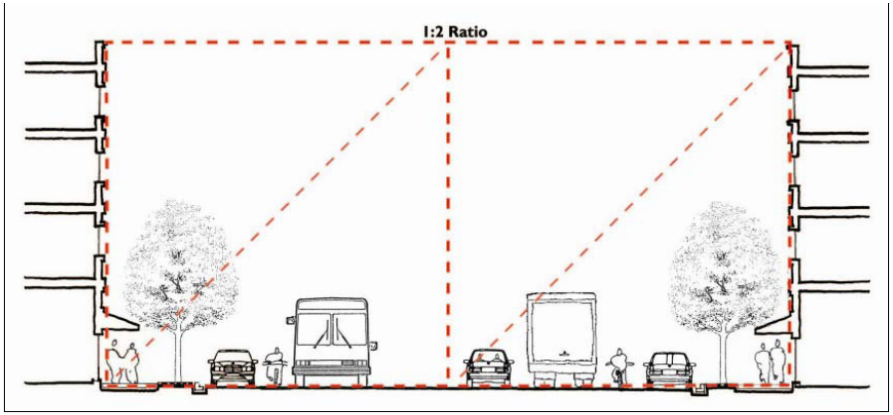
> The major thrust of this new chapter is to encourage and foster the development of an attitude toward greater flexibility in the use of specific design policies, procedures and standards. Its goal is to enhance creativity and sensitivity toward the community, historic and cultural values, while providing for user safety and efficiency in highway operations.

This clearly supports the goals of the Franklin Street committee to develop a design that balances the many users and needs that it serves.

Context

The context, or surroundings, of the street is as important as the public right-of-way of the street itself. The look and feel of a great street, and how drivers behave while driving on it, is far more affected by the context, or surroundings of the street, than of the specific design of the street itself. Great streets are places where not only is the street itself attractive and functional, but the buildings and places created along the edges form an "outdoor room" that is a pleasant place to be. A well-developed, multi-story, pedestrian-oriented streetscape is also highly effective in having a "traffic calming" effect on drivers, as the environment sends strong messages that automobiles are not dominant in this type of street, but rather share the public space with other users.

Relationship between Street Width and Scale of Development



Source: CSS for Major Walkable Urban Thoroughfares, Community Design + Architecture

For this reason, it is important to envision the type of environment along the sides of Franklin Street that is desired as well as the composition of the public right-of-way itself. While it is beyond the scope of this report to make recommendations on specific types of development, the general pattern of land development along the side needs to be considered in the alternatives, and is illustrated in the renderings later in this report. The street alternatives presented later in this report all consider at least some development along the street, which is envisioned to be street-facing and

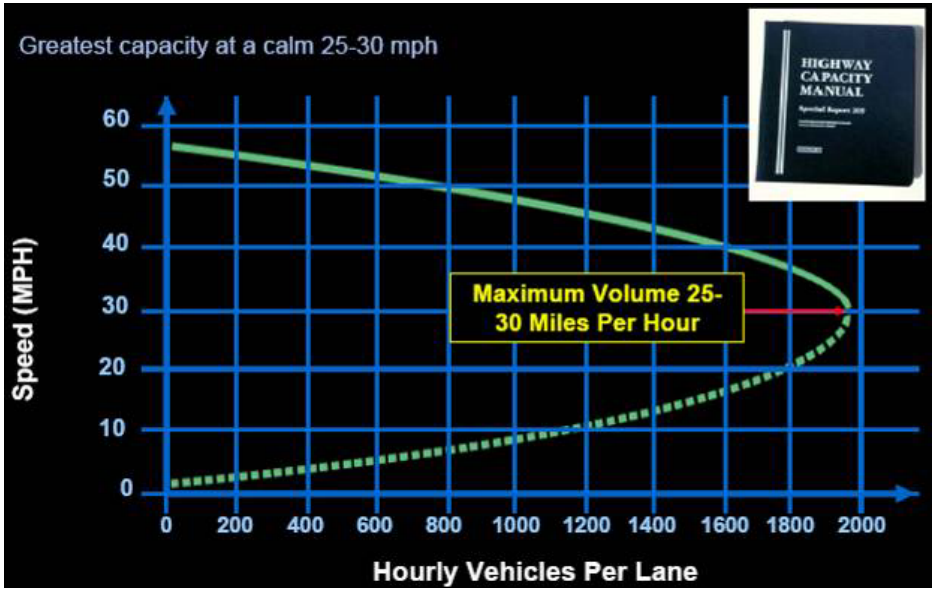
pedestrian friendly. The following photographs of development in Portland and other New England cities is the type of growth envisioned for the Franklin Corridor.

Examples of Pedestrian Friendly Urban Development

Relationship between Speed and Capacity

An important concept to understand as design criteria are established for the Franklin Corridor is how the designation of a "target speed" will affect the road's ability to serve traffic volume. While this may seem counterintuitive, higher speed roadways actually have a lower capacity for traffic than more moderate speeds. The relationship between speed and capacity is shown below. At very low speeds, capacity is restricted because of the slow vehicle movement. At high speeds, however, capacity is also restricted because the "safe following distance" increases exponentially, resulting in lower capacity. The optimal speed in terms of vehicle throughput is about 30 mph.

Relationship between Speed and Traffic Capacity (hourly vehicles per lane)



Source: Glatting Jackson, Inc.

The recently revised Urban Street Geometric Design Handbook, published by the ITE, reinforces the above concept in the following quote (p. 51):

> The design practitioner should be careful not to relate speed to capacity in urban areas, avoiding the perception that a high capacity street requires a higher design speed. Under interrupted flow conditions, such as on major urban thoroughfares in urban areas, intersection operations and delay have a greater influence on capacity than speed.

