

# DRAFT TASK 4 MEMORANDUM



## TASK 4: Data Collection and Existing Conditions Analysis Franklin Street Feasibility Study - Phase II

Submitted to City of Portland  
by IBI Group with Gorrill Palmer Consulting Engineers, Inc. |  
S.W. Cole Engineering, Inc. | Titcomb Associates | Morris Communications  
September 23, 2013



Cathedral of Immaculate Conception

One of the few pre-1966 structures remaining around Franklin Street

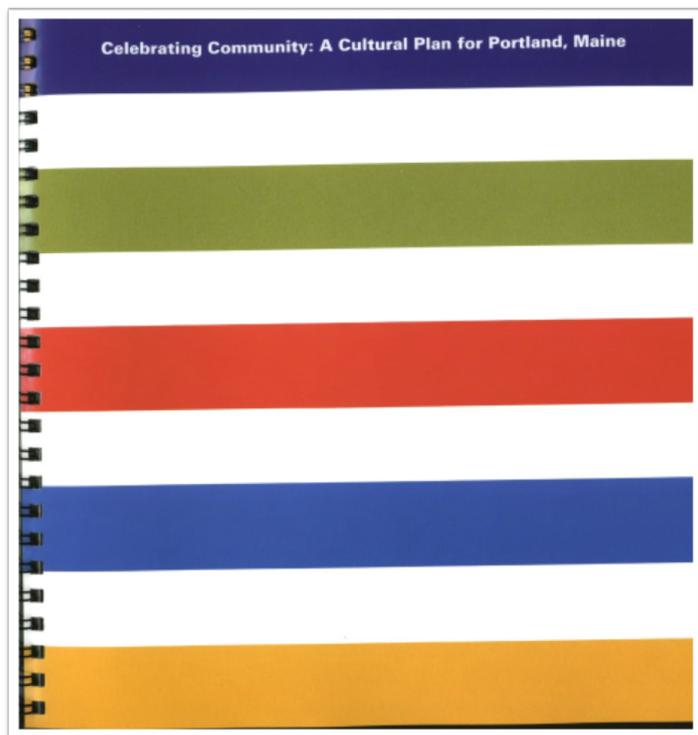
DRAFT

DRAFT



## Celebrating Community: A Cultural Plan for Portland, Maine, 1998

Author: Celebrating Community Steering Committee



### ABSTRACT

'Celebrating Community' is a plan that identifies the cultural needs and aspirations of Portland neighborhoods and is meant to serve as a framework for establishing culturally sensitive policies. The plan was intended to include a set of mechanisms which can address the needs and aspirations of cultural communities in order to thrive in the City of Portland. Through public forums and steering committee work, a set of seven goals and 24 action items were developed. This plan also includes images from a companion piece called Expressions of Culture in which professional photographers photodocumented five of Portland's neighborhoods.

### RELEVANCE

The plan identifies transportation as a key limiting factor for many neighborhoods and community groups. This plan aims to achieve improved accessibility to develop a more united participation throughout the city and create cultural vitality for the city of Portland and its neighborhoods. Some relevant transportation recommendations include improving transportation access from the ferry terminal to the Arts District, coordinating METRO schedule with events, and making the transit transportation more accessible to all communities throughout the city of Portland. Other recommendations that might be relevant when refining the alternatives for Franklin Street Feasibility Study Phase II include commissioning work from local artists, providing work space for artists, supporting more activity in the public realm.

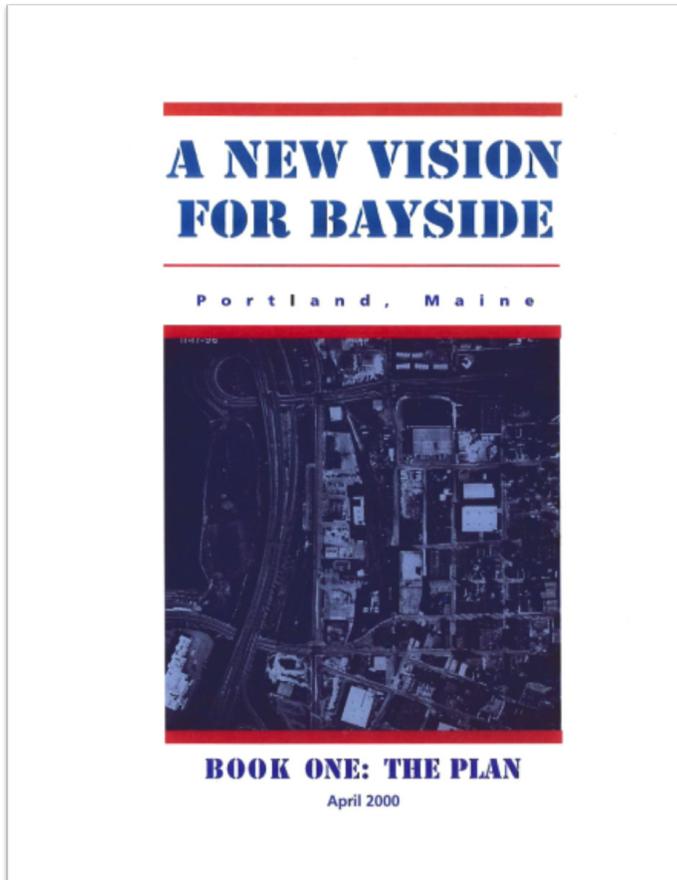
### TABLE OF CONTENTS

1. Introduction: Culture & Community
2. Expressions of Culture: Five Photographers, Five Communities
3. Mission, Principles, Goals
4. Implementing Celebrating Community: Portland's Community Cultural Plan



## A New Vision for Bayside, April 2000

Author: The Bayside Task Force



### ABSTRACT

This plan targets the re-development plan for Bayside to create a connected urban neighborhood consisting of five overlapping districts. It provides a vision (Book 1) and an implementation plan (Book 2) for the Bayside neighborhood, a large portion of which is in the study area for Franklin Street Feasibility Study Phase II. An area of focus for the new vision of Bayside is transit-oriented development (TOD). This plan sets development principles such as the creation of an urban gateway, economic opportunities, a walkable district, TOD, and mixing residential with commercial uses.

### RELEVANCE

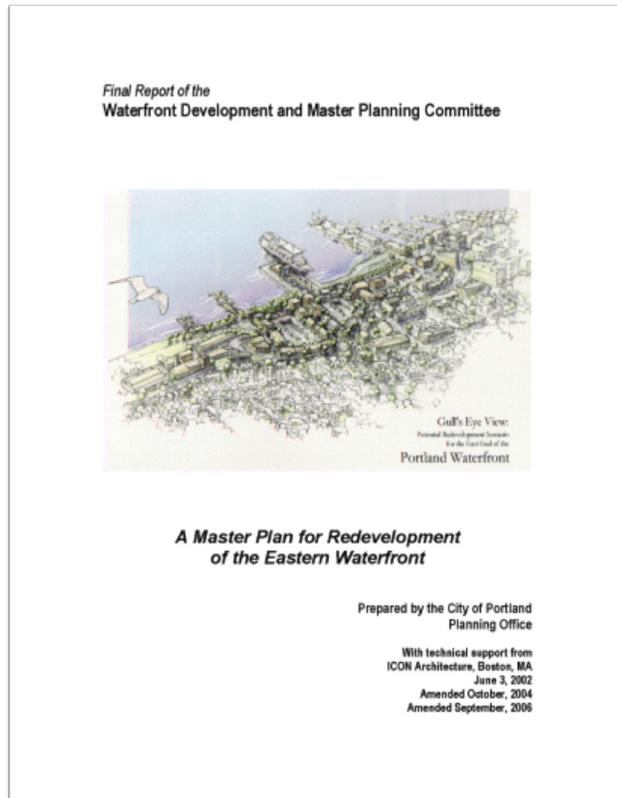
This plan's development principles are largely consistent with goals set for Franklin Street Feasibility Study Phase II. This plan proposes the creation of 300 units in the Bayside area, either in or near the study area for Franklin Street Feasibility Study Phase II, in the next five years. It recommends an additional 500 units in the next 25 years. One of the five overlapping districts includes Franklin Square, which is an eight acre zone bounded by Franklin, Fox and Pearl Street. The area is described as a corporate commercial district within Bayside that continues to evolve. The plan identifies Franklin Square as an optimal location for new businesses given its existing accessibility and ample parking.

### TABLE OF CONTENTS

1. Preface
2. Background & Overview
3. Presenting the Vision
4. Capturing the Opportunity

## Eastern Waterfront Master Plan, June 2002

Author: City of Portland Planning Office



### TABLE OF CONTENTS

1. Preamble
2. Committee Objectives
3. Existing Conditions
4. Principles of Redevelopment
5. Design Guidelines, Background & Policies
6. Build-out Scenarios
7. Challenges
8. Next Steps & Implementation Measures
9. Policy Statement for Maine State Pier

### ABSTRACT

The City of Portland recognizes that the development of the Ocean Gateway Marine Passenger Terminal Project will serve as a catalyst for change and further development within the immediate area and have significant impacts on the surrounding community. This plan represents a consensual and unified vision for the development on the Eastern Waterfront. The main objective of the proposed development is to create a vital and active mixed use urban area that generates life and use every day of year. The plan targets increasing public access and use of the water and green space, maintaining and enhancing recreational trail access, and sustaining and strengthening water-related tourism and enhance multi-modal transportation opportunities. The report also identifies specific challenges which need to be addressed including traffic, neighborhood integrity, and protection of working waterfront and transportation efficiency.

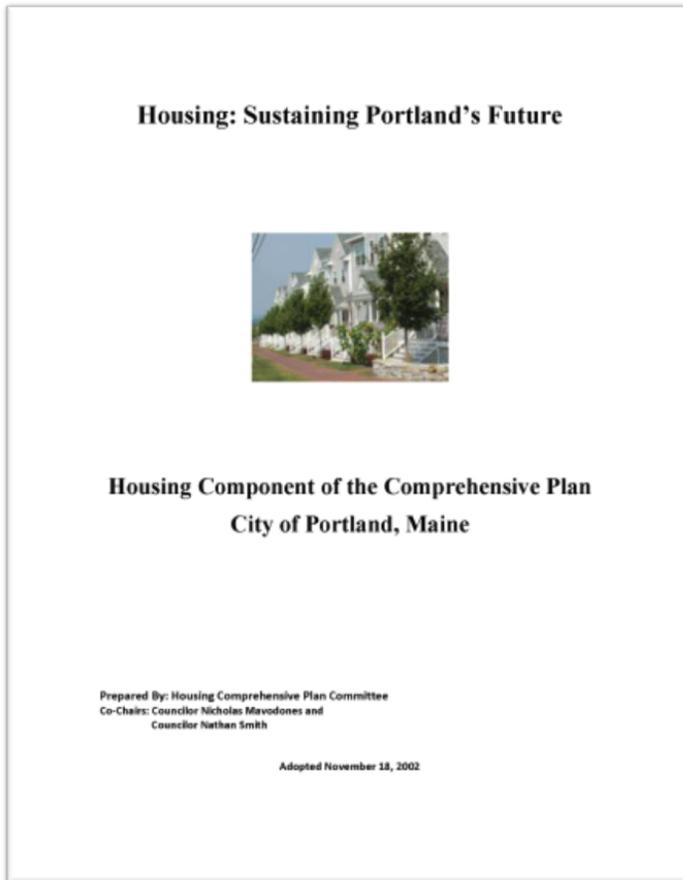
### RELEVANCE

Development such as that identified in this plan increases transportation needs, and the plan identifies traffic as an on-going concern. It identifies the challenge of promoting transportation and mixed-use development without causing traffic congestion. To address these challenges, the plan identifies Franklin Street as an important street on which to maintain good service. The Plan recommends improvements to Franklin Street that will keep the street system functioning at a reasonable level of service.



# Housing: Sustaining Portland's Future (Housing Component of the Comprehensive Plan), November 2002

Author: Housing Comprehensive Plan Committee



## ABSTRACT

The plan provides recommendations to manage the housing growth over the next 10-20 years. It includes six broad housing policies with accompanying objectives and actions. The plan encourages a manageable level of growth that will sustain the city as a healthy urban center in which to live and work. It recommends efficient land use, conservation of natural resources and easy access to public transportation as elements of sustainable development. The plan recommends locating new housing along or within the walking distance of major transportation corridors to increase the use of METRO and encourage alternative modes of transportation.

## RELEVANCE

The plan recommends new housing along arterials or major transportation corridors (such as Franklin Street, though the street is not specifically mentioned in the plan). This goal should be considered along with the role of METRO services on the corridor. The plan also identifies pedestrian links between residential and business areas to reduce the dependence on the car, which has been identified as a shortcoming of the Franklin Street study area. It also recommends implementing the Bayside Plan.

## TABLE OF CONTENTS

1. Introduction
2. Shaping a Community Vision for Portland
3. Housing Goal
4. Executive Summary of Housing Policies
5. Current Conditions and Housing Policies
6. Implementation Strategy

## Portland Economic Development Plan, August 2011



# ECONOMIC DEVELOPMENT VISION + PLAN PORTLAND MAINE

August, 2011

### ABSTRACT

The Economic Development Vision + Plan is a strategy document that presents three primary areas critical to long-term success: grow the economy, enrich the creative economy, and support business. It identifies Portland's greatest strength as its underlying quality of life and unique character, which contributes to achieving national recognition as a highly desirable community in which to live and work. The Economic Plan targets fostering growth by protecting and enhancing the city's community cultural, environmental, natural and architectural assets. It recommends putting into place incentives and funding to attract and retain entrepreneurs for development of live/work residences or common workspace and housing.

### RELEVANCE

The plan recommends support and marketing of Portland's distinct urban commercial targeted growth districts, all of which overlap with the study area: Bayside, the Portland Downtown District, and the Eastern Waterfront. In these areas, the plan recommends transit oriented development, including high density and mixes of housing and commercial development to promote activity throughout the day. The plan also highlights the importance of the underlying infrastructure (roads, sewer, etc.) in promoting economic growth and development.

### TABLE OF CONTENTS

1. Introduction
2. Grow the Economy
3. Enrich the Creative Economy
4. Support Business



# Portland Peninsula Traffic Study, December 2004

Author: Portland Traffic Plan Committee

## TABLE OF CONTENTS

1. Introduction
2. Project Goals
3. The Traffic Plan in Context
4. Origin-Destination Survey
5. Traffic Forecasts
6. Eastern Waterfront and Ocean Gateway
7. Bayside
8. Franklin Street Arterial
9. Deering Oaks
10. Wayfinding
11. Costs/Phasing
12. Acknowledgements/Public Process

## ABSTRACT

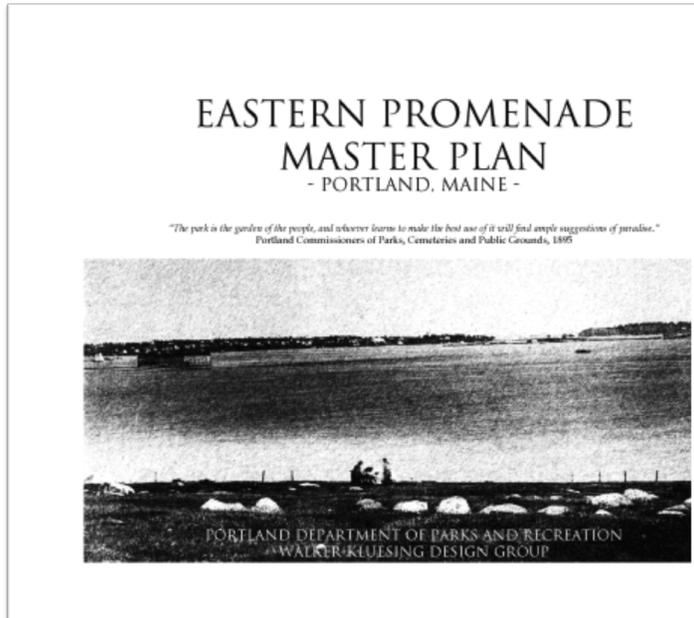
This document describes a comprehensive traffic evaluation for the Peninsula of Portland while also giving objectives of reducing traffic congestion. The committee of this study was commissioned to look forward to the next twenty-five years of development on the Portland Peninsula and recommend a roadway master plan that best serves the city. The main objectives were to reduce the traffic congestion while also recognizing the need to retain and improve pedestrian and bicycle opportunities.

## RELEVANCE

Franklin Street is identified in this study as having a critical role in Portland's transportation network as it has the role of allowing vehicles to enter and exit the Peninsula without encountering long delays and minimize diversion to local streets. According to the study, Franklin Street has become a major intra-peninsula arterial funneling much of the traffic from Portland's central business district to and from I-295. The report contains a detailed assessment for Franklin Street and its intersections.

## Eastern Promenade Master Plan, 2004

Author: Portland Department of Parks & Recreation



### TABLE OF CONTENTS

1. Foreword
2. Plans
3. Historic Background
4. Master Plan Recommendations
5. Maintenance / Management

### ABSTRACT

The Eastern Promenade Master Plan is the first plan of improvements, treatments and land management for Portland's signature open space (the Eastern Prom) since the Olmstead firm's plan in 1905. The Eastern Prom is both a regional destination and route for pedestrians and bicyclists and is a link between communities to the north and the eastern portions of the Portland Peninsula. One major objective in rehabilitation is accessibility. The plan recommends expanding the hillside walk system and improving the cross connections between the upper and lower park. Overall, the goal of this plan is to restore the Eastern Promenade to its previous historic state with restoration without losing green space or expanding the area.

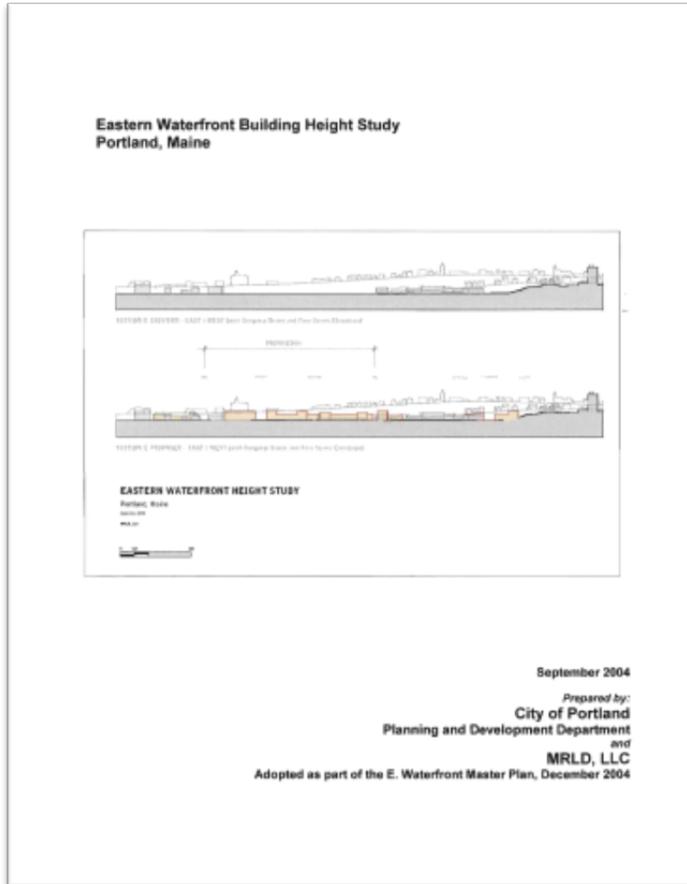
### RELEVANCE

The Eastern Prom is an important amenity and open space near the study area for Franklin Street Feasibility Study Phase II. Main connections to the amenity include streets that intersect with Franklin Street, including Congress Street and Fore Street, as well as the Eastern Promenade Trail.