The capacity of an urban street is dominated by the intersection design (signalized vs. unsignalized, number of lanes and turning lanes, etc.). The optimal speed of traffic in terms of intersection capacity is about 30 mph. High speeds are not required for high capacity.

Intersection Types and Considerations

As noted above, the capacity at street intersections will have a major influence on the overall capacity of a redesigned Franklin Street. A number of intersection designs and modifications were considered in the planning and design process, and are discussed below.

Roundabouts

Modern roundabout intersections have some potential applications in the Franklin corridor, as they can serve both to provide high vehicular capacity and reinforce low to moderate travel speeds, consistent with a pedestrian friendly corridor. While they can be safely crossed by most pedestrians, they are particularly challenging for the visually impaired, as there is no audible cue to indicate that it is safe to cross.

The locations where roundabouts appeared to have the greatest advantage in terms of traffic operations are at the intersections of Franklin with Marginal Way, and with Commercial Street. Roundabouts are not ideal for sloping locations, so roundabouts are not recommended at Cumberland Avenue and Congress Streets.

Traffic Signals

Traffic signals will be appropriate for the major intersections on Franklin. However, they should be designed with safe pedestrian crossing phases, and also provide left-turn lanes for through traffic to improve safety and efficiency.

Unsignalized Intersections

Currently there are no unsignalized intersections along Franklin, but there is an interest in providing more street connections to the corridor that were severed when the arterial design was implemented. These new connections could either be signalized or unsignalized, and could be restricted to right turns only if appropriate. Left-turn lanes should be provided at any intersections on Franklin, whether or not they are signalized, in order to provide the capacity for through-traveling cars, and to avoid conflicts between through and turning vehicles.

Pedestrian crossings

In some locations, pedestrian crossings may be needed even if new vehicle crossings or connections are not provided. New pedestrian crossings could be unsignalized, protected with a median refuge, or signalized. It will be important to consider the needs of pedestrians of all types for these crossings, and to provide a safe, traversable network for all users. Examples are shown below.

Unsignalized Pedestrian Crossing

Boulder, CO

Signalized Pedestrian Crossing

Seattle, WA

Design Criteria

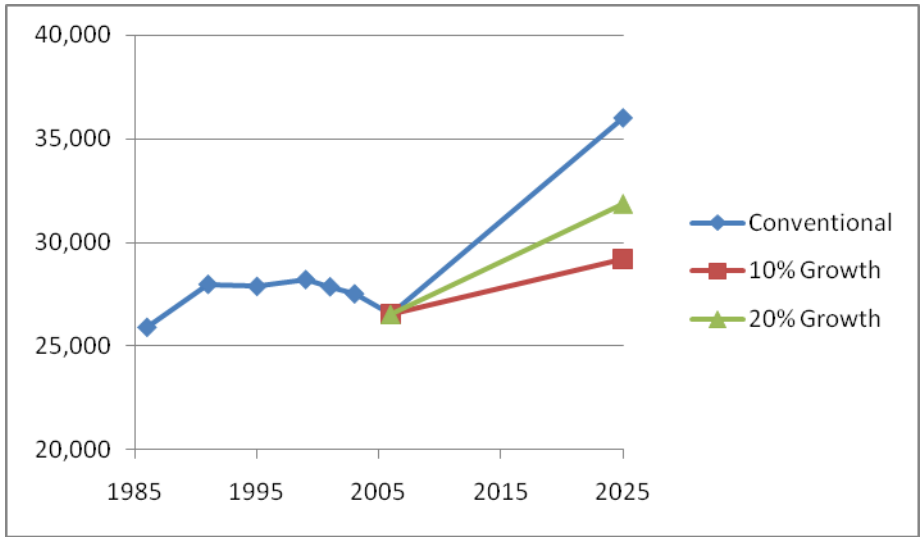
This section will review specific design criteria that have been considered in the proposed concepts. While this report does not provide detailed engineering analysis, engineering criteria have been considered in the development of the proposed alternatives. MDOT's Highway Design Guide Volume 1 provides some of the basic design criteria for the proposed alternatives. In addition, the recently published *Designing Walkable Major Urban Thoroughfares* (ITE, 2009) and the *Urban Street Design Manual* (ITE 2009) provide more specific design tools and techniques. The FHWA Manual *Flexibility in Highway Design* and the AASHTO document *Achieving Flexibility in Highway Design* provide guidance for how to apply highway design standards to sensitive locations with more complex considerations. All of these documents are compatible with the AASHTO Green Book Standards.

Design Traffic Volume

The most significant design criteria for Franklin are the design volumes of traffic, and vehicular level of service for the intersections. Together, these factors will essentially dictate the intersection's design, as they are the primary controls of capacity. The design traffic volumes are typically projections of future traffic that are forecast out to the "design year." The design year is typically 20 years into the future.

For past studies of traffic on the Franklin corridor, the projected forecasts have appeared to be very high, perhaps unreasonably so, given the fact that traffic has not grown appreciably over the past ten years. These high forecasts have in some cases resulted in proposals to substantially expand the capacity of Franklin Arterial and the I-295 interchange, as in the Peninsula Traffic Study. The chart below shows how the "conventional" forecasts, used in the Peninsula Traffic Study, compared with recent trends in traffic growth.