# Eastern Waterfront Building Height Study, September 2004

Author: Portland Planning and Development Department



## ABSTRACT

This study focused on approximately 56.5 acres comprised mainly of surface parking lots, the Portland Company complex and other buildings located on India, Commercial, Hancock and Newbury streets. In the study area, the maximum allowable building height is identified in the report as being 45' (a typical three to four story building) except for one area (zoning B-5) where the height is 65'. This study found that four- to six-story buildings are compatible with the policies of the Eastern Waterfront Master Plan while protecting the views and character of the surrounding neighborhoods. In designated areas, the study recommends as high as seven-story buildings. The report encourages varied rooflines within blocks, protected view corridors, moderately scaled development with taller buildings taking advantage of topography and existing view shadows. In addition to building heights, the report recommends a system of corridors and alley ways for secondary pedestrian and vehicular circulation.

## RELEVANCE

The Eastern Waterfront overlaps with the southeastern portion of the study area for Franklin Feasibility Study Phase II. It is another report recommending greater density to be compatible with City goals outlined in this and other documents.

## TABLE OF CONTENTS

- 1. Introduction
- 2. Process
- 3. Findings

## Bus Rapid Transit & Light Rail Transit Study, December 2004

Author: Greater Portland Council of Government , Southern Maine Regional Planning Commission



### ABSTRACT

According to Journey to Work data from the 2000 U.S. Census, over 37,000 people commute to Portland each workday which creates the need for efficient travel modes for the residents and visitors of the city. This study explores the ability for bus rapid transit (BRT) and light rail (LRT) to serve this need. In the BRT / LRT Technology overview, the study states that the U.S. General Accounting Office has done a great deal of research comparing the two systems and has found that BRT services tend to have significantly lower capital costs while delivering comparable mobility and greater flexibility. The study provides examples of BRT models such as the MBTA, Buffalo, NY, and Chittenden County in Vermont. The report summarizes key elements and preconditions to increase the chances of success when enhancing transit services and stations. For example, it recommends TOD with mixed uses, pedestrian connections, and good urban design. It makes several recommendations including additional studies of corridors for implementing BRT.

### RELEVANCE

The report includes Congress Street as one of the recommended BRT corridors, which crosses the study area for Franklin Street Feasibility Study Phase II. It also recommends using the existing rail right-of-way crossing Franklin Street for commuter rail alignment with a possible station in Bayside.

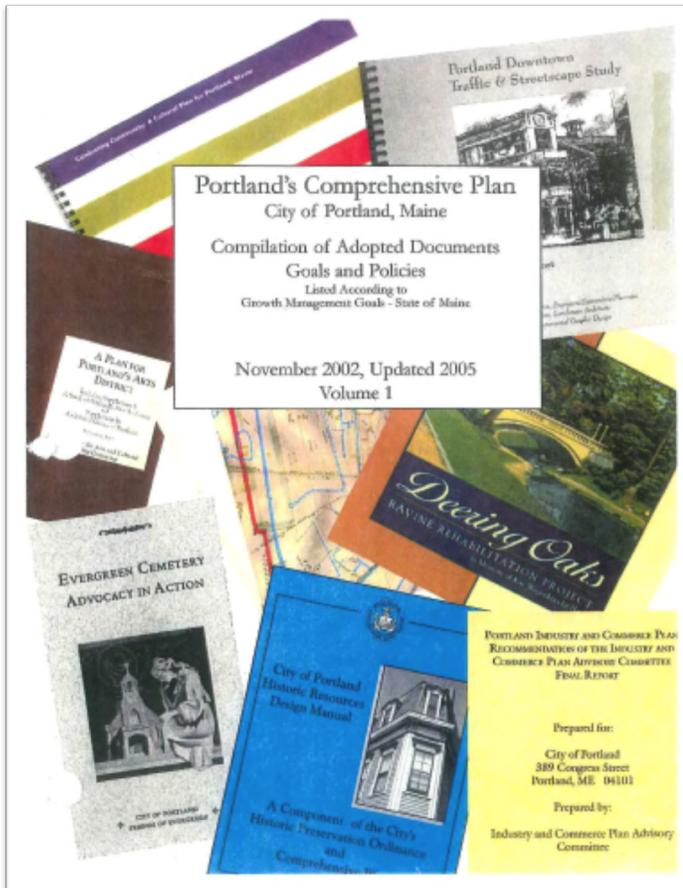
### TABLE OF CONTENTS

1. Executive Summary
2. Present Conditions
3. Past Studies & Recommendations
4. BRT / LRT Technology Overview
5. Examples of Management Models and Other BRT Models
6. Preconditions for Successful Transit Projects
7. Status of State and Federal Programs
8. Concepts and Recommendations



# Portland Comprehensive Plan Update, 2005

Author: Industry and Commerce Plan Advisory Committee



## ABSTRACT

The Portland Comprehensive Plan is a strategic document for planning in the City of Portland. It consists of multiple volumes: Volume 1 focuses on goals, policies, and inventories for housing, economics, and transportation. Volume 2 contains an implementation Plan. The Plan reviews and describes strategic plans for Portland's future and the goal of encouraging orderly growth. The inventory and analysis of the city reveals a housing shortage thus housing needs are not being met. It is recommended that Portland encourages construction of new housing through land use regulations and initiatives. Economic inventory of Portland shows that the city is a manufacturing center, a distribution center, a financial center, and a services center which all depend on a working transportation system in and out of the Portland.

## RELEVANCE

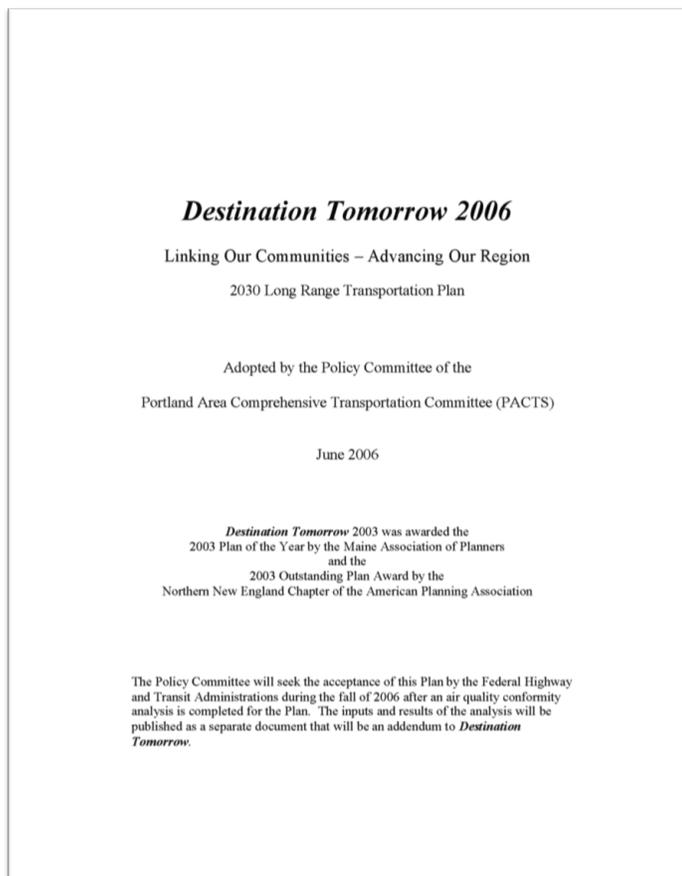
This document provides an important framework for the goals and objectives established for any study, including Franklin Street Feasibility Study Phase II. This report was a primary reference. This plan is founded on principles that are also important for this study, including Complete Streets, TOD, and sustainable growth.

## TABLE OF CONTENTS

1. Introduction
2. Community Vision
3. Portland's Goals and Policies
4. Inventory and Analysis
5. Implementation Measures – Major Initiatives
6. Future Land Use Plan
7. Regional Coordination Program
8. Capital Improvement Program

# Destination Tomorrow, PACTS Regional Transportation Plan, June 2006

Author: PACTS



## ABSTRACT

Destination Tomorrow is the long-range transportation plan for the Greater Portland metropolitan planning organization, known as the Portland Area Comprehensive Transportation Committee (PACTS). The plan is intended to be a blueprint for a multi-modal transportation system in the region. Major elements of the plan include establishing a transportation vision, goals and objective for the region, assessing present day transportation land use conditions and future trends, and evaluating and recommending opportunities to improve safety, efficiency and accessibility of the transportation system. Key findings emerging from the analysis included that there are significant traffic congestion and safety problems, and that land use development patterns and practices are reinforcing dependency on the automobile for travel. Destination Tomorrow recommends projects to mitigate this, including improving access management and connectivity, as well as investing and enhancing bicycle and pedestrian systems.

## RELEVANCE

This report was another key source of goals and objectives for the Franklin Street Feasibility Study Phase II.

## TABLE OF CONTENTS

1. Executive Summary
2. Plan Background
3. Present Conditions & Future Trends
4. Alternative Analysis
5. Guiding Policies, Goals and Strategies
6. Finance Assessment
7. Implementation



# PACTS Regional Transit Coordination Study, May 2007

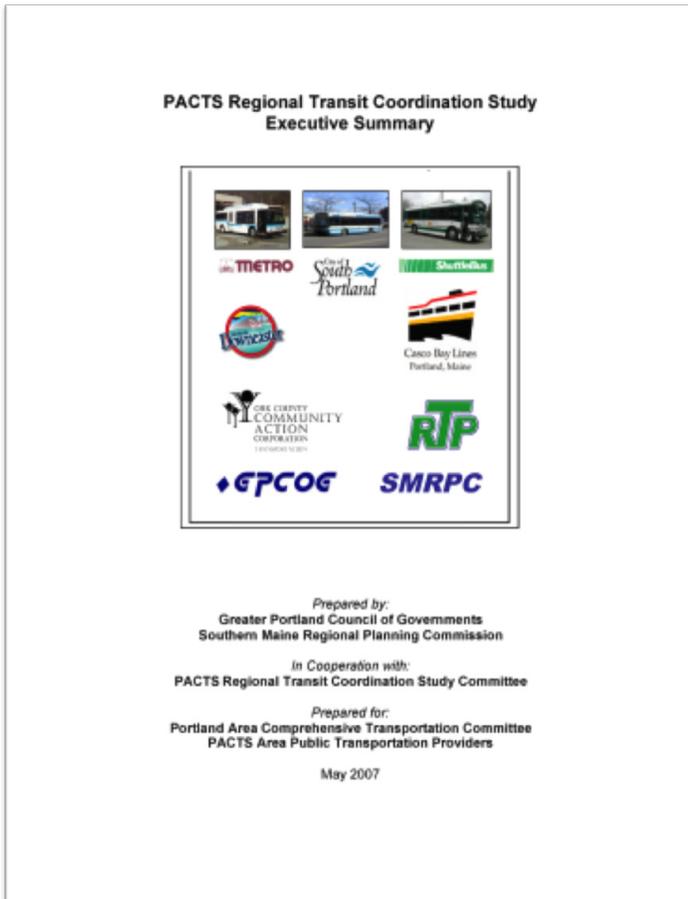
Author: Greater Portland Council of Governments  
Southern Maine Regional Planning Commission

## ABSTRACT

The goal of this study was to identify opportunities to increase efficiency of transit operations within Greater Portland in the context of achieving a single regional transportation system. Some of the key findings were that travelers often faced significant scheduling barriers when planning trips that involve more than one transit service. Bus stop locations require transfers, but the locations are not obvious to inexperienced bus riders because of the large number of bus routes that converge in downtown Portland. Connection times are also complex and confusing because of the evolution of routes over many years. Study recommendations include marketing, operating, planning, and capital improvements.

## RELEVANCE:

This study supports TOD. In particular, it recommends creating new transit hubs, improved intermodal connections at locations such as the Casco Bay Ferry Terminal, and promoting use of park-and-rides, one of which is located in the study area.

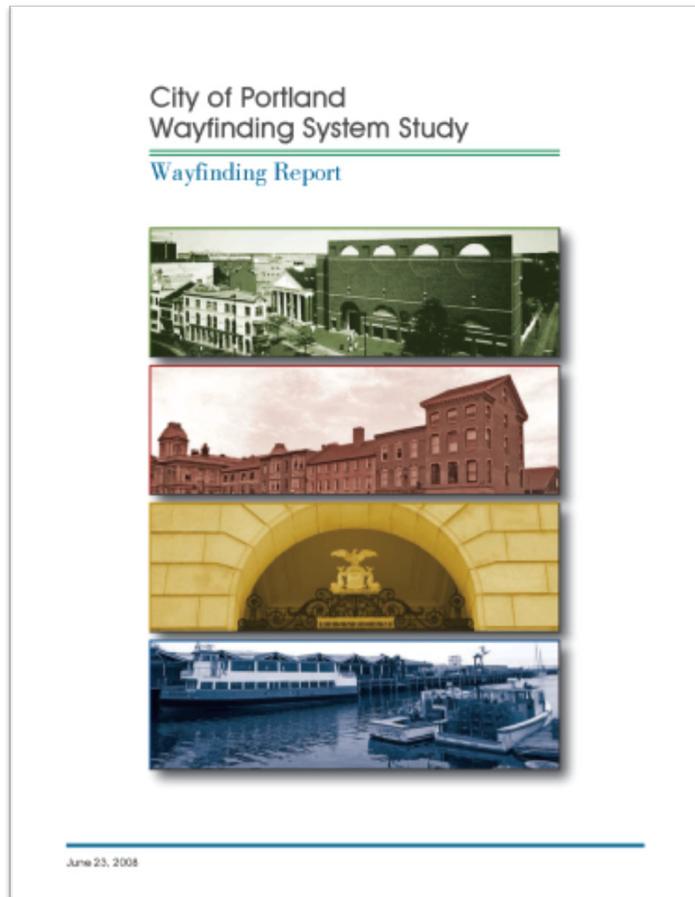


## TABLE OF CONTENTS

1. Executive Summary
2. Goals & Objectives
3. Consolidation Examples from other areas
4. Guiding Principles
5. Key Findings
6. Four C's
7. Recommendations
8. Implementation & Oversight
9. Recommendation Details
10. Map of Study Area

## City of Portland Wayfinding System Study, June 2008

Author: Portland Wayfinding System Committee



### TABLE OF CONTENTS

1. System Study – Project Background
2. Policy & Criteria Guidelines (Pedestrian)
3. Project Results - Pedestrian Wayfinding Graphic Standard
4. Wayfinding Policy & Criteria Guidelines (Vehicular)
5. Wayfinding Program – Next Steps

### ABSTRACT

The Portland Wayfinding System Plan created a set of criteria and graphic conventions for vehicular and pedestrian wayfinding city-wide. The Plan establishes wayfinding districts and corresponding signage for the Old Port, Government, Waterfront and Arts Districts. The intent of the signage system is to provide a consistent and repetitive information path to a destination through the use of directional signs. The report sets policies and guidelines for future wayfinding signage. Attractions included in wayfinding signage must meet certain criteria, such as having an annual attendance of 15,000 visitors, providing basic needs to the public such as first floor handicap access, maintaining a typical open hours, and having one brand name.

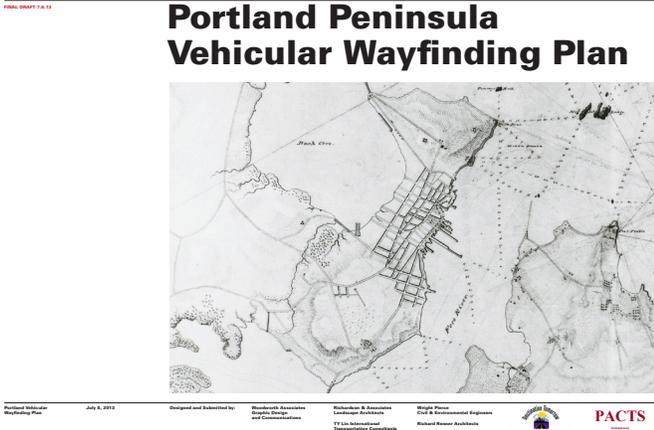
### RELEVANCE:

The study area for this project includes part of Franklin Street from about Cumberland to Commercial. It also includes southwestern and southeastern parts of the Franklin Street Feasibility Study Phase II study area. These guidelines should apply to recommended wayfinding systems in the study area.



# Portland Peninsula Vehicular Wayfinding Plan, July 2013

Author: Woodworth Associates



## TABLE OF CONTENTS

1. Project Synopsis
2. Analysis and Recommendations
3. Graphic Standards
4. Next Steps

## ABSTRACT

This study builds on the 2008 City of Portland Wayfinding System Study, which established the policies and graphic conventions for a district-based vehicular and pedestrian wayfinding system in the City of Portland. It reviews, refines, and updates the 2008 plan, providing a more comprehensive district map for the entire Peninsula, as well as signage specifications for vehicles, including bicycles and pedestrians. The study provides a plan to replace signs as currently seen on Franklin Street, called “hoop” signs.

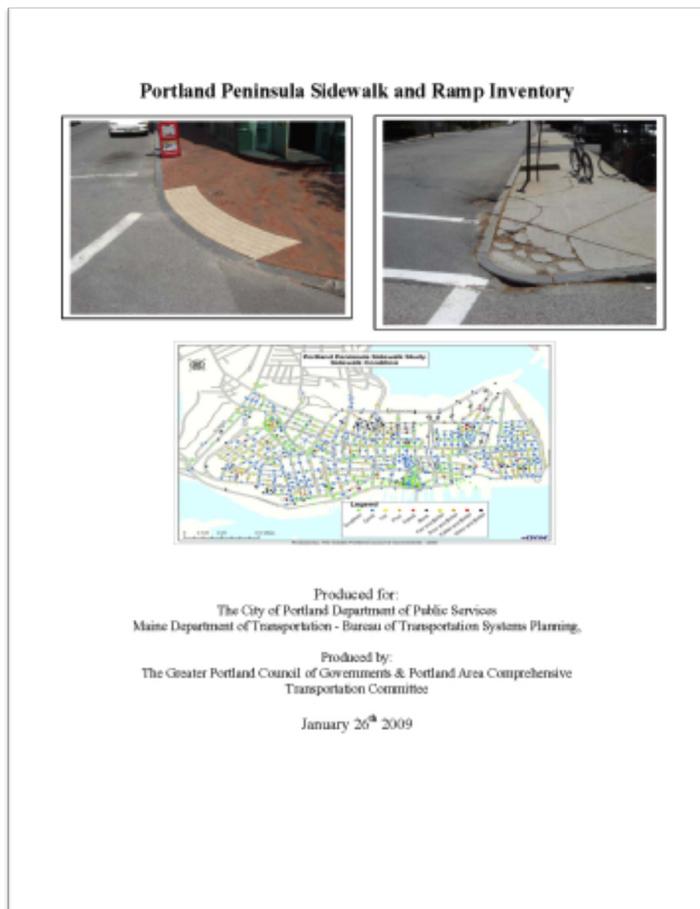
## RELEVANCE

This study identifies Exit 7 (in the study area) as a location for a “Ceremonial Gateway.” Franklin Street is identified in the study as a location of many key decision points. The report provides a map for signage locations, many of which would be placed along Franklin Street directing towards districts and attractions. The proposed signage for cyclists in the study area is more oriented towards directing bicycle traffic across (rather than along) Franklin Street. The Marginal Way/Franklin Street intersection is a key location for bicycle destination markers because it is a nexus of multi-use trails, and a kiosk is proposed near Franklin Street and Commercial Street.