Comparison of Recent Trends in Traffic Counts and MDOT Forecasts for Franklin
(vehicles per day on Franklin between Somerset and Marginal Way)



Source: MDOT and the Peninsula Traffic Study

The Conventional forecast does not appear realistic given the recent trend of declining traffic, despite recent growth and development on the peninsula. This is a trend that is not just occurring in Maine, but across the country, due to an aging baby boomer population, higher fuel prices, and other demographic trends that have combined to greatly reduce traffic growth. However, the forecasting tools typically used by MDOT have not yet adapted to these new trends. This study recommends designing the street corridor based more on planning goals of the City, and not rely on an outdated travel demand model.

Traffic Operations/Level of Service

While the level of service guideline in the MDOT Chapter 11 standards is "D" for urban settings, there is clearly discretion in applying these, noted in Chapter 15 on Flexible Design. Urban street design needs to strike a balance between all modes of transportation that use the corridor, which may mean tolerating a lower level of service in order to create a more pedestrian-friendly or bicycle-safe environment. The level of service (LOS) analysis will

also be highly influenced by the selection of design hour volumes, which are discussed above.

The MDOT guidelines state "judgment must be used in the selection of appropriate level of service for the facility under study. Lesser rates may be used for certain recreational routes or for environmental or land use planning reasons." It is important to strongly consider the desired context and land use environment for the Franklin corridor in the determination of appropriate vehicular levels of service. Phase Two will provide an opportunity to explore

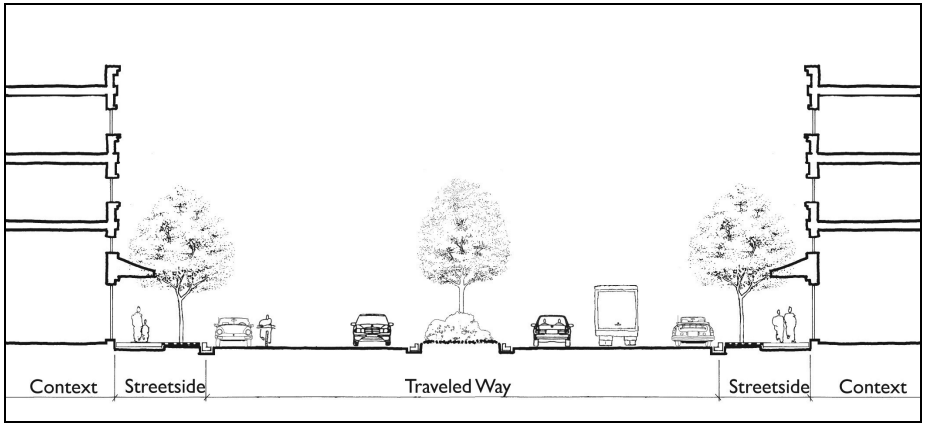
Street Cross Sections

The street cross sections that are specified for each alternative in the following sections show the allocation of space in the street right-of-way among the different uses of the corridor. Key factors will be the number of travel lanes, type of bicycle facilities provided, presence of on-street parking, width of sidewalk and pedestrian realm, and building frontage type.

For this report, we have assumed that four lanes of through traffic (two lanes in each direction) will be required between Marginal Way and Congress Street. This is based on applying traffic engineering guidelines, and assumes more modest traffic growth than previous studies – about 20% growth out through the year 2025. For the section of Franklin between Congress and Commercial Streets, these alternatives include one through lane in each direction, plus turning lanes where appropriate. It is important to consider that the current configuration of this segment of Franklin has two through lanes in each direction, but no left-turn lanes are provided at the intersections. This means that any left-turning traffic that is waiting for a gap in oncoming traffic essentially blocks a lane, reducing the traffic capacity to one lane in each direction during critical peak hours. This existing arrangement is also much less safe than the proposed configuration, due to the last-minute weaving maneuvers that are undertaken to avoid delays at intersections. This recommendation will be considered in more detail, and fully analyzed in Phase Two.

The following presents a generic urban street cross section, with the major components identified.

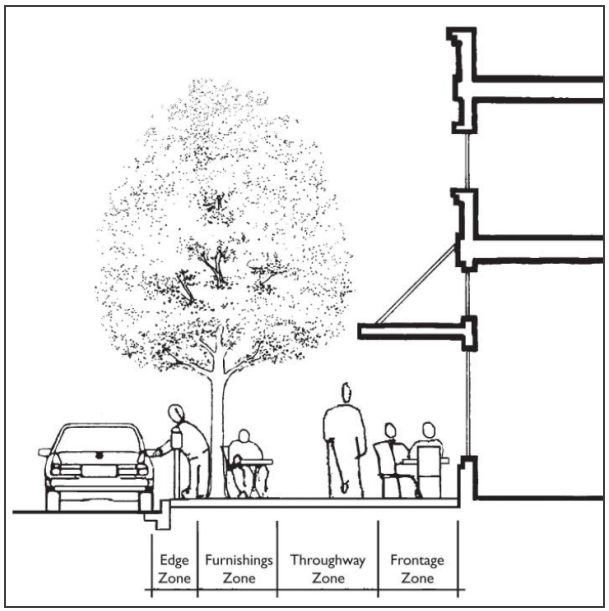
Elements of a Street Cross Section



Source: CSS for Major Walkable Urban Thoroughfares, Community Design + Architecture

Of particular concern in the design of a walkable, pedestrian-oriented street is the composition of the "pedestrian realm," or the space between the traveled way and the context, or buildings, along the street. The following figure shows the major elements of the pedestrian realm.

Elements of the Pedestrian Realm



Source: SANDAG Pedestrian-Oriented Development Guidelines, Community Design + Architecture

The design and width of the sidewalks should be appropriate for the desired uses. For example, if street-side dining is desired, a wider frontage zone is appropriate. In a more residential area, a "greenbelt" along the street, rather than an urban paved furnishings zone, is appropriate.