## Portland Peninsula Sidewalk and Ramp Inventory, January 2009

Author: The Greater Portland Council of Governments & Portland Area Comprehensive Transportation



### ABSTRACT

The Sidewalk and Ramp Inventory covers the peninsula from I-295 to the Fore River waterfront, bounded by St. John Street on the west and the Eastern Promenade on the east. The majority of the ramp locations on the peninsula are either concrete (31.1%), brick (26.9%) or lack ramps. Almost half (48%) of the ramps were ranked good or in excellent condition, however, 26% lack a ramp all together. Over half (64%) of ramps did not have crosswalks installed, and when there were crosswalks, only 27.8% were found to be consistent with ADA standards. The sidewalks on the peninsula are quite varied with over half made up of entirely brick while some consist of a combination or brick and another material. The vast majority of the curbs consist of marble and only 4.3% of crosswalks lack curbs. According to the study, 66% of sidewalks were ranked excellent condition or good. While the condition of the sidewalks and curbs scored well, more than 1,000 sidewalks had at least one or more hazards. The Portland Peninsula currently has 241 pedestrian notification systems located at intersections, with 31 without. The study concludes that the areas of most concern in regards to ramps and sidewalks include the East End, Eastern Promenade and the area around Mercy Hospital.

### RELEVANCE:

This study contains detailed assessment of all ramps and sidewalks in the Franklin Street Feasibility Study Phase II study area and beyond. Maps from the report are used in the bicycle and pedestrian sections of this existing conditions assessment.

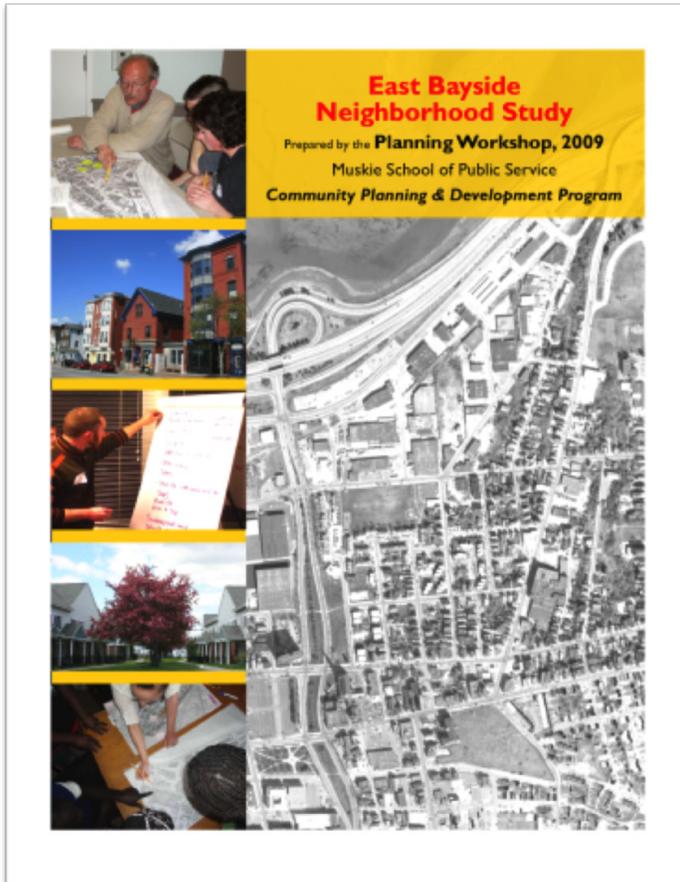
### TABLE OF CONTENTS

1. Scope
2. Pedestrian Ramp Condition Assessment
3. Pedestrian Sidewalk Condition Assessment
4. Pedestrian Crossing Signalization Assessment
5. Recording Format
6. Observations and Notes
7. Areas of Concern



# East Bayside Neighborhood Study, 2009

Author: Planning Workshop – Community Planning & Development Program



## ABSTRACT

The students of the Planning Workshop, an annual course offered in the Muskie's Community Planning and Development program, produced this report after a semester working with the East Bayside Neighborhood Organization (EBNO). The report analyzes the East Bayside Neighborhood from historical and planning perspectives, assessing how future planning – locally and with the greater context of Portland – can benefit the neighborhood. The study revealed that East Bayside residents travel further on foot than expected – approximately .75 miles instead of the more generally accepted standard of tolerable walking distances of .5 miles. Some key destinations among the study participants were Whole Foods, Hannaford supermarket, and downtown. The study makes numerous recommendations related to re-connections and improving Fox Field. It suggests that longer-term studies also take into account development and housing types.

## RELEVANCE:

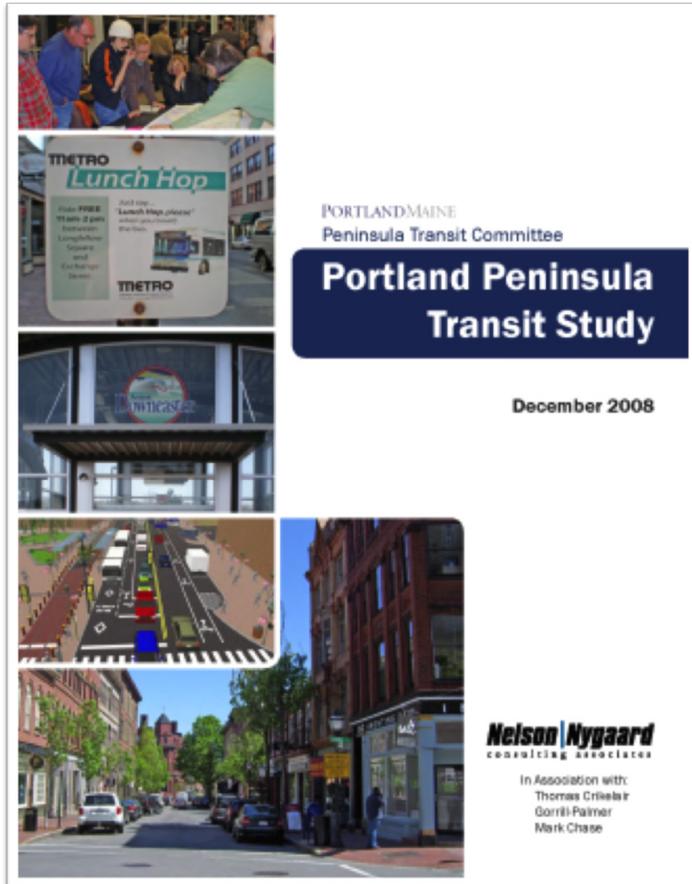
The East Bayside neighborhood is almost entirely within the Franklin Feasibility Study Phase II study area. The study identified that the Franklin Arterial has a harsh edge to the neighborhood that disrupts the historic, fine-grained street block structure. The study suggests reconnecting the historic street grid along Oxford Street and Lancaster Street. It recommends safe pedestrian crossings at a minimum and full intersections if feasible. It also suggests developing a green buffer for the neighborhood between Cumberland & Fox Streets and a mixed-use gateway to “recapture” the territory. The study also recommends incorporating sidewalks and bike trails in the Franklin Street redesign.

## TABLE OF CONTENTS

1. Overview
2. Preliminary Neighborhood Studies
3. Business District Surveys
4. The Neighborhood Forum: Process & Findings
5. The Youth Forum
6. Recommendations and the Next Phase
7. About the Community Partners
8. About the Planning Workshop Participants

## Portland Peninsula Transit Study, June 2009

Author: Portland Maine Peninsula Transit Committee



### TABLE OF CONTENTS

1. Executive Summary
2. Introduction
3. Existing Conditions
4. Goals & Objectives
5. Needs Assessment
6. Walking & Biking Strategies
7. Transit Strategies
8. Parking & Transportation Demand Management Strategies
9. Action Plan for the Peninsula Transit Study

### ABSTRACT

The purpose of this transit study is broader than transit improvements; the final report is intended to provide alternative transportation solutions including strategies related to transit, non-motorized transportation facilities, transportation demand management, pricing, and land uses. The study has an expressed goal of reducing the number of single occupancy vehicle trips to and from the Portland Peninsula. This study was partly motivated by the fact that studies have found that many major intersections on the Peninsula were at or near capacity. Franklin Street at Marginal Way was identified as one such intersection.

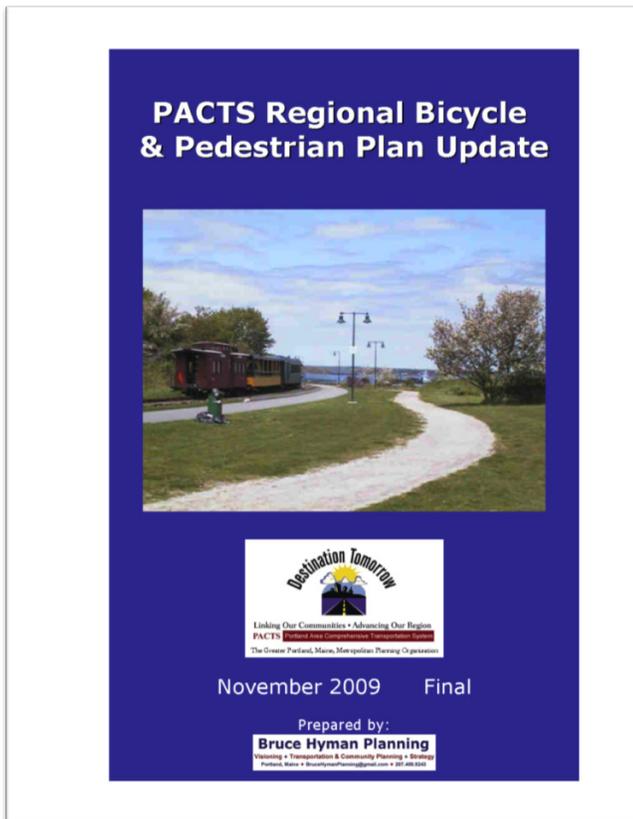
### RELEVANCE:

The report contains many recommendations relevant to the Franklin Street Feasibility Study Phase II study area. Franklin Street was identified as needing improvements, particularly for cyclists and pedestrians, such as better marked crossings and bicycle lanes or off-street paths (possibly along the median). The study also identified the need for reconnections of Federal, Oxford, and Lancaster across Franklin Street. The study also suggests adopting appropriate land use changes on streets chosen as high-volume preferred routes, such as Franklin Street. Transit improvements were recommended, such as rerouting buses to better serve Franklin Towers, as well as considering rerouting transit along Franklin Street and providing transit priority. Franklin Street was identified as part of a possible route for future light rail, a transit priority corridor was recommended for Congress Street, and a more tourist-oriented streetcar was recommended for Commercial Street. A need was identified for a transit hub at Franklin and Commercial Street.



# PACTS Regional Bicycle & Pedestrian Plan Update, July 2009

Author: Portland Maine Peninsula Transit Committee



## ABSTRACT

The purpose of the Regional Bicycle and Pedestrian Plan Update is to selectively updated sections of the 1995 Plan to include the eight communities that have joined PACTS since 2000. It also aims to account for changing in planning practices and infrastructure. The study recommends adopting a Complete Streets policy for all future roadway designs and improvements (which has since been drafted and adopted). Maps are provided for existing and planned facilities. Recommendations for pedestrians include continuous sidewalks, frequent safe street crossings, and pedestrian signals. Recommendations for bicyclists include on-road bicycle facilities including bike lanes, shoulders and wide curb lanes, and parking destinations. Recommendations for transit users include convenient, comfortable and accessible transit stops. Recommendations for motorists include clearly defied travel ways and signage and finally for all users attractive streetscapes.

## RELEVANCE:

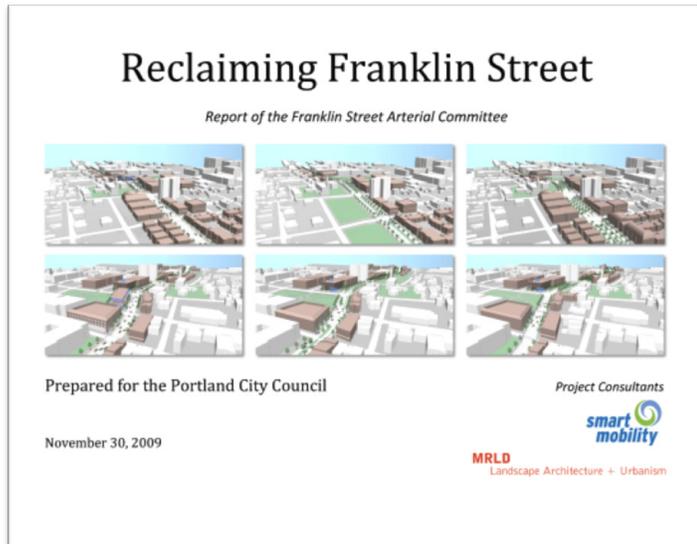
This plan contains rankings for various commercial areas, some of which overlap the Franklin Street Feasibility Study Phase II study area. Rankings indicate how well the area provides minimum safety and functionality for pedestrians and cyclists. Bayside is ranked 'Fair' due to the fact that gaps still remain in facilities and crossings can be difficult. However, the plan recognizes that this is an 'up and coming' area. Downtown is already rated 'Very Good'.

## TABLE OF CONTENTS

1. Introduction
2. On-road Bikeway, Trail and Pathway Networks
3. The Pedestrian Environment and Regional
4. Commercial Centers
5. Top Cost and Time Effective Regional Improvements
6. Top Areas / Issues of Concern for Follow up
7. Design Guidelines

## Reclaiming Franklin Street, November 2009

Author: Franklin Street Arterial Study Committee



### ABSTRACT AND RELEVANCE:

The Reclaiming Franklin Street report is the result of the first phase of this study of Franklin Street. It included an extensive public process and analysis of existing conditions, leading to the recommendation of three alternatives: the Multi-Way Boulevard, the Urban Street, and the Urban Parkway. A minimal summary is provided here because it is being continued in this work, where the existing conditions are being explored in greater depth, and the alternatives will be updated, refined, and evaluated, leading to the selection of a recommended alternative.

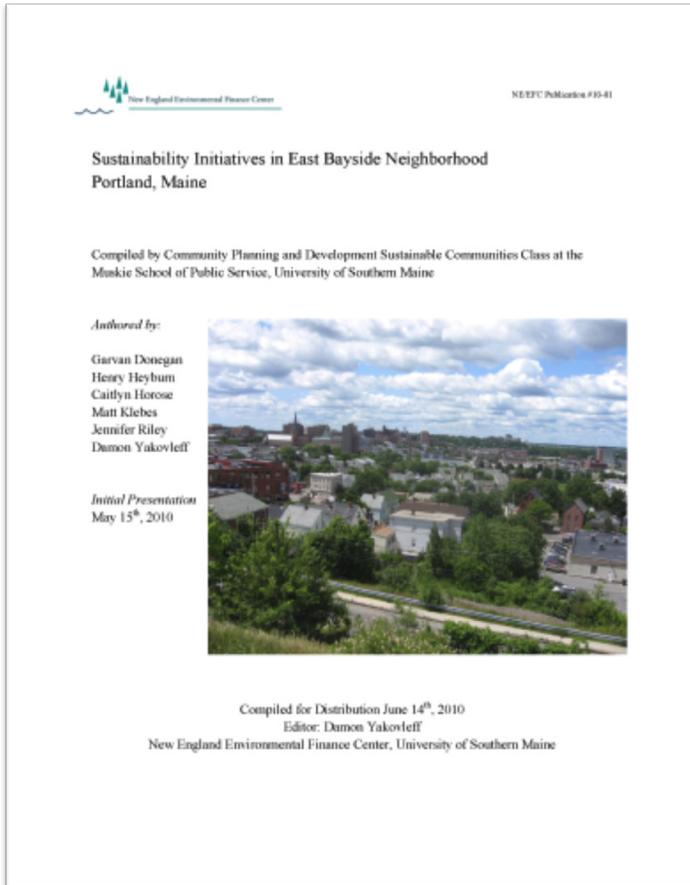
### TABLE OF CONTENTS

1. Executive Summary
2. Study Background and Process
3. Vision Statement of the Franklin Street Arterial Study Committee
4. History of Franklin Street
5. Other related projects and Planning Activities
6. Supporting Policy
7. Public Involvement
8. Franklin Street Design Considerations
9. Current Conditions
10. Design Issues and Concepts
11. Design Criteria
12. Franklin Street Concept Alternatives
13. Recommendations for Phase 2
14. Short Term Recommendations



# Sustainability Initiatives in East Bayside Neighborhood, June 2010

Author: Garvan Donegan, Henry Heyburn, Caitlyn Horose, Matt Klebes, Jennifer Riley, Damon Yakovleff



## ABSTRACT

This document contains six individual essays with the common theme of sustainability initiatives that could be implemented in the East Bayside neighborhood. 'Pathways of Exposure' identifies that East Bayside area is the gateway for the city but is characterized by fragmentation and broken pedestrian connections. 'Building Healthy Community' focuses on the importance of providing an outdoor recreation and athletic opportunities to the children in Portland's Easy Bayside. Based on the 'Recommendations for Sustainable Economic Development', East Bayside should establish a clear policy that identifies East Bayside as an 'ecodistrict'. 'Addressing Ecological Issues' identifies the ecological issues facing the coastal New England regions today including lead paint in housing, inefficient energy consumption, and water related issues due to older infrastructures.

## RELEVANCE:

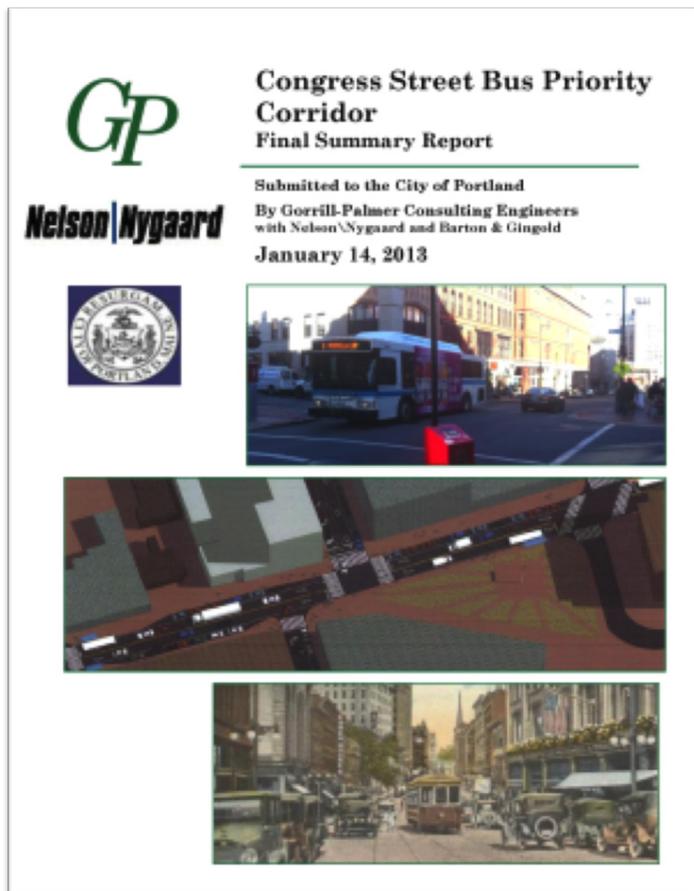
One of the essays focuses entirely on transportation initiatives. According to this report, the most socially and economically significant East Bayside transportation initiative in development is the Franklin Arterial Reclamation movement. It recommends that any redesign of Franklin Street or I-295 include provision for integration with public transportation systems, including the preservation of the rail right-of-way through East Bayside. It identifies reconections, urban agriculture, and streetscape as key elements in establishing a sense of place. Some recommendations of the 'Addressing Ecological Issues' essay include narrower residential streets, urban forestry, creating a buffer zone and bioretention areas which consist of select vegetation planted in shallow depression that naturally filter runoff and pollutants.

## TABLE OF CONTENTS

1. Introduction
2. East Bayside's Pathways of Exposure: Open Space and Urban Agriculture
3. Building a Healthy Community: Engaging East Bayside Youth in Outdoor and Athletic Activities
4. Recommendations for Sustainable Economic Development in East Bayside
5. The East Bayside Neighborhood: Analysis and Recommendations for Addressing Ecological Issues
6. East Bayside Neighborhood Study The Arts
7. Transportation Initiatives in the East Bayside Neighborhood of Portland, Maine

## Congress Street Bus Priority Study, January 2013

Author: Gorrill-Palmer Consulting Engineers with Nelson/  
Nygaard and Barton & Gingold



### TABLE OF CONTENTS:

1. Study Purpose
2. Study Background
  - Phase 1 Feasibility and Development of a Bus Priority Corridor Concept
  - Phase 2 Preliminary Design Phase
  - Opinion of Cost / Enhanced Project Scoping

### ABSTRACT

The Congress Street Bus Corridor, as also recommended in the Peninsula Transit Study, extends along Congress Street from Franklin to State Street. The goal is to improve bus operations by simplifying intersections, keeping busses in line with traffic for passengers, reducing number of stops and improving location of stops. Other goals included increasing the amount of parking along the corridor, improving pedestrian crossings and improve overall bicycle safety from lower vehicle speeds. The design concept implements all recommendations from the Peninsula Transit Study. Traffic changes include changing the direction of certain one-way streets, removal of unwarranted traffic signals and connecting streets to increase circulation options. The study details four design alternatives which assumed bus frequencies, traffic signal optimization, and took into account traffic forecast out to the year 2025.

### RELEVANCE:

Congress Street intersections with Franklin Street and the corridor is partly in the Franklin Street Feasibility Study Phase II study area. Therefore most of the recommendations are relevant for the purposes of this study.



# Pedestrian And Bicycle – Chapter Of The City Of Portland Comprehensive Plan, December 2012

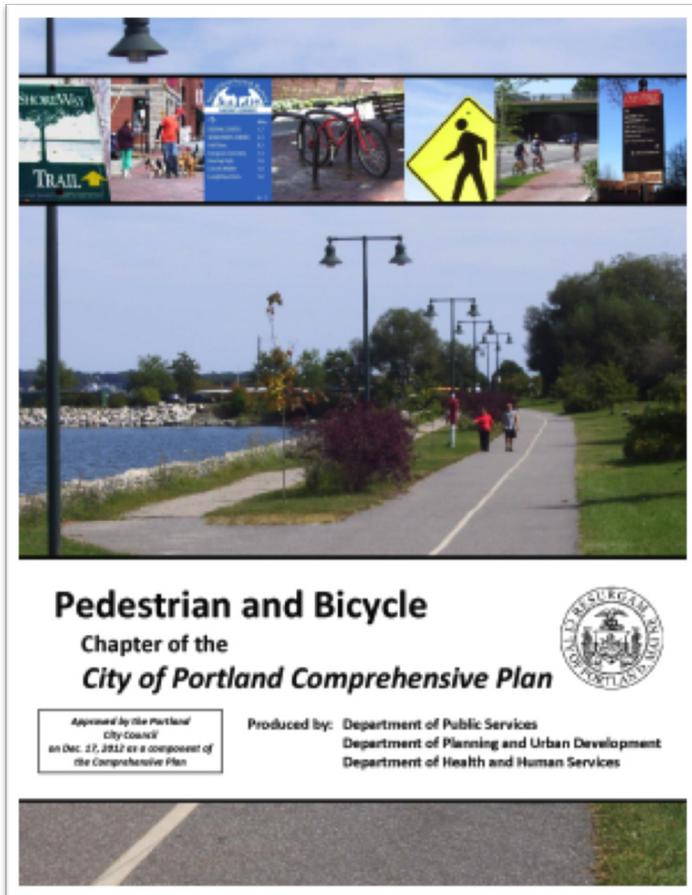
Author: Department of Public Services / Department of Planning and Urban Development / Department of Health and Human Services

## ABSTRACT

The document’s vision is to develop a plan in which bicycling and walking plays an integral role in Portland’s growing reputation as a livable and sustainable city. It recommends high quality Complete Streets, trails and pathways to provide connections for cyclists and pedestrians within and between the city’s neighborhoods. The plan also highlights the importance of creating an improved Pedestrian Network by establishing policies related to pedestrian planning, infrastructure and investment including: pedestrian Quality of Service indicators, sidewalk material policy, sidewalk snow clearance, more systematic pedestrian ADA and arterial and collector street crossings. The bicycling network focuses on developing new bicycling Quality of Service indicators, updating related ordinances, adopting bicycle facility design guidelines and standards and more systematic bicycling accessibility and safety program. In order to establish a quality bikeway network, the plan identifies expanding the amount of bike lanes, paved shoulders, shared lanes on the city’s arterial and collector streets. It also notes the importance of increasing bicycle parking and addressing key barriers to increased bicycle network connectivity. Finally, the plan focuses on creating and implementing an effective promotion and encouragement programs to increase the enjoyment and amount of walking and bicycling in Portland.

## RELEVANCE

The plan defines a set of objectives and strategies which were referenced in the Pedestrian and Bicycling Network which are relevant for Franklin Street Feasibility Study Phase II. In addition, the Phase II study meets recommendations in this plan such as providing a multimodal level of service measure.



## TABLE OF CONTENTS:

1. Vision and Existing Policy and Planning Context
2. The Policy Context of Walking and Bicycling in Portland & in the Transportation System
3. Pedestrian Network: Policy Context and Goal, Objectives, Strategies, Performance Measures
4. Bicycling Network: Policy Context and Goal, Objectives, Strategies, Performance Measures
5. Education and Enforcement
6. Promotion and Encouragement
7. Implementation and Evaluation

DRAFT

# APPENDIX B: ROADWAY INVENTORY

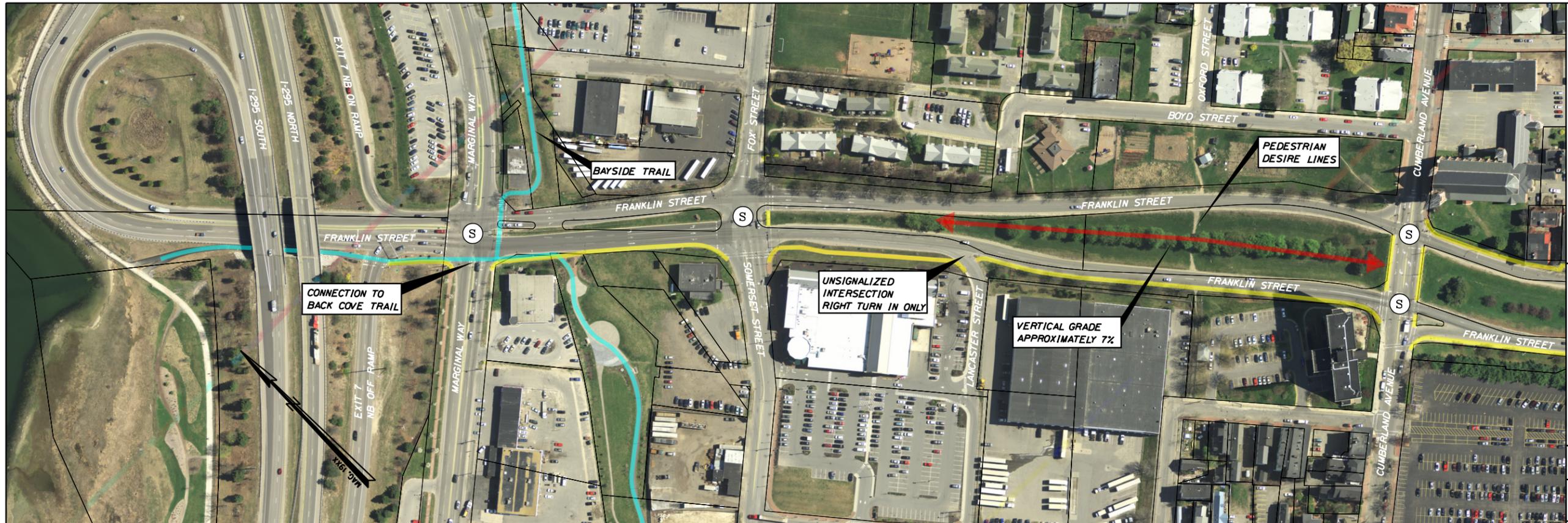


## FRANKLIN STREET - ROADWAY CHARACTERISTICS INVENTORY

September 9, 2013

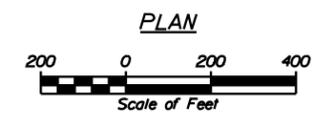
Segment or Intersection	Federal Functional Classification	Corridor Priority Level	Number of			Widths (feet) <sup>1</sup>			Striping	Wayfinding and Major Regulatory Signing	Curb Cuts <sup>1,2</sup>	Posted Speed Limit <sup>2</sup>	Sidewalks (SW = Sidewalk; ESP=Esplanade)	ADA compliance of Sidewalks	Bike Facilities	On-Street Parking <sup>2</sup>	Curb Radii <sup>1</sup>	Clear Zone <sup>3</sup>	Guardrail	Vertical Grade <sup>4</sup>	Horizontal Alignment	Sight Distance <sup>2,4</sup>	
			Thru Lanes	Turning Lanes (Length)	Thru Lanes	Turning Lanes	Shoulders																
Marginal Way Intersection	Minor Urban Arterial	Priority 2	2 NB & 2 SB	1 NB LT (335'), 1 SB LT (70') & 1 SB RT (70')	11.2 to 12.7	11.0 to 12.0	0 for NB & SB RT SH; < 2 for median	Existing striping is worn, especially for cross walks. Lane use arrows are missing	Directional signing for NB approach	NA	35 mph		Appears to be compliant			~45' - 55'		none	NA	lane geometrics appear to lineup adequately	Signalized Intersection - NA		
Marginal Way to Fox St./Somerset St.			2 NB & 2 SB	NA	12.0 to 12.9	NA	0 for NB & SB RT SH; < 2 for median		0	35 mph	Bituminous SW on Westside; No SW on Eastside		Connection with Bayside Trail	None	NA		none	flat	tangent	NA			
Fox St./Somerset St. Intersection			2 NB & 2 SB	1 NB LT (150') & 1 SB LT (175')	10.7 to 12.9	11.9 to 12.6	0 for NB & SB RT SH; < 2 for median		NA	35 mph	Wayfinding for SB approach	NA	35 mph		Appears to be non-compliant			~50' - 85'		none	NA	lane geometrics appear to lineup adequately	Signalized Intersection - NA
Fox St./Somerset St. to Lancaster St.			2 NB & 2 SB	NA	10.7 to 12.9	NA	0 for NB & SB RT SH; 2-4 for median		0	35 mph	Brick SW with ESP on Westside; No SW on Eastside			None	NA		none	< 2%	tangent	NA			
Lancaster St. Intersection			2 NB & 2 SB	1 SB RT slip ramp (215')	10.8 to 12.9	11.1	0 for NB & SB RT SH; 2-4 for median		NA	35 mph		NA	35 mph		Appears to be non-compliant			~85'		none	NA	lane geometrics appear to lineup adequately	Existing non-signalized intersection for right turns onto Lancaster; sight distance does not appear to be a problem for possible future right turns onto Franklin
Lancaster St. to Cumberland St.			2 NB & 2 SB	NA	10.8 to 14.5	NA	0 for NB & SB RT SH; 2-4 for median		0	35 mph	Bituminous SW on Westside; No SW on Eastside; Noticeable "trail" across median connecting Oxford Street			None	NA	trees on westside appear to be in clearzone	none	approaches 7%	~775' radius for NB & ~655' for SB			Phase 1 report possible unsignalized intersection at Oxford- sight distance could be problematic given the steep grades of Franklin	
Cumberland St. Intersection			2 NB & 2 SB	0	10.3 to 14.5	NA	0 for NB & SB RT SH; 2-4 for median		NA	35 mph		NA	35 mph		Appears to be non-compliant			~45' - 65'; ~10 for median		none	NA	lane geometrics appear to lineup adequately	Signalized Intersection - NA
Cumberland St. to Congress St.			2 NB & 2 SB	NA	10.3 to 12.6	NA	0 for NB & SB RT SH; 2-4 for median		0	35 mph	Concrete SW on Westside; Brick SW with some ESP on Eastside			None	NA		none	< 2%	~500' radius for NB & ~780' for SB			NA	
Congress St. Intersection			2 NB & 2 SB	0	11.9 to 14.2	NA	0 for NB & SB RT SH; 2-4 for median		NA	35 mph	Wayfinding for SB approach; Directional signing for NB approach	NA	35 mph		Appears to be non-compliant			~35' - 45'; ~10 for median		none	NA	lane geometrics appear to lineup adequately	Signalized Intersection - NA
Congress St. to Middle St.			2 NB & 2 SB	NA	11.9 to 15.4	NA	0 for NB & SB RT SH; 2-4 for median		0	35 mph	No SW on Westside; Bituminous SW on Eastside			None	NA		none	approaches 5%	~735' radius for NB & ~400' radius for SB approach to Middle St			Phase 1 report suggests possible unsignalized intersections at Federal and Newbury Streets; Sight distance could be problematic for EB Federal approach having enough sight distance past the Congress Street intersection because of vertical grade	
Middle St. Intersection			2 NB & 2 SB	0	11.6 to 15.4	NA	0 for NB & SB RT SH; < 2 for median		NA	35 mph	Wayfinding for SB approach	NA	35 mph		Appears to be non-compliant			~10' - 60'		none	NA	lane geometrics appear to lineup adequately	Signalized Intersection - NA
Middle St. to Fore St.			2 NB & 2 SB	NA	10.7 to 12.9	NA	0 for NB & SB RT SH; < 2 for median		0	35 mph	Concrete SW with ESP on Westside; Brick SW on Eastside			None	NA	mature trees on both sides appear to be in clearzone	none	approaches 5%	tangent	NA			
Fore St. Intersection			2 NB & 2 SB	0	10.7 to 12.9	NA	0 for NB & SB RT SH; < 2 for median		NA	35 mph		NA	35 mph		Some ramps have truncated domes but unknown if grades and widths of ramps are appropriate.			~20' - 45'		none	NA	lane geometrics appear to lineup adequately	Signalized Intersection - NA
Fore St. to Commercial St.			2 NB & 2 SB	NA	10.9 to 12.9	NA	0 for NB & SB RT SH; < 2 for median		1	35 mph	Brick SW with ESP on Westside; Brick SW with large ESP on Eastside that has a bike rack and dirt path			4 metered spots on Eastside			none	~2%	tangent	NA			
Commercial St. Intersection	2 NB & 1 SB	1 NB LT (25'), 1 NB RT (25'), 1 SB LT (165') & 1 SB RT (165')	8.1 to 12.2	11.1 to 13.3	0 for NB & SB RT SH; < 2 for median	NA	35 mph	Wayfinding for SB approach	NA	35 mph		Appears to be non-compliant			~25' - 65'		none	NA	lane geometrics of Franklin St into the Maine State Pier do not lineup	Signalized Intersection - NA			

NOTES: 1. Data gathered from Aerial Imagery  
 2. Data gathered from Google Maps and Street Viewer  
 3. Does not account for utility, lighting and traffic poles  
 4. Data gathered from City GIS website



**LEGEND**

- █ BIKE PATH
- █ SIDEWALK ALONG FRANKLIN STREET
- Ⓢ SIGNALIZED INTERSECTION



PROJ. MANAGER	BY	DATE
L. WEEK	L. WEEKHOUSE	09-09-13
CHECKED-REVIEWED	D. STINGER	09-09-13
DESIGNED-DETAILS		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