Examples of Sidewalks with Greenbelts (first row)
and Tree Wells (typically downtown or mixed use areas-second row)

Lane Width and Number of lanes

Lane widths of 11 feet are proposed in these alternatives, because they are far more desirable in urban areas where pedestrians will be present. The reasons are primarily the reduced crossing distances and exposure to hazards for pedestrians, and also the traffic-calming effect that narrower lanes have. A further benefit of narrower lanes is the reduced stormwater runoff.

The number of through travel lanes is recommended to be four (two in each direction) between Marginal Way and Congress Street, with additional turning lanes at specific intersections as needed. Between Congress and

Commercial Streets, the projected traffic based on a desirable rate of traffic growth, and appropriate selection of a level of service, is two lanes (one lane in each direction). However, with the provision of left-turn lanes at each street intersection, this will be only a modest change in capacity from the current conditions, as currently any left-turning vehicle waiting for a gap in oncoming traffic essentially reduces Franklin's capacity effectively to one through lane in each direction. If future conditions change such that the ferry terminal generates substantially increased traffic, four lanes may be considered. It is recommended that more detailed analysis and sensitivity testing of the travel lanes in this area be conducted in subsequent phases of design.

The MDOT *Guide for Flexible Design* suggests "a community may decide through public involvement that a lower level of service than normally provided is acceptable." In this case, there has been a cry from the public for a more balanced facility that is less vehicle-centric and balances services among all modes of transportation. That is compatible with a lower vehicular level of service.

Design Speed

The MDOT rehabilitation guidelines (Chapter 11) provide for the design speed to equal the posted speed in urban settings. However, in this case a major goal of the project is to improve the safety of pedestrians, in part by reducing and enforcing a reduced posted speed. For these alternatives, we have assumed posted and design speeds of 25 to 30 mph. The lower speed limits will have a negligible effect on travel time, as shown below. The actual travel time on the corridor will be far more influenced by the intersection design and operations than by the design speed. The MDOT Flexibility guidelines provide for lowering the design speed in appropriate settings.

Speed Limit	Travel Time on Corridor
25 mph	1 minute 40 seconds
30 mph	1 minute 24 seconds
35 mph	1 minute 12 seconds

Franklin Street Concept Alternatives

The following sections describe each of three alternatives that are proposed for the Franklin Street Feasibility Study. These alternatives provide a range of possible design solutions to address the needs and goals as expressed by the steering committee, other stakeholders, and the public during this planning process. Many of the elements of these alternatives could be mixed and matched in a refined, preferred alternative in the next phase of study.

The matrix on page 33 summarizes the features of each alternative, and is followed by a more complete description and illustrations.

Types of Street Cross Sections for Major Urban Thoroughfares

There are countless variations on the arrangement of the components of a street cross-section, but there are three common types that have been described in the recently published ITE Guide to Walkable Urban Thoroughfares, which were used as building blocks to develop street design alternatives.

Types of Bicycle Facilities

The need for safe bicycle facilities along Franklin is a priority. The following three types of facilities were considered in the development of alternatives. While each alternative includes a specific type of bicycle facility, there is great flexibility to "mix and match" different alternatives with appropriate bicycle facility types. In addition, the idea of developing a parallel bicycle boulevard to Franklin was considered.

Bicycle Lanes are 4- to 5-foot wide "shoulders" that provide space in the street right-of-way for bicyclists. This is the most cost-effective treatment, and is appropriate for adult and more experienced riders. Depending on the street traffic volumes and speeds, a broader range of riders may be comfortable on this type of facility.

Protected bicycle lanes also provide a one-way route on either side of the street, but have some type of separation from the vehicle lanes, such as landscaping, as shown on the left, or parallel-parked cars. This type of facility provides a more welcoming environment for less confident riders.

Two-way separated bicycle paths are growing more common in cities that are making concerted efforts to promote bicycling for transportation, including New York City and Montreal. They also provide a comfortable environment for less confident riders.

Multi-Way Boulevard

One special type of street that has been considered in the alternatives, which are described in more detail in the following sections, is the multi-way boulevard. This is a less familiar type of street in the US, although there are several of these facilities in New York City, and one in San Francisco. The multi-way boulevard essentially provides "two streets in one": there are four (two in each direction) through lanes in the central portion of the street, which is dedicated to serving the through traffic. On either side of these are one-way "side access roads," which provide the slower speed, local functions of the street, such as parallel parking and bicycle use. This street design provides for the needs of both types of users, i.e., local and through. The following are photographs of multi-way boulevards.