**PORTLAND**  
**FRANKLIN STREET**

Roadway Existing Conditions Plan

---

SHEET NUMBER

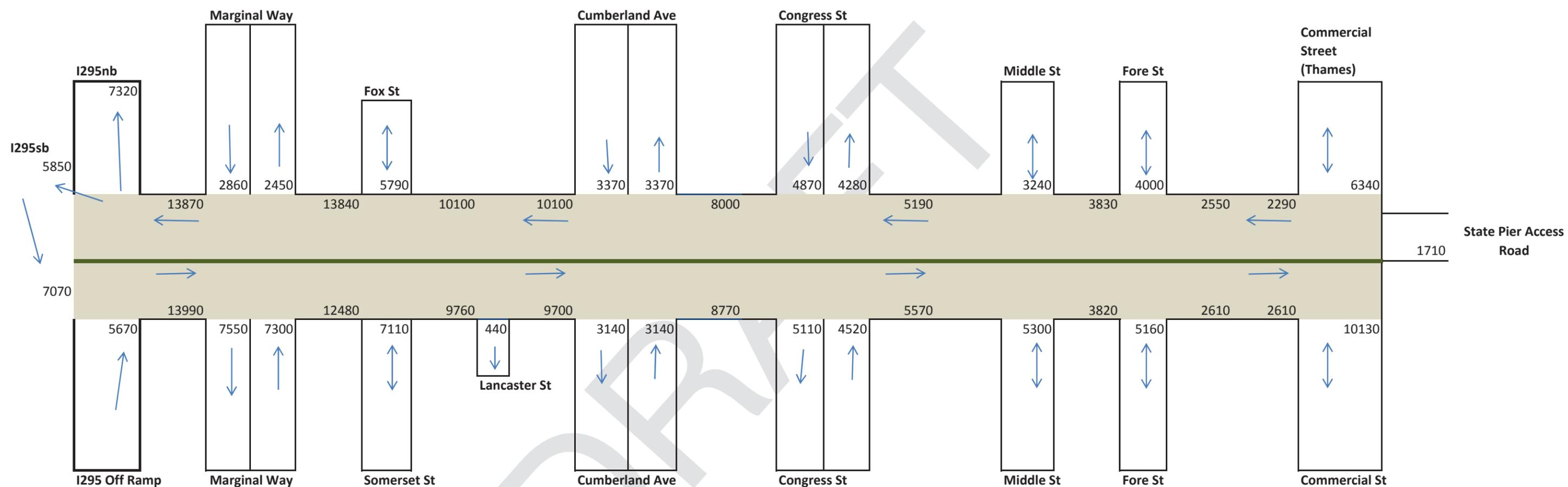
1

OF 1



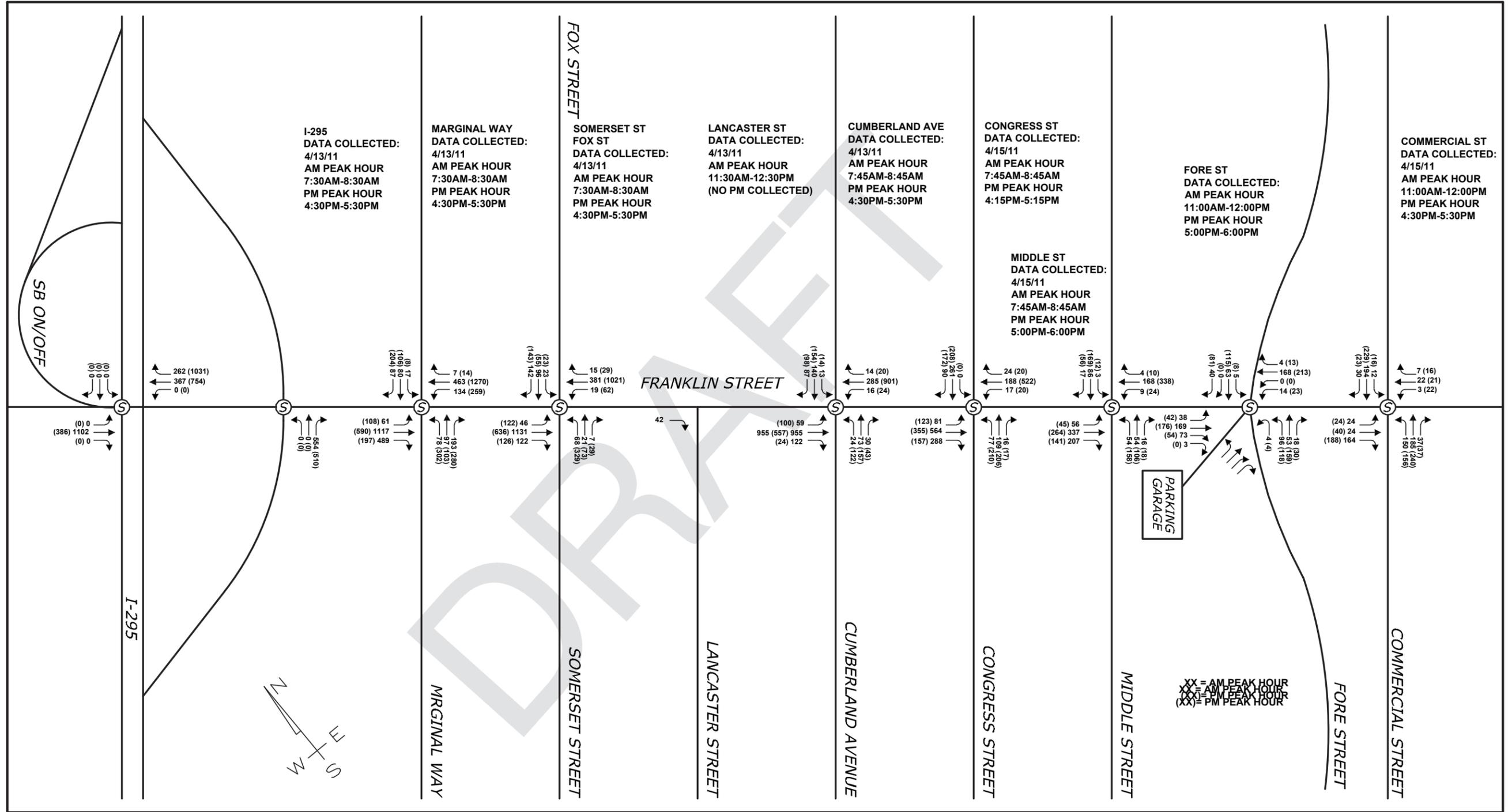
# APPENDIX C: TRAFFIC COUNTS

2011 AADT Data for Franklin Street and Side Streets  
 Source: Maine Department of Transportation Traffic Counts for Cumberland County





# Raw Volumes

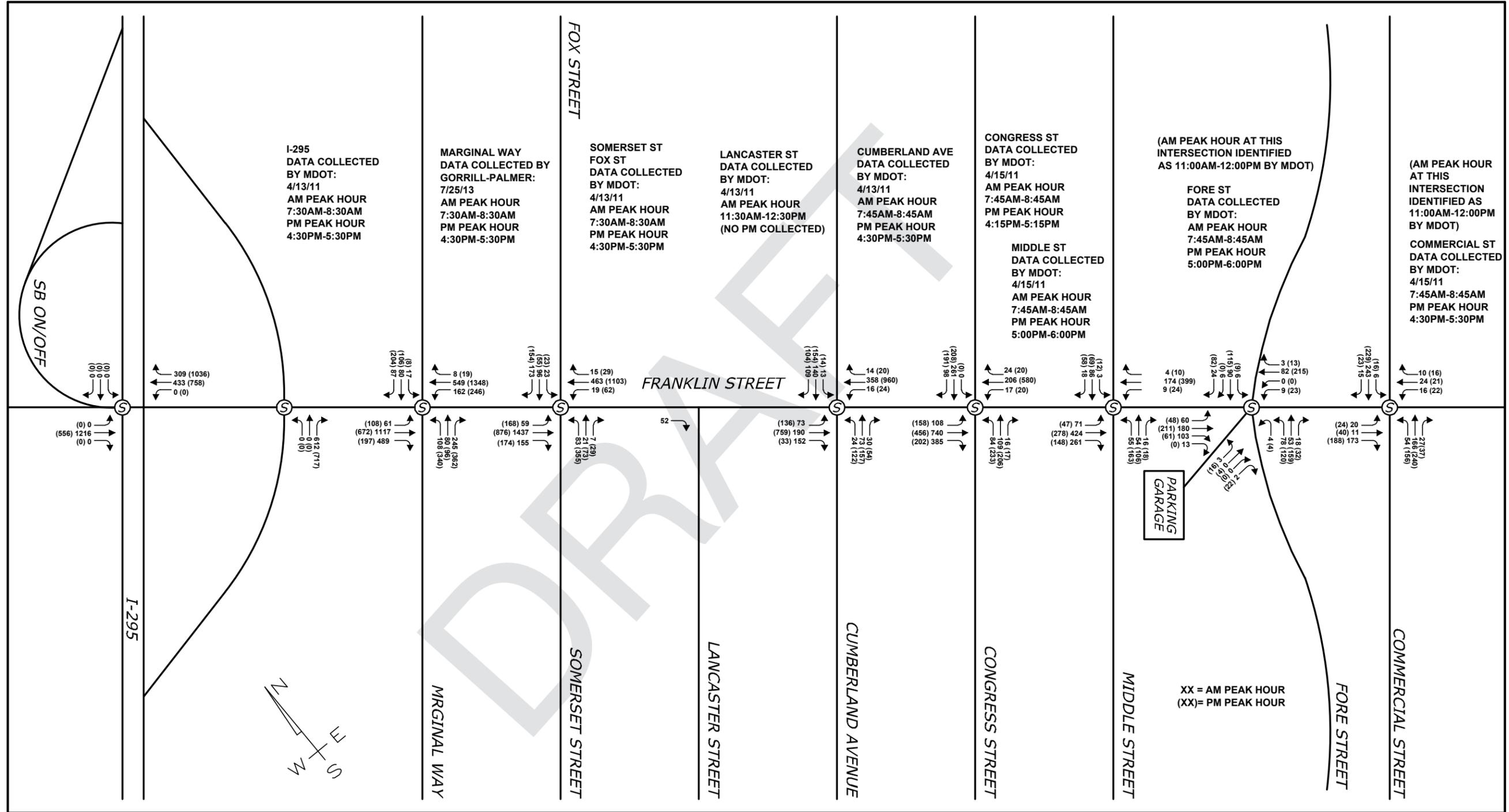


FRANKLIN STREET, PORTLAND, MAINE

Design: MC Scale: NONE  
 Draft: LN Date: JULY 2013  
 Checked: TG File Name: 2735 -Traff.dwg

**GP** Gorrill-Palmer Consulting Engineers, Inc.  
 Traffic and Civil Engineering Services  
 207-657-6910  
 PO Box 1237 Fax: 207-657-6912  
 15 Shaker Road mailbox@gorrillpalmer.com  
 Gray, ME 04039 www.gorrillpalmer.com

# Adjusted Volumes



FRANKLIN STREET, PORTLAND, MAINE

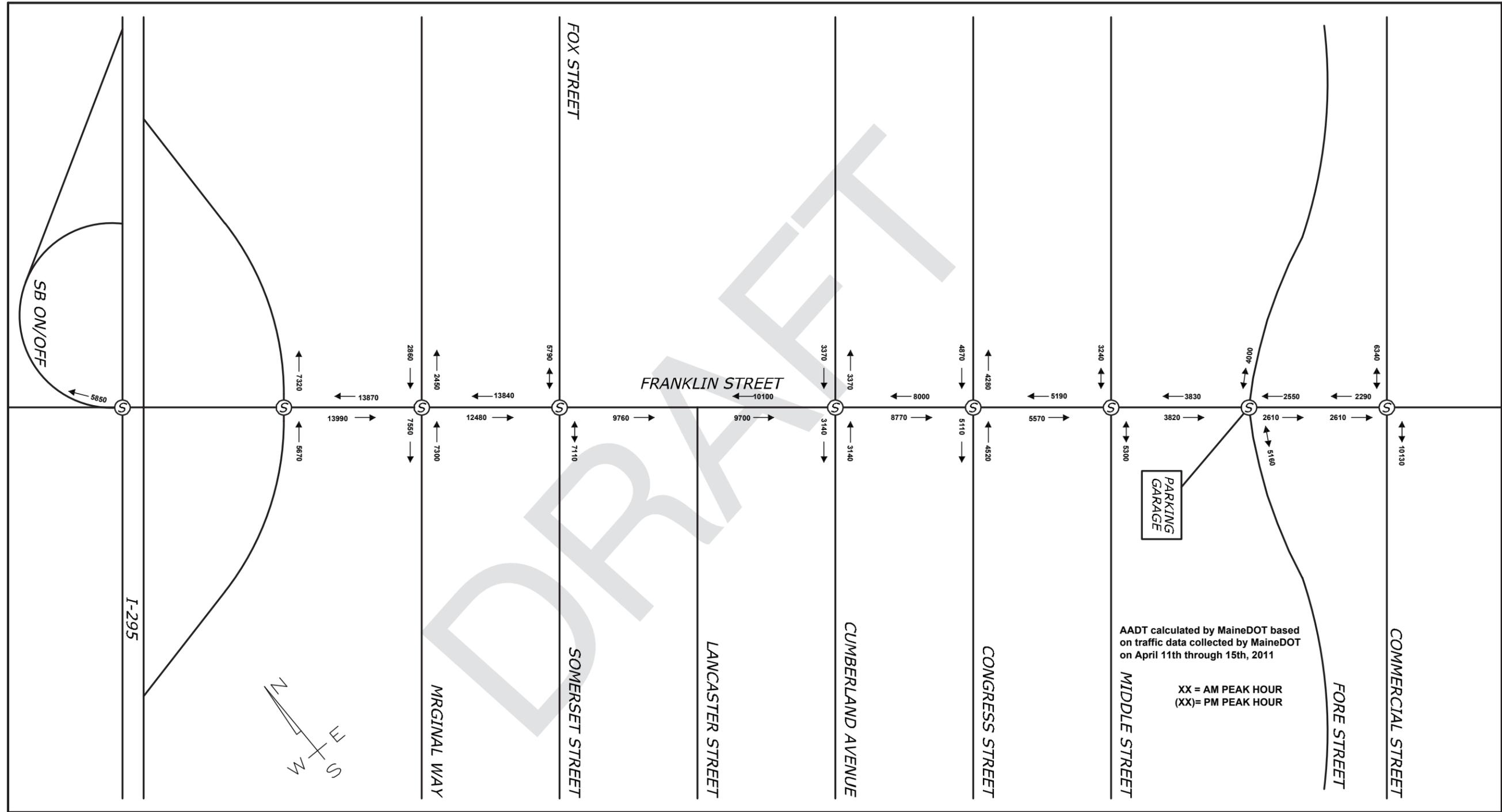
Design: MC Scale: NONE  
 Draft: LN Date: JULY 2013  
 Checked: TG File Name: 2735 -Traff.dwg

**GP** Gorrill-Palmer Consulting Engineers, Inc.  
 Traffic and Civil Engineering Services  
 PO Box 1237 207-657-6910  
 15 Shaker Road Fax: 207-657-6912  
 Gray, ME 04039 mailbox@gorrillpalmer.com  
 www.gorrillpalmer.com



# 2011 AADT

Figure No. **4**



FRANKLIN STREET, PORTLAND, MAINE

AADT calculated by MaineDOT based on traffic data collected by MaineDOT on April 11th through 15th, 2011

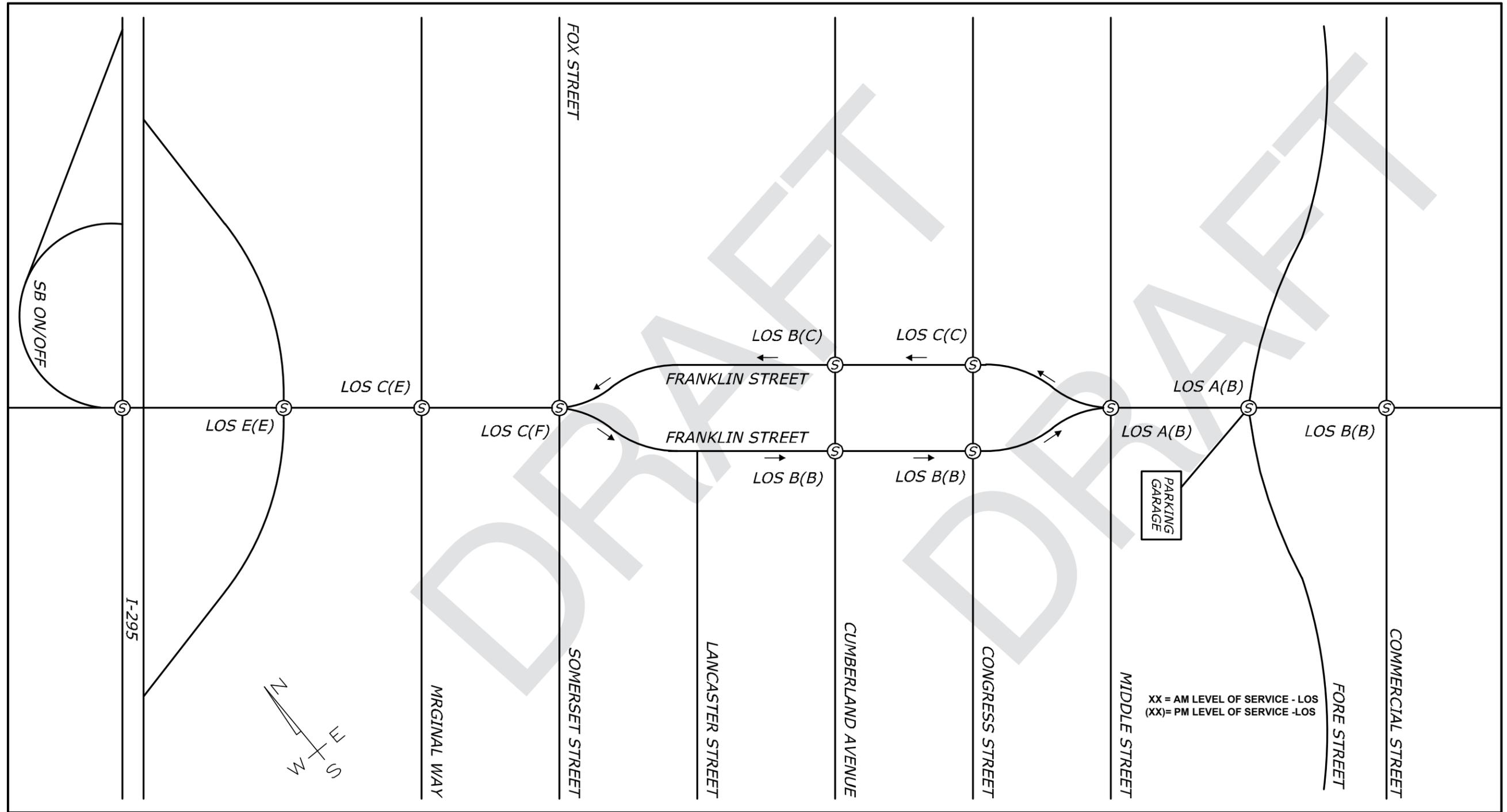
XX = AM PEAK HOUR  
(XX) = PM PEAK HOUR

Design: MC Scale: NONE  
 Draft: LN Date: JULY 2013  
 Checked: TG File Name: 2735 -Traff.dwg

**GP** Gorrill-Palmer Consulting Engineers, Inc.  
 Traffic and Civil Engineering Services  
 PO Box 1237 207-657-6910  
 15 Shaker Road Fax: 207-657-6912  
 Gray, ME 04039 mailbox@gorrillpalmer.com  
 www.gorrillpalmer.com

# 2013 EXISTING CONDITIONS INTERSECTION LEVEL OF SERVICE - LOS

Figure No. **5**



FRANKLIN STREET, PORTLAND, MAINE

Design: MC Scale: NONE  
 Draft: LN Date: SEPT. 2013  
 Checked: TG File Name: 2735 -Traff.dwg

**GP** Gorrill-Palmer Consulting Engineers, Inc.  
 Traffic and Civil Engineering Services  
 PO Box 1237 207-657-6910  
 15 Shaker Road Fax: 207-657-6912  
 Gray, ME 04039 mailbox@gorrillpalmer.com  
 www.gorrillpalmer.com

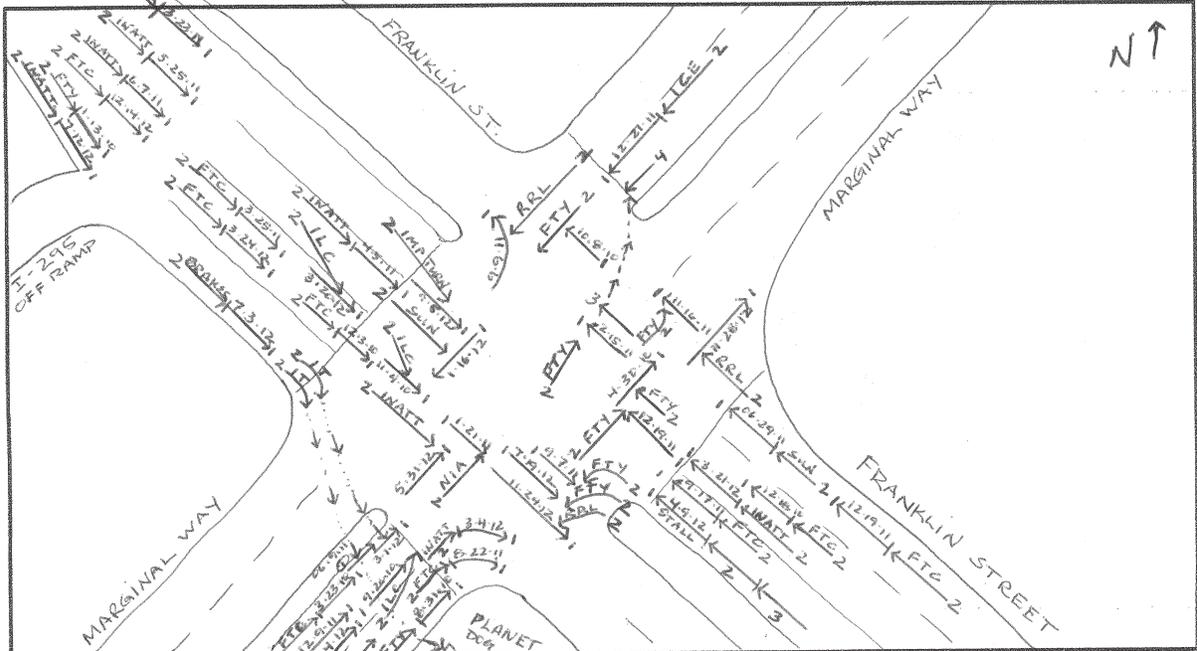
# APPENDIX D: CRASH DATA



## COLLISION DIAGRAM

SHEET 1 OF 3

LOCATION Franklin Street/Marginal Way  
 TOWN Portland, Maine NODE NO(S) 19000  
 YEARS REVIEWED 2010 - 2012 DATE PREPARED 07-29-2013



CRITICAL RATE FACTOR \_\_\_\_\_ EQUIV. PROP. DAMAGE ACC/YEAR \_\_\_\_\_ ACC/MEV \_\_\_\_\_

**LIGHT**

1. DAWN (MORNING)	2. DAWN	3. DUSK (EVENING)
4. DARK (ST. LIGHTS ON)	5. DARK (NO ST. LIGHTS)	6. DARK (ST. LIGHTS OFF)
7. OTHER		

**ROAD SURFACE**

1. DRY	2. WET	3. SNOW/SLUSH-SANDED
4. ICE/PACKED SNOW-SANDED	5. MUD	6. DEBRIS
7. OILY	8. SNOW/SLUSH-NOT SANDED	9. ICE-PKD. SNOW-NOT SANDED
10. OTHER		

**APPARENT CONTRIBUTING FACTORS - HUMAN**

1. NO IMPROPER ACTION	2. FAIL TO YLD. RIGHT OF WAY	3. ILLEGAL UNSAFE SPEED
4. FOLLOW TOO CLOSE	5. DISREGARD TRAFFIC CONTROL DEVICE	7. IMPROPER PASS-OVERTAKING
6. DRIVING LEFT OF CENTER-NO PASSING	8. IMP. UNSAFE LANE CHANGE	9. IMP. PARKING START/STOP
10. IMPROPER TURN	11. UNSAFE BACKING	12. NO SIGNAL OR IMP. SIGNAL
13. IMPEDING TRAFFIC	14. DRIVER INATTENTION-DISTRACTION	15. DRIVER INEXPERIENCE
16. PEDEST. VIOLATION ERROR	17. PHYSICAL IMPAIRMENT	18. VISION OBSCURED-WINDSHIELD GLASS
19. VISION OBSCURED-SUN/HEADLIGHTS	20. OTHER VISION OBSCUREMENT	30. OTHER HUMAN VIOLATION FACTOR
31. HIT AND RUN	51. UNKNOWN	

**VEHICULAR**

41. DEFECTIVE BRAKES	42. DEFECTIVE TIRE/FAILURE	43. DEFECTIVE LIGHTS
44. DEFECTIVE SUSPENSION OR FACTOR	45. DEFECTIVE STEERING	50. OTHER VEHICLE DEFECT
51. UNKNOWN		

**SYMBOLS**

ANGLE	PEDESTRIAN	FATAL ACCIDENT
BACKING	REAR END	VEHICLE (MOVING)
FIXED OBJECT	SIDE SWIPE	BICYCLE
HEAD ON	TURNING MOVE	ANIMAL
OVERTURN	CHANGE LANE	SLED
PARKED VEHICLE	OUT OF CONTROL	

**WEATHER**

C = CLEAR	F = FOG	R = RAIN
SL = SLEET	S = SNOW	CL = CLOUDY
		XW = CROSS WINDS

**INJURIES**

K = FATAL	B = NON-INCAPACITATING
A = INCAPACITATING	C = POSSIBLE INJURY

REPORT NO.	DATE	TIME	INJURIES				LIGHT	ROAD SURFACE	ACF	OTHER
			K	A	B	C				
10-121	01-13-10	09:30					1	1	2	
10-000747	03-23-10	15:14					1	2	4	
10-1066	04-30-10	08:51					1	1	2	
10-002263	08-31-10	15:00					1	1	2	
10-002515	09-26-10	10:28					1	1	8	
10-002639	10-08-10	23:30					4	2	8	
10-002952	11-09-10	17:00					4	2	8	
10-003205	12-03-10	21:27					4	2	4	

COLLISION DIAGRAM

SHEET 2 OF 3

LOCATION Franklin Street / Marginal Way  
TOWN Portland, Maine NODE NO(S) 19000  
YEARS REVIEWED 2010 - 2012 DATE PREPARED 07.29.2013

REPORT NO.	DATE	TIME	INJURIES				LIGHT	ROAD SURFACE	ACF	OTHER
			K	A	B	C				
10.003342	12.18.10	15:45					3	1	4	
11.000209	01.21.11	10:45					1	5	1	
11.000592	02.15.11	15:10					1	1	2	
11.000942	03.23.11	08:24					1	1	4	
11.694	03.25.11	16:00					1	1	4	
11.001070	04.05.11	08:30					1	2	14	
11.001498	05.25.11	12:38					1	1	14	
11.001629	06.07.11	11:22					1	1	14	Ill
11.001657	06.09.11	16:55					1	2	10	
11.001872	06.29.11	19:14					1	1	19	SUN
11.2410	08.22.11	18:23					1	1	4	
11.002559	09.07.11	06:47					1	2	2	
11.002586	09.09.11	11:57					1	1	5	Ran Red Light
11.002664	09.17.11	16:07					1	1	4	
11.003228	11.16.11	05:26					4	1	2	
11.003451	12.09.11	14:07					1	1	4	
11.003543	12.19.11	10:53					1	1	2	
11.3549	12.19.11	17:30					4	1	4	
11.003579	12.21.11	08:10					1	5		ICE
12:0033	01.05.12	15:15					1	1	4	
12:0035	01.05.12	17:20					4	1	31	
12.00117	01.16.12	08:40					1	1	19	SUN
12.525	03.01.12	08:24					1	3	10	SNOW
12.00572	03.04.12	10:16					1	2		
12.0703	03.20.12	11:55					1	1	8	
12.712	03.21.12	15:57					1	1	14	
12.00738	03.24.12	12:30					1	1	4	
12.000841	04.09.12	16:18					1	1	50	Engine Stalled
12.001300	05.31.12	19:49					3	1	14	
12.001600	07.03.12	11:32					1	1	41	Brakes
12.001637	07.04.12	07:35					4	2	4	
12.001682	07.12.12	08:45					1	1	14	Drinking Tea
12.1753	07.19.12	00:54					4	1	2	
12.001765	07.20.12	12:00					1	1	4	
12.002199	09.05.12	15:05					1	1	10	
12.2953	11.24.12	11:07					1	1	5	Ran Red Light
12.002984	11.28.12	09:01					1	1	5	Ran Red Light/DAS

S/SHEETS/COLLISION DIAGRAM.DWG



2735/N2

Maine Department Of Transportation - Traffic Engineering, Crash Records Section  
**Crash Summary Report**

**Report Selections and Input Parameters**

REPORT SELECTIONS

Crash Summary I     Section Detail     Crash Summary II     1320 Public     1320 Private     1320 Summary

REPORT DESCRIPTION

Franklin St

REPORT PARAMETERS

Year 2010, Start Month 1 through Year 2012 End Month: 12

Route:	Start Node:	End Node:	Start Offset:	End Offset:	Exclude First Node	Exclude Last Node
0001A	15397	19199	0	0	<input type="checkbox"/>	<input type="checkbox"/>
001AS	19222	19000	0	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>
001AS	19000	18521	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
001AS	18521	18518	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
001AS	18518	18517	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
001AS	18517	15397	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Node	Route - MP	Node Description	U/R	Nodes										Percent Annual M Ent-Veh	Crash Rate	Critical Rate	CRF						
				Total Crashes	K	A	B	C	PD	Injury	Crash Rate	Crash Rate	Crash Rate										
15397	0001A - 11.81	Int of COMMERCIAL ST, FRANKLIN ST, STATE PIER	9	3	0	0	0	0	0	3	0.0	4.254	0.24	1.15	0.62	0.00							
18517	0001A - 11.89	Int of FORE ST FRANKLIN ST	9	7	0	1	2	1	3	3	57.1	3.953	0.59	1.17	0.62	0.00							
18518	0001A - 11.95	Int of FRANKLIN ST MIDDLE ST	9	15	0	0	2	2	11	26.7	4.935	1.01	1.11	0.62	0.00								
63225	0001A - 12.11	Int of CONGRESS ST FRANKLIN ST	9	8	0	0	0	3	5	37.5	5.436	0.49	1.09	0.62	0.00								
63224	0001A - 12.20	Int of CUMBERLAND AV FRANKLIN ST	9	4	0	1	0	0	3	25.0	5.618	0.24	1.08	0.62	0.00								
18521	0001A - 12.45	Int of FOX ST FRANKLIN ST	9	26	0	0	3	7	16	38.5	10.480	0.83	0.97	0.62	0.00								
19000	0001A - 12.55	Int of FRANKLIN ST FRANKLIN ST ART MARGINAL WAY N	9	47	0	2	5	9	31	34.0	13.389	1.17	0.93	0.62	1.26								
63230	0001A - 12.58	Int of FRANKLIN ST RAMP C ON FROM FRANKLIN ST ART	2	1	0	0	0	0	1	0.0	5.070	0.07	0.32	0.12	0.00								
19199	0001A - 12.88	Int of I295 NB RAMP C ON FROM FRANKLIN ST ART	2	3	0	0	0	3	0	100.0	12.768	0.08	0.25	0.12	0.00								
19222	001AS - 0.80	Int of I295 SB RAMP OFF TO FRANKLIN ST ART	2	1	0	0	0	0	1	0.0	12.432	0.03	0.25	0.12	0.00								
12749	001AS - 1.11	Int of FRANKLIN ST, RAMP OFF TO FRANKLIN ST ART	2	0	0	0	0	0	0	0.0	2.606	0.00	0.38	0.12	0.00								
19197	001AS - 1.18	Int of FRANKLIN ST RAMP A OFF TO FRANKLIN ST ART	9	13	0	0	2	4	7	46.2	4.756	0.91	1.12	0.62	0.00								
18522	001AS - 1.23	Int of FRANKLIN ST FRANKLIN ST ART	2	0	0	0	0	0	0	0.0	4.505	0.00	0.35	0.13	0.00								
18520	001AS - 1.56	Int of CUMBERLAND AV FRANKLIN ST	9	14	0	0	2	3	9	35.7	6.145	0.76	1.07	0.62	0.00								
18519	001AS - 1.65	Int of CONGRESS ST, FRANKLIN ST	9	17	0	1	3	2	11	35.3	6.788	0.83	1.04	0.62	0.00								
<b>Study Years: 3.00</b>			<b>NODE TOTALS:</b>										159	0	5	19	34	101	36.5	103.135	0.51	0.53	0.96

*ck*

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	A	B	C	PD	Injury	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
15397	18517	3123025	0 - 0.08	0001A - 11.81 US 1A	0.08	2	0	0	0	0	0	0.0	0.0	0.00074	0.00	684.34	0.00
Int of COMMERCIAL ST, FRANKLIN ST, STATE PIER																	
18517	18518	3118954	0 - 0.06	0001A - 11.89 US 1A	0.06	2	0	0	0	0	0	0.0	0.0	0.00083	0.00	667.42	0.00
Int of FORE ST, FRANKLIN ST																	
18518	63225	3121455	0 - 0.16	0001A - 11.95 US 1A	0.16	2	0	0	0	0	0	0.0	0.0	0.00300	0.00	485.78	0.00
Int of FRANKLIN ST, MIDDLE ST																	
63225	63224	2566764	0 - 0.09	0001A - 12.11 US 1A	0.09	2	0	0	0	0	0	0.0	0.0	0.00260	0.00	504.09	0.00
Int of CONGRESS ST, FRANKLIN ST																	
63224	18521	3115975	0 - 0.25	0001A - 12.20 US 1A	0.25	2	0	0	0	0	0	0.0	0.0	0.00911	0.00	368.31	0.00
Int of CUMBERLAND AV, FRANKLIN ST																	
63230	19199	3115976	0 - 0.30	0001A - 12.28 US 1A	0.30	2	1	0	0	0	1	0.0	0.0	0.00818	40.75	187.33	0.00
Int of FRANKLIN ST, RAMP C ON FROM FRANKLIN ST ART																	
18521	19000	3139409	0 - 0.10	0001A - 12.45 US 1A	0.10	2	1	0	0	1	0	100.0	0.0	0.00500	66.72	426.22	0.00
Int of FOX ST, FRANKLIN ST																	
19000	63230	3139410	0 - 0.03	0001A - 12.55 US 1A	0.03	2	0	0	0	0	0	0.0	0.0	0.00152	0.00	279.68	0.00
Int of FRANKLIN ST, FRANKLIN ST ART MARGINAL WAY MARGINAL WAY																	
12749	19222	3106210	0 - 0.31	001AS - 0.80 US 1AS	0.31	2	1	0	0	0	1	0.0	0.0	0.00808	41.26	187.93	0.00
Int of FRANKLIN ST, RAMP OFF TO FRANKLIN ST ART																	
12749	19197	3117263	0 - 0.07	001AS - 1.11 US 1AS	0.07	2	0	0	0	0	0	0.0	0.0	0.00182	0.00	270.16	0.00
Int of FRANKLIN ST, RAMP OFF TO FRANKLIN ST ART																	
19000	19197	3117265	0 - 0.03	001AS - 1.15 US 1AS	0.03	2	2	0	0	0	2	0.0	0.0	0.00143	467.25	282.81	1.65
Int of FRANKLIN ST, FRANKLIN ST ART MARGINAL WAY MARGINAL WAY																	
18521	18522	3106673	0 - 0.09	001AS - 1.14 US 1AS	0.09	2	0	0	0	0	0	0.0	0.0	0.00405	0.00	449.41	0.00
Int of FOX ST, FRANKLIN ST																	
18522	19000	3106674	0 - 0.02	001AS - 1.21 US 1AS	0.02	2	0	0	0	0	0	0.0	0.0	0.00090	0.00	655.43	0.00
Int of FRANKLIN ST, FRANKLIN ST ART																	
18520	18521	3106672	0 - 0.24	001AS - 1.32 US 1AS	0.24	2	4	0	0	0	4	0.0	0.0	0.00840	158.66	375.39	0.00
Int of CUMBERLAND AV, FRANKLIN ST																	
18518	18519	3106668	0 - 0.16	001AS - 1.49 US 1AS	0.16	2	0	0	0	0	0	0.0	0.0	0.00322	0.00	476.97	0.00
Int of FRANKLIN ST, MIDDLE ST																	
18519	18520	3106670	0 - 0.09	001AS - 1.56 US 1AS	0.09	2	1	0	0	0	1	0.0	0.0	0.00285	116.98	492.21	0.00
Int of CONGRESS ST, FRANKLIN ST																	
18517	18518	3118912	0 - 0.06	001AS - 1.81 US 1AS	0.06	2	0	0	0	0	0	0.0	0.0	0.00083	0.00	667.80	0.00
Int of FORE ST, FRANKLIN ST																	
15397	18517	3100256	0 - 0.08	001AS - 1.87 US 1AS	0.08	2	2	0	0	1	0	50.0	0.0	0.00075	884.58	681.09	1.30
Int of COMMERCIAL ST, FRANKLIN ST, STATE PIER																	

### Crash Summary I

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	Sections					Annual HMVM	Crash Rate	Critical Rate	CRF	
							K	A	B	C	PD					Percent Injury
PIER																
<b>Study Years:</b>		3.00			2.22	12	0	0	2	0	10	16.7	0.06331	63.18	210.38	0.30
<b>Grand Totals:</b>					2.22	171	0	5	21	34	111	35.1	0.06331	900.31	305.34	2.95



Maine Department Of Transportation - Traffic Engineering, Crash Records Section

**Crash Summary**

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes			Crash Report	Crash Date	Crash Mile Point	Injury Degree
						K	A	B				
15397	18517	3123025	0 - 0.08	0001A - 11.81	0	0	0	0	0			
18517	18518	3118954	0 - 0.06	0001A - 11.89	0	0	0	0	0			
18518	63225	3121455	0 - 0.16	0001A - 11.95	0	0	0	0	0			
63225	63224	2566764	0 - 0.09	0001A - 12.11	0	0	0	0	0			
63224	18521	3115975	0 - 0.25	0001A - 12.20	0	0	0	0	0			
18521	19000	3139409	0 - 0.10	0001A - 12.45	1	0	0	1	0	2011-8094	08/17/2011	12.46 B
19000	63230	3139410	0 - 0.03	0001A - 12.55	0	0	0	0	0			
63230	19199	3115976	0 - 0.30	0001A - 12.58	1	0	0	0	1	2011-5586	07/22/2011	12.78 PD
12749	19222	3106210	0 - 0.31	001AS - 0.80	1	0	0	0	1	2010-30490C	12/28/2010	1 PD
12749	19197	3117263	0 - 0.07	001AS - 1.11	0	0	0	0	0			
19000	19197	3117265	0 - 0.03	001AS - 1.18	2	0	0	0	2	2011-5288C 2012-250	03/07/2011 01/07/2012	1.19 PD 1.20 PD
18522	19000	3106674	0 - 0.02	001AS - 1.21	0	0	0	0	0			
18521	18522	3106673	0 - 0.09	001AS - 1.23	0	0	0	0	0			
18520	18521	3106672	0 - 0.24	001AS - 1.32	4	0	0	0	4	2012-28436	05/17/2012	1.38 PD
										2012-36161	08/21/2012	1.43 PD
										2010-3537C	02/06/2010	1.43 PD
										2010-24476C	11/09/2010	1.55 PD
18519	18520	3106670	0 - 0.09	001AS - 1.56	1	0	0	0	1	2012-46522	12/06/2012	1.61 PD
18518	18519	3106668	0 - 0.16	001AS - 1.65	0	0	0	0	0			
18517	18518	3118912	0 - 0.06	001AS - 1.81	0	0	0	0	0			
15397	18517	3100256	0 - 0.08	001AS - 1.87	2	0	0	1	1	2011-22166	08/08/2011	1.91 B
										2012-22212	02/21/2012	1.91 PD

Totals: 12 0 0 2 0 10

Maine Department Of Transportation - Traffic Engineering, Crash Records Section  
**Crash Summary II - Characteristics**

**Crashes by Day and Hour**

Day Of Week	Hour of Day												Un	Tot												
	AM						PM																			
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
SUNDAY	0	1	0	0	0	0	0	0	1	0	2	4	0	0	1	0	1	1	1	1	0	0	1	0	14	
MONDAY	0	0	0	0	1	0	0	0	1	1	2	2	0	1	1	0	4	2	2	0	0	1	0	0	18	
TUESDAY	0	0	0	0	0	0	0	1	2	2	0	5	3	3	1	5	2	3	1	2	1	1	0	0	32	
WEDNESDAY	0	0	0	0	0	1	1	4	3	2	1	1	1	2	0	3	1	2	1	1	0	2	1	0	27	
THURSDAY	1	0	0	0	0	0	0	2	3	1	0	0	2	3	0	2	2	6	0	2	0	0	0	0	24	
FRIDAY	1	1	0	0	0	0	0	1	2	2	1	4	2	1	4	4	4	2	1	0	0	1	0	2	33	
SATURDAY	0	3	0	0	0	0	0	0	1	0	1	5	1	0	2	1	3	2	1	0	1	0	2	0	23	
<b>Totals</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>8</b>	<b>13</b>	<b>8</b>	<b>7</b>	<b>21</b>	<b>9</b>	<b>10</b>	<b>9</b>	<b>15</b>	<b>17</b>	<b>18</b>	<b>7</b>	<b>5</b>	<b>2</b>	<b>6</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>171</b>