Andrassy Boulevard, Budapest, HU

The "fast" central lanes

The "slow" local lanes

Octavia Boulevard, San Francisco

"Fast" lanes on left, slow on right

Intersection with Cross Street

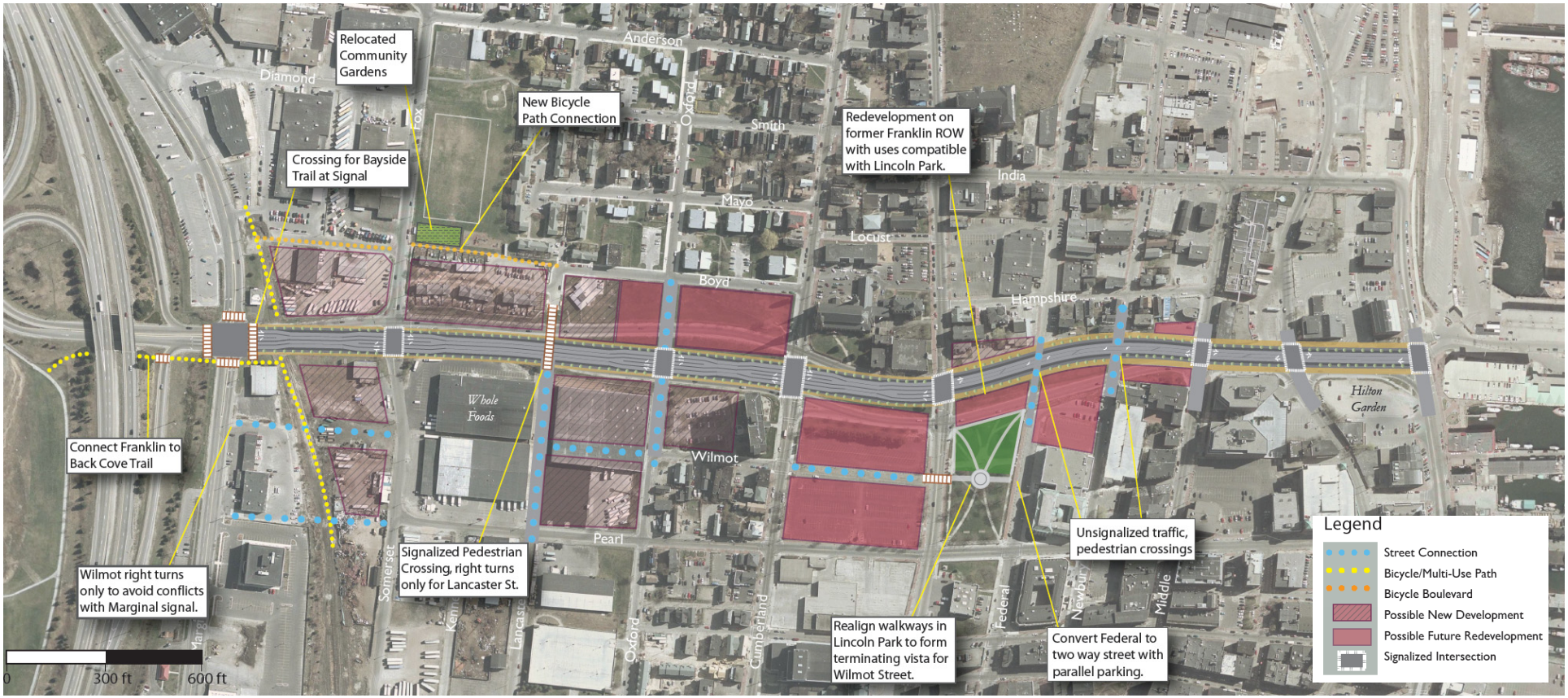
Franklin Alternatives

The following table summarizes the features and characteristics of the three alternatives proposed, the Urban Street, Urban Parkway, and Multi-Way Boulevard. Following that are illustrations and renderings of each alternative, allowing for comparisons.

Table 1: Franklin Street Alternatives

	Urban Street	Urban Parkway	Multi-Way Boulevard
General Theme	■ Redevelopment of 3 to 4 story buildings, some in public right-of-way ■ Smallest footprint for vehicle right-of-way	■ Emphasis on green space and parks, recreation and bicycle transportation. ■ Medium vehicle/bicycle footprint	■ Redevelopment of 5+ story buildings on private land ■ Provides high quality of service for all modes, with largest footprint
Lincoln Park	Maintains existing size and form of park. Sensitive, appropriate development over former arterial right-of-way.	Fully restores park to historic size. Potential redevelopment along some streets facing park.	Slightly expanded from existing size; potential redevelopment across Franklin and other streets.
Parking	Parallel parking on segments of street as needed to support street facing development.	Parallel parking limited to likely future development site at top of hill.	Parallel parking along side access roads.
Transit	Curbside bus stops to be planned as transit service begins.	Curbside bus stops in near term. Median could be used for future fixed guideway transit.	Curbside bus stops to be planned as transit service begins.
Pedestrian Crossings	Lancaster /Boyd (signalized pedestrian only) Oxford (traffic signal) Federal (unsignalized) Newbury (unsignalized)	Lancaster /Boyd (signalized pedestrian only) Oxford (traffic signal) Federal (median refuge) Newbury (unsignalized)	Lancaster /Boyd (signalized pedestrian only) Oxford (traffic signal) Federal (unsignalized) Newbury (unsignalized)
Street Crossings	Lancaster (right turn only) Oxford (signal) Newbury (unsignalized) Federal (unsignalized)	Oxford (signal) Newbury (unsignalized)	Lancaster (right turn only) Oxford (right turn only)
Parallel Street Connections	**Wilmot**: Somerset-Marginal, Oxford-Lancaster, and Congress-Cumberland. **Pearl**: Somerset to Marginal.	**Wilmot**: Congress-Cumberland. **Pearl**: Somerset to Marginal.	**Pearl**: Somerset to Marginal.
Bicycles	Bicycle lanes on Franklin. Bicycle Boulevard on Boyd provide alternate parallel route.	Bicycle lanes and parallel bicycle path along Franklin for entire length.	Bicycles use side access roads on Multi-Way Boulevard; bicycle lanes on Pearl Street.
Vehicle Mobility	Slightly constrained by parallel parking and lane shifts at signalized intersections. Target speed = 25 mph	Moderate among alternatives due to reduced parking, smoother lane transitions at intersections. Target speed = 30 mph	Highest level of vehicle mobility due to separation of local and through traffic. Target speed of through lanes 30 mph; side access roads 15 mph.
Roundabouts	Marginal Way and Commercial are possible	Marginal Way and Commercial are possible	None