**Vehicle Counts by Type**

Unit Type	Total	Unit Type	Total
1-Passenger Car	227	23-Bicyclist	3
2-(Sport) Utility Vehicle	58	24-Witness	33
3-Passenger Van	16	25-Other	4
4-Cargo Van (10K lbs or Less)	2	<b>Total</b>	<b>382</b>
5-Pickup	30		
6-Motor Home	0		
7-School Bus	0		
8-Transit Bus	0		
9-Motor Coach	1		
10-Other Bus	0		
11-Motorcycle	0		
12-Moped	1		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	1		
17-Medium/Heavy Trucks (More than 10,000 lbs)	5		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	1		

Maine Department Of Transportation - Traffic Engineering, Crash Records Section  
**Crash Summary II - Characteristics**

**Crashes by Driver Action at Time of Crash**

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	41	58	3	1	0	0	103
Ran Off Roadway	1	0	0	0	0	0	1
Failed to Yield Right-of-Way	22	15	0	0	0	0	37
Ran Red Light	8	10	0	0	0	0	18
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	1	0	0	0	0	0	1
Drove Too Fast For Conditions	3	0	0	0	0	0	3
Improper Turn	2	1	0	0	0	0	3
Improper Backing	0	0	0	0	0	0	0
Improper Passing	2	1	0	0	0	0	3
Wrong Way	1	0	0	0	0	0	1
Followed Too Closely	16	8	0	0	0	0	24
Failed to Keep in Proper Lane	4	1	0	0	0	0	5
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	2	1	2	0	0	0	5
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	2	0	0	0	0	2
Over-Correcting/Over-Steering	1	0	0	0	0	0	1
Other Contributing Action	7	1	0	0	0	0	8
Unknown	3	5	0	0	0	0	8
<b>Total</b>	<b>114</b>	<b>103</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>223</b>

**Crashes by Apparent Physical Condition And Driver**

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	166	153	7	2	0	3	331
Physically Impaired or Handicapped	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	1	1
Ill (Sick)	0	1	0	0	0	0	1
Asleep or Fatigued	1	0	0	0	0	0	1
Under the Influence of Medications/Drugs/Alcohol	1	2	1	0	0	0	4
Other	2	1	0	0	0	0	3
<b>Total</b>	<b>170</b>	<b>157</b>	<b>8</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>341</b>

**Driver Age by Unit Type**

Age	Driver	Bicycle	Snow/Mobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	25	0	0	0	0	25
20-24	35	0	0	0	0	35
25-29	43	0	0	0	0	43
30-39	63	0	0	0	0	63
40-49	59	0	0	0	0	59
50-59	48	0	0	0	0	48
60-69	47	0	0	0	0	47
70-79	10	0	0	0	0	10
80-Over	6	0	0	0	0	6
Unknown	9	3	0	1	0	13
<b>Total</b>	<b>345</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>349</b>

Maine Department Of Transportation - Traffic Engineering, Crash Records Section  
**Crash Summary II - Characteristics**

Most Harmful Event		Injury Data	
Most Harmful Event	Total	Severity Code	Number Of Injuries
1-Overturn / Rollover	1	K	0
2-Fire / Explosion	0	A	5
3-Immersion	0	B	21
4-Jackknife	0	C	34
5-Cargo / Equipment Loss Or Shift	0	PD	111
6-Fell / Jumped from Motor Vehicle	0	<b>Total</b>	<b>171</b>
7-Thrown or Falling Object	0		
8-Other Non-Collision	2		
9-Pedestrian	0		
10-Pedalcycle	1		
11-Railway Vehicle - Train, Engine	0		
12-Animal	0		
13-Motor Vehicle in Transport	167		
14-Parked Motor Vehicle	0		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	2		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	1		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	0		
33-Traffic Sign Support	0		
34-Traffic Signal Support	1		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		
<b>Total</b>	<b>187</b>		<b>83</b>

Road Character	
Road Grade	Total
1-Level	118
2-On Grade	37
3-Top of Hill	4
4-Bottom of Hill	12
5-Other	0
<b>Total</b>	<b>171</b>

Traffic Control Devices	
Traffic Control Device	Total
1-Traffic Signals (Stop & Go)	145
2-Traffic Signals (Flashing)	11
3-Advisory/Warning Sign	1
4-Stop Signs - All Approaches	0
5-Stop Signs - Other	1
6-Yield Sign	3
7-Curve Warning Sign	0
8-Officer, Flagman, School Patrol	0
9-School Bus Stop Arm	0
10-School Zone Sign	0
11-R.R. Crossing Device	0
12-No Passing Zone	0
13-None	10
14-Other	0
<b>Total</b>	<b>171</b>

Light Condition	
Light Condition	Total
1-Daylight	124
2-Dawn	2
3-Dusk	5
4-Dark - Lighted	38
5-Dark - Not Lighted	1
6-Dark - Unknown Lighting	1
7-Unknown	0
<b>Total</b>	<b>171</b>

Maine Department Of Transportation - Traffic Engineering, Crash Records Section  
**Crash Summary II - Characteristics**

**Crashes by Year and Month**

Month	2010	2011	2012	Total
JANUARY	2	4	6	12
FEBRUARY	2	8	2	12
MARCH	3	6	6	15
APRIL	5	2	2	9
MAY	2	3	8	13
JUNE	1	8	7	16
JULY	3	2	9	14
AUGUST	4	7	7	18
SEPTEMBER	4	6	4	14
OCTOBER	3	1	4	8
NOVEMBER	8	3	4	15
DECEMBER	10	4	11	25
<b>Total</b>	<b>47</b>	<b>54</b>	<b>70</b>	<b>171</b>

Report is limited to the last 10 years of data.

Maine Department Of Transportation - Traffic Engineering, Crash Records Section  
**Crash Summary II - Characteristics**

**Crashes by Crash Type and Type of Location**

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	1	0	1	0	0	0	0	0	0	0	0	0	2
Rear End / Sideswipe	9	0	6	68	0	0	0	4	1	0	0	0	0	88
Head-on / Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	6	67	0	0	0	0	0	0	0	0	0	73
Pedestrians	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	1	0	1	2	0	0	0	0	0	0	0	0	0	4
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	1	2	0	0	0	0	0	0	0	0	0	3
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>10</b>	<b>1</b>	<b>14</b>	<b>141</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>171</b>



Maine Department of Transportation - Traffic Engineering, Crash Records Section  
**Crash Summary II - Characteristics**  
**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
<b>Blowing Sand, Soil, Dirt</b>												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
<b>Blowing Snow</b>												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
<b>Clear</b>												
Dark - Lighted	19	0	0	0	0	0	0	2	0	0	1	22
Dark - Not Lighted	0	0	0	0	0	0	0	1	0	0	0	1
Dark - Unknown Lighting	1	0	0	0	0	0	0	0	0	0	0	1
Dawn	0	0	0	0	0	0	0	1	0	0	0	1
Daylight	85	0	0	0	0	0	0	0	0	0	7	92
Dusk	4	0	0	0	0	0	0	0	0	0	0	4
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
<b>Cloudy</b>												
Dark - Lighted	2	0	0	0	0	0	0	0	0	0	2	4
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	1	0	0	0	0	0	0	0	0	0	0	1
Daylight	12	0	0	0	0	0	0	0	0	0	5	17
Dusk	1	0	0	0	0	0	0	0	0	0	0	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Maine Department Of Transportation - Traffic Engineering, Crash Records Section  
**Crash Summary II - Characteristics**  
**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
<b>Fog, Smog, Smoke</b>												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
<b>Other</b>												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
<b>Rain</b>												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	9	9
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	9	9
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
<b>Severe Crosswinds</b>												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0



Maine Department Of Transportation - Traffic Engineering, Crash Records Section  
**Crash Summary II - Characteristics**

**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
<b>Sleet, Hail (Freezing Rain or Drizzle)</b>												
Dark - Lighted	0	0	0	0	0	0	0	1	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	1	0	0	0	0	0	0	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
<b>Snow</b>												
Dark - Lighted	0	0	0	0	0	0	1	1	0	0	0	2
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	1	0	0	0	0	0	2	0	0	2	5
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>125</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>171</b>



DRAFT



# APPENDIX E: SYNCHRO ANALYSIS

## EXISTING AM CONDITION

Baseline

8/27/2013

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:25	4:25	4:25	4:25	4:25	4:25
End Time	5:30	5:30	5:30	5:30	5:30	5:30
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded mScheduledIntervals	1	1	1	1	1	1
Vehs Entered	4870	5004	5056	4979	4869	4957
Vehs Exited	4824	4872	4980	4887	4847	4882
Starting Vehs	171	166	160	166	170	161
Ending Vehs	217	298	236	258	192	232
Travel Distance (mi)	2177	2234	2297	2211	2224	2228
Travel Time (hr)	183.3	269.2	208.4	297.2	188.6	229.4
Total Delay (hr)	107.5	191.3	128.2	220.0	111.0	151.6
Total Stops	8958	9669	9619	9432	9211	9377
Fuel Used (gal)	116.6	138.9	125.7	143.6	118.8	128.7

Interval #0 Information Seeding

Start Time	4:25
End Time	4:30
Total Time (min)	5
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:30
End Time	5:30
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	4870	5004	5056	4979	4869	4957
Vehs Exited	4824	4872	4980	4887	4847	4882
Starting Vehs	171	166	160	166	170	161
Ending Vehs	217	298	236	258	192	232
Travel Distance (mi)	2177	2234	2297	2211	2224	2228
Travel Time (hr)	183.3	269.2	208.4	297.2	188.6	229.4
Total Delay (hr)	107.5	191.3	128.2	220.0	111.0	151.6
Total Stops	8958	9669	9619	9432	9211	9377
Fuel Used (gal)	116.6	138.9	125.7	143.6	118.8	128.7

**Baseline****4: Performance by approach**

Approach	WB	SE	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	4.0	6.6	5.9
Stop Del/Veh (s)	1.1	0.1	0.4

**5: Somerset/Fox & Franklin Performance by approach**

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	1.9	2.4	0.4
Total Del/Veh (s)	22.3	13.3	36.7	31.7	22.2
Stop Del/Veh (s)	13.2	10.2	34.1	27.8	15.3

**6: Marginal & Franklin Performance by approach**

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.2	0.0	0.2	0.2	0.1
Total Del/Veh (s)	22.0	28.7	33.3	24.8	25.3
Stop Del/Veh (s)	18.8	23.0	29.1	22.0	21.4

**9: Off Ramp Performance by approach**

Approach	EB	SE	NW	All
Denied Del/Veh (s)	6.5	48.7	0.0	24.5
Total Del/Veh (s)	143.7	94.3	2.2	78.4
Stop Del/Veh (s)	136.8	80.5	0.1	69.6

**11: Commercial & Franklin Performance by approach**

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	2.1	1.5	0.5	0.8
Total Del/Veh (s)	9.9	20.2	12.5	14.7	12.9
Stop Del/Veh (s)	7.2	18.2	9.3	9.8	9.4

**38: Fore & Franklin/Franklin St. Art. Performance by approach**

Approach	NB	SE	NW	SW	All
Denied Del/Veh (s)	2.2	0.0	0.0	0.2	0.4
Total Del/Veh (s)	11.0	8.6	8.1	12.7	9.7
Stop Del/Veh (s)	9.9	4.6	5.4	10.6	6.8

Baseline

43: Middle St. & Franklin St. Art./Franklin NB Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.9	0.1
Total Del/Veh (s)	5.7	6.0	14.2	12.8	7.5
Stop Del/Veh (s)	4.6	3.6	10.8	9.4	5.6

44: Congress St. & Franklin SB Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	2.9	0.0	0.4
Total Del/Veh (s)	20.6	24.2	5.0	18.4
Stop Del/Veh (s)	12.2	19.8	2.8	11.5

46: Cumberland Ave. & Franklin SB Performance by approach

Approach	SB	NE	SW	All
Denied Del/Veh (s)	0.0	3.5	0.0	0.3
Total Del/Veh (s)	12.3	17.6	7.2	12.2
Stop Del/Veh (s)	4.9	13.8	4.9	5.6

122: Congress St. & Franklin NB Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	3.8	1.5
Total Del/Veh (s)	9.4	14.1	67.3	34.4
Stop Del/Veh (s)	7.1	12.1	59.0	29.7

123: Franklin NB Performance by approach

Approach	EB	NW	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	6.4	0.7	4.9
Stop Del/Veh (s)	1.2	0.3	0.9

124: Cumberland Ave. & Franklin NB Performance by approach

Approach	NB	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	3.2	1.0
Total Del/Veh (s)	7.2	12.6	17.5	11.6
Stop Del/Veh (s)	4.4	10.5	13.2	8.5



Baseline

8/27/2013

Total Network Performance

---

Denied Del/Veh (s)	14.0
Total Del/Veh (s)	93.1
Stop Del/Veh (s)	72.3

**Baseline**

**Intersection: 4:**

Movement	WB	WB	SE	SE
Directions Served	R	R	R	R
Maximum Queue (ft)	7	6	27	64
Average Queue (ft)	0	0	1	4
95th Queue (ft)	5	4	14	32
Link Distance (ft)	768	768	376	376
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

**Intersection: 5: Somerset/Fox & Franklin**

Movement	SE	SE	SE	NW	NW	NW	NE	NE	NE	SW	SW
Directions Served	L	T	TR	L	T	TR	L	L	TR	LT	R
Maximum Queue (ft)	141	412	444	58	175	146	89	75	68	147	166
Average Queue (ft)	41	175	199	13	81	54	35	28	22	74	82
95th Queue (ft)	97	314	343	39	145	108	71	61	54	129	138
Link Distance (ft)		472	472		376	376		487	487	563	
Upstream Blk Time (%)		0	0								
Queuing Penalty (veh)		0	1								
Storage Bay Dist (ft)	300			230			200				200
Storage Blk Time (%)			1								
Queuing Penalty (veh)			1								

**Intersection: 6: Marginal & Franklin**

Movement	SE	SE	SE	SE	NW	NW	NW	NE	NE	SW	SW
Directions Served	L	T	T	R	L	T	TR	LT	R	LT	R
Maximum Queue (ft)	136	190	210	198	187	282	223	203	259	100	116
Average Queue (ft)	61	148	189	151	99	141	108	104	125	45	44
95th Queue (ft)	115	176	212	207	164	237	191	174	212	85	90
Link Distance (ft)	142	142	142	142		472	472	862	862	609	609
Upstream Blk Time (%)	0	15	35	18							
Queuing Penalty (veh)	1	66	162	81							
Storage Bay Dist (ft)					325						
Storage Blk Time (%)						0					
Queuing Penalty (veh)						0					



Baseline

8/27/2013

Intersection: 9: Off Ramp

Movement	EB	EB	SE	SE	SE
Directions Served	R	R	T	T	T
Maximum Queue (ft)	947	926	225	714	774
Average Queue (ft)	569	452	127	521	547
95th Queue (ft)	1103	1096	288	870	878
Link Distance (ft)	1096	1096		745	745
Upstream Blk Time (%)	9	6		19	31
Queuing Penalty (veh)	0	0		0	0
Storage Bay Dist (ft)			200		
Storage Blk Time (%)			0	50	
Queuing Penalty (veh)			1	204	

Intersection: 11: Commercial & Franklin

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	LT	R
Maximum Queue (ft)	56	60	114	47	70	43	73	108	43	180	38
Average Queue (ft)	17	15	53	12	22	13	25	43	10	81	10
95th Queue (ft)	42	43	98	38	55	42	55	84	31	144	33
Link Distance (ft)		298	298		134			299		384	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			25		25	160		160		150
Storage Blk Time (%)				6	12	6		0		0	
Queuing Penalty (veh)				2	3	2		0		0	

Intersection: 38: Fore & Franklin/Franklin St. Art.

Movement	NB	NB	SE	SE	NW	NW	SW
Directions Served	L	R>	LT	TR	LT	TR	<LR
Maximum Queue (ft)	62	81	118	158	31	29	107
Average Queue (ft)	22	31	37	65	8	3	51
95th Queue (ft)	48	62	82	128	23	15	88
Link Distance (ft)	194		251	251	298	298	289
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		75					
Storage Blk Time (%)	0	0					
Queuing Penalty (veh)	0	0					

**Baseline**

**Intersection: 122: Congress St. & Franklin NB**

Movement	NW	NW	NE	NE	SW	SW
Directions Served	LT	TR	L	T	T	TR
Maximum Queue (ft)	87	78	99	98	419	175
Average Queue (ft)	41	37	50	53	198	161
95th Queue (ft)	75	71	93	96	474	202
Link Distance (ft)	623	623	95	95	491	
Upstream Blk Time (%)			1	2	2	
Queuing Penalty (veh)			1	4	0	
Storage Bay Dist (ft)						150
Storage Blk Time (%)					0	44
Queuing Penalty (veh)					1	58

**Intersection: 123: Franklin NB**

Movement	EB	EB	NW
Directions Served	R	R	R
Maximum Queue (ft)	88	198	6
Average Queue (ft)	7	59	0
95th Queue (ft)	45	151	4
Link Distance (ft)	632	632	106
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

**Intersection: 124: Cumberland Ave. & Franklin NB**

Movement	NB	NB	NE	NE	SW	SW
Directions Served	LT	TR	L	T	T	TR
Maximum Queue (ft)	113	85	53	86	73	158
Average Queue (ft)	50	33	16	37	10	81
95th Queue (ft)	90	73	44	76	44	148
Link Distance (ft)	421	421	104	104	1167	
Upstream Blk Time (%)				0		
Queuing Penalty (veh)				0		
Storage Bay Dist (ft)						150
Storage Blk Time (%)						1
Queuing Penalty (veh)						1

**Network Summary**

Network wide Queuing Penalty: 620



Baseline

8/27/2013

Intersection: 5: Somerset/Fox & Franklin

Phase	1	2	4	5	6	8
Movement(s) Served	SEL	NWT	NETL	NWL	SET	SWTL
Maximum Green (s)	10.0	34.0	4.0	4.0	40.0	8.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Recall	C-Min	Min	None	C-Min	Min	None
Avg. Green (s)	9.5	35.6	4.1	6.8	38.2	8.0
g/C Ratio	NA	NA	-0.01	NA	NA	NA
Cycles Skipped (%)	0	0	7	0	0	0
Cycles @ Minimum (%)	16	0	93	76	0	0
Cycles Maxed Out (%)	100	87	93	100	87	95
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Intersection: 6: Marginal & Franklin

Phase	1	2	4	5	6	7	8
Movement(s) Served	SEL	NWT	NETL	NWL	SET	NEL	SWTL
Maximum Green (s)	10.0	32.0	20.0	9.0	33.0	4.0	10.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Recall	None	None	C-Min	None	Min	None	None
Avg. Green (s)	22.1	29.2	20.2	9.8	33.1	0.0	19.8
g/C Ratio	-0.01	-0.01	-0.01	-0.01	NA	-0.01	-0.01
Cycles Skipped (%)	30	5	2	4	0	100	7
Cycles @ Minimum (%)	0	0	0	0	0	0	0
Cycles Maxed Out (%)	68	32	98	49	95	0	91
Cycles with Peds (%)	0	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Baseline

Intersection: 9: Off Ramp

Phase	2	4
Movement(s) Served	NWT	NWSE
Maximum Green (s)	36.0	32.0
Minimum Green (s)	4.0	4.0
Recall	C-Min	None
Avg. Green (s)	36.2	32.5
g/C Ratio	NA	NA
Cycles Skipped (%)	0	0
Cycles @ Minimum (%)	0	0
Cycles Maxed Out (%)	100	100
Cycles with Peds (%)	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 11: Commercial & Franklin