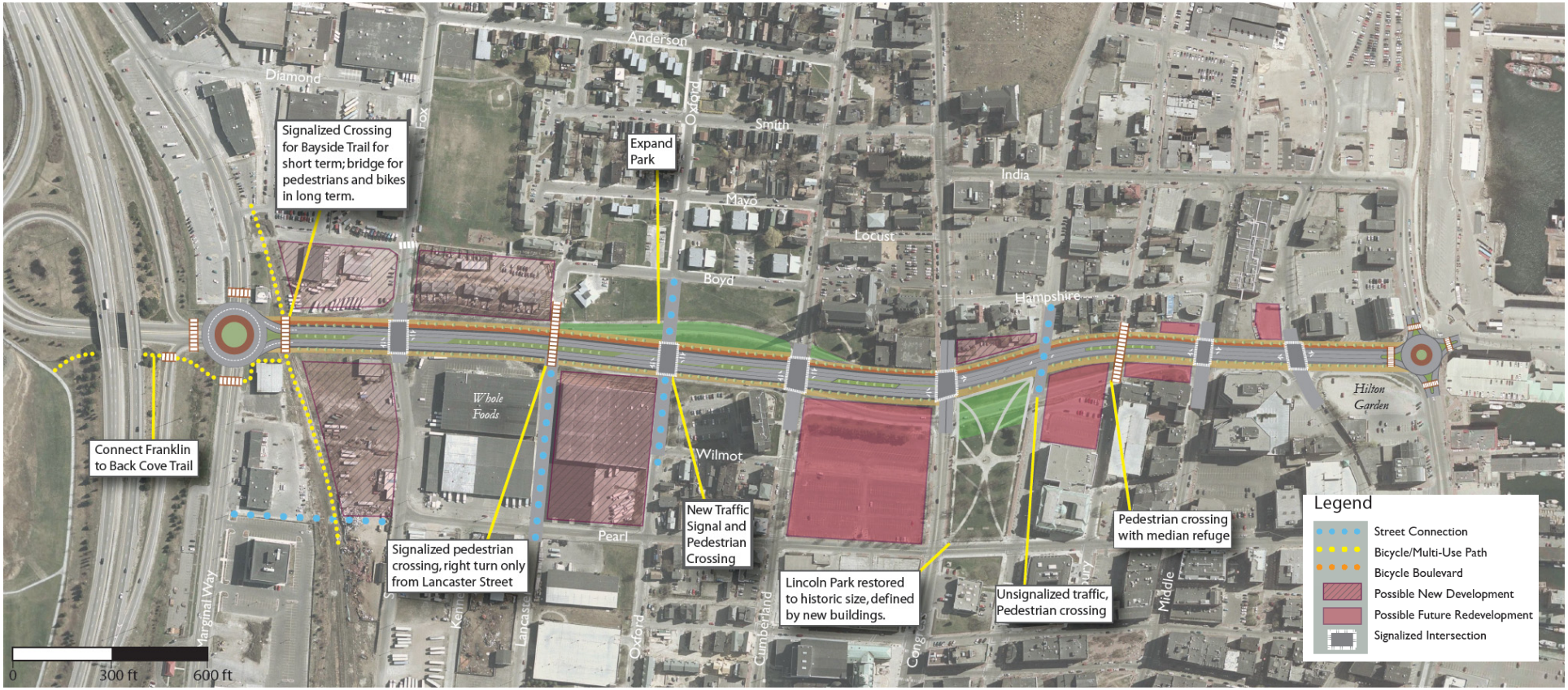
Urban Street: Aerial Overview



The Urban Street supports mixed-use redevelopment of the Franklin Street corridor with 3-4 story buildings facing the street. The travel lanes are compressed together, accommodating two lanes of traffic each way up to Congress Street, and one lane of traffic each way from Congress Street to Commercial Street, accommodating up to a 20% growth in traffic volumes. Sidewalks run the length of the corridor. Bicycle travel is provided by bicycle lanes and shared travel lanes, as well as a parallel Bicycle Boulevard. Parallel parking on segments of the street support commercial development. Curbside bus stops can be provided as transit service is introduced. The Urban Street provides reconnection of Oxford Street, Federal Street, and Newbury Street, as well as right-hand turns at Lancaster Street. Pedestrian crossings are also provided at all reconnected cross streets. The Urban Street has a target speed of 25 miles per hour. The street cross section between Congress and Commercial Streets is one lane in each direction, plus left-turn lanes at each intersection. Parallel parking and bicycle lanes are also included in this section.

Redevelopment defines the edge of the Franklin corridor. Lincoln Park is maintained at the same size it is today, and is defined on its east end by new development that will provide an attractive face to Lincoln Park.

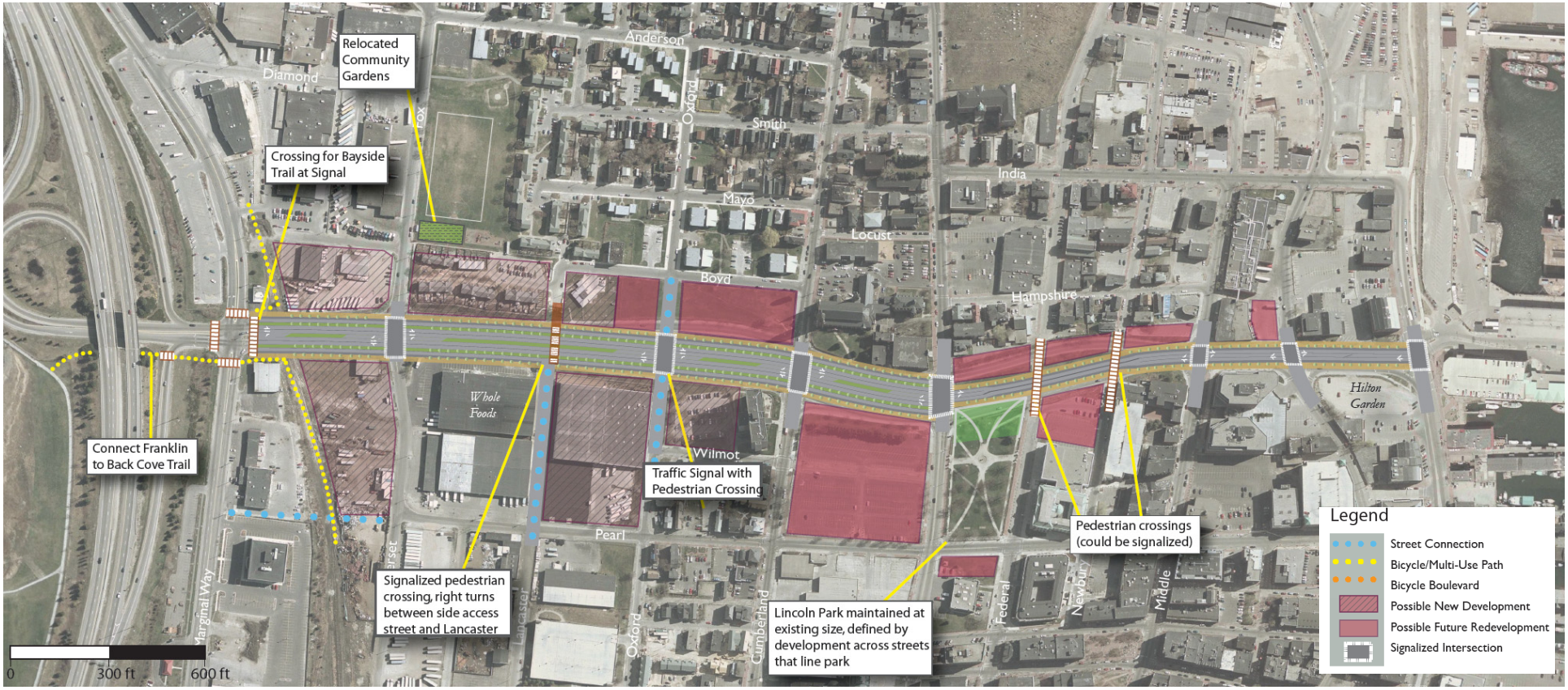
Urban Parkway: Aerial Overview



The Urban Parkway provides an emphasis on public green space and parks, enlarging Lincoln Park and providing redevelopment opportunities along the streets facing the park. The travel lanes are compressed together, accommodating two lanes of traffic each way up to Congress Street, and one lane of traffic each way from Congress Street to Commercial Street, accommodating up to a 20% growth in traffic volumes. Sidewalks run the length of the corridor. Bicycle travel is provided on a shared pedestrian path/greenway along the east side of Franklin and in shared travel lanes. Parallel parking is limited to future development sites near Cumberland Avenue and Congress Street. Transit is supported with curbside bus stops, and the possibility of using the median for future light rail system. Reconnections of Oxford Street and Federal Street are provided for vehicles. The Urban Parkway has a target speed of 30 miles per hour. The street cross section between Congress and Commercial Streets is one lane in each direction, plus a landscaped median or left turn lanes at street intersections. Parallel parking in included on the street, and there is a 2-way bicycle path on the east side of Franklin.

Redevelopment defines the edge of the Franklin corridor. Lincoln Park is expanded to its approximate historic size, and better defined by redevelopment across Franklin and Congress Streets.

Multi-Way Boulevard: Aerial Overview



The Multi-Way Boulevard provides high quality of service for all modes and supports redevelopment of buildings up to 5-6 stories in height. The Multi-Way Boulevard has the widest right-of-way, with two through lanes of traffic running each way up to Congress Street, and one lane each way from Congress Street to Commercial Street; additional access roads run parallel from Fox/Somerset Streets to Congress Street. These local access roads accommodate parking, bicyclists, and building access in a low-speed (15 mph), human-scaled environment. Sidewalks run the length of the corridor. The Multi-Way Boulevard reconnects Oxford Street to vehicles, as well as Lancaster Street, Federal Street, and Newbury Street to pedestrians. Lincoln Park is slightly expanded, with potential redevelopment along streets facing the park. The Multi-Way Boulevard has a target speed of 30 mph in the through lanes, 15 mph on access roads.

The street cross section between Congress and Middle is 1 lane in each direction, as left turns are not needed as the crossings at Federal and Newbury are for pedestrians only. Parallel parking and bicycle lanes are also included.

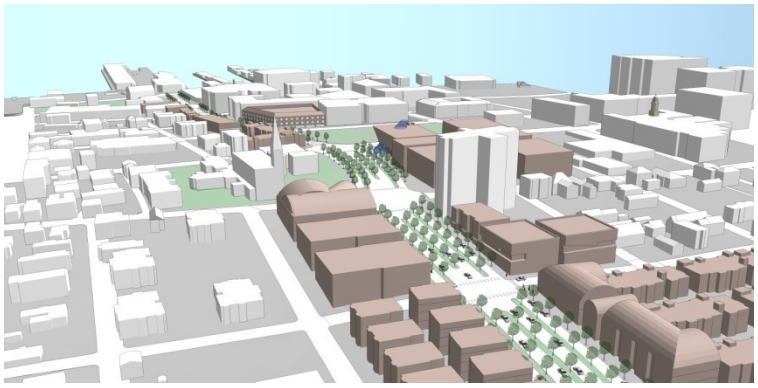
Lincoln Park is slightly expanded from its current size.