Phase	2	4	5	6	8
Movement(s) Served	NBT	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	27.0	11.0	4.0	17.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0
Recall	None	None	None	None	None
Avg. Green (s)	14.3	8.5	4.6	10.2	4.0
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	41	45	50	32	70
Cycles @ Minimum (%)	0	2	44	0	30
Cycles Maxed Out (%)	4	17	50	7	30
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0



## Baseline

## Intersection: 38: Fore &amp; Franklin/Franklin St. Art.

Phase	2	4	6	8
Movement(s) Served	NWTL	NBL	SETL	SWL
Maximum Green (s)	28.0	20.0	28.0	20.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	Min	None	Min	None
Avg. Green (s)	14.1	9.8	14.1	10.0
g/C Ratio	NA	-0.01	NA	-0.01
Cycles Skipped (%)	0	29	0	31
Cycles @ Minimum (%)	10	0	10	0
Cycles Maxed Out (%)	8	3	8	3
Cycles with Peds (%)	0	0	0	0

## Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

## Intersection: 43: Middle St. &amp; Franklin St. Art./Franklin NB

Phase	2	3	6
Movement(s) Served	SETL	NESW	NWTL
Maximum Green (s)	31.0	17.0	31.0
Minimum Green (s)	4.0	4.0	4.0
Recall	Min	None	Min
Avg. Green (s)	22.7	9.1	22.7
g/C Ratio	NA	NA	NA
Cycles Skipped (%)	0	0	0
Cycles @ Minimum (%)	1	0	1
Cycles Maxed Out (%)	35	7	35
Cycles with Peds (%)	0	0	0

## Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Baseline

Intersection: 44: Congress St. & Franklin SB

Phase	1	2	3
Movement(s) Served	SETL	NESW	SWTL
Maximum Green (s)	40.0	16.0	6.0
Minimum Green (s)	4.0	4.0	4.0
Recall	Min	None	None
Avg. Green (s)	36.0	16.1	4.7
g/C Ratio	NA	NA	-0.01
Cycles Skipped (%)	0	0	18
Cycles @ Minimum (%)	0	0	33
Cycles Maxed Out (%)	65	98	12
Cycles with Peds (%)	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 46: Cumberland Ave. & Franklin SB

Phase	1	2	3
Movement(s) Served	SBTL	NESW	SWTL
Maximum Green (s)	43.0	14.0	5.0
Minimum Green (s)	4.0	4.0	4.0
Recall	Min	None	None
Avg. Green (s)	33.7	12.4	4.6
g/C Ratio	-0.01	-0.01	-0.01
Cycles Skipped (%)	5	6	75
Cycles @ Minimum (%)	0	0	15
Cycles Maxed Out (%)	44	56	8
Cycles with Peds (%)	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0



# EXISTING PM CONDITION

### Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:25	4:25	4:25	4:25	4:25	4:25
End Time	5:30	5:30	5:30	5:30	5:30	5:30
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded mScheduledIntervals	1	1	1	1	1	1
Vehs Entered	5981	6059	5917	5834	5937	5945
Vehs Exited	5841	5888	5619	5354	5776	5694
Starting Vehs	206	237	246	200	230	223
Ending Vehs	346	408	544	680	391	467
Travel Distance (mi)	2522	2581	2468	2359	2581	2502
Travel Time (hr)	492.3	470.8	643.3	690.0	562.3	571.7
Total Delay (hr)	403.5	379.8	556.3	607.0	471.3	483.6
Total Stops	11727	12775	13464	13047	12944	12792
Fuel Used (gal)	199.5	195.6	229.8	236.1	216.7	215.5

### Interval #0 Information Seeding

Start Time	4:25
End Time	4:30
Total Time (min)	5
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

### Interval #1 Information Recording

Start Time	4:30
End Time	5:30
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	5981	6059	5917	5834	5937	5945
Vehs Exited	5841	5888	5619	5354	5776	5694
Starting Vehs	206	237	246	200	230	223
Ending Vehs	346	408	544	680	391	467
Travel Distance (mi)	2522	2581	2468	2359	2581	2502
Travel Time (hr)	492.3	470.8	643.3	690.0	562.3	571.7
Total Delay (hr)	403.5	379.8	556.3	607.0	471.3	483.6
Total Stops	11727	12775	13464	13047	12944	12792
Fuel Used (gal)	199.5	195.6	229.8	236.1	216.7	215.5



#### 4: Performance by approach

Approach	WB	SE	All
Denied Del/Veh (s)	7.3	0.1	4.3
Total Del/Veh (s)	92.8	11.5	59.3
Stop Del/Veh (s)	82.2	7.4	51.4

#### 5: Somerset/Fox & Franklin Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.7	728.1	1018.9	195.6
Total Del/Veh (s)	34.5	76.7	380.4	1177.8	116.0
Stop Del/Veh (s)	28.1	67.8	376.3	1174.8	108.8

#### 6: Marginal & Franklin Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	1.7	1.3	36.5	0.2	9.3
Total Del/Veh (s)	40.6	77.6	137.1	24.4	73.2
Stop Del/Veh (s)	38.2	64.7	129.7	21.2	66.0

#### 9: Performance by approach

Approach	EB	SE	NW	All
Denied Del/Veh (s)	18.9	10.1	0.1	7.0
Total Del/Veh (s)	126.0	117.6	3.1	57.7
Stop Del/Veh (s)	115.5	109.5	0.1	51.7

#### 11: Commercial & Franklin Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	2.5	2.1	0.7	1.3
Total Del/Veh (s)	11.8	22.9	14.7	16.9	15.2
Stop Del/Veh (s)	9.2	21.2	11.1	12.0	11.6

#### 38: Franklin/Franklin St. Art. & Fore Performance by approach

Approach	NB	SE	NW	SW	All
Denied Del/Veh (s)	2.6	0.0	0.0	0.3	0.8
Total Del/Veh (s)	9.7	12.1	10.0	12.5	10.9
Stop Del/Veh (s)	8.3	8.1	6.9	10.1	8.3

**43: Middle St. & Franklin St. Art./Franklin NB Performance by approach**

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.3	1.8	0.3
Total Del/Veh (s)	10.0	11.5	13.1	8.9	11.1
Stop Del/Veh (s)	8.9	7.8	8.6	6.8	8.2

**44: Congress St. & Franklin SB Performance by approach**

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	3.8	0.0	1.3
Total Del/Veh (s)	28.4	39.6	4.4	28.0
Stop Del/Veh (s)	21.3	33.2	2.4	22.0

**46: Cumberland Ave. & Franklin SB Performance by approach**

Approach	SB	NE	SW	All
Denied Del/Veh (s)	0.0	66.4	0.0	16.9
Total Del/Veh (s)	35.8	66.9	7.3	39.3
Stop Del/Veh (s)	30.0	62.3	5.0	34.3

**122: Congress St. & Franklin NB Performance by approach**

Approach	NW	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	3.6	0.9
Total Del/Veh (s)	20.6	12.7	33.7	21.1
Stop Del/Veh (s)	15.9	10.8	27.2	17.0

**123: Franklin NB Performance by approach**

Approach	EB	NW	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	5.3	1.1	2.8
Stop Del/Veh (s)	1.2	0.2	0.6

**124: Cumberland Ave. & Franklin NB Performance by approach**

Approach	NB	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	5.0	0.8
Total Del/Veh (s)	31.8	22.8	100.4	41.3
Stop Del/Veh (s)	24.8	20.7	97.1	36.1



---

### Total Network Performance

---

Denied Del/Veh (s)	102.6
Total Del/Veh (s)	175.1
Stop Del/Veh (s)	154.4

**Intersection: 4:**

Movement	WB	WB	SE	SE
Directions Served	R	R	R	R
Maximum Queue (ft)	715	732	90	89
Average Queue (ft)	463	466	25	25
95th Queue (ft)	976	1002	177	175
Link Distance (ft)	768	768	376	376
Upstream Blk Time (%)	10	17	4	4
Queuing Penalty (veh)	60	101	20	19
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

**Intersection: 5: Somerset/Fox & Franklin**

Movement	SE	SE	SE	NW	NW	NW	NE	NE	NE	SW	SW
Directions Served	L	T	TR	L	T	TR	L	L	TR	LT	R
Maximum Queue (ft)	261	318	338	255	422	415	225	502	502	578	225
Average Queue (ft)	121	195	213	134	381	374	197	451	276	476	190
95th Queue (ft)	219	336	354	312	459	453	285	640	645	783	260
Link Distance (ft)		472	472		376	376		487	487	563	
Upstream Blk Time (%)		3	4		42	43		80	27	76	
Queuing Penalty (veh)		21	23		249	260		0	0	0	
Storage Bay Dist (ft)	300			230			200				200
Storage Blk Time (%)	0	4		0	58		31	82		14	84
Queuing Penalty (veh)	2	7		0	36		55	145		21	66

**Intersection: 6: Marginal & Franklin**

Movement	SE	SE	SE	SE	NW	NW	NW	NE	NE	SW	SW
Directions Served	L	T	T	R	L	T	TR	LT	R	LT	R
Maximum Queue (ft)	190	187	202	193	350	516	503	897	880	168	179
Average Queue (ft)	123	149	185	139	175	421	483	658	439	67	72
95th Queue (ft)	204	182	214	217	312	606	517	1007	998	128	140
Link Distance (ft)	142	142	142	142		472	472	862	862	609	609
Upstream Blk Time (%)	24	18	40	16		19	49	23	21		
Queuing Penalty (veh)	76	58	128	50		153	392	0	0		
Storage Bay Dist (ft)					325						
Storage Blk Time (%)					0	4					
Queuing Penalty (veh)					1	11					



**Intersection: 9:**

Movement	EB	EB	SE	SE	SE	NW	NW
Directions Served	R	R	T	T	T	T	R
Maximum Queue (ft)	986	941	225	605	573	9	53
Average Queue (ft)	651	511	91	283	278	0	2
95th Queue (ft)	1235	1217	222	633	611	6	25
Link Distance (ft)	1096	1096		745	745	142	142
Upstream Blk Time (%)	12	5		7	8		
Queuing Penalty (veh)	0	0		0	0		
Storage Bay Dist (ft)			200				
Storage Blk Time (%)			4	27			
Queuing Penalty (veh)			7	50			

**Intersection: 11: Commercial & Franklin**

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	LT	R
Maximum Queue (ft)	54	67	114	49	68	47	156	191	42	195	77
Average Queue (ft)	15	23	47	18	26	18	72	69	10	83	19
95th Queue (ft)	42	53	94	46	62	49	132	138	30	140	54
Link Distance (ft)		298	298		134			299		384	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			25		25	160		160		150
Storage Blk Time (%)				11	14	10	0	0		1	
Queuing Penalty (veh)				5	5	5	1	1		0	

**Intersection: 38: Franklin/Franklin St. Art. & Fore**

Movement	NB	NB	SE	SE	NW	NW	SW
Directions Served	L	R>	LT	TR	LT	TR	<LR
Maximum Queue (ft)	118	96	104	151	77	74	125
Average Queue (ft)	31	57	35	63	28	15	68
95th Queue (ft)	73	93	76	129	64	48	110
Link Distance (ft)	194		251	251	298	298	289
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		75					
Storage Blk Time (%)	0	3					
Queuing Penalty (veh)	1	4					

**Intersection: 43: Middle St. & Franklin St. Art./Franklin NB**

Movement	SE	SE	NW	NW	NE	SW	SW
Directions Served	LT	TR	LT	TR	LTR	LT	R
Maximum Queue (ft)	126	137	117	121	169	65	62
Average Queue (ft)	56	89	59	57	79	25	19
95th Queue (ft)	113	147	99	99	139	54	45
Link Distance (ft)	106	106	251	251	545	536	
Upstream Blk Time (%)	1	6					
Queuing Penalty (veh)	3	15					
Storage Bay Dist (ft)							50
Storage Blk Time (%)						1	1
Queuing Penalty (veh)						1	0

**Intersection: 44: Congress St. & Franklin SB**

Movement	SE	SE	NE	NE	SW	SW
Directions Served	LT	TR	T	TR	L	T
Maximum Queue (ft)	353	347	396	175	18	62
Average Queue (ft)	147	175	144	121	1	20
95th Queue (ft)	306	331	336	200	7	52
Link Distance (ft)	410	410	393		95	95
Upstream Blk Time (%)	1	0	4			
Queuing Penalty (veh)	3	1	0			
Storage Bay Dist (ft)				150		
Storage Blk Time (%)			11	6		
Queuing Penalty (veh)			26	12		

**Intersection: 46: Cumberland Ave. & Franklin SB**

Movement	SB	SB	NE	NE	SW	SW
Directions Served	LT	TR	T	TR	L	T
Maximum Queue (ft)	481	459	329	124	37	93
Average Queue (ft)	190	188	139	91	8	23
95th Queue (ft)	527	527	414	148	31	66
Link Distance (ft)	782	782	455		104	104
Upstream Blk Time (%)	5	5	17			0
Queuing Penalty (veh)	24	25	0			0
Storage Bay Dist (ft)				100		
Storage Blk Time (%)			19	10		
Queuing Penalty (veh)			37	14		

**Intersection: 122: Congress St. & Franklin NB**

Movement	NW	NW	NE	NE	SW	SW
Directions Served	LT	TR	L	T	T	TR
Maximum Queue (ft)	215	230	111	97	400	175
Average Queue (ft)	115	114	89	59	124	153
95th Queue (ft)	186	190	119	114	345	200
Link Distance (ft)	623	623	95	95	491	
Upstream Blk Time (%)			12	7		
Queuing Penalty (veh)			36	21		
Storage Bay Dist (ft)						150
Storage Blk Time (%)					0	20
Queuing Penalty (veh)					0	20

**Intersection: 123: Franklin NB**

Movement	EB	EB	NW
Directions Served	R	R	R
Maximum Queue (ft)	104	145	4
Average Queue (ft)	5	29	0
95th Queue (ft)	45	102	3
Link Distance (ft)	632	632	106
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

**Intersection: 124: Cumberland Ave. & Franklin NB**

Movement	NB	NB	NE	NE	SW	SW
Directions Served	LT	TR	L	T	T	TR
Maximum Queue (ft)	360	347	115	118	580	174
Average Queue (ft)	204	200	71	60	190	118
95th Queue (ft)	376	374	132	120	721	202
Link Distance (ft)	421	421	104	104	1167	
Upstream Blk Time (%)	2	1	17	3	4	
Queuing Penalty (veh)	8	7	37	6	0	
Storage Bay Dist (ft)						150
Storage Blk Time (%)						28
Queuing Penalty (veh)						24

**Network Summary**

Network wide Queuing Penalty: 2352

**Intersection: 5: Somerset/Fox & Franklin**

Phase	1	2	4	5	6	8
Movement(s) Served	SEL	NWT	NETL	NWL	SET	SWTL
Maximum Green (s)	16.0	47.0	15.0	10.0	53.0	8.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Recall	C-Max	Min	None	C-Max	Min	None
Avg. Green (s)	16.1	47.0	15.3	11.2	51.8	8.0
g/C Ratio	NA	NA	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0	0	0
Cycles Maxed Out (%)	100	97	100	100	69	97
Cycles with Peds (%)	0	0	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

**Intersection: 6: Marginal & Franklin**

Phase	1	2	4	5	6	7	8
Movement(s) Served	SEL	NWT	NETL	NWL	SET	NEL	SWTL
Maximum Green (s)	8.0	42.0	42.0	17.0	33.0	4.0	32.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Recall	None	None	C-Min	None	Min	None	None
Avg. Green (s)	8.5	43.5	42.8	15.0	35.6	0.0	42.8
g/C Ratio	-0.01	NA	NA	NA	NA	-0.01	NA
Cycles Skipped (%)	3	0	0	0	0	100	0
Cycles @ Minimum (%)	0	0	0	0	0	0	0
Cycles Maxed Out (%)	97	100	100	38	97	0	100
Cycles with Peds (%)	0	0	0	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
Number of Complete Cycles : 0



**Intersection: 9:**

Phase	2	4
Movement(s) Served	NWT	NWSE
Maximum Green (s)	67.0	31.0
Minimum Green (s)	4.0	4.0
Recall	C-Min	None
Avg. Green (s)	68.4	30.1
g/C Ratio	NA	NA
Cycles Skipped (%)	0	0
Cycles @ Minimum (%)	0	0
Cycles Maxed Out (%)	100	78
Cycles with Peds (%)	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

**Intersection: 11: Commercial & Franklin**

Phase	2	4	5	6	8
Movement(s) Served	NBT	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	33.0	5.0	11.0	16.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0
Recall	None	None	None	None	None
Avg. Green (s)	21.9	5.0	9.4	10.8	4.0
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	34	39	17	21	55
Cycles @ Minimum (%)	0	0	1	0	45
Cycles Maxed Out (%)	4	61	37	12	45
Cycles with Peds (%)	0	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

**Intersection: 38: Franklin/Franklin St. Art. & Fore**

Phase	2	4	6	8
Movement(s) Served	NWTL	NBL	SETL	SWL
Maximum Green (s)	22.0	26.0	22.0	26.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	Min	None	Min	None
Avg. Green (s)	11.6	14.1	11.6	14.7
g/C Ratio	NA	-0.01	NA	-0.01
Cycles Skipped (%)	0	10	0	23
Cycles @ Minimum (%)	7	0	7	0
Cycles Maxed Out (%)	6	6	6	5
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

**Intersection: 43: Middle St. & Franklin St. Art./Franklin NB**

Phase	2	3	6
Movement(s) Served	SETL	NESW	NWTL
Maximum Green (s)	21.0	27.0	21.0
Minimum Green (s)	4.0	4.0	4.0
Recall	Min	None	Min
Avg. Green (s)	16.0	13.7	16.0
g/C Ratio	NA	NA	NA
Cycles Skipped (%)	0	0	0
Cycles @ Minimum (%)	0	0	0
Cycles Maxed Out (%)	35	8	35
Cycles with Peds (%)	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
Number of Complete Cycles : 0



Intersection: 44: Congress St. & Franklin SB

Phase	1	2	3
Movement(s) Served	SETL	NESW	SWTL
Maximum Green (s)	43.0	29.0	20.0
Minimum Green (s)	4.0	4.0	4.0
Recall	Min	None	None
Avg. Green (s)	33.6	28.6	7.3
g/C Ratio	NA	NA	-0.01
Cycles Skipped (%)	0	0	14
Cycles @ Minimum (%)	0	0	19
Cycles Maxed Out (%)	34	88	0
Cycles with Peds (%)	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 46: Cumberland Ave. & Franklin SB

Phase	1	2	3
Movement(s) Served	SBTL	NESW	SWTL
Maximum Green (s)	51.0	24.0	17.0
Minimum Green (s)	4.0	4.0	4.0
Recall	Min	None	None
Avg. Green (s)	39.0	21.9	10.3
g/C Ratio	NA	NA	-0.01
Cycles Skipped (%)	0	0	42
Cycles @ Minimum (%)	0	0	14
Cycles Maxed Out (%)	37	61	21
Cycles with Peds (%)	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0



Congress Street Intersection (1870)

Lincoln Park in full glory and the surrounding urban fabric is seen in this 1870 picture. Franklin Street is seen as a minor street in this image.



Source: Maine Historic Preservation Society  
Photo by: E&HT Anthony



Global Intelligence. Local Knowledge.  
[www.ibigroup.com](http://www.ibigroup.com)

**CONTACT US**

**IBI Group**  
115 Broad Street-5th Floor  
Boston MA 02110 USA

**tel** 617 450 0701  
**fax** 617 450 0702