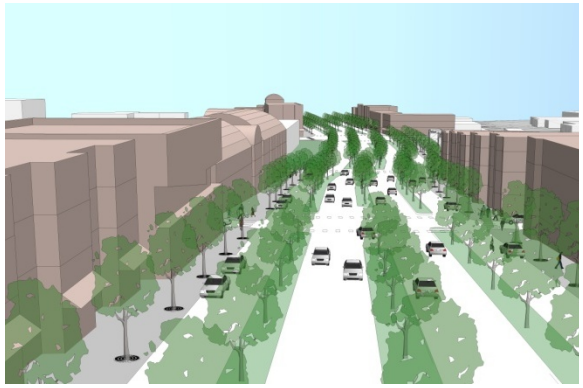
General Characteristics of the Franklin Alternatives: Looking South

Urban Street

Urban Parkway

Multi-Way Boulevard



	Looking North from Oxford	Looking South from Oxford	Looking South from Congress
Urban Street			
Urban Parkway			
Multi-Way Boulevard			

	Looking North from Federal	Looking North from Newbury	Looking South from Federal
Urban Street			
Urban Parkway			
Multi-Way Boulevard			

Recommendations for Phase Two

While three alternatives are proposed here, we anticipate that the final, preferred alternative will involve significant refinement of one or more of these alternatives. Public input from the September 2 public meeting was generally positive, and our conclusion is that we are offering a range of alternatives, which have potential to greatly improve the Franklin Street corridor for its intended uses. Many people offered specific suggestions for improvement or refinement, which should be taken into consideration in Phase Two. Ideally, Phase Two will provide an opportunity to refine, mix and match the best elements of these alternatives, using input from Sept 2 as guide for changes, as well as MDOT comments.

Phase Two will also provide more resources for technical analysis and engineering, to better inform the design specifications. The following issues have been identified by the committee as needing further study in the Phase Two study.

- A two-lane roundabout at the Marginal Way/Franklin Street intersection and a one-lane roundabout at the Franklin Street/Commercial Street intersection.
- Signalized pedestrian crossings in conjunction with a roundabout.
- The number of cross streets to be reconnected and the nature of those connections (user, signal type, through or right turn only).
- The level of development that the corridor should support.
- Estimate future traffic volumes that reflect anticipated transportation alternative strategies on the peninsula.
- Treatment of Multi-Way Boulevard access lanes at intersections.
- How Multi-Way Boulevard transitions from 6 lanes to 2 lanes.
- Ideal size of development parcels.
- How to strengthen the local nature of reconnected cross streets.
- Type of bicycle facilities.
- Right-of-way issues at Lancaster Street and Franklin, Oxford and Franklin.
- Traffic Signal warrants.

Short-Term Recommendations

The Franklin Street Study Committee has identified numerous short-term measures that could be taken to improve the functionality and safety of the Franklin corridor for all users. Many of these measures would reinforce each other and the pursuit of a safer roadway (i.e., adding bike lanes would result in a narrow travel lane, thus calming traffic and reducing vehicle speeds). Whenever possible, inexpensive and temporary (but attractive) measures (paint, cones, etc.) should be used on a trial basis (1 year) before investing in permanent infrastructure. Publicity and public education of these measures is recommended to improve their effectiveness and to minimize unexpected impacts on users. In addition, upgraded and improved technology (signals, signage, etc.) is recommended before investing in more expensive or permanent infrastructure.

Vehicular traffic

- Reduce speed limit to 30 mph.
- Coordinate traffic signals along Franklin to control speeds and improve traffic flow.
- Coordinate traffic signals at Cumberland and Congress intersections to allow left-hand turning traffic to move completely through intersection during signal cycle, to avoid queuing on Franklin.
- Install camera activated/motion detectors to activate traffic lights at non-peak hours.
- Use creative striping designs to calm traffic and create safe crossings (see international zebra crossings).
- Restore Oxford Street to two-way traffic in Bayside.
- Restrict left turns onto Marginal Way during peak hours.
- Strengthen use of Somerset as east/west corridor – streetscape development, connection to Preble Street, signage.
- Pedestrian-activated lights that are coordinated with other signals at Oxford Street, Federal Street, and other locations where pedestrians now cross Franklin without protection.

Pedestrian Safety/Amenities

- Consider making every pedestrian crossing legal and safe (markings, lighting, signage, signal).
- Tighten turning radii at intersections (i.e., Middle Street) to improve visibility, reduce crossing distance, slow turning traffic.
- Install sidewalks along the length of Franklin, both sides.
- Remove guardrail at Federal Street and Lincoln Park and prohibit parking here at entrance to Federal Street Crossing.

Bicycle Safety

- Increase bike accessibility (at old cross streets, Lincoln Park).
- Add bicycle lanes/narrow travel lanes.
- Consider “road diet” on Franklin below Congress Street on an experimental basis, with one travel lane in each direction plus one wide bicycle lane.

Infrastructure

- Explore opportunities for "Gateway Beautification" at Marginal Way intersection.
- Traffic calming measures along Franklin.
- Fill in the basins of the median.
- Better define edge along median.

Policy/Other

- Change name to “Franklin Street.”
- Create on-street parking from Middle (or Congress) to Commercial Street.
- Create a Franklin TIF district: Work with Economic Development Director to define boundaries, identify strategic parcels for inclusion, and to phase in a TIF district to maximize inclusion of development opportunities and duration.
- Bike/traffic safety and education (PSAs – radio, Public Access, etc.).